

SISTEMA DI TRASPORTO PUBBLICO DI TIPO FILOVIARIO

GARA D'APPALTO PER LA PROGETTAZIONE ESECUTIVA,
L'ESECUZIONE DEI LAVORI E LA FORNITURA DEI VEICOLI

OFFERTA TECNICA
B2 - PROGETTO DEFINITIVO



PROGETTO:

INQUADRAMENTO GENERALE
STUDI E INDAGINI

Studio trasportistico

Allegati agli schemi del ciclo base semaforico

CONCORRENTE

ATI:

SOVECO
COSTRUZIONI SPA

CONSORZIO COOPERATIVE COSTRUZIONI
CCC

Società cooperativa
(MANDATARIA/CAPOGRUPPO)

APTS
Advanced Public
Transport Systems bv

ALPIQ
Alpiq InTec Verona S.p.A.

MAZZI
Impresa Generale Costruzioni
S.p.A.

Balfour Beatty
Rail

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PROGETTAZIONE
COSTITUENDO R.T.P.:



(MANDATARIA/CAPOGRUPPO)

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1. CAPITOLO 1 TRADUZIONE REPORT TRANSYT

1.1. Summary/Sommario

1.1.1. Data Errors and Warnings/Errori e avvertimenti

In questa sezione vengono riportati gli eventuali errori nel file Transyt, normalmente dovrebbe esserci scritto:

No errors or warnings/ non ci sono né errori né avvertimenti

1.1.2. File summary/sommario del file

Questa tabella contiene alcune informazioni base sul sito in esame

1.1.3. Units/Unità di misura usate nei calcoli

Questa tabella contiene informazioni sulle unità di misura usate nei calcoli

1.1.4. Sorting/aggiagazione dei dati

Questa tabella contiene informazioni sul tipo di ordine in cui vengono riassunti i dati riguardanti i flussi di traffico e le corsie.

1.1.5. Run Summary

Questa tabella contiene alcuni risultati dei calcoli relative all'intersezione in esame, in questa, gli elementi rilevanti sono:

Originale	Traduzione
Analysis Set Used	Set di analisi usato
Cycle Time Used (s)	Tempo di ciclo usato (secondi)
Total Network Delay (PCU hr/hr)	Ritardo totale della rete (pcu ora/ora)
Highest DOS (%)	Massimo grado di saturazione (%)
LTSWith Highest DOS	Corsia con il più alto grado di saturazione
Number Of Oversaturated LTS	Numero di corsie soprassature
Network Within Capacity	Rete entro la capacità (true = vero, false = falso)

1.2. Network Diagram/diagramma della rete

Questa sezione contiene solamente il diagramma dell'intersezione.

1.3. Analysis and Demand Sets/Set di analisi e di domanda di traffico

Questa sezione contiene informazioni sulle serie di dati usati per l'ottimizzazione. Questo perché ciascun file Transyt può contenere varie serie di dati.

1.4. Network Options/Opzioni della rete

1.4.1. Network Timings/Tempi della rete

Il dato importante, in questa tabella, è la durata del ciclo usato nel calcolo, nella prima colonna.

1.4.2. Signals Options/Parametri dei segnali

Questa tabella riporta dati importanti sulla descrizione dei segnali. In particolare, Start Displacement (s) e End displacement (s) indica per quanti secondi i veicoli si considerano ancora fermi dopo lo scattare del verde e per quanto tempo continuano a passare dalla linea di arresto dopo che il segnale è diventato giallo. Le restanti tabelle di questa sezione contengono dati tecnici riguardanti il file Transyt.

1.5. Traffic Nodes/intersezioni

Questa sezione contiene informazioni sulle intersezioni contenute nella rete, normalmente soltanto una.

1.6. Links

Questa sezione contiene informazioni sui link (usati solo per i movimenti pedonali) presenti nella rete.

1.7. Traffic Streams/flussi di traffico

Questa sezione contiene informazioni sui flussi di traffico e sulle corsie presenti nella rete. Le prime tabelle contengono solo dati tecnici rilevanti ai fini del calcolo.

1.8. Flows/flussi

Questa tabella contiene i flussi di traffico per ciascuna corrente di traffico definita nella rete. In questa:

Total Flow (PCU/hr)	Flusso totale (veicoli equivalenti / ora)
Normal Flow (PCU/hr)	Flusso normale
Bus Flow (PCU/hr)	Flusso di autobus

1.9. Flow Allocation Tool Tables/Matrici origine destinazione

1.9.1. Normal Input Flows (PCU/hour) for OD Matrix: 1

Questa tabella contiene la matrice origine/destinazione per i veicoli

1.9.2. Bus Input Flows (PCU/hour) for OD Matrix: 1

Questa tabella contiene la matrice origine/destinazione per gli autobus/filobus.

1.10. Signal Timings/Tempi dei semafori

1.10.1. Controller Stream/Regolatore di flusso

Nella descrizione di Transyt, questo è il regolatore semaforico. In questo caso ne è sempre presente uno soltanto.

1.10.2. Phases/gruppi

Questa tabella descrive i singoli gruppi di segnale del regolatore semaforico. L'unico valore importante, in questo caso, è il Minimum green (s), il tempo di verde minimo usato nel calcolo, espresso in secondi.

1.10.3. Resultant Stages

Questa tabella contiene informazioni sui tempi delle fasi semaforiche. Le informazioni più importanti sono:

Phases In This Stage	Gruppi semaforici che hanno il verde in questa fase
Stage Start (s)	Istante di inizio della fase nel ciclo (secondo)
Stage End (s)	Istante di fine della fase nel ciclo (secondo)
Stage Duration (s)	Durata della fase (secondi)

1.10.3.1. Intergreen Matrix for Controller Stream 1/matrice degli interverdi

Questa tabella contiene la matrice degli interverdi fra i gruppi semaforici del regolatore.

TRANSYT 14

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.20.59
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC01.114
Report generation date: 15/12/2010 8.21.36

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC01
Location	Verona
Site Number	01
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	LTSWith Worst Within Capacity
A1 - Ciclo base	15/12/2010 8.20.58	15/12/2010 8.20.59	08.00	75	3.68	41.82	1/1	0	1/1	4/1	1/1
											True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
CTM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Splits
False	None	N/A	15,40 - 1,15,40,1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		
2	2		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	1800	True	1	D	False	(N/A)	False	
4	4			1	100.00	NetworkDefault	True	1800	1800	True	1	D	False	(N/A)	False	
5	5			1	100.00	NetworkDefault	True	1800	1800	True	1	D	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

5	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
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Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
5	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1.00
4	10		0	10	100	100	1.00
5	10		0	10	100	100	1.00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
4	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
5	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False	(N/A)
1	1			15.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False	(N/A)
2	2			15.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	1800	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

ALLEGATI: schemi piani di base semaforici

1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	156	156	0	0	100	1.00
2	20	0	20	0	100	1.00
1	160	160	0	0	100	1.00
2	20	0	20	0	100	1.00
1	39	39	0	0	100	1.00
2	39	0	39	0	100	1.00
1	78	78	0	0	100	1.00

1	185	165	20	0	100	1,00
1	30	30	0	0	100	1,00
1	219	199	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tran Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	4/1	39	39	0	0	1,80	30,00	Buses Not Permitted
2	1	TrafficStream	N/A	4/1	39	39	0	0	1,80	30,00	Buses Not Permitted
1	1	TrafficStream	N/A	1/1	126	126	0	0	12,00	30,00	15,00
1	2	TrafficStream	N/A	3/1	39	39	0	0	12,00	30,00	15,00
1	3	TrafficStream	N/A	1/2	20	20	0	0	12,00	30,00	15,00
1	1	TrafficStream	N/A	2/2	0	0	0	0	12,00	30,00	Buses Not Permitted
1	2	TrafficStream	N/A	1/1	30	30	0	0	12,00	30,00	Buses Not Permitted
1	1	TrafficStream	N/A	2/1	160	160	0	0	12,00	30,00	15,00
1	2	TrafficStream	N/A	2/2	20	20	0	0	12,00	30,00	15,00
1	3	TrafficStream	N/A	3/2	39	39	0	0	12,00	30,00	15,00

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To		
From	1	0	30.00000	126.00000
	2	39.00000	0	39.00000
	3	160.00000	41.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To		
From	1	0	0	20.00000
	2	0	0	0
	3	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,1/1,1/2	13/1	176	156	20	0	219	199	20	0
2		4/1	12/1,12/1	78	78	0	0	30	30	0	0
3		22,2/1	10/1	180	160	20	0	185	165	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,10/1	126
2		1/1,12/1	30
3		1/2,10/1	20
4		4/1,3/1,10/1	39
5		4/1,3/2,13/1	39
6		2/2,13/1	20
7		2/1,13/1	160

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	126
2	True	Normal	N/A	N/A	30
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	39
5	True	Normal	N/A	N/A	39
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	160

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	20
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	20
7	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1
1	3	C	1
1	4	D	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,2,4	15,36,52,67		
1	2	1,2,3,4	0,24,46,74		
1	3	1,3,4,2	0,23,46,75		
1	4	1,2,4,3	0,24,50,76		
1	5	1,4,2,3	0,26,52,76		
1	6	1,4,3,2	0,26,52,76		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	15	15	1	10
1	2	True	3	C	20	36	16	1	7
1	3	True	2	B	42	52	10	1	10
1	4	True	4	D	60	67	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	15	15
1	B	1	True	42	52	10
1	C	1	True	20	36	16
1	D	1	True	60	67	7

Intergreen Matrix for Controller Stream 1

To		A	B	C	D
From	A	-	6	5	8
	B	6	-	6	8
	C	5	6	-	8
	D	8	8	8	-

Interstage Matrix for Controller Stream 1

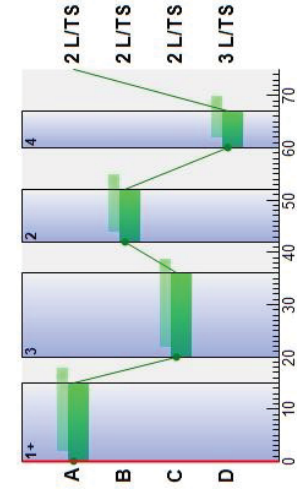
To		1	2	3	4
----	--	---	---	---	---

		1	2	3	4
From	1	-	6	5	8
	2	6	-	6	8
	3	5	6	-	8
	4	8	8	8	-

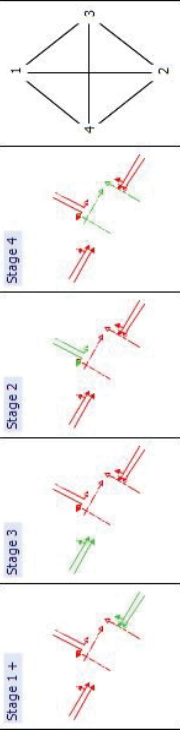
Banned Stage transitions for Controller Stream 1

		To			
From	1	2	3	4	
	1	-			
	2		-		
	3			-	

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.23.43
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC02.114
Report generation date: 15/12/2010 8.24.07

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC02
Location	Verona
Site Number	02
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

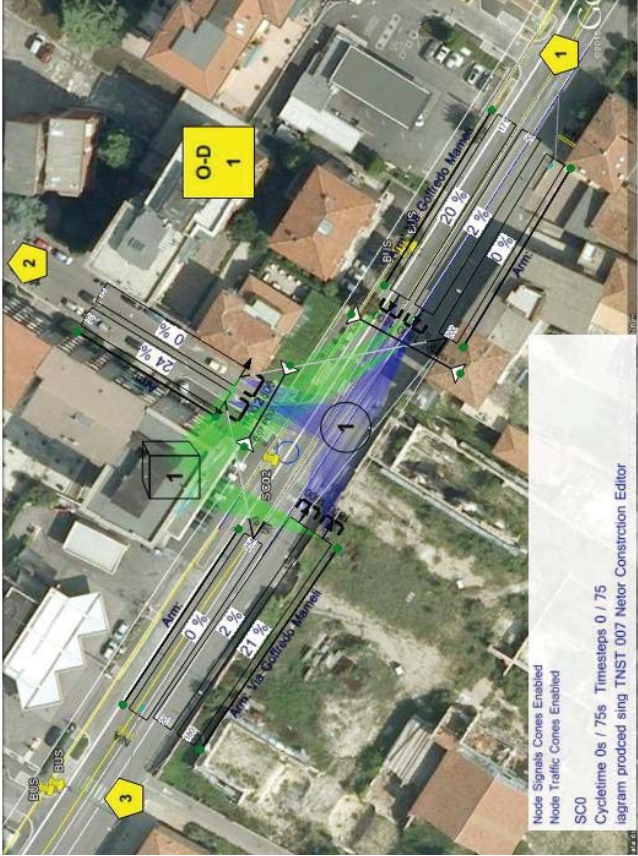
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.23.42	15/12/2010 8.23.43	08.00	75	1.86	23.86	3/1	0	0	3/1	10/1	3/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
CTM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Splits
False	None	N/A	15,40 - 1,15,40 1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Green Way	Pe
2	2			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False	
3	3			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
2	Normal	12,00	30,00	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Saturation Flow Source	Cell Station Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Space (PCU)	Has Queue Limit	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	171	171	0	0	100	1,00
2	20	20	20	0	100	1,00
1	180	180	0	0	100	1,00
2	20	0	20	0	100	1,00
1	63	63	0	0	100	1,00
2	0	0	0	0	100	1,00
1	254	234	20	0	100	1,00
1	200	180	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	171	171	0	0	30,00	12,00	15,00	Trams Not Permitted

1	2	TrafficStream	N/A	3/1	63	0	0	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	1/2	20	0	20	12,00	30,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	2/1	180	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	3/2	0	0	0	12,00	30,00	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To		
	1	2	3
From 1	0	0.00000	171.00000
2	0.00000	0	63.00000
3	180.00000	0.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To		
	1	2	3
From 1	0	0	20.00000
2	0	0	0
3	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,1/1,1/2	13/1	191	171	20	0	200	180	20	0
2		3/1,3/2		63	63	0	0	0	0	0	0
3		2/2,2/1	10/1	200	180	20	0	254	234	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,10/1	171
2		1/2,10/1	20
3		3/1,10/1	63
4		3/2,13/1	0
5		2/2,13/1	20
6		2/1,13/1	180

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	171
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	63
4	True	Normal	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	180

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	20
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offset's And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,C,E	1
1	2	B	1
1	3	D,E	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	A	1	2	2	N/A
1	2	Losing	C	1	2	2	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	34,52,67		
1	2	1,3,2	0,25,50		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C,E	0	34	34	1	8
1	2	True	2	B	42	52	10	1	10
1	3	True	3	D,E	60	67	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	36	36
1	B	1	True	42	52	10
1	C	1	True	0	36	36
1	D	1	True	60	67	7
1	E	1	True	60	34	49

Intergreen Matrix for Controller Stream 1

	To				
	A	B	C	D	E
From A	-	6	8		
From B	6	-	6	8	8
From C		6	-	8	
From D	8	8	8	-	
From E			8		-

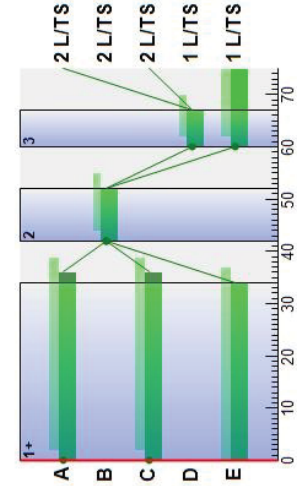
Interstage Matrix for Controller Stream 1

	To		
	1	2	3
From 1	-	8	8
From 2	8	-	8
From 3	8	8	-

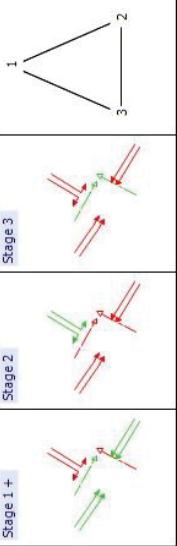
Banned Stage transitions for Controller Stream 1

	To		
	1	2	3
From 1	-		
From 2		-	
From 3			-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSTYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.25.00
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC03.114
Report generation date: 15/12/2010 8.25.29

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC03
Location	Verona
Site Number	03
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

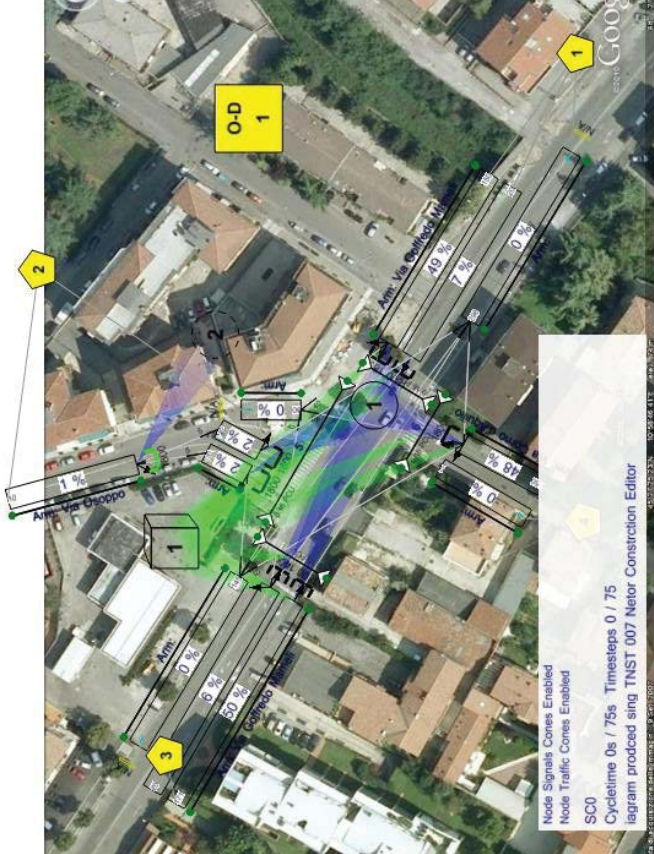
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.25.00	15/12/2010 8.25.00	08.00	75	5.01	49.98	2/1	0	0	2/1	4/1	2/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
CTM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Splits
False	None	N/A	15,40 - 1,15,40,1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [4])	C (x 10 ⁴ [7])	D (x 10 ⁴ [8])	E (x 10 ⁴ [9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		
2	2		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2	Is Give Way
3	3			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False
4	4			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False
5	5			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False
6	6			1	100.00	NetworkDefault	True	1800	1800	True	1	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

4	100	100	False	0.00	False	(N/A)	False	(N/A)
5	100	100	False	0.00	False	(N/A)	False	(N/A)
6	100	100	False	0.00	False	(N/A)	False	(N/A)

Link Modelling (Advanced)

Link	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue Length (PCU)	Point2 Time Step (s)	Point1 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
5	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
6	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (FCU/hr)	Uniform Flow Name	Uniform Flow (into Link) (FCU/hr)	Upstream Flow (into Link) (FCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1.00
4	10		0	10	100	100	1.00
5	10		0	10	100	100	1.00
6	10		0	10	100	100	1.00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12.00	30.00	(NA)	(NA)	FLAT	10
4	Normal	12.00	30.00	(NA)	(NA)	FLAT	10
5	Normal	12.00	30.00	(NA)	(NA)	FLAT	10
6	Normal	12.00	30.00	(NA)	(NA)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
2	1	1		18.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False (N/A)
	2	2		18.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False (N/A)
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	1800	False	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	D	False (N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

ALLEGATI: schemi piani di base semaforici

[illegible]

Traffic Stream Modelling

[illegible]

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle+In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not-Included	NetworkDefault	0.50

1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	150	150	0	0	100	1,00
2	20	0	20	0	100	1,00
1	171	171	0	0	100	1,00
2	20	0	20	0	100	1,00
1	5	5	0	0	100	1,00
2	5	5	0	0	100	1,00
1	10	10	0	0	100	1,00
1	150	150	0	0	100	1,00
1	0	0	0	0	100	1,00
1	145	125	20	0	100	1,00
1	80	80	0	0	100	1,00
1	296	276	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	4/1	5	5	0	0	2,16	30,00	Buses Not Permitted	Trams Not Permitted
2	1	TrafficStream	N/A	4/1	5	5	0	0	2,16	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	110	110	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	5	5	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	8/1	10	10	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	2/2	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	40	40	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	8/1	40	40	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	171	171	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted

1	3	TrafficStream	N/A	3/2	5	5	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	8/1	100	100	0	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	40.00000	110.00000	130.00000
From 2	5.00000	0	5.00000	3.00000
3	171.00000	10.00000	0	10.00000
4	100.00000	40.00000	10.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	0	20.00000	0
From 2	0	0	0	0
3	20.00000	0	0	0
4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,1/1,1/2	13/1	170	150	20	0	296	276	20	0
2		4/1	12/1,12/1	10	10	0	0	80	80	0	0
3		2/2,2/1	10/1	181	171	20	0	145	125	20	0
4		8/1	9/1	150	150	0	0	0	0	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,10/1	110
2		1/1,12/1	40
3		1/2,10/1	20
4		4/1,3/1,10/1	5
5		4/1,3/2,13/1	5
6		2/2,13/1	20
7		2/1,13/1	171
8		8/1,10/1	10
9		8/1,12/1	40
10		8/1,13/1	100

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	110
2	True	Normal	N/A	N/A	40
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	5
5	True	Normal	N/A	N/A	5

6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	171
8	True	Normal	N/A	N/A	10
9	True	Normal	N/A	N/A	40
10	True	Normal	N/A	N/A	100

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	20
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	20
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	10	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A	1

1	2	BD	1
1	3	C	1
1	4	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,2,3	12,30,50,70		
1	2	1,4,3,2	0,20,40,58		
1	3	1,3,4,2	0,17,37,57		
1	4	1,2,4,3	0,18,38,58		
1	5	1,3,2,4	0,17,35,55		
1	6	1,2,3,4	0,17,34,53		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	12	12	1	10
1	2	True	4	E	20	30	10	1	10
1	3	True	2	BD	38	50	12	1	10
1	4	True	3	C	56	70	14	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	12	12
1	B	1	True	38	50	12
1	C	1	True	56	70	14
1	D	1	True	38	50	12
1	E	1	True	20	30	10

Intergreen Matrix for Controller Stream 1

To		A	B	C	D	E
From	A	-	6	5	5	8
	B	5	-	5		8
	C	5	5	-	6	8
	D	5		6	-	8
	E	8	8	8	8	-

Interstage Matrix for Controller Stream 1

To		1	2	3	4
From	1	-	6	5	8
	2	5	-	6	8
	3	5	6	-	8
	4	8	8	8	-

Banned Stage transitions for Controller Stream 1

To		1	2	3	4
From	1	-			
	3		-		

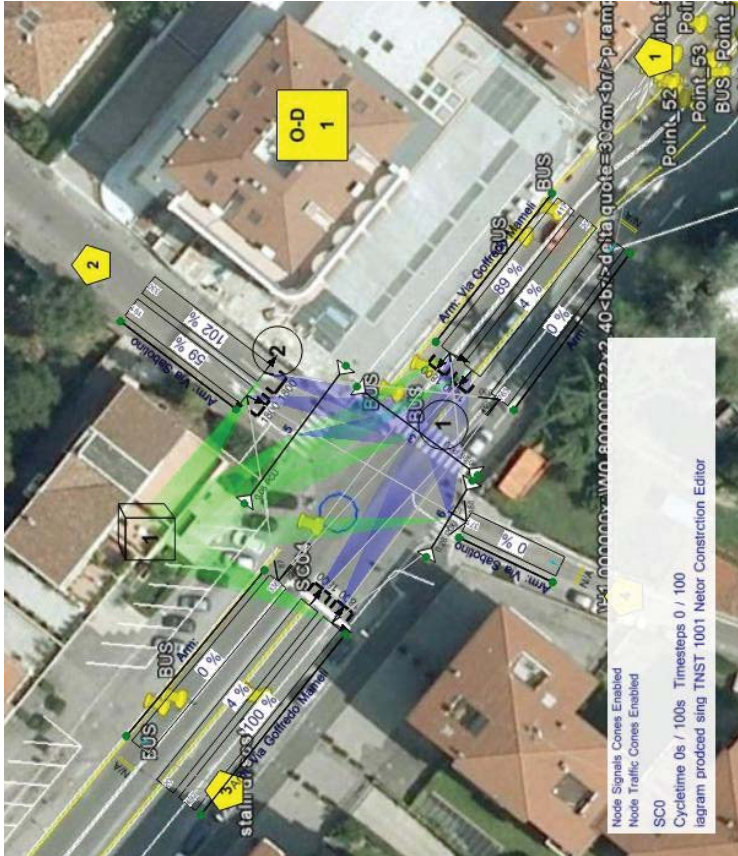
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Unsaturated PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst PRC	Network Within Capacity
A1 - Cido base	15/12/2010 8.29.48	15/12/2010 8.29.48	08.00	100	40.03	101.85	3/2	2	17	3/2	10/1	3/2	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
CTM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	Random Seed	Use Enhanced Optimisation	Locked Green Spills
False	None	N/A	1,15,40,1,1,1,1	N/A	N/A	N/A	False	1

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
104,29				448,37				-491,30				217,81				N/A											

Car Diesel

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
48,10				645,03				-5775,90				454,16				N/A											

LGVPetrol

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
162,86				672,32				-7789,90				1052,13				N/A											

LGVDiesel

A (x 10 ⁴ [-2])		B (x 10 ⁴ [-4])		C (x 10 ⁴ [-7])		D (x 10 ⁴ [-8])		E (x 10 ⁴ [-8])		E Coefficient Mode	
108,25	599,63	-4483,10									
						831,10		N/A		ByWeights	

OGV1

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
156,45				2600,98				-37830,60				3244,46				N/A											

OGV2

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
361,33				4202,69				-49470,40				3828,06				N/A											

PSV

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
411,56				3064,65				-42064,30				3652,63				N/A											

Traffic Nodes

Traffic Nodes

Traffic Node		ID	Name	Description
1	1			
2	2			

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Pe
3	3			1	100,00	NetworkDefault	True	1800	1800	True	1	E	False	(N/A)	False
5	5			1	100,00	NetworkDefault	True	1800	1800	True	1	F	False	(N/A)	False
6	6			1	100,00	NetworkDefault	True	1800	1800	True	1	E	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
5	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

6	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
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Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
5	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
6	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10			0	100	100	1,00
5	10			0	100	100	1,00
6	10			0	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
5	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
6	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	D	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

ALLEGATI: schemi piani di base semaforici

1	1		False	N/A	N/A	N/A	N/A	N/A	1800
1	1		False	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensativity Multiplier (%)	Calculated Cruise Speed (kph)
1	417	417	0	0	100	1,00
2	20	0	20	0	100	1,00
1	492	492	0	0	100	1,00
2	20	0	20	0	100	1,00
1	191	191	0	0	100	1,00
2	330	330	0	0	100	1,00
1	371	371	0	0	100	1,00
1	336	316	20	0	100	1,00
1	763	743	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
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1		12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00		Trams Not Permitted
1		12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00		Trams Not Permitted
1		12,00	30,00	Buses Not Permitted	Trams Not Permitted
2		12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	2/1	79	79	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	188	188	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	104	104	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	229	229	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	87	87	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	413	413	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	3/2	330	330	0	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	0,00000	229,00000	188,00000
	2	330,00000	0	87,00000	104,00000
	3	413,00000	0,00000	0	79,00000
	4	0,00000	0,00000	0,00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	0	20,00000	0
	2	0	0	0	0
	3	20,00000	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,1/1,1/2	13/1	437	417	20	0	763	743	20	0
2		3/1,3/2		521	521	0	0	0	0	0	0

3		22,2/1	10/1	512	492	20	0	336	316	20	0
4			9/1	0	0	0	0	371	371	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,10/1	229
2		1/1,9/1	188
3		1/2,10/1	20
4		3/1,10/1	87
5		3/1,9/1	104
6		3/2,13/1	330
7		2/2,13/1	20
8		2/1,13/1	413
9		2/1,9/1	79

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	229
2	True	Normal	N/A	N/A	188
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	87
5	True	Normal	N/A	N/A	104
6	True	Normal	N/A	N/A	330
7	False	Disabled	N/A	N/A	0
8	True	Normal	N/A	N/A	413
9	True	Normal	N/A	N/A	79

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	20
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	20
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	8	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,B,F	1
1	2	C	1
1	3	D,F	1
1	4	E,F	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	A	1	2	3	N/A
1	2	Losing	B	1	2	3	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3,4	22,47,79,92		
1	2	1,2,4,3	0,23,44,67		
1	3	1,4,3,2	0,21,44,67		
1	4	1,3,2,4	0,20,43,64		
1	5	1,4,2,3	0,22,46,68		
1	6	1,3,4,2	0,21,43,67		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,B,F	0	22	22	1	7
1	2	True	2	C	30	47	17	1	7
1	3	True	3	D,F	53	79	26	1	6
1	4	True	4	E,F	85	92	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	25	25
1	B	1	True	0	25	25
1	C	1	True	30	47	17
1	D	1	True	52	79	27

1	E	1	85	92	7
1	F	1	53	22	69

Intergreen Matrix for Controller Stream 1

From	To					
	A	B	C	D	E	F
A	-	5	5	6		
B	-	5	5	6		
C	5	5	-	5	6	6
D	5	5	5	-	6	
E	8	8	8	8	-	
F						-

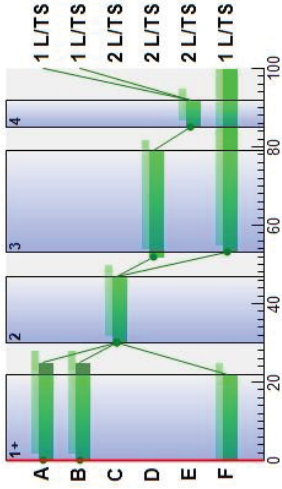
Interstage Matrix for Controller Stream 1

From	To			
	1	2	3	4
1	-	8	5	6
2	6	-	6	6
3	5	8	-	6
4	8	8	8	-

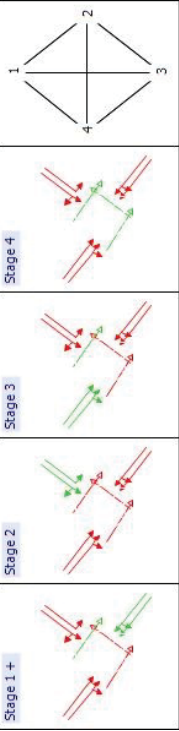
Banned Stage transitions for Controller Stream 1

From	To			
	1	2	3	4
1	-			
2		-		
3			-	
4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.31.23
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC05.114
Report generation date: 15/12/2010 8.31.51

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC05
Location	Verona
Site Number	05
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

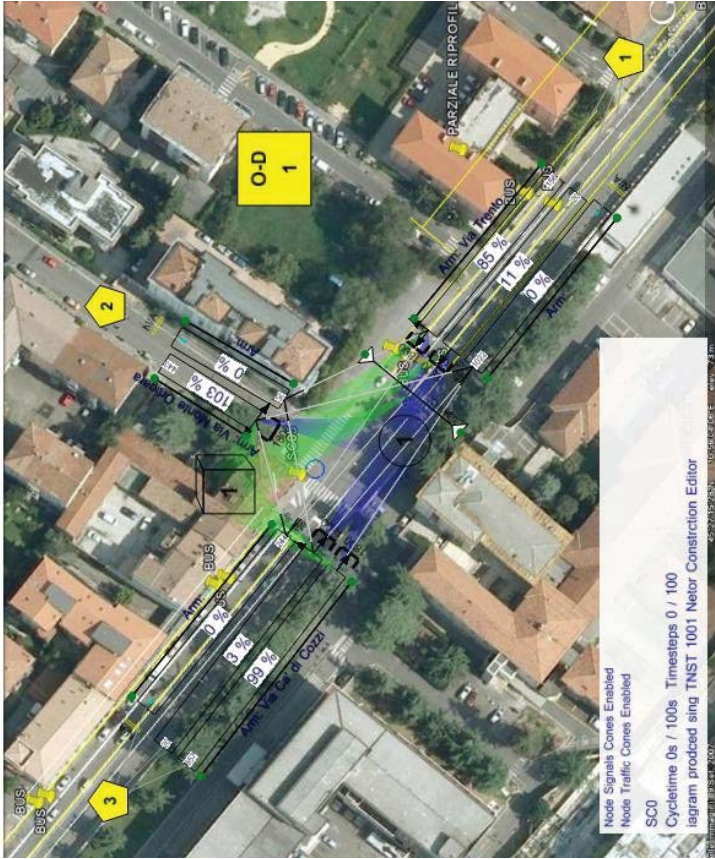
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.31.23	15/12/2010 8.31.23	08.00	100	39.50	102.55	3/1	2	22	3/1	10/1	3/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weights	Use Link Delay Weights	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
CTM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Spills
False	None	N/A	15,40 - 1,15,40.1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Green Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	1800	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Delay Type	Normal Delay Coefficient	Normal Travel Time Coefficient	Initial Queue Delay (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source (PCU/hr)	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	1800	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	1800	False	(N/A)	(N/A)	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R&B7	Surface Condition	Site Quality Factor	Gradient	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
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Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle In- Service	Vehicle-In- Service Parameter	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	156	156	0	0	100	1,00
2	20	0	20	0	100	1,00
1	657	657	0	0	100	1,00
2	20	0	20	0	100	1,00
1	443	443	0	0	100	1,00
1	244	224	20	0	100	1,00
1	30	0	0	0	100	1,00
1	1022	1002	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	126	126	0	0	30,00	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	98	98	0	0	30,00	12,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/2	20	0	20	0	30,00	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	2/2	0	0	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	30	30	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	10	10	1	10
1	2	True	3	C	15	52	37	1	7
1	3	True	2	B	57	80	23	1	10
1	4	True	4	D	86	93	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	57	80	23
1	C	1	True	15	52	37
1	D	1	True	86	93	7

Intergreen Matrix for Controller Stream 1

	To			
	A	B	C	D
From A	-	5	5	6
From B	5	-	5	6
From C	5	5	-	6
From D	7	7	7	-

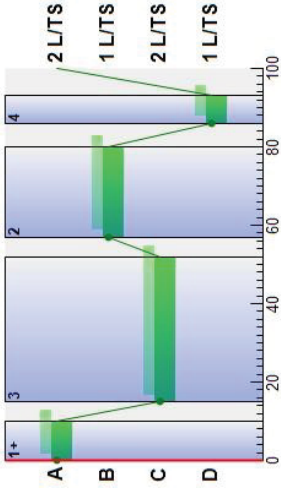
Interstage Matrix for Controller Stream 1

	To			
	1	2	3	4
From 1	-	5	5	6
From 2	5	-	5	6
From 3	5	5	-	6
From 4	7	7	7	-

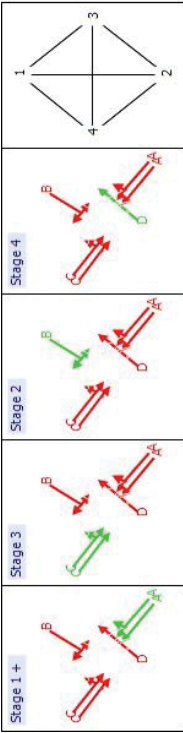
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
From 1	-			
From 2		-		
From 3			-	
From 4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 8.32.46
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC06.114
Report generation date: 15/12/2010 8.33.16

