


### Traffic Module Operation Procedures

Two simulation modes are available in the traffic module. One is manual driving simulation, in which a vehicle goes ahead step by step by mouse click of the icon, and the other is automatic driving simulation, in which a vehicle goes ahead automatically along the predetermined driving route.

Operation procedures are described separately for each simulation mode.

#### 1. Allocation of vehicle

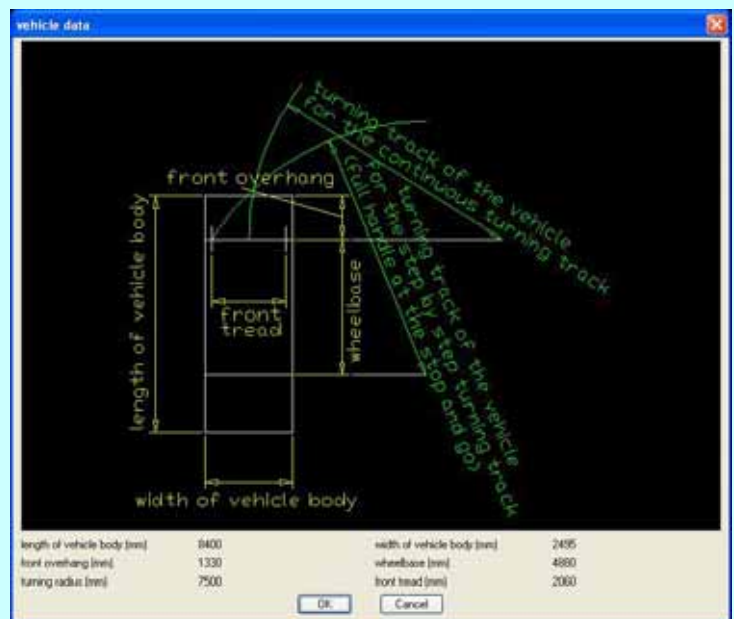
Open 3D graphic layout, and click the icon   
Select the vehicle from the pull down menu



Point cursor at the location for allocation of the vehicle and decide by left click, the point is matched with a center of the vehicle front head.  
Point cursor to determine the direction of driving vehicle. Then the vehicle is allocated.  
The picture below is an example of a case fire truck is allocated on the plant road.



Confirm the vehicle data on the dialogue and press OK bottom.



#### ☒ Delete vehicle


Delete the vehicle having been allocated.

Select the vehicle by left click and then Press Enter Key.

#### 2. Select vehicle

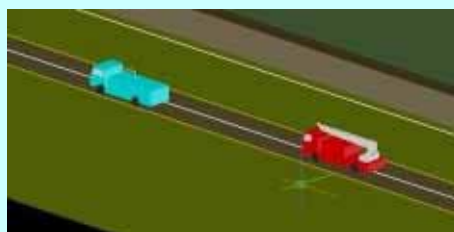
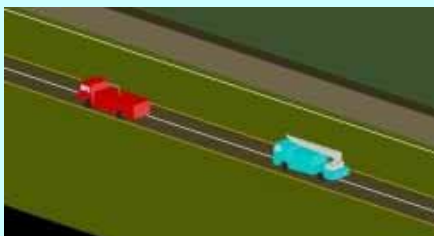
In case that two or more vehicles have been allocated, the vehicle for driving simulation must be selected.

Only one vehicle can be simulated at a time

Click the icon 

Select the vehicle by left click for driving simulation and press Enter Key.

Then color of the vehicle is changed to red color. ( selected vehicle for the simulation is always in red color, otherwise in blue color.)




In this example, the fire truck is a vehicle for the driving simulation





### 3.Options (vehicle)

Click the icon 

Change the default setting as required.

option of vehicle driving simulation

forwarding distance per one step[m]   
(The distance above must be less than the wheelbase.)

turning angle per one step[deg]


driving trace of the vehicle  
☐ not show driving track ☒ show driving track

number of the vehicle trace to be deducted from the driving trace (per-rooted simulation)  
☒ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

off time between driving steps (per-rooted simulation) (short-----long)  
☐ ☐ ☒ ☐ ☐ ☐ ☐ ☐ ☐

OK Cancel

#### Distance of proceeding ahead by one step

Input the distance of proceeding ahead by one click of the icon  ( the distance must be less than wheel base )

#### Turning angle by one step

Input turning angle by one click of the icon  

#### Vehicular swept path

Select whether vehicular swept path is displayed or not.

#### Number of step to be deducted at display of the path (automatic driving simulation)

Select number of the step. By the deduction, overlapping of the vehicle picture can be reduced.


