

Pro Cycling Manager Stage Editor

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WARNING !

It should be noted that this stage editor was created by the Cycling Manager development team to help them to create stages for the game. It is developer software for developers and it is Work in Progress ! It was not designed as a user-friendly application to be placed in the hands of every gamer. As such it can be improved in terms of ergonomics, stability and functionality. We would advise you to advance slowly, learning the various facets of the editor as you move along and we strongly advise you to do regular backups ! That said, the editor does work. The proof being that all the stages in Cycling Manager 5 were made using it.

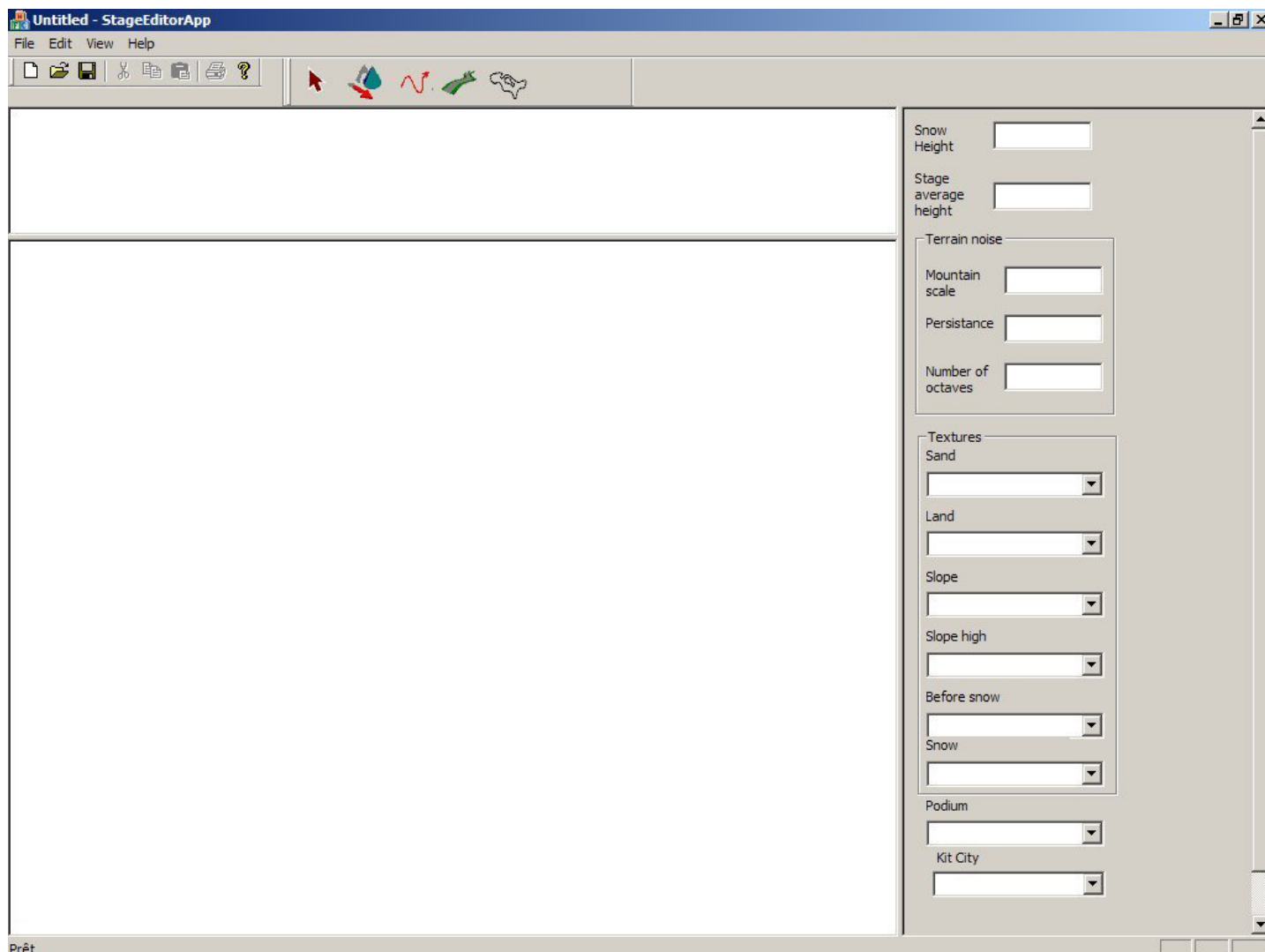
The integration of a personal stage file into Cycling Manager requires the use of an additional and, as yet inexistent, tool !!

Finally, it should be noted that in its present form, the editor does not enable the creation of a stage from A to Z. Much key data must be entered by hand directly into the stage XML file.

Interface

When you run the application it does not open in full screen mode. You should therefore expand the window and organise the layout so that you have the maximum drawing area available so as to avoid using the sliders to the right to the screen.

Firstly move the two toolbars so that they lie side by side and not one on top of the other. This will give you more room to view the list of textures. Next, slide the vertical bar at the right of the viewing window to the right. Your screen should now look like the screen below.



The viewing area is split by a horizontal bar. In the small area at the top you will see a side-on (profile) view of your stage, complete with climbs. By right-clicking in this area and turning the mouse wheel it is possible to zoom in or out of the view. The large area below is where you will create your stage (Top Window), using a bird's eye view, and then render it into a full 3D stage (Render Window). Once rendered you can visit your route along its full length, viewing towns, road junctions,

mountains and lakes ! Once a Top Window view has been rendered it is possible to pass from Top Window view to Render Window view by using the "View" command on the menu bar. Any modification in the Top Window must be rendered before it becomes visible in the Render Window.

Working in the Top Window

Left click	Select an object
Right click	Deselect an object or deactivate tracing of current route
Alt + Left mouse button held down	Move the route or underlying map around within the window
Turn mouse wheel or Alt + Right mouse button held down + side-to-side mouse movements	Zoom in/out route or underlying map.

Working in the Render Window

Left mouse button held down	Rotate and swivel the rendered 3D image
Turn mouse wheel or Alt + Right mouse button held down + side-to-side mouse movements	Zoom in/out of rendered 3D image.
Up arrow / down arrow	Move forward or back along your 3D route. (The more zoomed in you are, the slower you will advance along your route.

Menu bar

File	New Open Scale Render Batch render Quick render Save Save as Exit	- Create physical link between horizontal and profile views of a stage via a checkpoint - Create 3D image from Top Window image and data in XML file
Edit	Cut Copy Paste	
View	Toolbar Status bar Top Window Render Window Drop Window	- Display standard icons such as diskette for "Save" - Display data on bottom line of screen - Window in which 2D view of stage is created and edited - Window in which 3D view of stage is displayed - Window containing various structures (silos, windmills, ...) that can be dropped onto rendered 3D image
Help	About	

Icons



Select a point



Move a point.



Create Route, point by point



Create road network



Create Altitude Points for mountains and lakes

Snow
Height

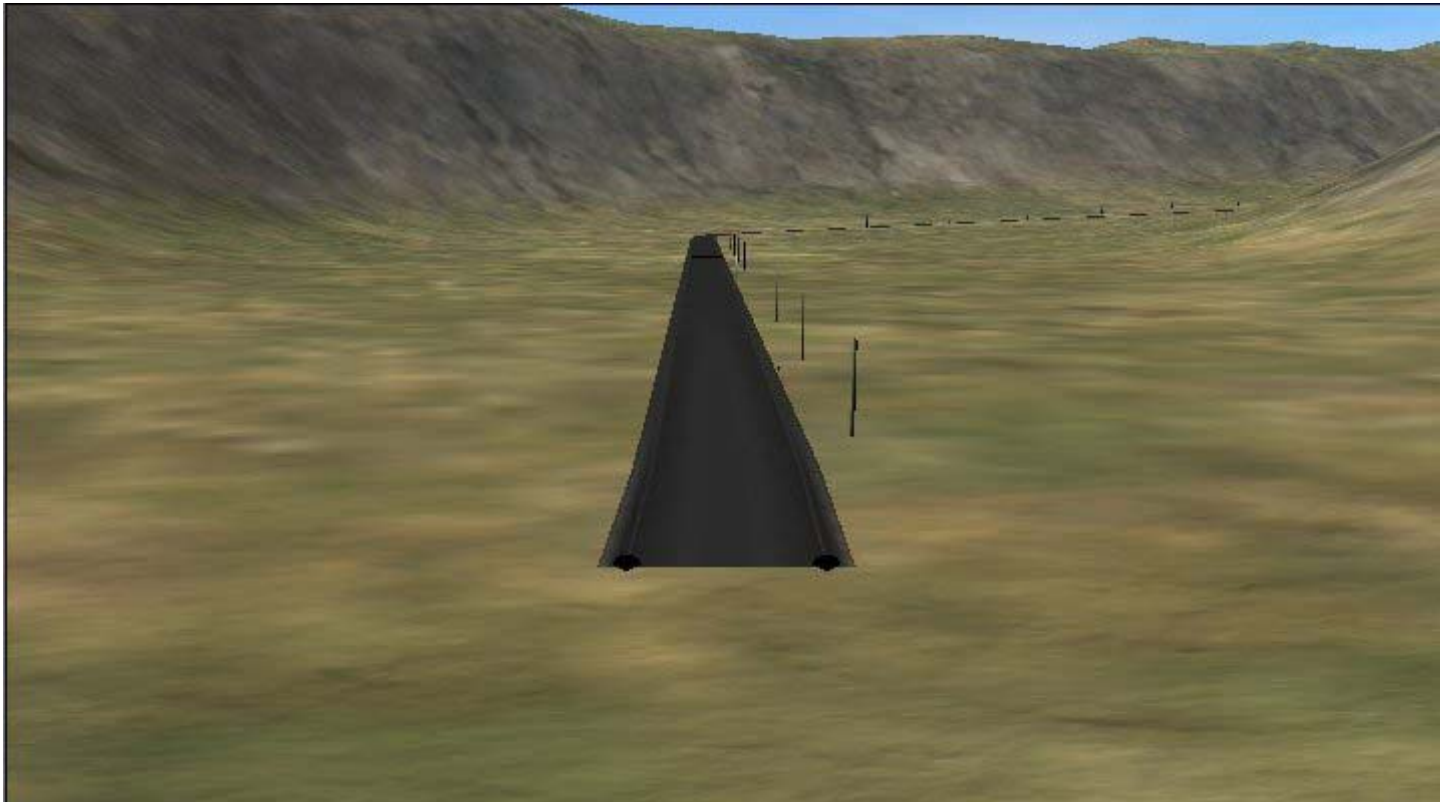
The height at which snow appears in meters.

