

RAIL SIMULATOR

A beginners guide to Rail Simulator. Version 1.03

The guide is written so that a player with no knowledge of simulators can get to the stage where they can drive one of the supplied locomotives (or one which they have downloaded and installed) with a selection of supplied (or downloaded) coaches/wagons from any starting location on the selected route.

I have written this guide as a series of ' exercises ' each one introducing new features of the simulator, to gradually build up the players experience, though by using the index it is possible to get details of a particular function.

I have concentrated on steam locomotives, look at your Rail Simulator manual for the slight differences required when driving Diesel or Electric engines.

It is necessary for the player to be able to access the internet to download documentation, up-dates and new locomotives, coaches and wagons. It is assumed that the player will be conversant with Windows Xp or Vista, know how to download and save files from the internet, to extract the files from a '.zip file ' and to run files that need to be installed.

Due to the size of some of the files to be downloaded a broadband connection is really required. (The update file is 61 Mb) An email address will be required to obtain the registration passwords which are needed to download files from **Rail Simulator** and other sources.

This guide should be used in conjunction with the **Rail Simulator manual** supplied with the DVD and the **Rail Simulator Reference leaflet**. Details of other documentation required is given when they are required.

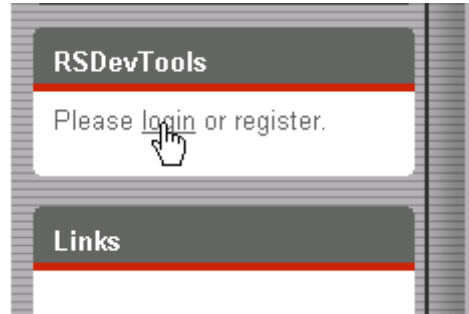
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Section 1 . Gathering information and installing program.

Downloading needed information

To download the documents and files needed, go to <http://www.railsimulator.com/> . As these documents and files are only available for logged in users, log in if you have previously registered.



Registration to Rail Simulator web site

If you are not registered click on **register**

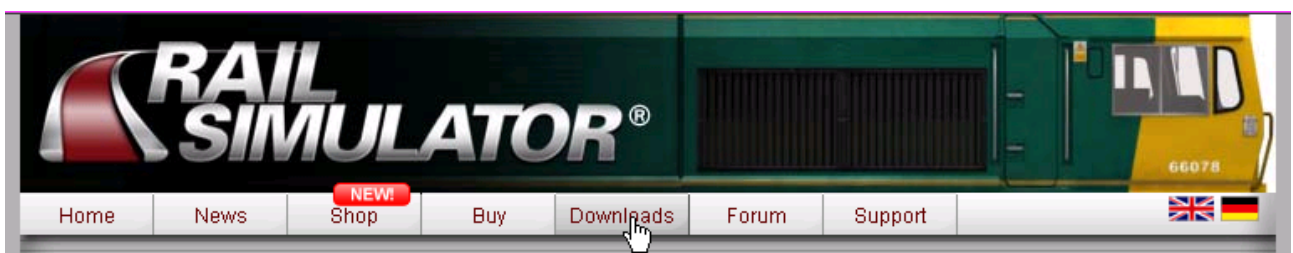


and follow the rather complicated registration procedure.

Login to Rail simulator web site.

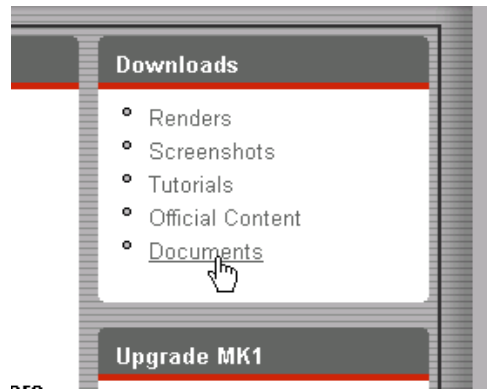
Once the registration password has been sorted out go <http://www.railsimulator.com/> and login.

Downloading Rail Simulator Manual and Reference leaflet.

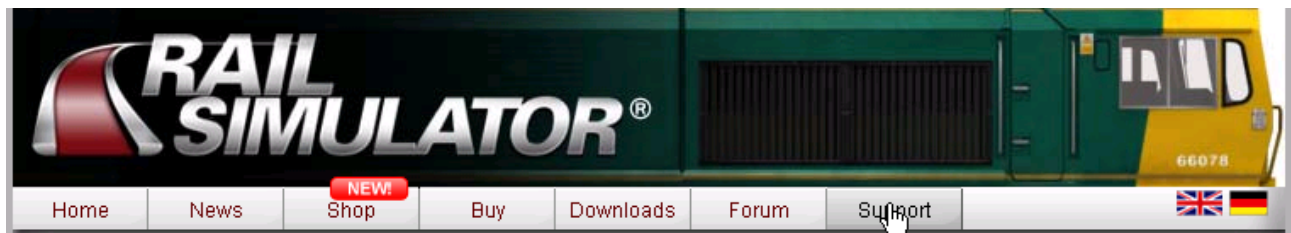
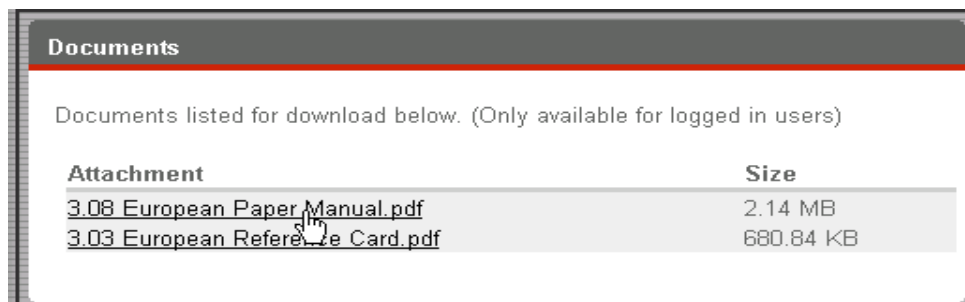


If the **Rail Simulator manual** and the **Rail Simulator Reference leaflet** normally supplied with the DVD are not available click on **Downloads**.

and then click on **Documents**.



Download file ' **3.08 European Paper Manual.pdf** ' Save this document in an easy accessible location i.e. on the desktop, as it will be needed frequently.



Quick Start Guide.

Now click on **Support** and download the ' **Quick Start Guide** '



This is a useful document which should be read before starting to use the simulator.

This Beginners Guide will duplicate, (in an abbreviated form), some of the information given in the Quick Start guide, but will attempt to go considerably further.

RSDevtools Documents. The following file contains development documents most of which are not needed at the moment but a couple are useful to look at during this guide. So we might as well get all the downloads done now.

Click on Downloads, then Official Contents then Docs.

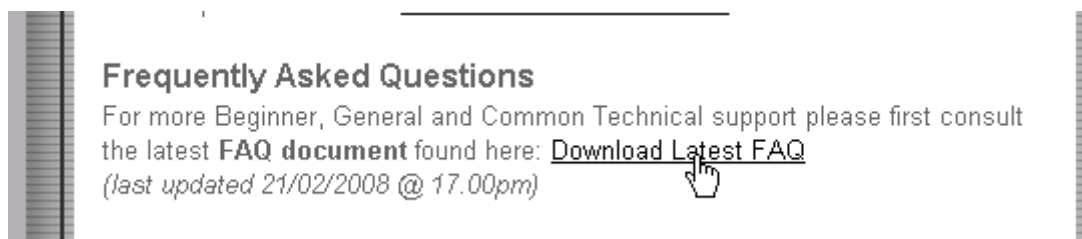
Download the file **RailSim_2008-02-08-1723_74_3f_DevDocs.exe**. Run this file to install the documents . They will be found at **Program Files\Rail Simulator\Manuals\Developer Docs**.

Minimum Computer requirements.

While at this support page check that your computer complies with the minimum requirements to run this simulator. (see Appendix 1 for details of the computers that I am using). A mouse with a scroll wheel is essential.

FAQ documents

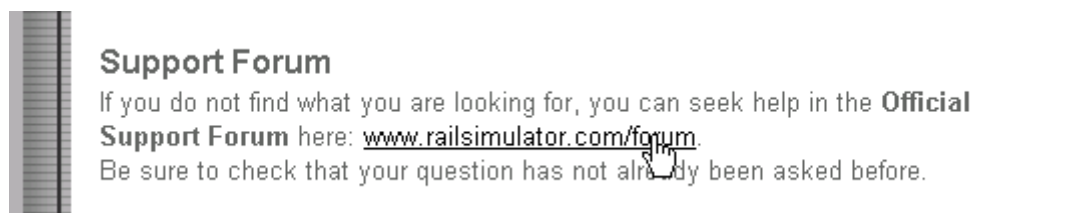
From this support page download the latest FAQ document



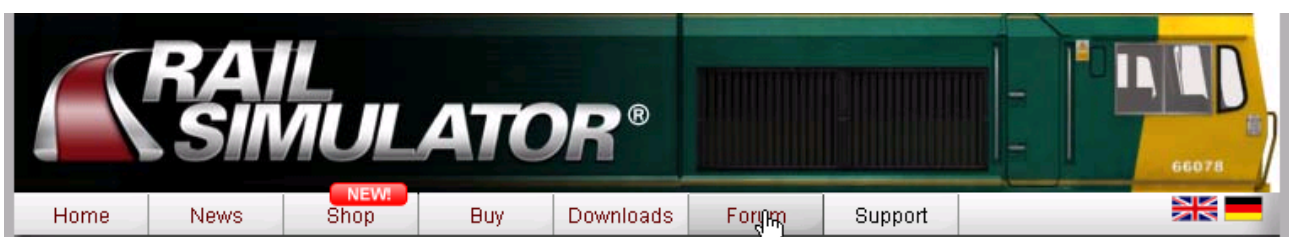
Save this document as there is a lot of useful information within it.

Rail Simulator forum.

From this page it is possible to access the Rail Simulator forum.



Or the forum can be accessed from



It is necessary to be logged in to access most of this forum. Only the **General Support** forum is likely to be of any use at the moment.

UK TrainSim Forum.

A further source of help is the Rail Simulator forum (sub-sections **Help for Beginners** and **General RS discussion**) at <http://forums.uktrainsim.com/>. It is not necessary to be logged in to read these forum articles though you will need to be registered and logged in if you wish to submit a posting.

Video tutorials are to be found at <http://railsimulator.blip.tv/#541997> and also by Nightm00ds on YouTube. As I write this at <http://www.youtube.com/user/Nightm00ds>

Upgrading Rail Simulator

If the RailSimulator program has not yet been installed do so now. If you have more than one drive it is probably best to install it on a different drive to the operating system. Follow the instructions given in the **Rail Simulator Manual**.

[Copied from Manual

To install the game, insert the disc into your disc drive and follow the on-screen instructions.

If your computer doesn't support automatic installation:

Click START on the taskbar.

Double click on the Setup.exe icon.

Click MY COMPUTER.

Follow the on-screen instructions.

Double click on the appropriate DVD-ROM drive.

Double click on the Setup.exe icon. Follow the on-screen instructions.]