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC06
Location	Verona
Site Number	06
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

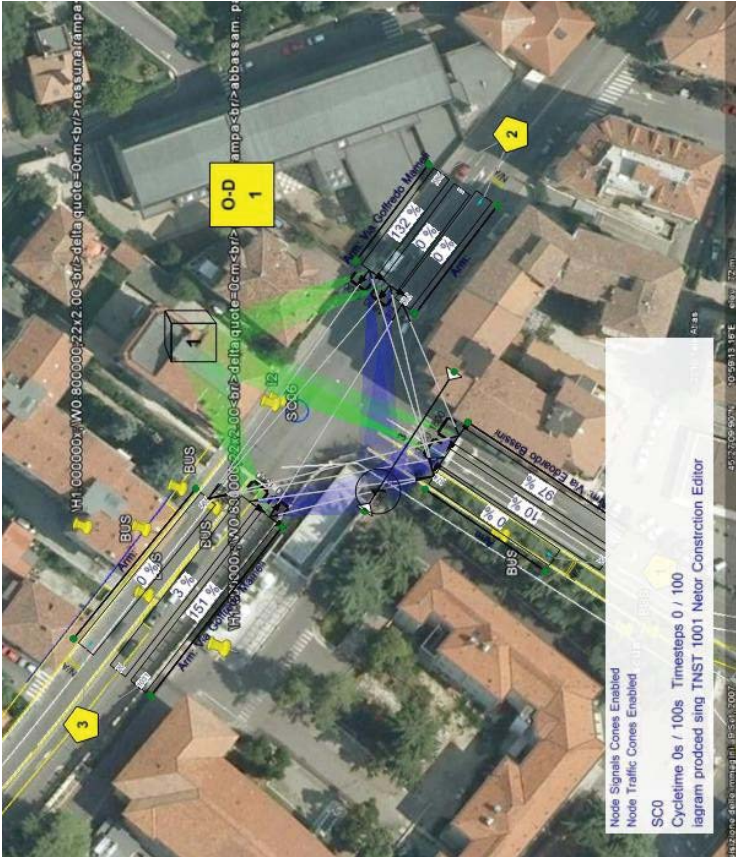
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.32.45	15/12/2010 8.32.46	08.00	100	267.33	150.73	2/1	3	30	2/1	10/1	2/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
FDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Spills
False	None	N/A	15,40 - 1,15,40.1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car Diesel (kg)	Mean Weight Car LGVPetrol (kg)	Mean Weight Car LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight LGVDiesel OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Green Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Delay Type	Normal Delay Coefficient	Normal Travel Time Coefficient	Initial Queue Delay (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
Link										

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3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

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2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispatch Type	Normal Dispatch Coefficient	Normal Travel Coefficient	Initial Queue (PCU)	Point Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	192	192	0	0	100	1,00
2	20	0	20	0	100	1,00
1	1031	1031	0	0	100	1,00
2	20	0	20	0	100	1,00
1	569	569	0	0	100	1,00
2	0	0	0	0	100	1,00
1	565	545	20	0	100	1,00
1	593	593	0	0	100	1,00
1	674	654	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Source Bus Flow (PCU/hr)	Source Source Train Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	113	113	0	0	30,00	12,00	15,00	Trams Not Permitted

1	2	TrafficStream	N/A	3/1	432	0	0	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	1/2	20	0	20	12,00	30,00	15,00	Trans Not Permitted
1	4	TrafficStream	N/A	3/2	0	0	0	12,00	30,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	79	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	2/1	514	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	2/1	517	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	3/1	137	0	0	12,00	30,00	15,00	Trans Not Permitted
1	4	TrafficStream	N/A	3/2	0	0	0	12,00	30,00	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To		
From	1	2	3	
	0	79.00000	113.00000	
	137.00000	0	432.00000	
	517.00000	514.00000	0	

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To		
From	1	2	3	
	0	0	20.00000	
	0	0	0	
	20.00000	0	0	

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,1/1,1/2	13/1	212	192	20	0	674	654	20	0
2		3/1	12/1,12/1	569	569	0	0	593	593	0	0
3		2/2,2/1	10/1	1051	1031	20	0	565	545	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,10/1	113
2		1/1,12/1	79
3		1/2,10/1	20
4		3/1,10/1	432
5		3/1,13/1	137
6		2/2,13/1	20
7		2/1,12/1	514
8		2/1,13/1	517

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	113
2	True	Normal	N/A	N/A	79
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	432
5	True	Normal	N/A	N/A	137
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	514
8	True	Normal	N/A	N/A	517

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	20
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	20
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
-------------------	----	-----------------	------------------------

1	1	A	1
1	2	B	1
1	3	C	1
1	4	D	1

Stage Sequences

Controller Stream	ID	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,2,4	True	1	A	0	10,52,80,93		
1	2	1,2,3,4	True	3	C	15	52,80,93,57		
1	3	1,3,4,2	True	2	B	57	80,93,52,15		
1	4	1,2,4,3	True	4	D	86	93,57,15,52		
1	5	1,4,2,3	True	4	D	86	93,57,15,52		
1	6	1,4,3,2	True	4	D	86	93,57,15,52		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	10	10	1	10
1	2	True	3	C	15	52	37	1	7
1	3	True	2	B	57	80	23	1	10
1	4	True	4	D	86	93	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	57	80	23
1	C	1	True	15	52	37
1	D	1	True	86	93	7

Intergreen Matrix for Controller Stream 1

To		A	B	C	D
From	A	-	5	5	6
	B	5	-	5	6
	C	5	5	-	6
	D	7	7	7	-

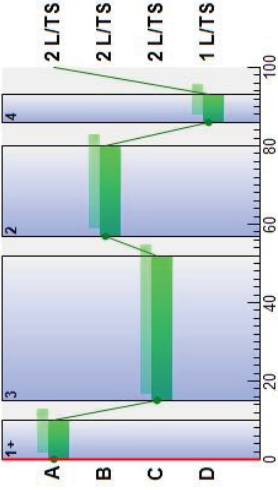
Interstage Matrix for Controller Stream 1

To		1	2	3	4
From	1	-	5	5	6
	2	5	-	5	6
	3	5	5	-	6
	4	7	7	7	-

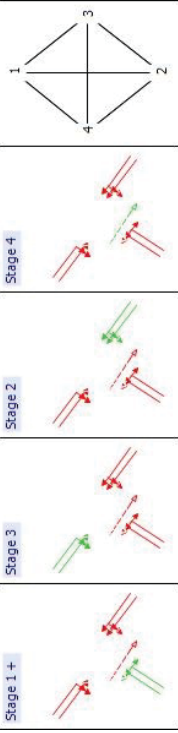
Banned Stage transitions for Controller Stream 1

To		1	2	3	4
From	1	-			
	2		-		
	3			-	
	4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.52.51
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP07.114
Report generation date: 15/12/2010 8.53.15

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP07
Location	Verona
Site Number	07
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.52.50	15/12/2010 8.52.51	08.00	75	4.57	71.79	3/3	0	3/3	10/1	3/3	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
FDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Splits
False	None	N/A	15,40,1,1,1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2	Is Green Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	False	(N/A)	False	
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	False	(N/A)	False	
5	5			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
5	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
5	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1,00
4	10		0	10	100	100	1,00
5	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
4	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
5	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
3	3			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RRT67	Surface Condition	Site Quality Factor	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Time Step (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
2	20	0	20	0	100	1,00
1	53	53	0	0	100	1,00
2	193	193	0	0	100	1,00
3	672	672	0	0	100	1,00
1	386	386	0	0	100	1,00
1	53	53	0	0	100	1,00
1	499	479	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	15,00	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Train Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	3/2	193	193	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	3/3	193	193	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	1	TrafficStream	N/A	3/1	53	53	0	0	12,00	30,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	3/3	479	479	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	0	12,00	30,00	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To			
	1	2	3	4
From 1	0	53.00000	386.00000	479.00000
2	0	0	0.00000	0.00000
3	0	0	0	0
4	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To			
	1	2	3	4
From 1	0	20.00000	0	0
2	0	0	0	20.00000
3	0	0	0	0
4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		3/1,3/2,3/3		918	918	0	0	0	0	0	0
2		2/2	10/1	20	0	20	0	53	53	0	0
3			4/1	0	0	0	0	386	386	0	0
4			13/1	0	0	0	0	499	479	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		3/1,10/1	53
2		3/2,4/1	193
3		3/3,13/1	479
4		3/3,4/1	193
5		2/2,13/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	53
2	True	Normal	N/A	N/A	193
3	True	Normal	N/A	N/A	479
4	True	Normal	N/A	N/A	193
5	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
------	---------------------	-----------------	----------------	---------------------	--------------------------

1	True	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative to	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1
1	3	C	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling	Stage IDs	Multiple Cycling	Stage Ends
1	1	1,2,3	38,54,67				
1	2	1,3,2	0,32,66				

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	38	38	1	10
1	2	True	2	B	44	54	10	1	10
1	3	True	3	C	60	67	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	38	38
1	B	1	True	44	54	10
1	C	1	True	60	67	7

Intergreen Matrix for Controller Stream 1

	To		
	A	B	C
From	A	-	6
	B	6	-
	C	8	8

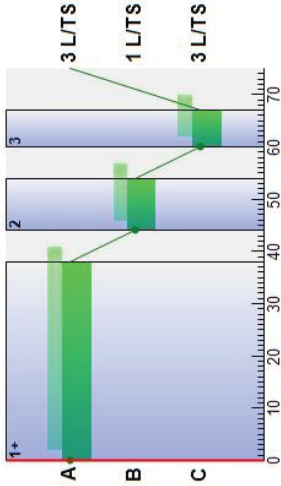
Interstage Matrix for Controller Stream 1

	To		
	1	2	3
From	1	-	6
	2	6	-
	3	8	8

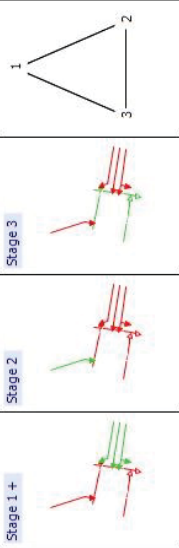
Banned Stage transitions for Controller Stream 1

	To		
	1	2	3
From	1	-	-
	2	-	-
	3	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1] © Copyright Transport Research Laboratory 2010
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.55.13

Analysis Set used for last run: A1 - Ciclo base

File: C:\Documents and Settings\Utente\Documenti\Verona\SP08.114

Report generation date: 15/12/2010 8.55.53

- « A1 - Ciclo base
 - » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Link Source Data	Link 1 - Link Flows	Link 1: downstream flow apparent gain = 162.73 (172.97%).
Warning	Link Source Data	Link 2 - Link Flows	Link 2: downstream flow apparent gain = 13.46 (153.86%).
Warning	Link Source Data	Link 7 - Link Flows	Link 7: downstream flow apparent gain = 655.78 (2739.13%).
Warning	Link Source Data	Link 9 - Link Flows	Link 9: downstream flow apparent gain = 308.33 (1333.33%).
Warning	Link Source Data	Link 10 - Link Flows	Link 10: downstream flow apparent gain = 532.69 (2230.77%).

File summary

File Description

Title	SP08
Location	Verona
Site Number	08
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

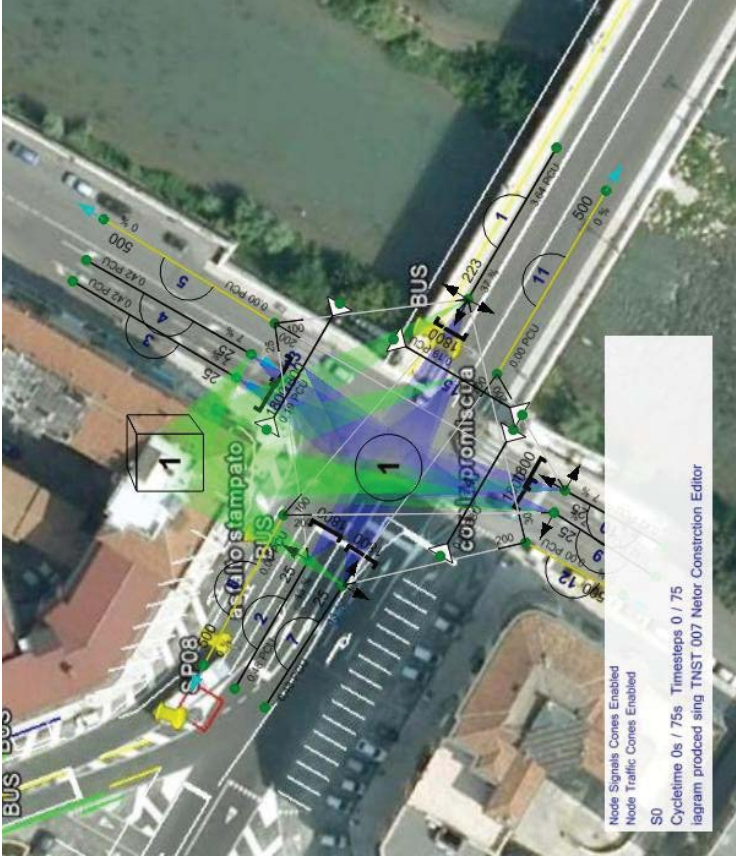
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Unsaturated PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.55:13	15/12/2010 8.55:13	08.00	75	2.68	37.17	1	0	0	1	5	1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Saturation Factor (%)	Cruise Control Factor (%)	Cruise Control Speeds	Use Link Stop Weights	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Road Parameter
PDM	90	100	100	Speeds	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s ²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s ²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	ShoGUN Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	1250.00	2000.00	2000.00	35000.00	13000	13000

Fuel Parameters

ALLEGATI: schemi piani di base semaforici

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-77])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Residual Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is One Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	A	False	(N/A)	False	
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	C	False	(N/A)	False	
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	B	False	(N/A)	False	
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	B	False	(N/A)	False	
5	5			100.00	NetworkDefault	False	True	1800	(N/A)	True	(N/A)	(N/A)	False	(N/A)	False	
7	7			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	C	False	(N/A)	False	
8	8			100.00	NetworkDefault	False	True	1800	(N/A)	False	(N/A)	(N/A)	False	(N/A)	False	
9	9			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False	

ALLEGATI: schemi piani di base semaforici

10	10			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False	
11	11			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	False	(N/A)	False	
12	12			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	False	(N/A)	False	
13	13			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	
14	14			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	
15	15			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	

Link Modelling

Link	Stop Weighing (%)	Delay Weighing (%)	Exclude From Saturation Calculation	Max Queue Saturation (PCU)	Has Queue Saturation Unit	Queue Saturation Unit (PCU)	Excess Saturation Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
5	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
7	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
8	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
9	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
10	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
11	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
12	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
13	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
14	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
15	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
5	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
7	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
8	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
9	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
10	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
11	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
12	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
13	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
14	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
15	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	223		0	223	100	100	1,00
2	25		0	25	100	100	1,00
3	25		0	25	100	100	1,00
4	25		0	25	100	100	1,00
5	500		0	500	100	100	1,00
7	25		0	25	100	100	1,00
8	500		0	500	100	100	1,00
9	25		0	25	100	100	1,00
10	25		0	25	100	100	1,00
11	500		0	500	100	100	1,00
12	500		0	500	100	100	1,00
13	10		0	10	100	100	1,00
14	10		0	10	100	100	1,00
15	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	223
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
4	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
7	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
9	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
10	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	25
13	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
14	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
15	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Link Sources - sources for internal links

Link	Source	Source Type	Source Link	Source Traffic Stream	Source Traffic Type	Source Flow (PCU/hr)	Cruise Time (seconds)	Cruise Speed (kph)	Free Running Speed (kph)	Stationary Time (seconds)
5	1	Link	10	N/A	Normal	200	12,00	30,00	(N/A)	(N/A)
5	2	Link	1	N/A	Normal	100	12,00	30,00	(N/A)	(N/A)
5	3	Link	2	N/A	Normal	25	12,00	30,00	(N/A)	(N/A)
8	1	Link	9	N/A	Normal	200	12,00	30,00	(N/A)	(N/A)
8	2	Link	1	N/A	Normal	100	12,00	30,00	(N/A)	(N/A)
11	1	Link	10	N/A	Normal	200	12,00	30,00	(N/A)	(N/A)
11	2	Link	7	N/A	Normal	200	12,00	30,00	(N/A)	(N/A)
12	1	Link	1	N/A	Normal	30	12,00	30,00	(N/A)	(N/A)
12	2	Link	7	N/A	Normal	200	12,00	30,00	(N/A)	(N/A)

Flow Allocation Tool Tables

No OD Matrices present.

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	BD	1
1	3	C	1
1	4	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,2,3	24,37,58,70		
1	2	1,4,3,2	0,25,51,75		
1	3	1,3,4,2	0,24,49,75		
1	4	1,2,4,3	0,24,49,75		
1	5	1,3,2,4	0,24,48,73		
1	6	1,2,3,4	0,24,48,73		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	24	24	1	10
1	2	True	4	E	30	37	7	1	7
1	3	True	2	BD	44	58	14	1	10
1	4	True	3	C	63	70	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	24	24
1	B	1	True	44	58	14
1	C	1	True	63	70	7
1	D	1	True	44	58	14
1	E	1	True	30	37	7

Intergreen Matrix for Controller Stream 1

	To				
	A	B	C	D	E
	A	-	5	5	6
	B	5	-	5	6
From	C	5	5	-	5
	D	5	5	-	6

E	7	7	7	7	-
---	---	---	---	---	---

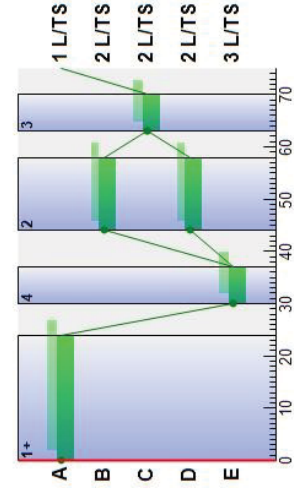
Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	-	5	5	6
	2	5	-	5	6
	3	5	5	-	6
	4	7	7	7	-

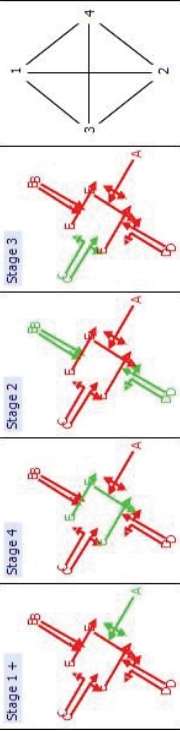
Banned Stage transitions for Controller Stream 1

		To			
		1	2	3	4
From	1	-	-	-	-
	2	-	-	-	-
	3	-	-	-	-
	4	-	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.00.49
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP11.114
Report generation date: 15/12/2010 9.01.25

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP11
Location	Verona
Site Number	11
Driving Side	Right
Date	12/06/2010
Status	(new file)
Enumerator	ANDREWNETBOOK/Andrew
Results UpTo Date	
Template Image	True

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	Network Capacity Within
A1 - Cido base	15/12/2010 9.00.49	15/12/2010 9.00.49	08.00	100	53.59	110.96	1	9	6/1	2/1	6/1	6/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,- 1.15.40,1,- 1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.045	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
104.29				448.37				-491.30				217.81				N/A				ByWeights			

Car Diesel

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
48.10				645.03				-5775.90				454.16				N/A				ByWeights			

LGPetrol

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
162.86				672.32				-7789.90				1052.13				N/A				ByWeights			

LGVDiesel

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
108.25				599.63				-4483.10				831.10				N/A				ByWeights			

OGV1

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
156.45				2600.98				-37830.60				3244.46				N/A				ByWeights			

OGV2

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
361.33				4202.69				-49470.40				3828.06				N/A				ByWeights			

PSV

A (x 10 ⁴ [-20])				B (x 10 ⁴ [-43])				C (x 10 ⁴ [-71])				D (x 10 ⁴ [-88])				E (x 10 ⁴ [-98])				F (x 10 ⁴ [-108])			
411.56				3064.65				-42064.30				3652.63				N/A				ByWeights			

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	F	False	(N/A)

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Stop (s)	Point2 Time Stop (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

ALLEGATI: schemi piani di base semaforici

1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	True	1	E	False
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (kph)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	0	0	0	0	100	1,00
1	796	776	20	0	100	1,00
1	221	221	0	0	100	1,00
2	204	204	0	0	100	1,00
1	73	73	0	0	100	1,00
1	719	719	0	0	100	1,00
2	20	0	20	0	100	1,00
1	71	71	0	0	100	1,00
1	352	352	0	0	100	1,00
1	576	576	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	6/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	298	298	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	8/1	274	274	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	3/2	204	204	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	41	41	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/1	32	32	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/1	46	46	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	25	25	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	380	380	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	196	196	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	0	0	0
From 2	204.00000	0	25.00000	196.00000
From 3	298.00000	41.00000	0	380.00000
From 4	274.00000	32.00000	46.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	20.00000	0	0	0
From 2	0	0	0	0
From 3	20.00000	0	0	0
From 4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	2/1	0	0	0	0	796	776	20	0
2		3/2,3/1	5/1	425	425	0	0	73	73	0	0
3		6/2,6/1	7/1	739	719	20	0	71	71	0	0
4		8/1	9/1	352	352	0	0	576	576	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,7/1	0
2		3/2,2/1	204
3		3/1,7/1	25
4		3/1,9/1	196
5		6/2,2/1	20
6		6/1,2/1	298
7		6/1,5/1	41
8		6/1,9/1	380
9		8/1,2/1	274
10		8/1,5/1	32
11		8/1,7/1	46

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	204
3	True	Normal	N/A	N/A	25
4	True	Normal	N/A	N/A	196
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	298
7	True	Normal	N/A	N/A	41
8	True	Normal	N/A	N/A	380
9	True	Normal	N/A	N/A	274
10	True	Normal	N/A	N/A	32
11	True	Normal	N/A	N/A	46

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	PhaseBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	7	300	0	0	False
1	B	7	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	D,F	1
1	4	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,2,4	28,41,55,95		
1	2	1,3,4,2	0,25,51,75		
1	3	1,2,3,4	0,24,49,75		
1	4	1,4,2,3	0,24,48,73		
1	5	1,4,3,2	0,24,49,75		
1	6	1,2,4,3	0,24,48,73		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	28	1	7
1	2	True	3	D,F	34	41	1	7
1	3	True	2	B,D	48	55	1	7
1	4	True	4	E	60	95	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	28	28
1	B	1	True	48	55	7
1	C	1	True	0	28	28
1	D	1	True	33	55	22

1	E	1	60	95	35
1	F	1	34	41	7

Intergreen Matrix for Controller Stream 1

From	To					
	A	B	C	D	E	F
A	-	5	-	5	5	6
B	5	-	5	-	5	6
C	5	-	5	5	5	6
D	5	-	5	-	5	-
E	5	5	5	5	-	6
F	7	7	7	7	7	-

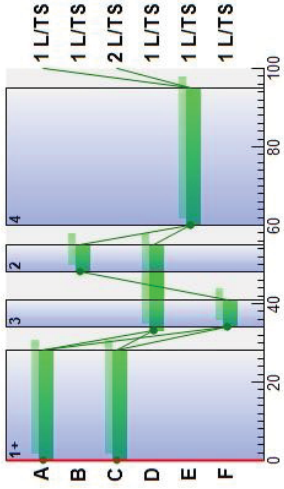
Interstage Matrix for Controller Stream 1

From	To			
	1	2	3	4
1	-	5	6	5
2	5	-	6	5
3	7	7	-	7
4	5	5	6	-

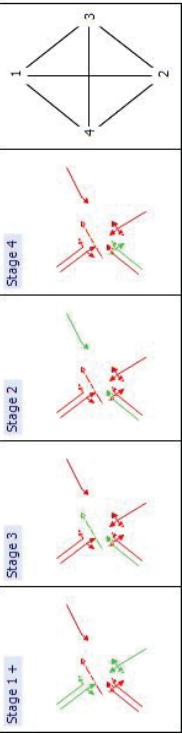
Banned Stage transitions for Controller Stream 1

From	To			
	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSTYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.02.07
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP12.114
Report generation date: 15/12/2010 9.02.34

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP12
Location	Verona
Site Number	12
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/Utente
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

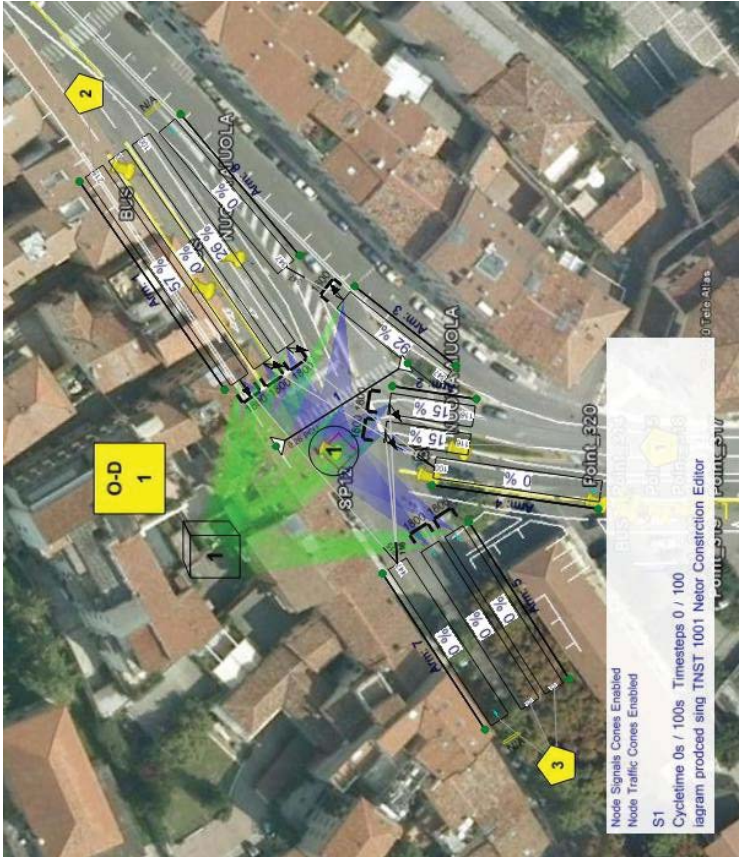
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (hr:hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.02.07	15/12/2010 9.02.07	08.00	100	12.37	91.80	3/1	1	8	3/1	4/1	3/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
Quick PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shedding Number Of Runs	SACooling Temperature	Random Seed	Use Enhanced Optimisation	Locked Optimisation Splits
True	HillClimb	Offsets And Green Splits	15.40,- 1,15.40,1,- 1,1	N/A	N/A	N/A	False	1

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2	Is Give Way	I Pedes
1	1			1	100.00	[[QuickPDM]]	True	1800	(N/A)	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

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1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2 Gt W
1	1			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	B	False
2	2			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	B	False
3	3			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	B	False
1	1			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	A	False
2	2			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	A	False
1	1			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	B	False
1	1			100,00	(QuickPDMJ)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	False
1	1			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	C	False
2	2			100,00	(QuickPDMJ)	True	SumOfLanes	1800	(N/A)	True	1	C	False
1	1			100,00	(QuickPDMJ)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	False
1	1			100,00	(QuickPDMJ)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	False

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use Rt67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Queue Penalty Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Length Penalty (s)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

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3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
3	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	215	215	0	0	100	1,00
2	0	0	0	0	100	1,00
3	100	100	0	0	100	1,00
1	116	116	0	0	100	1,00
2	116	116	0	0	100	1,00
1	347	347	0	0	100	1,00
1	100	100	0	0	100	1,00
1	0	0	0	0	100	1,00
2	0	0	0	0	100	1,00
1	447	447	0	0	100	1,00
1	347	347	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Link	Source Traffic Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Traffic Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Normal Cruise Speed (kph)	Bus Free Speed (kph)	Tram Free Speed (kph)
1	1	TrafficStream	N/A	1/2	0	0	12,00	30,00	Trams Not Permitted
1	2	TrafficStream	N/A	1/3	100	100	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	215	215	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	116	116	12,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	2/2	116	116	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	347	347	12,00	30,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To		
	1	2	3
From	1	2	3
	0	347.00000	233.00000
	100.00000	0	215.00000
	0	421.00000	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		2/2,2/1,3/1	4/1	579	579	0	0	100	100	0	0
2		1/3,1/2,1/1	8/1	315	315	0	0	347	347	0	0
3		5/2,5/1	7/1	0	0	0	0	447	447	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		2/2,7/1	116
2		2/1,7/1	116
3		3/1,8/1	347
4		1/3,4/1	100
5		1/2,4/1	0
6		1/1,7/1	215

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)

1	True	Normal	N/A	N/A	116
2	True	Normal	N/A	N/A	116
3	True	Normal	N/A	N/A	347
4	True	Normal	N/A	N/A	100
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	215

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	True	Offset's And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1
1	3	C	1
1	4	D	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,2,4	36,50,75,88		

1	2	1,2,3,4	0,24,48,73	
1	3	1,3,4,2	0,24,49,76	
1	4	1,2,4,3	0,24,49,76	
1	5	1,4,2,3	0,25,52,76	
1	6	1,4,3,2	0,25,52,76	

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	96	38	42	1	10
1	2	True	3	C	43	50	7	1	7
1	3	True	2	B	55	75	20	1	10
1	4	True	4	D	81	88	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	96	38	42
1	B	1	True	55	75	20
1	C	1	True	43	50	7
1	D	1	True	81	88	7

Intergreen Matrix for Controller Stream 1

	To			
	A	B	C	D
From A	-	5	5	6
From B	5	-	5	6
From C	5	5	-	6
From D	8	8	8	-

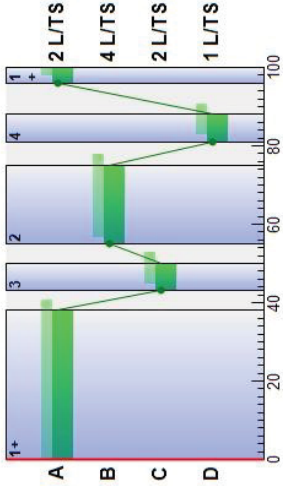
Interstage Matrix for Controller Stream 1

	To			
	1	2	3	4
From 1	-	5	5	6
From 2	5	-	5	6
From 3	5	5	-	6
From 4	8	8	8	-

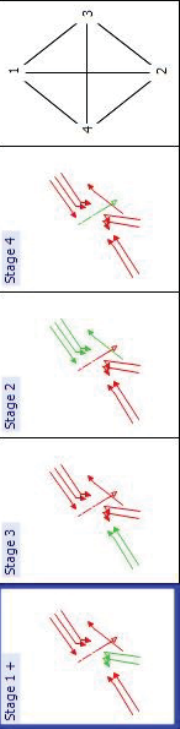
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
From 1	-			
From 2		-		
From 3			-	
From 4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.03.26
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP13.114
Report generation date: 15/12/2010 9.03.54

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP13
Location	Verona
Site Number	13
Driving Side	Right
Date	12/06/2010
Status	(new file)
Enumerator	ANDREWNETBOOK\Andrew
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

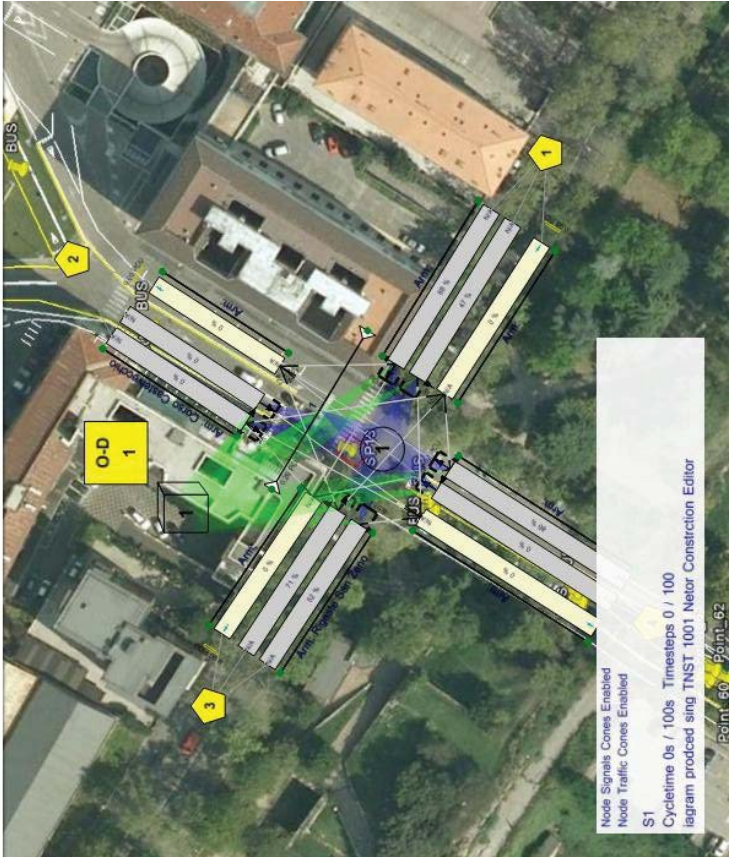
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Unsaturated PRC	LTSWith Worst Unsaturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.03.25	15/12/2010 9.03.26	08.00	100	19.59	86.47	6/1	0	0	6/1	2/1	6/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Pedestrian Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.045	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

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1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R87?	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

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2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	False	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in- Service	Vehicle-in- Service	Type Of Random Parameter	Random Parameter
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	0	0	0	0	100	1,00
2	0	0	0	0	100	1,00
1	529	529	0	0	100	1,00
1	245	245	0	0	100	1,00
2	333	333	0	0	100	1,00
1	387	387	0	0	100	1,00
1	607	607	0	0	100	1,00
2	0	0	0	0	100	1,00
1	466	466	0	0	100	1,00
1	317	317	0	0	100	1,00
2	221	221	0	0	100	1,00
1	341	341	0	0	100	1,00

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1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2		NetworkDefault	100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1		NetworkDefault	100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R87?	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15.00	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15.00	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15.00	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tran Flow (PCU/hr)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	6/2	0	0	0	0	12.00	30.00	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	204	204	0	0	12.00	30.00	Trams Not Permitted
1	3	TrafficStream	N/A	8/1	151	151	0	0	12.00	30.00	Trams Not Permitted
1	4	TrafficStream	N/A	3/2	174	174	0	0	12.00	30.00	Trams Not Permitted
1	1	TrafficStream	N/A	8/1	166	166	0	0	12.00	30.00	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12.00	30.00	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	221	221	0	0	12.00	30.00	Trams Not Permitted
1	1	TrafficStream	N/A	1/2	0	0	0	0	12.00	30.00	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12.00	30.00	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	245	245	0	0	12.00	30.00	Trams Not Permitted
1	4	TrafficStream	N/A	8/2	221	221	0	0	12.00	30.00	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	182	182	0	0	12.00	30.00	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12.00	30.00	Trams Not Permitted
1	3	TrafficStream	N/A	3/2	159	159	0	0	12.00	30.00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	151.00000	166.00000	221.00000
2	166.00000	249.00000	195.00000	0
3	159.00000	174.00000	0	245.00000
4	182.00000	204.00000	221.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

