RAILWORKS

Creating a Passenger Train Scenario for RailWorks. Version 1.0

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

In this guide we will use more powerful features of the Editor 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.

Sections

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 created simple scenarios. Now we will create more complicated Scenario's.

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 to be created, **Evercreech_Junction_to_Shepton_Mallet-2.rpk**, will be found at in the Zip file

I have called my version of this scenario **Evercreech Junction to Shepton Mallet-2** so that it does not over write your creation.

If you wish to see my version of this scenario before creating your own
install **Evercreech to Shepton Mallet-2.rwp** as below.

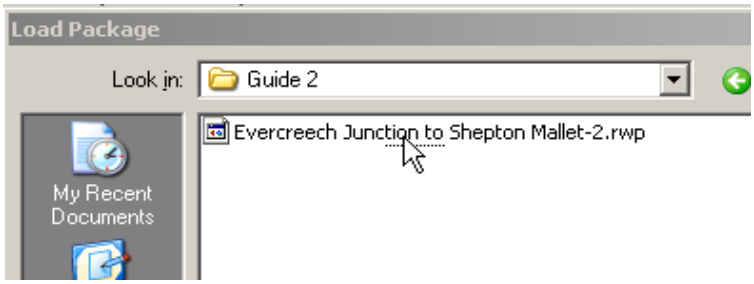
Installing packaged scenarios.

Open the Launch Screen

Click on Package Manager

On the window that opens click on Install.

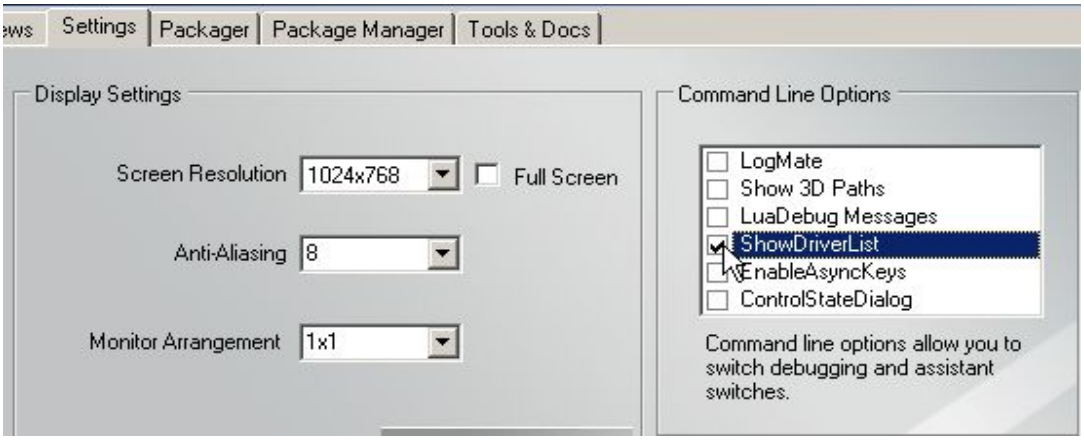
Locate where the zip file was unzipped and select **Evercreech Junction to Shepton Mallet-2.rwp**



Click on **Open** and the scenario file will be loaded.

This method is used for installing all .rwp and .rpk files which contain routes, scenario's, rolling stock and scenery.

While at the launch screen click on the **ShowDriverList**. This will provide a useful diagnostic tool which will be used later.



Uninstall previously installed package.

Go to the **Route/Scenario** selection menu. Select the Scenario you wish to delete then press the **Delete** key.

Section 2.

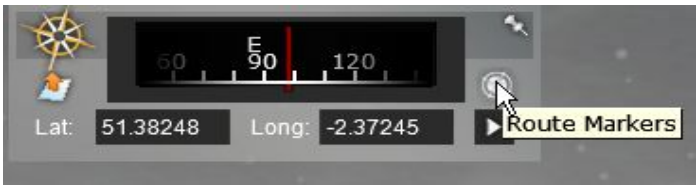
A simple Stopping Passenger train Scenario with AI traffic.

The **RailWorks Creator Manual** contains a section on **Creating and Editing Scenario's**.

There is more detailed information in the **RailWorks Wiki Reference Manual** at **www.railsimdownloads.com/wiki/tiki-index.php?page=Section+6+Scenario+Editor**

Navigate to where you want the scenario to start. In this case **Evercreech Junction** station so open the **Bath Green to Templecombe** route in **Free Play.**

In the **Navigation** popout panel at the top of the screen click on the **Route Markers** icon.



