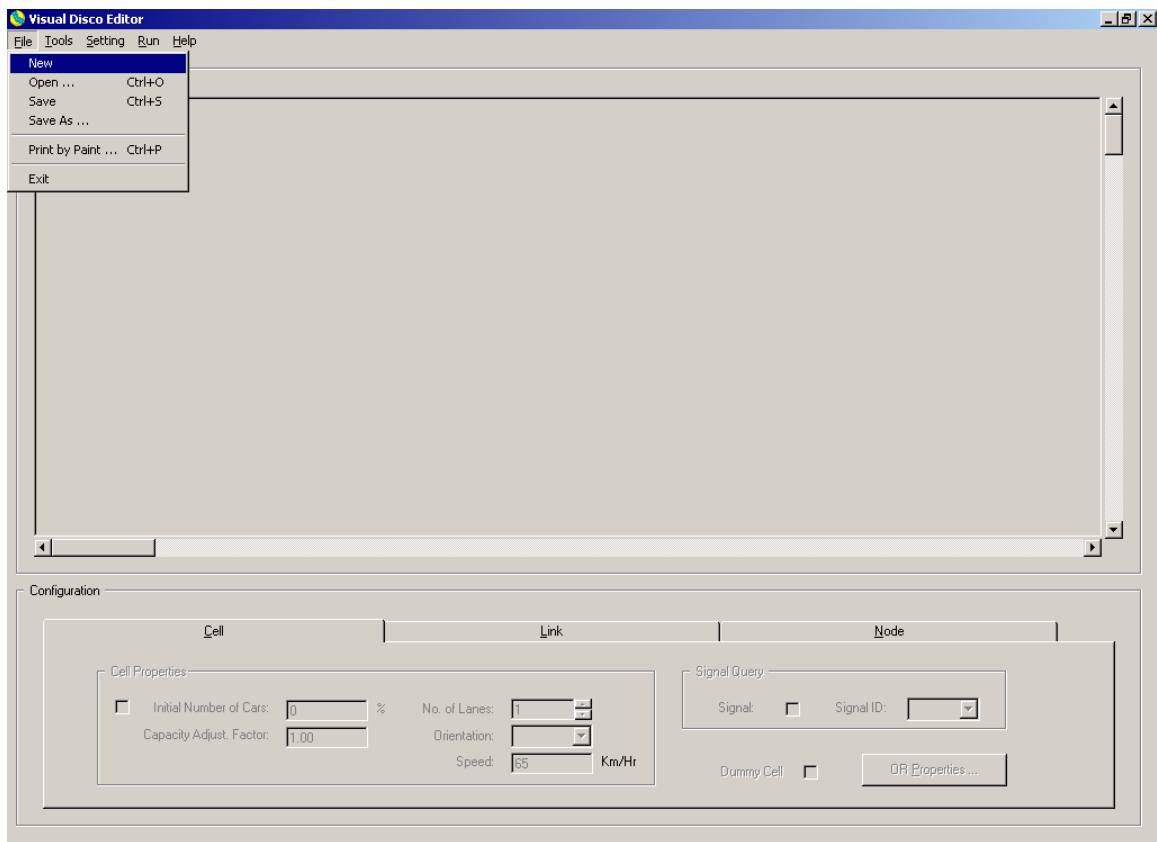


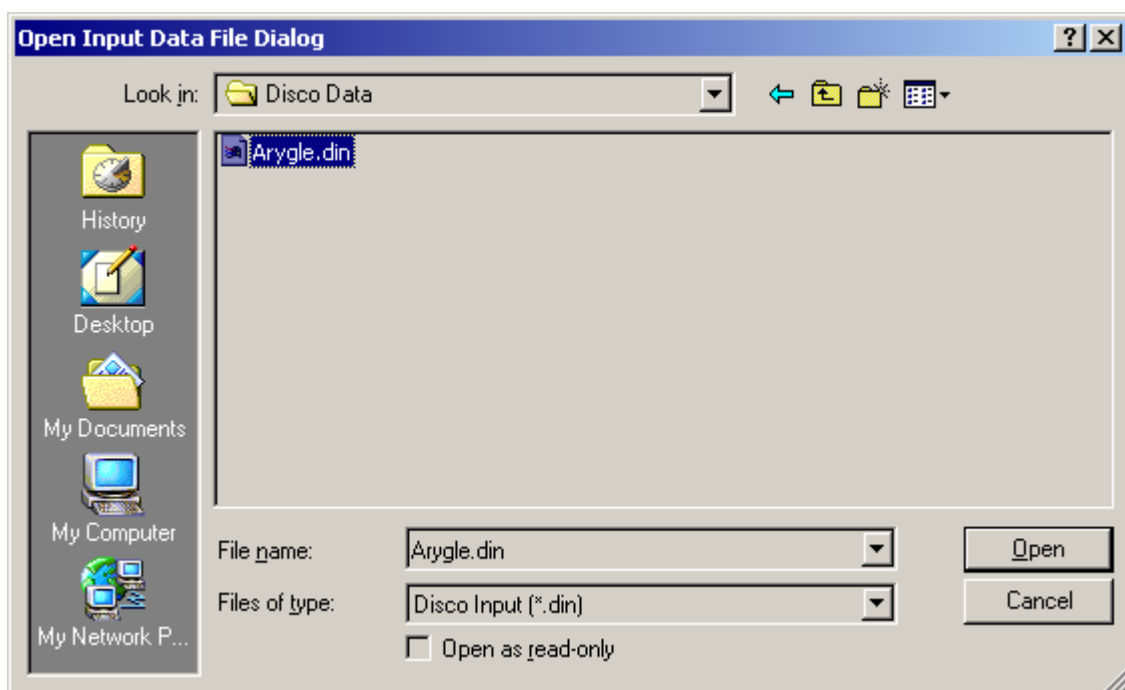
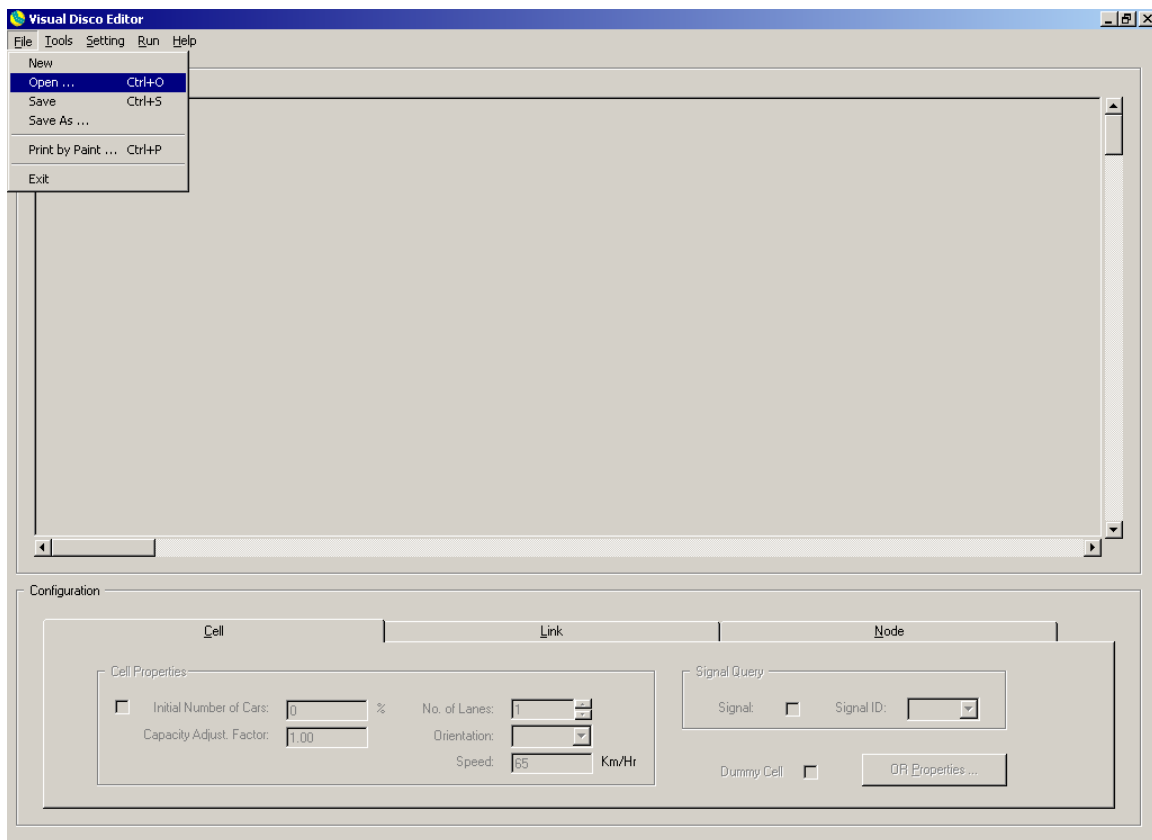
## **File → New**

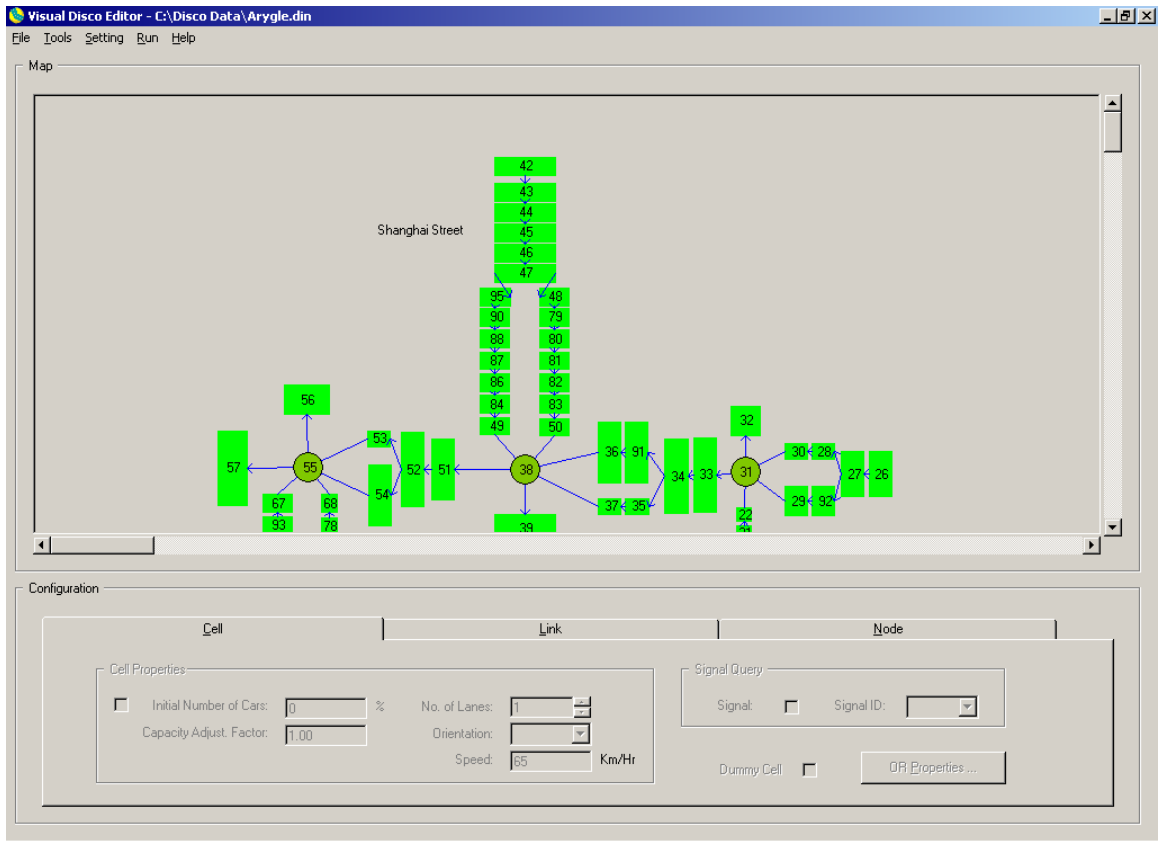
Create a new map.



