Creating a Passenger Train Scenario Version 1.02

In 'A Beginners Guide ' it finished with a simple Free Play scenario using the inbuilt editor of the main program.

In this guide we will use the development editor with its more powerful features to create scenarios containing passenger trains which load and unload passengers, while AI trains are running.

The first part of this guide will duplicate some of the scenario details in ' A Beginners Guide ' This is deliberate in case that guide has not been seen.

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Section 1.

Before you start.

So far we have relied on the included **Free Play** scenario with its limited range of vehicles and locomotives and restricted to the Evercreech region and created simple scenarios. Now we will create more complicated Scenario's and for this we will need the development editor.

For this you will have to download from the Rail Simulator RSDevTools the 'Installer ' and the 'Docs ' files.

Installing the Advanced Editor program by running the file
RailSim_2008-02-08-1723_74_3f_DevTools.exe

Install the Development Documents (if you haven't already installed them) by running the file
RailSim_2008-02-08-1723_74_3f_DevDocs.exe

A new shortcut should be installed on your desktop to enable this editor to be started easily. Go to the folder **Program Files\Rail Simulator** and create a shortcut for the file **RailSimEditor.exe**

The new **Developer Documents** will be found at
Program\Files\Rail\Simulator\Manuals\Developer Docs

First look at the **Rail Simulator Editor Users Guide** located at **Program Files\Rail Simulator\Manuals\Developer Documents\6.0 Rail Simulator - Editor User Guide.pdf .**

Make a full backup of all the Train Simulator files as it is easy to cause problems when using the Editor. I have very often had to restore the scenario files. I have sometimes found it necessary to carry out a complete re-installation.

For that reason when a scenario has been created it should be saved so that it can be easily restored.

We will save the scenario later when we have completed it.

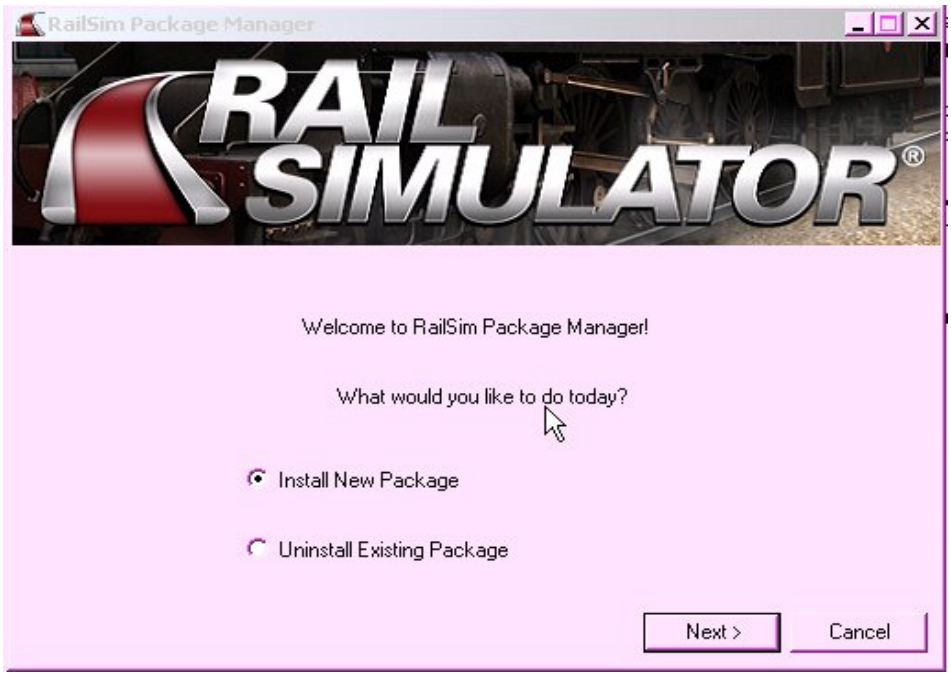
If this guide was downloaded in a zip file my version of the scenario that is just to be created, **Evercreech_Junction_to_Shepton_Mallet_1.rpk**, will be found at in the Zip file

I have called this scenario **Evercreech Junction to Shepton Mallet-1** so that it does not over write your creation.

Installing packaged scenarios.

To install it in your simulator program run the program **PackageManager.exe f**ound in the folder **Program Files\Rail Simulator\PackagerDevTool**

When the Rail Sim Package Manager opens click on ' Install New Package '. then Next



Locate the scenario you have downloaded and follow the instructions. When you next open the route you should see this scenario present.

Uninstall previously installed package.

If a scenario has been installed using RailSim Package Manager, as above, it must be un-installed using this package.

If deleted from the **Route/Scenario** selection menu then that delete leaves a *.inf file which prevents the Scenario being re-loaded.

Section 2.

A simple Stopping Passenger train Scenario with AI traffic.

First look at the **Rail Simulator Editor manual** located at **Program Files\Rail Simulator\Manuals\EN\Rail Simulator - Editor User Guide.pdf**

Also look at the document ' **6.01 Creating a Simple Scenario**' found at **Program Files\Rail Simulator\Manuals\Developer Docs** .

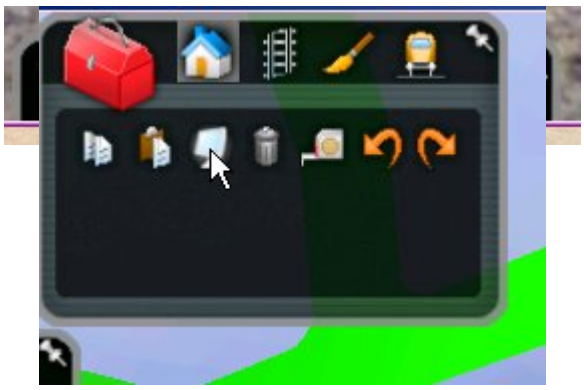
Starting the new editor program.

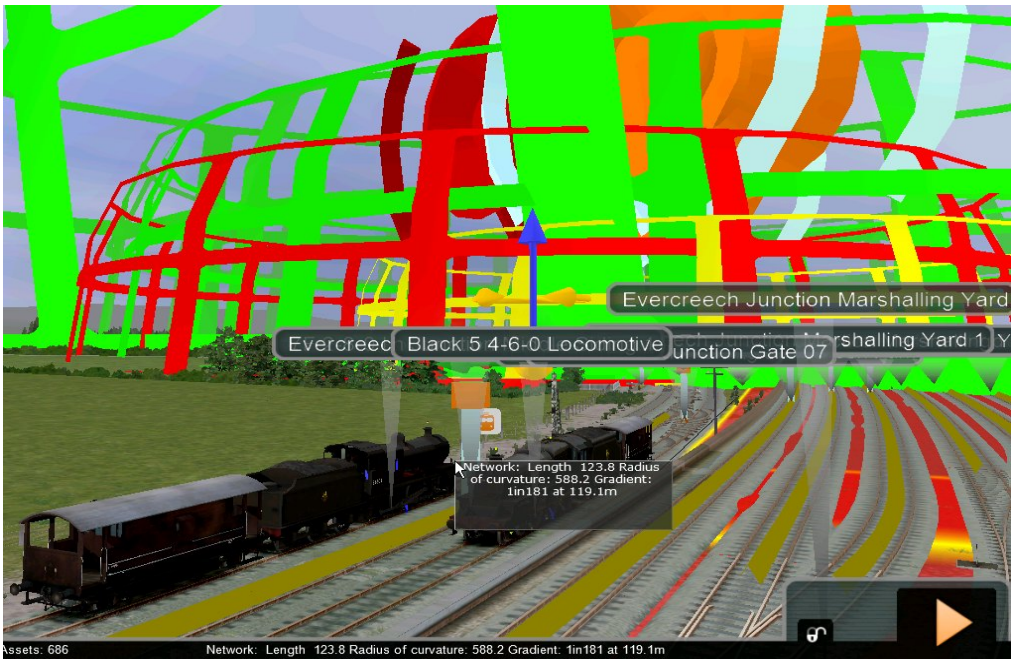
Click on the new shortcut to run the simulator with the advanced editor

This scenario will start at the **Evercreech Junction** station so open the **Bath Green to Templecombe** route in **Free Play.**

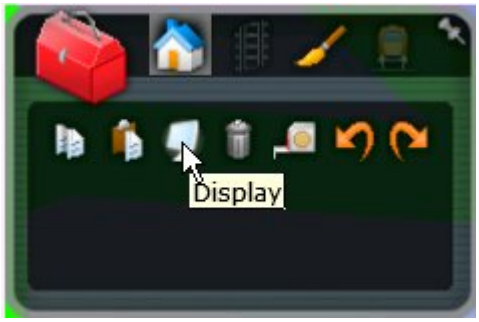
Opening Editor

Click on the **World Sphere** in the right hand side of the **Main Menu**. You can also open it by pressing **CTRL+E**





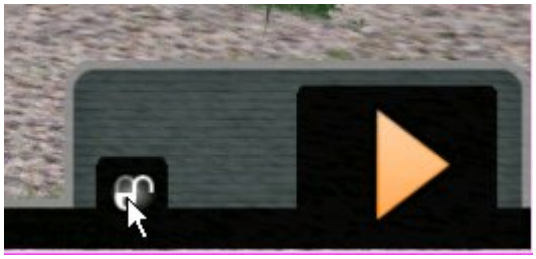
If you move the camera round you will see that the screen is rather cluttered. We don't need any of this for now so in the **Main Editor Menu** in the top left of this screen, click on the **Display** icon.



