TS·2014 TRAIN SIMULATOR

User Manual

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Contents

1 Introduction to Train Simulator 2014

Welcome to the Train Simulator 2014 (TS2014) User Guide, which includes detailed instructions on the TS2014 operation, menus and controls.

Please note that the features and content provided with TS2014 are periodically updated, and the format of screens and content depicted in this manual may be slightly different from that in your software.

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Although your version of TS2014 comes supplied with an exciting range of routes and locomotives, there are many more available from the in-game store. When you acquire these addons through Steam, they are loaded directly into your game – no additional installation required!

www.pegi.info

2 TS2014 Features

TS2014 is a virtual 3D world simulator that focuses on the experience of viewing and driving railway locomotives from around the world. With it, you can:

- Drive a railway locomotive in a realistic 3D Cab view and using the real controls;

- Experience 160 mph running through the Kent countryside, sunset over Donner Pass, or the flashing lights of night running into Hamburg;

- See beautifully detailed models, and hear sounds just like the real thing;

- Experience driving in varied weather, from sunny days to cloud and snowfall;

- Discover famous and interesting railway routes from around the world;

- Find out what it is like to haul freight over the great mountain passes and plains;

- Hone your skills of driving stop-start passenger trains in the commuter belt;

- Master the art of creating immersive 3D worlds with fast world-building tools;

- Share your scenario puzzles and challenges with your friends.

To do all this, TS2014 comprises:

A 3D Simulator	view from inside the cab or view from outside as you drive;
Addon Models and Routes	buy additional content from the In-Game Shop, from Steam directly, and from third parties;
Collection Centre	see which addons you have bought;
The Store	acquire content from RSC and others;
Scenario Editor	prepare new sequences of trains and events ;
World Editor	make new sections of world (routes);
Achievement Awards	track your own progress and show off to friends;
Steam Workshop	share content (routes, scenarios) with your friends and peers.

3   Getting Started

TS2014 offers you a highly realistic train driving experience: if you have never driven a train before, it takes some practice to master the techniques.

➢ If you are using an Xbox 360 Controller, and it is connected when the game starts, you will be able to use it straight away. If you activate it after the game starts, you can enable it using the Settings options described in **10.4 Control Methods**.

3.1   Making a Start

These instructions let you start driving straight away:

1. Double click on your TS2014 icon to start the game.

2. After the Intro, you will be presented with the Main screen.

3. If you need to change the graphics resolution, Click on **Settings** in the top right corner. The settings are described in **10 Settings.** Screen size changes require a restart of the game.

4. Click on **Drive** to drive a train.

5. This takes you to the **Drive** menu:
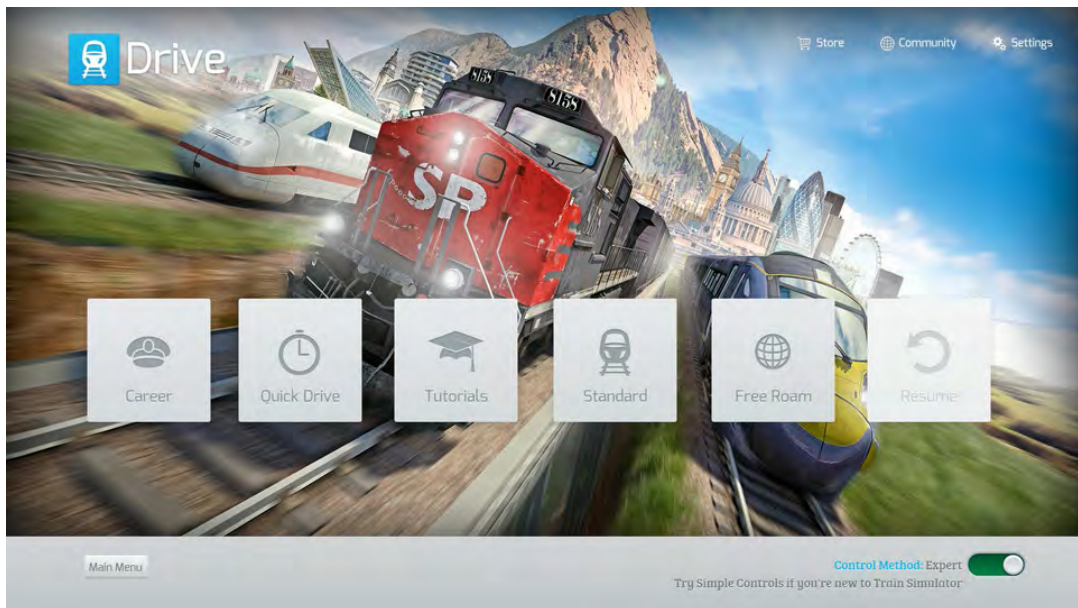
For your first experience of driving, it is a good idea to select a tutorial or training scenario from those supplied for the routes you have installed. Some tutorials can be found amongst the other scenarios, will have a difficulty of 2 (green) and often include the words "training" or