Stage
average
height

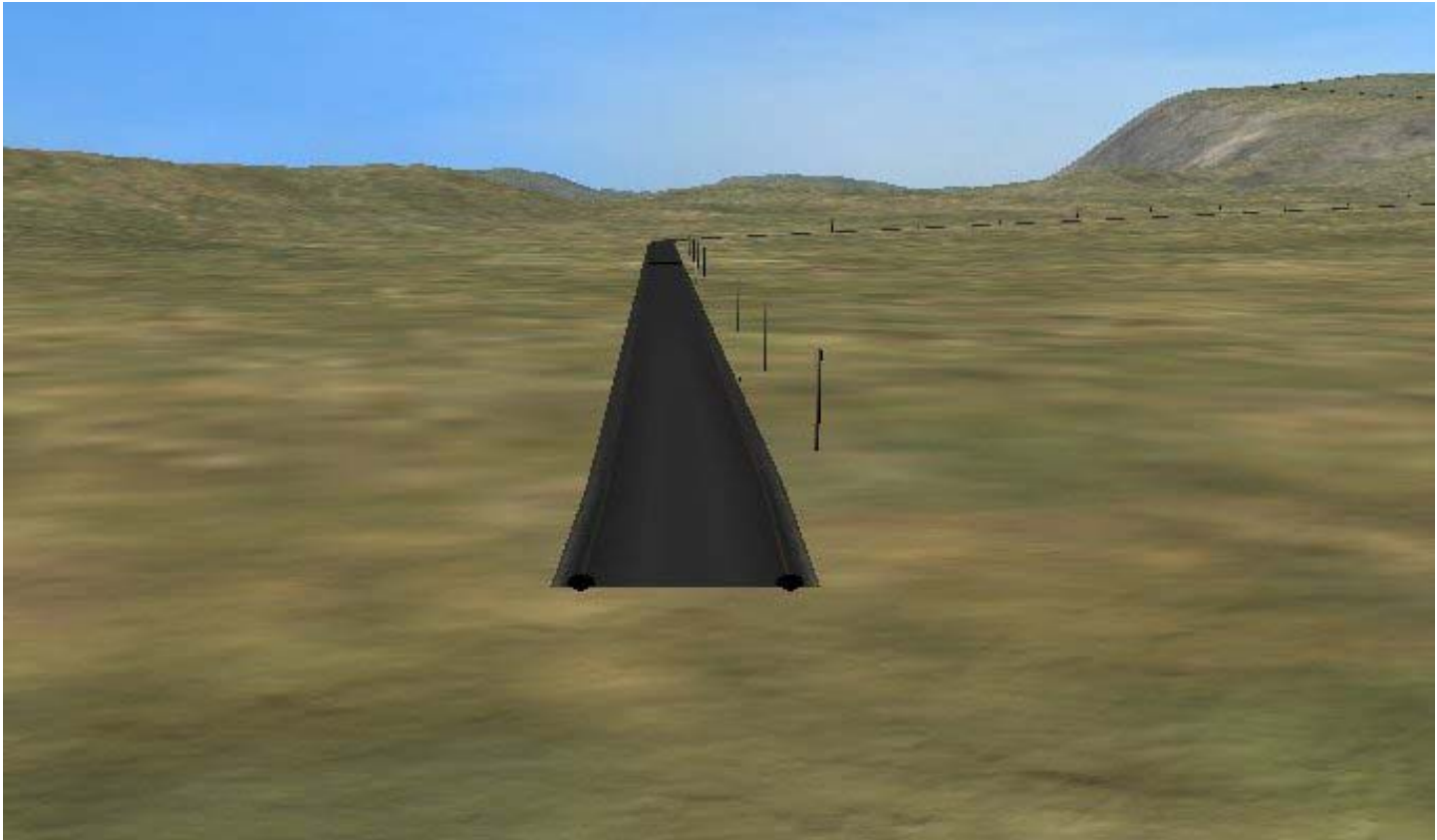
Average height of terrain surrounding route, in meters. This figure is separate to the altitude of the various sections of the route that the stage will follow. A figure of 100 will give rolling hills, whereas a figure of 800 will set the route in a fairly deep depression.

The following images show the same route with an average height of 700 and 100. Both are captured from exactly the same point.

Stage Average Height = 700



Stage Average Height = 100



Terrain noise

This section defines the area surrounding your route, not the route itself. Any climbing to be done by your riders is defined by the slope data in the XML file.

Terrain noise

Mountain scale

Persistence

Number of octaves

Mountain scale : Define mountain height

Persistence : Define shape of mountains : For example 0.5 will give rounded mountains, whereas 0.65 will give steep slopes

Number of octaves : Leave at 8

Textures

This section defines the textures that are applied to the countryside surrounding your route.

Textures

Sand

Land

Slope

Slope high

Before snow

Snow

Podium

The type of podium that will welcome the stage winner

Kit City

Alps

The type of local architecture applied to towns on the route

Crowd

Low, normal or high spectator presence

Forest (default: -1)

Density of trees. The default (-1) takes the selected local architecture as the basis for its calculations, with more trees present in northern climes. The highest value possible is 99.

Creating a route

XML file. The basis of your stage

The stage data is stored in text form as an XML file that can be edited or created with any simple text editor. The game stages are not stored in graphic format. They are built before each race from the description contained in the XML file. It is possible to create a stage ex nihilo, but it is also possible to trace a route over an existing map. If you wish to base your route on a map there are three conditions to respect :

- 1) The map file must be square and measure 512x512, 1024x1024 or 2048x2048. (A map of 512x511, for example, will not load !)
- 2) The map must be saved in BMP format
- 3) The map must have the same name (but not the same extension) as the XML file (my_stage.bmp / my_stage.xml, for example) and must be stored in the same directory as the XML file

Creation ex nihilo

Create an XML file in a text editor and paste in the following 6 lines.

```
<cycling>
  <profile>
    <start altitude="000" />
    <section length="5.0" slope="0" />
  </profile>
</cycling>
```

Note :

These are just the first few lines of what can become a dense file. The "section length" line is just to give a bit of consistency to the file in its early stages.

section length is the distance between 2 points, in kilometres

slope is the incline in %

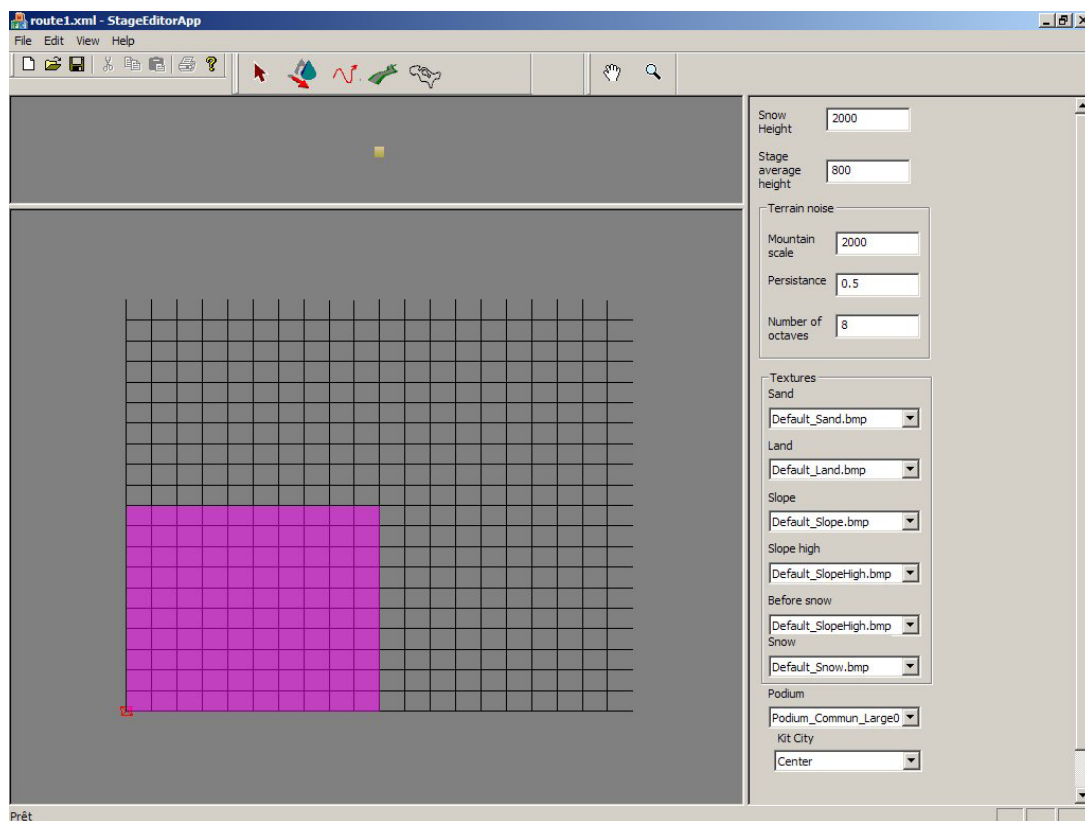
some examples :

<section length="5.0" slope="0" />	5 kilometre portion on the flat
<section length="0.5" slope="-3" />	500 meter portion downhill at 3%
<section length="11.0" slope="5" />	11 kilometres uphill at 5%

Save the file as route1.xml (or whatever name you want, as long as it has an xml extension). It's best to create a specific route data subdirectory for your stage files.

Open the stage editor and open the file via the File/open menu. (You will probably have to navigate to your route data directory to find the xml file).

The editor screen will look like this



An empty grid will be shown in the Top Window; a very narrow side view will appear in the upper part of the screen and default data will be shown for the various route parameters on the right side. The purple square appears on the grid when no underlying map is present.

The grid may flicker. If this happens resize the Top Window horizontally by using the vertical bar, until the image stabilises.

Select the Create Route icon and click on the grid with the left mouse button.