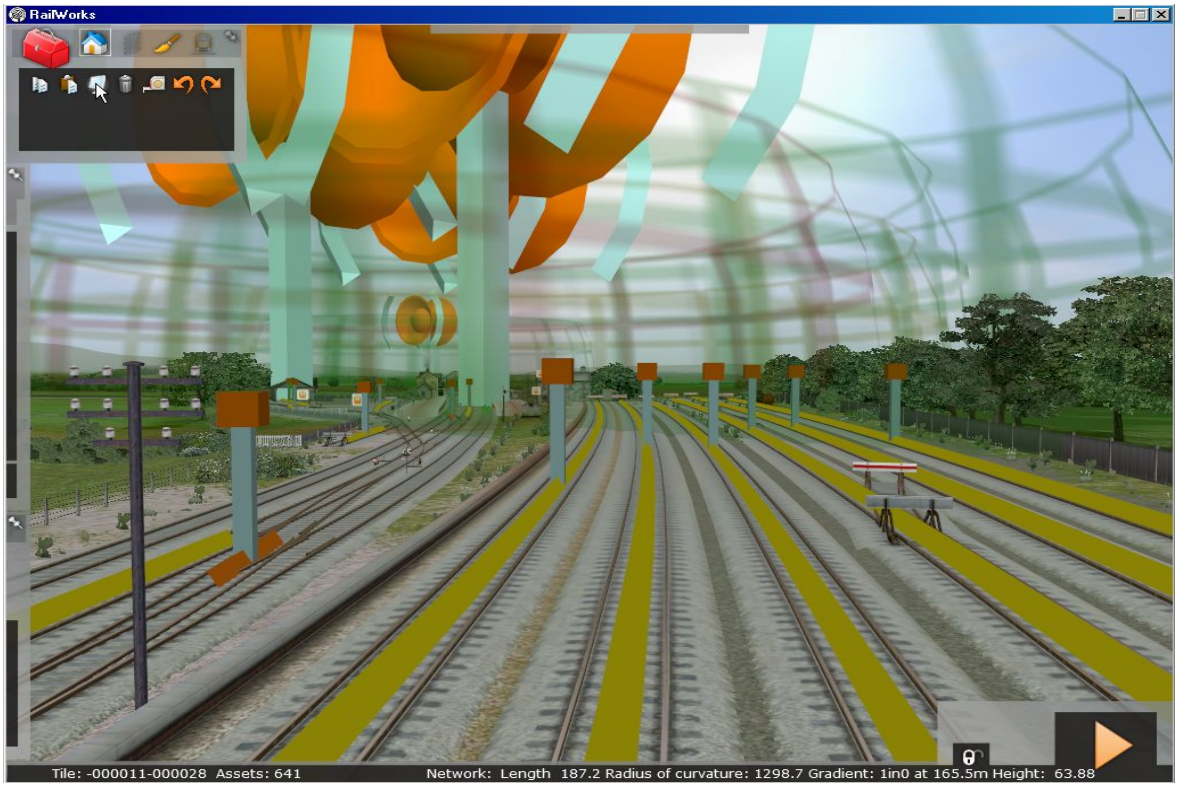
A new popout panel (**GPS**) appears to the right of the screen
Click on **Evercreech Junction**.

Go back to the **Navigation** panel and click on **Go.**

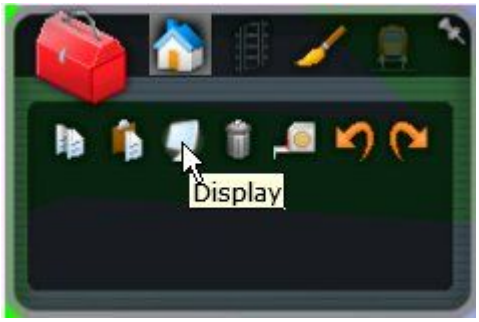
The route should load near **Evercreech Junction** station. Move the camera to locate the station.

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 may see that the screen is rather cluttered. We don't need any of this for now, so if it is then in the **Main Editor Menu** in the top left of this screen, click on the **Display** icon.



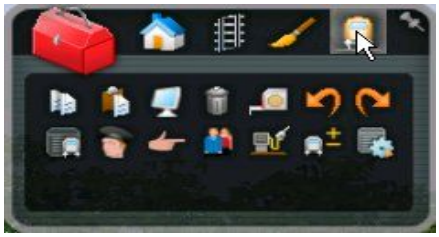
Click the top right hand icon of the **Display panel** that appears at the top right of the screen

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 but some will be used later.

This should remove all the clutter.

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 **Main Editor Menu** 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.

Move the camera so that you have a good view of the centre of the station platform nearest to the marshalling yard.

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

Pin open panels

The two popout panels showing above will be used frequently during the next operations and these can be pinned out by clicking on the small grey pin at the top left of the menus. All panels can be pinned out in the same way.

A new panel will open

Placing a Standard Scenario Marker.

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

Place a **Standard Scenario Marker** near the station platform and left click. Answer **NO** to the **Save** question. Right click to stop another marker being positioned.

A new popout panel should have appeared on the right side This is the **Properties Tab**

(If this has not appeared double click on the **Free Roam Scenario** Marker. Several attempts may be needed as a device called a Gizmo often appears..)

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

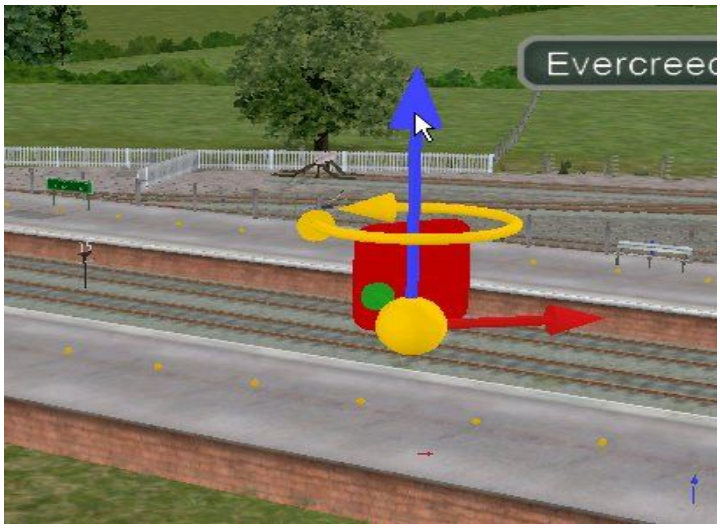
Description :- Drive a train from Evercreech Junction to Shepton Mallet

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

Fill remainder in as above.

Positioning Free Roam Marker.

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.



Save Scenario.

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

Exit Editor.

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

You should now see the description of the Scenario you have just entered. Exit the description.

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 C:\Program Files\Steam\SteamApps\common\railworks\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 RailWorks before making a backup.