"tutorial" in the scenario name. However, a new feature of TS2014 is the a separate button for scenarios explicitly marked as tutorials, so let us start there:

6. Click on **Tutorial** to show the list of scenario tutorial scenarios. This brings up a list that might look like this:
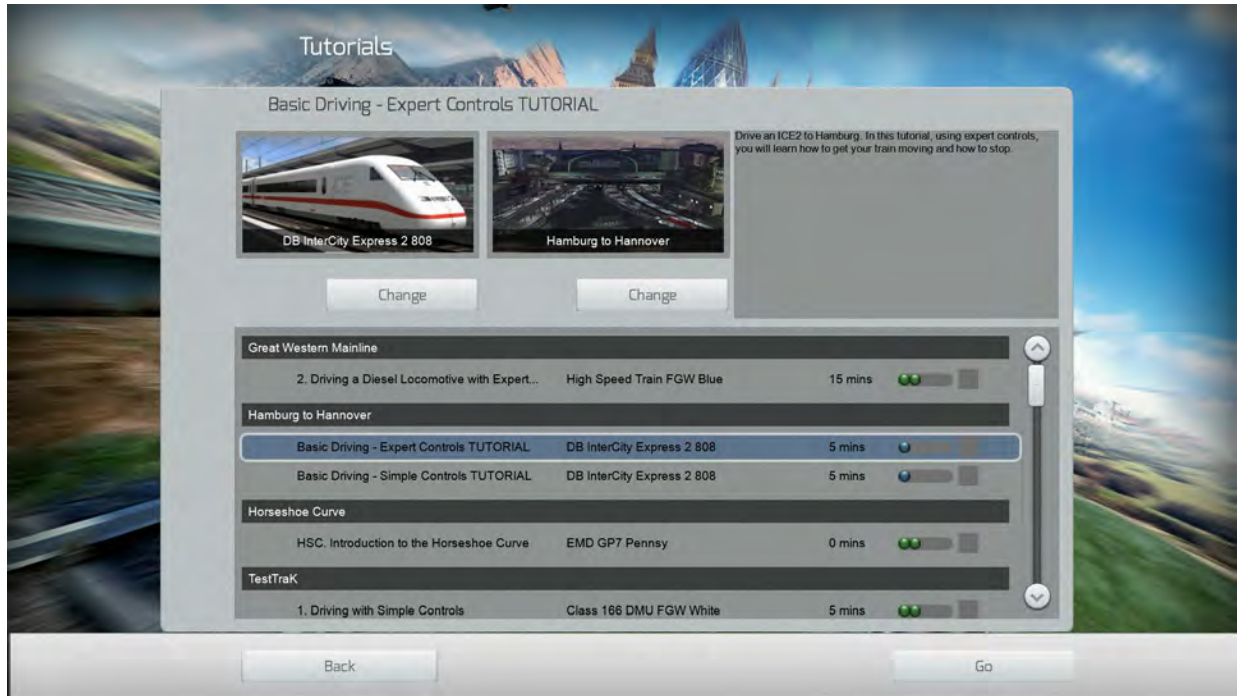
This example set shows Tutorial scenarios from the Great Western Mainline, Hamburg to Hannover and the Horseshoe Curve route packs. Depending on the product packs you have installed, this list will vary.

7. Move the blue highlight strip using keyboard or gamepad, or click using the mouse, to select one of these that suits you. Note that as you do so, the scenario description in the top right changes, which will give you more of an idea what the scenario involves.

8. Click on the **Go** button at the bottom of the screen.

9. The game will load. It may take a minute depending on the size of the route and the game will start.

10. Tutorial scenarios, and many others, begin with an introduction. For example the following screenshot shows this for a scenario on the Hamburg to Hannover route:

11. Follow the onscreen instructions.

➢ You may also want to refer to the manual for the train you are driving. This may either be within the manual for the route, or available separately: see **3.11 Additional Manuals** to locate them.

12. At the end of the scenario a notice is shown informing you that you have reached the end. Dismiss the scenario end notice when you have read it.