--	--	--	--	--

To				
	1	2	3	4
From 1	0	0	0	0
2	0	0	20.00000	20.00000
3	0	20.00000	0	0
4	0	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	8/1,8/2	9/1		538	538	0	0	341	341	0	0
2	1/1,1/2	2/1		0	0	0	0	529	529	0	0
3	3/2,3/1	5/1		578	578	0	0	387	387	0	0
4	6/2,6/1	7/1		607	607	0	0	466	466	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		8/1,2/1	151
2		8/1,5/1	166
3		8/2,7/1	221
4		3/2,2/1	174
5		3/2,9/1	159
6		3/1,7/1	245
7		6/1,2/1	204
8		6/1,5/1	221
9		6/1,9/1	182

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	151
2	True	Normal	N/A	N/A	166
3	True	Normal	N/A	N/A	221
4	True	Normal	N/A	N/A	174
5	True	Normal	N/A	N/A	159
6	True	Normal	N/A	N/A	245
7	True	Normal	N/A	N/A	204
8	True	Normal	N/A	N/A	221
9	True	Normal	N/A	N/A	182

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time, 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	7	300	0	0	False
1	B	7	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,E	1
1	3	C,F	1
1	4	G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,4,3	25,37,50,95		
1	2	1,3,2,4	0,24,48,73		
1	3	1,4,2,3	0,25,51,75		
1	4	1,4,3,2	0,25,51,75		
1	5	1,2,3,4	0,24,48,73		
1	6	1,3,4,2	0,24,49,75		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	25	25	1	7
1	2	True	2	B,E	30	37	7	1	7

1	3	True	4	G	43	50	7	1	7
1	4	True	3	C,F	57	95	38	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	25	25
1	B	1	True	30	37	7
1	C	1	True	57	95	38
1	D	1	True	0	25	25
1	E	1	True	30	37	7
1	F	1	True	57	95	38
1	G	1	True	43	50	7

Intergreen Matrix for Controller Stream 1

To		A	B	C	D	E	F	G
From	A	-	5	5	5	5	5	6
	B	5	-	5	5	5	5	6
	C	5	5	-	5	5	5	6
	D	5	5	-	5	5	5	6
	E	5	5	5	-	5	5	6
	F	5	5	5	5	-	5	5
	G	7	7	7	7	7	7	-

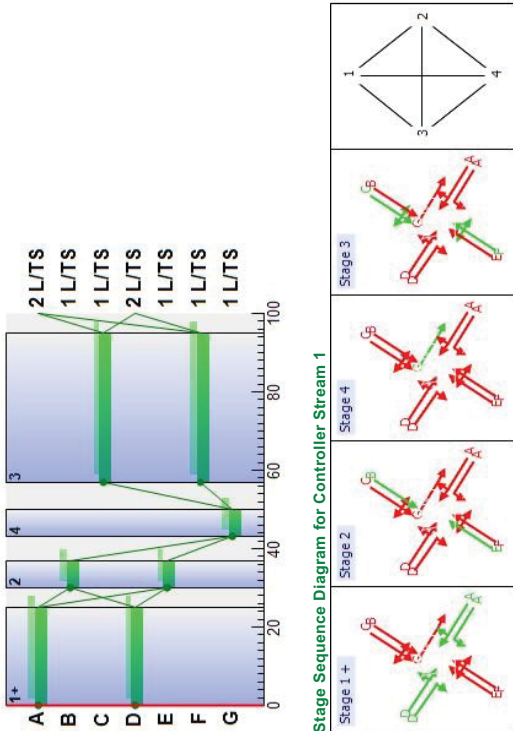
Interstage Matrix for Controller Stream 1

To		1	2	3	4
From	1	-	5	5	6
	2	5	-	5	6
	3	5	5	-	6
	4	7	7	7	-

Banned Stage transitions for Controller Stream 1

To		1	2	3	4
From	1	-			
	2		-		
	3			-	
	4				-

Link Timings Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.34.01
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documents\Verona\SC14.114
Report generation date: 15/12/2010 8.34.35

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC14
Location	Verona
Site Number	14
Driving Side	Right
Date	14/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

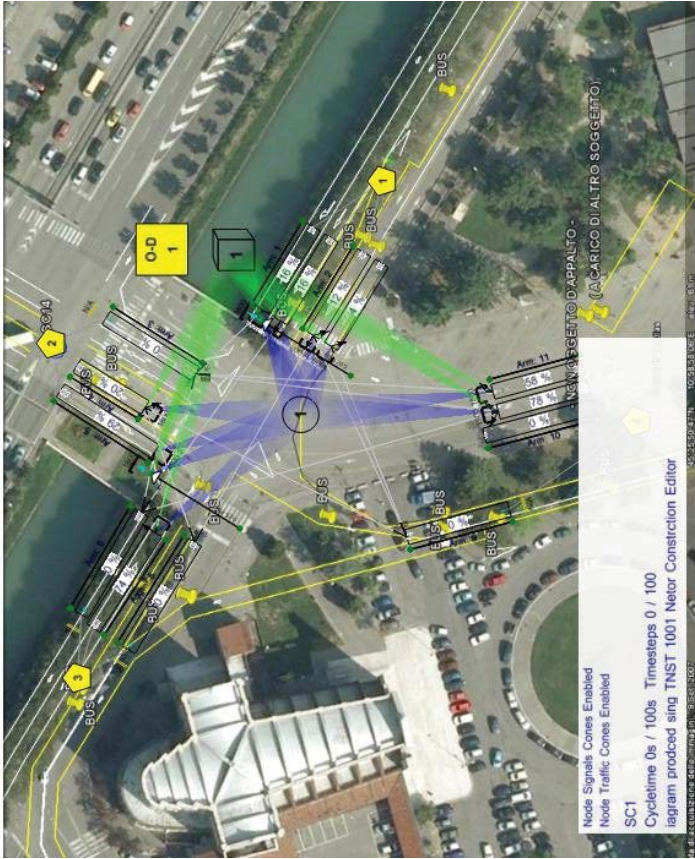
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 8.34.01	15/12/2010 8.34.01	08.00	100	13,77	77,97	11/2	0	0	11/2	3/1	11/2	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Split Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0,483	0,323	0,011	0,103	0,028	0,031	0,011	1250,00	1250,00	2000,00	2000,00	2000,00	35000,00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	F	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (into Link) (PCU/hr)	Upstream Flow (into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R87	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

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1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

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2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	40	40	0	0	100	1,00
2	40	40	0	0	100	1,00
1	30	0	30	0	100	1,00
2	10	0	10	0	100	1,00
1	1426	1426	0	0	100	1,00
1	40	0	40	0	100	1,00
1	300	300	0	0	100	1,00
1	540	540	0	0	100	1,00
1	186	186	0	0	100	1,00
1	40	0	40	0	100	1,00
1	40	0	40	0	100	1,00
1	0	0	0	0	100	1,00
1	600	600	0	0	100	1,00
2	800	800	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	7/1	186	186	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	40	40	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	11/1	600	600	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	11/2	600	600	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	5/1	300	300	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/2	40	40	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	11/2	200	200	0	0	12,00	30,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00	Trams Not Permitted

1	1	TrafficStream	N/A	2/1	10	0	10	0	Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	2/2	10	0	10	0	Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	4/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	40.00000	40.00000	0
	2	0	0	300.00000	0
	3	0	186.00000	0	0
	4	0	1200.00000	200.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	0	20.00000	20.00000
	2	0	0	20.00000	20.00000
	3	0	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2,2/1,2/2		120	80	40	0	0	0	0	0
2		4/1,5/1	3/1	340	300	40	0	1426	1426	0	0
3		7/1	6/1,8/1	186	186	0	0	580	540	40	0
4		11/2,11/1	9/1,10/1	1400	1400	0	0	40	0	40	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,3/1	40
2		1/2,6/1	40
3		2/1,8/1	20
4		2/1,9/1	10
5		2/2,9/1	10
6		4/1,8/1	20
7		4/1,9/1	20
8		5/1,6/1	300
9		7/1,3/1	186
10		11/2,3/1	600
11		11/2,6/1	200
12		11/1,3/1	600

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	40

2	True	Normal	N/A	N/A	40
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	True	Normal	N/A	N/A	300
9	True	Normal	N/A	N/A	186
10	True	Normal	N/A	N/A	600
11	True	Normal	N/A	N/A	200
12	True	Normal	N/A	N/A	600

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	True	Normal	N/A	N/A	20
4	True	Normal	N/A	N/A	10
5	True	Normal	N/A	N/A	10
6	True	Normal	N/A	N/A	20
7	True	Normal	N/A	N/A	20
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,C,G	1
1	3	B,F,G	1
1	4	C,D,G	1
1	5	C,E,G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,5,3	93,56,73		
1	2	1,3,5	0,33,66		
1	3	1,5,2,3	0,26,50,75		
1	4	1,5,4,3	0,25,50,75		
1	5	1,4,5,3	0,25,50,75		
1	6	1,3,4,5	0,25,50,75		
1	7	1,2,3,5	0,25,50,75		
1	8	1,3,5,4	0,25,50,75		
1	9	1,4,3,5	0,25,50,75		
1	10	1,3,5,2	0,25,50,75		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	80	93	13	1	10
1	2	True	5	C,E,G	0	56	56	1	7
1	3	True	3	B,F,G	63	73	10	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	80	93	13
1	B	1	True	63	73	10
1	C	1	True	0	56	56
1	D	1	True	80	93	13
1	E	1	True	0	56	56
1	F	1	True	63	73	10
1	G	1	True	0	73	73

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
	A	-	7	7	7	7	7
	B	7	-	7	7	7	

From	C	7	-	-	7
D			7	-	7
E	7	7	-	7	-
F	7	-	7	7	-
G	7				-

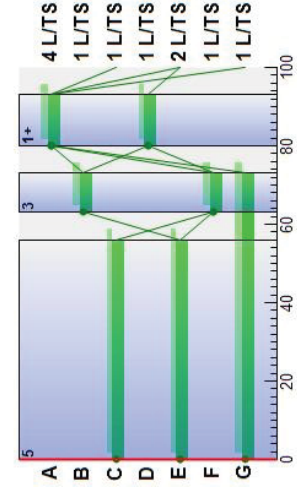
Interstage Matrix for Controller Stream 1

		To		
		1	2	3
From	1	-	7	7
	2	7	-	7
	3	7	7	-

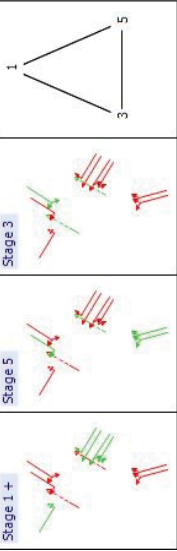
Banned Stage transitions for Controller Stream 1

		To		
		1	2	3
From	1	-		
	2		-	
	3			-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 8.36.29
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC15.114
Report generation date: 15/12/2010 8.36.55

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC15
Location	Verona
Site Number	15
Driving Side	Right
Date	14/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/Tiente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time and Unit (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Unsaturated PRC	LTSWith Worst Unsaturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.36.29	15/12/2010 8.36.29	08.00	75	5.49	62.50	1/2	0	0	1/2	4/1	1/2	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Pedestrian Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Displacement Type	Normal Displacement Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

ALLEGATI: schemi piani di base semaforici

1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
---	---------	------	------	------	---	---	----------------	------------------	----------------	------

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use Rt67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Queue Penalty Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

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1	100	100	False	0,00	False	(N/A)	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle+In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	50	50	0	0	100	1,00
2	150	150	0	0	100	1,00
1	400	400	0	0	100	1,00
1	20	0	20	0	100	1,00
1	420	400	20	0	100	1,00
1	300	300	0	0	100	1,00
2	300	300	0	0	100	1,00
1	20	0	20	0	100	1,00
1	50	50	0	0	100	1,00
1	720	700	20	0	100	1,00
1	50	50	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Busess Not Permitted	Trams Not Permitted

2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	2/1	400	400	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	50	50	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	5/2	300	300	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	300	300	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	1/2	100	100	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/2	50	50	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
From	1	2	3	4	5	
	1	0	0	0	0	0
	2	0	0	0	0	400.00000
	3	0	0	0	0	0
	4	50.00000	100.00000	50.00000	0	0
5	0	600.00000	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To				
From	1	2	3	4	5	
	1	0	0	0	0	0
	2	0	0	0	0	20.00000
	3	0	0	0	0	0
	4	0	0	0	0	0
5	0	20.00000	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1			7/1	0	0	0	0	50	50	0	0
2		3/1 2/1	8/1	420	400	20	0	720	700	20	0

3		9/1	0	0	0	0	50	0	0
4		1/2,1/1	200	200	0	0	0	0	0
5		5/2,5/1 6/1	4/1	620	600	20	0	420	400

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		3/1,4/1	20
2		2/1,4/1	400
3		1/2,8/1	100
4		1/2,9/1	50
5		1/1,7/1	50
6		5/2,8/1	300
7		5/1,8/1	300
8		6/1,8/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	400
3	True	Normal	N/A	N/A	100
4	True	Normal	N/A	N/A	50
5	True	Normal	N/A	N/A	50
6	True	Normal	N/A	N/A	300
7	True	Normal	N/A	N/A	300
8	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,B	1
1	2	C	1
1	3	D	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling	Stage IDs	Multiple Cycling	Stage Ends
1	1	1,2,3	39,55,68				
1	2	1,3,2	0,28,63				

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,B	0	39	39	1	10
1	2	True	2	C	46	55	9	1	7
1	3	True	3	D	61	68	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	39	39
1	B	1	True	0	39	39
1	C	1	True	46	55	9
1	D	1	True	61	68	7

Intergreen Matrix for Controller Stream 1

	To			
	A	B	C	D
From A	-	7	0	
From B	-	7	0	
From C	7	7	-	6
From D	7	7	7	-

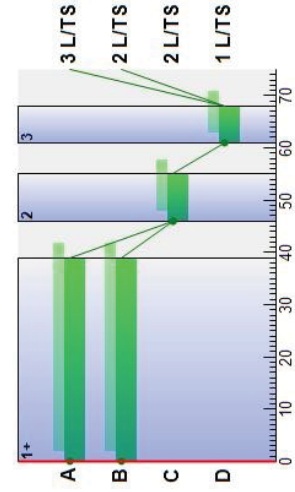
Interstage Matrix for Controller Stream 1

	To			
	1	2	3	
From 1	-	7	0	
From 2	7	-	6	
From 3	7	7	-	

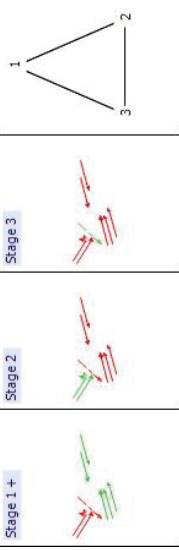
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	
From 1	-			
From 2		-		
From 3			-	

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSTYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.37.50
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC16.t14
Report generation date: 15/12/2010 8.38.36

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC16
Location	Verona
Site Number	16
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

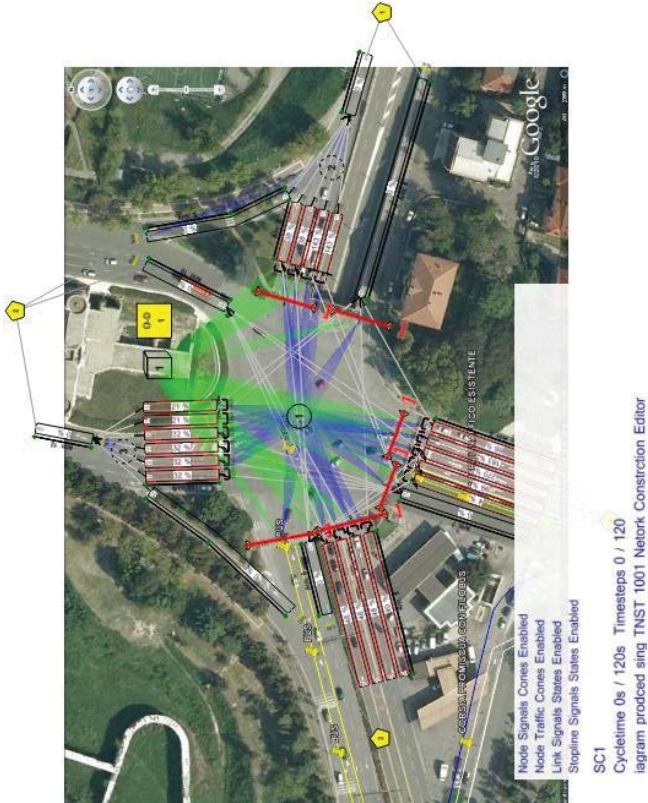
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time and Time Used (s)	Total Network Delay (PCU-hr/hr)	LTSP with Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSP with Worst Signal Based PRC	LTSP with Worst Unsignal Based PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.37.49	15/12/2010 8.37.50	08.00	120	923,60	270,00	5	15	5/3	1/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
120	1	120	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		
2	2		
3	3		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False
5	5			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False
6	6			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
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Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
120	1	120	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

1	2497	2497	0	0	100	1,00
1	200	200	0	0	100	1,00
2	200	200	0	0	100	1,00
3	200	200	0	0	100	1,00
4	200	200	0	0	100	1,00
5	115	115	0	0	100	1,00
6	115	115	0	0	100	1,00
1	1382	1382	0	0	100	1,00
1	352	352	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted
4	12,00	30,00	Buses Not Permitted	Trams Not Permitted
5	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted
4	12,00	30,00	Buses Not Permitted	Trams Not Permitted
5	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Source Normal Flow (PCU/hr)	Source Source Bus Flow (PCU/hr)	Source Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	46	46	46	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	1	TrafficStream	N/A	1/1	46	46	46	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	1	TrafficStream	N/A	1/1	172	172	172	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
4	1	TrafficStream	N/A	1/1	172	172	172	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	139	139	139	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	11/5	115	115	115	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	11/6	115	115	115	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	552	552	552	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	8/2	54	54	54	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	11/1	200	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	11/2	200	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	11/3	200	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	11/4	200	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	5	TrafficStream	N/A	2/3	172	172	172	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	6	TrafficStream	N/A	2/4	172	172	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	46	46	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	46	46	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	5/5	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	5/4	550	550	0	0	12,00	30,00	15,00	Trams Not Permitted
1	5	TrafficStream	N/A	5/3	550	550	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	5/3	1151	1151	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	5/2	1151	1151	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	8/4	65	65	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	8/3	65	65	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	5	TrafficStream	N/A	8/5	65	65	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	12/1	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	1	TrafficStream	N/A	12/1	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	1	TrafficStream	N/A	12/1	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
4	1	TrafficStream	N/A	12/1	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
5	1	TrafficStream	N/A	12/1	115	115	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
6	1	TrafficStream	N/A	12/1	115	115	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	12/1	352	352	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	139.00000	92.00000	343.00000
2	230.00000	0	352.00000	800.00000
3	54.00000	195.00000	0	0.00000
4	552.00000	2302.00000	1099.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	0.00000	0.00000	0.00000
2	0.00000	0	0.00000	0.00000
3	0.00000	0.00000	0	0.00000
4	0.00000	0.00000	20.00000	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	4/1	575	575	0	0	836	836	0	0
2		12/1	10/1,3/1	1382	1382	0	0	2636	2636	0	0
3		8/4,8/3,8/2,8/4,8/5	13/1,9/1	249	249	0	0	1564	1544	20	0
4		5/1,5/2,5/3,5/4,5/5	7/1	3974	3954	20	0	1144	1144	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,2/1,9/1	46
2		1/1,2/2,9/1	46
3		1/1,2/3,7/1	172
4		1/1,2/4,7/1	172
5		1/1,3/1	139
6		12/1,11/1,7/1	200
7		12/1,11/2,7/1	200
8		12/1,11/3,7/1	200
9		12/1,11/4,7/1	200
10		12/1,11/5,4/1	115
11		12/1,11/6,4/1	115
12		12/1,13/1	352
13		8/4,10/1	65
14		8/3,10/1	65
15		8/2,4/1	54
16		8/5,10/1	65
17		5/1,4/1	552
18		5/2,10/1	1151
19		5/3,9/1	550
20		5/3,10/1	1151
21		5/4,9/1	550
22		5/5,9/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	46
2	True	Normal	N/A	N/A	46
3	True	Normal	N/A	N/A	172
4	True	Normal	N/A	N/A	172
5	True	Normal	N/A	N/A	139
6	True	Normal	N/A	N/A	200
7	True	Normal	N/A	N/A	200
8	True	Normal	N/A	N/A	200
9	True	Normal	N/A	N/A	200
10	True	Normal	N/A	N/A	115
11	True	Normal	N/A	N/A	115
12	True	Normal	N/A	N/A	352
13	True	Normal	N/A	N/A	65
14	True	Normal	N/A	N/A	65
15	True	Normal	N/A	N/A	54
16	True	Normal	N/A	N/A	65
17	True	Normal	N/A	N/A	552
18	True	Normal	N/A	N/A	1151

19	True	Normal	N/A	N/A	550
20	True	Normal	N/A	N/A	1151
21	True	Normal	N/A	N/A	550
22	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0
18	False	Disabled	N/A	N/A	0
19	False	Disabled	N/A	N/A	0
20	False	Disabled	N/A	N/A	0
21	False	Disabled	N/A	N/A	0
22	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0
18	False	Disabled	N/A	N/A	0
19	False	Disabled	N/A	N/A	0
20	False	Disabled	N/A	N/A	0
21	False	Disabled	N/A	N/A	0

Signal Timings

120s cycle time, 120 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False
1	I	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,B,C	1
1	2	A,E	1
1	3	B,C,F,H	1
1	4	C,D	1
1	5	E,F	1
1	6	E,I	1
1	7	G,I	1
1	8	H,I	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	B	3	7	9	N/A
1	2	Losing	C	3	7	9	N/A
1	3	Losing	F	3	7	9	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	2,4,3,7	36,50,89,113		
1	2	2,7,4,3	0,30,60,90		
1	3	2,7,3,4	0,30,60,90		
1	4	2,4,7,3	0,30,60,90		
1	5	2,3,7,4	0,30,60,90		
1	6	2,3,4,7	0,30,60,90		
1	7	1,4,7,8,5	0,24,48,72,96		
1	8	2,7,4,8,3	0,24,48,72,96		
1	9	1,7,4,8,5	0,24,48,72,96		
1	10	2,3,7,4,8	0,24,48,72,96		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	2	A,E	0	36	36	1	10
1	2	True	4	C,D	43	50	7	1	7
1	3	True	3	B,C,F,H	57	89	32	1	7
1	4	True	7	G,I	106	113	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	36	36
1	B	1	True	57	98	41
1	C	1	True	43	98	55
1	D	1	True	43	50	7
1	E	1	True	0	36	36
1	F	1	True	57	98	41
1	G	1	True	105	113	8
1	H	1	True	57	89	32
1	I	1	True	106	113	7

Intergreen Matrix for Controller Stream 1

	To									
	A	B	C	D	E	F	G	H	I	
A	-			7	7	6	7	6		
B	-	-		7	7	7	7		6	
C	-	-	-	7	7	7		6		
D	7	7	-	-	7	7	7	7	8	
E	7	7	7	7	-	-	7	7		
F	7	7	7	7	-	-	7		8	
G	7	7	7	7	7	7	-	7		
H	15		15	15	15	15	-			
I	7	7	7	7	7	7	-			

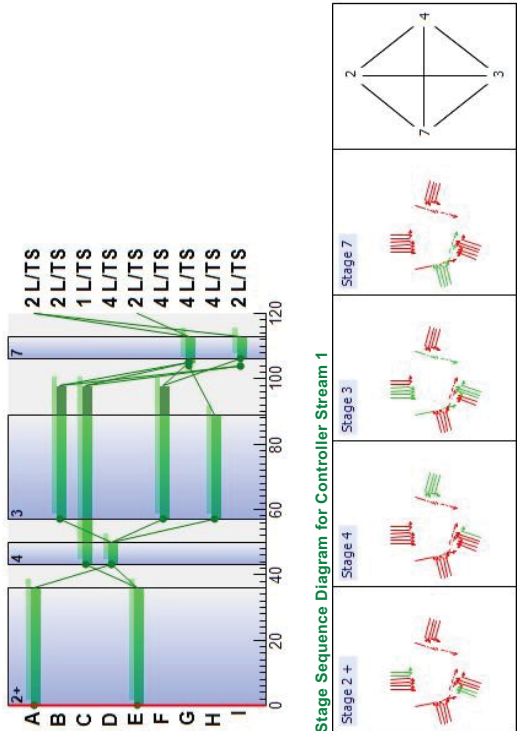
Interstage Matrix for Controller Stream 1

	To			
	1	2	3	4
1	-	7	7	7
2	7	-	7	7
3	15	15	-	15
4	7	7	7	-

Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
1	-			
2	-			
3		-		
4				-

Link Timings Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.04.38
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP17.114
Report generation date: 15/12/2010 9.04.59

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP17
Location	Verona
Site Number	17
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTINENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 9.04.38	15/12/2010 9.04.38	08.00	75	3.45	77.56	1/1	0	1/1	2/1	1/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
Quick PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shogun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pedes	Tr
1	1			1	100.00	[[QuickPDM]]	True	1800	(N/A)	True	1	B	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service Parameter	Random Parameter

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1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way
1	1			100.00	[[QuickPDM]]	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)	False
1	1			100.00	[[QuickPDM]]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	False
1	1			100.00	[[QuickPDM]]	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)	False
1	1			100.00	[[QuickPDM]]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	False

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Uses R887	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Neaside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	968	968	0	0	100	1,00
1	0	0	0	0	100	1,00
1	0	0	0	0	100	1,00
1	968	968	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	15,00	Trams Not Permitted
1	12,00	30,00	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	3/1	0	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	968	968	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To	
From	
1	0
2	886.00000

Bus Input Flows (PCU/hour) for OD Matrix: 1

To	
From	
1	0
2	20.00000

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,2/1		968	968	0	0	0	0	0	0
2		3/1	4/1	0	0	0	0	968	968	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,4/1	968

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	968

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
	1	A	10	300	0	False
	1	B	10	300	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
	1	1	A
	1	2	B

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
	1	1	1,2	51,67	

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
	1	1	True	A	0	51	51	1	10
	1	2	True	B	57	67	10	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
	1	A	1	True	0	51
	1	B	1	True	57	67

Intergreen Matrix for Controller Stream 1

To	
From	
A	B
A	- 6
B	8 -

Interstage Matrix for Controller Stream 1

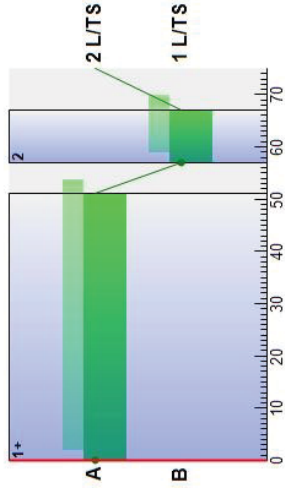
To	
From	
1	2

From	1	-	6
	2	8	-

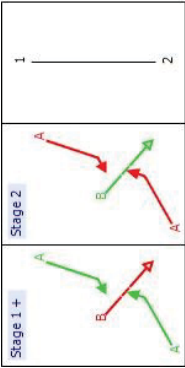
Banned Stage transitions for Controller Stream 1

	To
	1
	2
From	1
	-
	2

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.40.15
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC18.114
Report generation date: 15/12/2010 8.40.55

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC18
Location	Verona
Site Number	18
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 8:40:14	15/12/2010 8:40:15	08:00	120	375,09	215,73	3/1	3	14	3/1	2/1	3/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08:00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
120	1	120	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shogun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGVI	Proportion OGVD	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGVI (kg)	Mean Weight OGVD (kg)	Mean Weight PSV (kg)
0,483	0,323	0,011	0,103	0,028	0,031	0,011	1250,00	1250,00	2000,00	2000,00	2000,00	35000,00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		
2	2		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Phase2 Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	J	False	(N/A)	False
3	3			2	100,00	NetworkDefault	True	1800	(N/A)	True	1	R	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispatch Type	Normal Dispatch Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
3	3			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	M	False	(N/A)
2	2			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	L	False	(N/A)
3	3			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	K	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	O	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	N	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	True	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	Q	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	P	False	(N/A)
1	1			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	H	False	(N/A)
2	2			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False	(N/A)
3	3			50,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

ALLEGATI: schemi piani di base semaforici

Traffic Stream	ID	Name	Description	Use RRB?	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A						

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Residual Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Size at Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Type Of Random Parameter
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ALLEGATI: schemi piani di base semaforici

1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
3	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	Network Default	Not Included	Network Default	0.50
3	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	Network Default	Not Included	Network Default	0.50
3	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50
1	Default	35	80	0.00	0	0	Network Default	Not Included	Network Default	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Team Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (mph)
1	289	289	0	0	100	1,00
2	492	492	0	0	100	1,00
3	20	0	20	0	100	1,00
	390	370	20	0	100	1,00
1	809	809	0	0	100	1,00
2	20	0	20	0	100	1,00
1	882	882	0	0	100	1,00
2	40	0	40	0	100	1,00
3	534	534	0	0	100	1,00
1	922	882	40	0	100	1,00
1	543	543	0	0	100	1,00
2	247	247	0	0	100	1,00
1	979	979	0	0	100	1,00
1	40	0	40	0	100	1,00
2	479	479	0	0	100	1,00
1	546	546	0	0	100	1,00
2	40	0	40	0	100	1,00

3	278	278	0	0	100	1,00
1	648	628	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Free (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	92	92	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	10/3	278	278	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	10/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	197	197	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/2	197	197	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	488	488	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
2	1	TrafficStream	N/A	3/2	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
2	2	TrafficStream	N/A	1/3	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
3	1	TrafficStream	N/A	3/1	239	239	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
3	2	TrafficStream	N/A	1/2	295	295	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	4/1	882	882	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	4/2	40	0	40	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	7/1	445	445	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	4/3	534	534	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	7/1	98	98	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	7/2	98	98	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	9/2	350	350	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
2	1	TrafficStream	N/A	9/1	40	0	40	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
3	1	TrafficStream	N/A	7/2	149	149	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted

3	2	TrafficStream	N/A	129	129	0	0	6,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	82	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	10/2	20	0	20	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	10/1	546	0	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	488.00000	239.00000	82.00000
From 2	149.00000	0	445.00000	195.00000
3	129.00000	0	0	350.00000
4	92.00000	394.00000	295.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	20.00000	0	0
From 2	0	0	0	0
3	20.00000	0	0	20.00000
4	0	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		3/2,3/1	2/1	829	809	20	0	390	370	20	0
2		7/2,7/1	6/1	790	790	0	0	922	882	40	0
3		9/2,9/1	8/1	519	479	40	0	979	979	0	0
4		1/3,1/2,1/1	1/1/1	801	781	20	0	648	628	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		3/2,4/2,6/1	20
2		3/1,4/1,6/1	488
3		3/1,4/3,8/1	239
4		3/1,1/1/1	82
5		7/2,10/1,1/1/1	98
6		7/2,10/3,2/1	149
7		7/1,8/1	445
8		7/1,10/1,1/1/1	98
9		9/2,10/1,1/1/1	350
10		9/2,10/3,2/1	129
11		9/1,10/2,2/1	20
12		9/1,10/2,1/1/1	20
13		1/3,4/2,6/1	20
14		1/2,4/1,6/1	197
15		1/2,4/3,8/1	295

16	1/1,2/1	92
17	1/1,4/1,6/1	197

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	488
3	True	Normal	N/A	N/A	239
4	True	Normal	N/A	N/A	82
5	True	Normal	N/A	N/A	98
6	True	Normal	N/A	N/A	149
7	True	Normal	N/A	N/A	445
8	True	Normal	N/A	N/A	98
9	True	Normal	N/A	N/A	350
10	True	Normal	N/A	N/A	129
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	True	Normal	N/A	N/A	197
15	True	Normal	N/A	N/A	295
16	True	Normal	N/A	N/A	92
17	True	Normal	N/A	N/A	197

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	True	Normal	N/A	N/A	20
12	True	Normal	N/A	N/A	20
13	True	Normal	N/A	N/A	20
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0

Signal Timings

120s cycle time; 120 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
	1	A	10	300	0	False
	1	B	10	300	0	False
	1	C	7	300	0	False
	1	D	7	300	0	False
	1	E	7	300	0	False
	1	F	7	300	0	False
	1	G	7	300	0	False
	1	H	7	300	0	False
	1	I	7	300	0	False
	1	J	7	300	0	False
	1	K	7	300	0	False
	1	L	7	300	0	False
	1	M	7	300	0	False
	1	N	7	300	0	False
	1	O	7	300	0	False
	1	P	7	300	0	False
	1	Q	7	300	0	False
	1	R	7	300	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,H,J,K,L,M,P,Q	1
	2	A,H,J,L,M,N,O	1
1	3	A,H,J,L,M,N,R	1
1	4	B,C,H,K,L,M,P,Q	1
1	5	B,C,H,L,M,N,O	1
1	6	B,C,H,L,M,N,R	1
1	7	B,H,J,K,L,M,P,Q	1
1	8	B,H,J,L,M,N,O	1
1	9	B,H,J,L,M,N,R	1
1	10	D,F,G,H,K,L,M,P,Q	1

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1	11	D F G H L M N O	1
1	12	D F G H L M N R	1
1	13	D F I K L M P Q	1
1	14	D F I L M N O	1
1	15	D F I L M N R	1
1	16	E H K L M P Q	1
1	17	E H L M N O	1
1	18	E H L M N R	1
1	19	G H J K L M P Q	1
1	20	G H J L M N O	1
1	21	G H J L M N R	1
1	22	I J K L M P Q	1
1	23	I J L M N O	1
1	24	I J L M N R	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,10,14,18	8,43,55,82,113		
1	2	1,4,14,12,18	0,24,47,71,93		
1	3	1,4,14,19,18	0,24,47,71,95		
1	4	1,4,11,16,15	0,25,48,71,95		
1	5	1,4,10,18,23	0,24,46,69,93		
1	6	1,4,13,17,12	0,24,47,71,94		
1	7	1,4,15,16,20	0,24,47,71,94		
1	8	1,4,14,12,16	0,24,47,71,95		
1	9	1,4,15,21,17	0,24,47,71,95		
1	10	1,4,14,12,17	0,24,47,71,95		

Resultant Stages

Controller Stream	Stage Index	Is Base Green Period	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,H,J,K,L,M,P,Q	0	8	8	1	8
1	2	True	4	B,C,H,K,L,M,P,Q	15	43	28	1	8
1	3	True	10	D,F,G,H,K,L,M,P,Q	48	55	7	1	7
1	4	True	14	D,F,I,L,M,N,O	61	82	21	1	7
1	5	True	18	E,H,L,M,N,R	89	113	24	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	118	8	10
1	B	1	True	13	43	30
1	C	1	True	15	43	28
1	D	1	True	48	82	34
1	E	1	True	89	113	24
1	F	1	True	48	82	34
1	G	1	True	48	55	7
1	H	1	True	89	55	86
1	I	1	True	61	82	21
1	J	1	True	119	8	9
1	K	1	True	0	55	55
1	L	1	True	0	0	120
1	M	1	True	0	0	120
1	N	1	True	60	113	53

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1	O	1	True	60	82	22
1	P	1	True	0	55	55
1	Q	1	True	0	55	55
1	R	1	True	88	113	25

Intergreen Matrix for Controller Stream 1

To																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
A	-	5	5	5	5	5	5	5	6									
B	5	-		5	5	5	5	6										
C	5		-	5	5	5	5	6	6									
D	5	5	5	-	5				6									
E	5	5	5	5	-	5	5	6	6									
F	5	5	5	5	5	-		6										
G	5	5	5	5	5		-	6										
H								-	6									
I	7	7	7	7	7	7	7	7	-									
J										-				5	5			6
K											-							
L												-						
M													-					
N										5				-	5	5		
O										5					-	5	5	6
P														5	5	-		6
Q														5	5		-	6
R										7					7	7	7	-