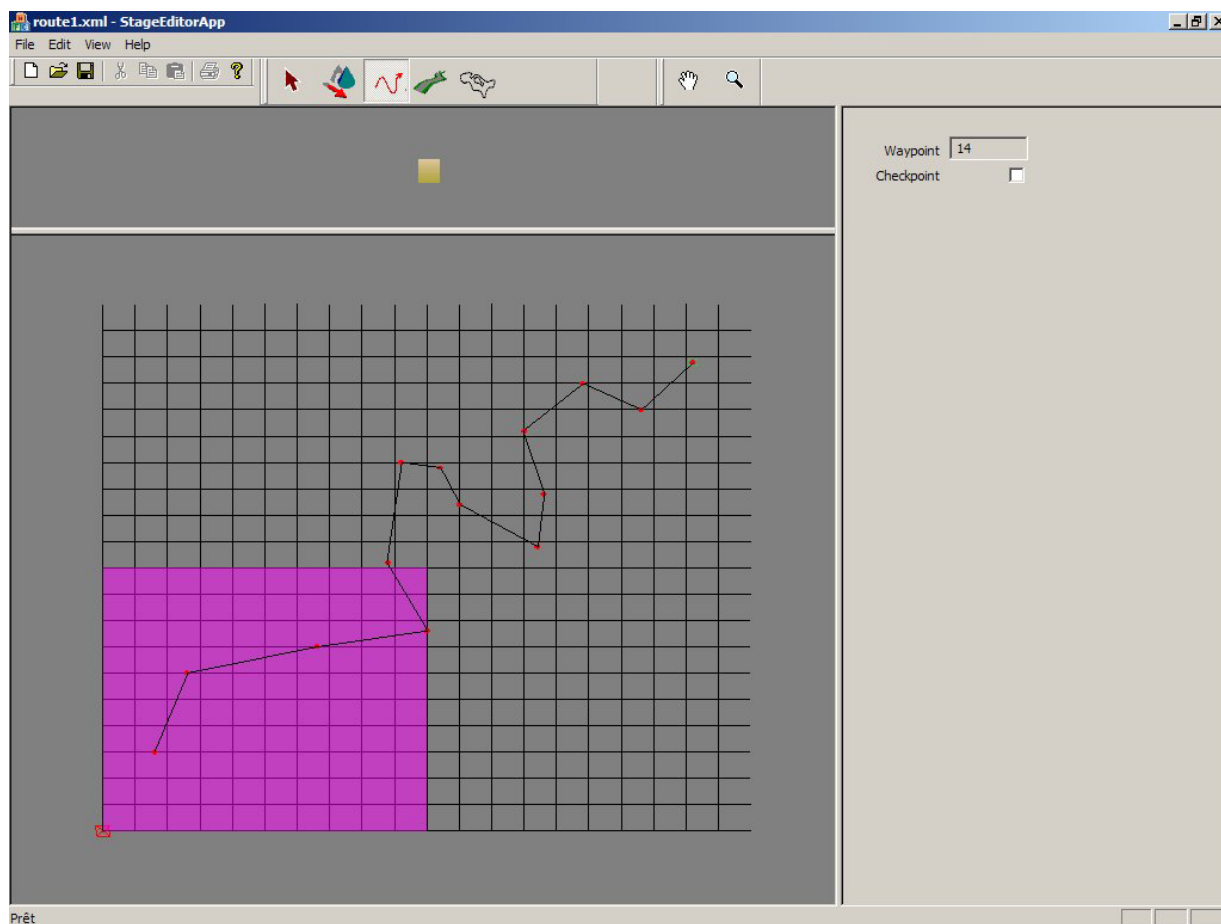
Each time you click, you create a "Waypoint" along your route. Each waypoint is identified by a number that appears in the top right corner of the screen.

Nota :

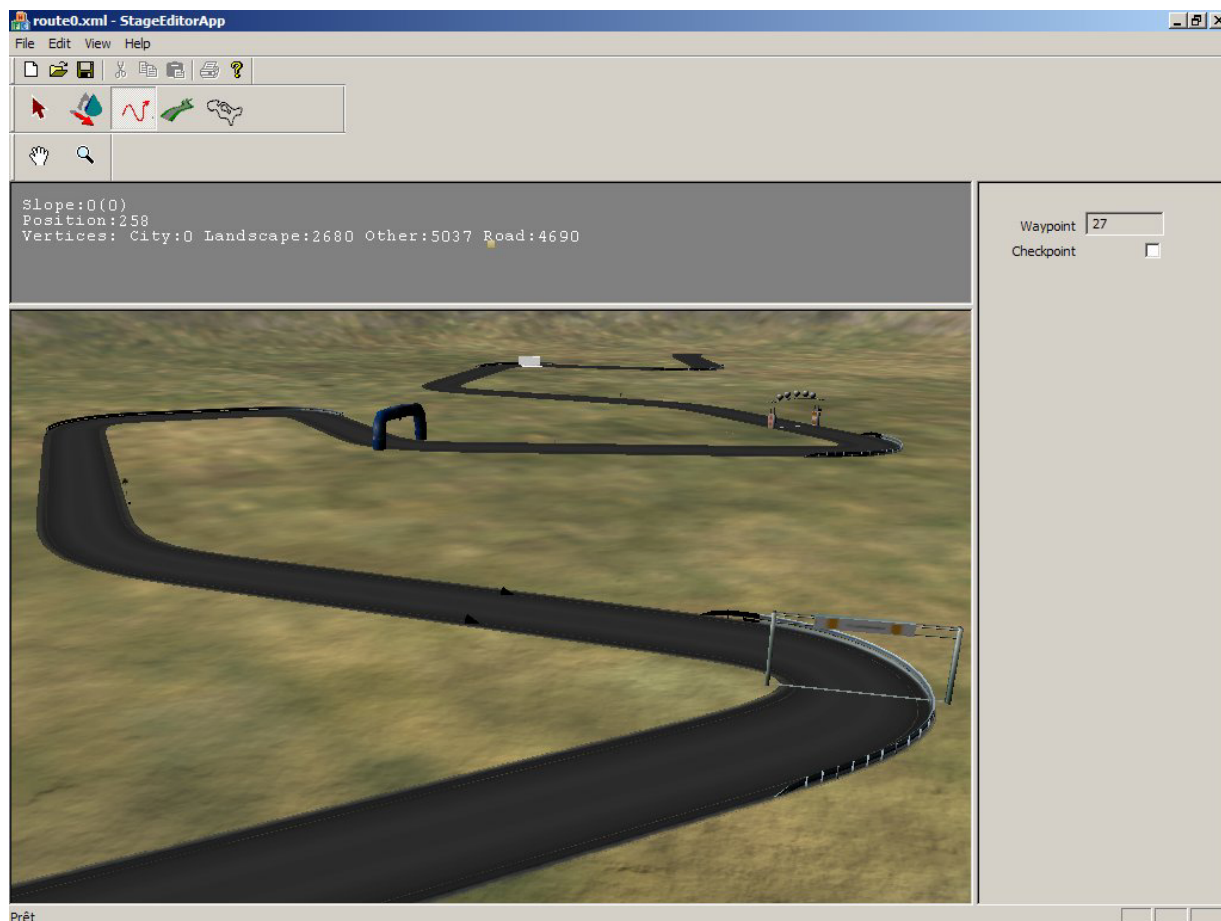
This waypoint number is dynamic and corresponds to an internal, stage editor logic. If you have already created or loaded several routes during the course of a given session, your waypoints may number 25 – 40, for example, rather than 1 – 16. The numbers displayed inside the editor can also differ from the waypoint numbers in the XML document and when the stage is saved from inside the editor, the editor's numbering will overwrite the waypoint numbers in the XML file. The only constant is that the numbering order will always start at the beginning of the stage and rise by one at each node. When you add a waypoint between two existing points, the new point will be numbered as the last registered waypoint + 1. So if you add a waypoint between points 8 and 9 on a route numbered 1 – 14, the new waypoint will be numbered 15. However, when you save the stage and then re-open it the new point will be numbered 9 and the last point will be numbered 15.

The same dynamic numbering system applies to roads and their nodes. Numbers may vary from the moment a road is created and when it is reloaded into the editor.

After a few clicks your screen will look something like this (depending on where you clicked).



At this stage, it is worth saving your work. Use the floppy disk icon; the File/save command on the menu bar or the Ctrl+S keys. You can render the route straight away to see what it looks like in 3D. All you need to do is to choose Render in the File menu.



The curves are there, so from a 2D point of view all is OK. However, the stage is looking a bit flat.

By checking the XML file it is clear to see why. Although the file has evolved, gaining plenty of waypoint information, there is no information to enhance the profile from a 3D point of view.

```
<cycling>
  <profile>
    <start altitude="000" />
    <section length="5.0" slope="0" />
  </profile>
  <top>
    <point x="0.160000" y="0.300000" waypoint="1" />
    <point x="0.260000" y="0.600000" waypoint="2" />
    <point x="0.660000" y="0.700000" waypoint="3" />
    <point x="1.000000" y="0.760000" waypoint="4" />
    <point x="0.880000" y="1.020000" waypoint="5" />
    <point x="0.920000" y="1.400000" waypoint="6" />
    <point x="1.040000" y="1.380000" waypoint="7" />
    <point x="1.100000" y="1.240000" waypoint="8" />
    <point x="1.340000" y="1.080000" waypoint="9" />
    <point x="1.360000" y="1.280000" waypoint="10" />
    <point x="1.300000" y="1.520000" waypoint="11" />
    <point x="1.480000" y="1.700000" waypoint="12" />
    <point x="1.660000" y="1.600000" waypoint="13" />
    <point x="1.820000" y="1.780000" waypoint="14" />
  </top>
  <landscape>
    <landscape_datas snow_height="2000.000000" stage_avg_height="800.000000"

terrain_noise_scale="2000.000000" terrain_noise_persistence="0.500000"

terrain_noise_num_octaves="8" />
    <landscape_textures CLIMAT_SAND="Default_Sand.bmp" CLIMAT_LAND="Default_Land.bmp"

CLIMAT_SLOPE="Default_Slope.bmp" CLIMAT_SLOPEHIGH="Default_SlopeHigh.bmp"

CLIMAT_BEFORESNOW="Default_SlopeHigh.bmp" CLIMAT_SNOW="Default_Snow.bmp" />
  </landscape>
  <roads />
  <other>
    <podiumname name="Podium_Commune_Large01.nif" />
    <kit name="Center" />
  </other>
</cycling>
```

The "profile" section of the XML file tells the game how the road rises or falls over a given number of kilometres and since the route tracing window only offers a top-down view, the editor cannot determine how the route climbs or falls. This data must be entered by hand directly into the XML file.. Fortunately it is not difficult. All that is required is to add lines in the profile section using the syntax : <section length="*distance in kilometres*" slope="gradient (in %)" />. Below is the new "profile" section after the addition of 12 lines.