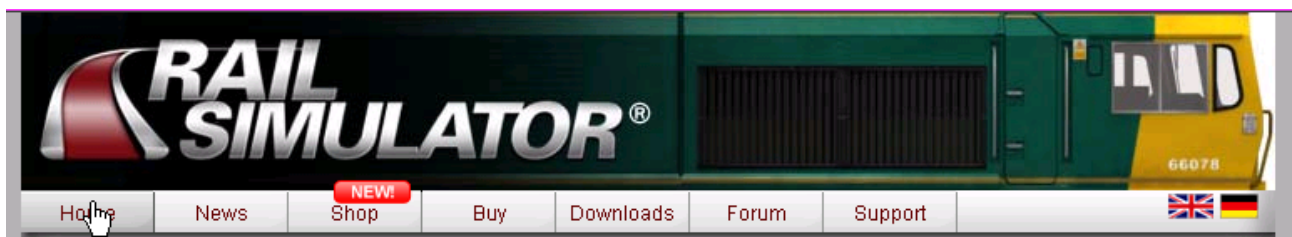
(**For Vista users.** I have had so many problems installing and running train simulator programs when running as a Standard User and having User Control Account (UAC) on, that I now install and run train simulation programs from an Administrator Account and I have UAC off . Not ideal but it works)

It is useful to be able to start the program from a shortcut on the desktop so in Windows Explorer go to Program Files\Rail Simulator\RailSim.exe and create a shortcut on the desktop if one is not already present.

Upgrade download.

It is now necessary to download ' Upgrade Mk 1 '.

Return to the home page of **Rail Simulator** . Click on **Home**



and then click on ' Download Upgrade Mk1'



This is a large file (61MB) and will take some time to download.

Extract the files in the downloaded zip file to a temporary folder. Read the appropriate text file. Ignore the comments on RSDevTool Users. These tools are not required for any of the exercises in this guide but can be downloaded later if they are required.

Now double click on the file **RailSim_Upgrade_Mk1.exe** to install the upgrade.

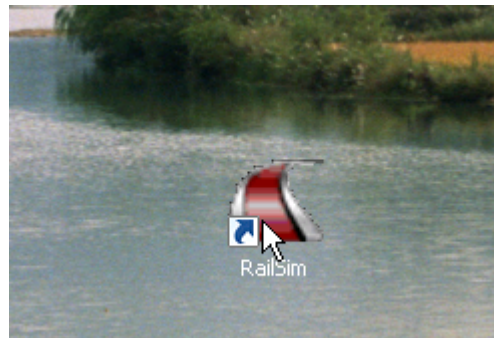
Starting the simulator.

Before starting read ' **The Quick Start Guide** ' just downloaded.

Keep this guide open also.

N.B. The installation DVD **must** be in the the DVD drive for this program to run !!

Go to the desktop and click on the newly created shortcut to the Rail Simulator.



If you do not have a shortcut on the Desktop then follow the instructions given in the manual.

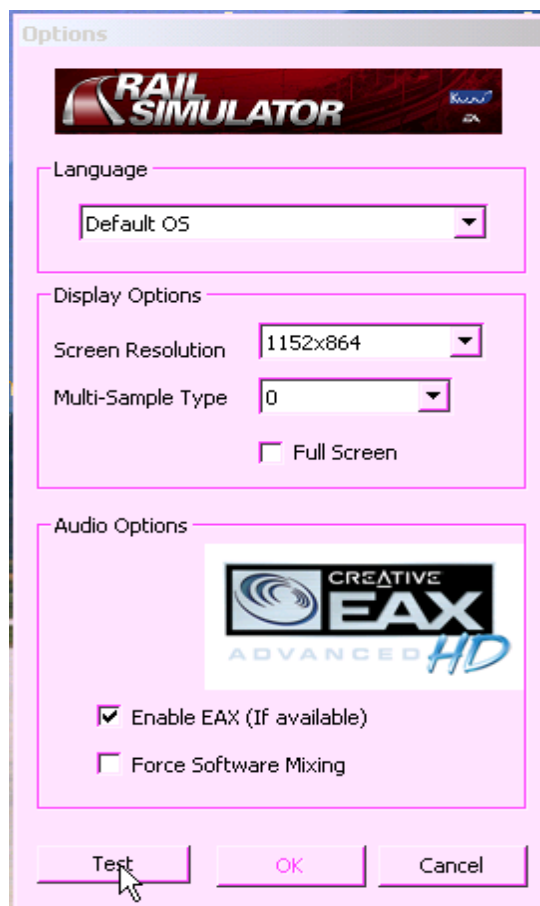
[Copied from Manual

Once the game has installed you can launch it in Windows XP from START (found at the bottom left of the screen) > PROGRAMS (or ALL PROGRAMS) > KUJU ENTERTAINMENT LTD > RAIL SIMULATOR. In Vista, you can launch using the Vista Games explorer, accessible via START > GAMES.]



Setting Initial Options.

When this screen appears click on Options.



Select what you think will be a suitable screen resolution for your display .(this can easily be changed later if the resolution selected is not satisfactory)

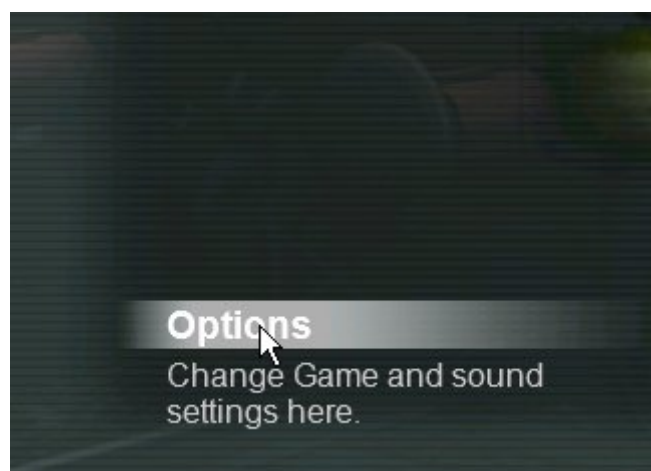
My native screen resolution is 1440 x 900 so I am running with a 1152 x 864 window.

Click on the ' **Full Screen** ' box to remove the tick (this will enable you to go from simulator to instruction manuals more easily and also to take screenshots).

Leave the rest as above and then click on **Test**. The program will check that the entered options are OK. If they are not, information will be given as to the problem and a change can be made. This is usually due to the screen resolution selected not being supported or suitable.

Click on OK and the main program will start to load.

You will now see the advantage of having the program running in a window. It is easy to go from the program to this guide and back again. If the simulator window is not showing completely, drag the window to the top of the screen. The picture below shows the 'Front end menu' in the program window

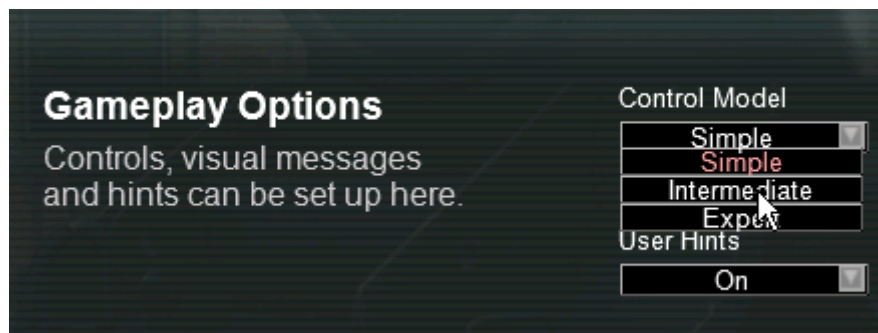
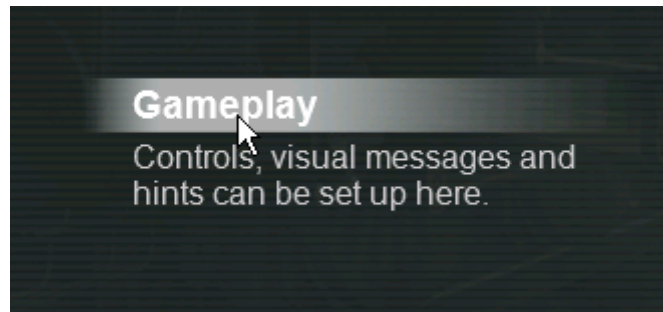


Setting Graphic, Sound and Game options.

Click on **Options**

Do not change any of the setting under **Graphical Detail** or **Sound Options** at this time. The program will have set the default settings based on the performance of your computer. These setting can be adjusted later if required.

Click on **Gameplay**



and then in **Gameplay Options** set **Control Model** to ' **Intermediate** '.

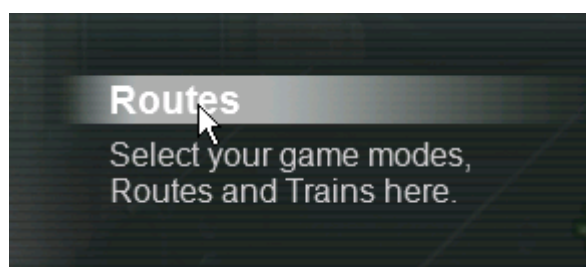
Set **Automatic Coupling** to **ON**.

Leave all other settings at the default setting. Click on **OK** at the bottom right hand corner of this window.

Click on YES when asked if you wish to save changes.

Click on the arrow to the left of Home>Options

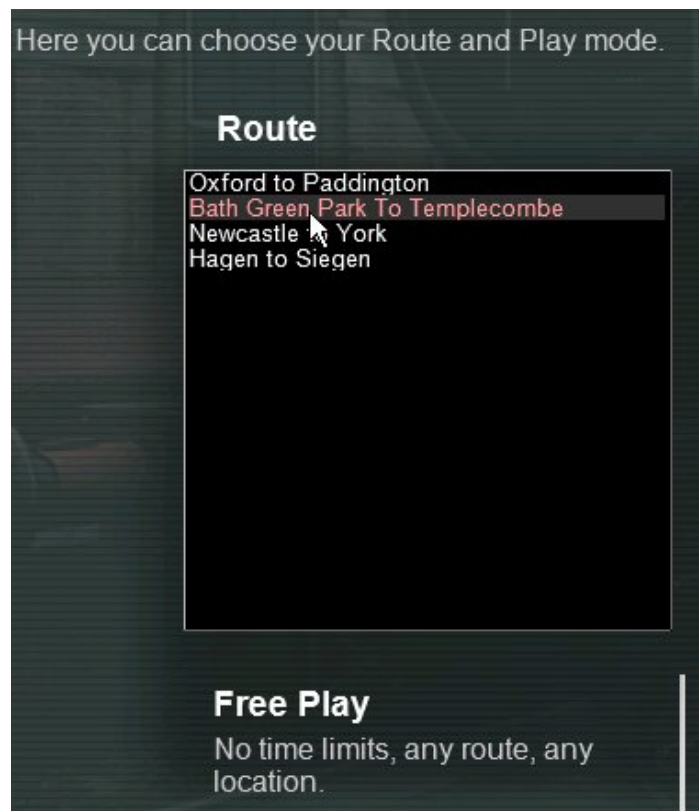
Selecting Routes.



Now select **Routes**

For this guide the **Bath Green Park to Templecombe** route will be used.

Click on **Bath Green to Templecombe** then on **Free Play**



The simulator will now load.

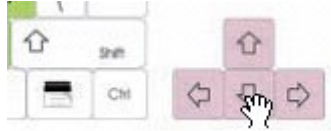


Possibly your first view of the simulator.

Section 2. Driving a Locomotive.

Controlling the Camera position

The location and direction of the 'camera ' is controlled by the cluster of four arrow keys on the keyboard, together with the **CTRL** and **SHIFT** keys.



For the above view of the trains

Right arrow	Pan Right
Left arrow	Pan left
Up arrow	Pan in
Down arrow	Pan out
CTRL+Up arrow	Pan up
CTRL+Down arrow	Pan down

Use of the **SHIFT** key in addition to the above increases the rate at which the camera moves. Use this key with care as it is easy to loose position.

In addition, the camera can also be moved by moving the **mouse** while holding the **right mouse button** down.

Because no locomotive has yet been selected the camera is free to move without any restrictions.

As this station area (**Evercreech**) will be used frequently in this guide take some time to explore this station and sidings area using these controls.

The only labels of use now are those giving the give the names of the station, platforms and sidings

Toggle labels.

The labels showing can be toggled ON/OFF by use of the **f6** function key. Leave the labels ON.