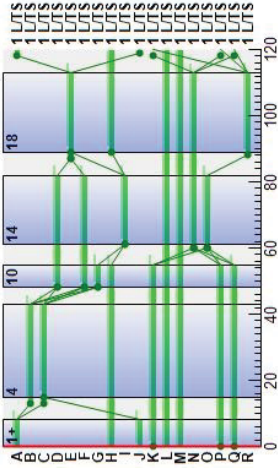
Interstage Matrix for Controller Stream 1

To					
	1	2	3	4	5
From	1	-	5	6	7
	2	5	-	6	7
	3	7	7	-	7
	4	6	6	6	-
	5	6	6	6	5

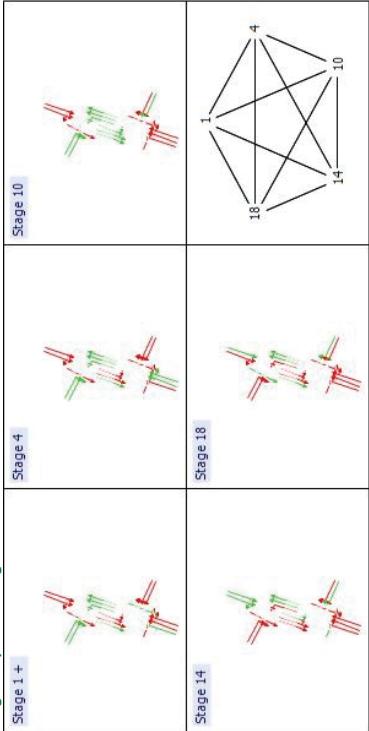
Banned Stage transitions for Controller Stream 1

To					
	1	2	3	4	5
From	1	-			
	2		-		
	3			-	
	4				-
	5				

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.42.10
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC19.114
Report generation date: 15/12/2010 8.42.37

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC19
Location	Verona
Site Number	19
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTINENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

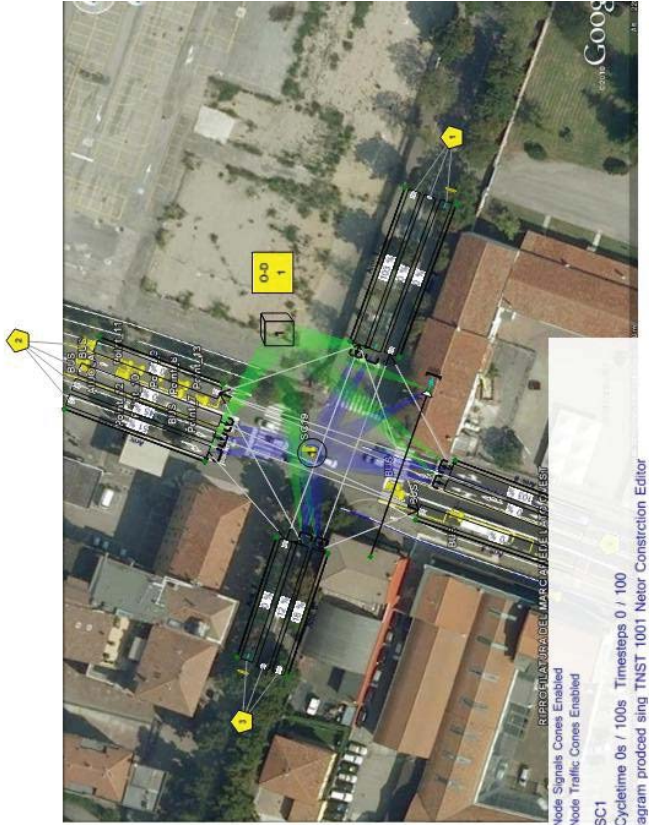
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 8:42:09	15/12/2010 8:42:10	08:00	100	54,73	103,15	8/2	2	14	8/2	2/1	8/2	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08:00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0,483	0,323	0,011	0,103	0,028	0,031	0,011	1250,00	1250,00	2000,00	2000,00	2000,00	35000,00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

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A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGPVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
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1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
3	3			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
3	3			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R887	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Waiting (%)	Delay Weighing (%)	Exclude From Sensitivity Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Sensitivity (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Directional Type	Normal Priority Coefficient	Normal Travel Coefficient	Initial Queue Occupancy (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	702	702	0	0	100	1,00
2	0	0	0	0	100	1,00
1	238	238	0	0	100	1,00
1	274	274	0	0	100	1,00
2	242	242	0	0	100	1,00
3	0	0	0	0	100	1,00

1	596	596	0	0	100	1,00
1	779	779	0	0	100	1,00
1	111	111	0	0	100	1,00
2	84	84	0	0	100	1,00
1	487	487	0	0	100	1,00
2	687	687	0	0	100	1,00
3	0	0	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Train Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/2	202	202	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	36	36	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/3	0	0	0	0	30,00	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	3/2	242	242	0	0	30,00	12,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/1	279	279	0	0	30,00	12,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	6/1	75	75	0	0	30,00	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	210	210	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/3	0	0	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	8/2	485	485	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	6/2	84	84	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	274	274	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	213	213	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	210.00000	213.00000	279.00000

From	2	109.00000	0	274.00000	242.00000
3	36.00000	84.00000	0	75.00000	
4	202.00000	485.00000	483.00000	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2	2/1	702	702	0	0	238	238	0	0
2		3/1,3/2,3/3	5/1	516	516	0	0	779	779	0	0
3		6/1,6/2	7/1	195	195	0	0	487	487	0	0
4		8/3,8/2	4/1	687	687	0	0	596	596	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,4/1	279
2		1/1,5/1	210
3		1/1,7/1	213
4		3/1,7/1	274
5		3/2,4/1	242
6		3/3,4/1	0
7		6/1,2/1	36
8		6/1,4/1	75
9		6/2,5/1	84
10		8/2,2/1	202
11		8/2,5/1	485

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	279
2	True	Normal	N/A	N/A	210
3	True	Normal	N/A	N/A	213
4	True	Normal	N/A	N/A	274
5	True	Normal	N/A	N/A	242
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	36
8	True	Normal	N/A	N/A	75
9	True	Normal	N/A	N/A	84
10	True	Normal	N/A	N/A	202
11	True	Normal	N/A	N/A	485

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	PhaseBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	D	1
1	4	E	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	D	2	4	7	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,4	37,72,92		
1	2	1,3,2	0,32,66		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	37	37	1	10
1	2	True	2	B,D	43	72	29	1	10
1	3	True	4	E	85	92	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	37	37
1	B	1	True	43	72	29
1	C	1	True	0	37	37
1	D	1	True	43	79	36
1	E	1	True	85	92	7

Intergreen Matrix for Controller Stream 1

	To				
	A	B	C	D	E
From	A	-	6	6	6
	B	6	-	0	6
	C	6	-	6	6
	D	6	6	-	6
	E	8	8	8	-

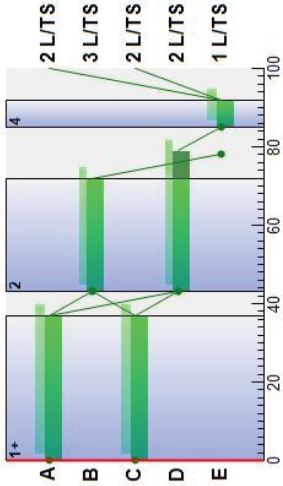
Interstage Matrix for Controller Stream 1

	To		
	1	2	3
From	1	-	6
	2	6	-
	3	6	0

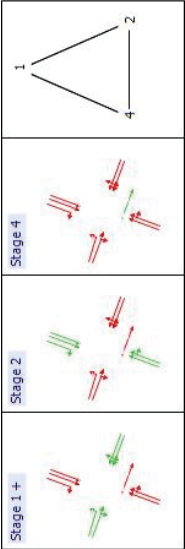
Banned Stage transitions for Controller Stream 1

	To		
	1	2	3
From	1	-	-
	2	-	-
	3	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSTYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 8.43.48
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\VeronaSC20.114
Report generation date: 15/12/2010 8.44.25

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC20
Location	Verona
Site Number	20
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTIULente
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

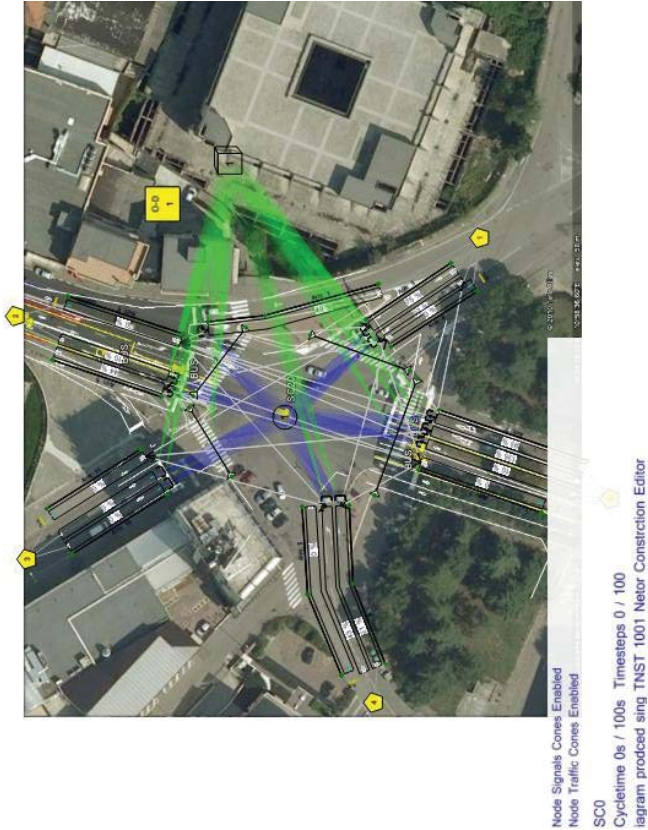
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 8.43.48	15/12/2010 8.43.48	08.00	100	133.77	134.68	2/2	3	14	2/2	4/1	2/2	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Stops	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU·hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

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A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ ·s2)	B (x 10 ⁴ ·s)	C (x 10 ⁴ ·s)	D (x 10 ⁴ ·s)	E (x 10 ⁴ ·s)	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

Link Modelling (Advanced)

Link	Normal Dispersal type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (FCU/hr)	Uniform Flow Name	Uniform Flow into Link (FCU/hr)	Upstream Flow into Link (FCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1.00
2	10		0	10	100	100	1.00
3	10		0	10	100	100	1.00
4	10		0	10	100	100	1.00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/h)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
2	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
3	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
4	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
2	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
	3	3		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1	1		100.00	NetworkDefault	False	SumOfLanes	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False	(N/A)
	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False	(N/A)
1	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
	1	1		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
2	2	2		100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
	1	1		100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR#7	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning (PCU/hr)	Nearside Lane	Saturation Flow
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Spillover (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	Not Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	Not Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	Not Included	NetworkDefault	0.50

3	Normal Not Permitted	Normal Not Permitted	0,00	0	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
2	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	0,00	0	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
2	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
2	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50
1	Default	35	80	0,00	0	Not- Included	NetworkDefault	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensativity Multiplier (%)	Calculated Cruise Speed (kph)
1	71	71	0	0	100	1,00
1	555	555	0	0	100	1,00
2	800	800	0	0	100	1,00
3	20	0	20	0	100	1,00
1	108	108	0	0	100	1,00
2	132	132	0	0	100	1,00
1	292	292	0	0	100	1,00
1	261	261	0	0	100	1,00
2	20	0	20	0	100	1,00
1	1322	1302	20	0	100	1,00
1	171	151	20	0	100	1,00
1	50	50	0	0	100	1,00
2	100	100	0	0	100	1,00
1	0	0	0	0	100	1,00
1	0	0	0	0	100	1,00
2	0	0	0	0	100	1,00
1	332	332	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
2	1	TrafficStream	N/A	2/1	0	0	0	0	12,00	30,00	Buses Not Permitted
1	1	TrafficStream	N/A	8/1	50	50	0	0	12,00	30,00	Buses Not Permitted
1	2	TrafficStream	N/A	5/1	242	242	0	0	12,00	30,00	Buses Not Permitted
1	1	TrafficStream	N/A	1/1	71	71	0	0	12,00	30,00	Trams Not Permitted
1	2	TrafficStream	N/A	8/2	50	50	0	0	12,00	30,00	Trams Not Permitted
1	3	TrafficStream	N/A	2/3	20	0	20	0	12,00	30,00	Trams Not Permitted
1	4	TrafficStream	N/A	3/1	71	71	0	0	12,00	30,00	Trams Not Permitted
1	5	TrafficStream	N/A	2/1	555	555	0	0	12,00	30,00	Trams Not Permitted
1	6	TrafficStream	N/A	2/2	555	555	0	0	12,00	30,00	Trams Not Permitted
1	1	TrafficStream	N/A	8/1	0	0	0	0	12,00	30,00	Trams Not Permitted
1	2	TrafficStream	N/A	5/2	20	0	20	0	12,00	30,00	Trams Not Permitted
1	3	TrafficStream	N/A	3/2	132	132	0	0	12,00	30,00	Trams Not Permitted
1	4	TrafficStream	N/A	5/1	19	19	0	0	12,00	30,00	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	50	50	0	0	12,00	30,00	Buses Not Permitted
1	2	TrafficStream	N/A	3/1	37	37	0	0	12,00	30,00	Buses Not Permitted
1	3	TrafficStream	N/A	2/2	245	245	0	0	12,00	30,00	Buses Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5
From	1	0	142.00000	37.00000	0	132.00000
	2	242.00000	0	168.00000	0	19.00000
	3	39.00000	109.00000	0	0	73.00000
	4	50.00000	50.00000	50.00000	0	0
	5	332.00000	1110.00000	245.00000	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	20.00000
	3	0	0	0	0
	4	0	0	0	0
	5	0	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1/1,3/1,3/2	4/1	311	311	311	0	0	292	292	0	0
2	5/2,5/1	6/1	281	261	20	0	0	1322	1302	20	0
3	10/2,10/1	11/1	0	0	0	0	0	332	332	0	0
4	8/2,8/1	9/1	150	150	0	0	0	0	0	0	0
5	2/5,2/2,2/1	7/1	1375	1355	20	0	0	171	151	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,6/1	71
2		3/1,6/1	71
3		3/1,11/1	37
4		3/2,7/1	132
5		5/2,7/1	20
6		5/1,4/1	242
7		5/1,7/1	19
8		8/2,6/1	50
9		8/2,11/1	50
10		8/1,4/1	50
11		8/1,7/1	0
12		2/3,6/1	20
13		2/2,6/1	555
14		2/2,11/1	245
15		2/1,6/1	555

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	71
2	True	Normal	N/A	N/A	71
3	True	Normal	N/A	N/A	37
4	True	Normal	N/A	N/A	132
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	242
7	True	Normal	N/A	N/A	19
8	True	Normal	N/A	N/A	50
9	True	Normal	N/A	N/A	50
10	True	Normal	N/A	N/A	50
11	True	Normal	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	True	Normal	N/A	N/A	555
14	True	Normal	N/A	N/A	245

15	True	Normal	N/A	N/A	555
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Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	True	Normal	N/A	N/A	20
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False

1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False
1	I	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D,I	1
1	2	B,E	1
1	3	C,F	1
1	4	G	1
1	5	H,I	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,5,2,3	9,28,41,80,94		
1	2	1,2,4,5,3	0,20,38,57,77		
1	3	1,3,4,5,2	0,20,38,57,77		
1	4	1,4,5,3,2	0,20,39,59,77		
1	5	1,2,3,5,4	0,20,40,59,79		
1	6	1,3,2,4,5	0,21,40,59,79		
1	7	1,2,3,4,5	0,20,40,58,77		
1	8	1,5,2,3,4	0,19,39,59,77		
1	9	1,5,3,2,4	0,20,41,80,79		
1	10	1,3,5,2,4	0,20,39,59,77		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D,I	0	9	9	1	9
1	2	True	4	G	16	28	12	1	7
1	3	True	5	H,I	34	41	7	1	7
1	4	True	2	B,E	48	80	32	1	10
1	5	True	3	C,F	87	94	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	99	9	10
1	B	1	True	48	80	32
1	C	1	True	87	94	7
1	D	1	True	99	9	10
1	E	1	True	48	80	32
1	F	1	True	85	94	9
1	G	1	True	16	28	12
1	H	1	True	34	41	7
1	I	1	True	34	41	7
1	I	2	True	0	9	9

Intergreen Matrix for Controller Stream 1

To	A	B	C	D	E	F	G	H	I

	A	-	5	5	5	5	5	6
	B	5	-	7	5	5	5	6
	C	5	5	-	5	5	5	6
	D	5	5	-	5	5	5	6
From	E	5	5	5	-	5	5	6
	F	5	5	5	5	-	5	6
	G	5	5	5	5	5	-	6
	H	7	7	7	7	7	7	-
	I	7	7	7	7	7	7	-

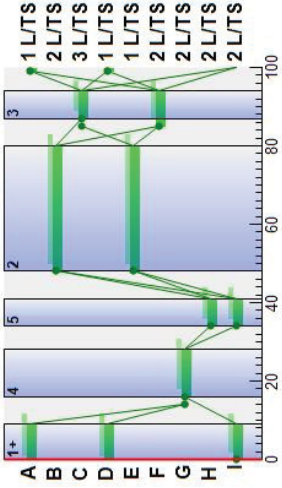
Interstage Matrix for Controller Stream 1

	To	1	2	3	4	5
	1	-	7	7	7	6
From	2	6	-	7	5	6
	3	6	5	-	5	6
	4	6	5	5	-	6
	5	7	7	7	7	-

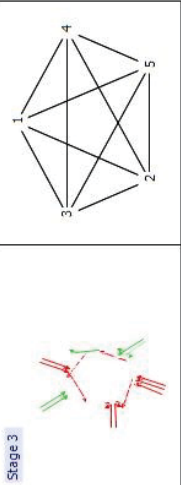
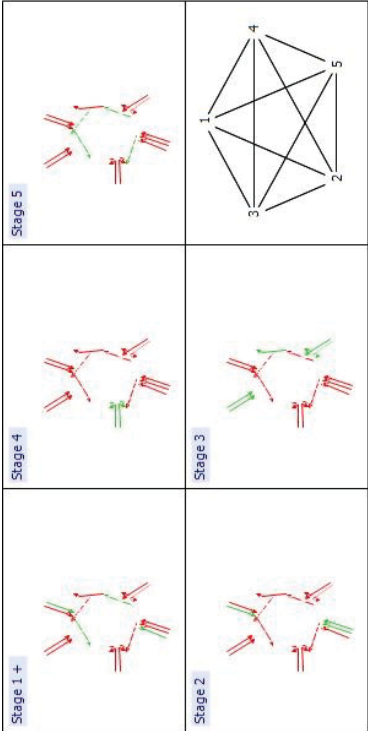
Banned Stage transitions for Controller Stream 1

	To	1	2	3	4	5
	1	-				
From	2		-			
	3			-		
	4				-	
	5					-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.45.36
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC21.114
Report generation date: 15/12/2010 8.46.06

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC21
Location	Verona
Site Number	21
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Queue Calculation	Max Queue Length (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time (s)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	101	101	0	0	100	1.00
2	269	269	0	0	100	1.00
1	157	157	0	0	100	1.00
1	34	34	0	0	100	1.00
1	285	285	0	0	100	1.00
1	130	130	0	0	100	1.00
1	20	20	0	0	100	1.00
2	10	10	0	0	100	1.00
1	419	419	0	0	100	1.00
2	557	557	0	0	100	1.00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted

1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/2	149	149	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	4	4	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	6/2	4	4	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	16	16	0	0	12.00	30.00	15.00	15.00
1	2	TrafficStream	N/A	1/2	269	269	0	0	12.00	30.00	15.00	15.00
1	1	TrafficStream	N/A	1/1	24	24	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/2	100	100	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	6/2	6	6	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	34	34	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	77	77	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	8/2	308	308	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Give Way Data

Traffic Stream	Opposed Traffic	Use Step-wise Opposed Turn Model	Number Of Storage Spaces	Radius Of Turn (m)	Visibility Restricted	Visibility Restricted By Link	Visibility Restricted By Traffic Stream
2	AllTraffic	True	0	5.00	False	N/A	N/A

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To			
	1	2	3
1	0	24.00000	77.00000
2	15.00000	0	34.00000
3	9.00000	6.00000	0
4	149.00000	100.00000	308.00000

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2	2/1	370	370	0	0	157	157	0	0
2		3/1	5/1	34	34	0	0	130	130	0	0

3		6/1,6/2	7/1	30	30	0	0	419	419	0	0
4		8/2	4/1	557	557	0	0	285	285	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	24
2		1/1,7/1	77
3		1/2,4/1	269
4		3/1,7/1	34
5		6/1,2/1	4
6		6/1,4/1	16
7		6/2,2/1	4
8		6/2,5/1	6
9		8/2,2/1	149
10		8/2,5/1	100
11		8/2,7/1	308

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	24
2	True	Normal	N/A	N/A	77
3	True	Normal	N/A	N/A	269
4	True	Normal	N/A	N/A	34
5	True	Normal	N/A	N/A	4
6	True	Normal	N/A	N/A	16
7	True	Normal	N/A	N/A	4
8	True	Normal	N/A	N/A	6
9	True	Normal	N/A	N/A	149
10	True	Normal	N/A	N/A	100
11	True	Normal	N/A	N/A	308

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid (s)	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	PhaseBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	21,75,90		
1	2	1,3,2	0,32,66		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	21	21	1	10
1	2	True	2	B,D	29	75	46	1	10
1	3	True	3	E	83	90	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	21	21
1	B	1	True	29	75	46
1	C	1	True	0	21	21
1	D	1	True	29	75	46
1	E	1	True	83	90	7

Intergreen Matrix for Controller Stream 1

	To				
--	----	--	--	--	--

	A	B	C	D	E
From	A	-	8	8	8
B	8	-	8	8	8
C	8	8	-	8	8
D	8	8	9	-	8
E	10	10	10	10	-

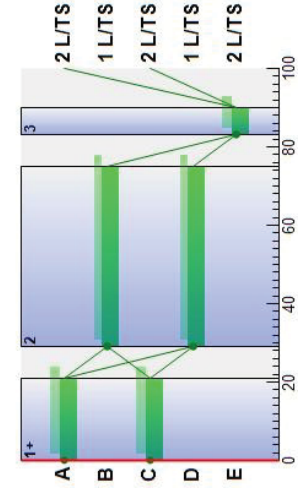
Interstage Matrix for Controller Stream 1

	To	1	2	3
From	1	-	8	8
2	9	-	8	8
3	10	10	-	-

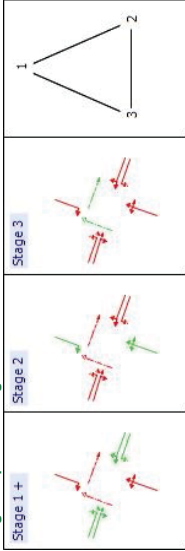
Banned Stage transitions for Controller Stream 1

	To	1	2	3
From	1	-	-	-
2	-	-	-	-
3	-	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



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Last run: 15/12/2010 9.05.51

Analysis Set used for last run: A1 - Ciclo base

File: C:\Documents and Settings\Utente\Documenti\Verona\SP22.114

Report generation date: 15/12/2010 9.06.33

- « A1 - Ciclo base
 - » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP22
Location	Verona
Site Number	22
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signal Based PRC	LTSWith Worst Unbased PRC	LTSWith Worst Signal Based PRC	LTSWith Worst Unbased PRC	Network Capacity Within
A1 - Ciclo base	15/12/2010 9.05.51	15/12/2010 9.05.51	08.00	100	19.45	83.33	6/1	0	0	6/1	3/1	6/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	A	False	(N/A)	False	
3	3			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	A	False	(N/A)	False	
4	4			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	A	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Stage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Coefficient	Normal Travel Time (seconds)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
4	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00
4	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile	Entry DIRECTFlows (PCU/hr)
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
4	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R887	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

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1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted		False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted		False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted		Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted		Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

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1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	0	0	0	0	100	1,00
2	100	100	0	0	100	1,00
2	220	220	0	0	100	1,00
1	300	300	0	0	100	1,00
1	200	200	0	0	100	1,00
2	150	150	0	0	100	1,00
1	20	0	20	0	100	1,00
1	360	360	20	0	100	1,00
1	380	360	20	0	100	1,00
1	200	200	0	0	100	1,00
2	20	0	20	0	100	1,00
1	340	340	0	0	100	1,00
1	210	210	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	2/2	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	170	150	20	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	60	60	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/2	50	50	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	4/1	100	100	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	8/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	3	TrafficStream	N/A	6/1	90	90	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	4	TrafficStream	N/A	4/2	150	150	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	2/2	60	60	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	1/2	50	50	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	4/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To				
	1	2	3	4	5
1	0	0	0	0	50.00000
2	0	0	100.00000	0	60.00000
3	0	150.00000	0	0	100.00000
4	0	90.00000	100.00000	0	150.00000
6	0	100.00000	100.00000	0	0
5	0	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To				
	1	2	3	4	5
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	20.00000
6	0	0	20.00000	0	0
5	0	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (pcU/hr)	Normal Flow In (pcU/hr)	Bus Flow In (pcU/hr)	Tram Flow In (pcU/hr)	Total Flow Out (pcU/hr)	Normal Flow Out (pcU/hr)	Bus Flow Out (pcU/hr)	Tram Flow Out (pcU/hr)
1		1/1,1/2		100	100	0	0	0	0	0	0
2		2/2	9/1	220	220	0	0	340	340	0	0
3		4/2,4/1	3/1	350	350	0	0	300	300	0	0
4		6/1	5/1	360	340	20	0	20	0	20	0
5			10/1	0	0	0	0	210	210	0	0
6		8/1,8/2	7/1	220	200	20	0	380	360	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,3/1	0
2		1/1,9/1	0
3		1/2,7/1	50
4		1/2,10/1	50
5		2/2,3/1	100
6		2/2,7/1	60
7		2/2,10/1	60

8		4/2,9/1	150
9		4/1,7/1	100
10		4/1,10/1	100
11		6/1,3/1	100
12		6/1,7/1	170
13		6/1,9/1	90
14		8/1,3/1	100
15		8/1,9/1	100
16		8/2,5/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	0
2	True	Normal	N/A	N/A	0
3	True	Normal	N/A	N/A	50
4	True	Normal	N/A	N/A	50
5	True	Normal	N/A	N/A	100
6	True	Normal	N/A	N/A	60
7	True	Normal	N/A	N/A	60
8	True	Normal	N/A	N/A	150
9	True	Normal	N/A	N/A	100
10	True	Normal	N/A	N/A	100
11	True	Normal	N/A	N/A	100
12	True	Normal	N/A	N/A	150
13	True	Normal	N/A	N/A	90
14	True	Normal	N/A	N/A	100
15	True	Normal	N/A	N/A	100
16	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	True	Normal	N/A	N/A	20
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0

4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative to	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1
1	3	C	1
1	4	DE	1
1	5	F	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,4,3,5	10,30,59,78,92		
1	2	1,4,3,2,5	0,19,38,57,77		
1	3	1,5,4,3,2	0,20,41,60,79		
1	4	1,4,3,5,2	0,19,38,58,79		
1	5	1,3,4,5,2	0,19,38,58,79		
1	6	1,3,2,4,5	0,19,38,57,77		
1	7	1,2,3,4,5	0,19,38,57,77		
1	8	1,5,2,4,3	0,20,41,60,79		
1	9	1,5,4,2,3	0,20,41,60,79		
1	10	1,5,3,4,2	0,20,41,60,79		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	10	10	1	10
1	2	True	2	B	16	30	14	1	10
1	3	True	4	DE	36	59	23	1	7
1	4	True	3	C	65	78	13	1	7
1	5	True	5	F	85	92	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	16	30	14
1	C	1	True	65	78	13
1	D	1	True	36	59	23
1	E	1	True	36	59	23
1	F	1	True	85	92	7

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	-	6	6	6	6	7
	B	6	-	6	6	6	7
	C	6	6	-	6	6	7
	D	6	6	6	-	7	
		E	6	6	6	-	7
		F	8	8	8	8	-

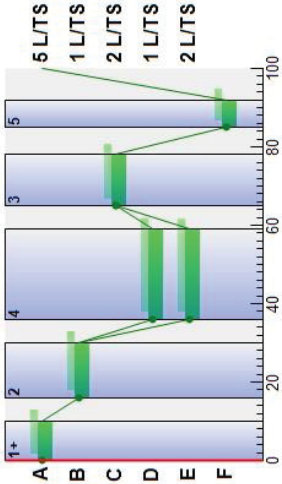
Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	-	6	6	6	7
	2	6	-	6	6	7
	3	6	6	-	6	7
	4	6	6	6	-	7
		5	8	8	8	-

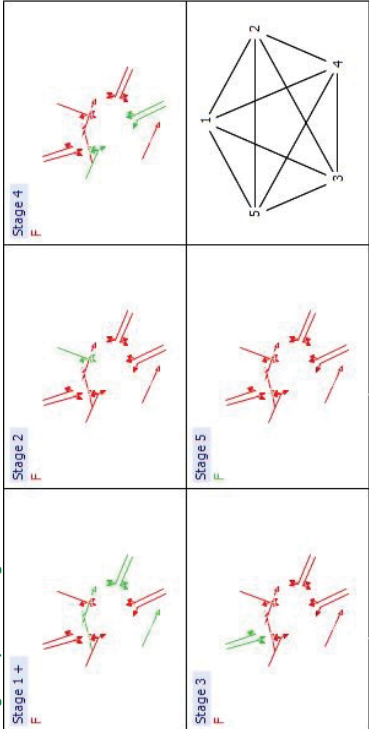
Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1	-				
	2		-			
	3			-		
	4				-	
		5				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 8.47.37
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC23.114
Report generation date: 15/12/2010 8.48.04

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC23
Location	Verona
Site Number	23
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTINENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Ciclo base	15/12/2010 8.47.37	15/12/2010 8.47.37	08.00	75	5.23	59.52	5/1	0	0	5/1	1/1	5/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	100	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGVI	Proportion OGVD	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGVI (kg)	Mean Weight OGVD (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

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A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	ECoefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (pCU/hr)	Cell Saturation Flow (pCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	F	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

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Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (pCU/hr)	Uniform Flow Name	Uniform Flow (into Link) (pCU/hr)	Upstream Flow (into Link) (pCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (pCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (pCU/hr)	Cell Saturation Flow (pCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
3	3			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (pCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

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1	1			False	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Waiting (%)	Delay Waiting (%)	Exclude From Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted		False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time (s)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted		Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	100	100	0	0	100	1,00

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1	75	75	0	0	100	1,00
2	25	25	0	0	100	1,00
1	350	350	0	0	100	1,00
1	150	150	0	0	100	1,00
1	200	200	0	0	100	1,00
1	100	100	0	0	100	1,00
1	50	50	0	0	100	1,00
2	250	250	0	0	100	1,00
3	100	100	0	0	100	1,00
1	0	0	0	0	100	1,00
1	0	0	0	0	100	1,00
2	0	0	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Source Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	50	50	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	11/1	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	50	50	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	250	250	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	11/2	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/3	100	100	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	11/2	0	0	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	2/1	50	50	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	5/1	50	50	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	25	25	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	2/1	25	25	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	5/1	0	0	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	0	0	0	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
From	1	2	3	4	5	
	1	0	0	0	0	0
	2	0	0	50.00000	50.00000	50.00000
	3	50.00000	100.00000	0.00000	50.00000	50.00000
	4	50.00000	250.00000	100.00000	0	0
	5	50.00000	250.00000	100.00000	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To				
From	1	2	3	4	5	
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	20.00000	0
	4	0.00000	0.00000	0.00000	0	0
	5	0	0	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1			1/1	0	0	0	0	100	100	0	0
2		2/1,2/2	3/1	100	100	0	0	350	350	0	0
3		5/1	4/1	200	200	0	0	150	150	0	0
4		8/3,8/2,8/1	6/1	400	400	0	0	100	100	0	0
5				0	0	0	0	0	0	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		2/1,4/1	50
2		2/1,6/1	25
3		2/2,6/1	25
4		5/1,1/1	50
5		5/1,3/1	100
6		5/1,6/1	50
7		8/3,4/1	100
8		8/2,3/1	250
9		8/1,1/1	50

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	50
2	True	Normal	N/A	N/A	25
3	True	Normal	N/A	N/A	25
4	True	Normal	N/A	N/A	50
5	True	Normal	N/A	N/A	100
6	True	Normal	N/A	N/A	50
7	True	Normal	N/A	N/A	100

8	True	Normal	N/A	N/A	250
9	True	Normal	N/A	N/A	50

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offset's And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,G	1
1	2	B,D,E	1
1	3	C,E	1
1	4	F,G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,2,4	10,30,55,68		
1	2	1,3,4,2	0,25,50,75		
1	3	1,2,4,3	0,25,50,75		
1	4	1,4,2,3	0,25,50,73		
1	5	1,2,3,4	0,25,48,73		
1	6	1,4,3,2	0,25,50,73		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,G	0	10	10	1	10
1	2	True	3	CE	17	30	13	1	7
1	3	True	2	B,D,E	35	55	20	1	10
1	4	True	4	F,G	62	68	6	1	6

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	35	55	20
1	C	1	True	17	30	13
1	D	1	True	35	55	20
1	E	1	True	17	55	38
1	F	1	True	61	68	7
1	G	1	True	62	10	23

Intergreen Matrix for Controller Stream 1

	To						
	A	B	C	D	E	F	G
From	A	-	6	6	5	7	
	B	6	-	5		6	7
	C	6	5	-	5	6	7
	D	6	5	-		6	6
	E	5			-	0	6
	F	7	7	7	7	-	
	G	7	7	7	7	-	

Interstage Matrix for Controller Stream 1

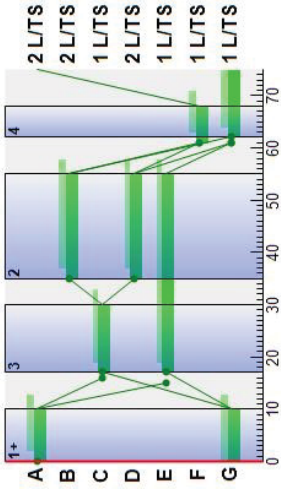
From	To			
	1	2	3	4
	1	-	7	7
	2	7	-	5
	3	7	5	-

Banned Stage transitions for Controller Stream 1

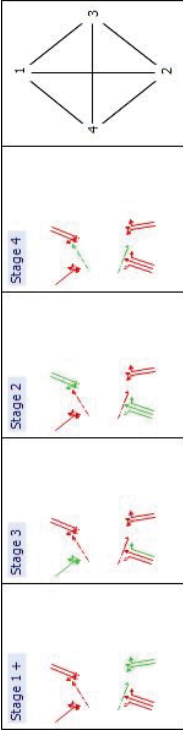
From	To			
	1	2	3	4
	1	-		

3					
4					

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSTYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.08.31
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP24.114
Report generation date: 15/12/2010 9.08.56

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP24
Location	Verona
Site Number	24
Driving Side	Right
Date	01/12/2010
Version	1
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