Nota :

A negative gradient means a downhill section.

```
<profile>
  <start altitude="000" />
  <section length="5.0" slope="0" />
  <section length="7.0" slope="2" />
  <section length="4.0" slope="3" />
  <section length="4.0" slope="4" />
```

```

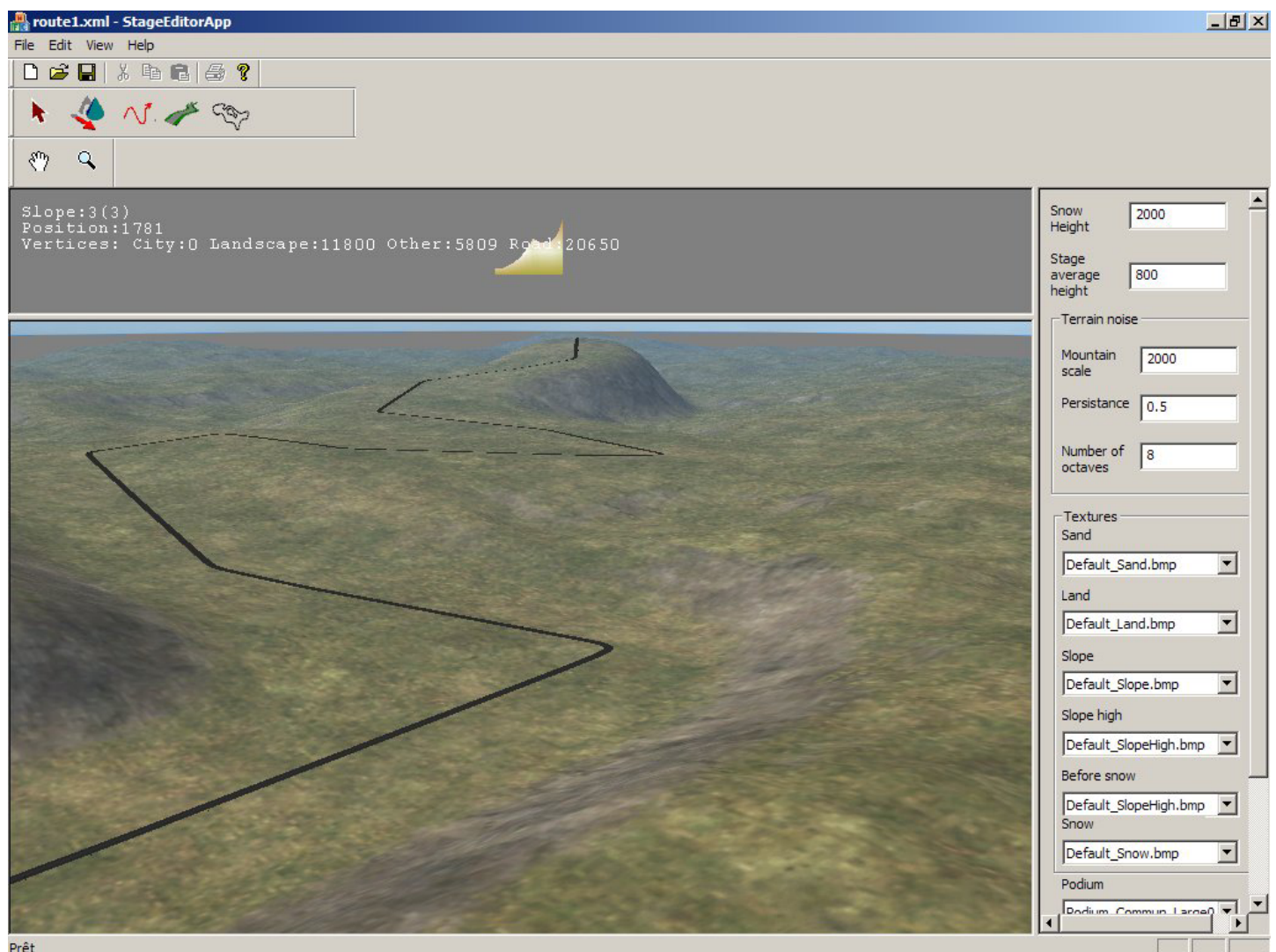
<section length="4.0" slope="6" />
<section length="5.0" slope="7" />
<section length="2.0" slope="-1" />
<section length="4.0" slope="-3" />
<section length="3.0" slope="0" />
<section length="5.0" slope="1" />
<section length="4.0" slope="5" />
<section length="2.0" slope="10" />
<section length="3.0" slope="13" />
</profile>

```

When the XML file is saved and reopened in the editor, the Top Window will not have changed, but the side view of the stage now shows climbs and a downhill section.




And when the route is rendered the 3D image takes on a whole new look.




Modifying a route

It is possible to modify the route by deleting, adding or moving a waypoint.


Delete a point


Click on the "Select" icon  and then on the point you wish to remove. The cursor changes to a cross as you pass

over a point  and when you click on a given point its waypoint number appears in the right half of the screen. If this is the point you wish to delete, then press on the "Delete/Del" button. The route is immediately retraced.


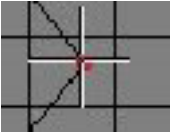
Adding a point

It is possible to add a waypoint to an existing route.

Click on the "Route" icon  and then right-click on the waypoint that lies before where you want to create a new

one. (The cursor changes form as you pass over a waypoint  and when you click, the red waypoint dot is framed by a green square). Once the point selected, right-click on the grid, where you want to insert a point. A new waypoint will be created and the route will be retraced immediately.

Moving a point

Click on the Move Point icon . As you pass over a point the cursor changes to a cross  and when

you click on the point the cursor changes again . It is now that you may drag the point to a new position.

Once the route has been modified to your satisfaction you should render it via the File/Render command on the menu bar.

Checkpoints

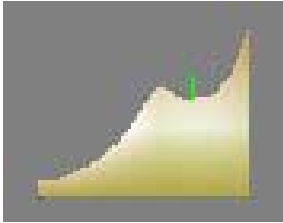
The editor, as you have seen, works with different views: a flat bird's eye view, a side-on profile view and then a rendered 3D view. However, there is nothing that specifically links a given spot in all views. This is done with a "Checkpoint"

Creating a checkpoint, requires that markers be placed in both the "profile" and "top" sections of your XML file. It can be done via a text editor, but depending on the complexity of your stage it may be easier to modify the "Top" section of the XML file via the "Top Window" of the editor.

Open your route XML file in a text editor. Find the point in the "profile" section where you want to create a checkpoint and add 1 line above it, containing the following : `<checkpoint/>` (without the colon). In the current example a checkpoint has been added to the route as it enters the final climb.

```
<section length="3.0" slope="0" />
<section length="5.0" slope="1" />
<checkpoint />
<section length="4.0" slope="5" />
<section length="2.0" slope="10" />
```

Save the file; reopen the stage editor and load the modified XML file. You will now see a vertical green bar where you placed your checkpoint.



The corresponding waypoint must also be marked as a checkpoint in the "top" section. It is possible to enter the information by hand, but it may be easier to do so via the editor, depending on the complexity of the stage. To add a checkpoint by hand you must enter the following : `checkpoint="1"` (without the colon) at the end of the waypoint line that corresponds approximately to the checkpoint position in the "profile" section.

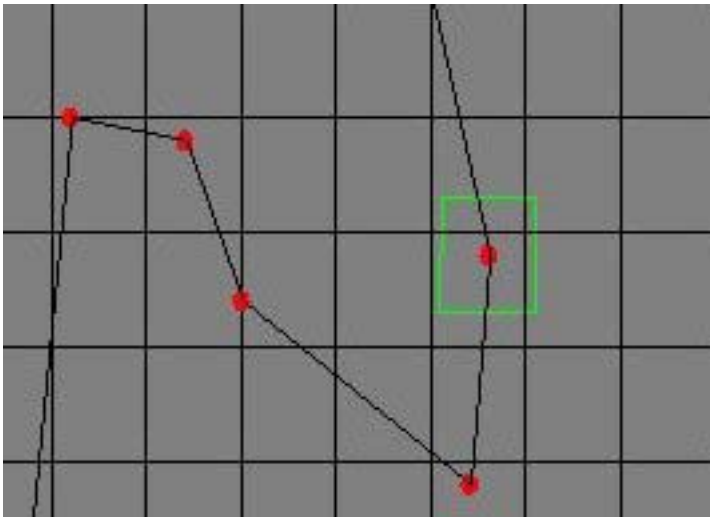
For example, a line which read :

```
<point x="1.340000" y="1.080000" waypoint="10" />
```

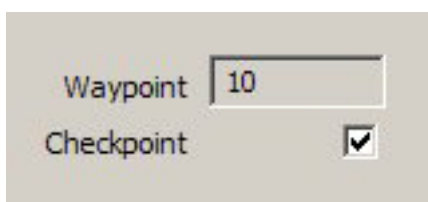
should now look like this

```
<point x="1. 340000" y="1. 080000" waypoint="10" checkpoint="1" />
```

Save the XML file and open it in the stage editor. The checkpoint will be clearly visible, as the waypoint is now marked by a green square.



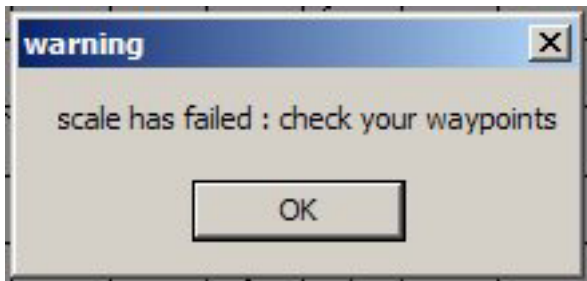
When you click on the red waypoint that sits inside the square the right pane of the window will change to show the waypoint data. The "Checkpoint" tickbox that lies below the waypoint number will now be ticked.



It is via this tickbox that you can indicate a new Checkpoint from inside the editor. All you have to do is to select a waypoint and then click in the Checkpoint tickbox. The green square will appear on the route in the Top Window.