Click the top right hand icon of the **Display panel** that appears at the top right of the screen

This removes all the ticks and clears the screen. Pause the mouse pointer on each of the icons in this panel to see what can be displayed. None are relevant at the moment.

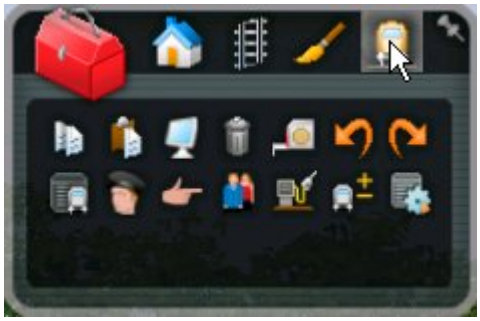
All you see now should be the captions and the **Free Play Marker**



In the bottom right hand corner of the window is a padlock symbol. Click on this to open it.

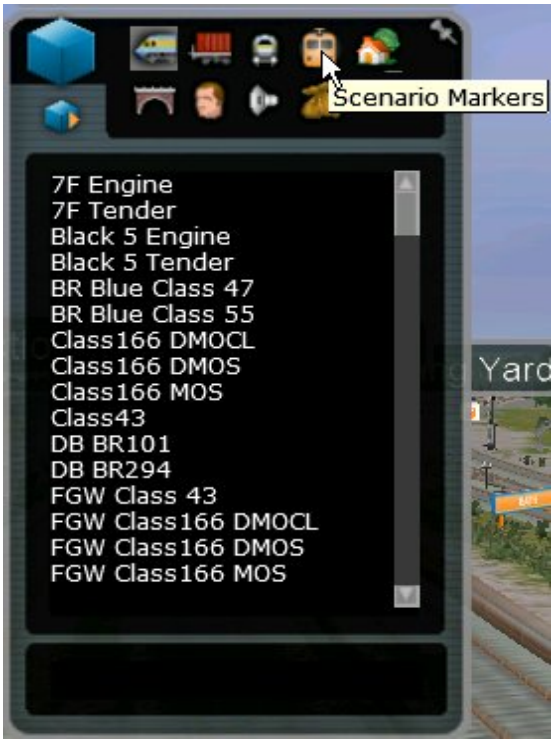
Read warning and click on OK.

On the top left hand popout panel click on the **Scenario** icon. This is not available if the padlock is closed.



Click on YES in the next two windows that appear

In the centre left popout panel, the **Object Selection Menu**, click on the **Scenario Markers** icon



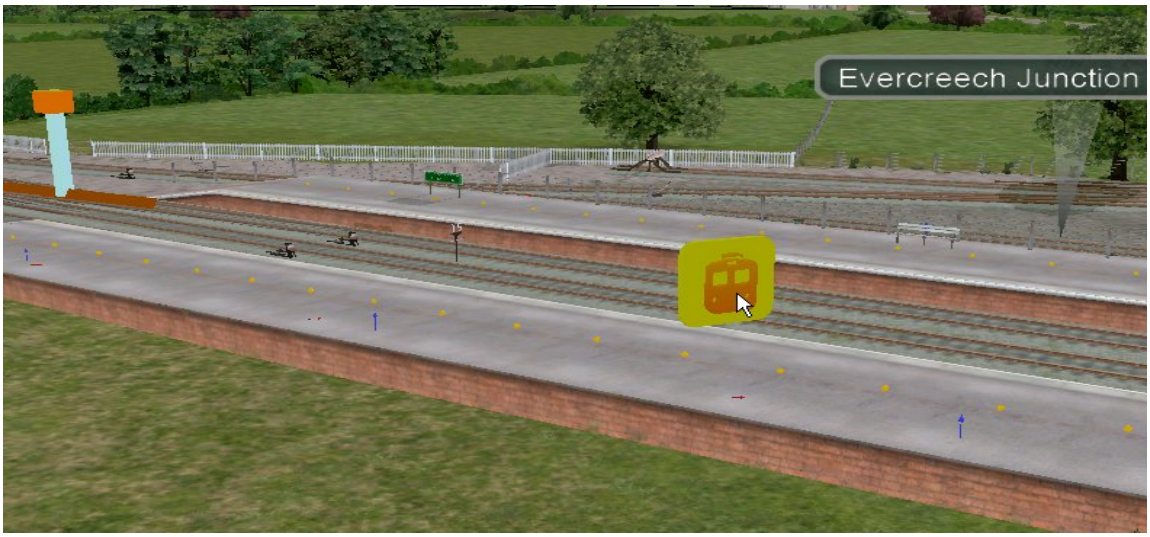
A new panel will open

Move the camera so that you have a good view of the centre of the station platform..

Placing a Standard Scenario Marker.

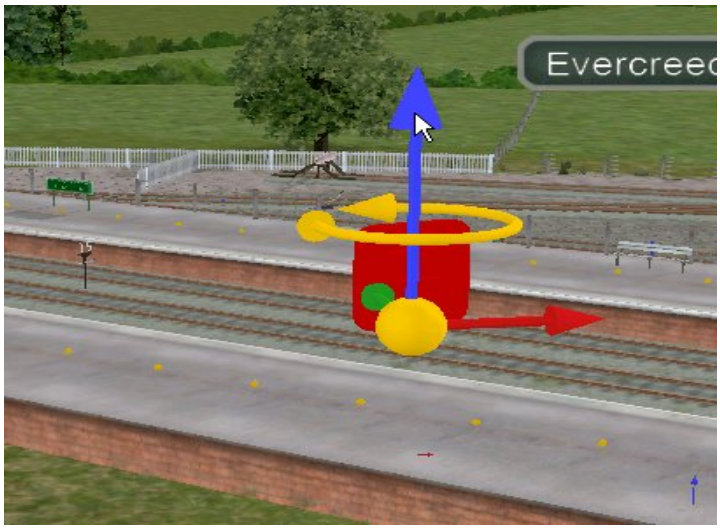
Click on the ' **Standard Scenario Marker** '. in the **Browser** panel.

Place a **Standard Scenario Marker** near the station platform.



Click on the marker and raise it by dragging the blue arrow on the ' **Gizmo** ' up.

Use the yellow arrow to rotate so the marker is looking down the platform.



Click on the marker. The **Scenario Properties** panel appears at the right top of the window. It sometimes needs a few clicks to show this panel.

Edit details of the scenario in this panel (example above).
The top entry is the name of this **Scenario**.
The next entry is the description of the **Scenario** that is displayed when selecting the scenario.
The third entry is the briefing that is given.
The next entry is the fictitious date of the scenario
The next entries are the degree of difficulty, the expected duration, the fictitious start time, the weather (there are several options you can choose from) and lastly the time of year.

Fill in as suggested below

Scenario name:- Evercreech Junction to Shepton Mallet

Description :- Drive a train from Evercreech Junction to Shepton Mallet

Briefing :- Stop at Evercreech New and Shepton Mallet allowing passengers to get off and on.

Save Scenario.

Save Scenario so far by pressing the **f2** key.

Lock the padlock and the exit the **Editor** by clicking on the arrow at the bottom right. Click Yes if asked to save changes.

Have look around . You will see that you have a completely clear track. To check that the Scenario has been saved correctly, Quit, go to Home page and go Routes etc. When you get to Scenarios you should see the new Scenario of ' Evercreech Junction to Shepton Mallet '. Click on this. When loaded you should now have a view of the station. If the camera position is not satisfactory it can be moved from within the **Editor** later.

Backup.

Make a separate backup of the Program Files\Rail Simulator\Content folder. Backup after each significant alteration to the scenario, once it has been checked. Dependant on the backup program you use it may be necessary to quit Rail Simulator before making a backup.

Section 3.