Driving the Steam Locomotive

Read page 5 of the **Rail Simulator manual** for an explanation of steam train driving.

If you want further details on driving and braking a locomotive read the tutorials ' **Firing Steam Engines** ' and ' **Vacuum Brakes on Steam** ' by Will Cook for the Microsoft Train Simulator. These can be found on the UKTrainSim web site, home page, bottom left hand side, under Tutorials. Though for MSTS, most information in the tutorials applies to RailSimulator steam locomotives.

Move the camera back to the locomotives. Left click on the locomotive labelled F7 2-8-0. This selects the locomotive to be the driven locomotive. The camera should now be positioned alongside the tender. Now get rid of the labels by clicking on **F6**. It is probably best to pan away from the train by using the **Down Arrow** so as to get a better view of the track ahead.

Having selected the locomotive, the camera is locked to the locomotive, moving with the locomotive.

The complete list of Views is given in the **Reference Leaflet**. The only ones to be used at the moment are

- Key 1** Cab View. Once inside the cab the camera can be moved about freely as above.
- Key 2** External view 1. Probably the best view when learning to drive the train. Cab views and looking out of the cab can come later when more experienced

The locomotive **can** be driven using the controls seen in the **Cab View** but for the beginner it is much easier to use the keyboard..

Full details about these are given in the **Reference Leaflet** under **Driving**. The only keys to be used at the moment are given below



- Key A** Speed up (Accelerate, analogous to increase throttle)
- Key D** Slow down (Decelerate, analogous to decreasing throttle)
- Key W** Increase Reverser (somewhat analogous to the gearbox going to a lower gear)
- Key S** Decrease Reverser (analogous to going to a higher gear)
- Key ::** Decrease train braking
- Key @ ,** Increase train braking

To see the current settings of the Reverser, Regulator, Brake and Speed, press **f5** to display the **Technical Head Up Display (HUD)**. Press the **f5** key again. A second section of the **HUD** is displayed. Keep these on the screen at all times while you are practising driving.

We are now going to get the train moving and then to stop it.

Controlling the **Reverser**, **Regulator** and **Brake** is very important and one of the most difficult things to do for a beginner

Press the **::** key to remove the braking. Watch the train **Brake pipe pressure** on the second section of the **HUD**.

Initially with the brakes fully applied the reading will be 0.0 Inches Hg. With the **::** key held pressed down this value will increase to 21 Inches Hg at which point the brakes are fully released.

Watch the Train Brake in the first section of the **HUD** as the brakes are released
100% -21% Apply, 19%-11% Self Lap, 9%-6% Running, 4%-0% Released. These represent positions of the brake handle in the Driving cab.

Note that the **Brake pipe pressure** does not start to increase until the **Train Brake** shows **Released** then it increases slowly.

If, when the Brake pipe pressure has reached a particular value, say 3 Inches Hg, the **Train Brake** is put into the **Running** or **Self Lap** positions the **Brake pipe pressure** will be held at that value.

By now the train will probably have started to move forward as it is on a down slope. Don't worry, it will stop at the bottom of the slope.

Press the **@** key to apply the brake. Hold it down until the **Train Brake** shows **32% Apply** then release.

Watch the **Brake pipe pressure** decrease slowly. After a while the **Brake pipe pressure** will show **0.0 inches Hg** and the brake will be fully applied. If the **@** key is held down longer so that the **Train Brake** shows **100% Apply** the brakes will be applied faster. (use this only for an emergency)

Now fully released the brakes. **Train Brake** showing **Released**, **Brake pipe pressure** 0.0 inches Hg.

Press key **W** until **Reverser HUD** shows 100%.

Press key **A** until train starts to move. Do not apply too much regulator until the train has started to move as the wheels may slip

Gradually reduce the reverser setting to about 15% by pressing key **S** . Reduce the regulator by pressing key **D**. Control the speed using the A and D keys. Allow the locomotive to run a short distance. If the locomotive gets hidden by buildings or trees keep it in camera view by moving the mouse with the right button held down.

Bring the locomotive to a stop by reducing the **Regulator** to 0% (key **D**) and applying the brakes (key **@**) until **Train Brake** shows **32% Apply**. When **Brake pipe pressure** reaches 15 inches press key **: ;** until **Train brake** is either **Self lap** or **Running**. Increase the **Reverser** to 50% (precautionary measure in case you have to increase the regulator).

You should see the train speed reducing. If the train is not stopping fast enough then press **@** and reduce **Brake pipe pressure** further (say 10 inches) then go to **Self lap**. If the train is stopping too quickly open the Regulator slightly but keep the brake at the same setting.

Juggling of the three controls, Reverser, Regulator and Brake is necessary to stop the train at a precise position. It is better to undershoot a stopping position as you can move forward by the use of the **Reverser** and the **Regulator** or by taking the brakes off entirely.

When stopped, reverse the locomotive by pressing the **S** key until **Reverser** showing -100% in **HUD**. Remove brake using **: ;** key. Press key **A** until train starts to move.

The locomotive should now move backwards. As the locomotive speeds up gradually reduce the **Reverser** setting to -15% by pressing key **W**. Reduce the **Regulator** to 15% by pressing key **D**. By adjusting the Regulator with keys A and D try to keep the speed at 20 mph. Start applying the brakes when entering the station. Bring the locomotive to a stop, next to the other train, as above.

You must start applying the brake some way from the desired stopping position. A locomotive takes quite a distance to stop One with rolling stock even longer. It is unlikely that you have stopped where you wanted. Stopping a train at a precise position is one of the hardest things to do in the simulator.

Practice the above operations until you have the ability to control speed and stopping position as they will be needed in the next section.

Screenshots.

Should you wish to record your progress, press the appropriate keys for your computer to take a screenshot. (One computer I have requires ALT+PrintScreen to be pressed , the other computer requires the keys fn+prt sc to be pressed.) The picture taken is stored on the clipboard and can be looked at by pasting into any program you have that will display pictures.

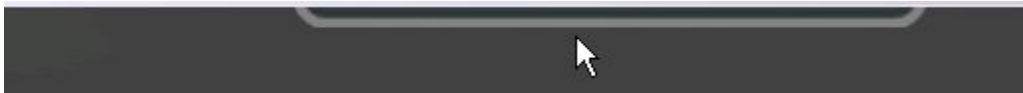
Frame Rate

While the train is moving press **SHIFT+z**. In the top right corner of the window is the current **frames per second (fps)**rate. A frame rate of 30 fps or more, generally gives a good smooth action. With a lower rate the picture can appear jerky. If the screen is jerky try lowering the graphics settings in the **Graphical Details options**.

Popout panels

While practising have a look at the two popout panels that are accessible from this screen.

At the top of the screen the bottom of a popout panel can be seen



Move the mouse pointer over this and the **Navigation** panel pops out.



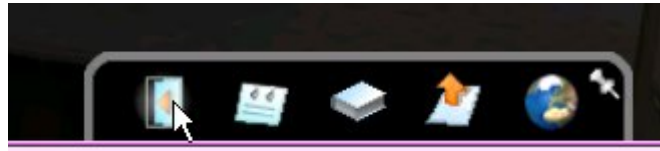
This shows the current location of the camera and the direction it is pointing. This panel will normally disappear once the cursor has been moved away but it can be ' **pinned** ' into the open position by clicking on the pin at the top right hand corner of this panel. All the popout panels can be pinned into the open position in this way.



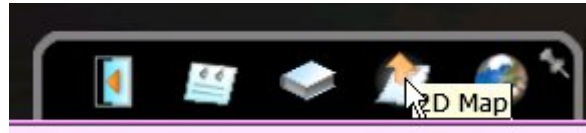
If the symbol just above Lat: is clicked it opens a **2D map** of the route. This map will be used in the next section.



At the bottom of this screen is another popout panel, the **Main Toolbar**.



If the left hand icon is clicked the current scenario can be terminated.



The **2D map** can also be accessed from this panel by clicking on the forth icon.

The other icons will be used later.

Quitting Program

A quick way to terminate the program is to press **CTRL+Q**

Section 3. Simple shunting.

2D map.

Having perfected control of the locomotive and being able to stop on a sixpence !!! you are now ready to explore some of the other tracks and sidings. For this you will need to use the **2D map**.

To be able to follow the instructions below it is best to restart the route so the program is back to its default status.. Click on the left icon in the bottom popout panel (the **Main Toolbar**) to Quit. Click on YES and on the next screen click on **Play** again. Now select same route and **Free Play**.

Once the program has loaded select the **Black 5** locomotive by clicking on it. Use either of the popout panels to open the **2D map**. The **2D map** can also be toggles by pressing **9**.

When it first opens it may be no more than a squiggly line on the other hand it may be a detailed map

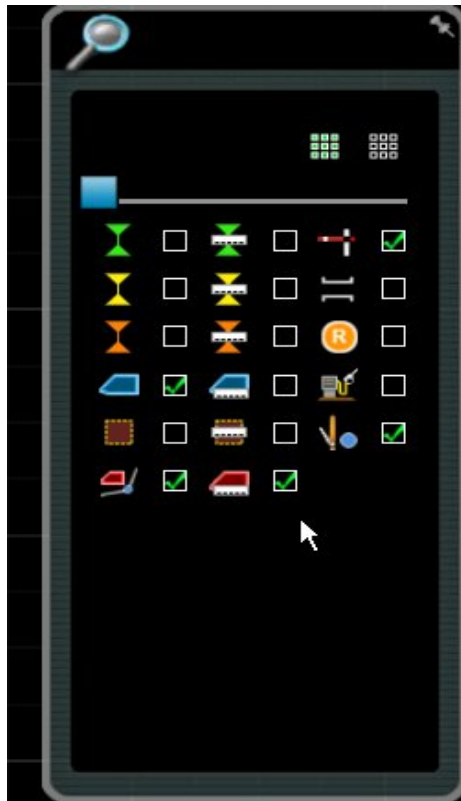


Click on the icon if necessary to change it to blue. This will centre the map on the position of the selected locomotive.



At the moment the map at Evercreech is looking rather congested. Click on the **Display** icon at the far bottom right of the window.

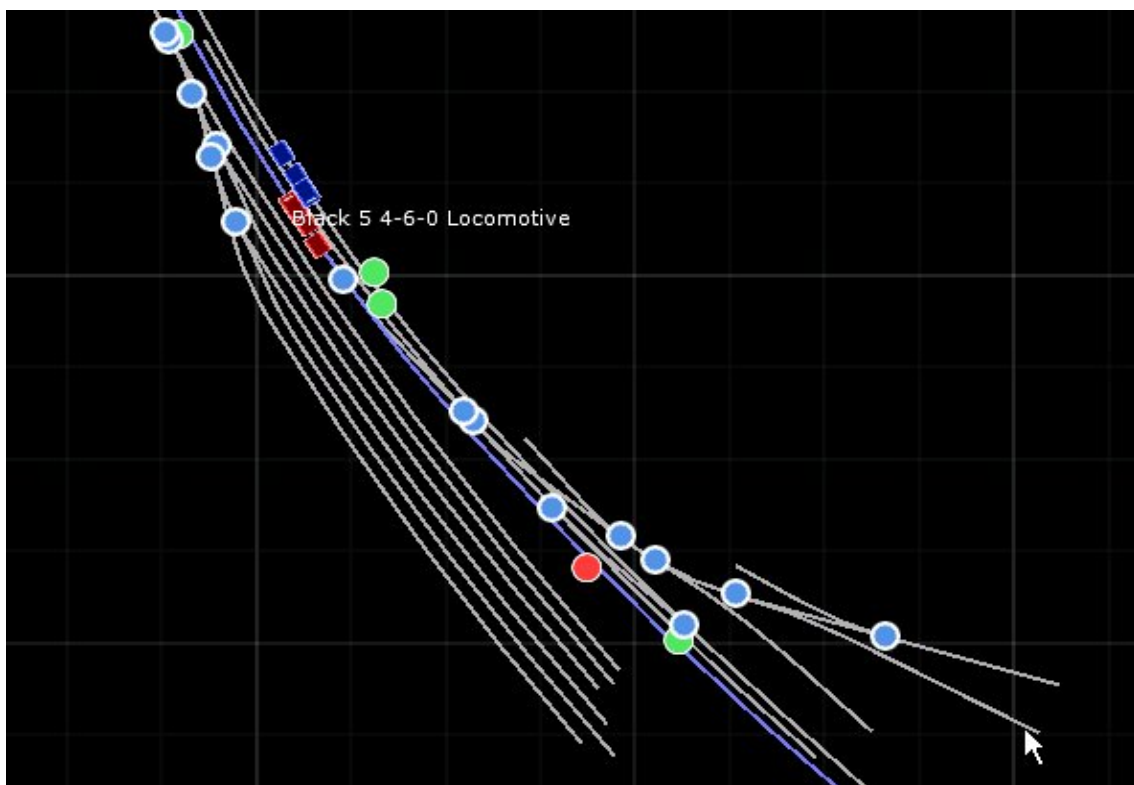




A popout panel appears at the right side of the screen.