To remove a Checkpoint, all you need to do is to untick the box.

The link between the two checkpoints is made via the Scale command from the File menu. If the two checkpoints are placed at points that the editor considers as reasonably close to one another, then all is OK. If they are placed at somewhat different points, the editor will make slight adjustments to their relative positions. However, if there is too great a discrepancy the editor will not be able to make the required adjustments and it will display an error message.



Once Scale can be run without provoking any errors, you should save the XML file and exit the editor.

Nota :

It is possible to set several Checkpoints, but they must be set one at a time

Rendering

As we have seen above, all that is required to create a 3D image of your stage is to choose "Render" from the "File" menu. The time required to create a 3D image depends on the power of the PC and the complexity of the stage, in terms of section, textures etc.

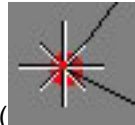
Once the stage is rendered the render view will appear on screen. Click on the rendered image to activate the render view and then you may travel forward along your route using the "up" arrow key and move back along it with the "down" arrow key. It is possible to zoom in our out using the mouse wheel (or alt + right mouse button + side-to-side mouse movements) and you may swivel the image by holding down the left mouse button and moving the mouse. The more zoomed in you are, the longer it takes to advance along the length of the route.

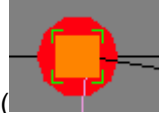
Road network

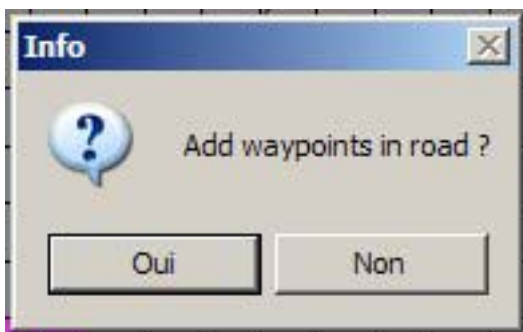
You can create all sorts of roads that the riders may or may not follow. For the actual stage route to work, it must have roads along its full length.



Activate the Top Window and click on the " Create road network" icon . (It is best to zoom in on your route and to navigate along it by moving the mouse while holding down the alt key + left mouse button). Click on the waypoint that

represents the start of the stage. As the cursor passes over the waypoint it changes shape (). This means that

the mouse is well positioned. When you click, an orange square appears inside the red dot (). Move to the next dot and do the same. The original black line between the two waypoints is replaced by a coloured line. It is also possible to click at the start of the stage and then at the end of the stage (or road). The editor will display the following question :

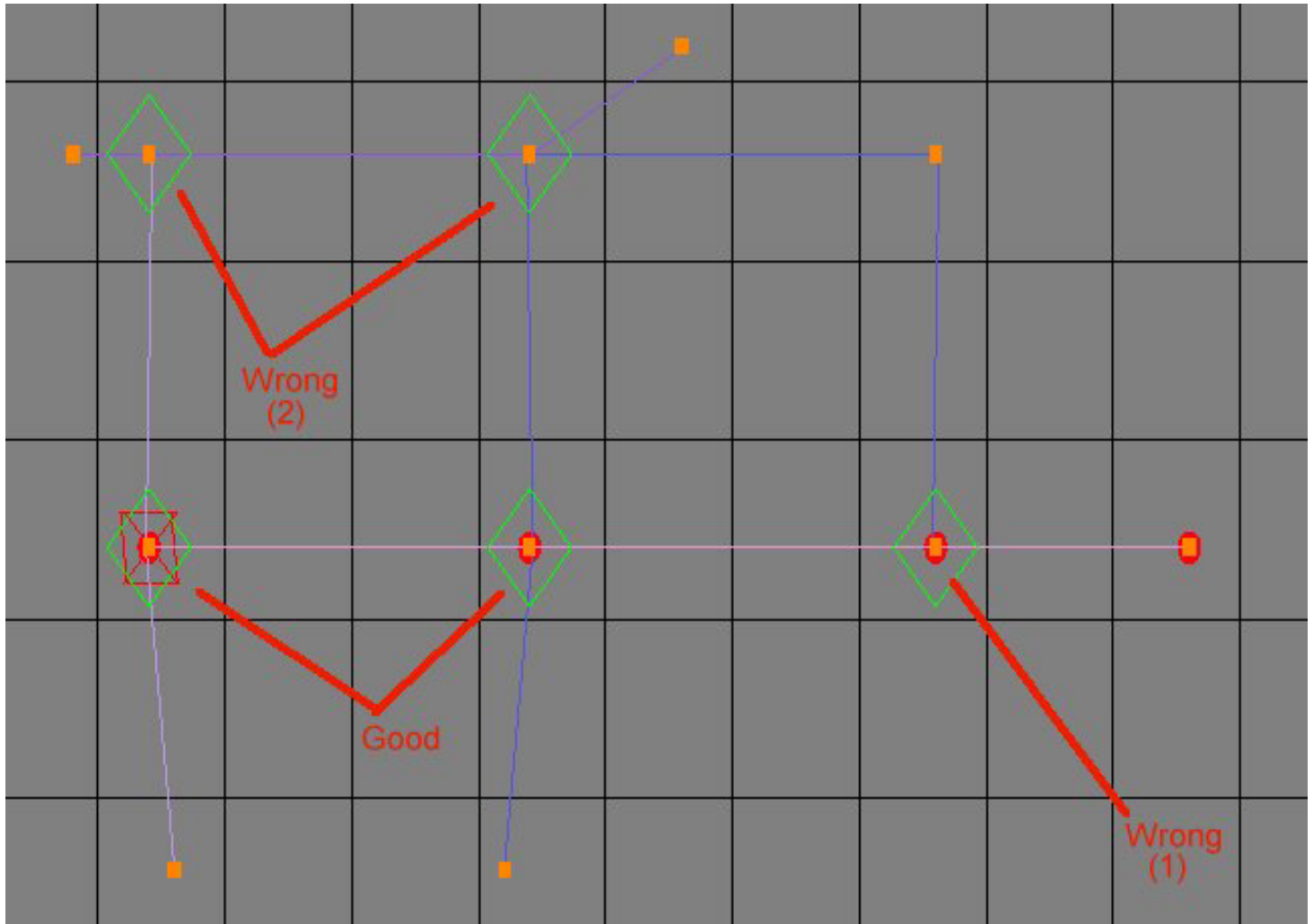


You simply click on the "Oui" (Yes) button for the whole road to be filled in. If your route takes you from one road onto another, then click at the end of the particular stretch of road and answer "Oui" (Yes) to the "Add waypoints in road ?" question. However, once you have indicated the last point in the road that will be followed by the stage, you must carry it on a bit further, away from the stage route, because no road can end on the stage route itself.

Once the main stage route is "covered by road" then it is possible to add additional roads to the Top Window. It is best to keep things simple. With the odd road cutting across your stage route at a waypoint. (Each waypoint on a road network becomes a "node")

Nota :

- 1) A road must never terminate on the route. (see image below)
- 2) No roads may intersect outside the stage route. (see image below)



- 3) If you add a waypoint to a route after you have laid a road, the route will be retraced, but the road will not !!
- 4) Each road is identified by a number as is each node. At an intersection a node will belong to 2 or more roads and it will have 2 or more node numbers. Should you wish to delete a road, done by deleting each node one by one, you should pay particular attention at intersections to delete the node belonging to the road you wish to remove.
- 5) After completing a road and before starting a new one you should first click inside the Top Window with the right mouse button. This signifies that the current road is terminated and that a new one is about to begin.

Types of road

There are 4 types of road that are applied by choosing from "Road Type" in the right pane.

Nationale = "A road" or major highway
Departementale = "B road" or secondary road
Locale = Byroad or minor road
Speciale = Special road

The above hierarchy must be applied at junctions. No road can finish at a contact point with a lesser road. So, for example, an "A road" cannot finish at a junction with a byroad.

Towns

Placing towns is easy. All that you have to do is to select a waypoint and then to select a "City Size" from the drop down menu in the right pane. Depending on the size selected, a town radius will appear on the Top Window. There are 5 town sizes :

Locality = Hamlet of a few house

Village = Small village with a church

Small city = Town with a population of 5 to 20 thousand

Medium city = population of 20 to 80 thousand

Large city = population > 80 thousand

It should be noted that in the Top Window and in the rendered 3D stage, the area occupied by a town's radius depends on the length of the stage. A locality will be seen as a large circle on a short route, but on a long stage the locality will be a very small circle and may even be contained within the red dot of a waypoint.

A town can lie on a road junction. To guarantee maximum stability at least one waypoint should lie between two towns and the radii of two towns should not bisect one another. The radius of a town should only contain the waypoint on which the town is based.

Mountains and lakes

Altitude points can be used to create hills and mountain ranges or lakes and seas (a lake or sea being a negative altitude point filled with water). Altitude points are circular and so in addition to height or depth, each has a radius. It should be noted that in the Top Window and in the rendered 3D stage, the viewed size of an altitude point in terms of height and radius depends on the length of the stage. By overlapping points you may create a range of mountains or a sea. To



create an Altitude points you must use the Topography icon . Click anywhere on the grid and then enter the height and radius of the point in the right pane.

To create a lake you must first create a negative altitude point for the depression and then a second one for the water. To enter a negative value in the Height box, you must first enter the value and then enter the negative sign before it. Once the depression has been created, click on the centre of the circle and create the new negative altitude point that is higher and smaller in radius than the depression that will be filled with "water". To indicate that this second point is indeed water, you must tick the "Sea" box. Once the hills and lakes (or mountains and seas) have been created it is worth rendering the route to check the result. It is often the case that a lake lies above it's supposed rim and the surrounding countryside is flooded.

The effects of scale should not be underestimated when adding towns, mountains and lakes. The following example shows exactly the same Top Window with two different "section lengths" in the "profile" section of the XML file. The only difference is that the first file has a section length of 5 and the second, a section length of 50.