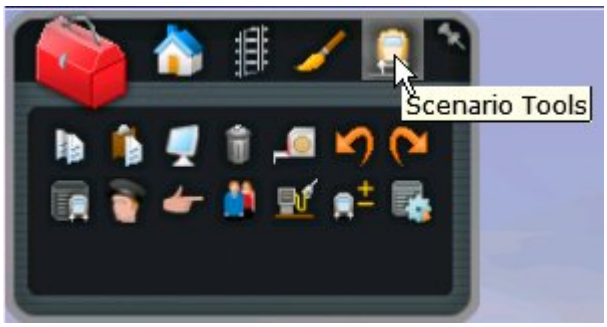
Adding train to Scenario.

Look at the manual **6.02 How to Setup a Driver.pdf** in the development documentation folder.

Open the **Editor**

Open the padlock.

Click on the **Scenario Tools** icon the **Scenario** window in the **Main Editor Panel**



The top row of this panel contains, from left to right:

Object tools. Building, trees, people etc.

Linear object tools. Tracks, roads, platforms, walls, fences etc.

Painting tools.

Scenario Tools. Creation of scenarios.

The second row contains editing tools.

Copy

Paste

Display. By using this you can control what is shown on the screen.

Delete

Measure.

Undo.

Redo.

The third row.

What is contained in the third row is dependant on what was selected from the first row. As we are creating a Scenario the **Scenario Tools** icon on the first row has been selected.

The third row now contains scenario tools.

Consists. Combines individual locomotives, coaches, wagons in a train into a **Consist**

Driver. Adds a driver to the train so it can be driven.

Stop at Destination instruction.

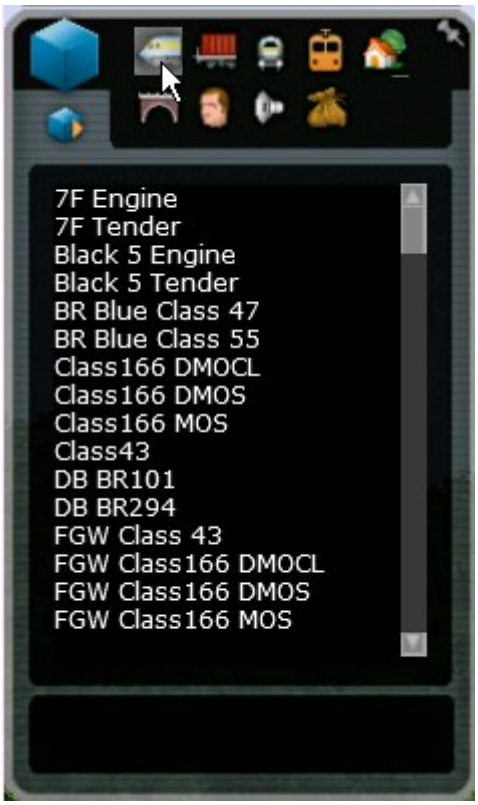
Pick up Passenger instruction.

Pick up Freight or Fuel instruction.

Consist operations instructions. Adding and dropping rolling stock from a consist.

Trigger instructions. Starts certain operations which are carried out at pre-set time after a previous operation

Click on the ' **Engine and Tenders** ' icon in the ' **Object Selection Menu** '



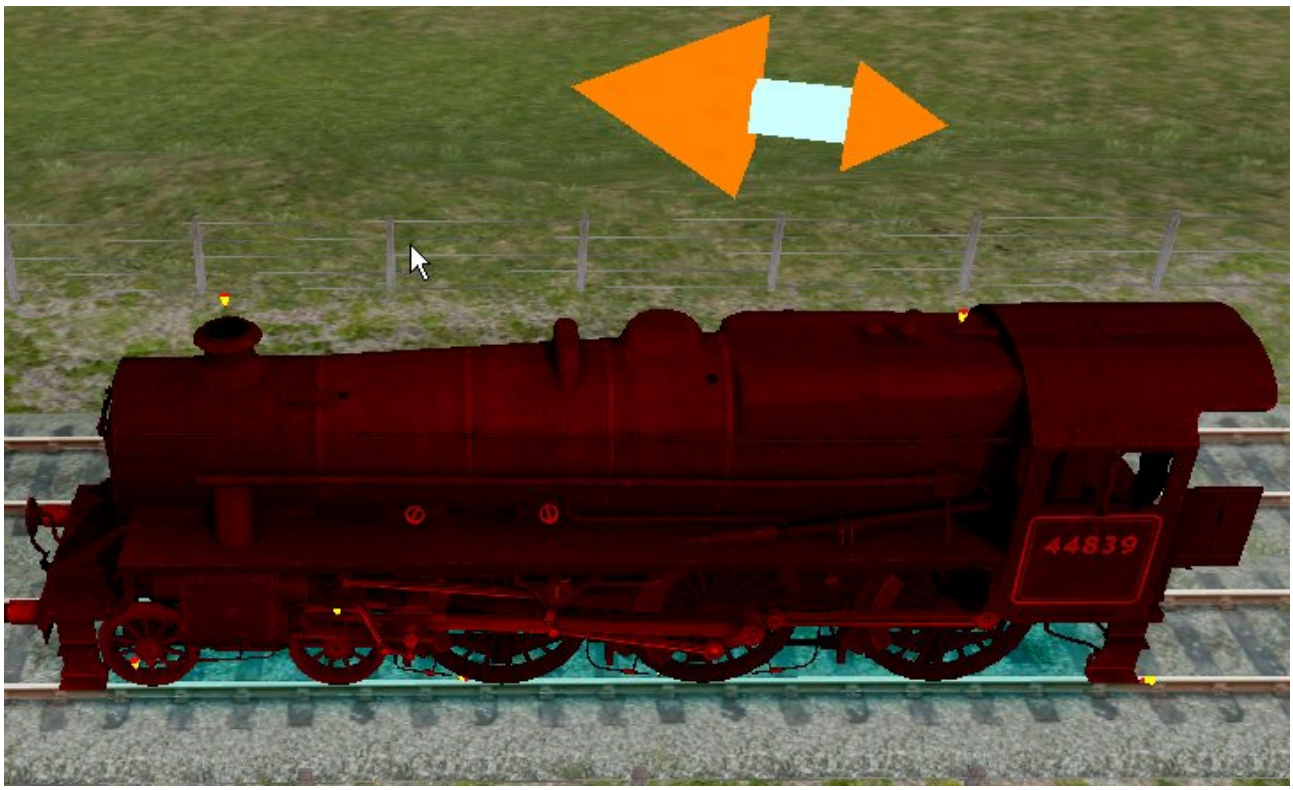
Move the camera so that it is just past the **Standard Scenario Marker** and looking towards the platform.

Left click and hold down on the Black 5 engine in the **Objects Selection Menu**. Drag the pointer across the track with the left button held down. The engine will snap to tracks as the pointer is moved across them. Place the engine on the track nearest to the platform.

Release the left button then **Left Click** to place the locomotive then **Right Click** as you don't want to place another engine.

Changing direction of travel of rolling stock.

You want the engine facing towards Shepton Mallet and it is probably facing the wrong way. Left click on the engine and a yellow symbol will appear above the engine. This can be carried out on any item of rolling stock.



Click on that symbol to turn the engine round. Left click on the track to clear the symbol.

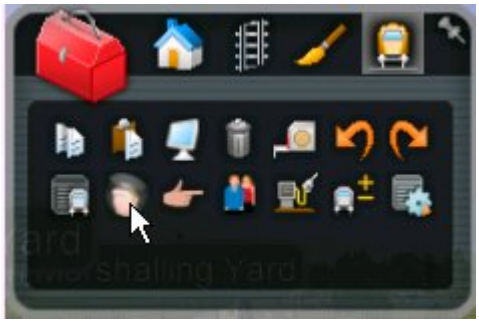
Now click on the Black 5 tender in the **Objects Selection Menu** and move that near to the rear of the engine. Place it on the track and turn it round if necessary. Move the pointer over the tender. Press and hold the left mouse button. Slight movement of the mouse will move the tender. Move it towards the back of the engine. As the tender gets close to the engine it will snap to it. This is best seen if the camera is moved to give a side view.

Changing direction of travel of a train.

Once a train has been formed then **Left Click + SHIFT** selects all the items in the train and gives a yellow arrow. Clicking on this changes the direction of travel for the entire train.

Engine driver

The engine now needs a driver. Click on the **Driver** icon on the **Main Editor Panel**.



Click on the locomotive and a blue **driver marker** should appear above the locomotive.

Editing the Drivers Properties.

Double left click on the **driver marker**.

The driver panel opens at the far right of the window. Pin it open.

In the top box enter a driver name. This must be a unique name for this route.

Place a tick in the next box down. **This indicates that this is a driven train**. If no tick is added the train will be an **AI** train.