The two small square icons at the top right of the screen clear all ticks or fill all boxes with ticks. Hovering over each icon gives the details about what is to be shown on the map if the adjacent box is ticked. Click on the extreme top right square icon to clear all ticks. The map should now only show the tracks.

Now click boxes so that ticks are in the positions shown above. The display should now be



This will give adequate information for the next part of this guide.

The red train is the active train. The blue train is a non driven train.

The green and red dots are the location of signals and their current status.

The blue dots indicate manual points which can be changed from this window (and in other ways, see later) and are used for setting a route.

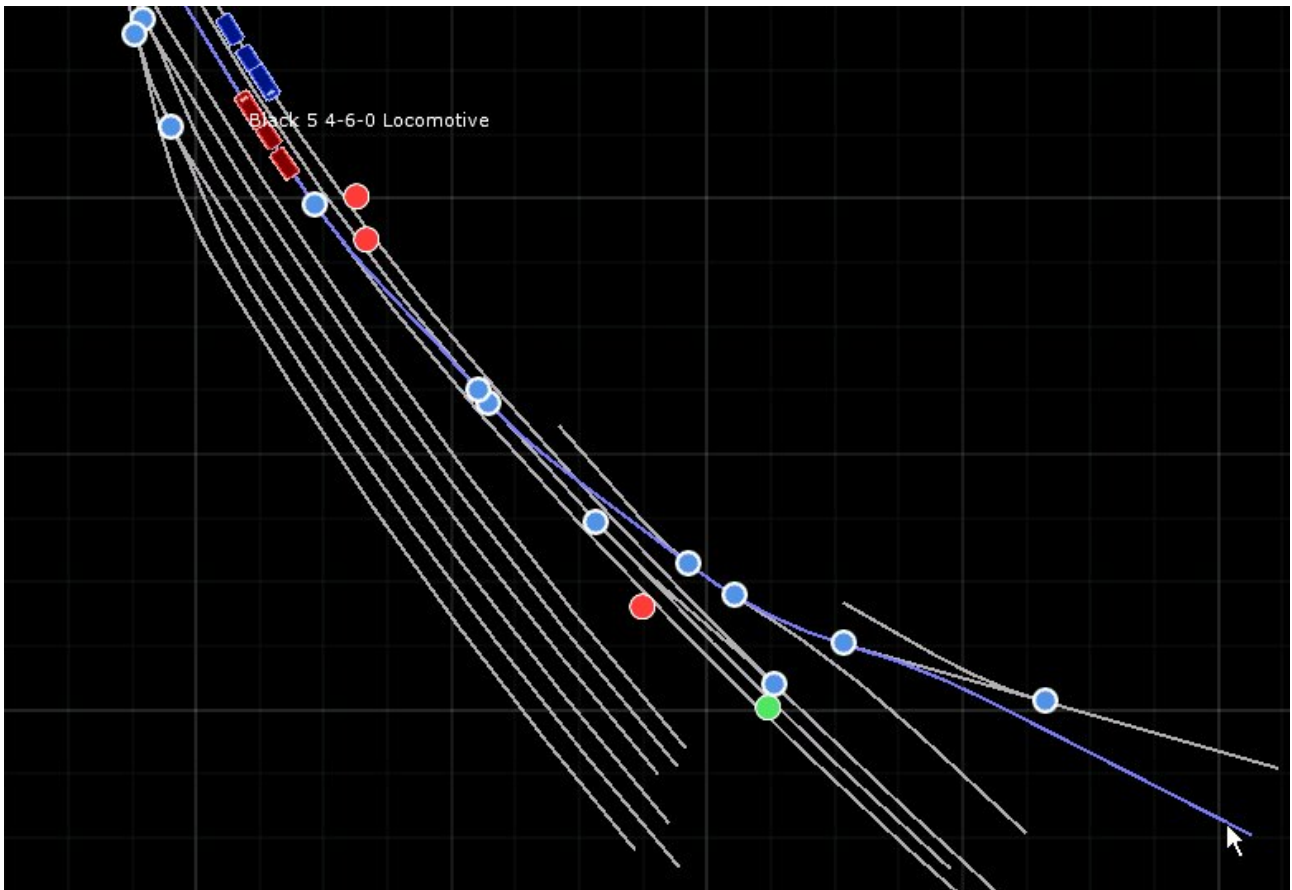
The thin light blue line is the path that the driven train will follow.

Point control using 2D map

You are going to shunt the train to the goods shed which is located where the arrow is on the above map. The blue line shows the route the train will currently take.

At the moment the blue line on your map should go through the station. The points have to be changed.

Shift+Click on the blue circle next to the train. Having clicked on this the blue line position next to the point should have changed. Click on the next blue circle even though it controls a trailing point. If you zoom right in using the scroll wheel you will see that the blue line continues to the next point. Carry on clicking on the blue circles until the whole route to the goods shed has been covered. Your map should look like the one below.



Right click on the map (or press **9**) and you will return to the train.

Shunting.

As this train is reversing to the goods shed move the camera position to get a better view. Now reverse the train to the goods shed.

Press key **::** until **Train Brake** released. When **Brake pipe pressure** reaches 15 inches set **Train Brake** to **Running** or **Self Lap**. Set **Reverser** to -100%. Very slowly open the **Regulator** until the train starts to move. Use A and D keys to control speed to about 10 mph until the point next to goods shed then reduce speed to about 5mph. Stop with the brake van partly in the goods shed.

Take it slowly. It is quite difficult to start with. You may need several attempts to stop with the brake van partly in the goods shed with the locomotive outside. (this position helps later when re-coupling) Go backward and forward until you have stopped at this position if you have to.

As you get more experience you will be able to go faster.

Moving camera position along train

Try pressing **CTRL+left arrow**. This moves the focus of the camera one vehicle to the rear of the train. **CTRL+Right arrow** moves the camera focus one vehicle to the front of the train. Multiple pressing will move the camera focus to the end of the train

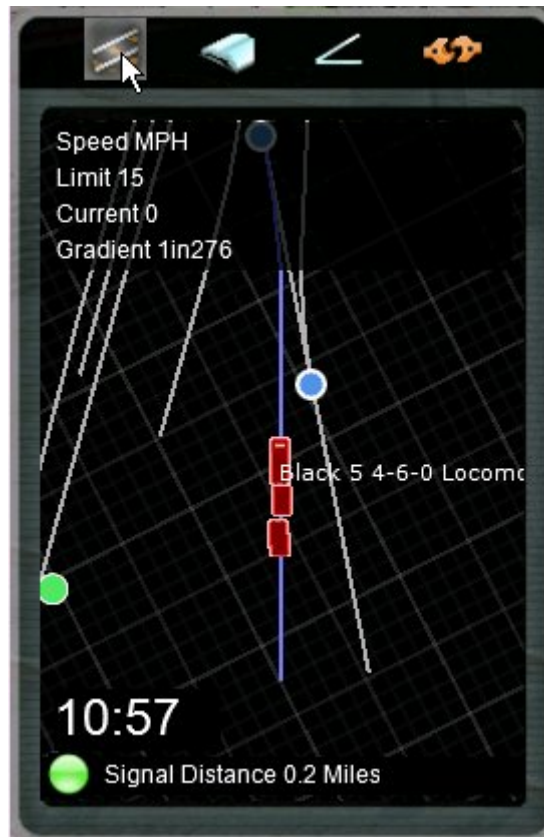
Emergency Stop

If you are in danger of crashing into the buffers press the ' **backspace** ' key. This sets the regulator to zero and the brake to fully on and stops the train fairly quickly. See the action of this on the **HUD**.

Having finally got the brake van into the goods shed we will uncouple it, do a bit more shunting and point changing.

Use of Drivers guide.

Press **f3**. The panel that is now showing is the **Drivers Guide**.



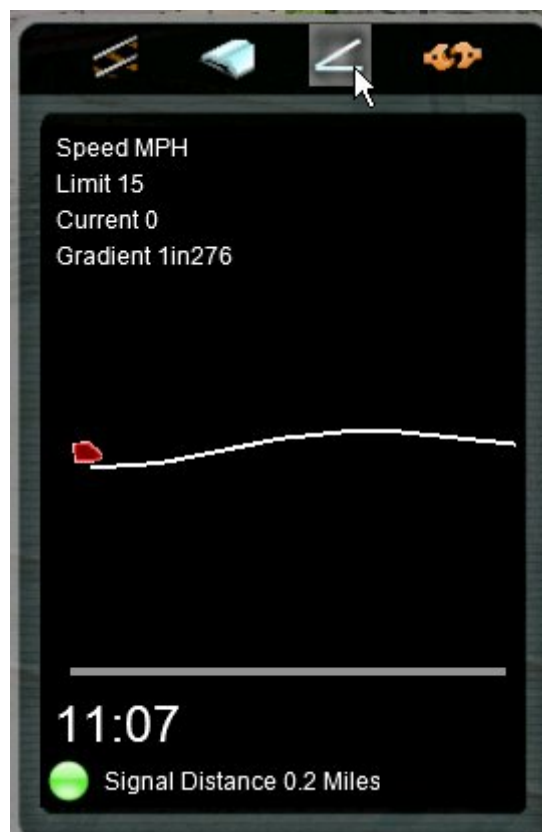
There are 4 views available selected by clicking on one of the four icons at the top. The current screen is obtained when the extreme left icon is clicked on.

In its current view it is showing a small section of the **2D map**. It shows the current train speed, the speed limit for the track the train is currently using, the gradient of the track and the distance to the next signal and the state of that signal..

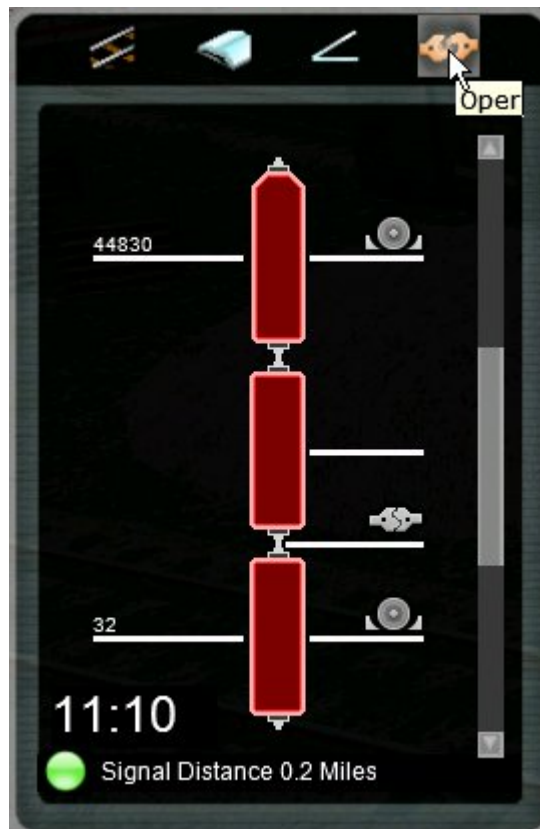
This is the panel when the second icon has been clicked on.