## File → Open

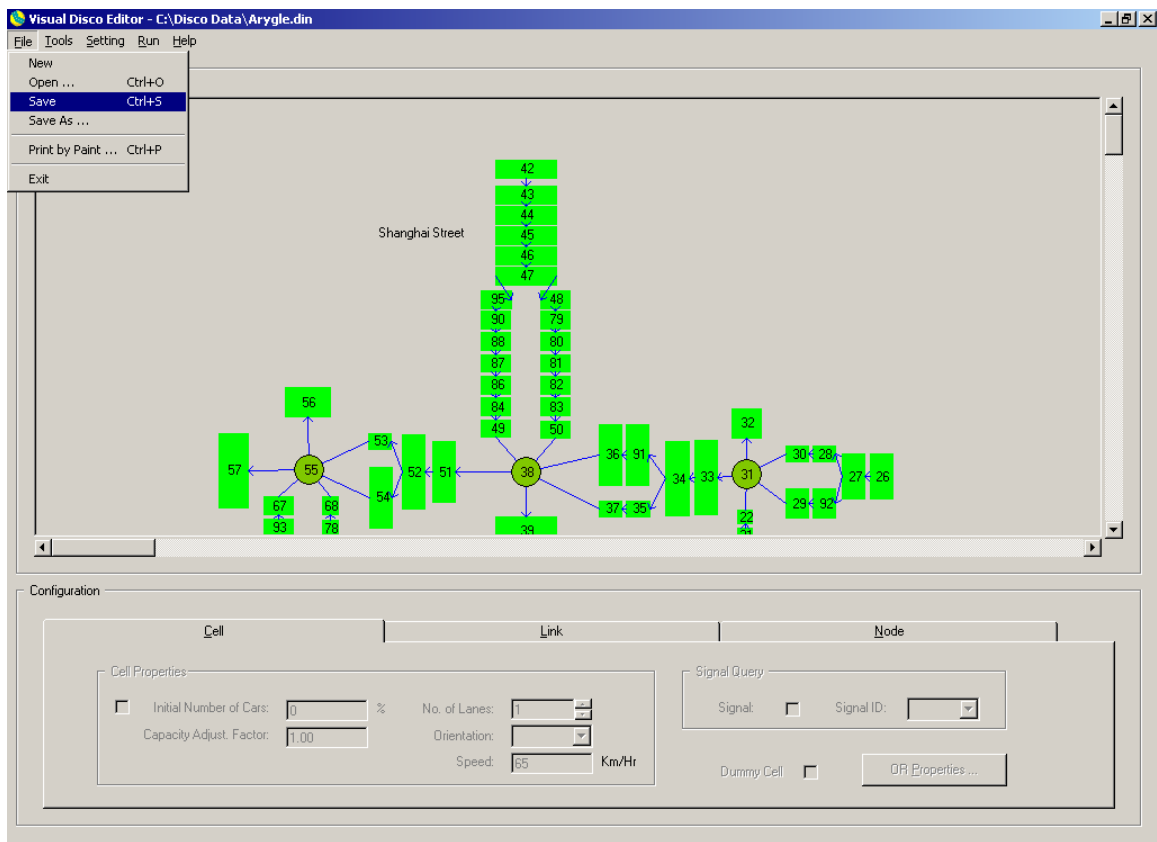
Open an Existing map (\*.din files).





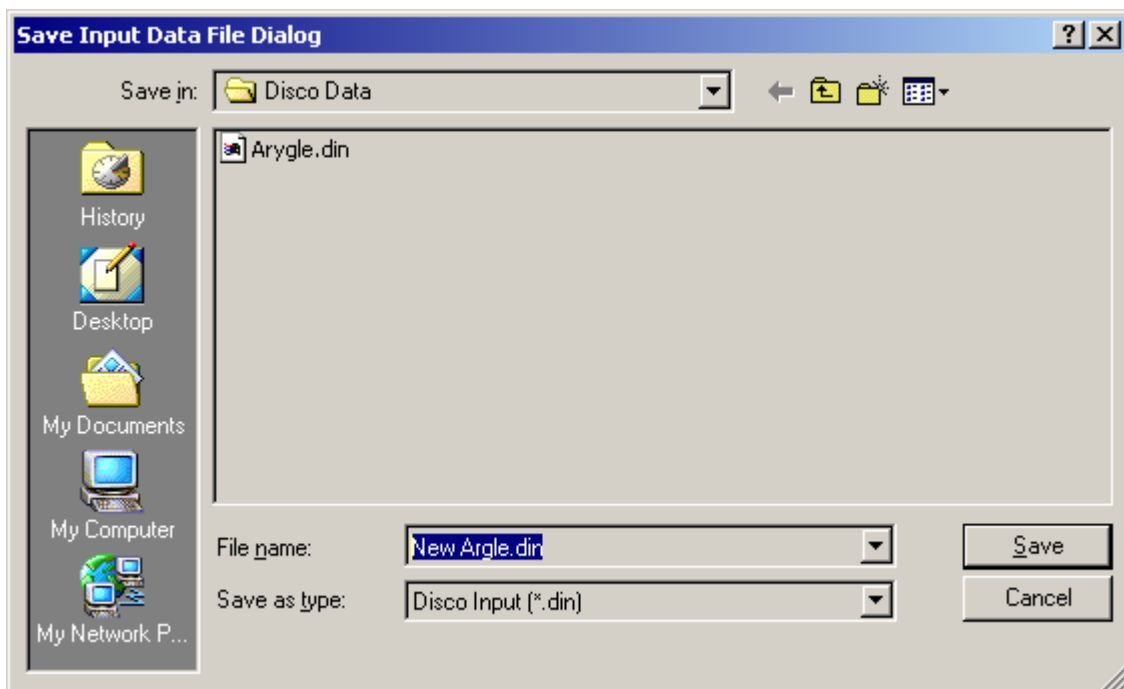
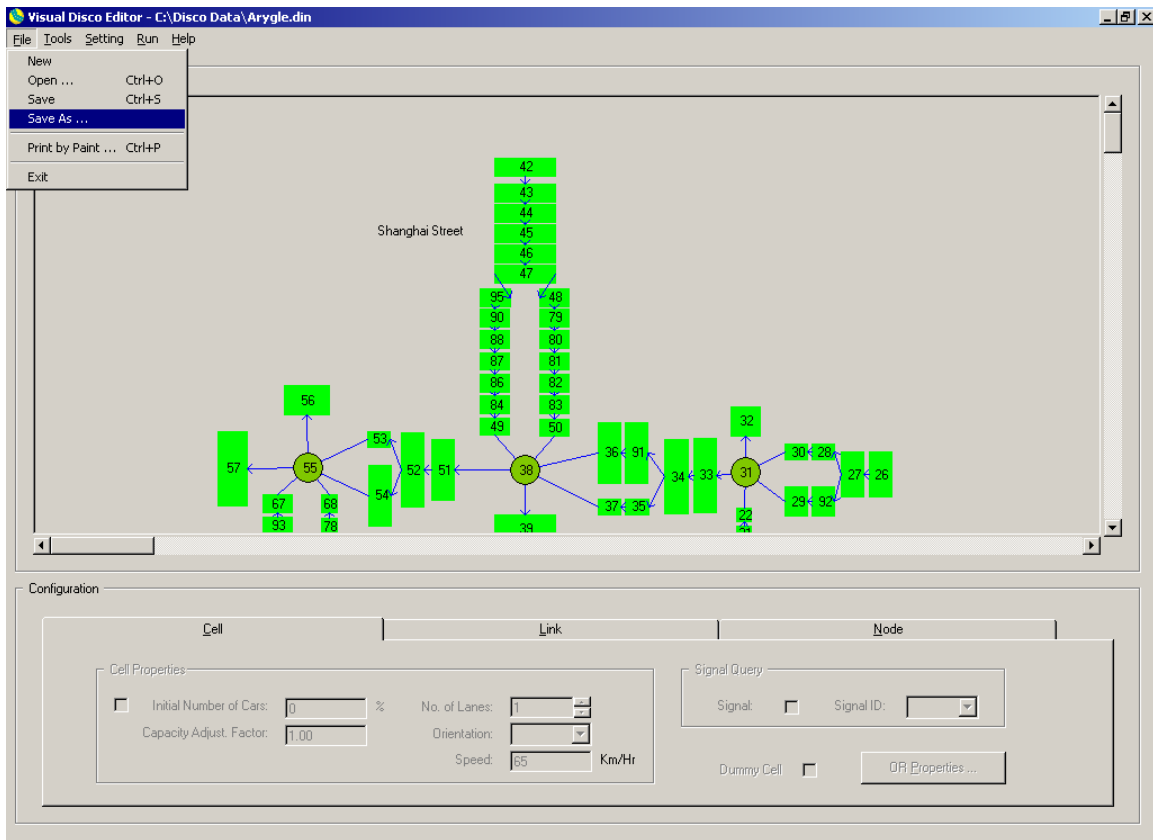
## File → Save

Save the current map with the same name.