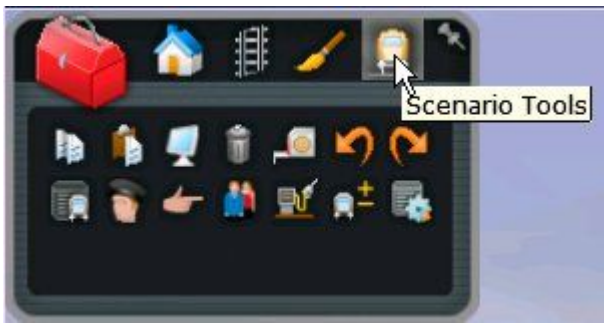
Section 3.

Adding train to Scenario.

Open the Route and Scenario. Open the **Editor**

Open the P**adlock**. Click on **OK**

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



Answer **YES** to the next two questions.

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.
(referred to as Lofts)

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.

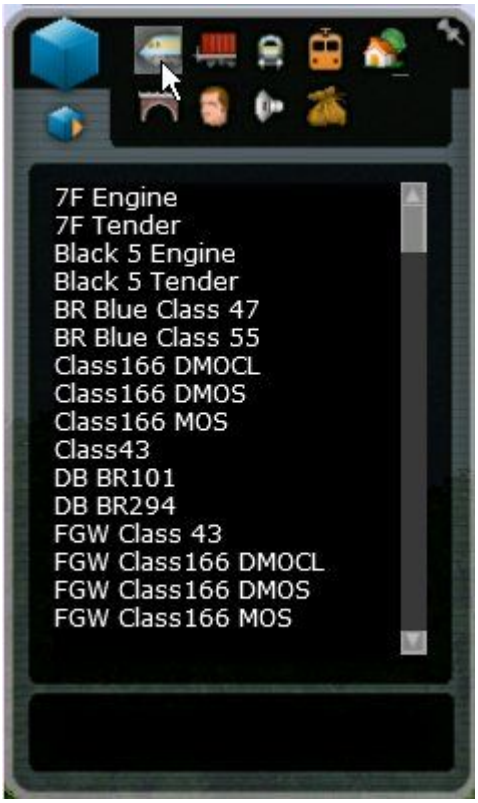
Pick up Passenger instruction.

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** '



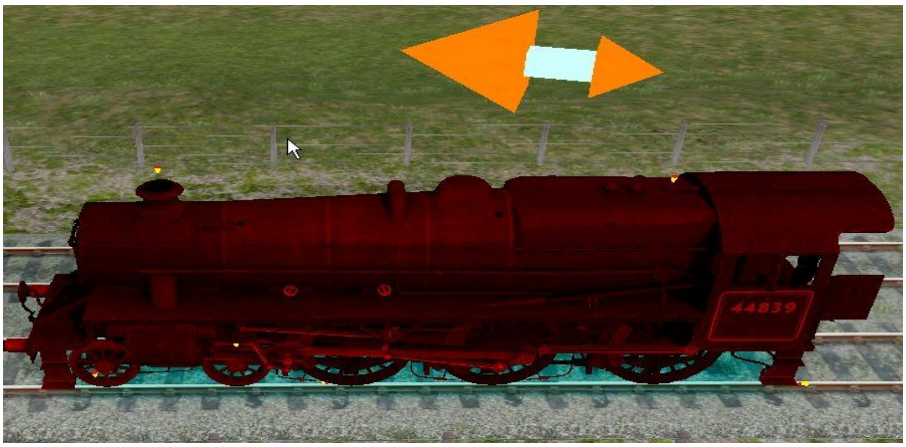
Move the camera so that it is just past the **Standard Scenario Marker** and looking towards the platform.

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 (that is, facing the left of the picture) and it is probably facing the wrong way. Left click on the engine and a yellow symbol will appear above the engine. This changing of direction 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.

Adding an 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 Properties 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 controlled by the simulator. If a **Free Roam Scenario** had been selected then this box and icon next to it would have been greyed out.

Just below the blue square is the final destination for the train. As this is filled automatically this will be unfilled at the moment.

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

Finally 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.**

Pressing **F2** will save the Scenario as it is.

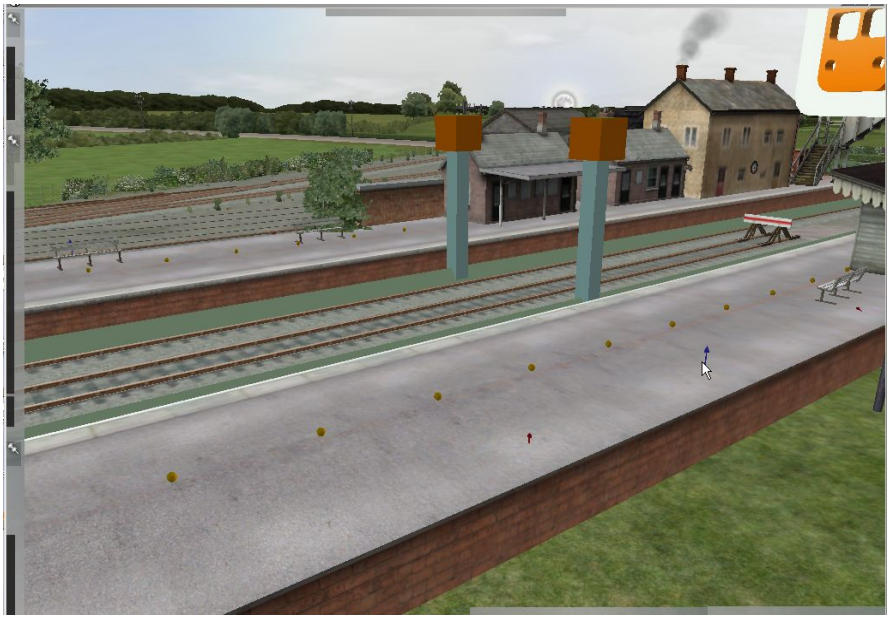
The Scenario as it stands is almost ready to be tried. However it is necessary to enter a final destination in the Driver Panel. This cannot be done manually.