This is the panel when the third icon has been clicked. It shows the gradient of the track in front of the train. Useful when driving forward and also when the train is to be parked. No use when reversing.



This is the panel when the right most icon is clicked on. This is what we want for the next part our shunting exercise.



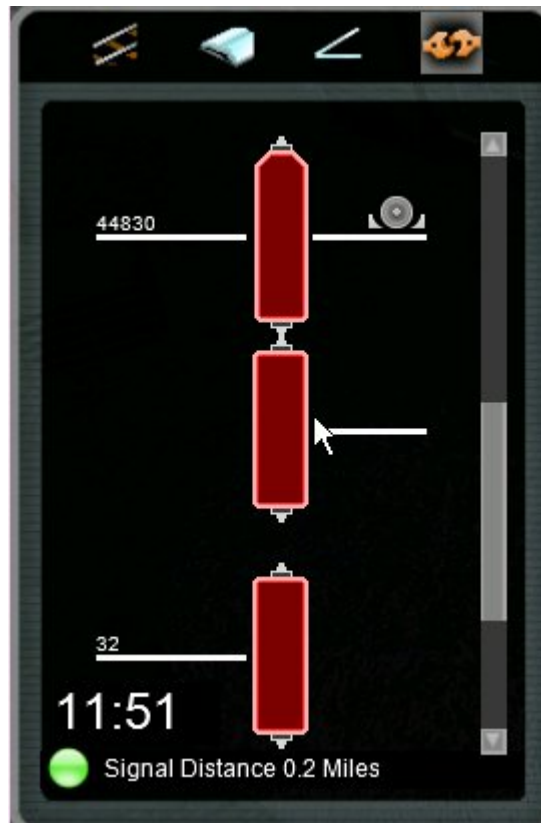
The vehicles in the train are shown in red in the centre of the panel.

The numbers on the left side are the train (44830) and guard van (32) numbers. These correspond to what can be seen on the pictorial view when **f6** and then **f7** pressed and rolling stock **captions** displayed.

On the right are symbols for brakes (the round icons) and the coupler.

Uncoupling

Click on the guard van brake symbol (to stop it running away on the slope) and then click on the coupler



The panel should now look like this with the brake van uncoupled.

Having spent some time to get to this position it might be time for a break.

Saving current position.

If f2 is pressed the current position is saved so that you can return to this position in the future. Unfortunately each subsequent save overwrites the previous one.

This limitation can be overcome by the use of KickStart v1.0.56 by Mike Simpson. This can be downloaded from UKTrainsim <http://www.uktrainsim.com> File ID 18463

Press **f2** to save this position. You have the option to carry on and save again later but for now quit the scenario and go to the Home window.

Re-loading saved position.

To return to the saved scenario select Routes then select the route (for now Bath Green to Templecombe). Now click on Scenario, then select the scenario you wish to continue (Free Roam Scenario), then Continue. You should now soon be back to where you were before you saved.

Point control using point lever

Now slowly move the locomotive forward away from the goods shed and stop it when it has just passed the first point.

Disconnect the camera from the locomotive by pressing **8** then zoom into the point at the tender end of the loco.



Click anywhere on the base of this point lever. Watch the lever and point blades move allowing the train to reverse into the siding next to the goods shed.

If the Drivers Guide (press **f3**) had been showing you would have seen the direction of the blue line (showing route) change. Try it.

Press **2** to lock the camera to the locomotive again.

Reverse the train into this siding and stop near the buffers. Press **f2** and save this position in case of problems. Now move the train forward and stop again just passed the first point.

Point control using keyboard.

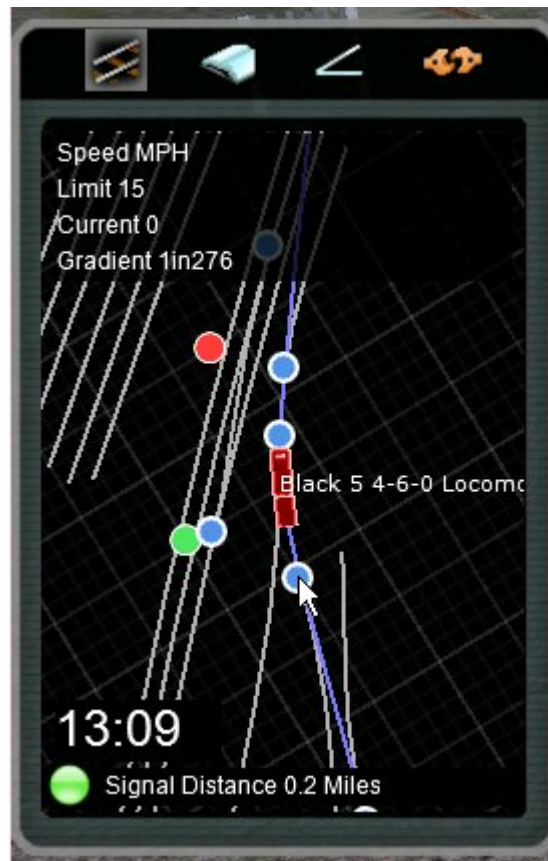
With the train close to the point and the **Drivers Guide** showing press **SHIFT+G**. If the camera is close to the point you will see the point moving. The blue line in the **Drivers Guide** will change direction.

Pressing **G** changes the point in front of the train.

Pressing **SHIFT+G** changes the point at the rear of the train.

Point control using the Driver Guide.

The points can also be changed by clicking on the blue circle just below the train while holding **SHIFT** down, the same as the full **2D map**.



Set the point so that the train will reverse back to the goods shed.

Now slowly drive the locomotive backward and stop it just short of the brake van.

Re-coupling

In a short while you will be coupling the locomotive back to the brake van. To do this easily you may wish to use additional views of the buffers. While the locomotive is stationary Press **6**

You should now be looking at the front buffer of the loco.

CTRL+Left Arrow will show the buffers at the tender end (with the buffers of the van)

CTRL+Right Arrow returns to the front buffers.

Left Arrow shows a side view of the buffers

Right Arrow shows the other side view

Up Arrow zooms out

Down Arrow zooms in

Try all the views given above to see which of them you like for the coupling operation. My preference is to use the standard view obtained by pressing **2** as I am able to see the locomotive approaching the brake van. I then zoom in (**Up Arrow**) as the locomotive gets close to the brake van while moving the camera using the mouse with the right button held down

In the **GamePlay Options menu** coupling of two vehicles was set to be **Automatic**. The two vehicles will automatically couple when their buffers touch.

Click on the right hand icon at the top of the Drivers Guide. This will display the locomotive and tender.

Move the loco back **very** slowly. As the buffers of the loco and the brake van touch you will see the van appear coupled on the Drivers Guide. Stop the loco.



Release the brake on the brake van. Now drive away. Go as far as you like as this is the end of this exercise. Quit when you like.

Manual Coupling.

If **Automatic Coupling** had not been selected in the **Gameplay Options** then **Manual** coupling would be used. Once the buffers of the two vehicle to be coupled were in close contact then coupling would be carried out manually by pressing **CTRL+SHIFT+C** .

Section 4. Playing a simple Scenario.

Your first planed scenario.

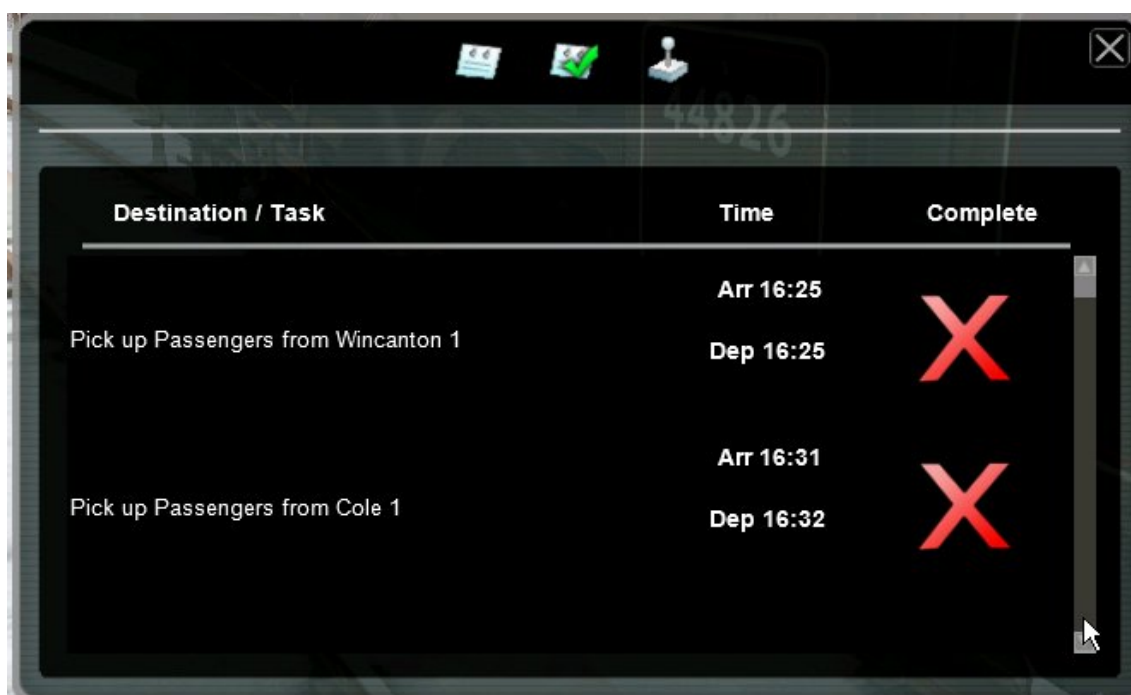
You now have most of the tools to carry out a simple scenario. The next exercise is to drive a train from **Templecombe** to **Evercreech Junction**. You will be required to observe signals on the way as other trains (AI trains) will be present controlled by the program. You need to control the speed so as not to exceed the track limit but you have to try to arrive at the stations on time. You should stop at each station on the way to allow passengers to get off and on.

To start select the **Bath Green to Templecombe** route. Click on **Scenario** and then select the '**Swift and Delightful**' scenario. Press **Play**. You will now see the **Assignment Tasks**. Scroll through these. Note the time that you should depart from Templecombe.



Displaying Assignments.

Click on the central icon and you will see the arrival and departure times that you should try to achieve for each station.



Scroll down to see the complete list. Exit this window.
This window can be shown at any time when playing by pressing **f1**.

Views

Now check out the various views that are available.

Press **1** Cab view. You can move about the cab using all the normal camera controls.
2 Front view of train.
3 Rear view of train
4 Several external views of the train
5 Camera now inside coach. Normal camera controls operate.
6 Overhead view of buffers
7 Birds eye view of train (currently in station)
8 Camera is disconnected from train. Try using **8** after selecting one of the other views
For instance pressing **5** then **8** gives views of passengers inside coach. Try moving about with the camera controls. To lock the camera once again to the locomotive press **2**.

Signals.

Before starting this scenario look at the **UK Historic (Semaphore) Signalling** details on in the **Reference Leaflet**. Though you will see examples of these signals on this route I believe all of them will be in your favour in this scenario. However for some scenarios, particularly those with AI trains, you will encounter signals against you, which you must obey. We will deal with signals set against you when shunting later.

Starting Scenario.

There are a lot of new things to observe and control so it is advisable to regularly press **f2** to save the current position. If a mistake is made like going through a signal or excessively exceeding the speed limit then you can get back to the saved position and have another try.