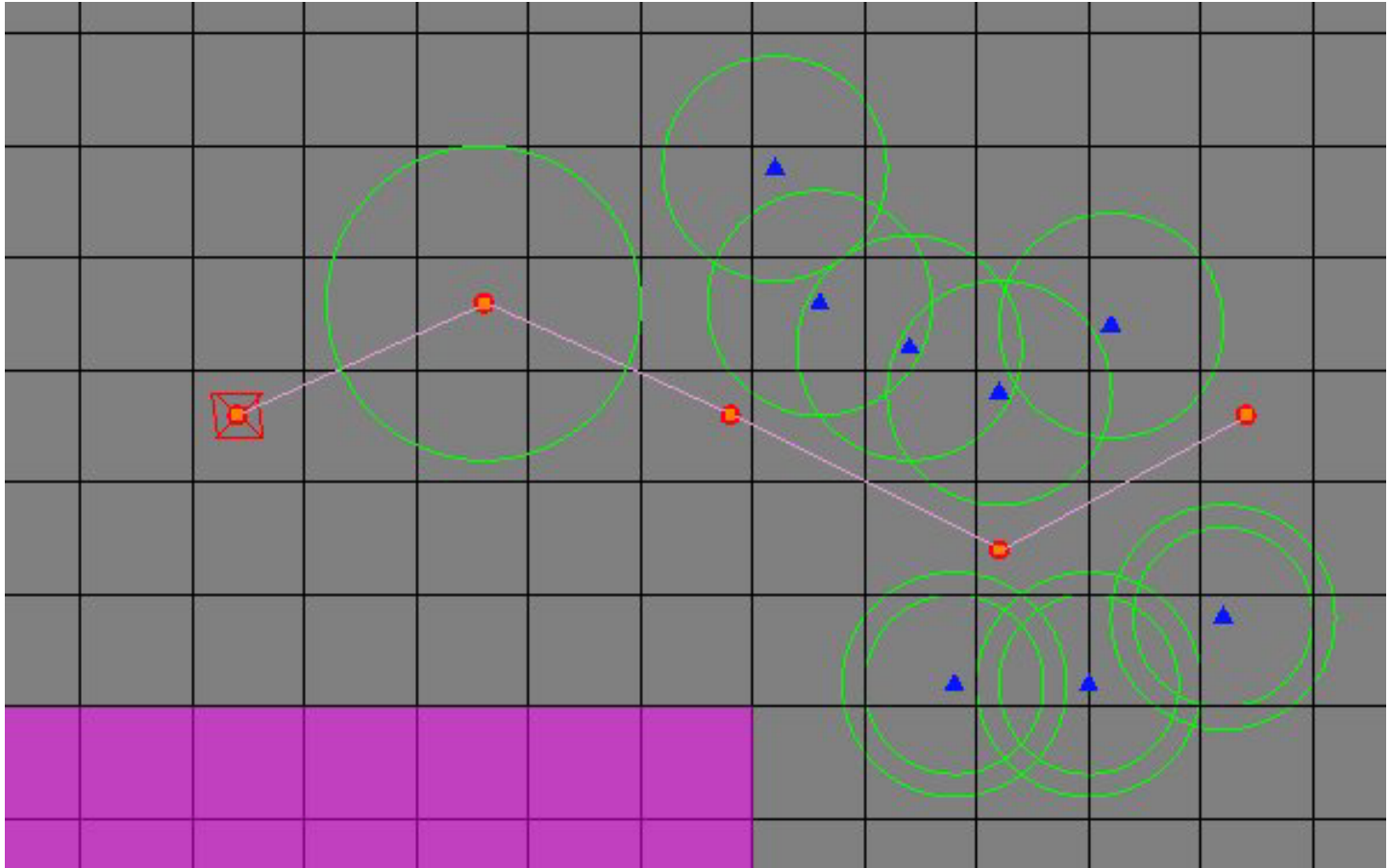
Both routes are made up of 5 waypoints. On the second waypoint from the left, there is a "locality". After that, to the north of the route there are 5 hills and to the south 3 overlapping lakes that create one longer lake.

Example 1

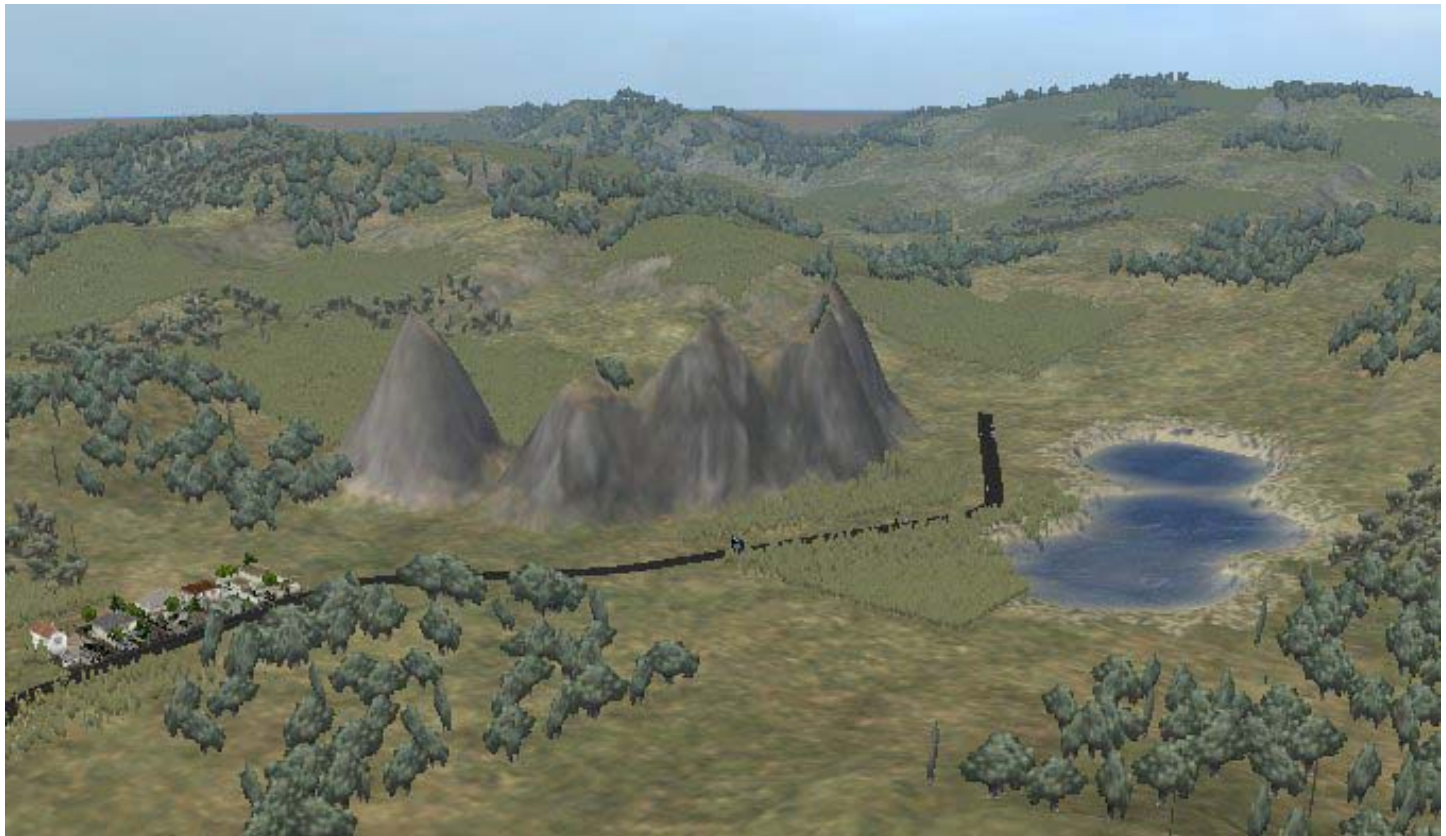
Profile section

```
<profile>
  <start altitude="000" />
  <section length="5" slope="0" />
</profile>
```


Top Window



3D Render

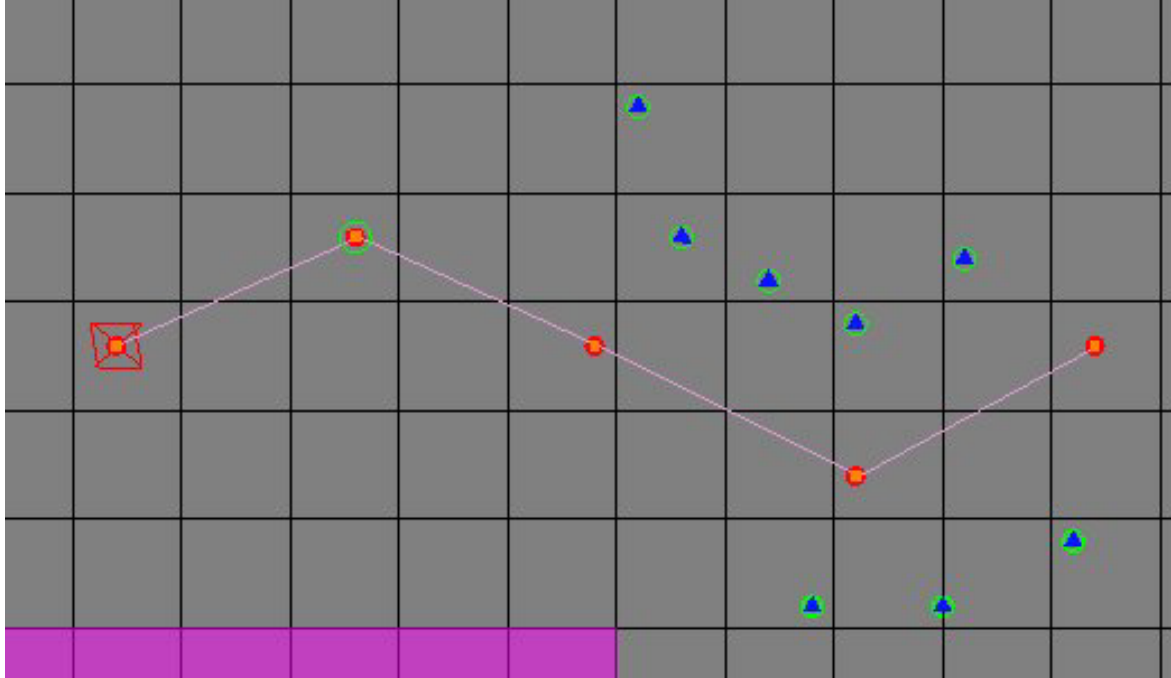


Example 2

Profile section

```
<profile>  
  <start altitude="000" />  
  <section length="50" slope="0" />  
</profile>
```

Top Window



You will notice that the "locality" has been considerably reduced in size and that the hills and lakes keep their position on the grid relative to the route, but they too have been reduced in size.