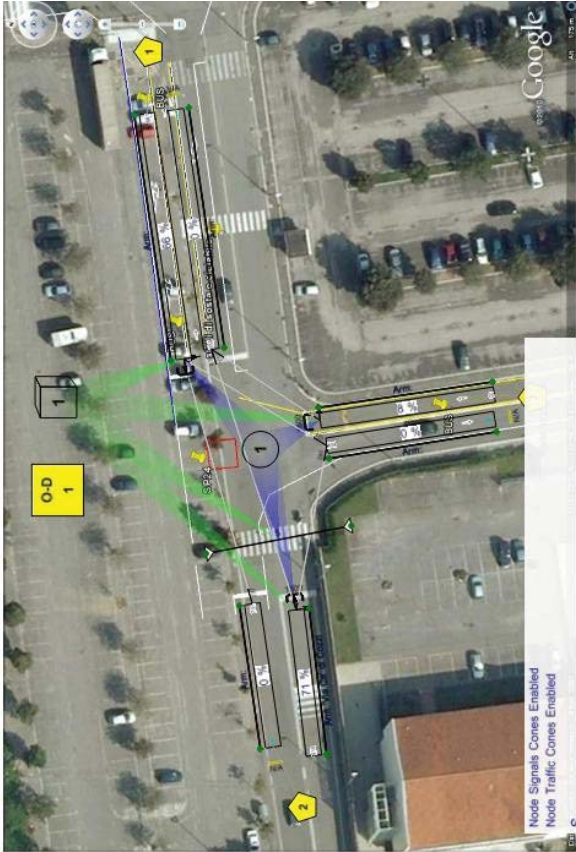
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.08.30	15/12/2010 9.08.31	08.00	75	4.63	70.91	2/1	0	0	2/1	10/1	2/1	True

Network Diagram



Cyclotime 0s / 75s Timesteps 0 / 75
Diagram produced using TNST 007 Netor Construction Editor

Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		06.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Spills
False	None	N/A	15,40 - 1,15,40,1 - 1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Mean Weight Car (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
361.33	4202.69	-49470.40	3829.06	N/A	ByWeights

PSV

A (x 10 ⁻¹ [2])	B (x 10 ⁻¹ [4])	C (x 10 ⁻¹ [7])	D (x 10 ⁻¹ [8])	E (x 10 ⁻¹ [9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Green Way	Pe
5	5			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
5	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Delay Type	Normal Delay Coefficient	Normal Travel Time Coefficient	Initial Queue Delay (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

5	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
5	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
5	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RT&T	Surface Condition	Site Quality Factor	Width (m)	Gradient (%)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Excess Capacity Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Coefficient	Initial Queue Storage (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
----------------	-----------------------------	------------------------------------	------------------------------	--------------------------------------	----------------------------	----------------------------	--------------------------------	------------------------	-----------------------------	---------------------

1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	861	861	0	0	100	1,00
1	919	919	0	0	100	1,00
1	20	0	20	0	100	1,00
1	404	404	0	0	100	1,00
1	659	639	20	0	100	1,00
1	737	737	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Stream	Source Traffic Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Traffic Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Speed (kph)	Tram Free Speed (kph)
1	1	TrafficStream	N/A	2/1	280	280	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	124	124	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	20	0	20	30,00	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	639	639	0	30,00	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	737	737	0	30,00	12,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To			
	1	2	3
From 1	0	737.00000	124.00000
2	639.00000	0	280.00000
3	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To	
----	--

5	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0.50
---	---------	------	------	------	---	---	----------------	------------------	----------------	------

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
5	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
5	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A) (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RT&T	Surface Condition	Site Quality Factor	Width (m)	Gradient (%)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Excess Capacity Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Coefficient	Initial Queue Storage (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
----------------	-----------------------------	------------------------------------	------------------------------	--------------------------------------	----------------------------	----------------------------	--------------------------------	------------------------	-----------------------------	---------------------

	1	2	3
From 1	0	0.00000	0.00000
2	0.00000	0	0.00000
3	20.00000	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (pCU/hr)	Normal Flow In (pCU/hr)	Bus Flow In (pCU/hr)	Tram Flow In (pCU/hr)	Total Flow Out (pCU/hr)	Normal Flow Out (pCU/hr)	Bus Flow Out (pCU/hr)	Tram Flow Out (pCU/hr)
1		1/1	5/1	861	861	0	0	659	639	20	0
2		2/1	10/1	919	919	0	0	737	737	0	0
3		3/1	4/1	20	0	20	0	404	404	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (pCU/hr)
1		1/1, 10/1	737
2		1/1 4/1	124
3		2/1 4/1	280
4		2/1 5/1	639
5		3/1 5/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (pCU/hr)	Calculated Flow (pCU/hr)
1	True	Normal	N/A	N/A	737
2	True	Normal	N/A	N/A	124
3	True	Normal	N/A	N/A	280
4	True	Normal	N/A	N/A	639
5	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (pCU/hr)	Calculated Flow (pCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (pCU/hr)	Calculated Flow (pCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
----	------	-------------	--------------------	---------------------------	------------------	--------------------	--------------	------------	-------------------	--------------------	--------------

	1		Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1
--	---	--	----------	------------	--------	---	------	---	-------	--------------------------	---

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	10	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,B	1
1	2	C,D	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	C	2	1	2	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2	53.67		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,B	0	53	53	1	10
1	2	True	2	C,D	59	67	8	1	8

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	53	53
1	B	1	True	0	53	53
1	C	1	True	59	69	10
1	D	1	True	59	67	8

Intergreen Matrix for Controller Stream 1

	To			
	A	B	C	D
From A	-	6	6	
B	-	6	6	
C	6	6	-	
D	8	8		-

Interstage Matrix for Controller Stream 1

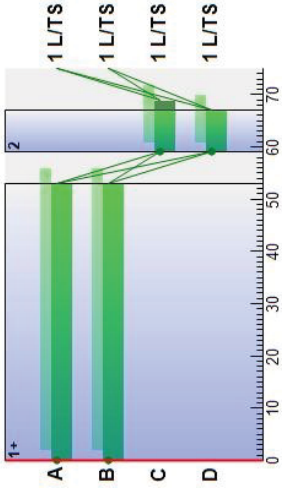
	To	
	1	2
From 1	-	6
2	8	-

Banned Stage transitions for Controller Stream 1

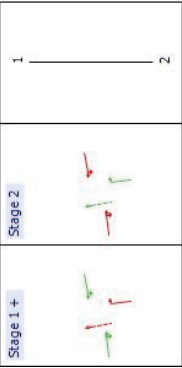
	To
	1 2

From	1	-	-
	2		

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.09.44
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP25.114
Report generation date: 15/12/2010 9.10.15

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description

Title	SP25
Location	Verona
Site Number	25
Driving Side	Right
Date	14/12/2010
Status	(new file)
Enumerator	ALDO-CONTINENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	I	False	(N/A)	False	
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	J	False	(N/A)	False	
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	K	False	(N/A)	False	
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	M	False	(N/A)	False	
5	5			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	L	False	(N/A)	False	

Link Modelling

Link	Stop Weighing (%)	Delay Weighing (%)	Exclude From Calculation	Max Queue Saturation	Has Queue Limit	Queue Saturation (PCU)	Excess Saturation Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

4	100	100	False	0.00	False	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
5	100	100	False	0.00	False	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
5	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1.00
2	10		0	10	100	100	1.00
3	10		0	10	100	100	1.00
4	10		0	10	100	100	1.00
5	10		0	10	100	100	1.00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
2	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
3	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
4	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
5	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	H	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False	(N/A)
3	3			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	184	184	0	0	100	1,00
1	222	222	0	0	100	1,00
1	919	919	0	0	100	1,00
2	0	0	0	0	100	1,00
1	852	852	0	0	100	1,00
1	552	552	0	0	100	1,00
2	100	100	0	0	100	1,00
1	603	603	0	0	100	1,00
1	97	97	0	0	100	1,00
2	0	0	0	0	100	1,00
3	223	223	0	0	100	1,00
1	398	398	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Traffic Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Traffic Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	7/3	37	37	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	5/2	100	100	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	85	85	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	7/3	186	186	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	92	92	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	574	574	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/2	0	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	5/1	298	298	0	12,00	30,00	15,00	Trams Not Permitted

1	3	TrafficStream	N/A	1/1	45	45	0	0	12,00	30,00	15,00	Trans Not Permitted
1	4	TrafficStream	N/A	3/1	260	260	0	0	12,00	30,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	7/2	0	0	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	7/1	97	97	0	0	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	5/1	254	254	0	0	12,00	30,00	15,00	Trans Not Permitted
1	4	TrafficStream	N/A	1/1	47	47	0	0	12,00	30,00	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
1	0	92.00000	45.00000	47.00000	
From 2	100.00000	298.00000	298.00000	254.00000	
3	37.00000	186.00000	0	97.00000	
4	85.00000	574.00000	260.00000	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	2/1	184	184	0	0	222	222	0	0
2		5/2,5/1	4/1	652	652	0	0	852	852	0	0
3		7/5,7/2,7/1	6/1	320	320	0	0	603	603	0	0
4		3/2,3/1	8/1	919	919	0	0	398	398	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,4/1	92
2		1/1,6/1	45
3		1/1,8/1	47
4		5/2,2/1	100
5		5/1,6/1	298
6		5/1,8/1	254
7		7/3,2/1	37
8		7/3,4/1	186
9		7/2,8/1	0
10		7/1,8/1	97
11		3/2,6/1	0
12		3/1,2/1	85
13		3/1,4/1	574
14		3/1,6/1	260

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
------	---------------------	-----------------	----------------	---------------------	--------------------------

1	True	Normal	N/A	N/A	92
2	True	Normal	N/A	N/A	45
3	True	Normal	N/A	N/A	47
4	True	Normal	N/A	N/A	100
5	True	Normal	N/A	N/A	298
6	True	Normal	N/A	N/A	254
7	True	Normal	N/A	N/A	37
8	True	Normal	N/A	N/A	186
9	False	Disabled	N/A	N/A	0
10	True	Normal	N/A	N/A	97
11	False	Disabled	N/A	N/A	0
12	True	Normal	N/A	N/A	85
13	True	Normal	N/A	N/A	574
14	True	Normal	N/A	N/A	260

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	True	Normal	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	True	Normal	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False
1	I	7	300	0	0	False
1	J	7	300	0	0	False
1	K	7	300	0	0	False
1	L	7	300	0	0	False
1	M	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	ABDGH	1
1	2	ABDJ	1
1	3	ABGHM	1
1	4	ABJM	1
1	5	ADGHL	1
1	6	ADJL	1
1	7	AGHLM	1
1	8	AJLM	1
1	9	BDEJ	1
1	10	CFHM	1
1	11	CJM	1
1	12	DEJL	1
1	13	DGHIL	1
1	14	DJJKL	1
1	15	FGHJM	1
1	16	FIKM	1
1	17	GHILM	1
1	18	IJKLM	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling	Stage IDs	Multiple Cycling	Stage Ends
1	1	1,10,12,14	37,54,76,92				
1	2	1,10,12,16	0,23,49,73				
1	3	1,10,16,12	0,23,49,75				
1	4	1,12,16,10	0,25,50,75				
1	5	1,12,16,11	0,25,50,75				
1	6	1,10,12,18	0,24,51,75				
1	7	1,10,14,9	0,23,49,73				
1	8	1,9,10,14	0,23,47,73				

1	9	1,9,10,18	0,23,47,73		
1	10	1,12,11,16	0,24,48,74		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	ABDGH	0	37	37	1	10
1	2	True	10	CFHM	44	54	10	1	7
1	3	True	12	DEJL	64	78	14	1	5
1	4	True	14	D,I,J,K,L	85	92	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	37	37
1	B	1	True	0	37	37
1	C	1	True	44	54	10
1	D	1	True	62	37	75
1	E	1	True	62	78	16
1	F	1	True	44	54	10
1	G	1	True	0	37	37
1	H	1	True	0	54	54
1	I	1	True	85	92	7
1	J	1	True	61	92	31
1	K	1	True	85	92	7
1	L	1	True	64	92	28
1	M	1	True	44	54	10

Intergreen Matrix for Controller Stream 1

To												
	A	B	C	D	E	F	G	H	I	J	K	L
A	-	6	6	6	6	8	8					
B	-	6		7	8	7	8					
C	8	8	-	7	7	7	10	8	7			
D		7	-	7						7		
E	7	7	-	7	7	7	7	7	7	7		
F	7	7	7	7	-					7	10	
G		7		7	-					7	7	
H				7			-			7	7	
I	8	8	8	8			-					
J		8	8	8	8	8	8		-			
K	8	8	8	8	8	8	8			-		
L	8	8		8		8					-	
M			8	8								-

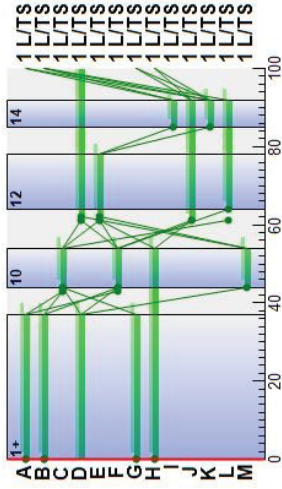
Interstage Matrix for Controller Stream 1

To			
	1	2	3
1	-	7	7
2	8	-	8
3	8	8	-
4	8	8	8

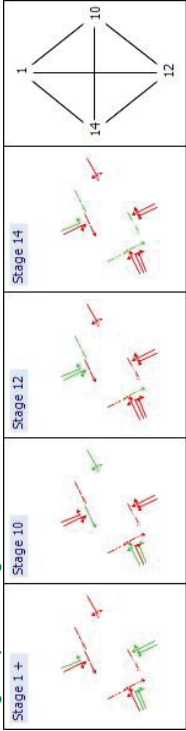
Banned Stage transitions for Controller Stream 1

From	To			
	1	2	3	4
1	-			
2		-		
3			-	
4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.11.25
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP26.t14
Report generation date: 15/12/2010 9.11.52

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP26
Location	Verona
Site Number	26
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

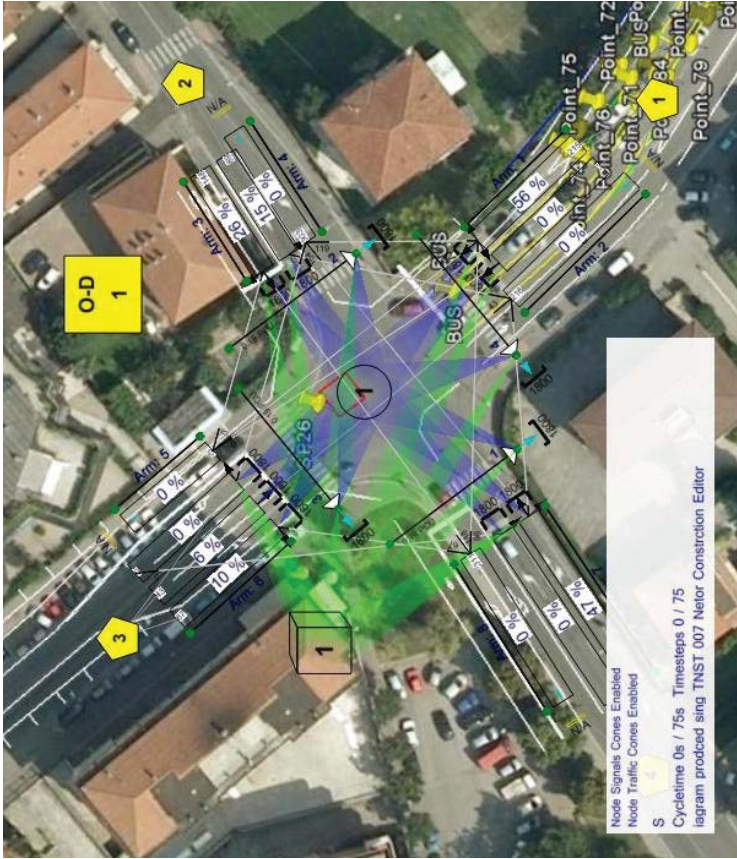
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.11.24	15/12/2010 9.11.25	08.00	75	5.75	55.99	1/1	0	1/1	2/1	1/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² (2))	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Split Splits
False	None	N/A	15.40,- 1.15,40,1,- 1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

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A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
4	4			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
4	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

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Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
4	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1.00
2	10		0	10	100	100	1.00
3	10		0	10	100	100	1.00
4	10		0	10	100	100	1.00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
2	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
3	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10
4	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
3	3			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

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[illegible]

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (%)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

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2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	215	215	0	0	100	100
2	0	0	0	0	100	100
1	216	216	0	0	100	100
1	148	148	0	0	100	100
2	89	89	0	0	100	100
1	303	303	0	0	100	100
1	0	0	0	0	100	100
1	67	67	0	0	100	100
2	43	43	0	0	100	100
3	0	0	0	0	100	100
1	268	268	0	0	100	100
2	0	0	0	0	100	100
1	311	311	0	0	100	100

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Train Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Train Free Running Speed (kph)
1	1	TrafficStream	N/A	7/1	84	84	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	2	TrafficStream	N/A	3/2	89	89	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	3	TrafficStream	N/A	6/2	43	43	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	1	TrafficStream	N/A	7/1	184	184	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	2	TrafficStream	N/A	1/1	119	119	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	3	TrafficStream	N/A	6/3	0	0	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted
1	1	TrafficStream	N/A	1/2	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15.00	Trains Not Permitted
1	2	TrafficStream	N/A	1/1	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15.00	Trains Not Permitted
1	3	TrafficStream	N/A	3/1	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15.00	Trains Not Permitted
3	1	TrafficStream	N/A	7/2	0	0	0	0	12.00	30.00	Buses Not Permitted	Trains Not Permitted

1	1	TrafficStream	N/A	1/1	96	96	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	3/1	148	148	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	6/1	67	67	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	119.00000	19.00000	96.00000
	2	89.00000	0	30.00000	148.00000
	3	43.00000	87.00000	0	67.00000
	4	84.00000	184.00000	27.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	20.00000	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2	2/1	215	215	0	0	216	216	0	0
2		3/2,3/1	4/1	237	237	0	0	303	303	0	0
3		6/1,6/2	6/3	110	110	0	0	0	0	0	0
4		7/2,7/1	8/1	268	268	0	0	311	311	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,4/1	119
2		1/1,8/1	96
3		3/2,2/1	89
4		3/1,8/1	148
5		6/1,8/1	67
6		6/2,2/1	43
7		7/1,2/1	84
8		7/1,4/1	184

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	119
2	True	Normal	N/A	N/A	96
3	True	Normal	N/A	N/A	89
4	True	Normal	N/A	N/A	148
5	True	Normal	N/A	N/A	67

6	True	Normal	N/A	N/A	43
7	True	Normal	N/A	N/A	84
8	True	Normal	N/A	N/A	184

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	7	300	0	0	False
1	B	7	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,E	1
1	2	B,D,E	1
1	3	C,F	1
1	4	G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,3,2	7,20,50,70		
1	2	1,3,2,4	0,24,48,73		
1	3	1,2,4,3	0,24,49,75		
1	4	1,4,2,3	0,25,51,75		
1	5	1,3,4,2	0,24,49,75		
1	6	1,2,3,4	0,24,48,73		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,E	0	7	7	1	7
1	2	True	4	G	13	20	7	1	7
1	3	True	3	CF	27	50	23	1	7
1	4	True	2	B,D,E	55	70	15	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	7	7
1	B	1	True	55	70	15
1	C	1	True	27	50	23
1	D	1	True	55	70	15
1	E	1	True	55	7	27
1	F	1	True	27	50	23
1	G	1	True	13	20	7

Intergreen Matrix for Controller Stream 1

	To						
	A	B	C	D	E	F	G
From	A	-	5	5	5	5	6
	B	5	-	5	5	5	6
	C	5	5	-	5	5	6
	D	5	5	5	-	5	6
	E	5	5	5	-	5	6
	F	5	5	5	5	-	6
	G	7	7	7	7	7	-

Interstage Matrix for Controller Stream 1

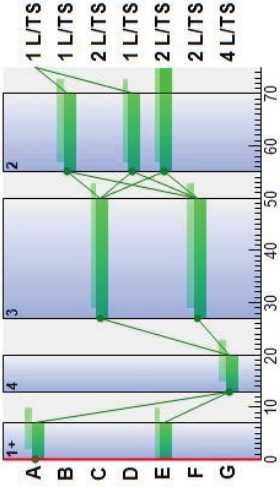
	To			
	1	2	3	4
From	1	-	5	6
	2	5	-	5
	3	5	5	-
	4	7	7	-

Banned Stage transitions for Controller Stream 1

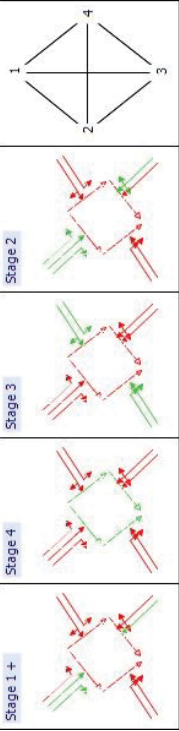
	To			
	1	2	3	4
From	1	-		
	2	-		
	3		-	



Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 10:15:28
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP27.114
Report generation date: 15/12/2010 10:16:09

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP27
Location	Verona
Site Number	27
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

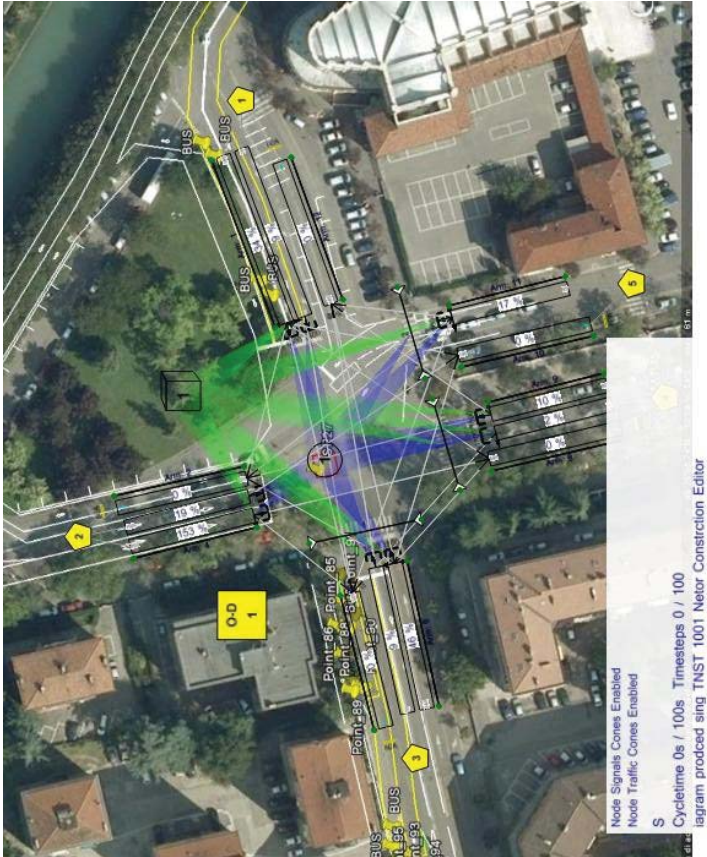
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	Network Within Capacity	
A1 - Ciclo base	15/12/2010 10:15:27	15/12/2010 10:15:28	08:00	100	154,04	153,26	4/1	1	6	4/1	2/1	4/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ /s2)	B (x 10 ⁴ /s4)	C (x 10 ⁴ /s7)	D (x 10 ⁴ /s8)	E (x 10 ⁴ /s9)	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	J	False	(N/A)	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	L	False	(N/A)	False
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	K	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Link (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	I	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	H	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	180	180	0	0	100	1,00
2	20	0	20	0	100	1,00
1	200	200	0	0	100	1,00
1	800	800	0	0	100	1,00
2	100	100	0	0	100	1,00
1	300	280	20	0	100	1,00
1	240	240	0	0	100	1,00
2	20	0	20	0	100	1,00
1	690	690	0	0	100	1,00
1	80	80	0	0	100	1,00
2	10	10	0	0	100	1,00
1	190	190	0	0	100	1,00
1	90	90	0	0	100	1,00
1	160	140	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Source Flow (PCU/hr)	Source Source Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	11/1	40	40	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	60	60	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	9/1	40	40	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	4	TrafficStream	N/A	1/1	60	60	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	4/1	200	200	0	0	12,00	30,00	15,00	15,00
1	2	TrafficStream	N/A	11/1	10	10	0	0	12,00	30,00	15,00	15,00

1	3	TrafficStream	N/A	1/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	1/1	60	60	0	0	12,00	30,00	15,00	Trams Not Permitted
1	5	TrafficStream	N/A	9/2	10	10	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	4/1	600	600	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	30	30	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	60	60	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	4/2	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	60	60	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	1/1	30	30	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	11/1	40	40	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	6/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	60	60	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	9/1	40	40	0	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		1	2	3	4	5
	1	0	60.00000	60.00000	30.00000	30.00000
	2	0	0	200.00000	600.00000	100.00000
From	3	60.00000	60.00000	0	60.00000	60.00000
	4	40.00000	40.00000	10.00000	0	0
	5	40.00000	40.00000	10.00000	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		1	2	3	4	5
	1	0	0	20.00000	0	0
	2	0	0	0	0	0
From	3	20.00000	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1/2,1/1	12/1	12/1	200	180	20	0	160	140	20	0
2	4/2,4/1	2/1	2/1	900	900	0	0	200	200	0	0
3	6/2,6/1	5/1	5/1	260	240	20	0	300	280	20	0
4	9/2,9/1	8/1	8/1	90	90	0	0	690	690	0	0



Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/2,5/1	20
2		1/1,2/1	60
3		1/1,5/1	60
4		1/1,8/1	30
5		1/1,10/1	30
6		4/2,10/1	100
7		4/1,5/1	200
8		4/1,8/1	600
9		6/2,12/1	20
10		6/1,2/1	60
11		6/1,8/1	60
12		6/1,10/1	60
13		6/1,12/1	60
14		9/2,5/1	10
15		9/1,2/1	40
16		9/1,12/1	40
17		11/1,2/1	40
18		11/1,5/1	10
19		11/1,12/1	40

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	60
3	True	Normal	N/A	N/A	60
4	True	Normal	N/A	N/A	30
5	True	Normal	N/A	N/A	30
6	True	Normal	N/A	N/A	100
7	True	Normal	N/A	N/A	200
8	True	Normal	N/A	N/A	600
9	False	Disabled	N/A	N/A	0
10	True	Normal	N/A	N/A	60
11	True	Normal	N/A	N/A	60
12	True	Normal	N/A	N/A	60
13	True	Normal	N/A	N/A	60
14	True	Normal	N/A	N/A	10
15	True	Normal	N/A	N/A	40
16	True	Normal	N/A	N/A	40
17	True	Normal	N/A	N/A	40
18	True	Normal	N/A	N/A	10
19	True	Normal	N/A	N/A	40

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0

6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	True	Normal	N/A	N/A	20
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0
18	False	Disabled	N/A	N/A	0
19	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0
17	False	Disabled	N/A	N/A	0
18	False	Disabled	N/A	N/A	0
19	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

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1	E	7	300	0	False
1	F	7	300	0	False
1	G	7	300	0	False
1	H	7	300	0	False
1	I	7	300	0	False
1	J	7	300	0	False
1	K	7	300	0	False
1	L	7	300	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A.F.K.L	1
1	2	A.J.L	1
1	3	B.G	1
1	4	C.D.E.H.I	1
1	5	C.D.I.L	1
1	6	D.H.J	1
1	7	D.J.L	1
1	8	E.H.K	1
1	9	H.J.K	1
1	10	J.K.L	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	A	1	3	3	N/A
1	2	Losing	F	1	3	3	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,7,4	7,43,57,93		
1	2	1,3,9,4	0,25,49,74		
1	3	1,3,6,4	0,25,49,74		
1	4	1,7,4,3	0,26,52,75		
1	5	1,4,10,3	0,25,49,74		
1	6	1,4,7,3	0,25,49,74		
1	7	1,4,9,3	0,25,49,74		
1	8	1,7,3,4	0,25,50,73		
1	9	1,6,3,4	0,25,50,73		
1	10	1,6,4,3	0,26,52,75		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A.F.K.L	0	7	7	1	7
1	2	True	3	B.G	15	43	28	1	10
1	3	True	7	D.J.L	50	57	7	1	7
1	4	True	4	C.D.E.H.I	65	93	28	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	98	10	12
1	B	1	True	15	43	28
1	C	1	True	65	93	28

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1	D	1	True	49	93	44
1	E	1	True	65	93	28
1	F	1	True	98	10	12
1	G	1	True	15	43	28
1	H	1	True	65	93	28
1	I	1	True	65	93	28
1	J	1	True	50	57	7
1	K	1	True	0	7	7
1	L	1	True	50	57	7
1	L	2	True	0	7	7

Intergreen Matrix for Controller Stream 1

To												
	A	B	C	D	E	F	G	H	I	J	K	L
A	-	5	5	5	5		5	5		6		
B	5	-	5	6	6	5		6	6	6	6	6
C	5	5	-		5	5				7	6	
D	5	5		-	5	5					6	
E	5	5			-	5	5			7		7
F	5	5	5	5	5	-	5	6	6	7		
G	5		5	5	5	5	-	5	5	7	7	
H	5	5					5	5	-			7
I		5					5	5		-	7	7
J	8	8	8		8	0		8			-	
K		8	8	8				8		8		-
L		8			8		8	8	8			-

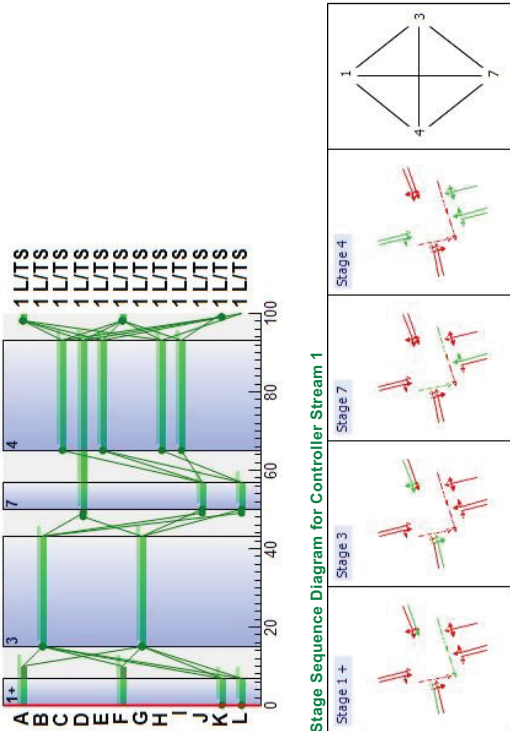
Interstage Matrix for Controller Stream 1

To				
	1	2	3	4
From 1	-	8	8	8
From 2	7	-	8	8
From 3	7	7	-	6
From 4	7	7	5	-

Banned Stage transitions for Controller Stream 1

To				
	1	2	3	4
From 1	-			
From 2		-		
From 3			-	
From 4				-

Link Timings Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.15.30
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona(SP28.114)
Report generation date: 15/12/2010 9.15.57

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP28
Location	Verona
Site Number	28
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	I Pedes
1	1			1	100,00	[(QuickPDM)]	True	1800	(N/A)	True	1	G	False	(N/A)	False	Tr
2	2			1	100,00	[(QuickPDM)]	True	1800	(N/A)	True	1	G	False	(N/A)	False	Tr
3	3			1	100,00	[(QuickPDM)]	True	1800	(N/A)	True	1	G	False	(N/A)	False	Tr

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Stage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	I Gi W
1	1			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)	Fal
2	2			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)	Fal
2	2			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)	Fal
2	2			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)	Fal
3	3			100,00	[(QuickPDM)]	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)	Fal

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

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1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1				False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted		False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	60	60	0	0	100	1.00
2	130	130	0	0	100	1.00

ALLEGATI: schemi piani di base semaforici

1	250	250	0	0	100	1.00
1	610	610	0	0	100	1.00
1	20	0	20	0	100	1.00
2	150	150	0	0	100	1.00
1	100	100	0	0	100	1.00
1	400	380	20	0	100	1.00
1	100	100	0	0	100	1.00
1	200	200	0	0	100	1.00
2	500	500	0	0	100	1.00
3	200	200	0	0	100	1.00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15.00	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
2	12.00	30.00	Buses Not Permitted	Trams Not Permitted
3	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Total Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	200	200	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	4/2	50	50	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	500	500	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	60	60	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	50	50	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/3	200	200	0	0	12.00	30.00	15.00	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	20	0	20	0	12.00	30.00	15.00	Trams Not Permitted
1	3	TrafficStream	N/A	4/2	100	100	0	0	12.00	30.00	15.00	Trams Not Permitted
1	4	TrafficStream	N/A	1/2	80	80	0	0	12.00	30.00	15.00	Trams Not Permitted
1	1	TrafficStream	N/A	1/2	50	50	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	5/1	50	50	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To			
	1	2	3
1	0	60.00000	80.00000
	1	0	50.00000

From	2	50.00000	0	100.00000	300.00000
3	50.00000	50.00000	0	50.00000	
4	200.00000	500.00000	200.00000	0	

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To			
	1	2	3	4
	1	0	0	0
From	2	0	0	20.00000
	3	0	0	0
	4	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,1/2	2/1	190	190	0	0	250	250	0	0
2		4/2,4/1	3/1	170	150	20	0	610	610	0	0
3		5/1	6/1	100	100	0	0	400	380	20	0
4		8/3,8/2,8/1	7/1	900	900	0	0	100	100	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,3/1	60
2		1/2,6/1	80
3		1/2,7/1	50
4		4/2,2/1	50
5		4/2,6/1	100
6		4/1,6/1	20
7		5/1,3/1	50
8		5/1,7/1	50
9		8/3,6/1	200
10		8/2,3/1	500
11		8/1,2/1	200

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	60
2	True	Normal	N/A	N/A	80
3	True	Normal	N/A	N/A	50
4	True	Normal	N/A	N/A	50
5	True	Normal	N/A	N/A	100
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	50
8	True	Normal	N/A	N/A	50
9	True	Normal	N/A	N/A	200
10	True	Normal	N/A	N/A	500
11	True	Normal	N/A	N/A	200

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0

2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	20
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid (s)	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	2

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,B,D	1
1	2	B,E	1
1	3	C	1
1	4	F	1
1	5	G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,5,2,4,3	19,32,53,65,78		
1	2	1,5,4,3,2	18,31,45,58,70		
1	3	1,2,5,4,3	0,19,39,60,79		
1	4	1,4,3,2,5	0,20,39,58,78		
1	5	1,5,4,2,3	0,20,41,60,79		
1	6	1,4,2,3,5	0,20,39,58,78		
1	7	1,5,2,3,4	0,20,41,60,79		
1	8	1,3,5,4,2	0,19,39,60,79		
1	9	1,5,3,4,2	0,20,41,60,79		
1	10	1,4,2,5,3	0,20,39,59,80		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,B,D	0	18	18	1	10
1	2	True	5	G	24	31	7	1	7
1	3	True	4	F	38	45	7	1	7
1	4	True	3	C	50	58	8	1	7
1	5	True	2	BE	63	70	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	18	18
1	B	1	True	63	18	30
1	C	1	True	50	58	8
1	D	1	True	0	18	18
1	E	1	True	63	70	7
1	F	1	True	38	45	7
1	G	1	True	24	31	7