Pausing the program

It is also possible to pause the program so that you can look at the information on the screen at your leisure.

On one of my computers I have to press the **Pause/Break** key, on the other I have to press both a key marked **fn** and the **Pause** key.

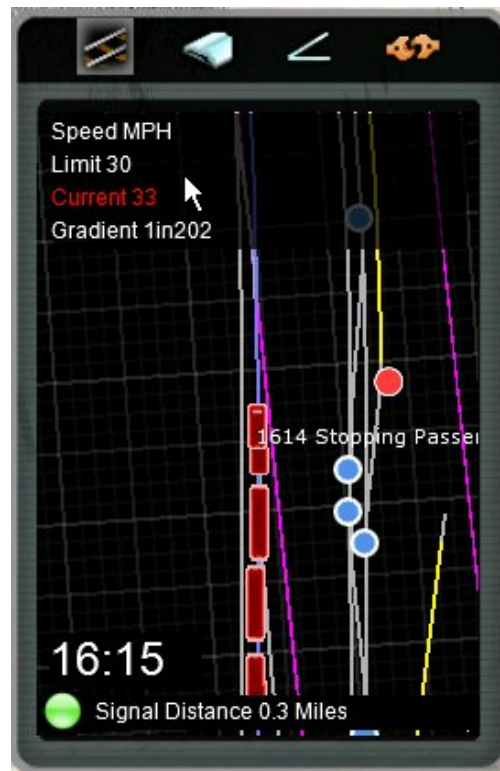
Display the **Drivers Guide** by pressing **f3**.

Set the Reverser to 100%. Set the Regulator to 50% or more as you are starting on a slope. Release the brake (0% in **HUD**)

As the train picks up speed reduce the Reverser setting gradually but not so much that the train slows down.

In the **Drivers Guide** (**f3**) note that there is a signal showing green and its distance is given.

Note that the track speed limit is 30 mph. Your speed is shown just below the Limit speed.



If you exceed the speed limit your speed will be shown in Red as above. Juggle with the Reverser and the Regulator to keep close to this limit but not exceed it.

In the picture above the Gradient is shown as 1 in 202. Clicking in the third icon at the top will show that the train is going downhill at this point. It may be necessary to reduce the regulator to 0% and to slightly apply the brakes to prevent exceeding the speed limit.

As you progress along the track note that the speed limit changes to 70 mph.

As the train travels along the track the gradient changes. The gradient in the **Drivers Guide** section showing the **2D map** does not appear to indicate if the train is going up or down so keep on clicking on the gradient icon. Only the gradient in front of the train is shown. If the train is going up it will need the reverser and regulator to be increased to maintain speed. If is going down it may need the brake applied.

Once you get a reasonable way from Templecombe there is a long section without any signals so you can experiment with various views and other features.

Head out of window view.

During this section try pressing **SHIFT+2** . This is the ' Head out of Window ' view. By using the four arrow keys forward and backward views can be obtained.

Horn.

There are occasion when a horn would be sounded. For instance when crossing a level crossing , approaching a station, going into a tunnel etc.

Press **SPACEBAR** to sound the horn.

If you go to the **2D map** you will be able to judge how close you are to the next station. As the train takes some distance to stop you should start to reduce speed when quite a way from the station. When you return from the **2D map** to the normal view you will see that the Drivers Guide is not displayed. Rather annoying. Press **f3**.

With the snow covering the platform it is difficult to see where to stop. Aim to stop with the locomotive just past the passenger bridge. If you overshoot, back up (I will permit this as it is your first attempt at stopping at a platform)

Unloading and Loading passengers.

When stopped with all the carriages by the platform press **T**. You will see the doors opening and passengers getting in and out of the carriages.

Loading and unloading freight.

Though not needed in this scenario, loading of freight, coal, water is carried out in the same way as loading passengers. Stop the vehicle to be loaded/unloaded by the loading/unloading position and press **T** for loading.

Press **SHIFT+T** for unloading.

Once the doors have closed and the departure time has arrived, start driving to the next station.

You should notice that there is a steep up gradient in part of this section so reverser and regulator need to be set to high values.

Once again you are on a long section without any signal.

Time to have a look around.

Disconnect the camera from the train by pressing **8** and have a look about using all the camera controls.

Press **2** to once again lock the camera to the train.

Don't forget to control the speed of the train as you go on a long down gradient.

Try pressing **4**. Go back to normal by pressing **2**.

The end of the next platform is easier to see. Stop and unload. Continue to Evercreech. The platform here is on an up gradient so you have to drive, not coast, to the platform. Unload.

You have finished. Well done. You are ready to take on some of the other scenarios.

Section 5. Creating a simple Scenario.

New Free Play Scenario.

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. Now we will start to make use of the included **Editor** to create additional **Free Play** scenarios with a larger range of locomotives and rail vehicles which will start at different locations.

For your first scenario you will be making a scenario based at the **Evercreech marshalling yard**.

My version of the scenario that is to be created is in the zip file with this guide

If you wish to see it, install this scenario as given in Page 45

Rail Simulator Editor Manual

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

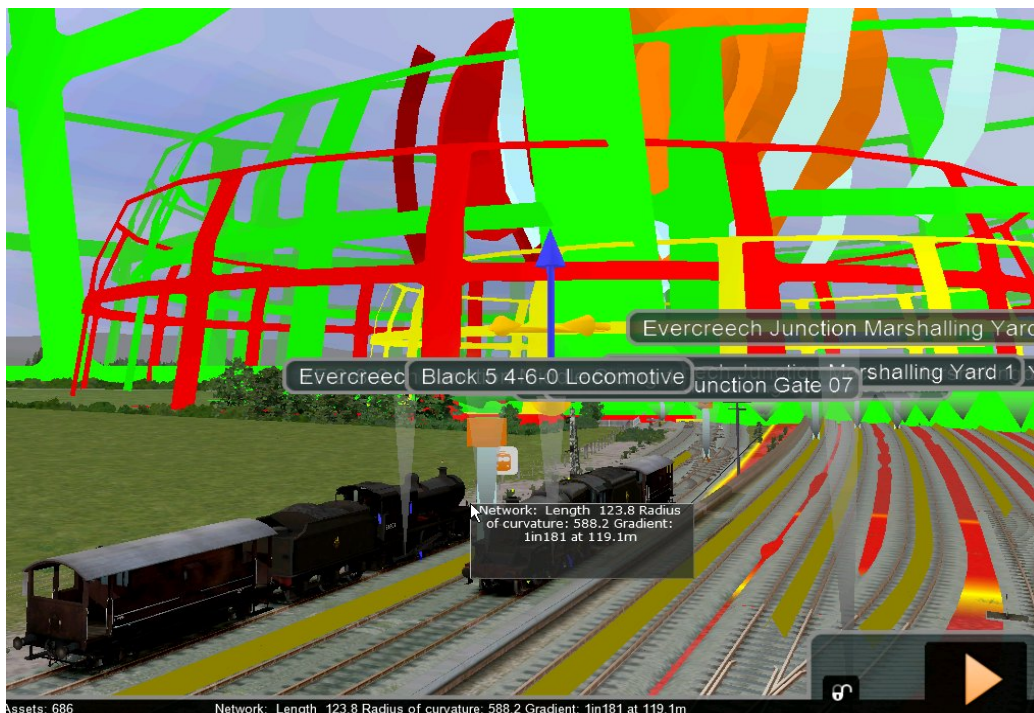
Read the document '6.01 Creating a Simple Scenario' found at **Program Files\Rail Simulator\Manuals\Developer Docs**. This document is contained in the RSDevTools Docs. which earlier I suggested that you download and install.

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.

Open the **Bath Green to Templecombe** route in **Free Play**.

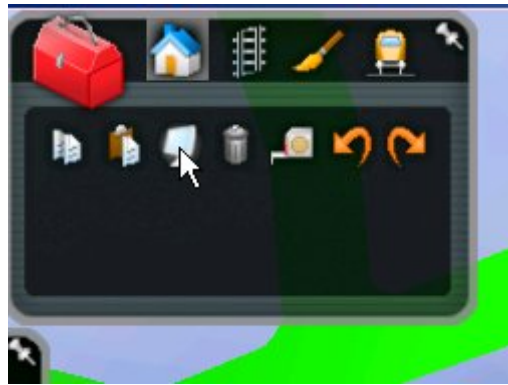
Opening Editor

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

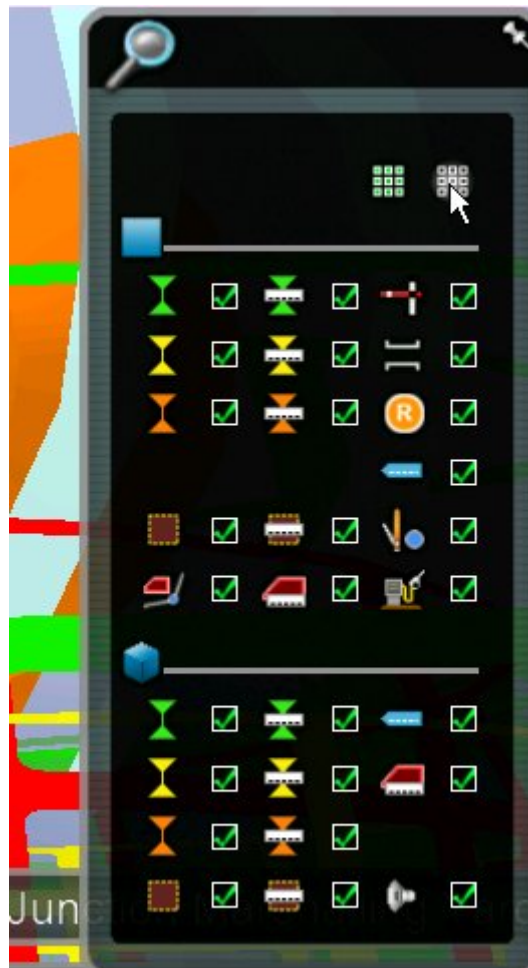


If you move the camera round (same controls) you will see that the screen is rather cluttered.

We don't need any of this so in the **Main Editor Menu** in the top left of this screen, click on the **Display** icon



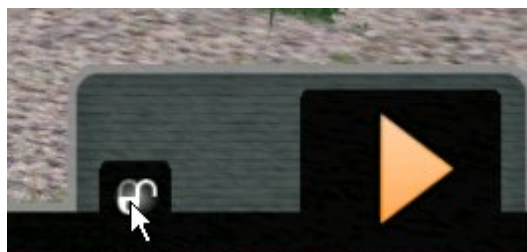
Click the top right hand icon of the new popout panel that appears at the top right of the screen



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.



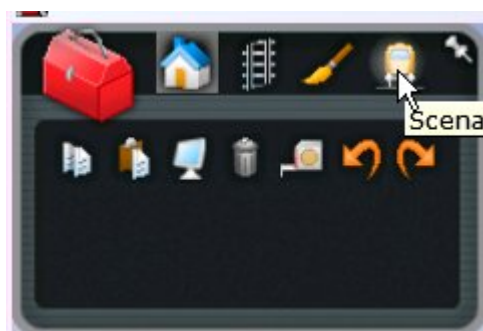
All you see now should be the captions and the **Free Play Marker**



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

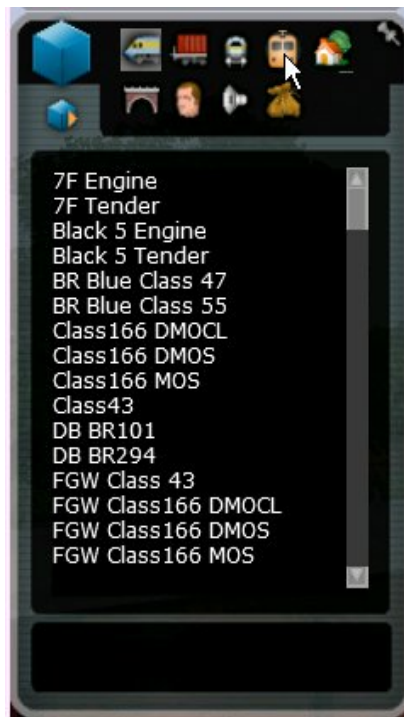
Read warning and click on OK.