3D Render

Given that the scale has been considerably modified it is impossible to reproduce the whole stage visible in the 5km 3D render, but the image below will give a good idea of the changes brought about. The 3 lakes can be seen towards the top right of the screen (small, separated and quite far from the route). The proud hills of the 5km render have been reduced to a series of hillocks, again separated and far from the route.



It is thus vital to know what scale you are working at before you start adding topographical elements and towns.

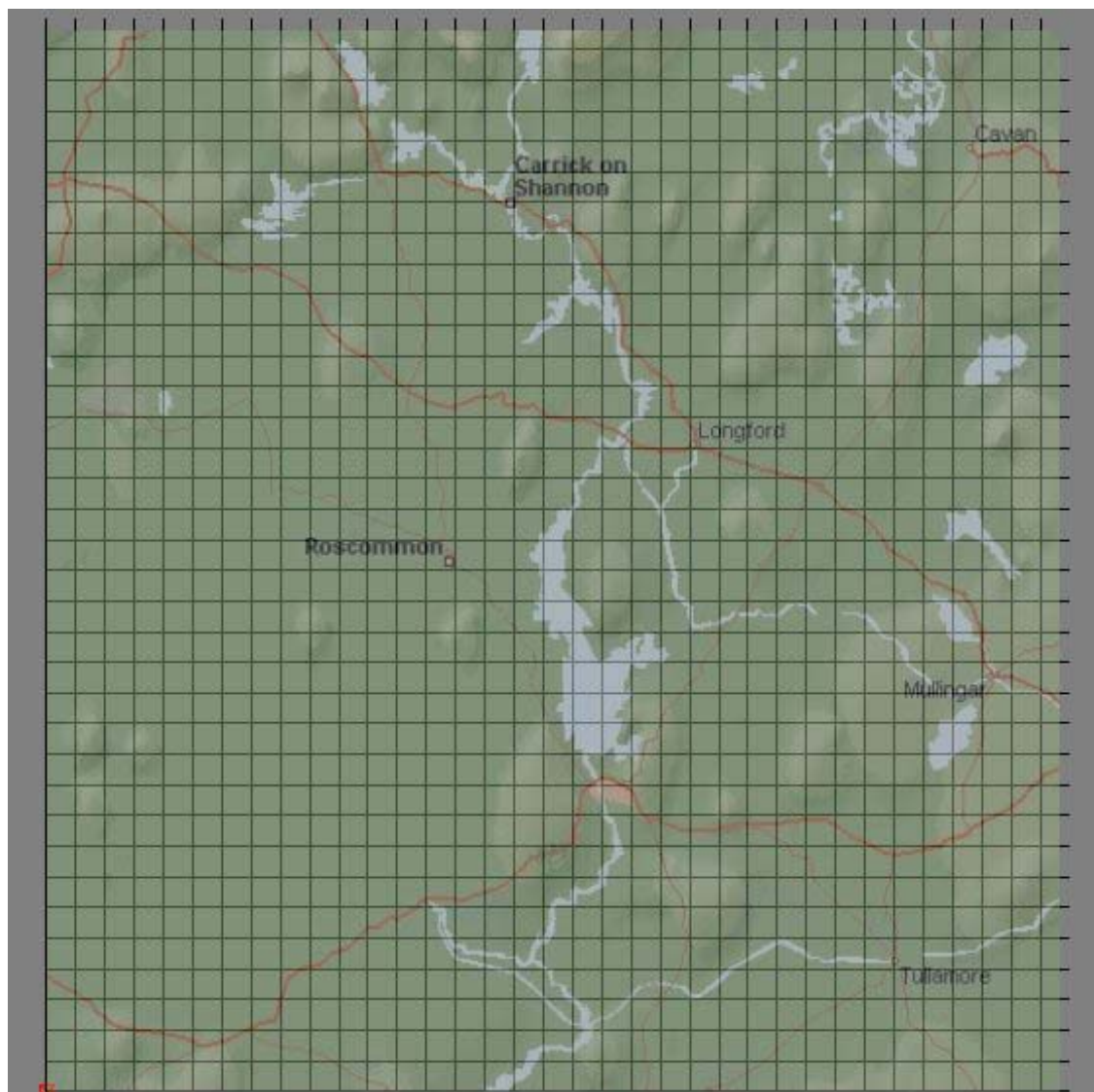
Creating a route from an underlying map

This section will just cover the integration and tracing of a route map based on an image file containing a scanned or downloaded map. The creation of checkpoints, altitude points, towns etc can be done as above once the initial route is traced and the underlying map has been removed.


As mentioned above, the map and the XML file must have the same name (but not the same extension). The XML file can be created with a minimum of content.

```
<cycling>
  <profile>
    <start altitude="000" />
    <section length="5.0" slope="0" />
  </profile>
</cycling>
```

Use the File menu to open the XML file. The map file is loaded into the Top Window at the same time. Since there is an underlying map, there is no purple square on the Top Windows grid. In the example below, there is a BMP file, measuring 512x512, called "my_map_512x512.bmp".



The route to be traced will be a 134 kilometre trip through the centre of Ireland, from Mullingar to Roscommon, via

Longford and Carrick on Shannon. The route is traced after selecting the appropriate tool  and then by clicking along the map, trying to respect the twists and bends. It's easier when zoomed in (mouse wheel) and by moving the map using the alt+left mouse button. A route can be traced quite quickly. If a waypoint is created after clicking in the wrong place it can be deleted by using the Delete key. Once traced the file is saved immediately.

It is then possible to give the stage some sort of idea of scale by adding some section lengths, by hand, to the XML file :

```
<profile>
  <start altitude="000" />
  <section length="41.0" slope="0" />
  <section length="36.0" slope="0" />
  <section length="14.0" slope="0" />
  <section length="43.0" slope="0" />
</profile>
```

The "road type" can then be laid over the route. As it travels NW, the road is of "Nationale" category. So all that has to be done is to click on the start in Mullingar and then on the last point before the route turns south (the town of Boyle). When the reply "Yes" is given to the "add waypoint" question the road is filled in automatically. As no road can terminate on the stage route this road must be continued NW for a few more waypoints. As these points are not on the pre-traced route they will not be considered stage waypoints. For the southward leg, the last marked waypoint of the "Nationale" part of the stage must be selected and then "Departementale" is chosen from the road type. The editor understands that this waypoint is part of two roads and all that is needed is a click on the finish in the town of Roscommon. Again the editor will trace the route when a reply of "Yes" is given to the waypoint question. Again, the work must be saved.

By opening the XML file it is possible to check that two road types have been created :

```
<road ID="1" type="0">
  <point x="3.240000" y="1.360000" ID="1" waypoint="1" />
```

etc

to

```
<point x="1.160000" y="3.000000" ID="50" waypoint="50" intersect_road="55" />
<point x="1.140000" y="3.040000" ID="51" />
<point x="1.120000" y="3.080000" ID="52" />
<point x="1.100000" y="3.120000" ID="53" />
<point x="1.080000" y="3.160000" ID="54" />
```

(points 51 to 54 indicate the "nationale" road that is not part of our stage and at waypoint 50 we see an "intersect" The number 55 can be found as the ID of the first waypoint in the second road. The latter returns the compliment by indicating an intersection with a waypoint whose ID is 50.

```
<road ID="2" type="1">
  <point x="1.160000" y="3.000000" ID="55" waypoint="50" intersect_road="50" />
```

to

```
<point x="1.380000" y="1.740000" ID="83" waypoint="78" />
```

The stage route is created so all that remains is to create the towns along the route. These can be placed using the underlying map. As stated previously, no radius of a town can encompass more than one waypoint (the one on which the town is centred)



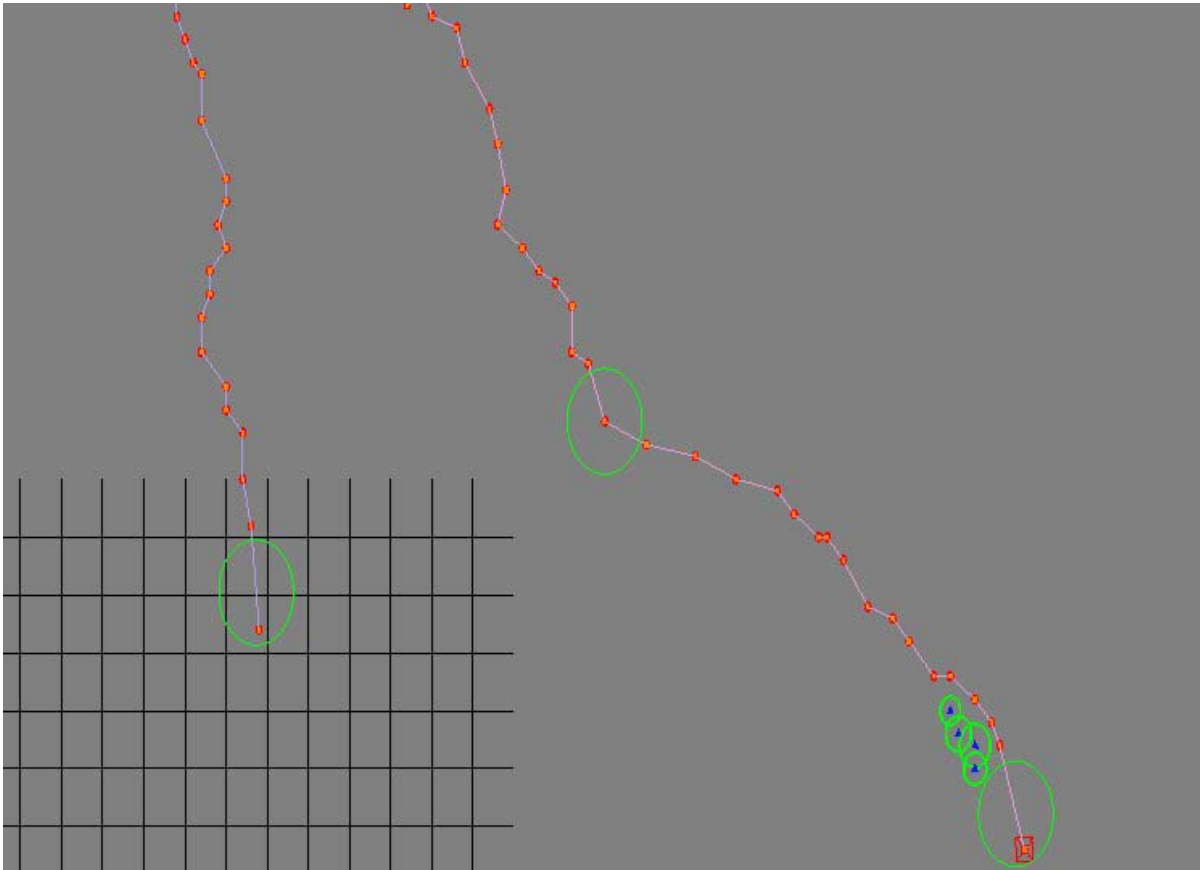
Next, the lakes can be created.