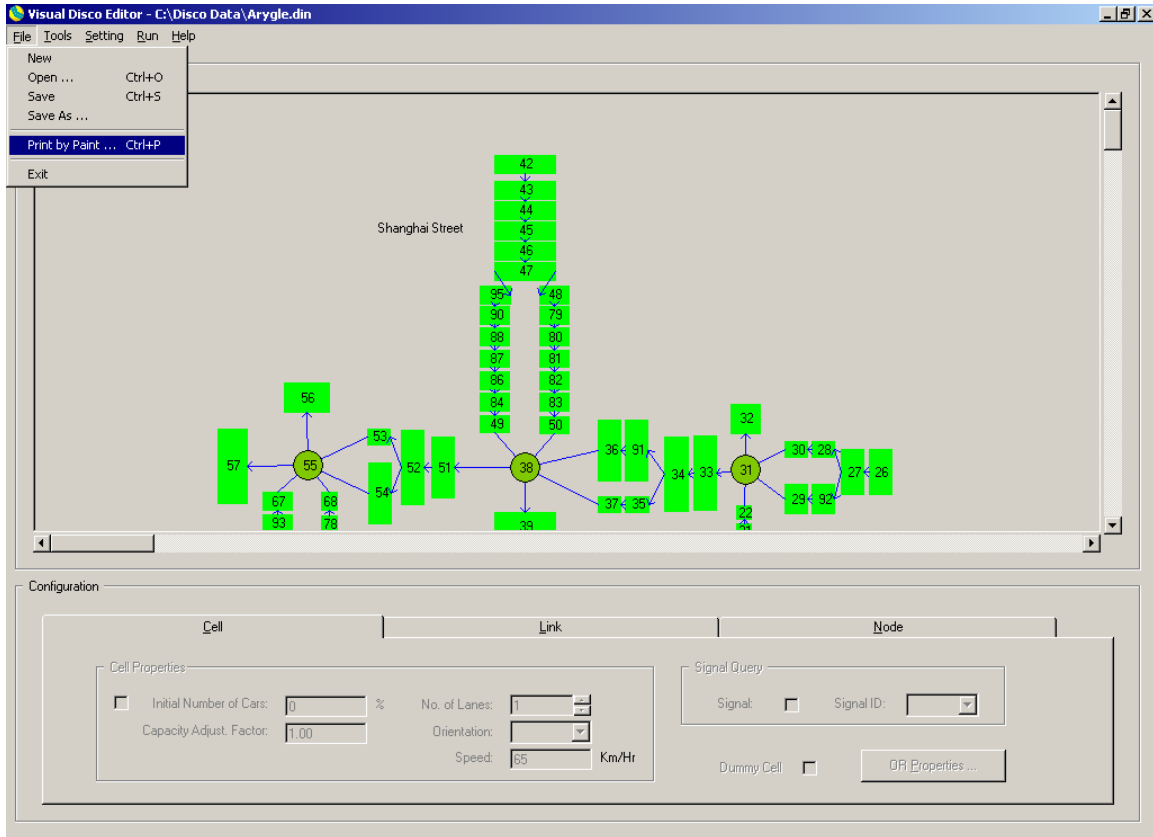
## File → Save As ...

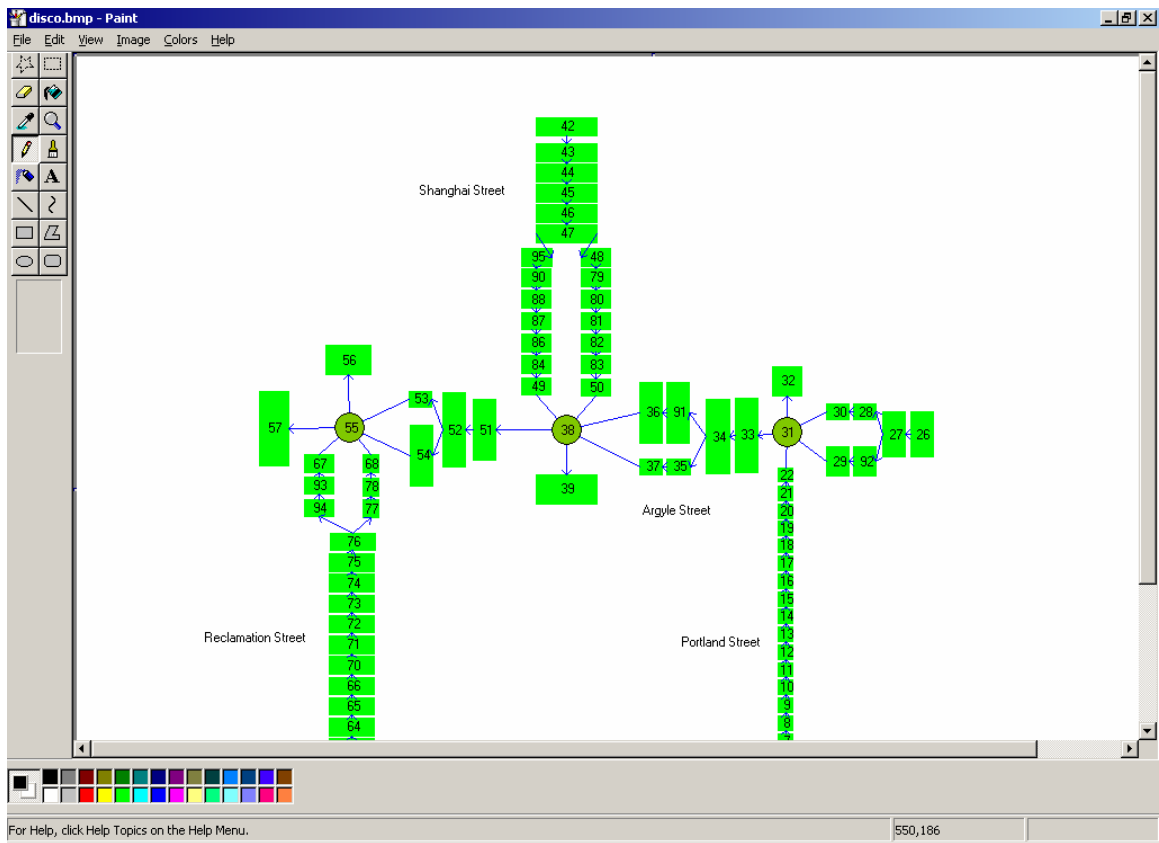
Save the current map with a different name.



## File → Print

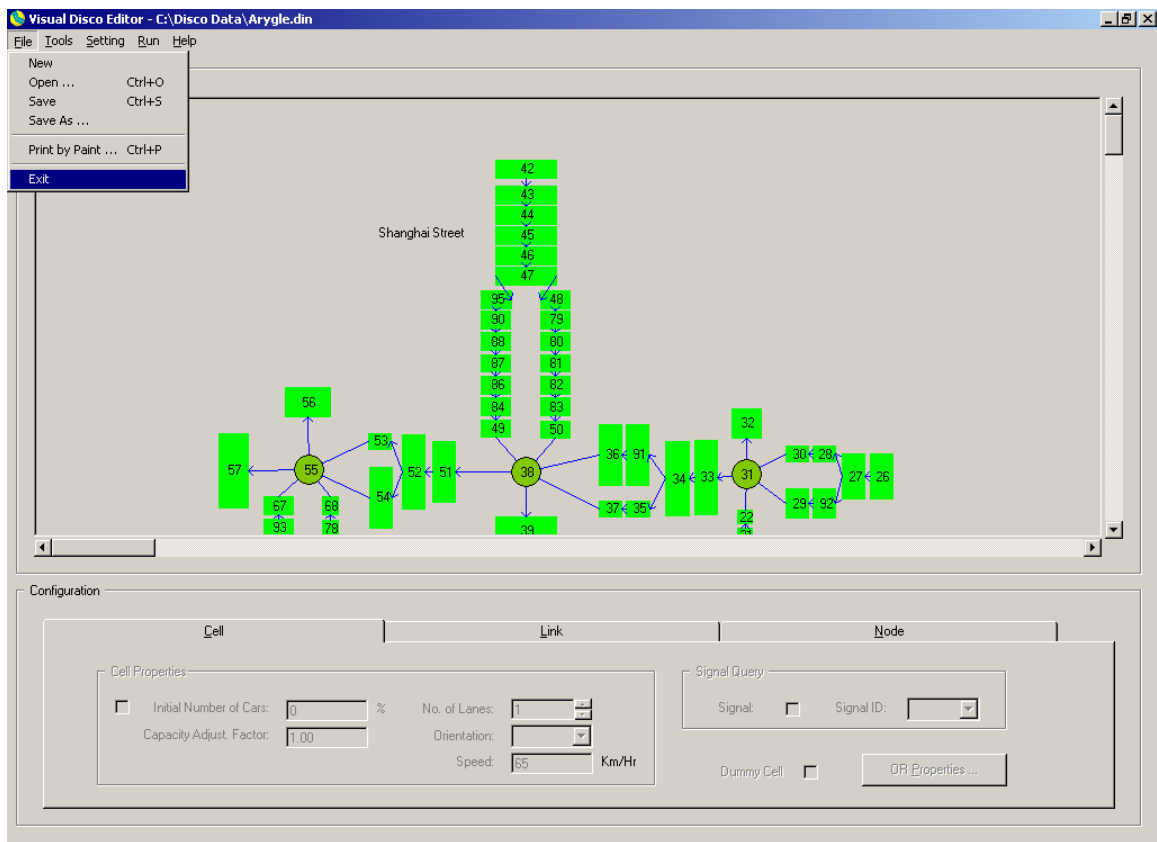
Print the current map with Microsoft Paint. Note that “Paint” program in Windows MUST be installed from the Accessory category.





**File → Exit**

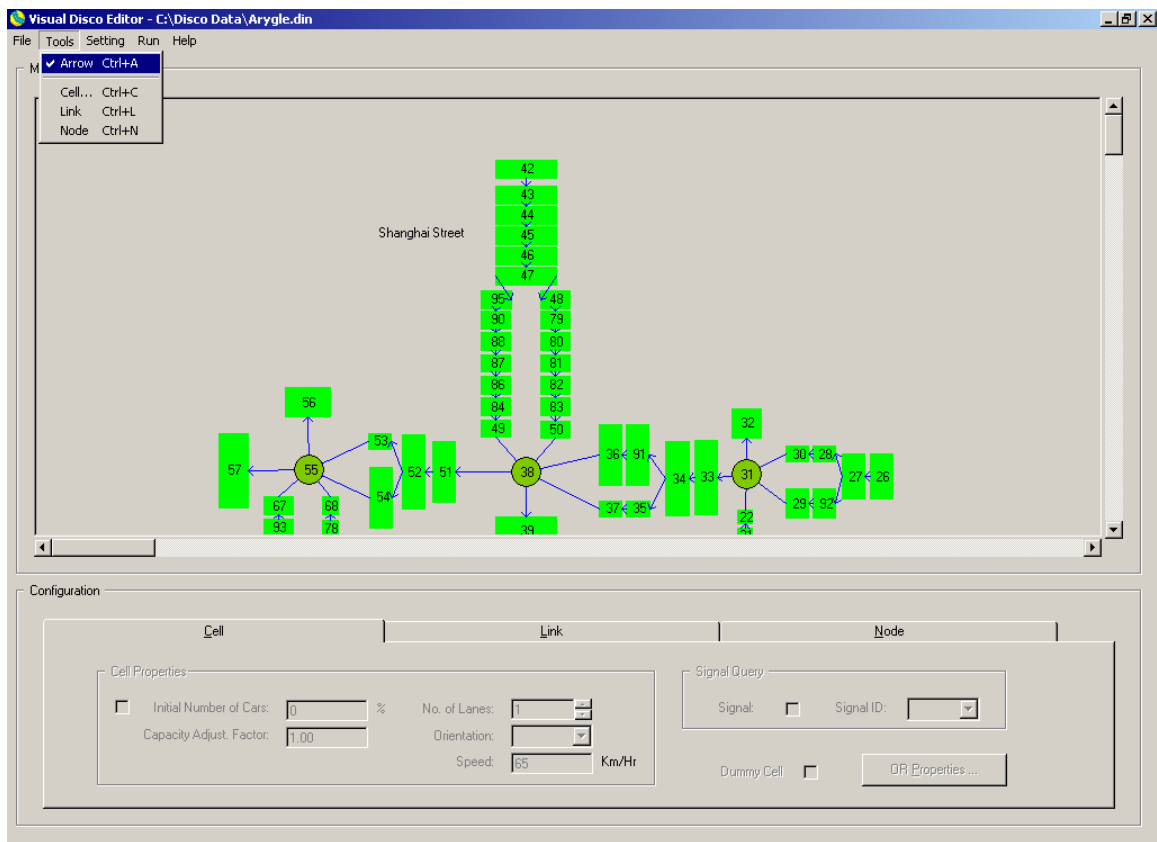
Close the EDITOR.