Entering the destination in the Drivers Properties panel.

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.

For this Scenario the final destination will be a platform so there must be ticks in the **Platform Markers** and **Platform Names** boxes for the 2D map and World editor as above.



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

Click on the **Drivers Marker** on the locomotive and pin the **Drivers Properties panel**. open.
It is now necessary to locate the final destination in either the World Editor or the 2D map

There are alternative ways to find the final destination.

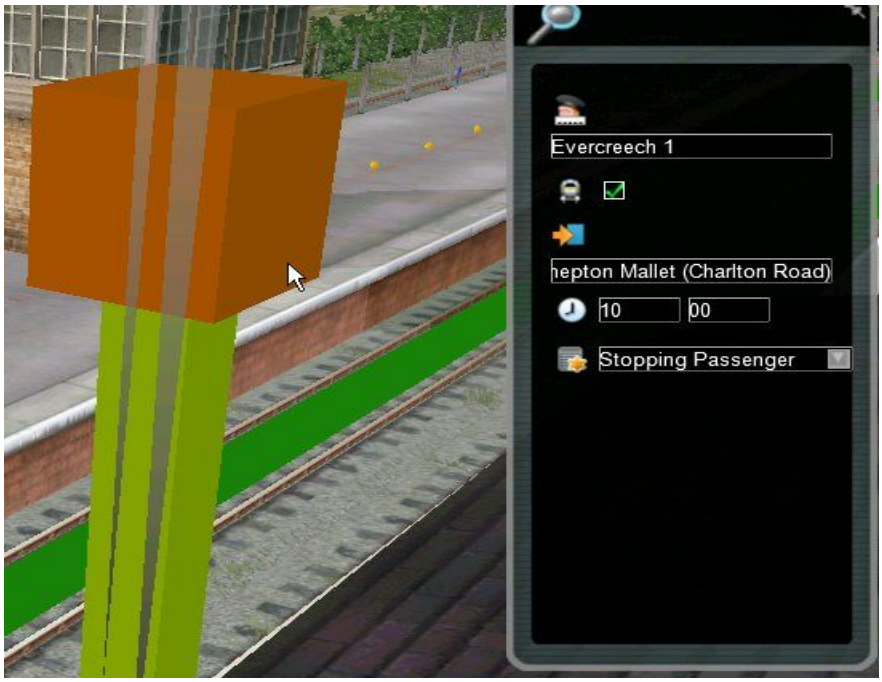
Method 1.

Fly to **Shepton Mallet** station marker using the camera controls. This is relatively easy for short distances but tedious if long distances are necessary.

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.

Once viewing the correct platform marker, in the **Drivers Properties panel** click on the blue square **-Add Destination**

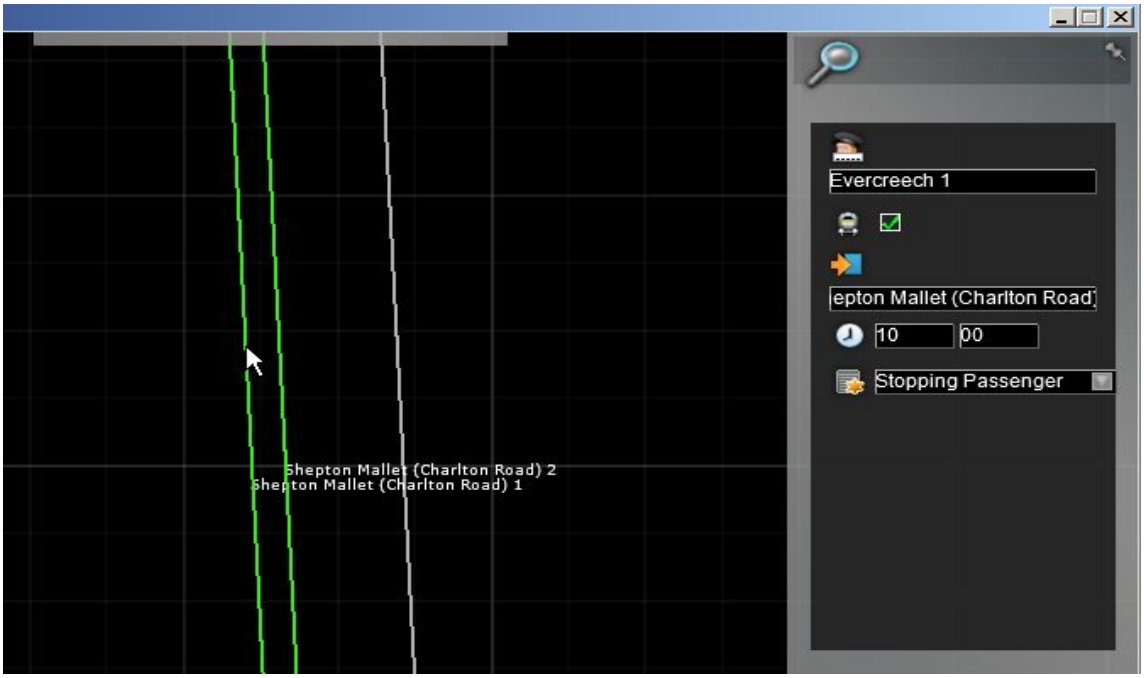
Move the mouse pointer until the **Platform Marker** changes colour then click on it . The station platform details are entered automatically in the drivers destination box. The destination should be set to the same as the destination on the final passenger load/unload instruction.