Just below the blue square is the final destination for the train. This is left unfilled for the moment. A name cannot be manually entered but will be filled automatically later.

In the next box down enter the start time you want for the train from **Evercreech Junction**.

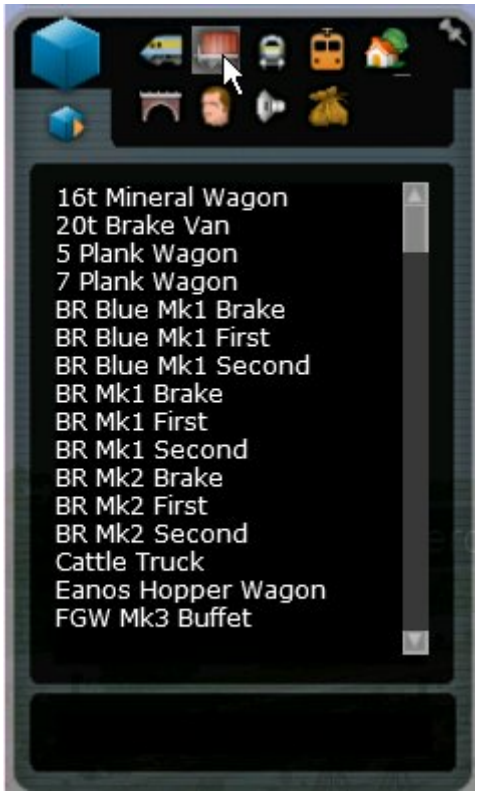
Finally at the bottom you need to select the type of train this is to be. Click on the square at the right end of the box and a drop down list will show.

Select **Stopping Passenger.**

Section 4.

Adding Rolling stock to Driven train.

Click on the ' **Rolling Stock** ' icon in the ' **Object Selection Menu** '



Now add a couple of coaches as you added the engine. Having a short train makes it easier to stop within the platform length. Which I still find difficult.

Press **f2** and save the scenario created so far.

Exit **Editor** using arrow bottom left. Respond Yes if asked

Left click on the locomotive and drive the train. Check that all is OK at this stage. Quit program.

Make backup of the ' Contents ' folder. If you can, do not overwrite your previous backup as something may go wrong and you wish to get back to a point before this.

Section 5.

Picking up passengers.

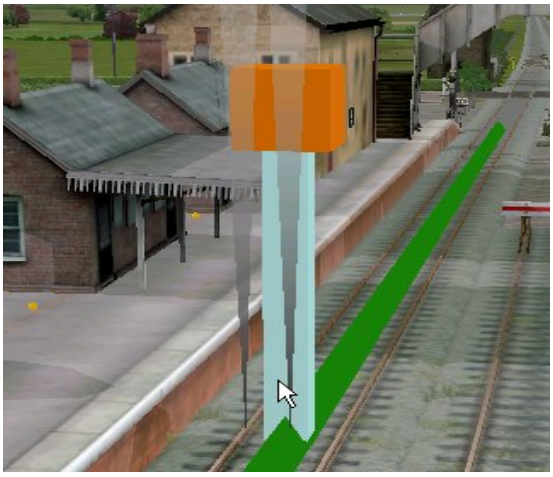
Look at the manual **6.04 How to Create a Pick Up Passengers Instruction.**

Reload the scenario and start the Editor. Open the padlock. Open the **Display** panel .

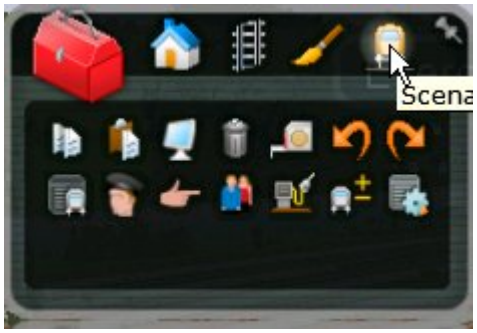
The upper section of the display allows you to select what is shown in the 2D map. The lower part allows you to select what is displayed in the main editor screen.

Just have ticks in the **Platform Markers** and **Platform Names** boxes as above for 2D map and World editor.

Move the camera and you will see the **Platform Markers**
.

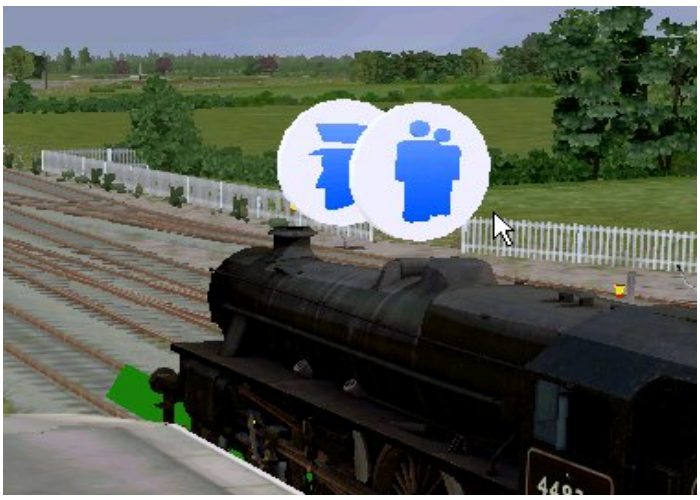


Click on the **Scenario tools** icon



Then on the **Pick up Passenger Instruction.**

Left click on the locomotive.



The **Pick up Passenger Instruction marker** is now positioned behind the Drivers marker.

Pick up Passengers Instruction Properties panel.

Double click on the marker and the **Pick up Passenger Instruction properties** panel appears at the right hand side of the screen.

The main part of this panel is where the destinations the trains should stop at to pick up passengers are entered. These will be entered automatically later.
.
Below this are the boxes where a ' **Message to be displayed** ', ' **Achievement Text Successful '** text and ' **Achievement Text Unsuccessful '** can be entered. Any text entered here does not impact on the running of the simulator. The messages are purely informative. Enter what you like

There are several ways that the destination can be automatically entered in the Properties panel.

Method 1.

This is only suitable for relatively short distances as now.

Pin open the **Pick up Passenger Instruction Properties panel.**

' Fly ' to the platform at **Evercreech New.** Use the **Up Arrow** (together with the **SHIFT** key if you want more speed). Control direction and altitude with the mouse with the right button held down. This can be difficult to start with but quickly becomes easier. However it is very easy to lose position or also find oneself underground. Take care.

Position the camera close to the platform marker

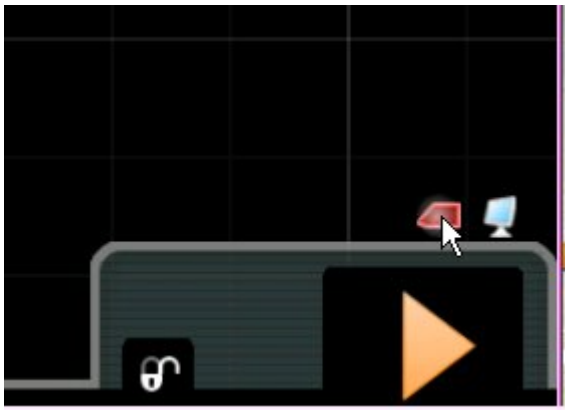
Click on the green + symbol and then move the mouse pointer until the **Platform Marker** changes colour.

Left click now and this destination will be added to the **Pick up Passenger Instruction Properties** panel

Method 2.

Make sure the **Pick up Passenger Instruction Properties panel** is pinned out.

Click on **9** to open the **2D map**. Click on the icon at bottom right to change to blue. Map should now be centred on the locomotive location. Click on icon again to change to red.