## Tools → Arrow

Elements (cells, links and nodes) can be selected in the map using “Arrow”.



Select a cell and edit its properties.

Visual Disco Editor - C:\Disco Data\Arygle.din

File Tools Setting Run Help

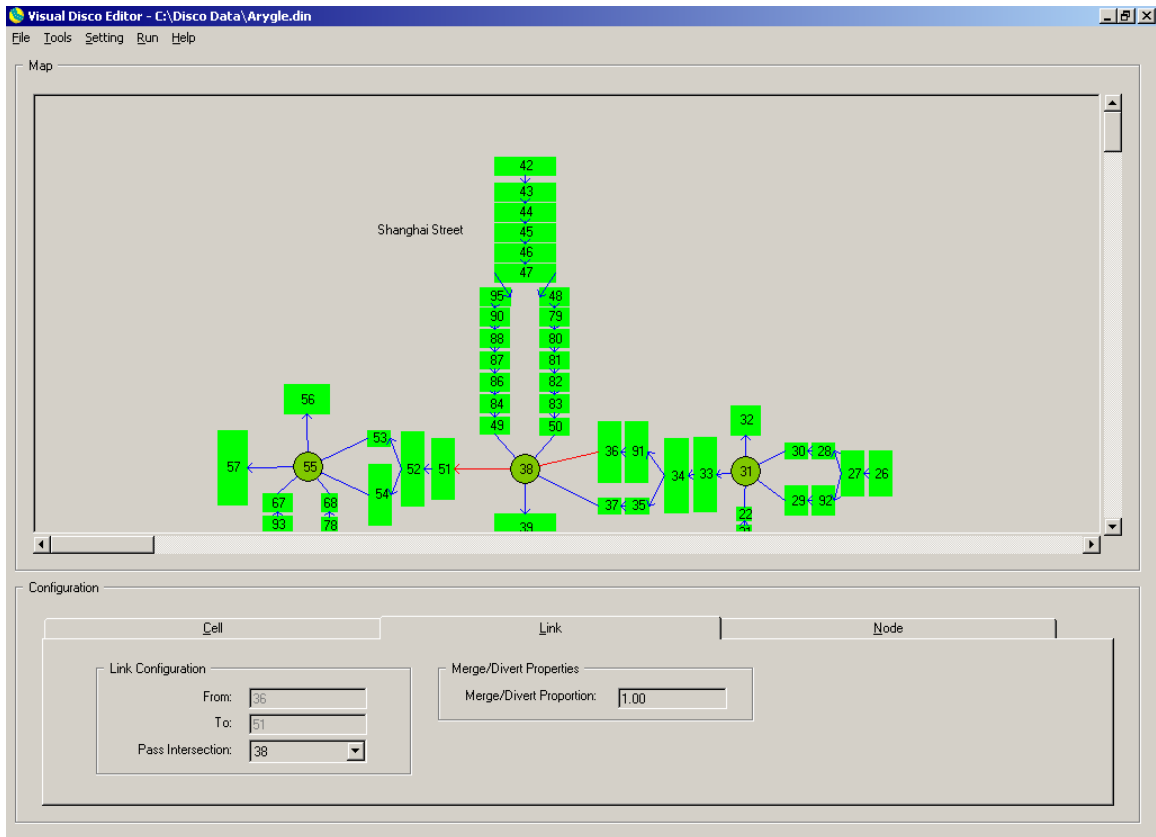
Map

Shanghai Street

Configuration

Cell	Link	Node
<b>Cell Properties</b>		
<input type="checkbox"/> Initial Number of Cars: 0 %	No. of Lanes: 4	<b>Signal Query</b> Signal: <input type="checkbox"/> Signal ID: <input type="text"/>
Capacity Adjust. Factor: 1.00	Orientation: Vertical	
Speed: 39 Km/Hr		
		Dummy Cell <input type="checkbox"/> <a href="#">OR Properties ...</a>

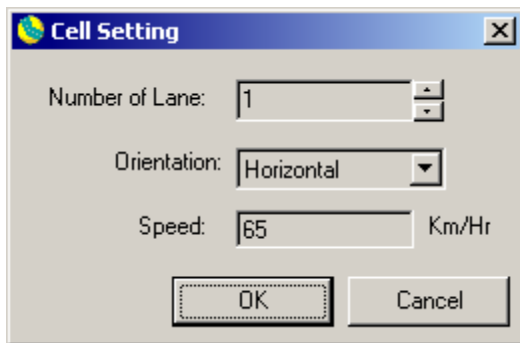
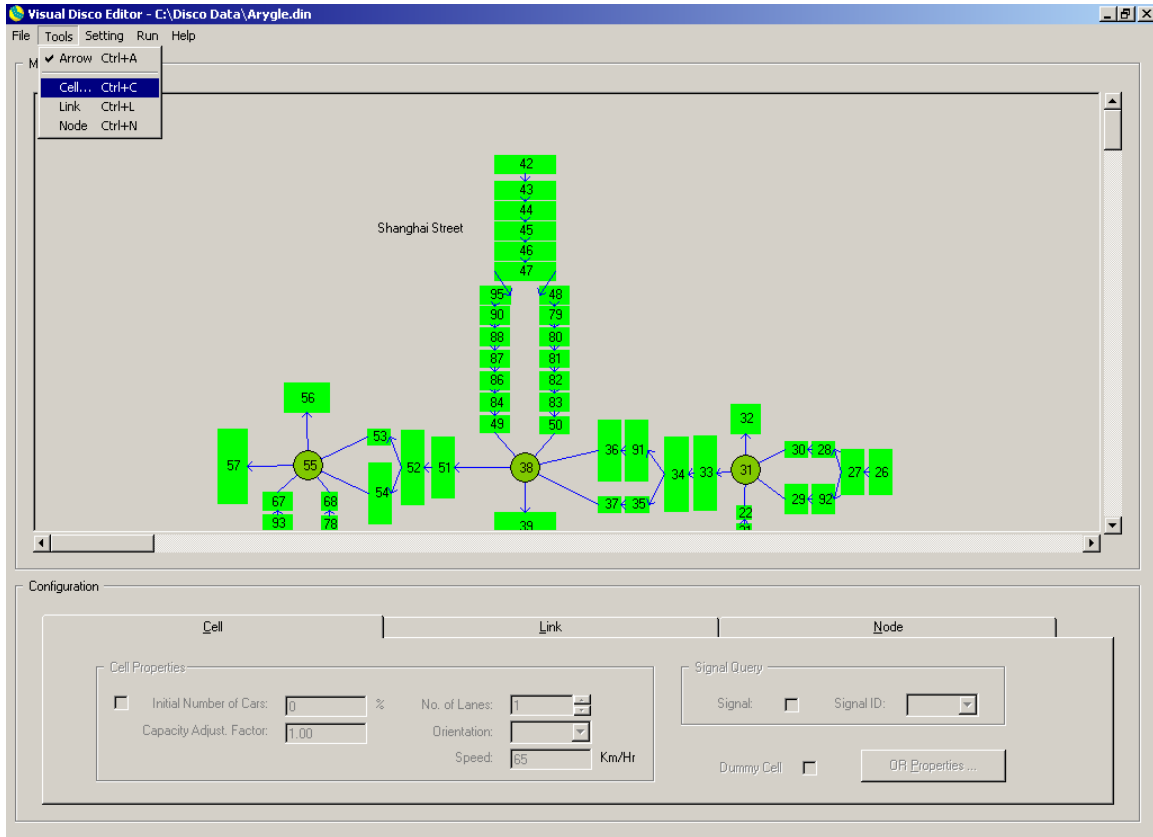
Select a link and edit its properties.



Select a node and edit its properties.

## Tools → Cell ...

New cells can be added to the map using “Cell”. The added cells will have default settings as shown in the “Cell Setting” dialog box.



## Tools → Link

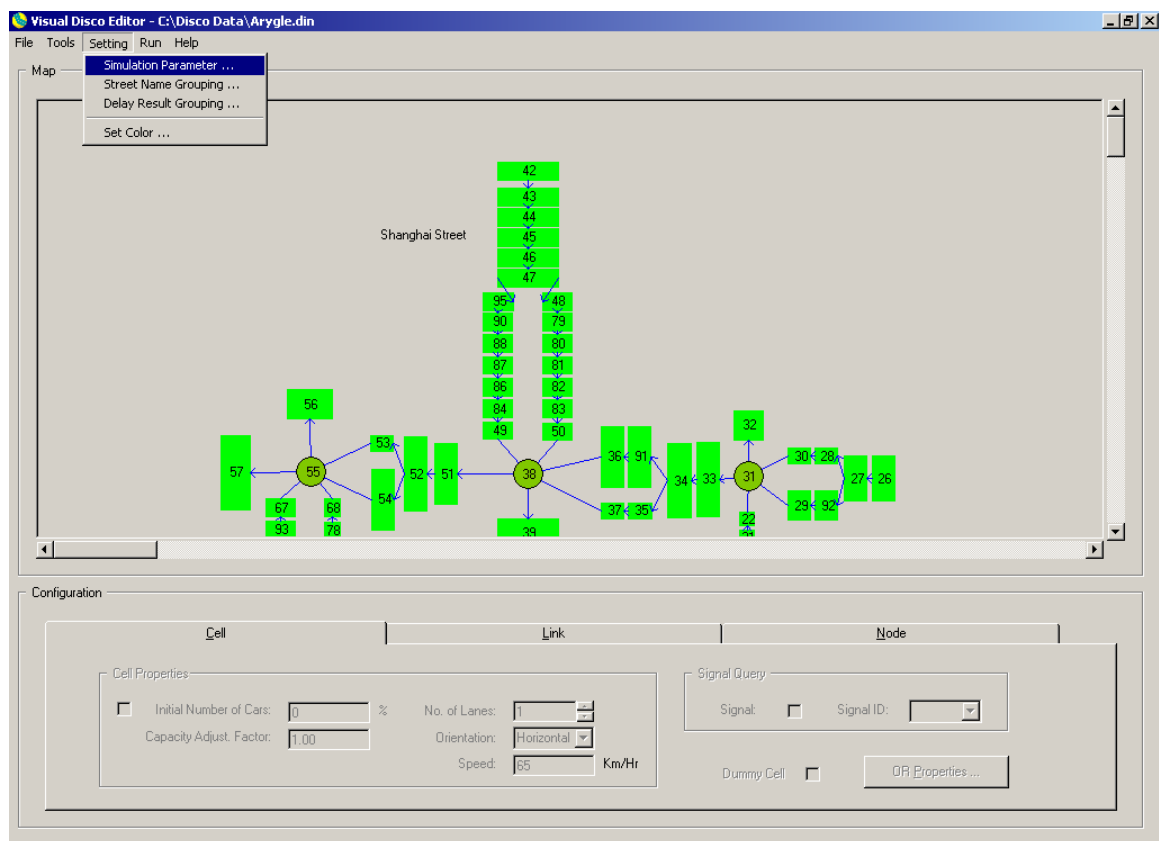
New links can be added to the map using “Link” by selecting the link’s origin cell and destination cell.