#### Time between steps (automatic driving simulation)

Select the time between steps.




### 4.Manual driving simulation


#### Manual driving forward

Click the icon , then the vehicle proceeds forward one step of the distance

#### Manual driving turn to the right

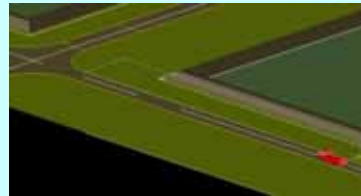
Click the icon , then the vehicle turns to the right one step of the turning angle.

#### Manual driving turn to the left

Click the icon , then the vehicle turns to the left one step of the turning angle.


#### Options (vehicle)

By this option , distance or turning angle per step, how to display the driving trace, time between steps can be set as required




The vehicle in red color is a vehicle for the driving simulation.




Click the icon  successively to proceed the vehicle to near crossing.

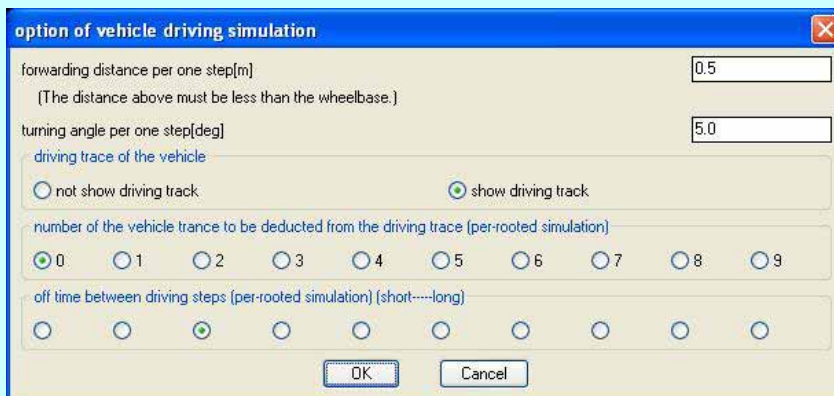


Click the icon  successively to turn the vehicle to the right at the crossing.

## Automatic driving simulation mode

### 1.Options (vehicle)

Click the icon   
Change the default setting as required.




The dialog box titled "option of vehicle driving simulation" contains the following settings:



- forwarding distance per one step[m]: 0.5 (Note: The distance above must be less than the wheelbase.)
- turning angle per one step[deg]: 5.0
- driving trace of the vehicle:
  - ☐ not show driving track
  - ☒ show driving track
- number of the vehicle trace to be deducted from the driving trace (per-rooted simulation): 0 (radio buttons 0 through 9 are shown)
- off time between driving steps (per-rooted simulation) (short-----long): 0 (radio buttons 0 through 9 are shown)

Buttons: OK, Cancel

#### Distance of proceeding ahead by one step

Input the distance of proceeding ahead by one click of the icon  ( the distance must be less than wheel base )

#### Turning angle by one step

Input turning angle by one click of the icon  

#### Vehicular swept path

Select whether vehicular swept path is displayed or not.


#### Number of step to be deducted at display of the path (automatic driving simulation)

Select number of the step. By the deduction, overlapping of the vehicle picture can be reduced.

#### Time between steps (automatic driving simulation)

Select the time between steps.

### 2.Input the driving route

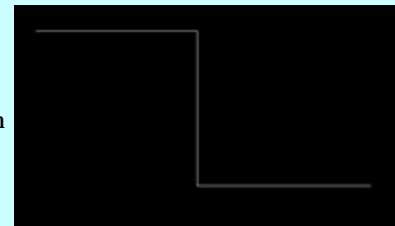
Click the icon 

Point the cursor at the starting location of the route and left click.


Point the cursor at the second location of the route and left click

Point the cursor at the third location of the route and left click and so on as required.

When pressing Enter key, then finish the input of the route and the route is displayed.



### 3.Driving along the route

Click the icon 


Select the vehicle from the pull down menu.

Confirm the vehicle data on the dialogue and press OK bottom.

Select the driving route on the 3D graphic layout and press Enter key locally.



When the vehicle is arrived at the end of the route, the driving simulation will be stopped automatically.



The dialog box titled "Vehicle to be simulated" contains a list box with the following items:

- light vehicle
- a middle size vehicle
- fire engine
- a large track
- foam fire track
- foam liquid track
- vehicle1
- vehicle2
- vehicle3

Buttons: OK, Cancel

In case that the vehicle cannot turn with the minimum turning radius along the route, error message appears.

#### Options (vehicle)

By this option , distance or turning angle per step, how to display the driving trace, time between steps can be set as required