More overlapping lakes will have to be added to fill out the full surface of the lake, but already it looks OK.

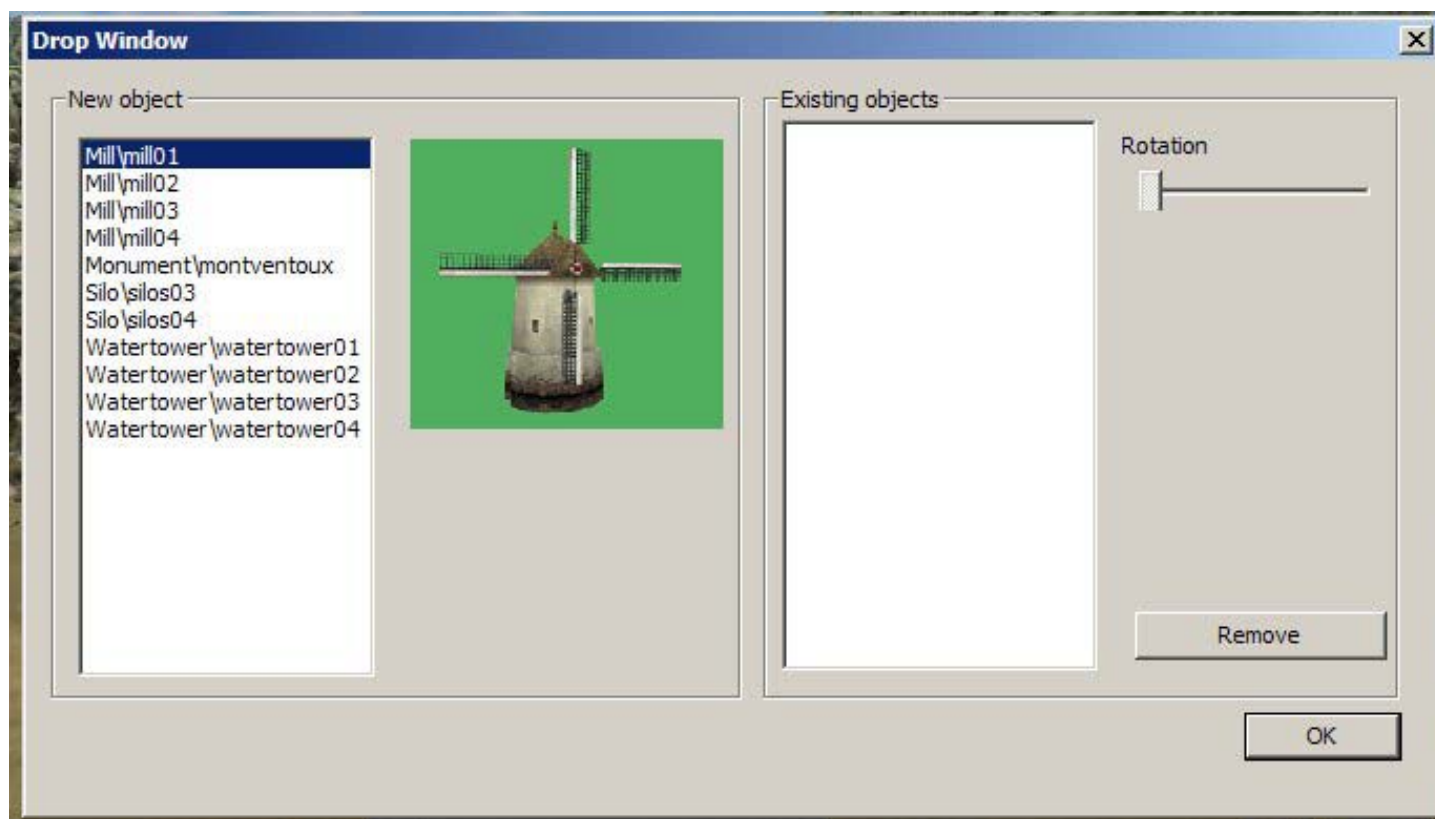


Once the underlying map no longer serves any purpose it can be removed from the directory that contains the XML file. When the file is then loaded the stage will appear on a clear background. The grid may not cover the whole stage, but this is not a problem.



Drop Window

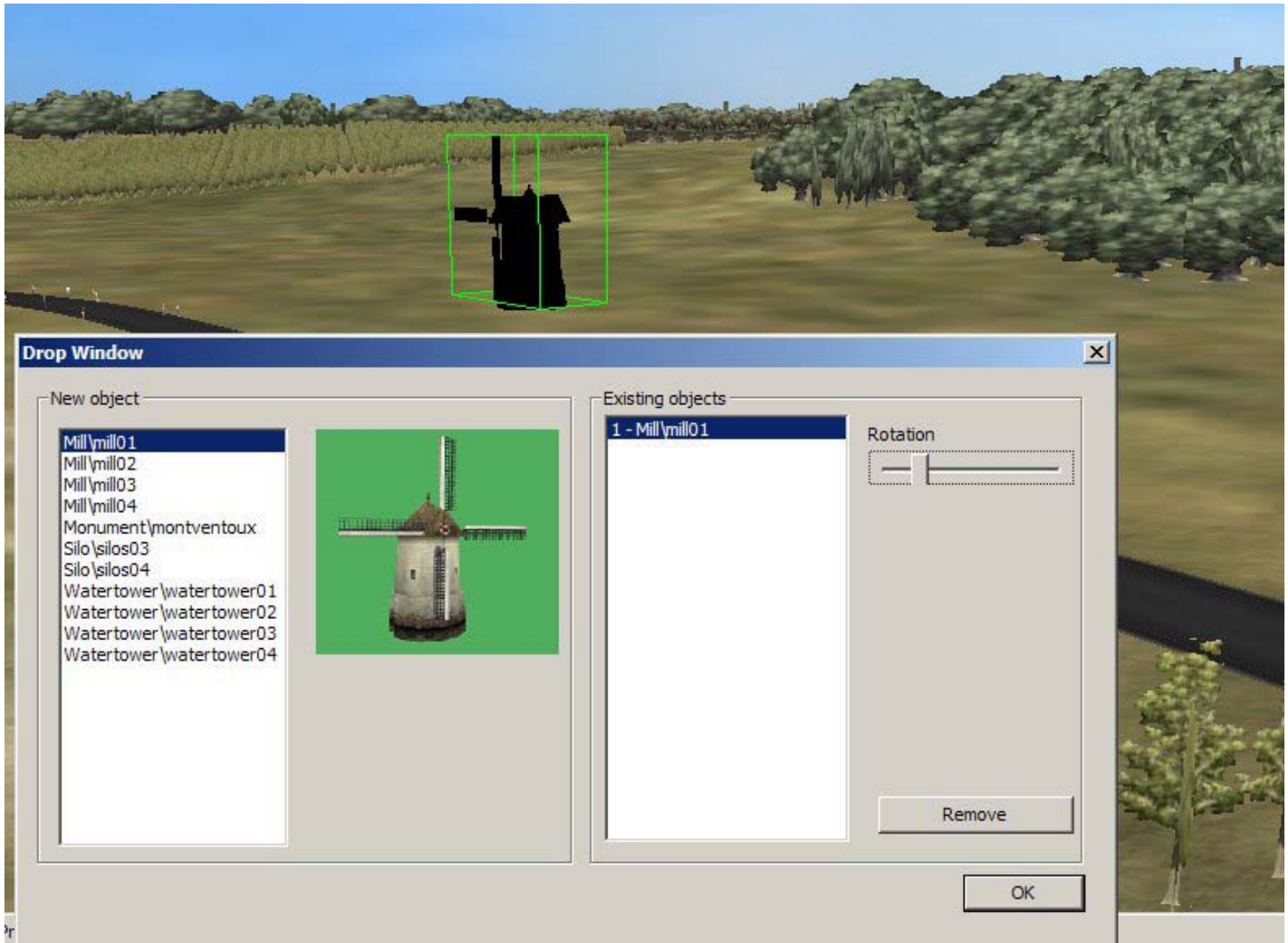
It is possible to drop elements such as windmills, water towers, grain silos, directly onto a rendered 3D image. All you have to do is to select "Drop Window" from the "View" command on the menu bar. The following window opens :



Select the object you want to drop onto your image and then click on the "OK" button. This is now the active object. Each time you click on the 3D render while holding down the "shift" key an active object will be dropped on the spot. At first it will appear as a black silhouette, but once the image is rendered it will appear in its true colours.



The list of objects dropped into the 3D image is contained in the "Existing objects" column of the "Drop Window". It is therefore possible to select an object and to rotate it or to remove it. Rotation of the object is done with the "Drop Window" open, so it is best to set the rendered image so as to have a clear view of the object and then to slide the "Drop Window" so as to be able to view the effects of the rotation.



Troubleshooting

As stated at the start of this guide, the Cycling Manager editor is Work in Progress and you are therefore liable to encounter a few problems. One problem, that may appear to be an editor problem or even a display problem can be put down to non respect of one of the route creation rules.

The editor may be able to create a 3D image of a route, but the route may be bordered by grey oblongs.



If this happens you must check the following :

- 1) A road terminates on the stage route
- 2) Roads intersect off the stage route
- 3) The radius of a town encompasses two waypoints
- 4) Two adjacent towns are not separated by at least one waypoint

It may not be any of the above. So it's definitely worth rendering your work bit by bit so as soon as an error appears, you have an idea where it might originate.