## Tools → Node

New nodes (intersections) can be added to the map using “Node”. Timing plan can be implemented for signalized nodes.

## Settings → Global Parameter Setting

It sets the global parameter.



Global Parameter Setting

✕

Flow-Density Diagram Parameters

W / V Ratio:

0.25

Jam Density:

125

Veh/Km

Saturation Flow:

1800

Veh/Hr

Cell Initial Occupancy:

0

%

Time Scale

Time Step:

1

End Simulation Step:

1000

Start Step:

0

End Step:

1000

Cell Scale

X:

3

Y:

100

Cycle

Simulated Cycles:

20

Regional Network Cycle Time:

120

Optimization

☐ Optimized by Disco

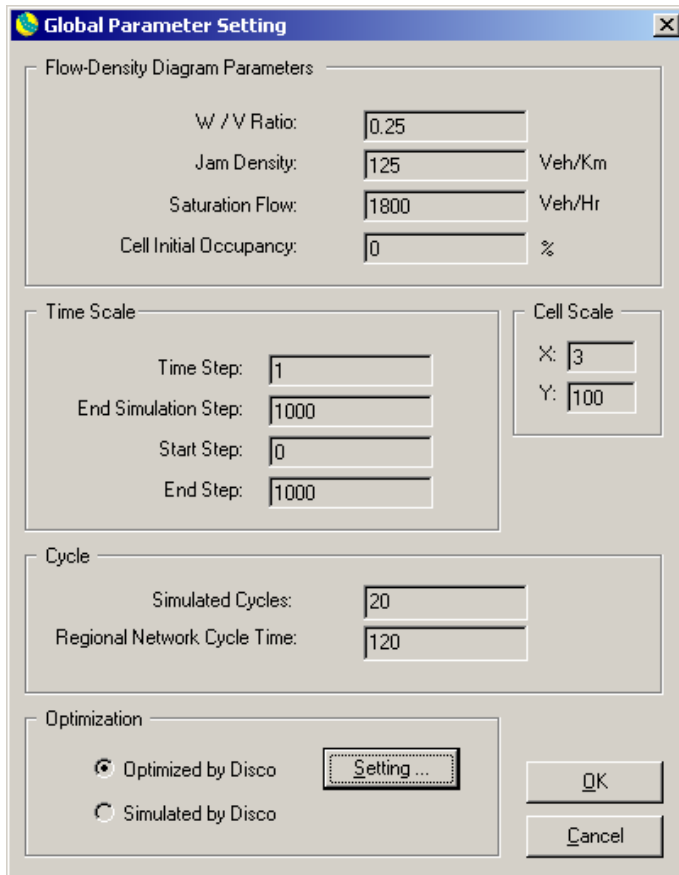
Setting ...

☒ Simulated by Disco

OK

Cancel

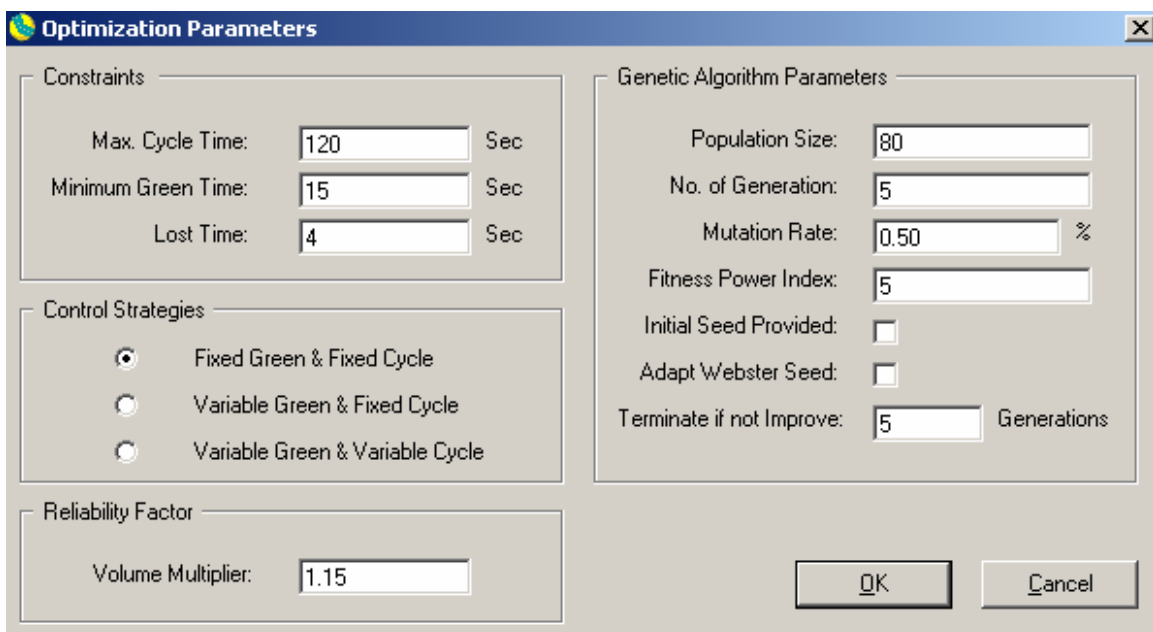
If “Optimized by Disco” is selected under “Optimization” category, additional settings are need to be set for optimization.



The "Global Parameter Setting" dialog box contains several sections for configuring simulation parameters. The "Flow-Density Diagram Parameters" section includes input fields for W / V Ratio (0.25), Jam Density (125 Veh/Km), Saturation Flow (1800 Veh/Hr), and Cell Initial Occupancy (0 %). The "Time Scale" section has fields for Time Step (1), End Simulation Step (1000), Start Step (0), and End Step (1000). The "Cell Scale" section has fields for X (3) and Y (100). The "Cycle" section includes Simulated Cycles (20) and Regional Network Cycle Time (120). The "Optimization" section features two radio buttons: "Optimized by Disco" (selected) and "Simulated by Disco". A "Setting ..." button is located next to the "Optimized by Disco" radio button. At the bottom right are "OK" and "Cancel" buttons.

Section	Parameter	Value	Unit
Flow-Density Diagram Parameters	W / V Ratio	0.25	
	Jam Density	125	Veh/Km
	Saturation Flow	1800	Veh/Hr
	Cell Initial Occupancy	0	%
Time Scale	Time Step	1	
	End Simulation Step	1000	
	Start Step	0	
	End Step	1000	
Cell Scale	X	3	
	Y	100	
Cycle	Simulated Cycles	20	
	Regional Network Cycle Time	120	
Optimization	Optimized by Disco	<input checked="" type="radio"/>	
	Simulated by Disco	<input type="radio"/>	

### Parameters for optimization

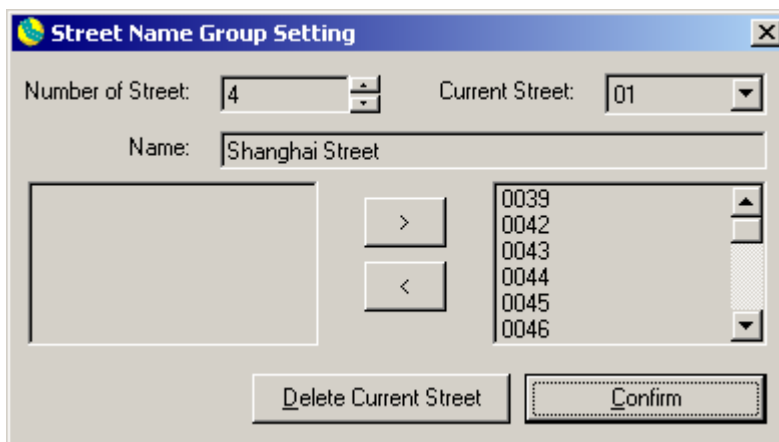
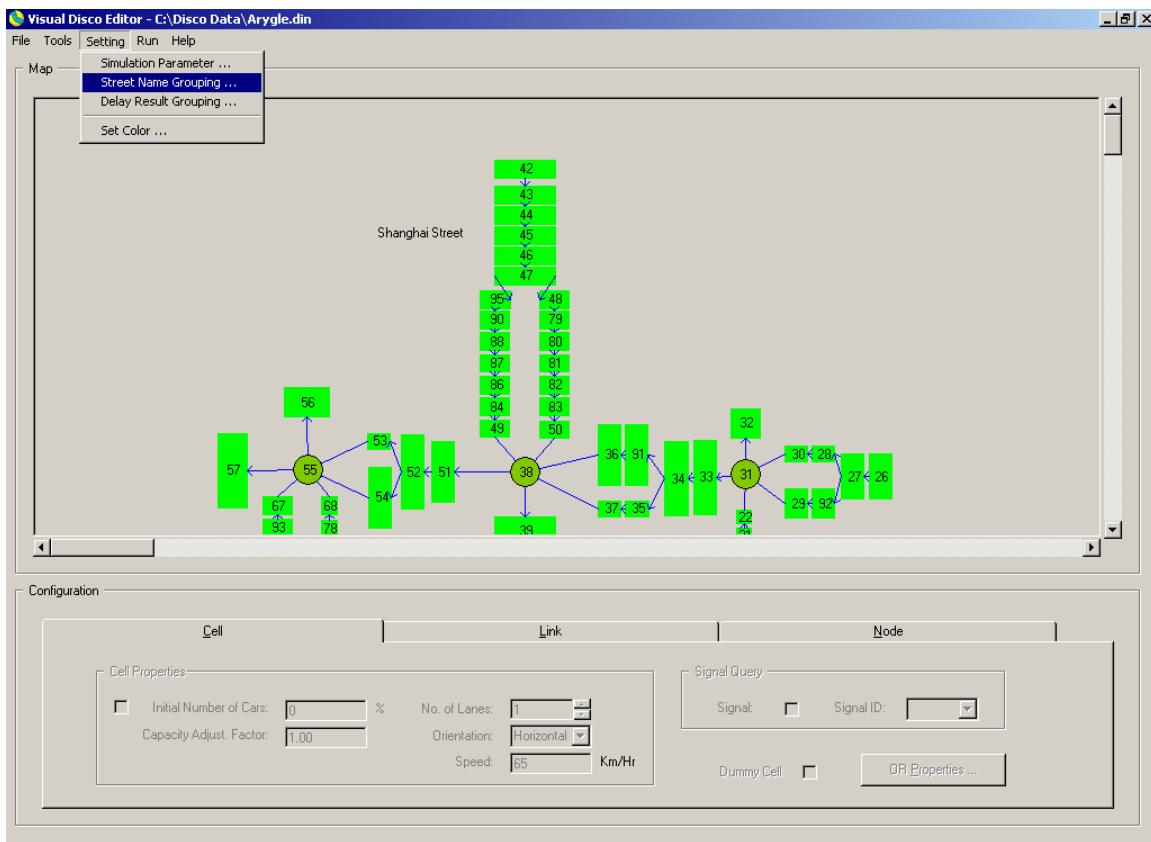


The "Optimization Parameters" dialog box is divided into three main sections. The "Constraints" section includes Max. Cycle Time (120 Sec), Minimum Green Time (15 Sec), and Lost Time (4 Sec). The "Control Strategies" section has three radio buttons: "Fixed Green & Fixed Cycle" (selected), "Variable Green & Fixed Cycle", and "Variable Green & Variable Cycle". The "Reliability Factor" section includes a Volume Multiplier (1.15). The "Genetic Algorithm Parameters" section includes Population Size (80), No. of Generation (5), Mutation Rate (0.50 %), Fitness Power Index (5), Initial Seed Provided (unchecked), Adapt Webster Seed (unchecked), and Terminate if not Improve (5 Generations). At the bottom right are "OK" and "Cancel" buttons.

