Traffic Signal Timing Editor

This tool is a demonstration of how to modify the timings for a junctions controlled by traffic signals (also known as "traffic lights").

To use this demonstration, you must first create a 3D V-Road map. (If you have not done this, open the main tool from **Tools / Global Roads and Traffic** and build a V-Road model using the **Build** tab.)

Press **[Open Scene 'Traffic Signals']** to open the correct scene

Press the **[...]** button to open a V-Road model by selecting a *.vroad file.

Press **[Play Scene 'Traffic Signals']** to start the demo

Once the map is loaded, you will see a row of radio buttons

• **Splits** ◦ **Offset** ◦ **Cycle** ◦ **Adaptive**

Under the radio buttons, there will be panel containing one row for each signal-controlled junction. If there are no junctions with traffic signals in your model then the panel will be empty – choose another V-Road map.

Splits

In each row, there will be a button with the ID of the junction (this is defined by the OpenStreetMap node ID) followed by several text fields, one text field containing the green time in seconds for each 'Stage' of the signal timing. One of the text fields will have a numeric value in green – this is the active Stage - the others each have a value in red.

As the simulation runs, the active Stage changes, in order, so the green value normally moves from left to right. However, most junctions are set to Adaptive control – so a stage may be skipped if there is no traffic waiting for that stage.

Offset

If the Offset radio button is selected, there will be a single text field for each junction, showing the offset in seconds from a global start time. You can edit this time to affect the co-ordination of the timing. For example, you might change this to set up a "green wave" progression along a major route.

Cycle

If the Cycle radio button is selected, there will be a single text field for each junction, showing the cycle time for each junction. If this is zero, then the cycle time is derived from the sum of the green, yellow and red times for each junction. It is not possible with this example demo window to change the red and yellow times for each stage. By default the yellow time is 4 seconds and the red time (also known as the inter-green time) is also 4 seconds. If you set a non-zero time for the cycle time then the values on the Splits tab will be changed in proportion. Remember to add 4 yellow and 4 red to each green time to sum to the cycle time.

Adaptive

This shows a single check box for each junction, which if enabled will skip, terminate or extend a stage depending on the demand for that stage.