On the top left hand popout panel click on the **Scenario** icon (train) 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 click on the **Scenario Markers** icon



Move the camera so that you have a good view of the centre of the marshalling yard.



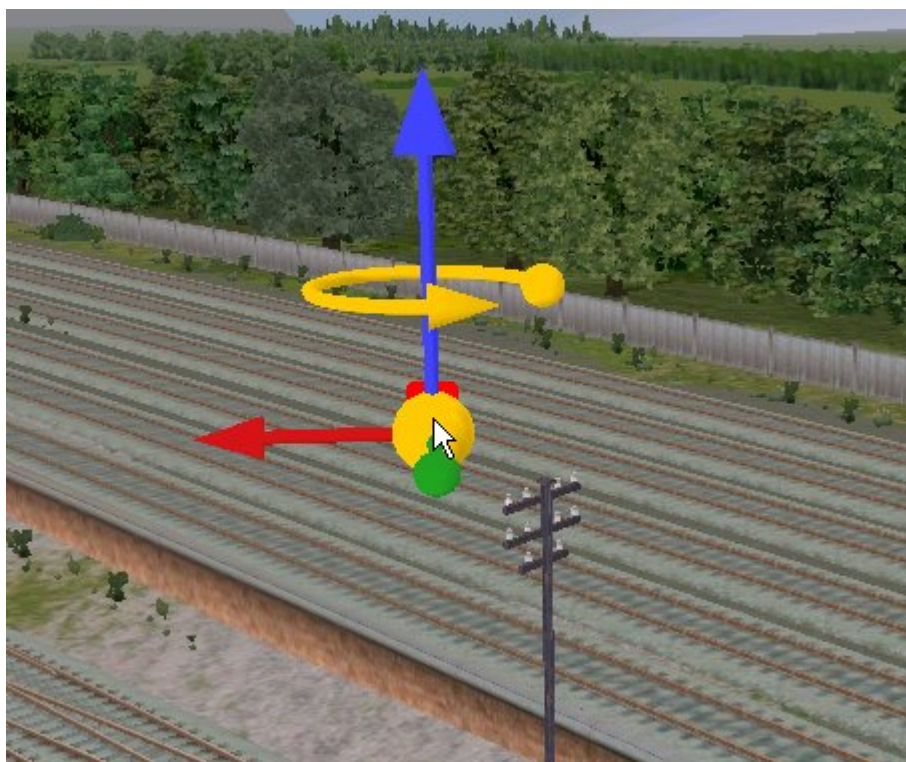
Placing a Free Play Marker

Click on ' Free Roam Scenario Marker '.



Move the mouse so that the pointer is near centre of the yard. **Left click** should put a marker at this position. **Then right click so that you don't put another marker.** (Once added there seems to be no way they can be removed) When the scenario starts, the camera will be close to the marker.

Double left click on the marker and you will see the means of moving the marker (the **Gizmo**). Using the pointer on the arrows you can drag the position of the marker with the mouse. It is probably advantageous to raise the marker using the blue arrow to give a better initial camera view.



Double click on the Free Play marker- not the **gizmo**.. A new popout panel appears on the right side This is the **Properties Tab** (I find this sometimes takes several attempts to get this popout 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.

Now click on screen to the left of this popout panel. The panel should disappear and details should be stored.

Lock the padlock and the exit the **Editor** by clicking on the arrow at the bottom right. Click Yes when 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 marshalling yard '. Click on this. When loaded you should now have a view of the marshalling yard. If the camera position is not satisfactory it can be moved from within the **Editor** later.

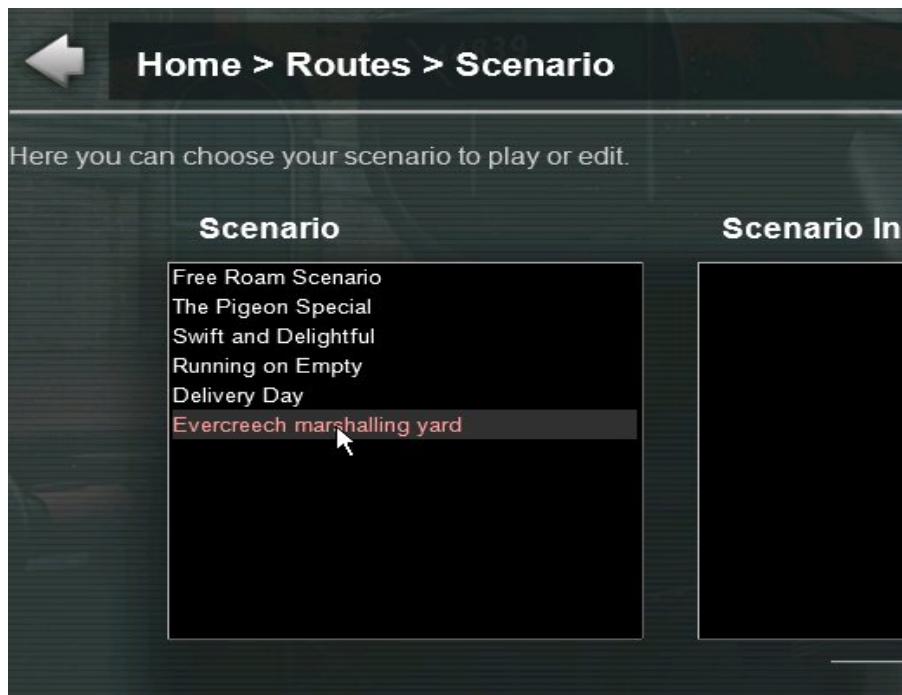
Check the Free Play Scenario that you used as template. If this has been damaged or altered in any way while you were trying to create the new scenario then you will need to restore the Free Play scenario from the backup you have just created.

Restore Scenario.

If you have **KickStart** installed you can find the folder containing the scenario to be restored, in which case just restore that folder. Otherwise restore the whole of the ' **Program Files\Rail Simulator\Content** ' folder

Deleting Scenario

If you wish to get rid of the scenario you have just created (or others) go to



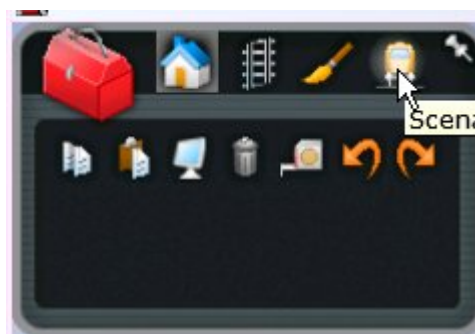
Left click on the Scenario to be deleted . Press the ' delete ' key and respond to next screen.

Adding locomotives to Scenario.

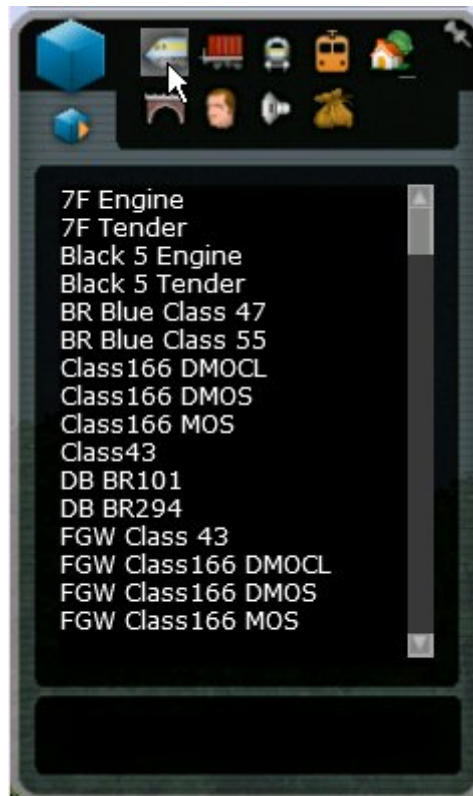
Open the **Editor** for the Scenario where stock is to be added.

Open the padlock.

Open the **Scenario** window in the **Main Editor Panel**



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



Move the camera so that it is just past the **Free Play Marker** and looking towards the points.



Left click and hold down on the 7F 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 right most track of the marshalling yard.

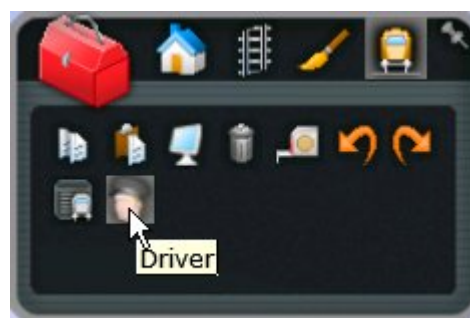


Release the left button then **Left Click** to place the locomotive then **Right Click** as you don't want to place another engine. You want the engine facing the points and it is probably facing the wrong way. Left click on the engine and a yellow symbol will appear above the engine. Click on that to turn the engine round. Left click on the track to clear the symbol.

Now click on the 7F 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.

Engine driver

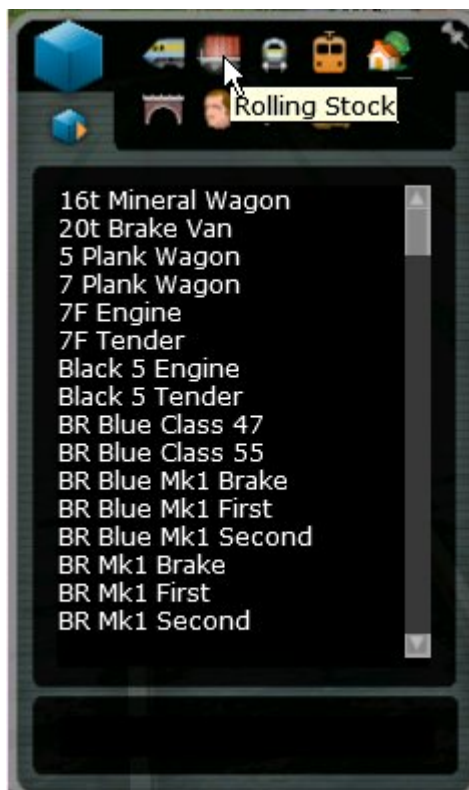
The engine now needs a driver. Click on the **Driver** icon on the **Main Editor Panel**.



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

Adding stock to scenario

To add some rolling stock, click on the **Rolling Stock** icon in the **Object Selection Menu**.



Now add some wagons and a brake van as you added the engine.



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

Left click on the locomotive and you are ready to start shunting.

To make the scene more realistic additional rolling stock can be added. A train coming from the branch line could be added etc.





Moving to a new location on route.

So far all the Free Play has been in the Evercreech region. We are now going to **Free Play** in a new place.

You can either start a new scenario or modify a scenario you have created. I suggest doing the latter for now. Open the scenario you have just created.

There are several ways to find where you would like to start a new Free Play session.