Section	Parameter	Value	Unit
Constraints	Max. Cycle Time	120	Sec
	Minimum Green Time	15	Sec
	Lost Time	4	Sec
Control Strategies	Fixed Green & Fixed Cycle	<input checked="" type="radio"/>	
	Variable Green & Fixed Cycle	<input type="radio"/>	
	Variable Green & Variable Cycle	<input type="radio"/>	
Reliability Factor	Volume Multiplier	1.15	
Genetic Algorithm Parameters	Population Size	80	
	No. of Generation	5	
	Mutation Rate	0.50	%
	Fitness Power Index	5	
	Initial Seed Provided	<input type="checkbox"/>	
	Adapt Webster Seed	<input type="checkbox"/>	
Genetic Algorithm Parameters	Terminate if not Improve	5	Generations

## Setting → Street Name Grouping

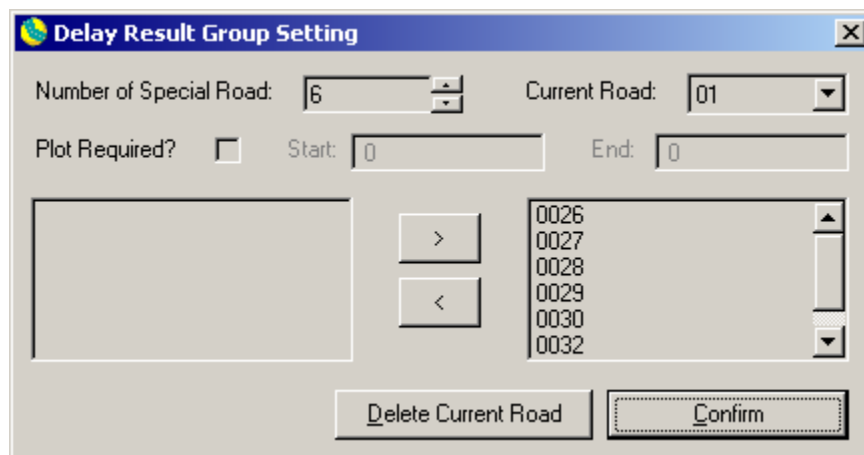
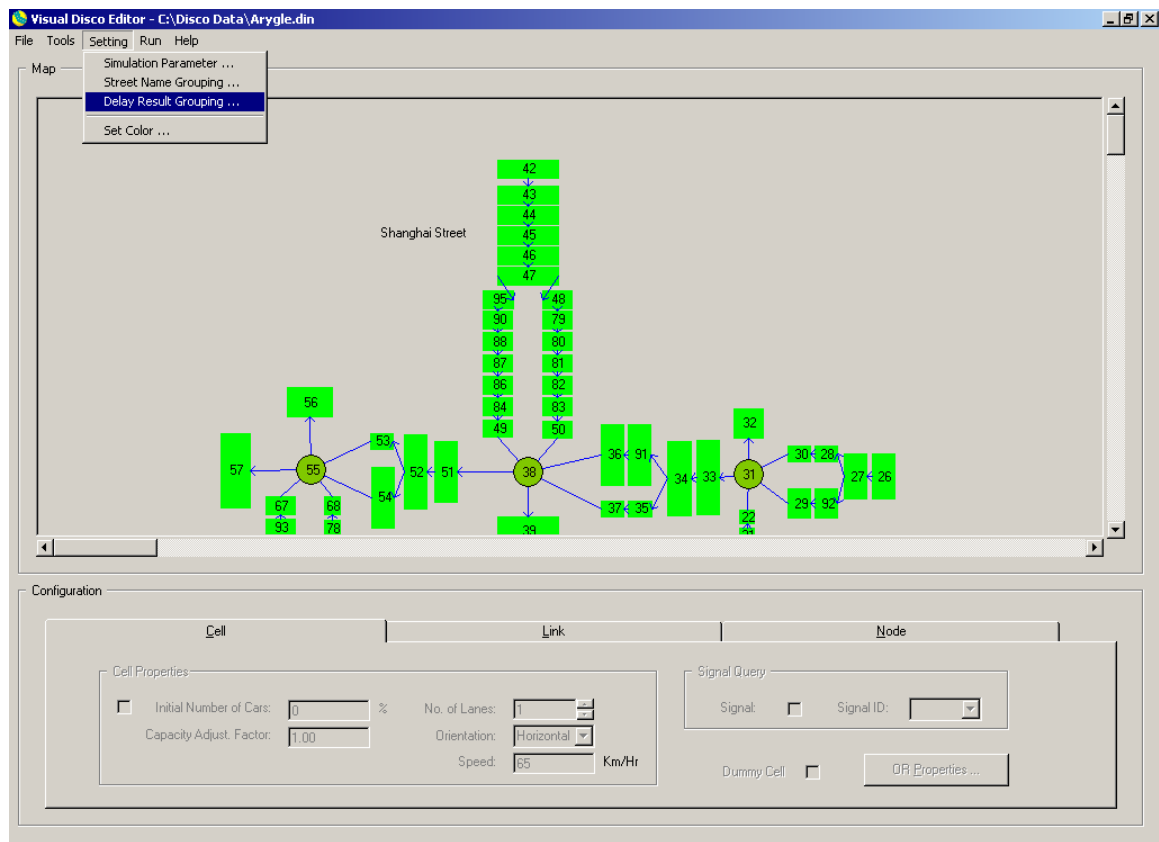
Cells can be grouped in “streets”.





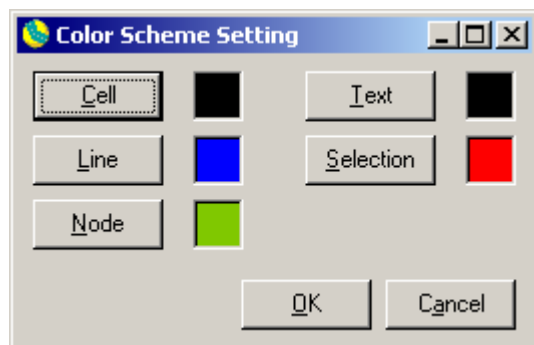
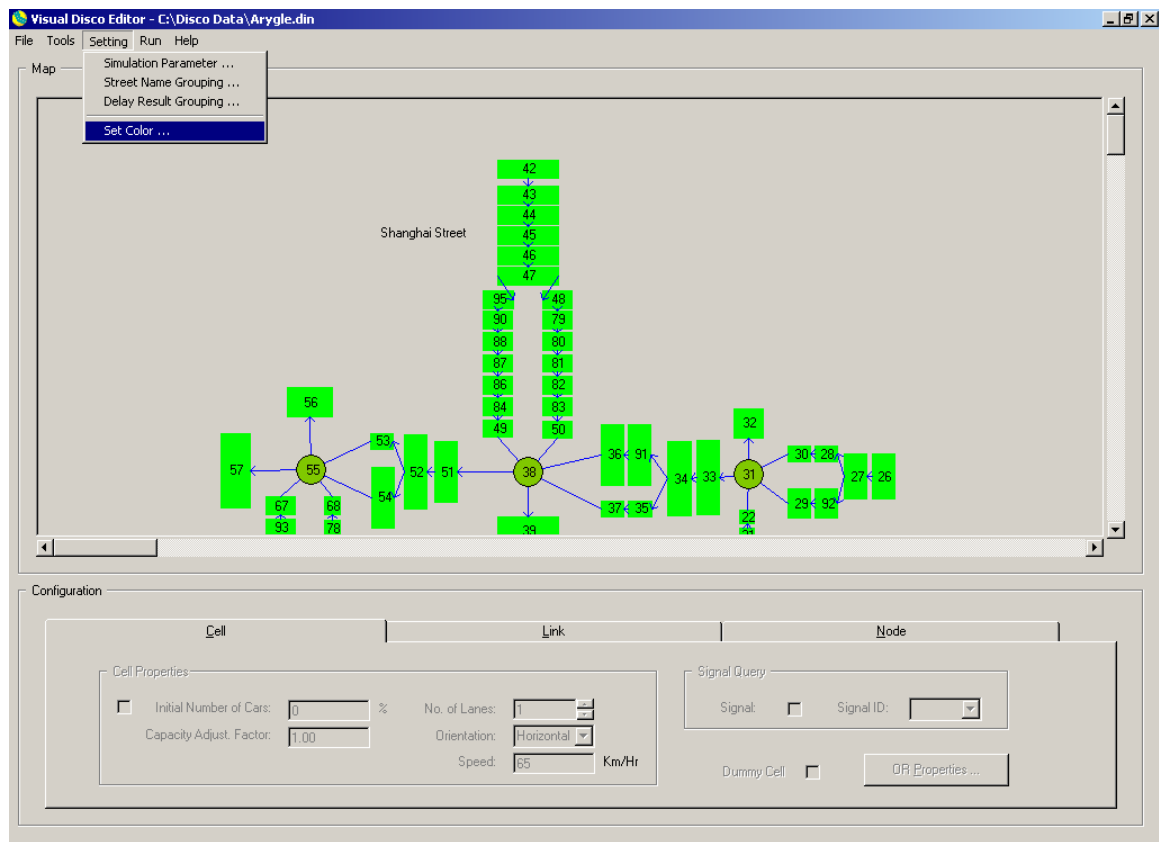
## Setting → Delay Result Grouping

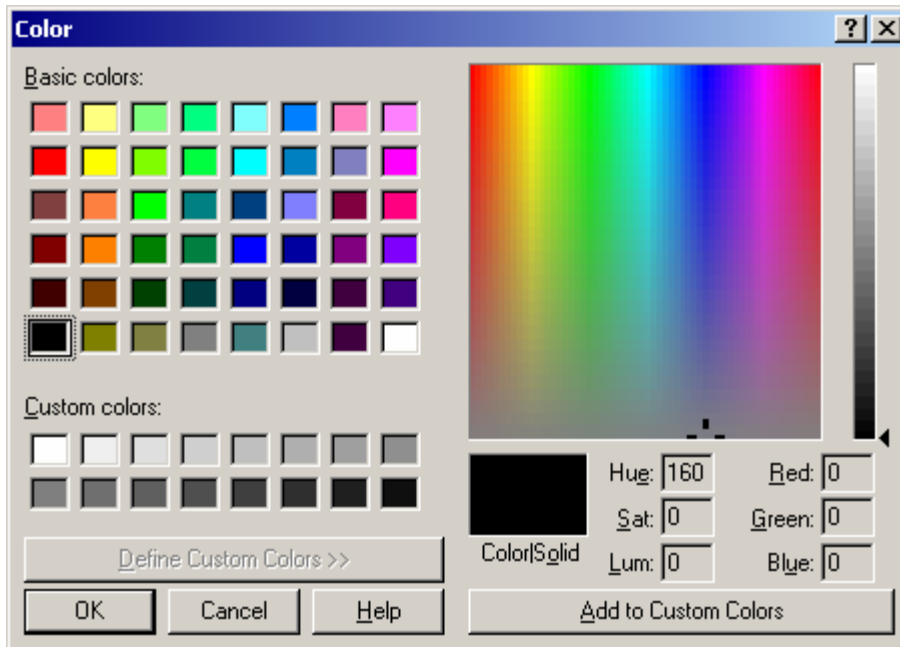
Cells can also be grouped for “Delay Result” analysis.