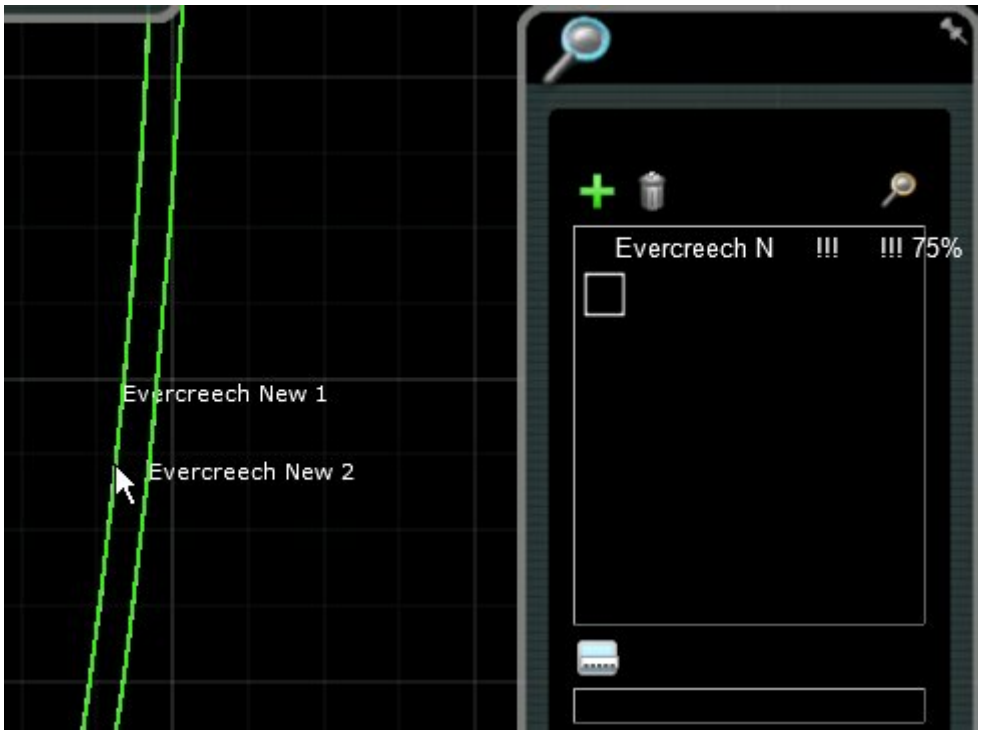


Use mouse wheel to zoom in and out. Move to your desired location by moving mouse with right button held down. Find destination **platform marker (** Evercreech New)

Zoom right in so that you can see each **platform marker** clearly.

Click on the green cross in the **Pick up Passenger Instruction Properties** panel

Click on the green **platform marker**



The destination will be added to the panel.

Method 3.

Moving display to new destination. Alternative to ' Flying '

While ' flying ' between locations as above can be done because the distances are not too far, if one wishes to go from one end of the route to the other then this method becomes tedious and liable to errors. This alternative is useful for long distances but takes just as long for short distances.

Click on the **Route marker** icon in the **Navigation panel.**

When the **GPS panel** opens at the right of the screen click on the place nearest to your desired destination. This will change the **Lat**. and **Long**. values in the **Navigation panel** to that of the selected place. On the **Navigation panel** click on **GO.** The display will move to the selected place.

To keep the **Pick up Passenger Instruction Properties panel** visible change the **Lat.** and **Long.** values as above, open the **Properties panel,** then click on **GO**

The scene will now move to the place selected. From there you can quickly ' fly ' to your required destination marker as **Method 1.**

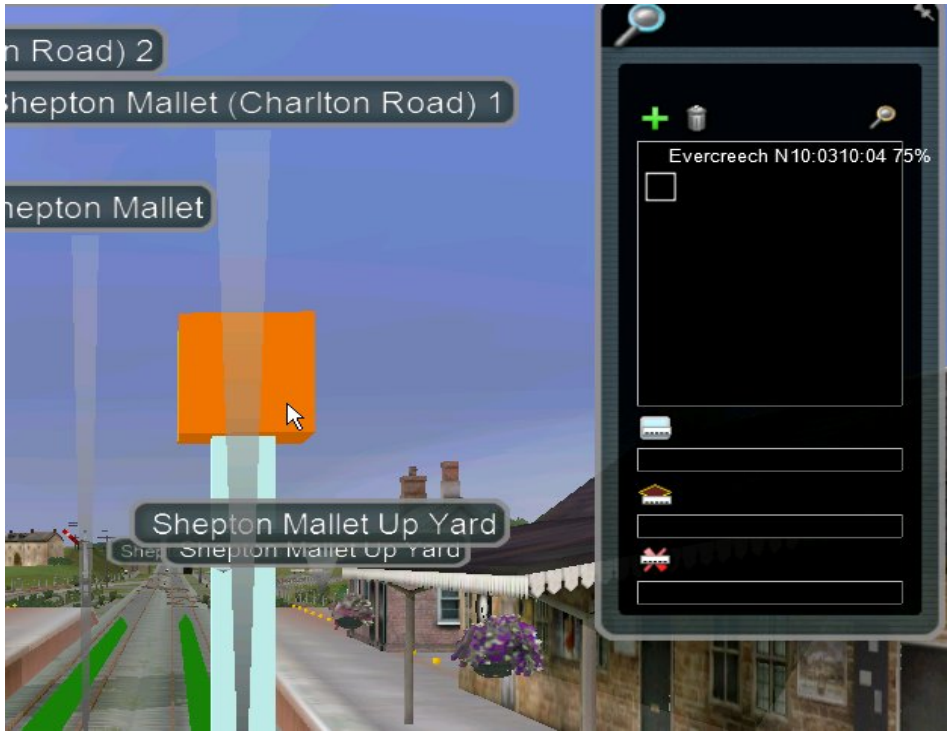
The information given in the **Pick up Passenger Instruction Properties panel** is :-

Arrival platform:- Evercreech New 1
Program calculated Time of arrival 10:03
Program calculated Time of departure 10:04
The average expected performance. 75%

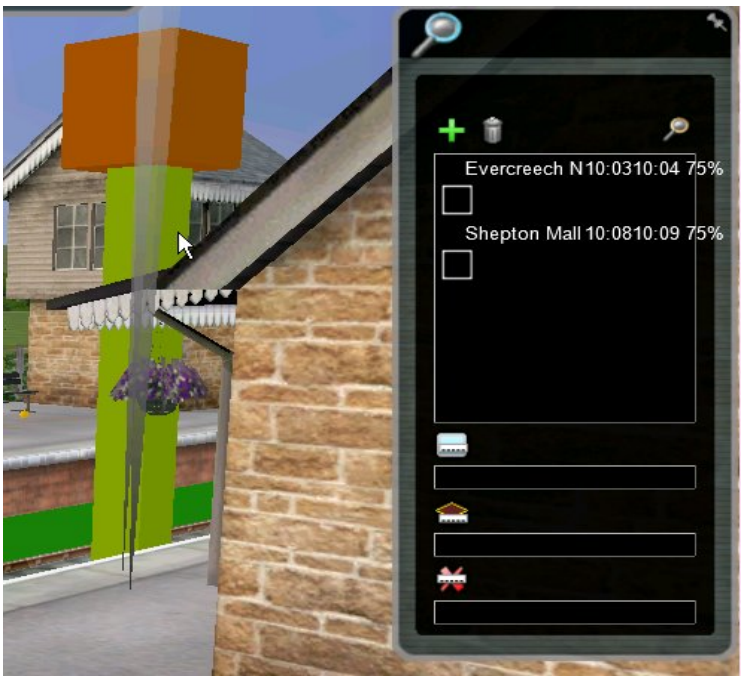
Look in the manual **6.04 How to Create a Pick Up Passengers Instruction** Section 3 for a more detailed explanation of this information

Now move to **Shepton Mallet** platform using your preferred method and enter the destination in the **Pick up Passenger Instruction Properties panel** as above

When using one of the methods where you have to click on the platform marker I have found that



sometimes it is necessary to move the camera about until a place can be found where the marker changes colour. Make sure you pick the correct marker otherwise some unintended shunting can take place. Click on the marker



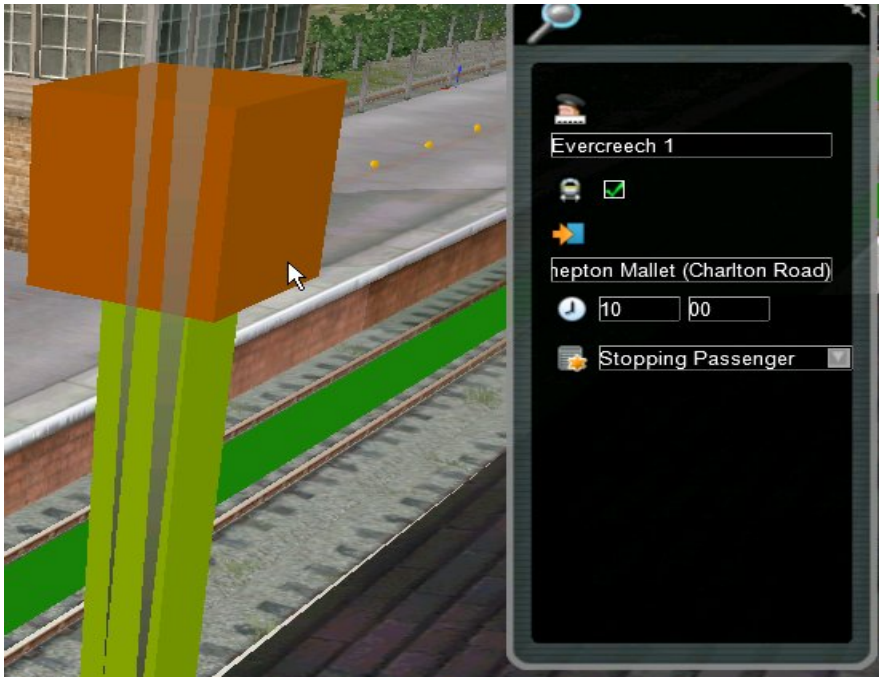
Go back to the locomotive at the **Evercreech Junction** platform if you are not still there. Either ' fly ' back or use the **Navigation** and **GPS** panels.