Method 2.

With the **Drivers Properties panel** pinned open, press **9** to open the **2D map**. Find the **Shepton Mallet platform marker .**

In the **Drivers Properties panel** click on the blue square -**Add Destination.** Left click on the **Shepton Mallet platform marker.**.



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.

Open the **Driver Properties panel** panel and pin open.
In the **Navigation Panel** click on **GO.**

The scene will now move to the place selected. Extensive use of the camera controls may be necessary as the position may be below ground. You can quickly ' fly ' to your required destination marker as **Method 1** and then carry on as **Method 1.**

Testing.

Once the final destination has been entered in the **Drivers Properties Panel**,
Press **F2**to **Save.**

Exit the World Editor and check that the train can be driven.

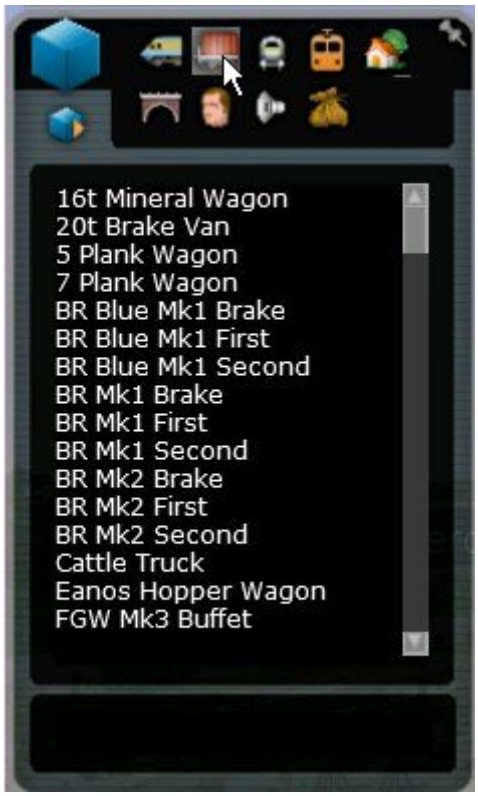
If all OK go to next section.

Section 4.

Adding Rolling stock to Driven train.

Open Editor, Open Scenario Tools etc

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.

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.

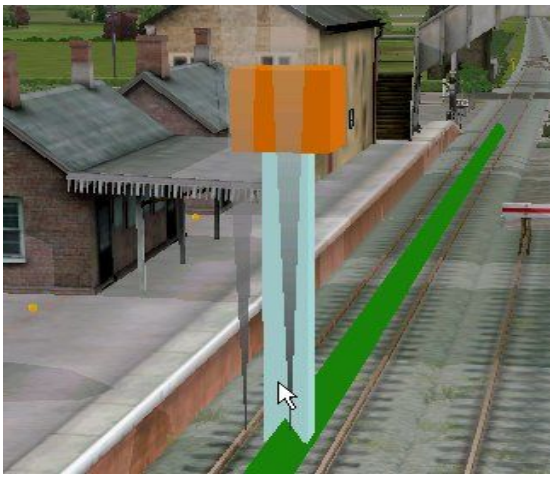
Section 5.

Picking up passengers.

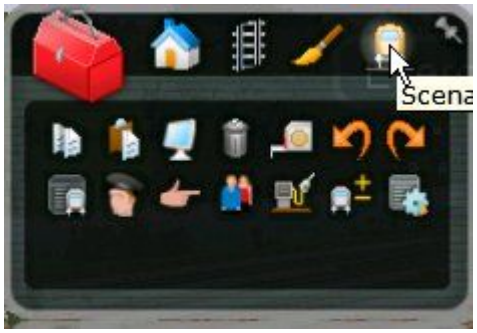
Reload the scenario and start the Editor. Open the padlock. Open the **Display** panel .

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**
.

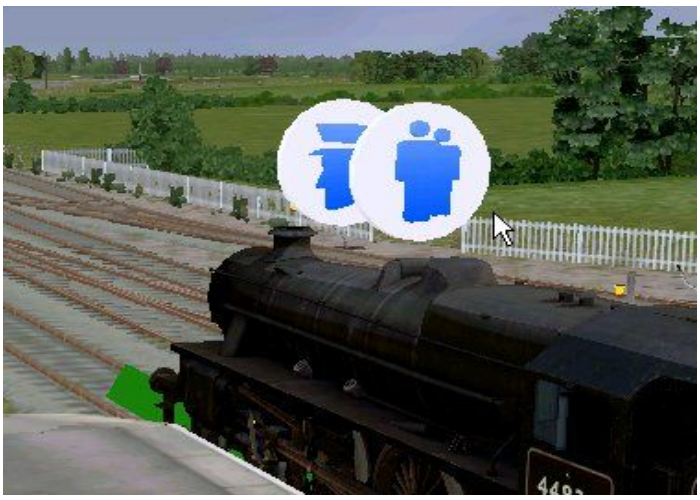


Click on the **Scenario tools** icon



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 panel.

Double click on the marker and the **Pick up Passenger Instruction** 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 **Pick up Passenger Instruction** panel. These are the same as used to enter the final destination in the **Drivers Property panel**

Method 1.

This is only suitable for relatively short distances as now.