## Setting → Set Color ...

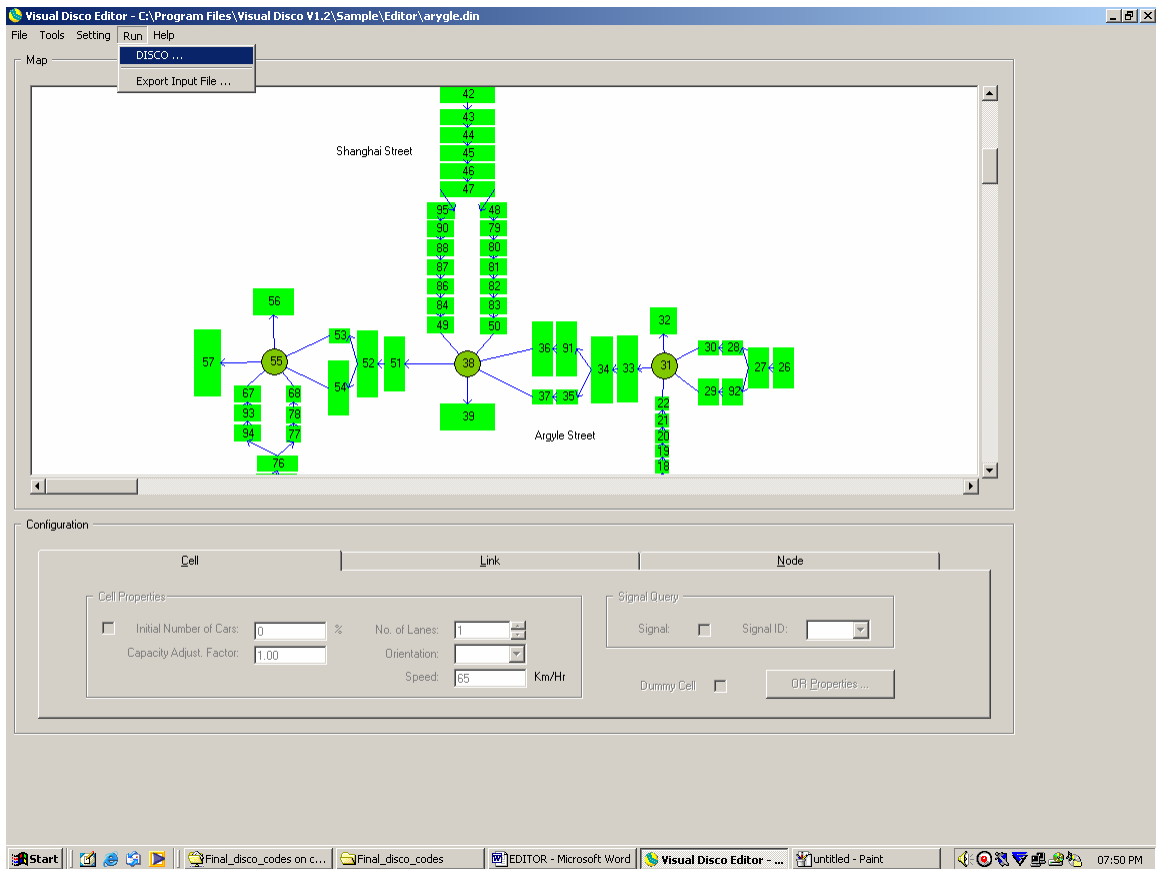
You can set colors for your map's elements.



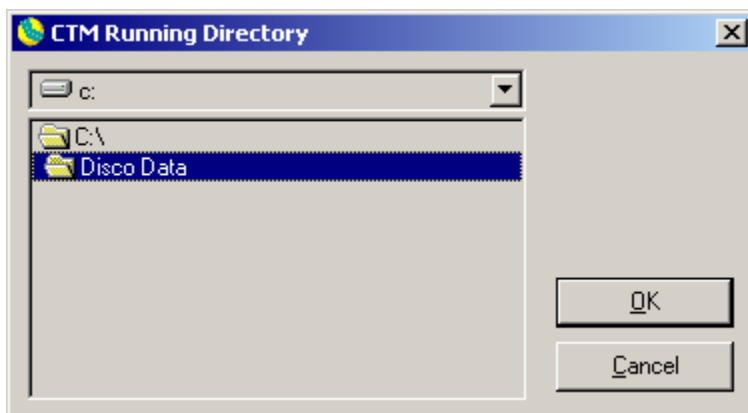


## Run → CTM ...

Run CTM (Disco) for both simulation and optimization.

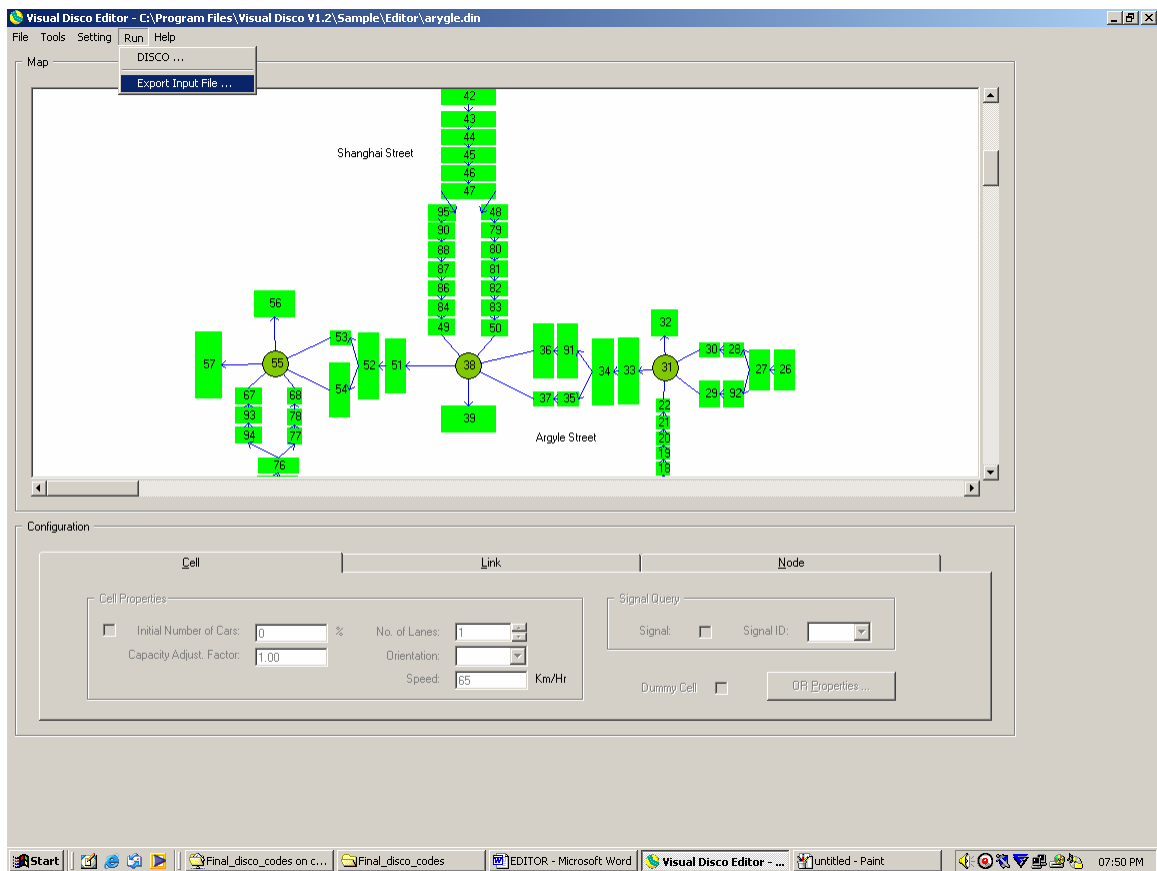


The input / output directory can be specified and the in / out files will be put here.