Click on the **Drivers marker** on the locomotive and pin the **Drivers Properties panel**.

Again there are alternative ways to enter the destination in the **Drivers Properties panel**

Method 1.

Fly to **Shepton Mallet** station marker. Move the mouse pointer until the marker changes colour then click on it . The station platform details are entered automatically in the drivers destination box. The destination should be set to the same as the destination on the final passenger load/unload instruction.



Method 2.

Use the **2D map** to find the **Shepton Mallet platform marker** and left click on that. Same as given for Destination Marker above.

Press **f2**to **Save.**

Checking the scenario created.

With the train at Evercreech Junction showing, preview the train movements by using the ' Player ' at the bottom of the window. Press the ' Play ' button. (This is also referred to the ' **fast forward function** ').You should see the train start to move. Clicking on x2, x4 etc. will make the train time go faster. As the camera is not locked to the train in the Editor it is necessary to follow it using the camera controls.

(There have been suggestions in the forums that the use of the ' Fast forward function ' can affect the saving of the scenario so make sure that you have saved before ' Playing '.)

Check that the train stops at each scheduled stations. Passengers are not shown unloading in the Editor.

Make sure that all is working correctly before attempting to add any AI trains.

Section 6.

Adding AI trains.

Before starting, look at the manuals **6.07 How to Author AI Traffic** and **6.03 How to Create a Stop At Instruction.**

Before starting to add **AI** trains it is necessary to decide approximately where you wish the driven train to meet **AI** trains. This will determine the starting point of the **AI** train and the starting time.

For this scenario we will place an **AI** train near to the **Evercreech Junction New Yard** area.

If this train starts at the same time as the driven train it will have to cut across the driven train path and cause the driven train to be stopped at stop signal.

Go to the E**vercreech Junction New Yard** area and add a train as shown above . This consists of a **7F locomotive and tender** and three **BR Mk 1 coaches**. This train is positioned near to the exit of the yard. Try to get it close to the position shown as this location causes the type of interference with the driven train that I want to achieve. If the **AI** train is further back in the yard then the **AI** train will encounter a stop signal rather than the driven train.

Creating a Consist.

Rather than having to create a new train each time, a group of coaches or wagons together with a locomotive can be formed into a **Consist**.

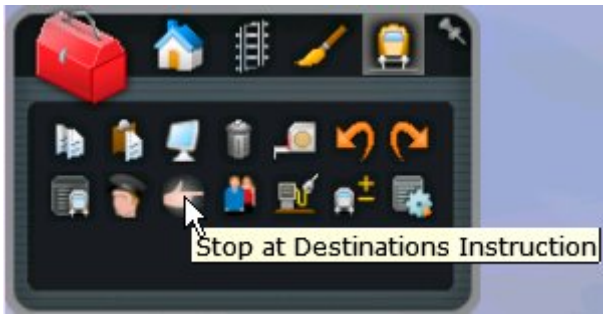
Click on the **Consist** tool.

Grey squares appear above the coaches and locomotive. Click on one of these and the **Consist Properties** panel opens. Enter a name. I called it AI 1 and the consist is made. We will make use of that consist later.

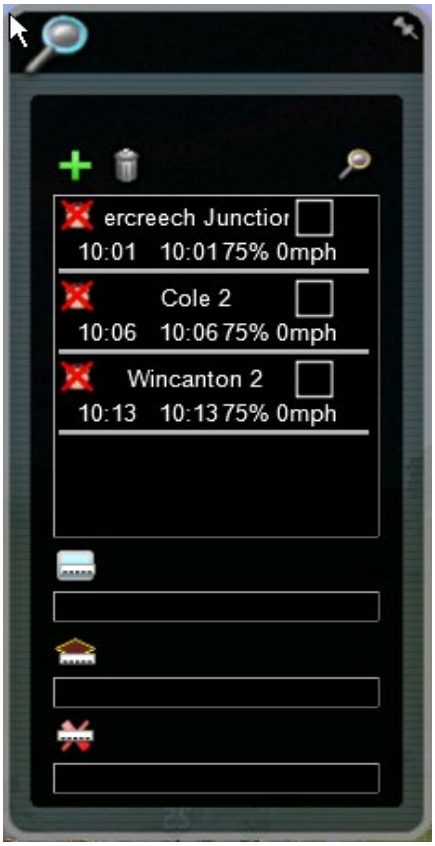
Place a **Drivers** marker on the locomotive of the train just created. The **Drivers Properties** panel opens.

In the Drivers properties panel enter the information as above.

Do not place a tick in the Player Consist check box (to do so would mean this is driven train)



Click on the **Stop at Destination Instruction** and then left click on the locomotive.



Add stopping locations as you have previously added ' **Pick up Passenger Locations** ' for the driven train.

Stop at **Evercreech Junction 2** Platform, **Cole 2** Platform and **Wincanton 2** Platform. The **Stop At Destination Instruction** properties panel should look as above. This **AI** train is being sent to **Wincanton** so it does not interfere with other **AI** trains we are going to install.

Go back to the **AI** train and click on the **Drivers Marker**. Fly to **Wincanton** and add the final destination.

The **Drivers Properties** panel should look like the above.

Save the scenario by pressing **f2.**

Zoom the camera away and up until you can see both driven train and **AI** train.

Press the **Play** button on the ' Player 'and you should see both trains start to move. The driven train should stop before the junction to allow the **AI** train to pass across its path before proceeding. The the **AI** train should continue and stop at **Evercreech Junction 2** platform. After waiting a short time the **AI** train should leave the platform

We are going to add another AI train, start position just outside **Evercreech New** station. Locate and construct a consist similar to the picture below.

Add driver and fill in drivers properties panel as below.

Add **Stop at Destinations Instruction** marker as for previous AI train.

Add a stop at **Cole 2** which will be the final destination.

Set destination in **Drivers Properties** panel. It should look as below.

Save scenario. Try scenario using Play. You will need to fly around quite a lot to see driven train and both **AI** trains.

Viewing progress of trains using 2D map.

It is also possible to watch the progress of all trains by opening the 2D map (press 9) Once the 2D map is open, click on the ' **Follow Train** ' icon, bottom right hand corner. This will centre the map on the driven train . Now click on it again to change it Red. You are now in Free Roam. Click on Display icon and set the display setting as below. By zooming and panning you can see the positions of all the trains. Start by pressing the Player button.

You should see the driven train and both **AI** trains moving.

Two more **AI** trains are to be added.

First go to **Shepton Mallet** .

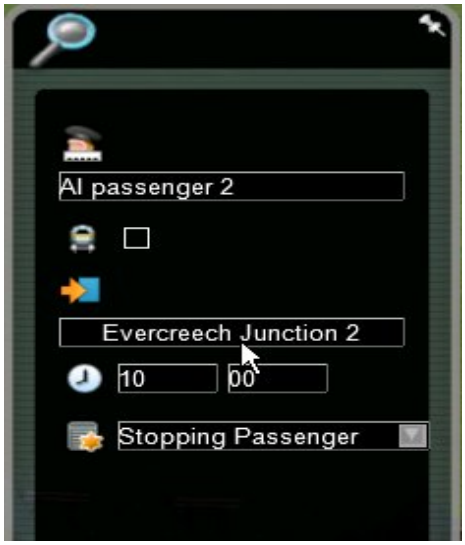
You are going to use the consist that you have created.

Click on the **Consist button**. In the above picture you will see the consist (**AI 1**) that we have just made plus others I made also.

Place the consist next to the **Shepton Mallet** platform by clicking on **AI 1** and dragging it into position. Same as for adding rolling stock.

If train is positioned to travel the wrong way **Left Click + SHIFT** selects all the items in the train and gives a yellow arrow. Clicking on this changes the direction of travel for the entire train.

Add **Driver** marker, enter details. Add **Stop at Destination** marker and enter details of destination. Finish by entering destination in **Drivers** marker. The **Drivers** and **Stop at Destination** panels should look like



Finally add a further AI train at

This is at a set of sidings between **Shepton Mallet** and **Masbury** just after a tunnel.

You are on your own for this **AI** set. The finished **Drivers** panel is shown above. The one difference for the **Drivers** panel compared to the others we have created is that the **Starting Time** is set to 10:02 If set to 10:00 as the others the **AI** train would get too far down the line before it met the driven train.