Intergreen Matrix for Controller Stream 1

	To						
	A	B	C	D	E	F	G
From A	-	5	5	6	6		
From B	-	5		5	6		
From C	5	5	-	5	5	6	
From D	5	-	5	5	6		
From E	5	5	5	-	5	6	
From F	5	5	5	5	-	6	
From G	7	7	7	7	7	-	

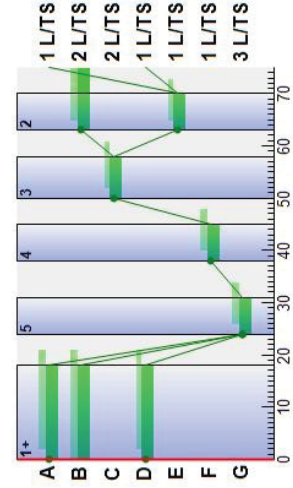
Interstage Matrix for Controller Stream 1

	To				
	1	2	3	4	5
From 1	-	5	5	6	6
From 2	5	-	5	5	6
From 3	5	5	-	5	6
From 4	5	5	5	-	6
From 5	7	7	7	7	-

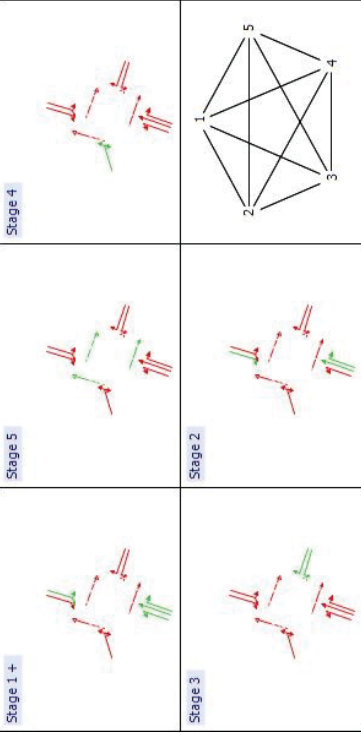
Banned Stage transitions for Controller Stream 1

	To				
	1	2	3	4	5
From 1	-				
From 2		-			
From 3			-		
From 4				-	
From 5					-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.20.19

Analysis Set used for last run: A1 - Ciclo base

File: C:\Documents and Settings\Utente\Documenti\Verona\SP29.t14

Report generation date: 15/12/2010 9:20.41

- » Summary
- » Network Diagram
- » Analysis and Demand Sets
- » Network Options
- » Traffic Nodes
- » Links
- » Traffic Streams
- » Flow Allocation Tool Tables
- » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings

No errors or warnings

File summary

File Description

Title	SP29
Location	Verona
Site Number	29
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/Luente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

-

Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R87	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Sensitivity Penalty (E)	Excess Queue Sensitivity Limit (%)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	200	200	0	0	100	1,00
2	0	0	0	0	100	1,00
1	70	50	20	0	100	1,00
1	100	100	0	0	100	1,00
1	200	200	0	0	100	1,00
1	20	0	20	0	100	1,00
1	100	100	0	0	100	1,00
2	50	50	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Normal Flow (PCU/hr)	Source Signal Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Signal Flow (PCU/hr)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	5/1	20	0	20	0	12,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	7/1	50	0	0	0	12,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	50	50	0	0	12,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	7/1	50	50	0	0	12,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	150	150	0	0	12,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	7/2	50	50	0	0	12,00	Buses Not Permitted	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	0	0	0
From 2	50.00000	0	50.00000	50.00000
3	150.00000	0	0	50.00000
4	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	0	20.00000	0
From 2	0	0	0	0
3	20.00000	0	0	0
4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		5/1	4/1	20	0	20	0	200	200	0	0
2		7/2,7/1		150	150	0	0	0	0	0	0
3		1/2,1/1	2/1	200	200	0	0	70	50	20	0
4			3/1	0	0	0	0	100	100	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		5/1,2/1	20
2		7/2,4/1	50
3		7/1,2/1	50
4		7/1,3/1	50
5		1/1,3/1	50
6		1/1,4/1	150

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	50
3	True	Normal	N/A	N/A	50
4	True	Normal	N/A	N/A	50
5	True	Normal	N/A	N/A	50
6	True	Normal	N/A	N/A	150

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,B,D	1
1	2	C	1
1	3	D,E	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	A	1	2	2	N/A

1	2	Losing	B	1	2	2	N/A
---	---	--------	---	---	---	---	-----

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	32,55,68		
1	2	1,3,2	0,33,67		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,B,D	0	32	32	1	8
1	2	True	2	C	39	55	16	1	7
1	3	True	3	D,E	61	68	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	34	34
1	B	1	True	0	34	34
1	C	1	True	39	55	16
1	D	1	True	61	32	46
1	E	1	True	61	68	7

Intergreen Matrix for Controller Stream 1

	To				
	A	B	C	D	E
From	A	-	5	6	
	B	-	5	6	
	C	5	-	6	6
	D	-	7	-	
	E	7	7	-	

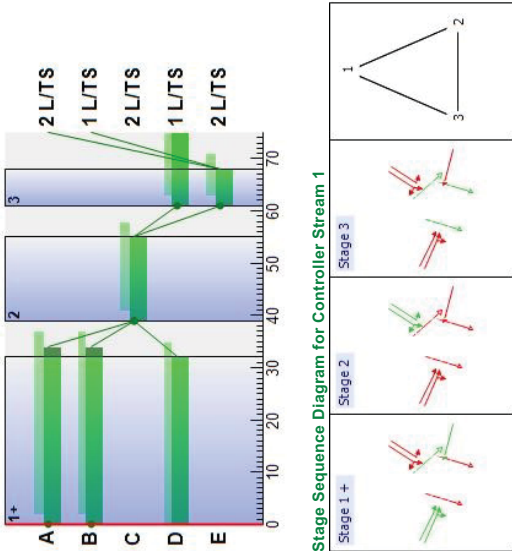
Interstage Matrix for Controller Stream 1

To			
1	2	3	
From	1	-	7
	2	6	-
	3	7	-

Banned Stage Transitions for Controller Stream 1

To			
1	2	3	
From	1	-	
	2	-	
	3		-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1

TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 8.49.05
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SC30.114
Report generation date: 15/12/2010 8.49.35

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SC30
Location	Verona
Site Number	30
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTIULente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

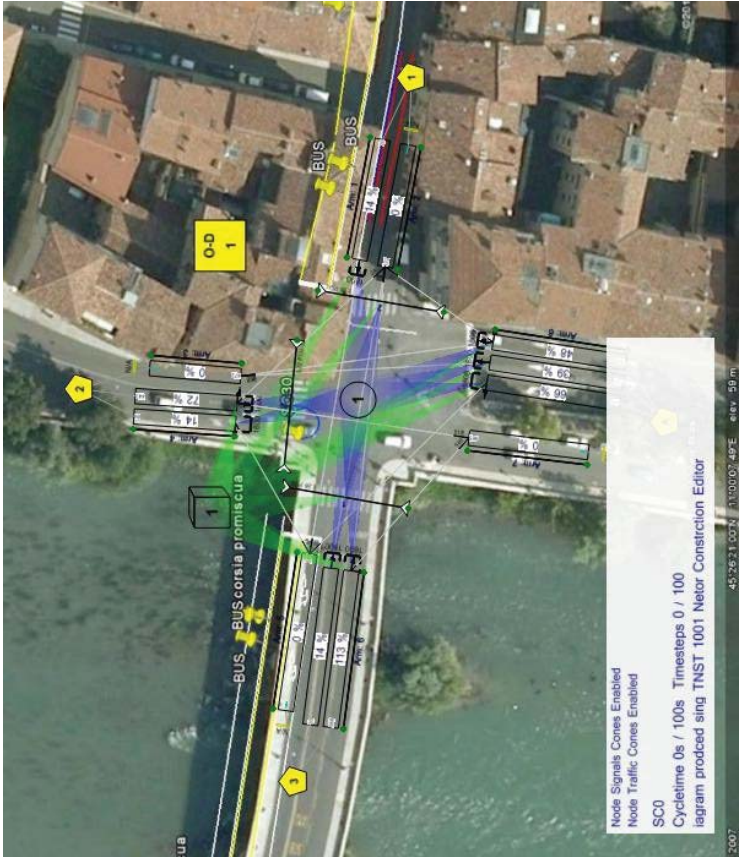
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	Network Within Capacity	
A1 - Ciclo base	15/12/2010 8.49.05	15/12/2010 8.49.05	08.00	100	54.90	112.70	6/1	1	7	6/1	2/1	6/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ^{-1/2})	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASStart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	False
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	H	False	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0.00	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	(35)	(80)	0.00	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	(35)	(80)	0.00	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
3	3			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	1	100	100	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
3	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
----------------	---------------------	----------------------	-------------------	--------------------	-----------------------------------	-------------------------------

1	20	0	20	0	100	1,00
1	122	102	20	0	100	1,00
1	472	472	0	0	100	1,00
1	84	84	0	0	100	1,00
2	443	443	0	0	100	1,00
1	510	490	20	0	100	1,00
1	568	568	0	0	100	1,00
2	20	0	20	0	100	1,00
1	965	965	0	0	100	1,00
1	292	292	0	0	100	1,00
2	236	236	0	0	100	1,00
3	406	406	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	56	56	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	6/2	20	20	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	22	22	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	4/2	24	24	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	236	236	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/1	236	236	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/3	406	406	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	84	84	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/1	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	6/1	546	546	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	4/2	419	419	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To
--	----

	1	2	3	4
From 1	0	0.00000	0.00000	0.00000
2	24.00000	0	84.00000	419.00000
3	22.00000	0	0	546.00000
4	56.00000	472.00000	406.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To				
From		1	2	3	4
	1	0	0	20.00000	0
	2	0	0	0	0
	3	20.00000	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	2/1	20	0	20	0	122	102	20	0
2		4/2,4/1	3/1	527	527	0	0	472	472	0	0
3		6/2,6/1	5/1	588	588	20	0	510	490	20	0
4		8/1,8/2,8/3	7/1	934	934	0	0	965	965	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	20
2		4/2,2/1	24
3		4/2,7/1	419
4		4/1,5/1	84
5		6/2,2/1	20
6		6/1,2/1	22
7		6/1,7/1	546
8		8/1,2/1	56
9		8/1,3/1	236
10		8/2,3/1	236
11		8/3,5/1	406

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	24
3	True	Normal	N/A	N/A	419
4	True	Normal	N/A	N/A	84
5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	22
7	True	Normal	N/A	N/A	546
8	True	Normal	N/A	N/A	56
9	True	Normal	N/A	N/A	236
10	True	Normal	N/A	N/A	236
11	True	Normal	N/A	N/A	406

Bus Path Flows

ALLEGATI: schemi piani di base semaforici

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,F	1
1	3	CE,H	1

ALLEGATI: schemi piani di base semaforici

1	4	FH	1
1	5	GH	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,5,2	33,46,60,94		
1	2	1,5,3,2	0,25,50,75		
1	3	1,2,3,5	0,24,49,74		
1	4	1,5,2,3	0,25,50,75		
1	5	1,3,2,5	0,25,50,75		
1	6	1,2,5,3	0,24,49,74		
1	7	1,3,4,5,2	0,21,41,55,76		
1	8	1,5,4,2,3	0,20,40,60,80		
1	9	1,2,3,4,5	0,20,41,61,75		
1	10	1,5,2,3,4	0,20,40,60,79		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	33	33	1	10
1	2	True	3	CE,H	40	46	6	1	6
1	3	True	5	GH	53	60	7	1	7
1	4	True	2	B,F	67	94	27	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	33	33
1	B	1	True	67	94	27
1	C	1	True	39	46	7
1	D	1	True	0	33	33
1	E	1	True	39	46	7
1	F	1	True	67	94	27
1	G	1	True	53	60	7
1	H	1	True	40	60	20

Intergreen Matrix for Controller Stream 1

		To							
		A	B	C	D	E	F	G	H
From	A	-	6	6	6	6	7	7	
	B	6	-	5	5	5	7	7	
	C	6	6	-	6	6	7		
	D	6	6	-	6	6	7	7	
	E	6	6	6	-	6	7		
	F	6	6	6	6	-	0		
	G	7	7	7	7	7	7	-	
	H	7	7	7	7				-

Interstage Matrix for Controller Stream 1

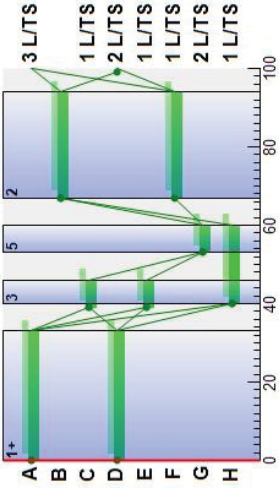
		To			
		1	2	3	4
From	1	-	6	7	7
	2	6	-	7	7
	3	7	7	-	6

	4	7	7	6	-
--	---	---	---	---	---

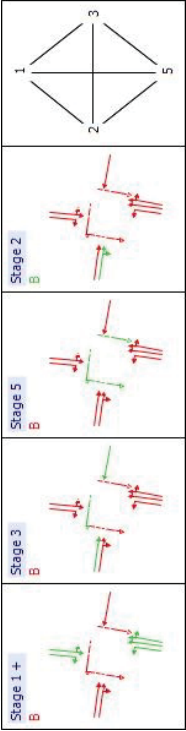
Banned Stage transitions for Controller Stream 1

		To			
		1	2	3	4
From	1	-	-	-	-
	2	-	-	-	-
	3	-	-	-	-
	4	-	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.21.24
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona(SP31.114
Report generation date: 15/12/2010 9.21.49

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP31
Location	Verona
Site Number	31
Driving Side	Right
Date	11/12/2010
Status	(new file)
Enumerator	ALDO-CONTINENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

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ALLEGATI: schemi piani di base semaforici

Link	Normal Dispersal Type	Normal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (into Link) (PCU/hr)	Upstream Flow (into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

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1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time (seconds)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	20	0	20	0	100	1.00
1	397	397	0	0	100	1.00
1	352	352	0	0	100	1.00
1	38	18	20	0	100	1.00
1	50	50	0	0	100	1.00
1	87	87	0	0	100	1.00
1	100	100	0	0	100	1.00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12.00	30.00	15.00	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	82	82	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	3/1	277	277	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/1	38	38	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	20	0	20	0	12.00	30.00	15.00	Trams Not Permitted
1	2	TrafficStream	N/A	8/1	18	18	0	0	12.00	30.00	15.00	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	75	75	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	5/1	12	12	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	0	85.00000	114.00000
	2	277.00000	0	49.00000	75.00000
	3	38.00000	0	0	12.00000
	4	82.00000	0	18.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	0	20.00000	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	2/1	20	0	20	0	397	397	0	0
2		3/1		352	352	0	0	0	0	0	0
3		5/1	4/1	50	50	0	0	38	18	20	0
4		8/1	7/1	100	100	0	0	87	87	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1 4/1	20
2		3/1 2/1	277
3		3/1 7/1	75
4		5/1 2/1	38
5		5/1 7/1	12
6		8/1 2/1	82
7		8/1 4/1	18

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	277
3	True	Normal	N/A	N/A	75
4	True	Normal	N/A	N/A	38
5	True	Normal	N/A	N/A	12
6	True	Normal	N/A	N/A	82
7	True	Normal	N/A	N/A	18

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20

2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	AC	1
1	2	BD	1
1	3	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	10.55.68		
1	2	1,3,2	0.33.67		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	AC	0	10	10	1	10
1	2	True	2	BD	15	55	40	1	10
1	3	True	3	E	61	68	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	15	55	40
1	C	1	True	0	10	10
1	D	1	True	15	55	40
1	E	1	True	61	68	7

Intergreen Matrix for Controller Stream 1

	To				
	A	B	C	D	E
From A	-	5	-	5	6
From B	5	-	5	-	6
From C	-	5	-	5	6
From D	5	-	5	-	6
From E	7	7	7	7	-

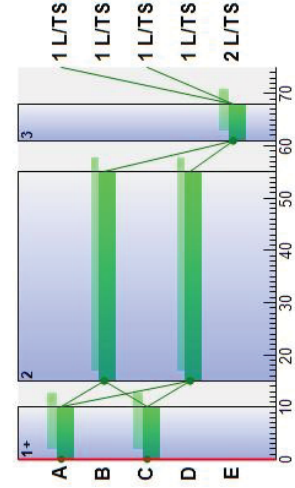
Interstage Matrix for Controller Stream 1

	To		
	1	2	3
From 1	-	5	6
From 2	5	-	6
From 3	7	7	-

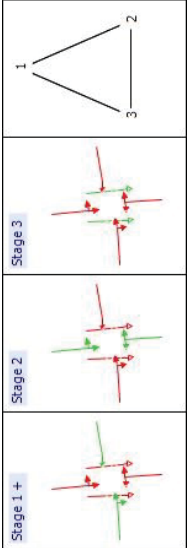
Banned Stage transitions for Controller Stream 1

	To		
	1	2	3
From 1	-	-	-
From 2	-	-	-
From 3	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.22.35
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP32.114
Report generation date: 15/12/2010 9.22.58

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP32
Location	Verona
Site Number	32
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 9.22.35	15/12/2010 9.22.35	08.00	100	5.73	81.65	0	0	5/1	3/1	5/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ 2)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

ALLEGATI: schemi piani di base semaforici

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
104,29				448,37				-491,30				217,81				N/A											

Car Diesel

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
48,10				645,03				-5775,90				454,16				N/A											

LGVPetrol

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
162,86				672,32				-7789,90				1052,13				N/A											

LGVDiesel

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
108,25				599,63				-4483,10				831,10				N/A											

OGV1

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
156,45				2600,98				-37830,60				3244,46				N/A											

OGV2

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				ECoefficient Mode				ByWeights			
361,33				4202,69				-49470,40				3828,06				N/A											

PSV

A (x 10 ⁴ [-2])				B (x 10 ⁴ [-4])				C (x 10 ⁴ [-7])				D (x 10 ⁴ [-8])				E (x 10 ⁴ [-8])				E Coefficient Mode				ByWeights			
411,56				3064,65				-42064,30				3652,63				N/A											

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	D	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
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ALLEGATI: schemi piani di base semaforici

1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Source Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR&T	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
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1	Normal Not Permitted	Normal Not Permitted	0,00	0	0	Not- Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	0,00	0	0	Not- Included	NetworkDefault	0,50
1	Default	35	80	0	0	Not- Included	NetworkDefault	0,50
1	Default	35	80	0	0	Not- Included	NetworkDefault	0,50
1	Default	35	80	0	0	Not- Included	NetworkDefault	0,50
1	Default	35	80	0	0	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	20	0	20	0	100	1,00
1	20	0	20	0	100	1,00
1	70	70	0	0	100	1,00
1	970	970	0	0	100	1,00
1	20	0	20	0	100	1,00
1	920	900	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Stream	Source Traffic Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Traffic Flow (PCU/hr)	Source Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	5/1	70	70	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	20	0	20	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	20	0	20	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	5/1	900	900	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To			
	1	2	3
From	1	0	900.00000
	2	0	0
	3	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To			
	1	2	3

From	1	0	20.00000	0
	2	20.00000	0	0
	3	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1,5/1	6/1	990	970	20	0	20	0	20	0
2		2/1	7/1	20	0	20	0	920	900	20	0
3			3/1	0	0	0	0	70	70	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,7/1	20
2		5/1,3/1	70
3		5/1,7/1	900
4		2/1,6/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	70
3	True	Normal	N/A	N/A	900
4	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy

1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B,C	1
1	3	D	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	65,80,93		
1	2	1,3,2	0,33,67		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	65	65	1	10
1	2	True	2	B,C	70	80	10	1	10
1	3	True	3	D	86	93	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	65	65
1	B	1	True	70	80	10
1	C	1	True	70	80	10
1	D	1	True	86	93	7

Intergreen Matrix for Controller Stream 1

To		A	B	C	D
From	A	-	5	5	6
	B	5	-	-	6
	C	5	-	-	6
	D	7	7	7	-

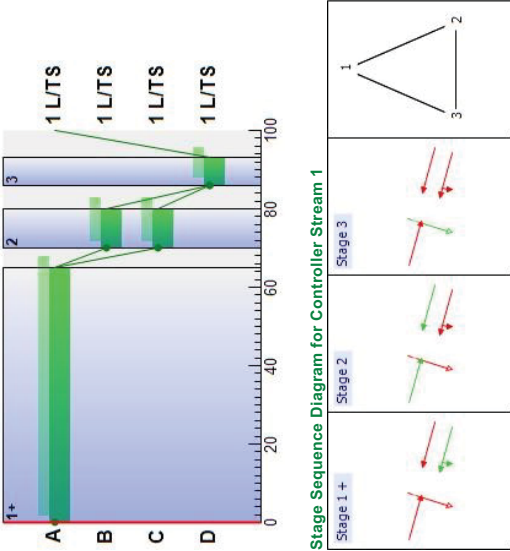
Interstage Matrix for Controller Stream 1

To		1	2	3
From	1	-	5	6
	2	5	-	6
	3	7	7	-

Banned Stage transitions for Controller Stream 1

To		1	2	3
From	1	-	-	-
	2	-	-	-
	3	-	-	-

Link Timings Diagram for Controller Stream 1



Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 8.50.52

Analysis Set used for last run: A1 - Ciclo base

File: C:\Documents and Settings\Utente\Documenti\Verona\SC33.t14

Report generation date: 15/12/2010 8.51.20

- » Summary
- » Network Diagram
- » Analysis and Demand Sets
- » Network Options
- » Traffic Nodes
- » Links
- » Traffic Streams
- » Flow Allocation Tool Tables
- » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings

No errors or warnings

File summary

File Description

Title	SC33
Location	Verona
Site Number	33
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTIliente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

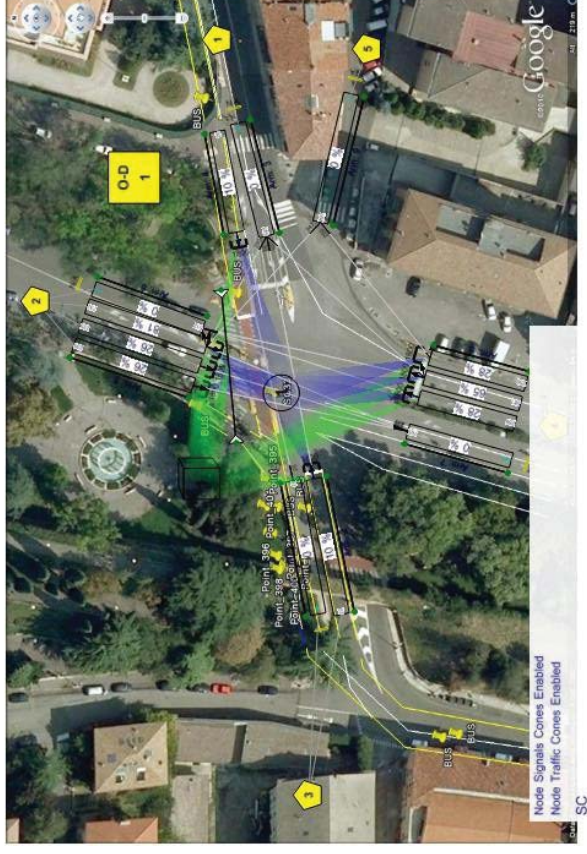
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (min)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signalized PRC	LTSWith Unsignalized PRC	LTSWith Worst Overall PRC	Network Within Capacity
A1 - Cido base	15/12/2010 8.50.51	15/12/2010 8.50.52	08.00	100	14.27	81.33	5/3	0	0	5/3	1/1	5/3	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include In Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Pedestrian Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

3	732	732	0	0	100	1,00
1	512	512	0	0	100	1,00
1	705	705	0	0	100	1,00
1	250	250	0	0	100	1,00
2	581	581	0	0	100	1,00
3	256	256	0	0	100	1,00
1	497	497	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	15,00	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
3	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Sources Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	4/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	5/3	250	250	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	8/2	325	325	0	0	12,00	30,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	8/2	256	256	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/3	256	256	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	5/1	235	235	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	5/2	235	235	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	5/3	235	235	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	5/3	247	247	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	8/1	250	250	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To					
	1	3	2	4	5
1	0	0	0	0	0
3	0.00000	0	0	0	0
2	250.00000	0	0	704.00000	247.00000
4	325.00000	0	511.00000	0	250.00000

5	0	0	0	0	0
---	---	---	---	---	---

Bus Input Flows (PCU/hour) for OD Matrix: 1

To					
	1	3	2	4	5
1	0	20.00000	0	0	0
3	20.00000	0	0	0	0
2	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		4/1	3/1	20	0	20	0	595	575	20	0
2		5/1,5/2,5/3	6/1	1202	1202	0	0	512	512	0	0
3		2/1	1/1	20	0	20	0	20	0	20	0
4		8/3,8/2,8/1	7/1	1087	1087	0	0	705	705	0	0
5			9/1	0	0	0	0	497	497	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		4/1,1/1	20
2		2/1,3/1	20
3		5/1,7/1	235
4		5/2,7/1	235
5		5/3,3/1	250
6		5/3,7/1	235
7		5/3,9/1	247
8		8/3,6/1	256
9		8/2,3/1	325
10		8/2,6/1	256
11		8/1,9/1	250

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	0
3	True	Normal	N/A	N/A	235
4	True	Normal	N/A	N/A	235
5	True	Normal	N/A	N/A	250
6	True	Normal	N/A	N/A	235
7	True	Normal	N/A	N/A	247
8	True	Normal	N/A	N/A	256
9	True	Normal	N/A	N/A	325
10	True	Normal	N/A	N/A	256
11	True	Normal	N/A	N/A	250

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20

2	True	Normal	N/A	N/A	20
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	10,66,90		
1	2	1,3,2	0,29,71		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	10	10	1	10
1	2	True	2	B,D	17	66	49	1	10
1	3	True	3	E	73	80	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	17	66	49
1	C	1	True	0	10	10
1	D	1	True	17	66	49
1	E	1	True	73	80	7

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
	A	-	7	-	7
	B	7	-	7	-
	C	7	-	7	-
	D	7	-	7	-
	E	20	20	20	-

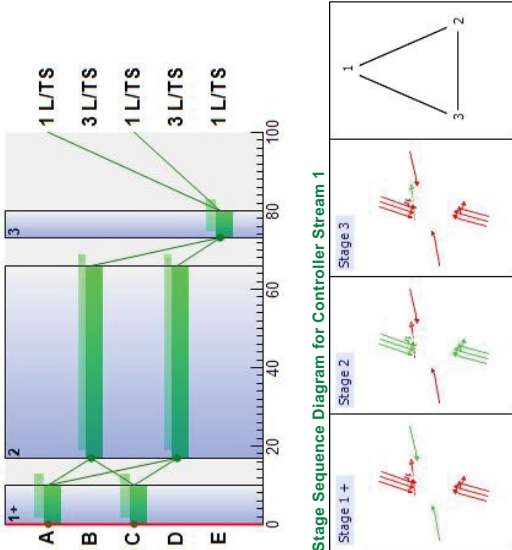
Interstage Matrix for Controller Stream 1

From	To		
	1	2	3
	1	-	7
	2	7	-
	3	20	20

Banned Stage transitions for Controller Stream 1

From	To		
	1	2	3
	1	-	-
	2	-	-
	3	-	-

Link Timings Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.24.08
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP34.114
Report generation date: 15/12/2010 9.24.24

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP34
Location	Verona
Site Number	34
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results Up to Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
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Ascending	Numerical	False	Normal	Normal
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Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:MM)	Cycle Time Used (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Unsignalised PRC	LTSWith Worst Overall PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.24.08	15/12/2010 9.24.08	08.00	75	5.39	83.33	2/1	0	0	1/1	2/1	True

Network Diagram



Cyclotime 0s / 75s. Timesteps 0 / 75
Diagram produced using TMS 007 Netor Construction Editor

Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:MM)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Speed Factor (%)	Cruise Speeds	Use Link Stop Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Speeds	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s ²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ ·s ²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	ShoGUN Number Of Turns	SACooling Temperature	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Spills
False	None	N/A	15,40,- 1,15,40,1,- 1,1	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14,20	2,60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Petrol (kg)	Mean Weight Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ ·L·2)	B (x 10 ⁴ ·L·4)	C (x 10 ⁴ ·L·7)	D (x 10 ⁴ ·L·8)	E (x 10 ⁴ ·L·9)	E Coefficient Mode
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104,29	448,37	-491,30	217,81	N/A	ByWeights
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Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108,25	589,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use RR67	Surface Condition	Site Quality Factor	Gradient	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800
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Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle in Service	Vehicle in Service	Type Of Random Parameter	Random Parameter
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	20	0	20	0	100	1,00
1	520	500	20	0	100	1,00
1	520	500	20	0	100	1,00
1	20	0	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	15,00	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	4/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	2/1	520	500	20	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To
	1
From 1	0
2	500,00000 0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To	
		1	2
From	1	0	20.00000
	2	20.00000	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		4/1	3/1	20	0	20	0	520	500	20	0
2		2/1	1/1	520	500	20	0	20	0	20	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		4/1, 1/1	20
2		2/1, 3/1	520

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	500

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative to	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
	1	A	10	300	0	False
	2	B	10	300	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
	1	A	1

1	2	B	1
---	---	---	---

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling	Stage IDs	Multiple Cycling	Stage Ends
1	1	1, 2	10,55				

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	10	10	1	10
1	2	True	2	B	30	55	25	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	30	55	25

Intergreen Matrix for Controller Stream 1

		To	
		A	B
From	A	-	20
	B	20	-

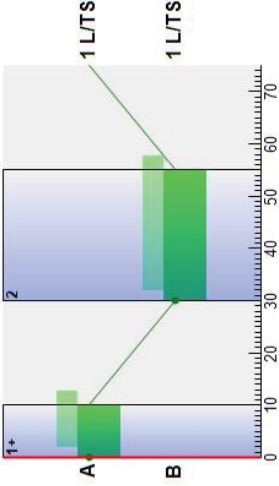
Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	-	20
	2	20	-

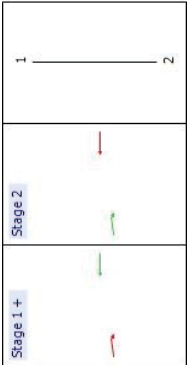
Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1	-	-
	2	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.26.34
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP35.114
Report generation date: 15/12/2010 9.27.00

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP35
Location	Verona
Site Number	25
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	ECoefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False	
3	3			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Stage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Saturation Flow (s)	Degree Of Saturation Limit (%)	Degree Of Saturation Penalty (s)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Coefficient	Normal Travel Time (seconds)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Entry Stationary Time (seconds)	Entry Free Running Speed (kph)	Entry Profile	Entry DIRECTFlows (PCU/hr)
1	10		0	10	100	100	(N/A)	FLAT	10
2	10		0	10	100	100	(N/A)	FLAT	10
3	10		0	10	100	100	(N/A)	FLAT	10

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	G	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use Rte7	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

ALLEGATI: schemi piani di base semaforici

1	1	False	N/A	N/A	N/A	N/A	N/A	1800
1	1	False	N/A	N/A	N/A	N/A	N/A	1800
1	1	False	N/A	N/A	N/A	N/A	N/A	1800
1	1	False	N/A	N/A	N/A	N/A	N/A	1800
1	1	False	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Limit Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Queue Time Coefficient	Initial PCU	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bay Flow (PCU/hr)	Turn Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	20	0	20	0	100	1.00
2	304	304	0	0	100	1.00
1	22	2	20	0	100	1.00
1	278	278	0	0	100	1.00

ALLEGATI: schemi piani di base semaforici

1	255	255	0	0	0	100	1.00
2	1	1	0	0	0	100	1.00
1	317	237	20	0	0	100	1.00
1	20	0	20	0	0	100	1.00
2	537	537	0	0	0	100	1.00
1	596	576	20	0	0	100	1.00
1	76	56	20	0	0	100	1.00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Trans Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15.00	Trans Not Permitted
2	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	12.00	30.00	Buses Not Permitted	Trans Not Permitted
2	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15.00	Trans Not Permitted
2	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	12.00	30.00	15.00	Trans Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source PC Flow (hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Trans Free Running Speed (kph)
1	1	TrafficStream	N/A	6/2	1	1	0	0	12.00	30.00	15.00	Trans Not Permitted
1	2	TrafficStream	N/A	4/2	1	1	0	0	12.00	30.00	15.00	Trans Not Permitted
1	3	TrafficStream	N/A	8/1	20	0	20	0	12.00	30.00	15.00	Trans Not Permitted
1	1	TrafficStream	N/A	6/2	191	191	0	0	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	8/1	23	23	0	0	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	1/2	64	64	0	0	12.00	30.00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	4/1	147	147	0	0	12.00	30.00	15.00	Trans Not Permitted
1	2	TrafficStream	N/A	8/1	33	33	0	0	12.00	30.00	15.00	Trans Not Permitted
1	3	TrafficStream	N/A	1/1	20	0	20	0	12.00	30.00	15.00	Trans Not Permitted
1	4	TrafficStream	N/A	1/2	117	117	0	0	12.00	30.00	15.00	Trans Not Permitted
1	1	TrafficStream	N/A	6/2	345	345	0	0	12.00	30.00	15.00	Trans Not Permitted
1	2	TrafficStream	N/A	4/1	108	108	0	0	12.00	30.00	15.00	Trans Not Permitted
1	3	TrafficStream	N/A	6/1	20	0	20	0	12.00	30.00	15.00	Trans Not Permitted
1	4	TrafficStream	N/A	1/2	123	123	0	0	12.00	30.00	15.00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

	To			
	1	2	3	4

ALLEGATI: schemi piani di base semaforici

	1	0	345.00000	1.00000	191.00000
From	2	33.00000	0	0	23.00000
	3	117.00000	123.00000	0	64.00000
	4	147.00000	108.00000	1.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	20.00000	0	0
	2	0	0	20.00000	0
	3	20.00000	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (pcU/hr)	Normal Flow In (pcU/hr)	Bus Flow In (pcU/hr)	Tram Flow In (pcU/hr)	Total Flow Out (pcU/hr)	Normal Flow Out (pcU/hr)	Bus Flow Out (pcU/hr)	Tram Flow Out (pcU/hr)
1		6/2.6/1	5/1	557	537	20	0	317	297	20	0
2		8/1	7/1	76	56	20	0	596	576	20	0
3		1/2.1/1	2/1	324	304	20	0	22	2	20	0
4		4/1.4/2	3/1	256	256	0	0	278	278	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		6/2.2/1	1
2		6/2.3/1	191
3		6/2.7/1	345
4		6/1.7/1	20
5		8/1.2/1	20
6		8/1.3/1	23
7		8/1.5/1	33
8		1/2.3/1	64
9		1/2.5/1	117
10		1/2.7/1	123
11		1/1.5/1	20
12		4/1.5/1	147
13		4/1.7/1	108
14		4/2.2/1	1

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	1
2	True	Normal	N/A	N/A	191
3	True	Normal	N/A	N/A	345
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	0
6	True	Normal	N/A	N/A	23
7	True	Normal	N/A	N/A	33
8	True	Normal	N/A	N/A	64
9	True	Normal	N/A	N/A	117
10	True	Normal	N/A	N/A	123
11	False	Disabled	N/A	N/A	0