Pin open the **Pick up Passenger Instruction 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

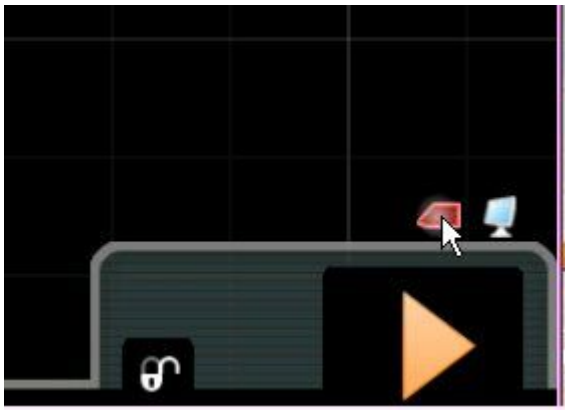
Click on the green + (Add) symbol in the **Pick up Passenger Instruction panel** and then move the mouse pointer until the **Platform Marker** changes colour.

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 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 first 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** 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.

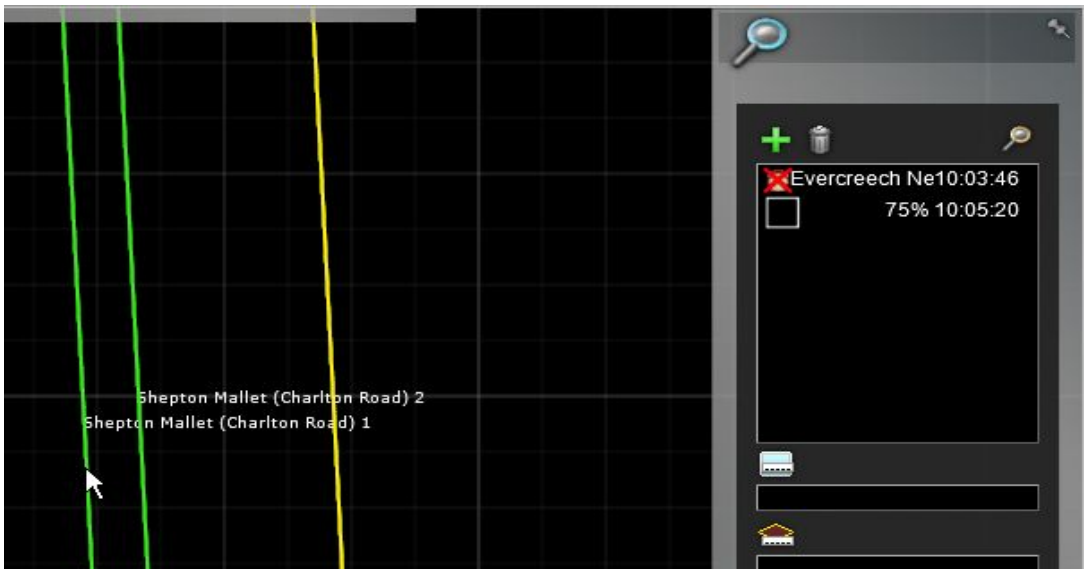
Open the **Pick up Passenger Instruction** panel and pin open.
In the **Navigation Panel** click on **GO.**

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 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%
The last three can be edited if required

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



Failure to find route.

Should you at any time get exclamation marks after the entered station name then the program cannot find a route to the selected platform. Check route using 2D map. This should not happen when using one of the supplied routes.

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

Ignore the red cross above the clock left of Evercreech in the panel. This is associated with timetabled scenario's

If large numbers of destinations are to be visited extra **Pick Up Passenger Instruction** markers can be added to the Locomotive as required

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.

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. 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 Play 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.

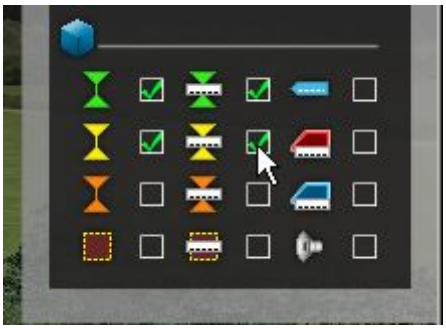
Do not attempt to add AI trains until the above is finalised and tested.

Before starting, look at the RailWorks Wiki section Scenario's. There is a short subsection on **AI** traffic.
AI trains are added in the same way as the **Driven** train but there is no tick in the **Player Consist** box in the **Drivers Properties panel.**

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.

Open the display panel and place ticks as shown.



This allows the siding markers and siding names to show.

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 a stop signal.

Go to the E**vercreech Junction New Yard** area and add a train as shown above (It may be necessary to press **F6** to get the labels) . This consists of a **7F locomotive and tender** and three **BR Mk 1 coaches** or any train type you prefer. 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. However the whole consist can be moved along the track later to get the desired effect.

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. in the **Main Menu**

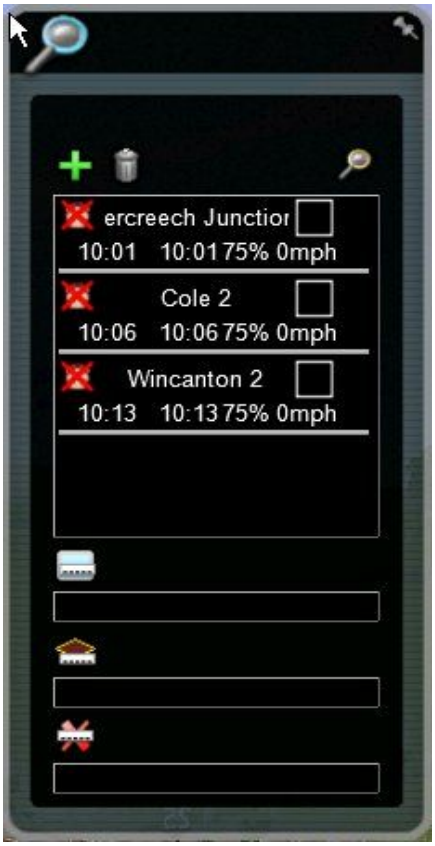
Grey squares appear above the coaches and locomotive. Click on one of these and the **Consist Properties** panel opens. Enter a name. I called it AI 1 and the consist is made. We will make use of that consist later.