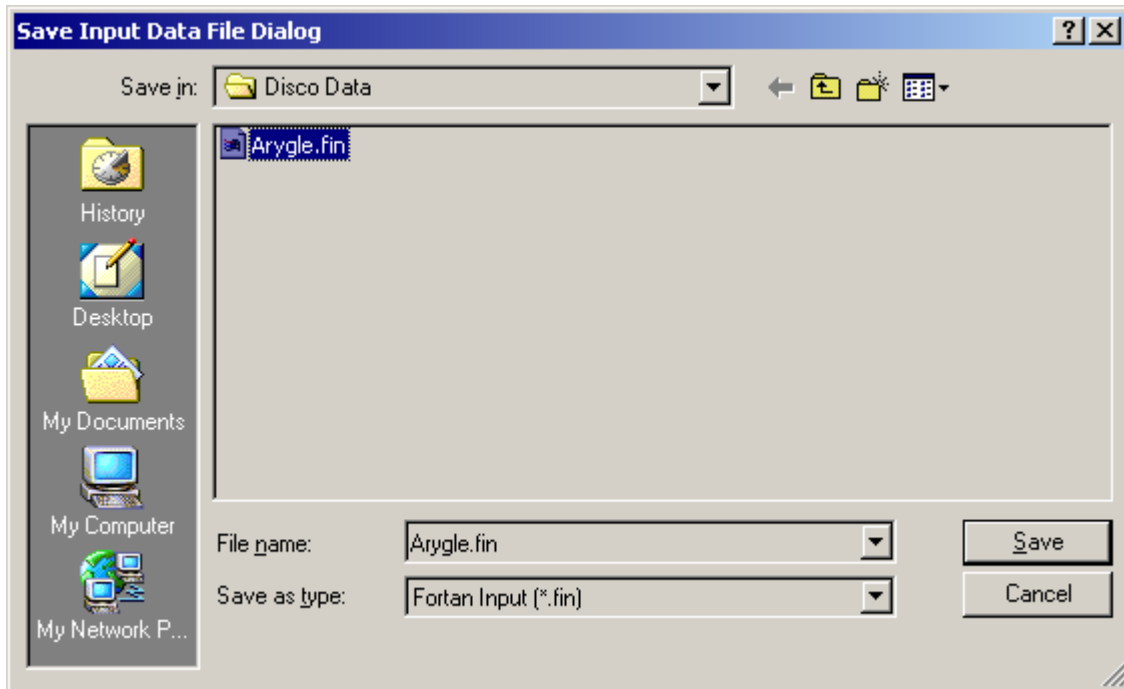


## Run → Export Input File ...

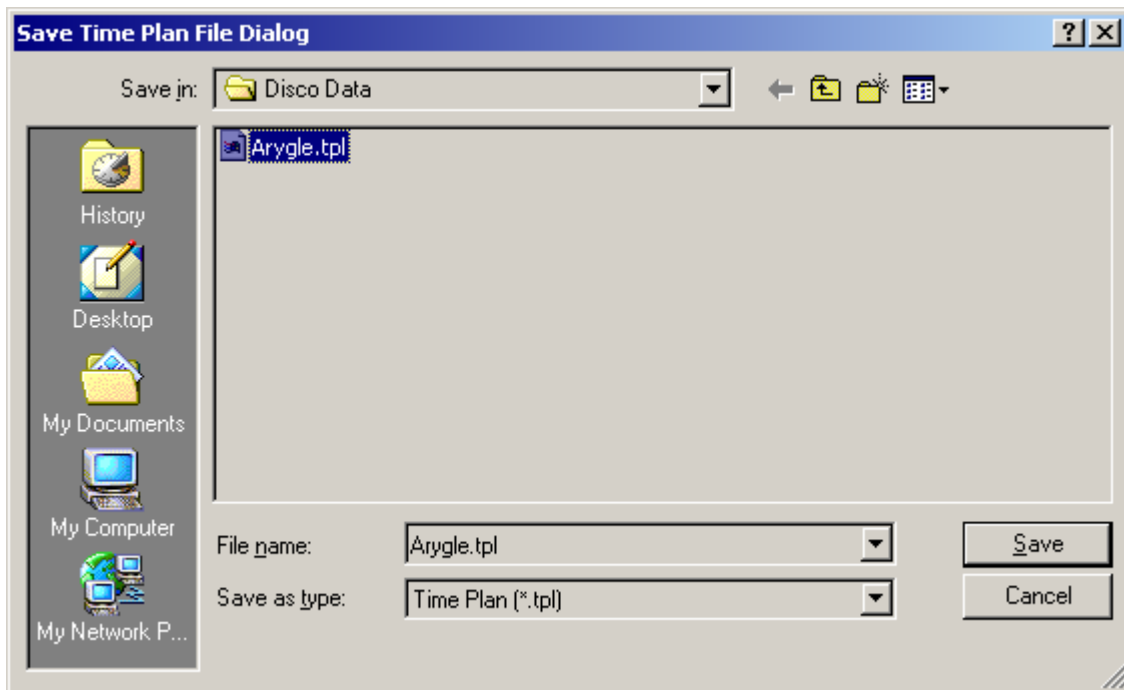
Fortran input file for CTM program can be exported.



Input scenario file:

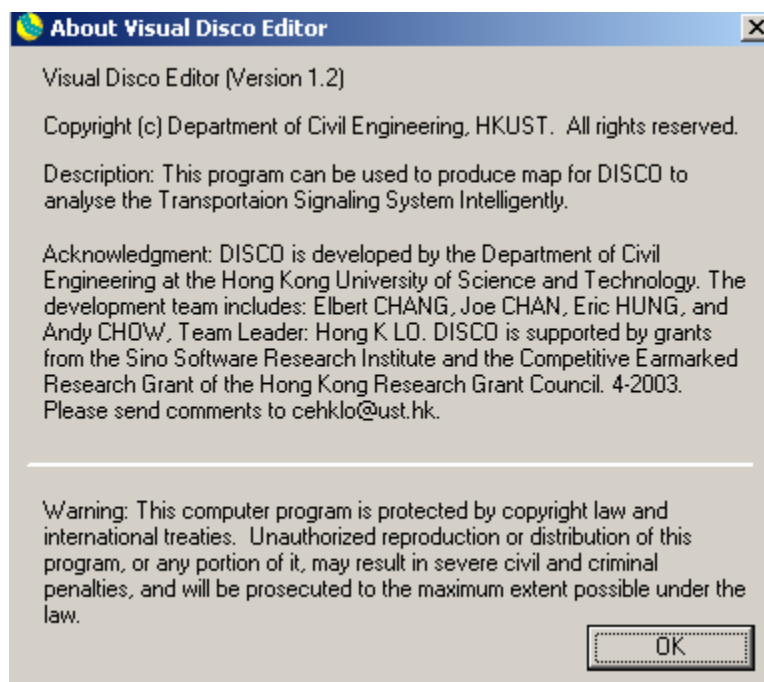
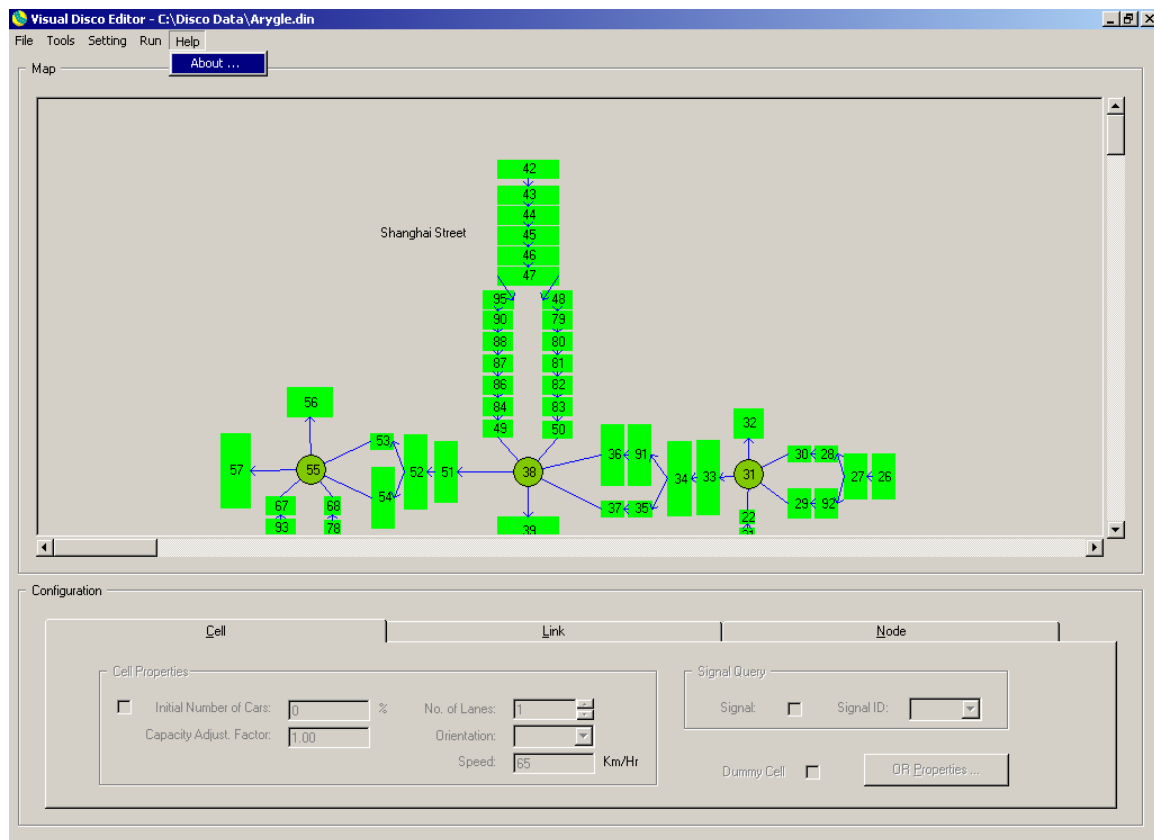


Input timing plan file:

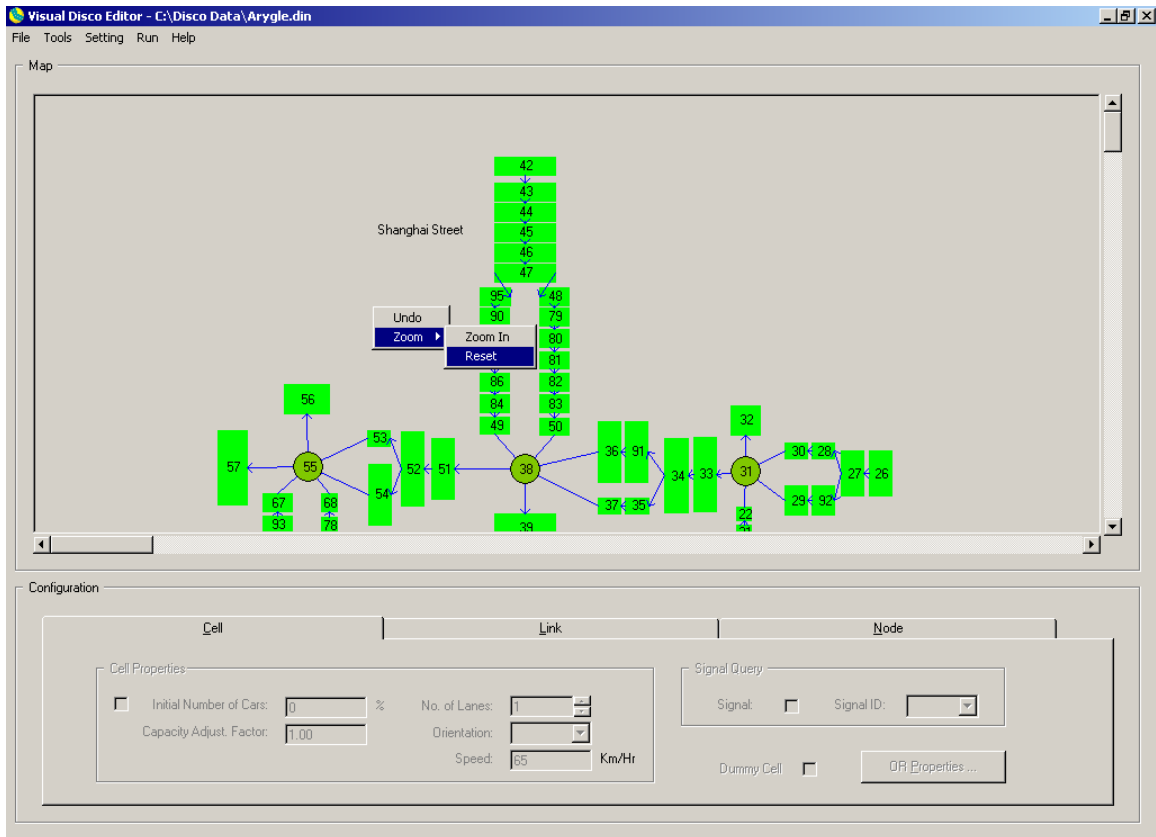


## Help → About ...

It shows information about the Editor program.



## Popup Menu



1. Undo – Undo the last action.
2. Zoom → Zoom In – Zoom into the map.
3. Zoom → Reset – No Zoom.



## Delete an element

There are two ways to delete a selected element. Right-Click it by mouse and select “delete”. Alternatively, you may press the “delete” button on the keyboard.