ALLEGATI: schemi piani di base semaforici

12	True	Normal	N/A	N/A	147
13	True	Normal	N/A	N/A	108
14	True	Normal	N/A	N/A	1

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	20
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0
7	True	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	True	Normal	N/A	N/A	20
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
	1	A	10	300	0	False
	1	B	10	300	0	False
	1	C	7	300	0	False

1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	AD	1
1	2	BC	1
1	3	BE	1
1	4	FG	1
1	5	H	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,3,2,5	31,50,62,80,93		
1	2	1,5,4,3,2	0,20,41,60,79		
1	3	1,2,4,3,5	0,19,38,57,77		
1	4	1,5,2,4,3	0,20,41,60,79		
1	5	1,2,5,4,3	0,19,39,60,79		
1	6	1,5,2,3,4	0,20,41,60,79		
1	7	1,3,5,2,4	0,19,39,60,79		
1	8	1,3,2,5,4	0,19,38,58,79		
1	9	1,5,3,2,4	0,20,41,60,79		
1	10	1,4,5,2,3	0,19,39,60,79		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	31	31	1	10
1	2	True	4	F,G	36	50	14	1	7
1	3	True	3	B,E	55	62	7	1	7
1	4	True	2	B,C	67	80	13	1	7
1	5	True	5	H	86	93	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	31	31
1	B	1	True	55	80	25
1	C	1	True	67	80	13
1	D	1	True	0	31	31
1	E	1	True	55	62	7
1	F	1	True	36	50	14
1	G	1	True	36	50	14
1	H	1	True	86	93	7

Intergreen Matrix for Controller Stream 1

		To							
		A	B	C	D	E	F	G	H
	A	-	5	5	5	5	5	6	
	B	5	-	5	5	5	5	6	
	C	5	-	5	5	5	5	6	

From	D	5	5	-	5	5	5	6
E	5	5	5	-	5	0	6	
F	5	5	5	5	-	6		
G	5	5	5	5	5	-	6	
H	7	7	7	7	7	7	-	

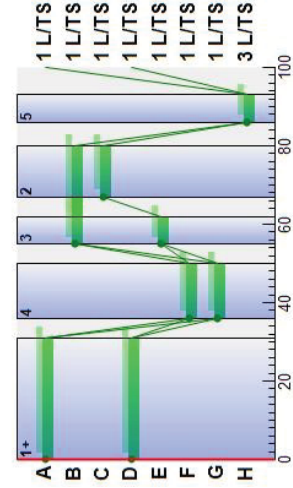
Interstage Matrix for Controller Stream 1

		To							
		1	2	3	4	5			
From	1	-	5	5	5	6			
	2	5	-	5	5	6			
	3	5	5	-	5	6			
	4	5	5	5	-	6			
	5	7	7	7	7	-			

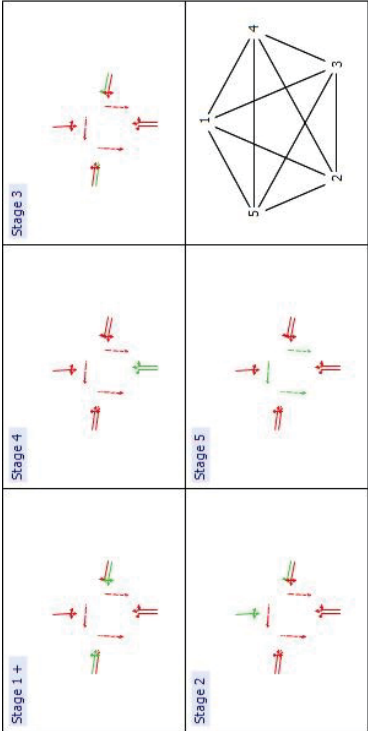
Banned Stage transitions for Controller Stream 1

		To							
		1	2	3	4	5			
From	1	-							
	2	3	-						
	3			-					
	4				-				
	5					-			

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.27.59
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP36.t14
Report generation date: 15/12/2010 9.28.29

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP36
Location	Verona
Site Number	36
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

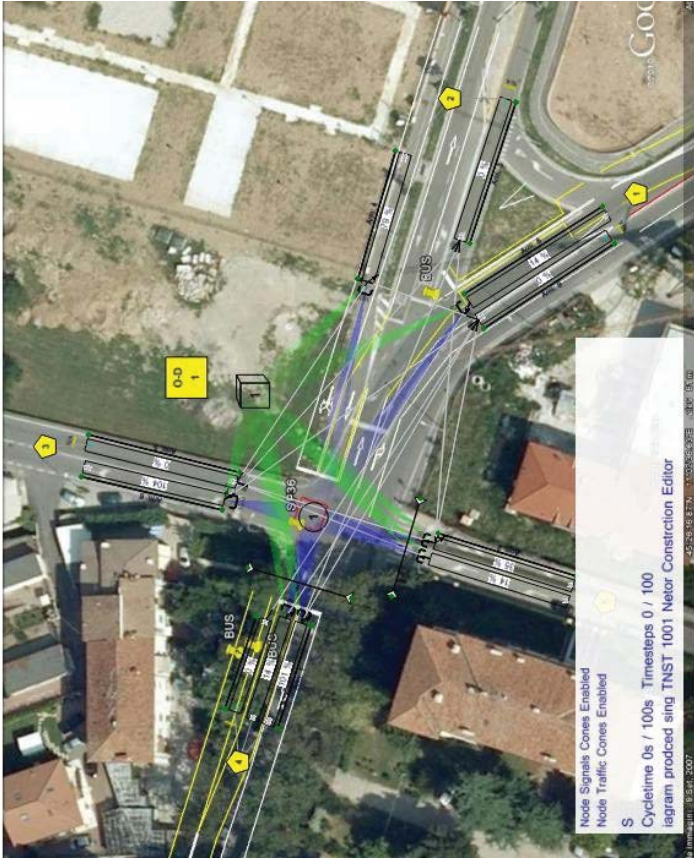
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Within Capacity
A1 - Cido base	15/12/2010 9.27.58	15/12/2010 9.27.59	08.00	100	31.42	104.17	2	15	6/1	3/1	6/1	False

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Split Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

Traffic Stream	Stop Weighing (%)	Delay Weighing (%)	Exclude From Queue Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	200	200	0	0	100	1,00
2	20	0	20	0	100	1,00
1	50	50	0	0	100	1,00
2	20	20	0	0	100	1,00
1	265	265	0	0	100	1,00
1	400	400	0	0	100	1,00
1	240	240	0	0	100	1,00
1	300	300	0	0	100	1,00
1	20	0	20	0	100	1,00
1	20	0	20	0	100	1,00

1	485	465	20	0	100	1,00
Traffic Stream Sources - default sources for entries						
Traffic Stream						
1	12,00	Normal Cruise Speed (kph)	30,00	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted
1	12,00	12,00	30,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted
2	12,00	12,00	30,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted
1	12,00	12,00	30,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted
1	12,00	12,00	30,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Buses Not Permitted	Trams Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	6/1	150	150	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	100	100	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	2/1	15	15	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	2/2	20	20	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	20	20	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	200	200	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	8/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	4/1	200	200	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	15	15	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	150	150	0	0	12,00	30,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	1/1	100	100	0	0	12,00	30,00	15,00	Trams Not Permitted
1	5	TrafficStream	N/A	1/2	20	0	20	0	12,00	30,00	15,00	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	200.00000	0	200.00000	0	0
	3	150.00000	150.00000	0	0	0
	4	100.00000	100.00000	0	0	0
	5	15.00000	15.00000	40.00000	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5

1	0	0	0	0	20.00000	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	20.00000	0	0	0	0	0
5	0	0	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		8/1	9/1	20	0	20	0	485	485	20	0
2		4/1	3/1	400	400	0	0	265	265	0	0
3		6/1	5/1	300	300	0	0	240	240	0	0
4		1/2,1/1	7/1	220	300	20	0	20	0	20	0
5		2/1,2/2		70	70	0	0	0	0	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		8/1,7/1	20
2		4/1,5/1	200
3		4/1,9/1	200
4		6/1,3/1	150
5		6/1,9/1	150
6		1/2,9/1	20
7		1/1,3/1	100
8		1/1,9/1	100
9		2/1,3/1	15
10		2/1,5/1	20
11		2/1,9/1	15
12		2/2,5/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	200
3	True	Normal	N/A	N/A	200
4	True	Normal	N/A	N/A	150
5	True	Normal	N/A	N/A	150
6	False	Disabled	N/A	N/A	0
7	True	Normal	N/A	N/A	100
8	True	Normal	N/A	N/A	100
9	True	Normal	N/A	N/A	15
10	True	Normal	N/A	N/A	20
11	True	Normal	N/A	N/A	15
12	True	Normal	N/A	N/A	20

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0

5	False	Disabled	N/A	N/A	0
6	True	Normal	N/A	N/A	20
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,G,H	1
1	2	B,C,H	1
1	3	C,F,G	1
1	4	D,G	1
1	5	E,H	1

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	A	1	5	2	N/A

Stage Sequences

Controller Stream	ID	Stage Index	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,5,3,4,2	25,40,55,75,95		
1	2	1,3,5,4,2	0,20,42,62,80		
1	3	1,4,2,3,5	0,20,38,58,80		
1	4	1,5,4,2,3	0,20,40,58,78		
1	5	1,5,3,2,4	0,20,40,62,82		
1	6	1,5,2,3,4	0,20,38,58,80		
1	7	1,3,5,2,4	0,20,42,60,80		
1	8	1,3,2,5,4	0,20,42,62,82		
1	9	1,3,4,2,5	0,20,42,60,80		
1	10	1,4,3,2,5	0,19,40,61,80		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,G,H	0	25	25	1	8
1	2	True	5	E,H	33	40	7	1	7
1	3	True	3	C,F,G	48	55	7	1	7
1	4	True	4	D,G	65	75	10	1	7
1	5	True	2	B,G,H	81	95	14	1	9

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	27	27
1	B	1	True	80	95	15
1	C	1	True	48	55	7
1	D	1	True	65	75	10
1	E	1	True	33	40	7
1	F	1	True	48	55	7
1	G	1	True	46	25	79
1	H	1	True	81	40	59

Intergreen Matrix for Controller Stream 1

	To							
	A	B	C	D	E	F	G	H
From	A	-	5	5	5	5	5	
	B	5	-	5	5	5	5	
	C	5	5	-	5	5		6
	D	5	5	5	-	5	10	6
	E	5	5	5	5	-	5	6
	F	5	10	10	10	-		10
	G					8	-	
	H					8	8	-

Interstage Matrix for Controller Stream 1

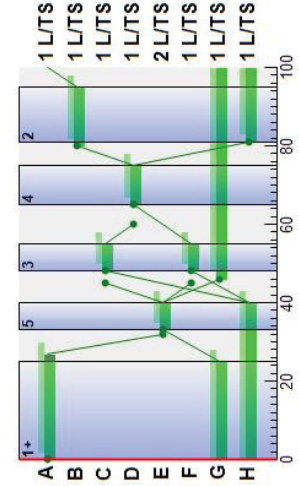
To				
1	2	3	4	5
1	-	5	8	8

From	2	5	-	8	8
	3	10	10	-	10
	4	6	6	10	-
	5	6	6	8	-

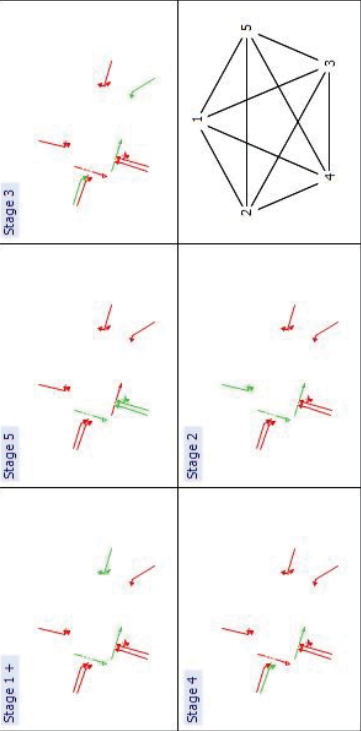
Banned Stage transitions for Controller Stream 1

	To				
	1	2	3	4	5
From	1	-			
	2		-		
	3			-	
	4				-
	5				

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRL

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	LTSWith Worst Overall PRC	Network Within Capacity
A1 - Ciclo base	20/12/2010 19.02.11	20/12/2010 19.02.11	08.00	75	1.53	18.37	5/1	0	0	5/1	2/1	5/1	True

Network Diagram

TRL

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	LTSWith Worst Overall PRC	Network Within Capacity
A1 - Ciclo base	20/12/2010 19.02.11	20/12/2010 19.02.11	08.00	75	1.53	18.37	5/1	0	0	5/1	2/1	5/1	True

Network Diagram

Analysis Sets

Name	Description	Demand Set	Include In Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75		1	75	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (£)	Phase Maximum Broken Penalty (£)	Intergreen Broken Penalty (£)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Times Or Speeds	Use Link Stop Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
Quick PDM	90	100	100	Cruise Speeds	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)1	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)1	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Sho'tun Number Of Runs	SASstart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Green Spits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCUhr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Year	2010 base figures (WebTAG data March 2010)	Description
2010	True			

Car Petrol

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
156.45	2800.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁻²)	B (x 10 ⁻⁴)	C (x 10 ⁻⁷)	D (x 10 ⁻⁸)	E (x 10 ⁻⁴)	ECoefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Is Pedes	Tr
1	1			1	100.00	(QuickPDM)	True	1800	(N/A)	True	1	F	False	(N/A)	False	False	Tr

Link Modelling

Link	Stop Waiting (%)	Delay Waiting (s)	Exclude From Calculation	Max Queue Space (PCU)	Has Queue Limit	Queue Length (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)



Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Reserved Flow	Saturation Flow Source	Saturation (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2	Cl	W
1	1			100,00	(QuickPDVI)	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)	Fal
1	1			100,00	(QuickPDVI)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	(QuickPDVI)	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)	Fal
1	1			100,00	(QuickPDVI)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	(QuickPDVI)	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)	Fal
2	2			100,00	(QuickPDVI)	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)	Fal
1	1			100,00	(QuickPDVI)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal
1	1			100,00	(QuickPDVI)	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)	Fal
1	1			100,00	(QuickPDVI)	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)	Fal

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R667	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Neoside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)



1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	1	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Default	35	80	0,00	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Default	35	80	0,00	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Default	35	80	0,00	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	2	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Default	35	80	0,00	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	1	Default	35	80	0,00	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	20	0	20	0	100	1,00
1	68	68	0	0	100	1,00
1	27	27	0	0	100	1,00
1	20	0	20	0	100	1,00
1	97	97	0	0	100	1,00
2	20	0	20	0	100	1,00
1	41	41	0	0	100	1,00
1	44	44	0	0	100	1,00
1	79	59	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (Kph)	Bus Free Running Speed (Kph)	Tram Free Running Speed (Kph)
1	1	TrafficStream	N/A	7/1	28	28	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	5/1	40	40	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	3/1	12	12	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	5/1	29	29	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	7/1	16	16	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	3/1	15	15	0	0	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	5/1	28	28	0	0	12,00	30,00	15,00	Trans Not Permitted
1	4	TrafficStream	N/A	5/2	20	0	20	0	12,00	30,00	15,00	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	0	0	0
From 2	15.00000	0	0	12.00000
3	28.00000	40.00000	0	29.00000
4	16.00000	28.00000	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
1	0	0	20.00000	0
From 2	0	0	0	0
3	20.00000	0	0	0
4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	8/1	20	0	20	0	79	59	20	0
2		3/1	2/1	27	27	0	0	68	68	0	0
3		5/2,5/1	4/1	117	97	20	0	20	0	20	0
4		7/1	6/1	44	44	0	0	41	41	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,4/1	20
2		3/1,6/1	12
3		3/1,8/1	15

4	5/2,8/1	20
5	5/1,2/1	40
6	5/1,6/1	29
7	5/1,8/1	28
8	7/1,2/1	28
9	7/1,8/1	16

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	12
3	True	Normal	N/A	N/A	15
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	40
6	True	Normal	N/A	N/A	29
7	True	Normal	N/A	N/A	28
8	True	Normal	N/A	N/A	28
9	True	Normal	N/A	N/A	16

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	20
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	True	Normal	N/A	N/A	20
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Spills	1



Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,E	1
1	3	D	1
1	4	F	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,4,3,2	10,24,53,70		
1	2	1,4,2,3	0,25,51,74		
1	3	1,3,4,2	0,23,48,74		
1	4	1,3,2,4	0,23,48,73		
1	5	1,2,4,3	0,24,48,73		
1	6	1,2,3,4	0,25,48,73		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	10	10	1	10
1	2	True	4	F	17	24	7	1	7
1	3	True	3	D	32	53	21	1	7
1	4	True	2	B,E	60	70	10	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	10	10
1	B	1	True	60	70	10
1	C	1	True	0	10	10
1	D	1	True	32	53	21
1	E	1	True	60	70	10
1	F	1	True	17	24	7

Intergreen Matrix for Controller Stream 1

	To					
	A	B	C	D	E	F
From A	-	5	5	5	7	
From B	5	-	5	5	7	
From C	7	7	-	5	7	7
From D	7	7	5	-	7	7
From E	5	5	5	5	-	7
From F	8	8	8	8	8	-

Interstage Matrix for Controller Stream 1

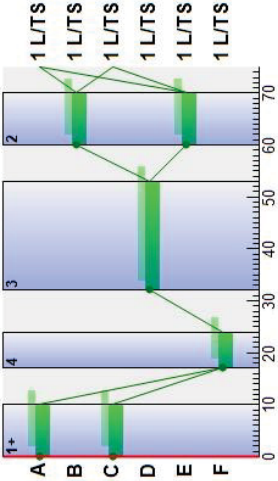


	To			
	1	2	3	4
From 1	-	7	5	7
From 2	5	-	5	7
From 3	7	7	-	7
From 4	8	8	8	-

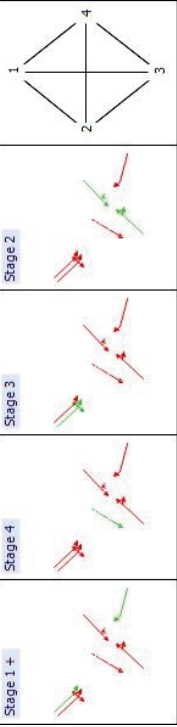
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
From 1	-			
From 2		-		
From 3			-	
From 4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.29.29
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP38.114
Report generation date: 15/12/2010 9.29.56

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP38
Location	Verona
Site Number	38
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTUENTE
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Signal Based PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Saturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.29.29	15/12/2010 9.29.29	08.00	100	12.47	71.90	2/1	0	0	2/1	4/1	2/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False
2	2			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Cell Saturation Limit (%)	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0.00	False	(N/A)	(N/A)	False	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40,-1.15;40.1,-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service Parameter	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00
2	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Coil Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
3	3			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (E)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (E)	Low Degree Of Saturation Penalty (E)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service Parameter	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	450	450	0	0	100	1,00
2	350	350	0	0	100	1,00
1	220	200	20	0	100	1,00
1	800	800	0	0	100	1,00
1	133	133	0	0	100	1,00
2	133	133	0	0	100	1,00
3	133	133	0	0	100	1,00
1	20	0	20	0	100	1,00
1	499	499	0	0	100	1,00
1	20	0	20	0	100	1,00

3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	45,66,80		
1	2	1,3,2	0,29,71		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	45	45	1	10
1	2	True	2	B,D	50	66	16	1	10
1	3	True	3	E	73	80	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	45	45
1	B	1	True	50	66	16
1	C	1	True	0	45	45
1	D	1	True	50	66	16
1	E	1	True	73	80	7

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
A	-	5	5	7	
B	5	-	5	7	
C	5	5	-	5	7
D	5	5	5	-	7
E	20	20	20	20	-

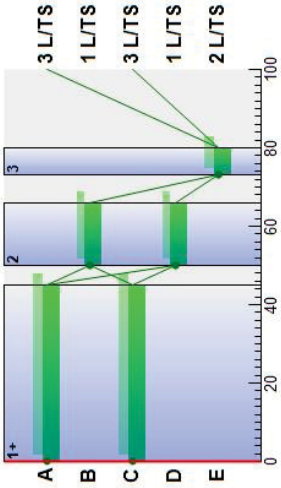
Interstage Matrix for Controller Stream 1

From	To		
	1	2	3
1	-	5	7
2	5	-	7
3	20	20	-

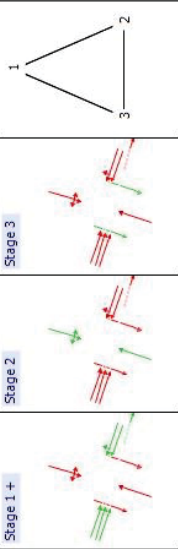
Banned Stage transitions for Controller Stream 1

From	To		
	1	2	3
1	-	-	-
2	-	-	-
3	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.31.01
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP39.114
Report generation date: 15/12/2010 9.31.26

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP39
Location	Verona
Site Number	39
Driving Side	Right
Date	13/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/Utente
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of LTS (%)	LTSWith Signalised PRC	LTSWith Unsaturated PRC	LTSWith Worst Unsaturated PRC	Network Within Capacity
A1 - Ciclo base	15/12/2010 9.31.01	15/12/2010 9.31.01	08.00	75	0.77	13.26	6/1	0	0	6/1	2/1	6/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Phase Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Displacement Type	Normal Displacement Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)
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Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In- Service	Vehicle-In- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	12	12	0	0	100	1,00
1	8	8	0	0	100	1,00
1	51	31	20	0	100	1,00
1	24	4	20	0	100	1,00
1	36	16	20	0	100	1,00
1	35	15	20	0	100	1,00
1	38	38	0	0	100	1,00
1	8	8	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)
1	12,00	30,00	Trams Not Permitted
1	12,00	30,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	8/1	0	0	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	4	4	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	6/1	2	2	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	8/1	2	2	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	2	2	0	0	12,00	30,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	8/1	1	1	0	0	12,00	30,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	6/1	21	1	20	0	12,00	30,00	15,00	Trams Not Permitted

1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R867	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

1	1	TrafficStream	N/A	1/1	3	3	0	0	12,00	30,00	15,00	Trans Not Permitted
1	2	TrafficStream	N/A	8/1	5	5	0	0	12,00	30,00	15,00	Trans Not Permitted
1	3	TrafficStream	N/A	3/1	28	8	20	0	12,00	30,00	15,00	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	7	7	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	3/1	19	19	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	6/1	12	12	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	3/1	0	0	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	8.00000	19.00000	4.00000
	2	1.00000	0	12.00000	2.00000
	3	1.00000	5.00000	0	2.00000
	4	2.00000	3.00000	7.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
From	1	0	20.00000	0	0
	2	20.00000	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		3/1,3/1	4/1	51	31	20	0	24	4	20	0
2		6/1	5/1	35	15	20	0	36	16	20	0
3		8/1	7/1	8	8	0	0	38	38	0	0
4		1/1	2/1	12	12	0	0	8	8	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		3/1,2/1	4
2		3/1,5/1	28
3		3/1,7/1	19
4		6/1,2/1	2
5		6/1,4/1	21
6		6/1,7/1	12
7		8/1,2/1	2
8		8/1,4/1	1
9		8/1,5/1	5

10	1/1,4/1	2
11	1/1,5/1	3
12	1/1,7/1	7

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	4
2	True	Normal	N/A	N/A	8
3	True	Normal	N/A	N/A	19
4	True	Normal	N/A	N/A	2
5	True	Normal	N/A	N/A	1
6	True	Normal	N/A	N/A	12
7	True	Normal	N/A	N/A	2
8	True	Normal	N/A	N/A	1
9	True	Normal	N/A	N/A	5
10	True	Normal	N/A	N/A	2
11	True	Normal	N/A	N/A	3
12	True	Normal	N/A	N/A	7

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	True	Normal	N/A	N/A	20
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	True	Normal	N/A	N/A	20
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1
1	3	C	1
1	4	D	1
1	5	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,5,3,4,2	16,29,43,55,70		
1	2	1,5,4,2,3	0,20,41,60,79		
1	3	1,4,2,3,5	0,19,38,57,77		
1	4	1,3,5,4,2	0,19,39,60,79		
1	5	1,3,5,2,4	0,19,39,60,79		
1	6	1,5,2,3,4	0,20,41,60,79		
1	7	1,5,3,2,4	0,20,41,60,79		
1	8	1,3,4,2,5	0,19,38,57,77		
1	9	1,4,3,2,5	0,19,38,57,77		
1	10	1,2,4,3,5	0,19,38,57,77		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A	0	16	16	1	10
1	2	True	5	E	22	29	7	1	7
1	3	True	3	C	36	43	7	1	7
1	4	True	4	D	48	55	7	1	7
1	5	True	2	B	60	70	10	1	10

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	16	16
1	B	1	True	60	70	10
1	C	1	True	36	43	7
1	D	1	True	48	55	7
1	E	1	True	22	29	7

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
	A	-	5	5	6
	B	5	-	5	5
	C	5	5	-	5
	D	5	5	5	-
E	7	7	7	7	-

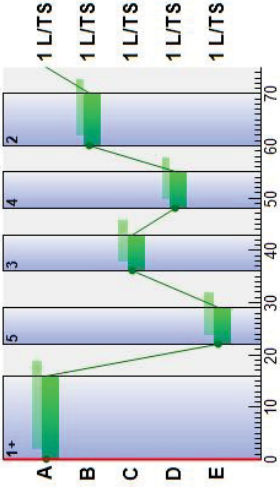
Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
	1	-	5	5	6
	2	5	-	5	5
	3	5	5	-	5
	4	5	5	5	-
5	7	7	7	7	-

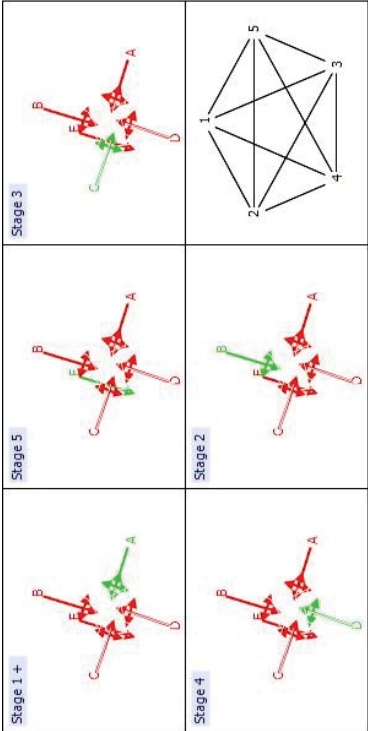
Banned Stage transitions for Controller Stream 1

From	To				
	1	2	3	4	5
	1	-			
	2		-		
	3			-	
	4				-
5					-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.32.18
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona(SP40.114
Report generation date: 15/12/2010 9.32.46

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP40
Location	Verona
Site Number	40
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTINUENTE
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

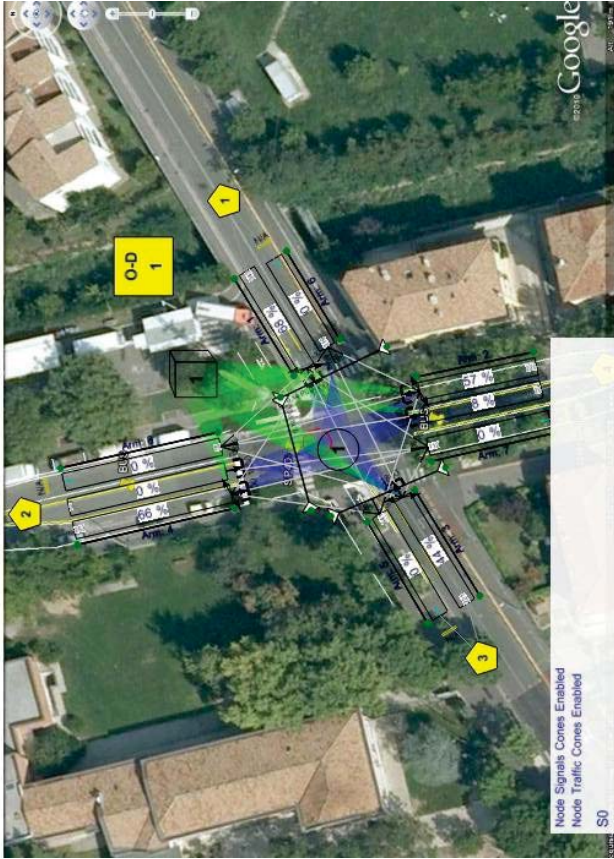
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsaturated PRC	LTSWith Worst Signalised PRC	Network Capacity Within
A1 - Cido base	15/12/2010 9.32.17	15/12/2010 9.32.18	08.00	75	9.40	68.06	1/1	0	1/1	5/1	1/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻² [2])	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SACooling Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
104,29	448,37	-491,30	217,81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
48,10	645,03	-5775,90	454,16	N/A	ByWeights

LGVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
162,86	672,32	-7789,90	1052,13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
108,25	599,63	-4483,10	831,10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
156,45	2600,98	-37830,60	3244,46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
361,33	4202,69	-49470,40	3828,06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-8])	E Coefficient Mode
411,56	3064,65	-42064,30	3652,63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2	Is Give Way	Pe
1	1			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
2	2			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False	
3	3			1	100,00	NetworkDefault	True	1800	(N/A)	True	1	H	False	(N/A)	False	

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Stage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
3	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Coefficient	Normal Travel Time (seconds)	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
2	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50
3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0,50

Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Entry Stationary Time (seconds)	Entry Free Running Speed (kph)	Entry Profile	Entry DIRECTFlows (PCU/hr)
1	10		0	10	100		(N/A)	FLAT	10
2	10		0	10	100		(N/A)	FLAT	10
3	10		0	10	100		(N/A)	FLAT	10

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile	Entry DIRECTFlows (PCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
2	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False	(N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False	(N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R87	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1		False	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dismissal Type	Normal Dismissal Coefficient	Normal Travel Coefficient	Initial Queue Length (PCU)	Point1 Time To Stop (s)	Point2 Time To Stop (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	343	343	0	0	100	1.00
1	220	220	0	0	100	1.00
2	20	0	20	0	100	1.00
1	221	221	0	0	100	1.00
1	253	253	0	0	100	1.00
2	0	0	0	0	100	1.00
1	641	641	0	0	100	1.00
1	219	219	0	0	100	1.00
1	112	112	0	0	100	1.00

1	85	65	20	0	100	1.00
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Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12.00	30.00	Buses Not Permitted	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15.00	15.00	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Buses Not Permitted	Trams Not Permitted
1	12.00	30.00	Buses Not Permitted	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15.00	15.00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	296	296	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	176	176	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	2/1	169	169	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	129	129	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	38	38	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	52	52	0	0	12.00	30.00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	28	28	0	0	12.00	30.00	15.00	15.00
1	2	TrafficStream	N/A	4/1	25	25	0	0	12.00	30.00	15.00	15.00
1	3	TrafficStream	N/A	3/1	59	59	0	0	12.00	30.00	15.00	15.00
1	4	TrafficStream	N/A	4/2	0	0	0	0	12.00	30.00	15.00	15.00
1	1	TrafficStream	N/A	3/1	33	33	0	0	12.00	30.00	15.00	15.00
1	2	TrafficStream	N/A	2/2	20	0	20	0	12.00	30.00	15.00	15.00
1	3	TrafficStream	N/A	1/1	19	19	0	0	12.00	30.00	15.00	15.00
1	4	TrafficStream	N/A	2/1	13	13	0	0	12.00	30.00	15.00	15.00

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	19.00000	296.00000	28.00000
2	52.00000	0	176.00000	25.00000
3	129.00000	33.00000	0	59.00000
4	38.00000	13.00000	169.00000	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

To				
	1	2	3	4
From 1	0	19.00000	296.00000	28.00000
2	52.00000	0	176.00000	25.00000
3	129.00000	33.00000	0	59.00000
4	38.00000	13.00000	169.00000	0

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	1	2	3	4
From	1	0	0	0.00000
	2	0	0	20.00000
	3	0	0	0
	4	0	20.00000	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	6/1	343	343	0	0	219	219	0	0
2		4/1	8/1	253	253	0	0	85	65	20	0
3		3/1	5/1	221	221	0	0	641	641	0	0
4		2/1,2/2	7/1	240	220	20	0	112	112	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	296
2		1/1,7/1	28
3		1/1,8/1	19
4		4/1,5/1	176
5		4/1,6/1	52
6		4/1,7/1	25
7		3/1,6/1	129
8		3/1,7/1	59
9		3/1,8/1	33
10		2/1,5/1	169
11		2/1,6/1	38
12		2/1,8/1	13
13		2/2,8/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	296
2	True	Normal	N/A	N/A	28
3	True	Normal	N/A	N/A	19
4	True	Normal	N/A	N/A	176
5	True	Normal	N/A	N/A	52
6	True	Normal	N/A	N/A	25
7	True	Normal	N/A	N/A	129
8	True	Normal	N/A	N/A	59
9	True	Normal	N/A	N/A	33
10	True	Normal	N/A	N/A	169
11	True	Normal	N/A	N/A	38
12	True	Normal	N/A	N/A	13
13	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0

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4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative to	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False
1	H	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,E,G	1
1	3	C,F	1

1	4	GH	1
---	---	----	---

Losing/ Gaining delays at each Controller Stream

Controller Stream	Delay	Type	Phase	From Stage	To Stage	Relative Delay	Absolute Delay
1	1	Losing	B	2	1	2	N/A
1	2	Losing	E	2	1	2	N/A

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,3,4,2	20,40,53,68		
1	2	1,2,3,4	0,18,37,55		
1	3	1,4,2,3	0,18,37,56		
1	4	1,4,3,2	0,18,37,55		
1	5	1,3,2,4	0,17,35,53		
1	6	1,2,4,3	0,18,36,55		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	20	20	1	10
1	2	True	3	C,F	25	40	15	1	7
1	3	True	4	GH	46	53	7	1	7
1	4	True	2	B,E,G	60	68	8	1	8

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	20	20
1	B	1	True	60	70	10
1	C	1	True	25	40	15
1	D	1	True	0	20	20
1	E	1	True	60	70	10
1	F	1	True	25	40	15
1	G	1	True	46	68	22
1	H	1	True	46	53	7

Intergreen Matrix for Controller Stream 1

	To							
	A	B	C	D	E	F	G	H
A	-	5	5	5	5	6	6	
B	5	-	5	0	5	5	6	
C	5	5	-	5	5	6	6	
D	5	0	-	5	5	6	6	
E	5	5	5	-	5	6	6	
F	5	5	5	5	-	6	6	
G	7	7	7	7	7	-		
H	7	7	7	7	7	7	-	

Interstage Matrix for Controller Stream 1

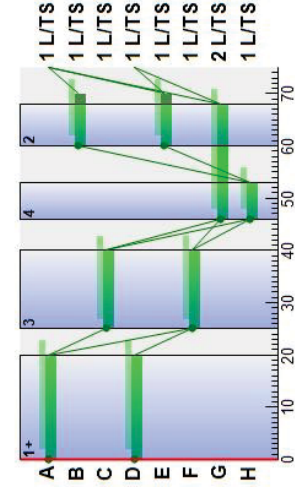
	To			
	1	2	3	4
1	-	6	5	6
2	7	-	7	6
3	5	6	-	6