Place a **Drivers** M**arker** on the locomotive of the train just created. Open the **Drivers Properties** panel.

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.**

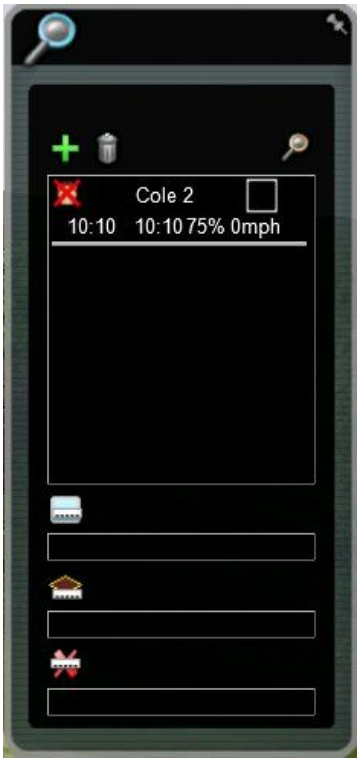
Zoom the camera away and up until you can see both driven train and **AI** train.

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.

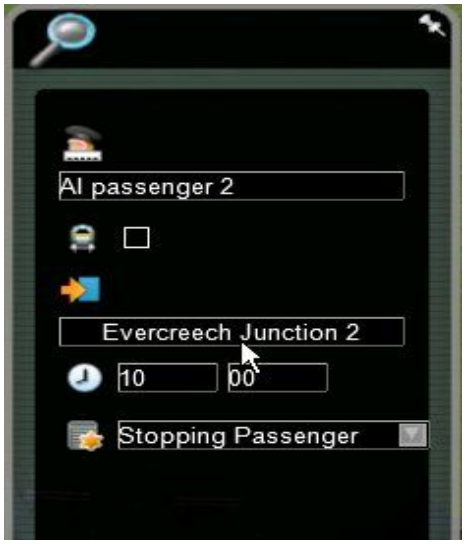
Place the consist next to the **Shepton Mallet** platform by clicking on **AI 1** and dragging it into

position. Same as for adding rolling stock.

Reversing direction of travel for a train.

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 Properties** panel is shown above. The one difference for the **Drivers Properties** 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 RailWorks Wiki section at
www.railsimdownloads.com/wiki/tiki-index.php?page=Troubleshooting+Scenarios
where there is a comprehensive list of possible reasons for AI problems.

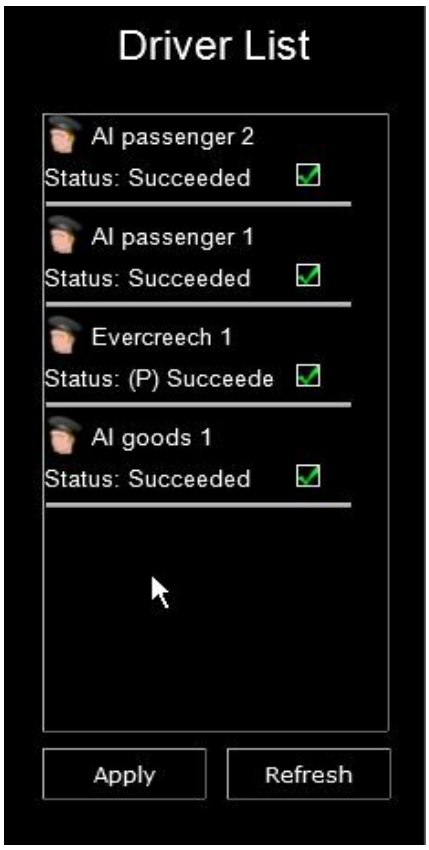
I had problems with the last **AI** train placed as originally I placed it too close to the **AI** train in front
.

Driver Pathing Status

A very useful function that can show faults with Driver routes can be accessed from the Drivers Properties panel.
At the start of this guide the ShowDriverList box was ticked

When the program is run with this ticked the Drivers Properties panel will have an additional option not normally available.

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



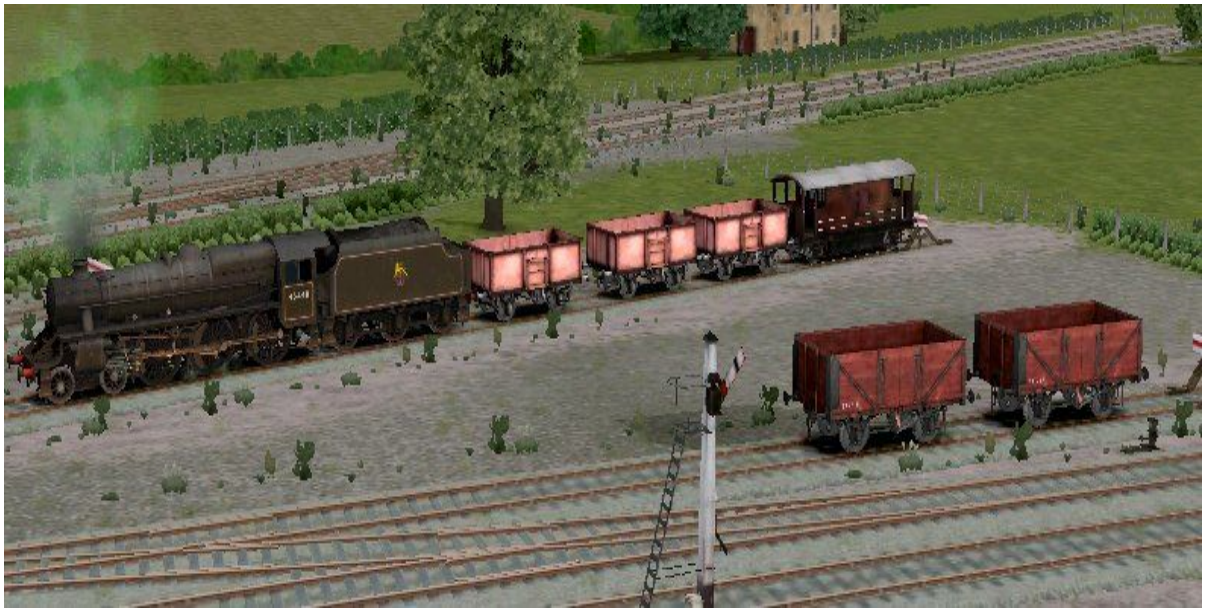
This shows all the drivers in the current scenario and gives their **pathing status** of Successful, Failed, Pending. (The driver with (P) is the Player train driver)