Save and then try the scenario.

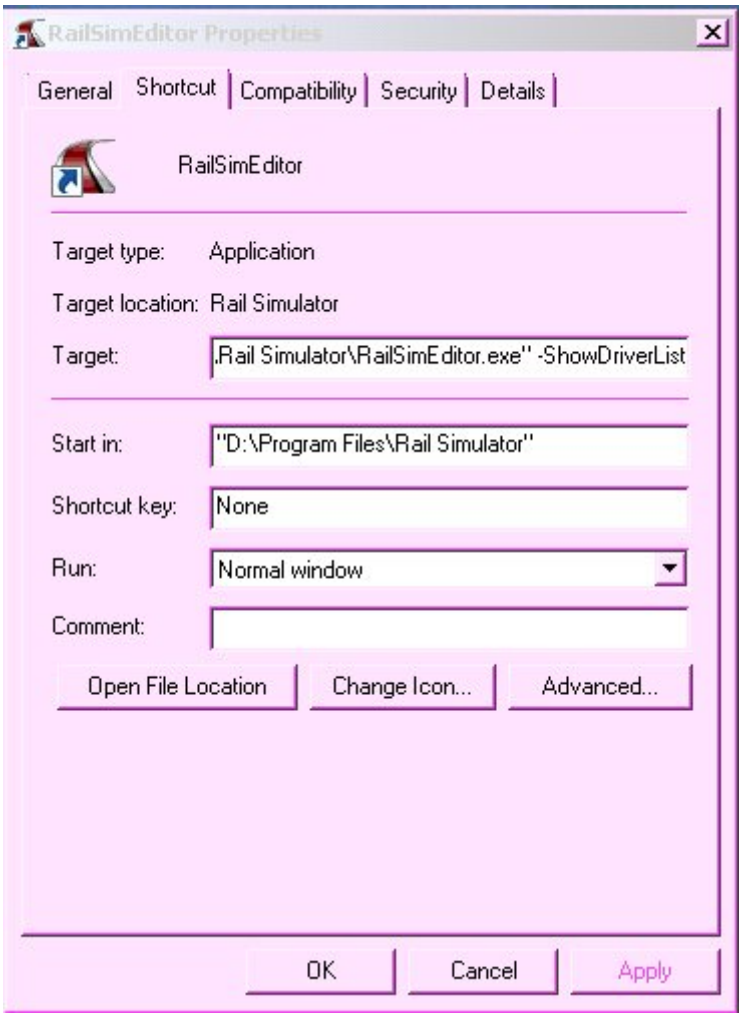
If you have problems with any of the **AI** trains refer to the manual **6.07 How to Author AI Traffic** Section 4 where there is a comprehensive list of possible reasons for AI problems.

I had problems with the last **AI** train placed as originally I placed it too close to the **AI** train in front .

Driver Pathing Status

A very useful function that can show faults with Driver routes can be accessed from the Drivers Properties panel. However to have this function available it is necessary to change the Target in the RailSimEditor shortcut properties window.

Got to the shortcut on the desktop, right click on it and then left click on Properties

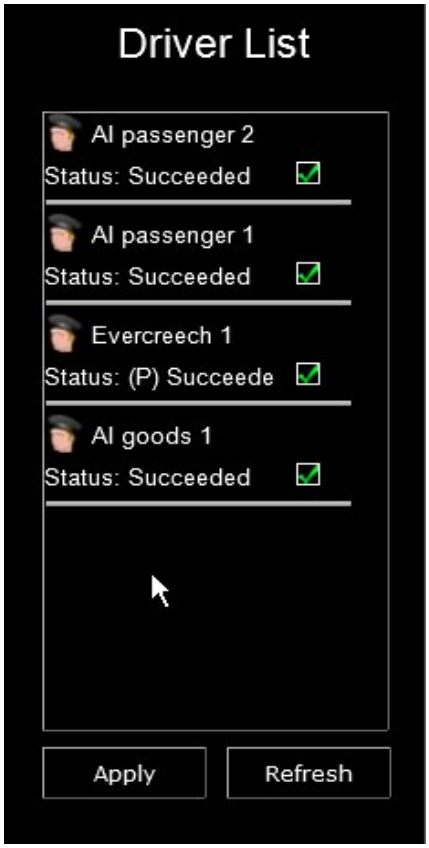


Change the target to

"C:\Program Files\Rail Simulator\RailSimEditor.exe" -ShowDriverList . Change this if your program is not in the default location.

When the program is run using this modified shortcut the Drivers Properties panel will have an additional option

Click on Drivers and a new panel opens which gives the **Drivers Path Status**.



which shows all the drivers in the current scenario and gives their **pathing status** of Successful, Failed, Pending. (The driver with (P) is the Player train driver)

This information can be found at http://www.railsimulator.com/en/node/3087

To my scenario I have added additional rolling stock to make the scene more realistic

I have called this scenario **Evercreech Junction to Shepton Mallet-1** so that it does not over write your creation.

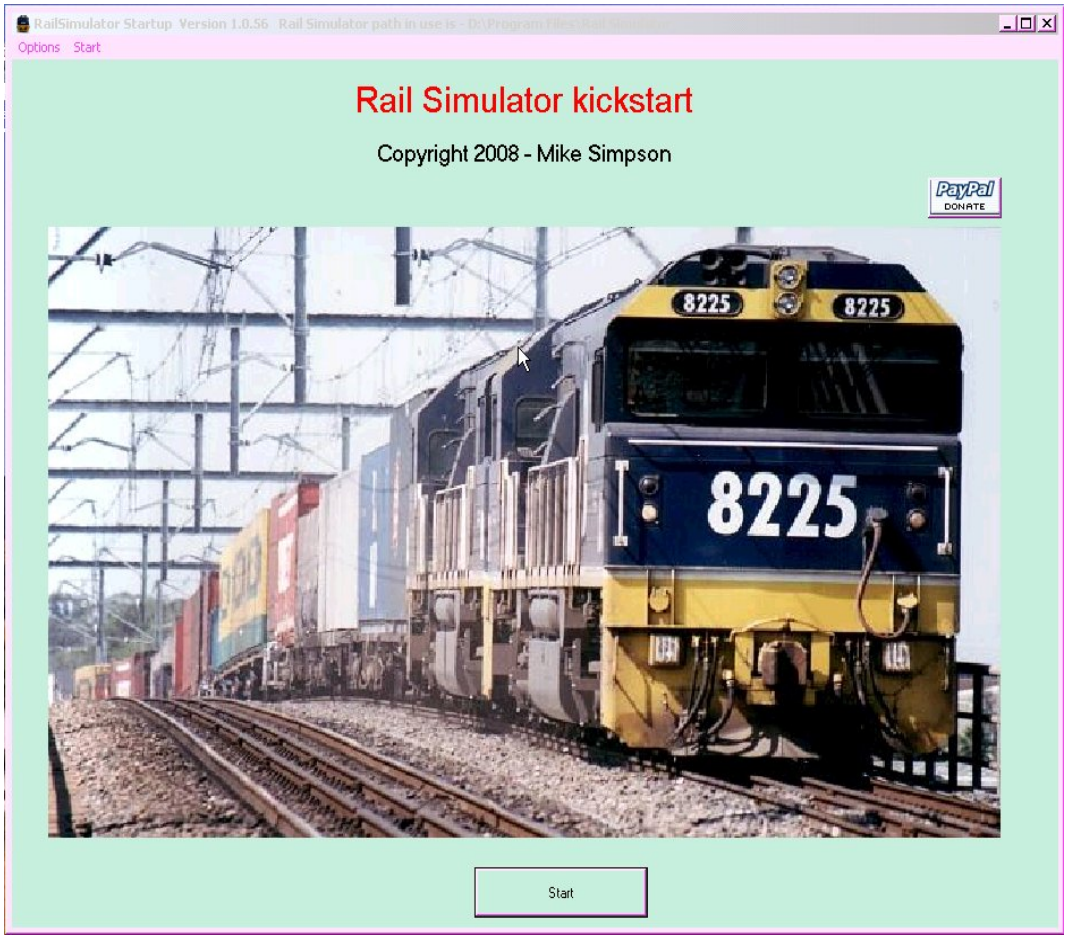
If you have any problems with your scenario compare the various properties panels between your version and mine.