4	7	7	7	-
---	---	---	---	---

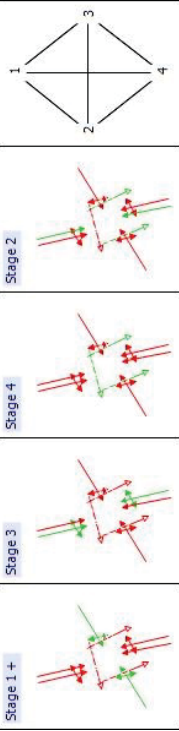
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
From 1	-			
From 2		-		
From 3			-	
From 4				-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.34.24
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP41.114
Report generation date: 15/12/2010 9.34.52

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP41
Location	Verona
Site Number	41
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTUENTE
Results Upto Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

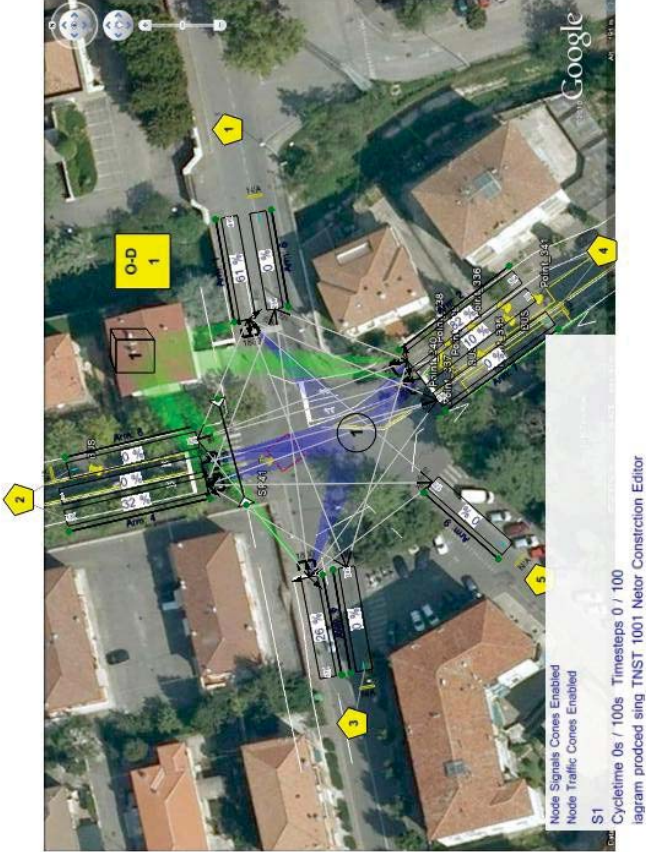
Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	Network Within Capacity	
A1 - Ciclo base	15/12/2010 9.34.24	15/12/2010 9.34.24	08.00	100	11.37	81.94	2/1	0	0	2/1	5/1	2/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Pedestrian Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

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3	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow (Link) (PCU/hr)	Upstream Flow (Into Link) (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use Rt67	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Buswhip Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Length Penalty (€)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

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2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in- Service	Vehicle-in- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	416	416	0	0	100	1,00
1	354	354	0	0	100	1,00
2	20	0	20	0	100	1,00
1	178	178	0	0	100	1,00
1	139	139	0	0	100	1,00
2	0	0	0	0	100	1,00
1	247	247	0	0	100	1,00
1	234	234	0	0	100	1,00
1	130	130	0	0	100	1,00
1	326	306	20	0	100	1,00
1	170	170	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1		12,00	30,00	Buses Not Permitted	Trans Not Permitted
2		Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted
1		12,00	30,00	Buses Not Permitted	Trans Not Permitted
1		12,00	30,00	Buses Not Permitted	Trans Not Permitted
2		Normal Not Permitted	Normal Not Permitted	15,00	Trans Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Train Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Trans Not Permitted	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	98	98	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	4/1	58	58	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	2/1	91	91	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	3/1	36	36	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	2/1	172	172	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	4/1	26	26	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	1/1	53	53	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	4/1	25	25	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	3/1	52	52	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	4	TrafficStream	N/A	4/2	0	0	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	3/1	20	20	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	2/2	20	20	0	20	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	1/1	195	195	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	4	TrafficStream	N/A	2/1	91	91	0	0	12,00	30,00	15,00	Trans Not Permitted	Trans Not Permitted
1	1	TrafficStream	N/A	4/1	30	30	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	2	TrafficStream	N/A	1/1	70	70	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted
1	3	TrafficStream	N/A	3/1	70	70	0	0	12,00	30,00	Buses Not Permitted	Trans Not Permitted	Trans Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5
From	1	0	195.00000	98.00000	53.00000	70.00000
	2	26.00000	0	58.00000	25.00000	30.00000
	3	36.00000	20.0000	0	52.00000	70.00000
	4	172.00000	91.00000	91.00000	0	0
	5	0	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5
From	1	0	0	0	0.00000	0
	2	0	0	0	20.00000	0
	3	0	0	0	0	0
	4	0	20.00000	0	0	0
	5	0	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Trans Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Trans Flow Out (PCU/hr)
1		1/1	6/1	416	416	0	0	234	234	0	0
2		4/1	8/1	139	139	0	0	326	306	20	0
3		3/1	5/1	178	178	0	0	247	247	0	0
4		2/1,2/2	7/1	374	354	20	0	130	130	0	0
5			9/1	0	0	0	0	170	170	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	98
2		1/1,7/1	53
3		1/1,8/1	195
4		1/1,9/1	70
5		4/1,5/1	58
6		4/1,6/1	26
7		4/1,7/1	25
8		4/1,9/1	30
9		3/1,6/1	36
10		3/1,7/1	52
11		3/1,8/1	20
12		3/1,9/1	70
13		2/1,5/1	91
14		2/1,6/1	172
15		2/1,8/1	91
16		2/2,8/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	98
2	True	Normal	N/A	N/A	53
3	True	Normal	N/A	N/A	195
4	True	Normal	N/A	N/A	70
5	True	Normal	N/A	N/A	58
6	True	Normal	N/A	N/A	26
7	True	Normal	N/A	N/A	25
8	True	Normal	N/A	N/A	30
9	True	Normal	N/A	N/A	36
10	True	Normal	N/A	N/A	52
11	True	Normal	N/A	N/A	20
12	True	Normal	N/A	N/A	70
13	True	Normal	N/A	N/A	91

14	True	Normal	N/A	N/A	172
15	True	Normal	N/A	N/A	91
16	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time, 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,E	1
1	3	C,F	1
1	4	G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,4,3	37,52,65,95		
1	2	1,3,2,4	0,18,36,55		
1	3	1,4,2,3	0,19,39,57		
1	4	1,4,3,2	0,19,39,57		
1	5	1,2,3,4	0,18,36,55		
1	6	1,3,4,2	0,18,37,57		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	37	37	1	10
1	2	True	2	B,E	42	52	10	1	10
1	3	True	4	G	58	65	7	1	7
1	4	True	3	C,F	72	95	23	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	0	37	37
1	B	1	42	52	10
1	C	1	72	95	23
1	D	1	0	37	37
1	E	1	42	52	10
1	F	1	72	95	23
1	G	1	58	65	7

Intergreen Matrix for Controller Stream 1

	To						
	A	B	C	D	E	F	G
From	A	-	5	5	5	5	6
	B	5	-	5	0	5	6
	C	5	5	-	5	5	6
	D	5	0	-	5	5	6
	E	5	5	5	-	5	6
	F	5	5	5	5	-	6
	G	7	7	7	7	7	-

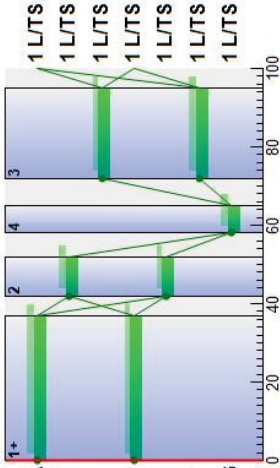
Interstage Matrix for Controller Stream 1

	To			
	1	2	3	4
From	1	-	5	6
	2	5	-	6
	3	5	5	-
	4	7	7	-

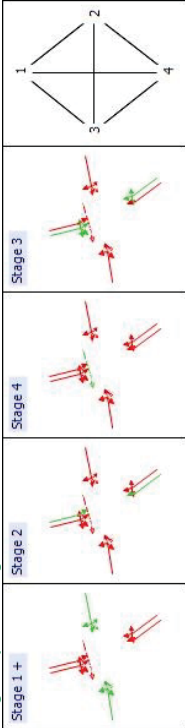
Banned Stage transitions for Controller Stream 1

	To			
	1	2	3	4
From	1	-		
	2		-	
	3			-
	4			

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Last run: 15/12/2010 9.34.24

Analysis Set used for last run: A1 - Ciclo base

File: C:\Documents and Settings\Utente\Documenti\Verona\SP41.114

Report generation date: 15/12/2010 9.34.52

- « A1 - Ciclo base
- » Summary

» Network Diagram

» Analysis and Demand Sets

» Network Options

» Traffic Nodes

» Links

» Traffic Streams

» Flow Allocation Tool Tables

» Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings

No errors or warnings

File summary

File Description

Title	SP41
Location	Verona
Site Number	41
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI\Utente
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	perHour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:MM)	Cycle Time (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signal Based PRC	LTSWith Worst Unbased PRC	LTSWith Worst Signal Based PRC	Network Within Capacity
A1 - Cido base	15/12/2010 9.34.24	15/12/2010 9.34.24	08.00	100	11.37	81.94	0	0	2/1	5/1	2/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Cido base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:MM)	Locked
Cido base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
100	1	100	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type Of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻¹ (2))	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shogun Number Of Runs	SASart Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Signal Splits
False	None	N/A	15.40.-1.15.40.1.-1.1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.483	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	2000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

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A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGPVpetrol

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-20])	B (x 10 ⁴ [-43])	C (x 10 ⁴ [-71])	D (x 10 ⁴ [-88])	E (x 10 ⁴ [-88])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Pe
3	3			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	G	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
3	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Disposal Type	Normal Disposal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Stop (s)	Point2 Time Stop (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter
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ALLEGATI: schemi piani di base semaforici

3	Default	(35)	(80)	0.00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
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Link Flows

Link	Total Flow (On Link) (PCU/hr)	Uniform Flow Name	Uniform Flow Into Link (PCU/hr)	Upstream Flow Into Link (PCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
3	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (PCU/hr)
3	Normal	12.00	30.00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	F	False (N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	E	False (N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100.00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100.00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R807	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (PCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (€)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (€)	Low Degree Of Saturation Penalty (€)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

2	Normal Not Permitted	Normal Not Permitted	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)
2	Normal Not Permitted	Normal Not Permitted	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)
1	100	100	False	False	(N/A)	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-in-Service	Vehicle-in-Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
2	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50
1	Default	35	80	0,00	0	0	NetworkDefault	Not-Included	NetworkDefault	0.50

Flows

Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	416	416	0	0	100	1,00
1	354	354	0	0	100	1,00
2	20	0	20	0	100	1,00
1	178	178	0	0	100	1,00
1	139	139	0	0	100	1,00
2	0	0	0	0	100	1,00
1	247	247	0	0	100	1,00
1	234	234	0	0	100	1,00
1	130	130	0	0	100	1,00
1	326	306	20	0	100	1,00
1	170	170	0	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Speed (kph)	Normal Cruise Time (seconds)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	98	98	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	58	58	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	2/1	91	91	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	36	36	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/1	172	172	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	26	26	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	1/1	53	53	0	0	30,00	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	4/1	25	25	0	0	30,00	12,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	52	52	0	0	30,00	12,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	4/2	0	0	0	0	30,00	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	20	20	0	0	30,00	12,00	15,00	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	20	0	20	0	30,00	12,00	15,00	Trams Not Permitted
1	3	TrafficStream	N/A	1/1	195	195	0	0	30,00	12,00	15,00	Trams Not Permitted
1	4	TrafficStream	N/A	2/1	91	91	0	0	30,00	12,00	15,00	Trams Not Permitted
1	1	TrafficStream	N/A	4/1	30	30	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	70	70	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	3/1	70	70	0	0	30,00	12,00	Buses Not Permitted	Trams Not Permitted

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To				
		1	2	3	4	5
From	1	0	195.00000	98.00000	53.00000	70.00000
	2	26.00000	0	58.00000	25.00000	30.00000
	3	36.00000	20.00000	0	52.00000	70.00000
	4	172.00000	91.00000	91.00000	0	0
		5	0	0	0	0

Bus Input Flows (PCU/hour) for OD Matrix: 1

	To				
	1	2	3	4	5
From	1	0	0	0	0.00000
	2	0	0	0	20.00000
	3	0	0	0	0
	4	0	20.00000	0	0
	5	0	0	0	0

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1		1/1	6/1	416	416	0	0	234	234	0	0
2		4/1	8/1	139	139	0	0	326	306	20	0
3		3/1	5/1	178	178	0	0	247	247	0	0
4		2/1,2/2	7/1	374	354	20	0	130	130	0	0
5			9/1	0	0	0	0	170	170	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	98
2		1/1,7/1	53
3		1/1,8/1	195
4		1/1,9/1	70
5		4/1,5/1	58
6		4/1,6/1	26
7		4/1,7/1	25
8		4/1,9/1	30
9		3/1,6/1	36
10		3/1,7/1	52
11		3/1,8/1	20
12		3/1,9/1	70
13		2/1,5/1	91
14		2/1,6/1	172
15		2/1,8/1	91
16		2/2,8/1	20

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	98
2	True	Normal	N/A	N/A	53
3	True	Normal	N/A	N/A	195
4	True	Normal	N/A	N/A	70
5	True	Normal	N/A	N/A	58
6	True	Normal	N/A	N/A	26
7	True	Normal	N/A	N/A	25
8	True	Normal	N/A	N/A	30
9	True	Normal	N/A	N/A	36
10	True	Normal	N/A	N/A	52
11	True	Normal	N/A	N/A	20
12	True	Normal	N/A	N/A	70
13	True	Normal	N/A	N/A	91

14	True	Normal	N/A	N/A	172
15	True	Normal	N/A	N/A	91
16	False	Disabled	N/A	N/A	0

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	True	Normal	N/A	N/A	20

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0
11	False	Disabled	N/A	N/A	0
12	False	Disabled	N/A	N/A	0
13	False	Disabled	N/A	N/A	0
14	False	Disabled	N/A	N/A	0
15	False	Disabled	N/A	N/A	0
16	False	Disabled	N/A	N/A	0

Signal Timings

100s cycle time; 100 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Splits	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False
1	F	7	300	0	0	False
1	G	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases In Stage	User Stage Minimum (s)
1	1	A,D	1
1	2	B,E	1
1	3	C,F	1
1	4	G	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,4,3	37,52,65,95		
1	2	1,3,2,4	0,18,36,55		
1	3	1,4,2,3	0,19,39,57		
1	4	1,4,3,2	0,19,39,57		
1	5	1,2,3,4	0,18,36,55		
1	6	1,3,4,2	0,18,37,57		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,D	0	37	37	1	10
1	2	True	2	B,E	42	52	10	1	10
1	3	True	4	G	58	65	7	1	7
1	4	True	3	C,F	72	95	23	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	37	37
1	B	1	True	42	52	10
1	C	1	True	72	95	23
1	D	1	True	0	37	37
1	E	1	True	42	52	10
1	F	1	True	72	95	23
1	G	1	True	58	65	7

Intergreen Matrix for Controller Stream 1

	To					
	A	B	C	D	E	F
From	A	-	5	5	5	6
	B	5	-	5	0	5
	C	5	5	-	5	5
	D	5	0	-	5	5
	E	5	5	5	-	5
	F	5	5	5	5	-
	G	7	7	7	7	-

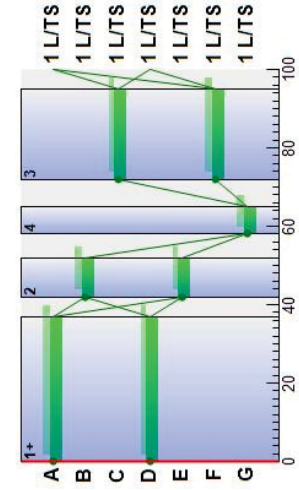
Interstage Matrix for Controller Stream 1

	To						
	1	2	3	4	5	6	7
From	2	5	-	5	6	6	6
	3	5	5	-	6	6	6
	4	7	7	7	-	6	6

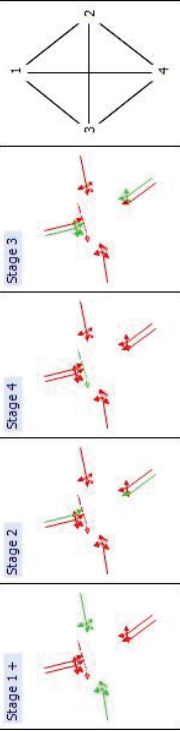
Banned Stage transitions for Controller Stream 1

	To						
	1	2	3	4	5	6	7
From	2	-	-	-	-	-	-
	3	-	-	-	-	-	-
	4	-	-	-	-	-	-

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 14

Version: 14.0.0.167 [07/10/10 - RC1]
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Last run: 15/12/2010 9.35.47
Analysis Set used for last run: A1 - Ciclo base
File: C:\Documents and Settings\Utente\Documenti\Verona\SP42.114
Report generation date: 15/12/2010 9.36.14

- « A1 - Ciclo base
- » Summary
 - » Network Diagram
 - » Analysis and Demand Sets
 - » Network Options
 - » Traffic Nodes
 - » Links
 - » Traffic Streams
 - » Flow Allocation Tool Tables
 - » Signal Timings

A1 - Ciclo base

Summary

Data Errors and Warnings
No errors or warnings

File summary

File Description	
Title	SP42
Location	Verona
Site Number	42
Driving Side	Right
Date	10/12/2010
Status	(new file)
Enumerator	ALDO-CONTI/utente
Results UpTo Date	True
Template Image	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units	Mass Units	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
kph	m	mpg	l/h	kg	perHour	s	-Hour	per-Hour

Sorting

Sorting Direction	Sorting Type	Ignore Prefixes When Sorting	Link Grouping	Source Grouping
Ascending	Numerical	False	Normal	Normal

Run Summary

Analysis Set Used	Run Start Time	Run Finish Time	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	LTSWith Worst Signalised PRC	LTSWith Worst Unsignalised PRC	Network Within Capacity	
A1 - Ciclo base	15/12/2010 9.35.47	15/12/2010 9.35.47	08.00	75	3.07	28.43	3/1	0	0	3/1	5/1	3/1	True

Network Diagram



Analysis and Demand Sets

Analysis Sets

Name	Description	Demand Set	Include in Report	Locked
Ciclo base		D1	True	False

Demand Sets

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked
Ciclo base		False		08.00	False

Network Options

Network Timings

Network Cycle Time (s)	Resolution	Number Of Steps	Time Segment Length (min)	Number Of Time Segments	Modelled Time Period (min)
75	1	75	60	1	60

Signals Options

Equal Length Multiple Cycling	Start Displacement (s)	End Displacement (s)	Phase Minimum Broken Penalty (s)	Phase Maximum Broken Penalty (s)	Intergreen Broken Penalty (s)
True	2	3	10000.00	10000.00	10000.00

Traffic Options

Traffic Model	DOS Threshold (%)	Flow Scaling Factor (%)	Cruise Scaling Factor (%)	Cruise Time Or Speeds	Use Link Stop Weightings	Use Link Delay Weightings	Exclude Pedestrian Links	Random Delay Mode	Type of Vehicle-In-Service	Type Of Random Parameter
PDM	90	100	100	Cruise Speeds	True	True	False	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)

Bus Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
70	15	0.47	30	85

Tram Parameters

Dispersion Coefficient1	Dispersion Coefficient2	Acceleration (ms ⁻²)	Travel Time Coefficient1	Travel Time Coefficient2
0	0	0.47	100	100

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level	Hill Climb Increments	Shotgun Number Of Runs	SASat Temperature	SACooling Factor	Random Seed	Use Enhanced Optimisation	Optimisation Order	Locked Pedestrian Splits
False	None	N/A	15,40,-1,15,40,1,-1,1	N/A	N/A	N/A	N/A	False	1	

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU/hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Fuel Consumption

Proportion Car Petrol	Proportion Car Diesel	Proportion LGVPetrol	Proportion LGVDiesel	Proportion OGV1	Proportion OGV2	Proportion PSV	Mean Weight Car Petrol (kg)	Mean Weight Car Diesel (kg)	Mean Weight LGVPetrol (kg)	Mean Weight LGVDiesel (kg)	Mean Weight OGV1 (kg)	Mean Weight OGV2 (kg)	Mean Weight PSV (kg)
0.493	0.323	0.011	0.103	0.028	0.031	0.011	1250.00	1250.00	2000.00	2000.00	20000.00	35000.00	13000

Fuel Parameters

ID	Extrapolated	Description
2010	True	Year 2010 base figures (WebTAG data March 2010)

Car Petrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
104.29	448.37	-491.30	217.81	N/A	ByWeights

Car Diesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
48.10	645.03	-5775.90	454.16	N/A	ByWeights

LGVPetrol

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
162.86	672.32	-7789.90	1052.13	N/A	ByWeights

LGVDiesel

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
108.25	599.63	-4483.10	831.10	N/A	ByWeights

OGV1

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
156.45	2600.98	-37830.60	3244.46	N/A	ByWeights

OGV2

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
361.33	4202.69	-49470.40	3828.06	N/A	ByWeights

PSV

A (x 10 ⁴ [-2])	B (x 10 ⁴ [-4])	C (x 10 ⁴ [-7])	D (x 10 ⁴ [-8])	E (x 10 ⁴ [-9])	E Coefficient Mode
411.56	3064.65	-42064.30	3652.63	N/A	ByWeights

Traffic Nodes

Traffic Nodes

Traffic Node	ID	Name	Description
1	1		

Links

Links

Link	ID	Name	Description	Traffic Node	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow (PCU/hr)	Cell Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase Enabled	Phase2 Enabled	Is Give Way	Pe
1	1			1	100.00	NetworkDefault	True	1800	(N/A)	True	1	E	False	(N/A)	False

Link Modelling

Link	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit	Queue Limit (PCU)	Excess Queue Penalty (s)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (s)	Low Degree Of Saturation Penalty (s)
1	100	100	False	0.00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Link Modelling (Advanced)

Link	Normal Displacement Type	Normal Displacement Coefficient	Normal Travel Time Coefficient	Initial Queue (PCU)	Point1 Time Step (s)	Point2 Time Step (s)	Type of Vehicle-In-Service	Vehicle-In-Service	Type Of Random Parameter	Random Parameter

ALLEGATI: schemi piani di base semaforici

1	Default	(35)	(80)	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
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Link Flows

Link	Total Flow (On Link) (pCU/hr)	Uniform Flow Name	Uniform Flow (Into Link) (pCU/hr)	Upstream Flow (Into Link) (pCU/hr)	Link Sensitivity Multiplier (%)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	10		0	10	100	100	1,00

Link Sources - default sources for entry links

Link	Entry Source Traffic Type	Entry Cruise Time (seconds)	Entry Cruise Speed (kph)	Entry Free Running Speed (kph)	Entry Stationary Time (seconds)	Entry Profile Type	Entry DIRECTFlows (pCU/hr)
1	Normal	12,00	30,00	(N/A)	(N/A)	FLAT	10

Traffic Streams

Traffic Streams

Traffic Stream	ID	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (pCU/hr)	Cell Saturation Flow (pCU/hr)	Is Signal Controlled	Controller Stream	Phase2 Enabled	Phase2
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	A	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	D	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
2	2			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	C	False (N/A)
1	1			100,00	NetworkDefault	True	SumOfLanes	1800	(N/A)	True	1	B	False (N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	1			100,00	NetworkDefault	False	(N/A)	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Lanes

Traffic Stream	ID	Name	Description	Use R667	Surface Condition	Site Quality Factor	Gradient (%)	Width (m)	Proportion That Turn (%)	Turning Radius (m)	Nearside Lane	Saturation Flow (pCU/hr)
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800
1	1			False	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800

Traffic Stream Modelling

Traffic Stream	Stop Weighting (%)	Delay Weighting (%)	Exclude From Results Calculation	Max Queue Storage (pCU)	Has Queue Limit	Queue Limit (pCU)	Excess Queue Penalty (£)	Has Degree Of Saturation Limit	Degree Of Saturation Limit (%)	Excess Degree Of Saturation Penalty (£)	Low Degree Of Saturation Penalty (£)
1	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	(N/A)	False	(N/A)	(N/A)	(N/A)

ALLEGATI: schemi piani di base semaforici

2	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
2	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	100	100	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)
1	Normal Not Permitted	Normal Not Permitted	False	0,00	False	(N/A)	False	(N/A)	(N/A)	(N/A)

Traffic Stream Modelling (Advanced)

Traffic Stream	Normal Dispersal Type	Normal Dispersal Coefficient	Normal Travel Time Coefficient	Initial Queue (pCU)	Point1 Time Stop (s)	Point2 Time Stop (s)	Type of Vehicle+in- Service	Vehicle+in- Service	Type Of Random Parameter	Random Parameter
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
2	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Default	35	80	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50
1	Normal Not Permitted	Normal Not Permitted	Normal Not Permitted	0,00	0	0	NetworkDefault	Not- Included	NetworkDefault	0,50

Flows

Traffic Stream	Total Flow (pCU/hr)	Normal Flow (pCU/hr)	Bus Flow (pCU/hr)	Tam Flow (pCU/hr)	Cruise Sensitivity Multiplier (%)	Calculated Cruise Speed (kph)
1	114	114	0	0	100	1,00
2	0	0	0	0	100	1,00
1	20	0	20	0	100	1,00
2	202	202	0	0	100	1,00
1	116	116	0	0	100	1,00
2	2	2	0	0	100	1,00
1	130	130	0	0	100	1,00
1	224	224	0	0	100	1,00
1	332	332	0	0	100	1,00
1	8	8	0	0	100	1,00
1	20	0	20	0	100	1,00

Traffic Stream Sources - default sources for entries

Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	Normal Not Permitted	Normal Not Permitted	15,00	Trams Not Permitted

2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted
2	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	12,00	30,00	Buses Not Permitted	Trams Not Permitted

Traffic Stream Sources - sources for internals

Traffic Stream	Source	Source Type	Source Link	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
1	1	TrafficStream	N/A	1/1	110	110	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	67	67	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	47	47	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	116	116	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	2/2	135	135	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	81	81	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/2	2	2	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	2	TrafficStream	N/A	1/1	4	4	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	3	TrafficStream	N/A	4/1	2	2	0	0	12,00	30,00	Buses Not Permitted	Trams Not Permitted
1	1	TrafficStream	N/A	3/1	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00
1	2	TrafficStream	N/A	1/2	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00
1	3	TrafficStream	N/A	2/2	0	0	0	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00
1	4	TrafficStream	N/A	2/1	20	0	20	0	Normal Not Permitted	Normal Not Permitted	15,00	15,00

Flow Allocation Tool Tables

Normal Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
1	0	353.00000	110.00000	4.00000	
From 2	81.00000	0	47.00000	2.00000	
3	116.00000	197.00000	0	2.00000	
4	135.00000	196.00000	67.00000	0	

Bus Input Flows (PCU/hour) for OD Matrix: 1

		To			
		1	2	3	4
1	0	0	0	0	
From 2	0	0	0	0	
3	0	0	0	0	
4	0	20.00000	0	0	

Tram Input Flows not shown as they are blank.

Locations

ID	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	12,1/1	6/1	114	114	114	0	0	332	332	0	0
2	4/1	8/1	130	130	130	0	0	20	0	20	0
3	3/1,3/2	5/1	118	118	118	0	0	224	224	0	0
4	2/1,2/2	7/1	222	222	202	20	0	8	8	0	0

Paths

ID	Description	Path Items	Calculated Total Flow (PCU/hr)
1		1/1,5/1	110
2		1/1,7/1	4
3		4/1,5/1	47
4		4/1,6/1	81
5		4/1,7/1	2
6		3/1,6/1	116
7		3/2,7/1	2
8		2/1,8/1	20
9		2/2,5/1	67
10		2/2,6/1	135

Normal Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	True	Normal	N/A	N/A	110
2	True	Normal	N/A	N/A	4
3	True	Normal	N/A	N/A	47
4	True	Normal	N/A	N/A	81
5	True	Normal	N/A	N/A	2
6	True	Normal	N/A	N/A	116
7	True	Normal	N/A	N/A	2
8	False	Disabled	N/A	N/A	0
9	True	Normal	N/A	N/A	67
10	True	Normal	N/A	N/A	135

Bus Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0
5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	True	Normal	N/A	N/A	20
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0

Tram Path Flows

Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	False	Disabled	N/A	N/A	0
2	False	Disabled	N/A	N/A	0
3	False	Disabled	N/A	N/A	0
4	False	Disabled	N/A	N/A	0

5	False	Disabled	N/A	N/A	0
6	False	Disabled	N/A	N/A	0
7	False	Disabled	N/A	N/A	0
8	False	Disabled	N/A	N/A	0
9	False	Disabled	N/A	N/A	0
10	False	Disabled	N/A	N/A	0

Signal Timings

75s cycle time; 75 steps

Controller Stream

ID	Name	Description	Gaining Delay Type	Signals Manipulation Mode	Multiple Cycling	Offset Relative To	Offset Valid	Offset (s)	Auto Redistribute	Optimisation Level	Use Sequence
1			Absolute	StageBased	Single	1	True	0	False	Offsets And Green Spills	1

Phases

Controller Stream	ID	Minimum Green (s)	Maximum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)	Dummy
1	A	10	300	0	0	False
1	B	10	300	0	0	False
1	C	7	300	0	0	False
1	D	7	300	0	0	False
1	E	7	300	0	0	False

Library Stages

Controller Stream	ID	Phases in Stage	User Stage Minimum (s)
1	1	A,C	1
1	2	B,D	1
1	3	E	1

Stage Sequences

Controller Stream	ID	Stage IDs	Stage Ends	Multiple Cycling Stage IDs	Multiple Cycling Stage Ends
1	1	1,2,3	16,54,67		
1	2	1,3,2	0,32,66		

Resultant Stages

Controller Stream	Stage Index	Is Base Stage	Library Stage ID	Phases in This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	True	1	A,C	0	16	16	1	10
1	2	True	2	B,D	22	54	32	1	10
1	3	True	3	E	60	67	7	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	True	0	16	16
1	B	1	True	22	54	32
1	C	1	True	0	16	16
1	D	1	True	22	54	32
1	E	1	True	60	67	7

Intergreen Matrix for Controller Stream 1

	To
--	----

	A	B	C	D	E
From A	-	6	-	6	6
From B	6	-	6	-	6
From C	-	6	-	6	6
From D	6	-	6	-	6
From E	8	8	8	8	-

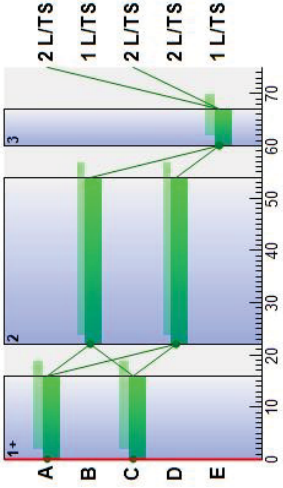
Interstage Matrix for Controller Stream 1

	To			
From		1	2	3
	1	-	6	6
	2	6	-	6
	3	8	8	-

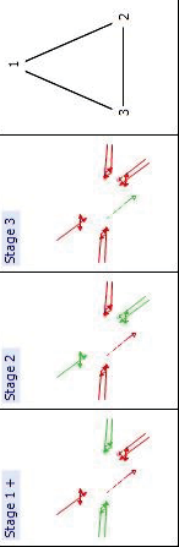
Banned Stage transitions for Controller Stream 1

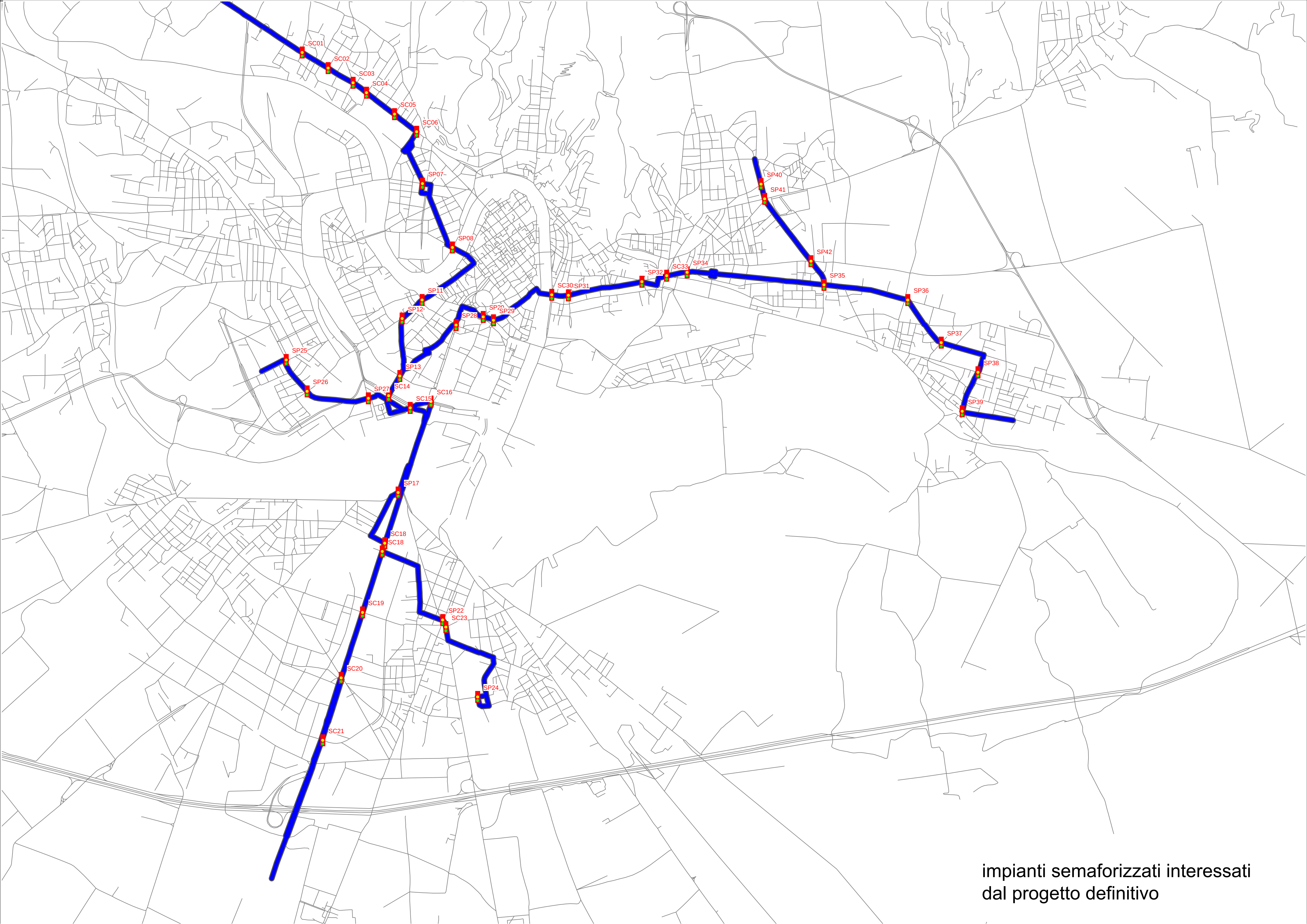
	To			
From		1	2	3
	1	-		
	2			-
	3			

Link Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1





impianti semaforizzati interessati
dal progetto definitivo