- a.** You could drive a train and explore the entire route. That would take a long time but could be interesting.
- b.** A quicker way to explore the route is to open the **2D Map**



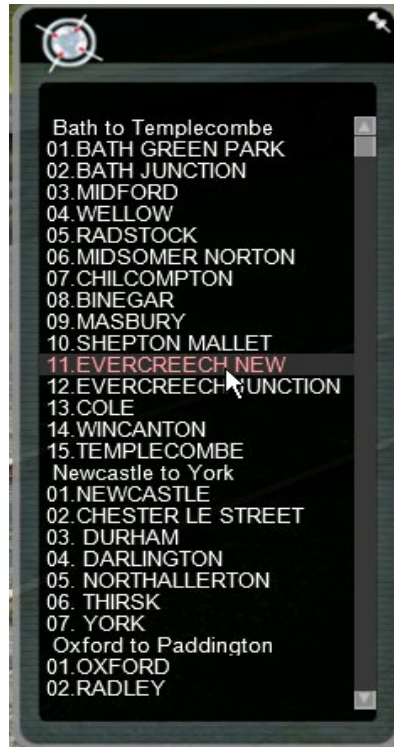
Using the scroll wheel and dragging the mouse with the right mouse button held down it is possible to explore all the track in the route. Don't forget that by clicking on the icon in the bottom right of this screen



a new popout panel appears at the far right where you can select the detail that is displayed on the map

- c. If in the Navigation popout panel you click on the Route Markers icon a new popout panel (**GPS**) appears to the right of the screen





Clicking on any of the names in this route will change the Latitude and Longitude values in the **Navigation** panel.



Clicking on the **GO** icon (bottom Right) will move the camera to that location. Once there it can be explored using all the camera controls. Note that the camera appears to stay at the same height above sea level during the move to the new location. If the original location is low then the camera can be below ground level at the new location. Raise the camera height at the original location before moving or use **CTRL+Up Arrow** if you appear to be below ground level when you are at the new location.

d. When at the starting location of Evercreech use the camera controls to zoom up to give a birds eye view. (**CTRL+ Up Arrow**). Now press the **Up Arrow**. Control the forward movement using the mouse with the right button held down. If you want to move faster use **SHIFT+Up Arrow**.

Adding rolling stock at new location

Having selected the location where you wish to add engines and rolling stock open the **Editor**.

In the **Navigation** panel click on the **Route Markers** icon. In the **Destination** popout panel click on your selected destination. Click on **GO** in the **Navigation** panel.

Note that the camera appears to stay at the same height above sea level during the move to the new location. If the original location is low then the camera can be below ground level at the new location. Raise the camera height at the original location before moving.

You are now at your selected destination and can add engines and rolling stock as you have done previously. Don't forget the driver for the engines



Rolling stock added at Shepton Mallet. Close the **Editor** and you can start playing.

The next time you open this Scenario you will still be at **Evercreech Marshalling Yard**. Select your new starting point from the **Navigation and GPS** popout panels.

Two new Scenarios are available for download from the **Rail Simulator** web site based on the Bath Green to Templecombe route. Each location on this route is full of locomotives and rolling stock ready for you to drive and explore.

My version of the scenario that has just been created **Evercreech_Marshalling_Yard_1.rpk** will have been downloaded in the Zip file if this guide came in a zip file.

Install this scenario, **Evercreech_Marshalling_Yard_1.rpk**, as given below.

Installing new Scenarios.

To install these in your simulator program you need to run the run the program **PackageManager.exe** found 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 wish to install and follow the instructions.



When you next open the route you should see this scenario present.

Section 6. Installing new locomotives and rolling stock

Rail Simulator must be closed while installing new assets.

Go to the **Rail Simulator** web site. Click on Downloads. Click on Official Content.

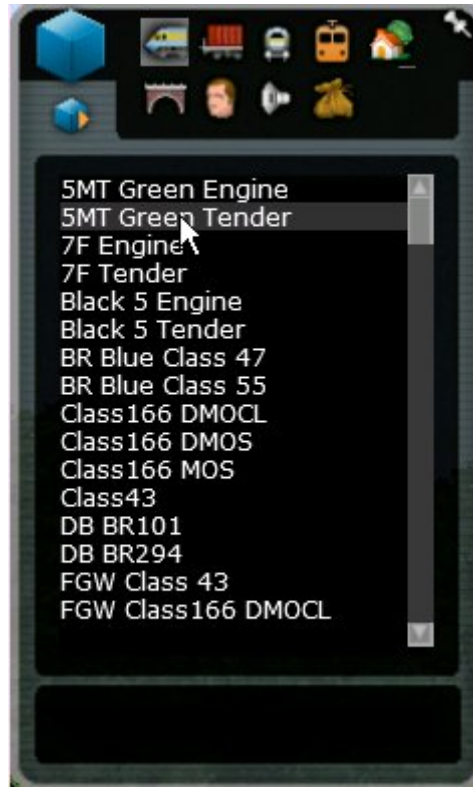
On the left of the screen that appears are various 'assets ' that can be downloaded. The top section is Rolling Stock.

Click on the 5MT green locomotive and download to a suitable folder. If you ever need to re-install **Rail Simulator** or restore to before this time you will need this file again so save it in a place where you will be able to find it.

Unzip the file and read the ' read me.txt ' file. Click on ' setup .exe ' and follow instructions. The locomotive is installed. It is that easy when installing an asset from **Rail Simulator**.

Run program and open **Editor**. Open Padlock. In the **Main Editor Menu** select **Scenarios**.

In the ' **Objects Selection Menu** ' click on ' **Engines and Tenders** ' icon. In the list the **5MT Green Engine** is present.



However not all stock that is downloaded will have a setup.exe file Some only have a ???rpk file.

For an example go to <http://www.uktrainsim.com/> . To download files from this site you must be logged on and preferably subscribed for unlimited downloads otherwise downloads may be delayed and very slow.

It is worth the small expense, as, having got this far, you will probably wish to download routes, rolling stock and activities

Having got to this site go to ' Downloads Search ' and enter 18917 in the File ID box.
Download this file.

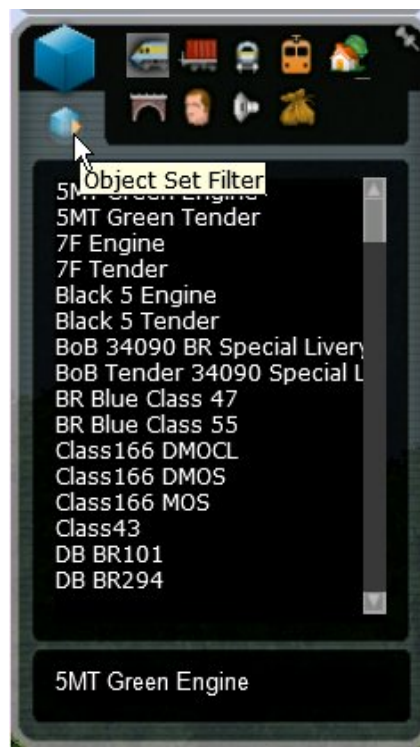
Unzip the file and read the ' README.txt ' file. The only other file present, except for a picture is the file BoB_34090_EMSP_V13.rpk.

Go to Program Files\Rail Simulator\Packager and run ' PackageManager.exe '

Click on ' Install New Package ' and locate the file ' BoB_34090_EMSP_V13.rpk '

Respond to the next menus until the file is installed.

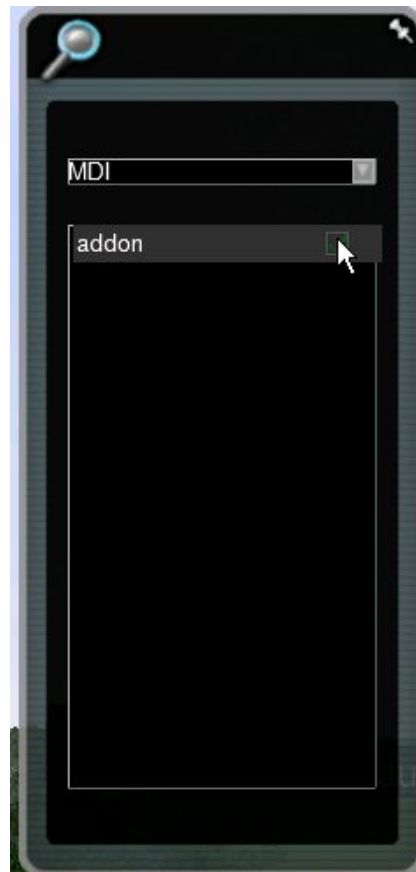
Now run **Rail Simulator**, open a **Scenario** and open the **Editor**. Open the padlock.



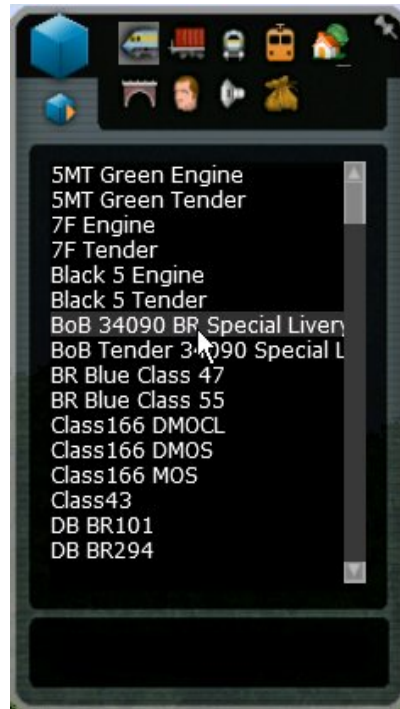
In ' **Objects selection menu** ' click on the small blue cube labelled ' **Object Set Filter** ' A new popout panel will appear on the right side.



Double click on the arrow to the right of **Kuju** and a list of asset suppliers drops down. Click on MDI (the new 'asset provider') then click on the small square by ' **addon** '



Place a tick this box. The provider will be added . Any further assets from this supplied will not have to go through this procedure.



In the **Main Editor Menu** click on **Scenario**. In the '**Objects selection Menu**' click on '**Engines and Tenders**' icon. Look in the list and the **BoB 34090** engine is present.

Additional Commands

There are a few command which have not been needed in these exercises and which I have rarely used. They can be found in the Reference leaflet. By now you should be able to find details of these operations using the manuals and the forums. The extra commands for diesel and electric engines can also be found in the Reference manual.

One function I have had to use but could not find a way to include it in this guide is **turntable operation**.

Operating a turntable.

Move the locomotive very slowly towards the turntable. Stop it a short distance from the turntable. Rotate the turntable by pressing **G** or **SHIFT +G**. These cause the turntable to rotate in different directions. Each press moves the turntable to the next track position. The turntable should be turned to line up with your locomotive. Move the locomotive onto the turntable very slowly until it is fully on the turntable. Any of the locomotive outside of the turntable will stop it rotating even if the wheels are fully on the turntable.

Once on the turntable press **G** or **SHIFT+G** until lined up with your desired exit track. Move away slowly.

Next Guide.

My next guide will make use of the RSDevTools Editor

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

Section 7. Appendix.

My computer specifications.

My desktop is about 4 years old and has the following specification.

Mainboard Gigabyte GA-7VAXP
Bus clock 133 megahertz
Processor AMD Athlon XP
128 kilobyte primary memory cache
256 kilobyte secondary memory cache
Hard drive 1 (200 GB) EIDE
Hard drive 2 (200 GB) EIDE
1024 Megabytes installed memory
Radeon 9600 display adapter
Samsung Syncmaster 19.1" Monitor

Windows XP Home SP2 and all updates
DirectX 9.

With graphics turned well down this will only reach 20fps with quite a lot of stuttering. Movement of camera is very jerky.

My new laptop specifications are :-

Hewlett-Packard HP Pavilion dv9500 Notebook PC
Board: Quanta 30CB 79.26
Bus Clock: 800 megahertz
Processor 2.20 gigahertz Intel Core2 Duo T7500
64 kilobyte primary memory cache
4096 kilobyte secondary memory cache
Hard drive 1 (160.04 GB) SATA
Hard drive 2 (160.04 GB) SATA
2046 Megabytes Installed Memory
NVIDIA GeForce 8600M GS [Display adapter]
Generic PnP Monitor (17.2"vis)

Windows Vista Home Premium
DirectX 10.

With this computer I can run Rail Simulator on this route with all graphics options set to maximum and achieve between 30 and 40 fps with very little stuttering

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