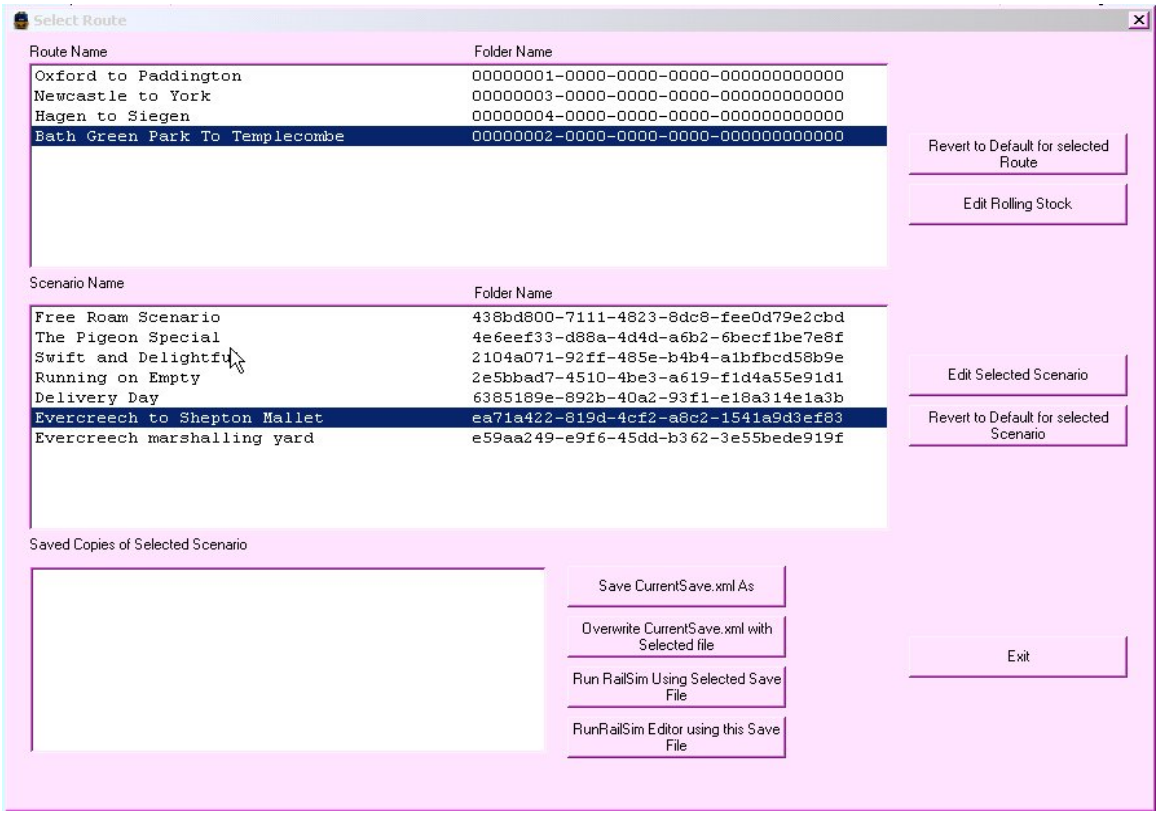
Now that you have a functional scenario you should save it as a packaged file so that you can share it with others or re-load it if you have to do a new installation.

Packaging the Scenario.

In order to be able to save it using Rail Simulator you need to know the name of the file that this scenario is stored in. For this you need the program **KickStart v1.0.56** by Mike Simpson**.**

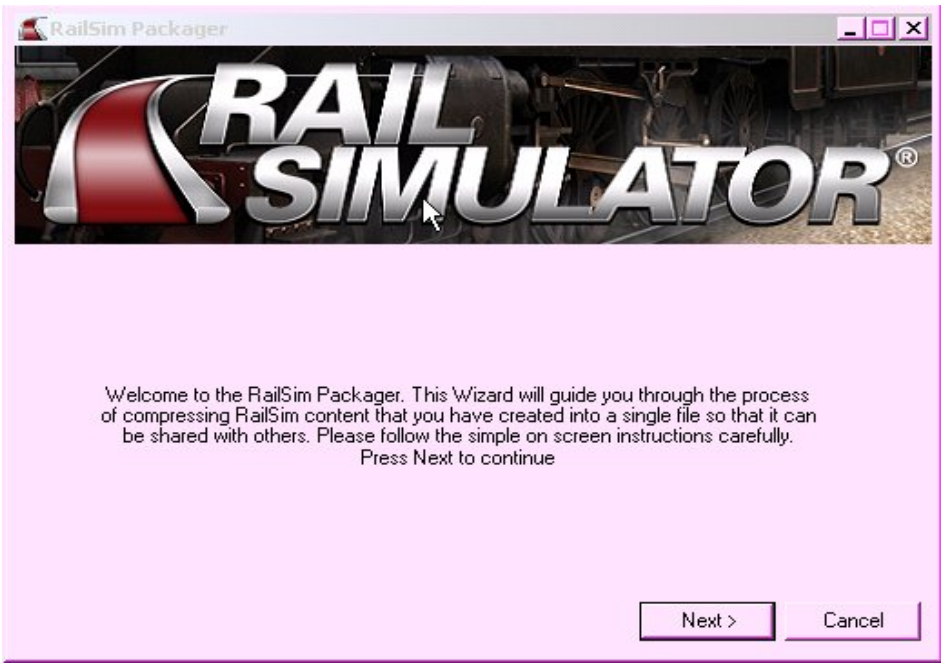
This can be downloaded from UKTrainsim http://www.uktrainsim.com File ID 18463



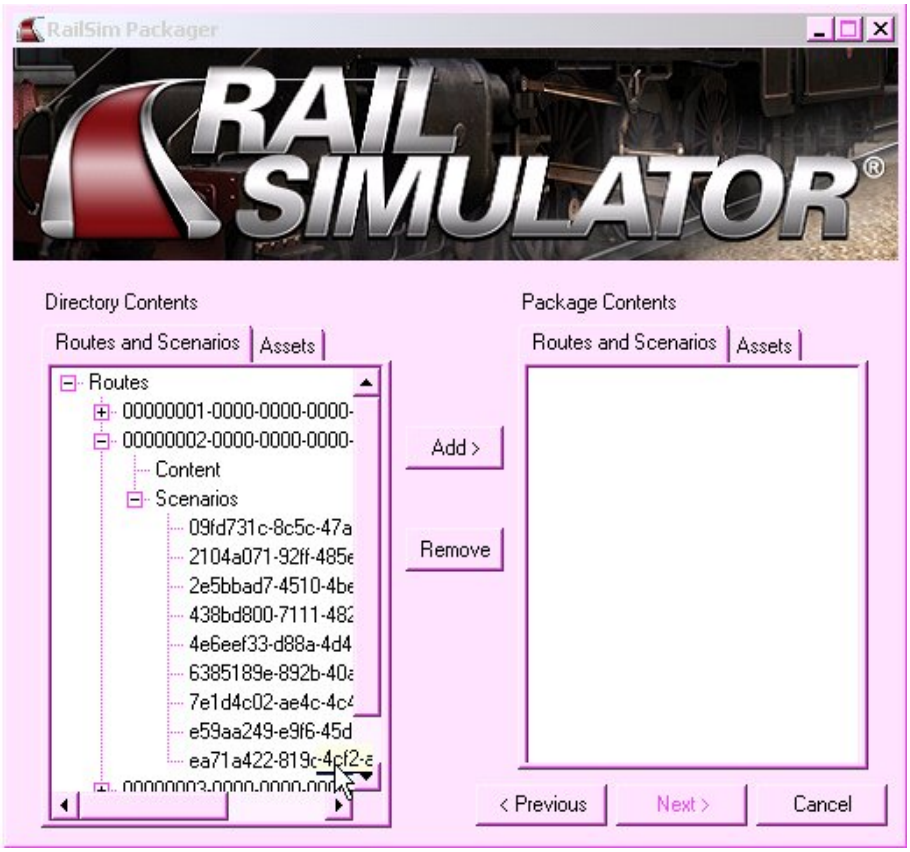


On starting this program you will be able to select the route (its folder name is given) and then all the stored scenarios in that route are listed with the names of their files. Note that the file name of your creation may not be the same as mine.

Having got the file name, run the program
Program Files\Rail Simulator\PackagerDevTool/PackageCreator.exe



Click on Next and in the next window find your file, click on it and then click on Add



Click on Next, enter a name for the file, where you wish to store this file and then Create. You should now have an .rpk file. Keep safe in case you wish to re-instate this scenario in the future.

Deleting your Scenario's

Go to

Left click on the Scenario to be deleted . Press the ' delete ' key and respond to next screen.
This should only be used for scenario's you have created yourself. It does not completely remove all files if a the new scenario has been installed using RailSim **PackageManager**

Next guide.

My third and final guide deals with creating a freight train scenario, re-fueling, picking up rolling stock and delivering that rolling stock to the correct locations. The scenario I have created contains several AI trains.

Section 7

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