Unsuccessful Status

If unsuccessful status is received then the fault needs to be found.
By removing the green tick to the right those trains will not be active
Remove the green ticks from all but the unsuccessful driver. If it is now successful there is a clash between this drivers train and one of the others. Try adding ticks one at a time until an unsuccessful status occurs..
Changing spacing, type of train, for one or both AI trains that are clashing may remove the problem.

Populating sidings.

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

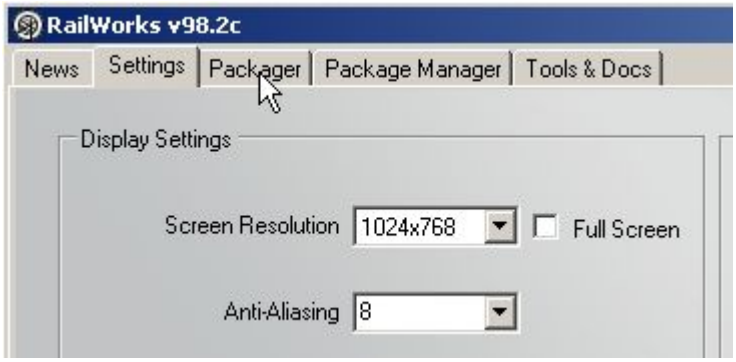


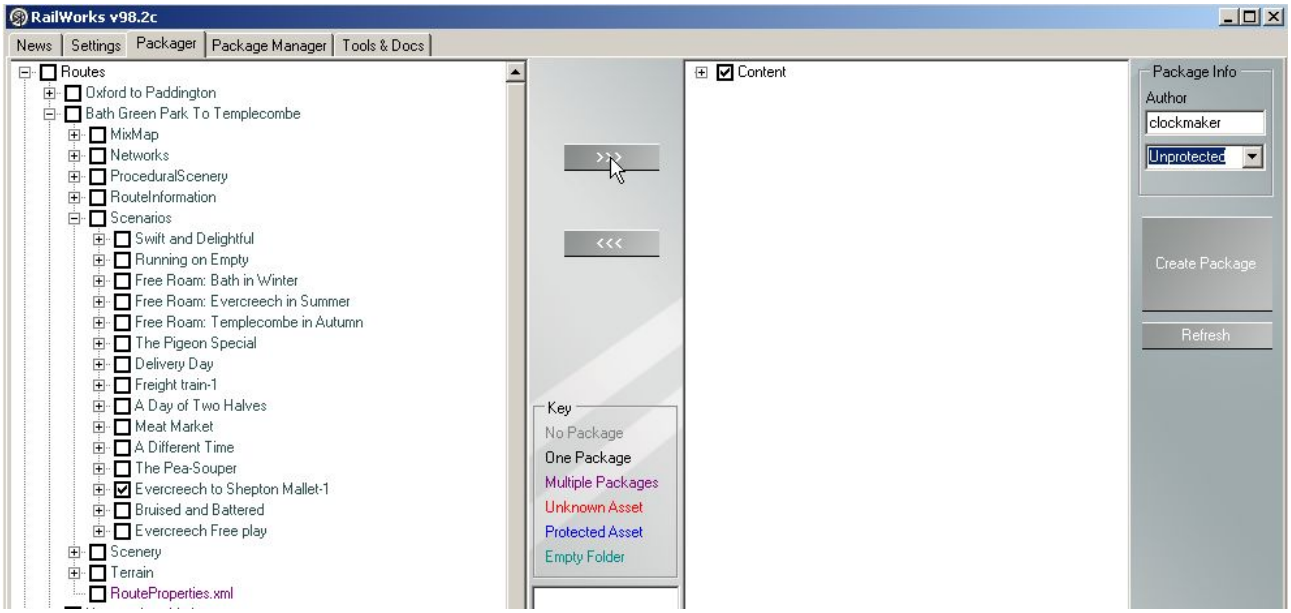
I have called this scenario **Evercreech Junction to Shepton Mallet-2** so that it does not over write your creation.

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.





Open the Packager. Locate the scenario you wish to package and tick the box. Transfer to the RH side of screen. Enter name in Author. Select protected or unprotected licence. Click on Create Package. Confirm - Package these Assets. Give Filename and select folder to save into.

Deleting your Scenario's

Go to

Left click on the Scenario to be deleted . Press the ' delete ' key and respond to next screen.

Next guide.

My third 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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8 Feb 2010