13. The simulation will terminate and you will see the Debrief screen.

14. From there you can choose to:

• Play this scenario again,

• to return to the scenarios list to select another (from this or from a different route),

• or to return to the main menu.

3.2   Scenario Types

You will see references in the game to "scenarios", which are described further in **4.1 Scenarios**. In short:

Standard Scenarios
Standard scenarios include a goal and various objectives that you must perform, but they do not affect achievements or experience points. There are usually other (AI) trains on the route.

Career Scenarios
Career scenarios extend Standard scenarios by also checking and scoring your performance. You can also accumulate achievements and experience points. Career scenarios are not available in Simple driving mode.

Quick Drive
The Quick Drive feature enables you to select a route, locomotive, location, time, and weather of your own choosing. You may see other computer-controlled (AI) trains while using Quick Drives.

Free Roam Scenarios
These enable you to familiarise yourself with a route using a locomotive. There are normally no other trains present. When you run these scenarios you are not assigned a locomotive, so to begin you must select one to drive by clicking on it.

3.3   Controlling your Train

At the bottom of the simulation screen is the Head Up Display or HUD, which can appear in several guises. If it is not displayed, pressing F4 on the keyboard should restore it. The following illustration shows the component parts of the HUD:
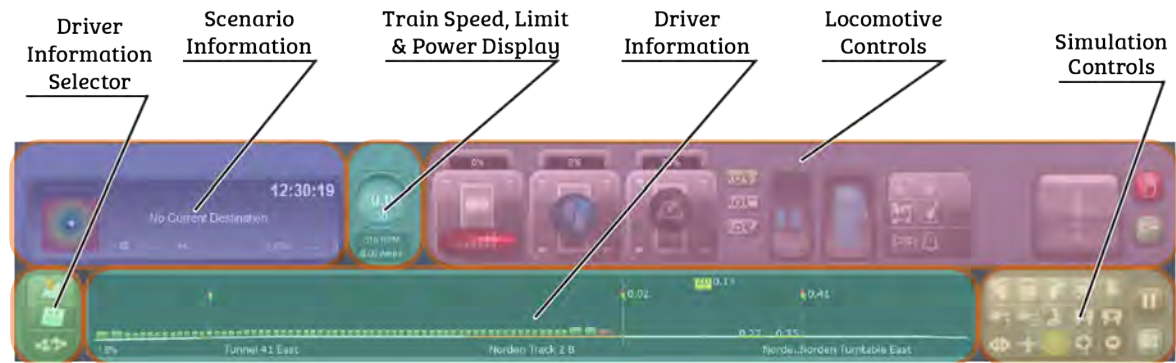
There is more information on the these controls at **4.7 The Head Up Display (HUD)**

Driver Information Select   Controls that select what driver information is displayed.

Scenario Information   Information about the next place to stop, the current time and the passenger comfort level.

Train Speed   Train speed, track speed limit, and current locomotive power output.

Driver Information	Either the track ahead display or the train coupling display.
Locomotive Controls	Controls and information for your locomotive.
Simulation Controls	Mostly controls for the simulation view point, also the pause and snapshot buttons.

TS2014 has two modes of controlling your train, **Simple** mode and **Expert** mode. The mode is selected in the **Gameplay Settings** and initially it is set to **Expert.** Some locomotive models can only be controlled in Expert mode, in which the driving controls are close to what you would expect if you were in the train itself. Because of this the controls change to reflect which locomotive you are driving.

For a Diesel Loco they look like this:

Power	Controls the power available from the locomotive's engine (acceleration)
Direction	Selects forward or reverse gear. Direction is relative to the cab you are driving from.
Brake Lever	Train brake control, which sets the brake force. In traditional braking systems this control directly opens the brake pipe to the atmosphere, while others use more complex techniques.
Brakes	The Brakes display shows the pressure in the brake system, which tells you about the brake force applied on the train.
Driver Vigilance	Some trains and railway lines include safety systems aimed at ensuring the driver is alert. These include a device on the track and a button in the cab when the train passes over the track device. If the driver doesn't operate the button, the train will Emergency Stop. Another type of vigilance requires the button to be pressed if no other control is used for an extended period.

If you wish to use the mouse to manipulate the train controls, first switch to the cab view (see **3.5 Changing Your Point of View**) and then left-click on the required control (such as the throttle or brake), and, holding down the left mouse button, drag the control in the direction in which

you wish to manipulate it. Look at the locomotive-specific information in your Route and locomotive guides for details of the in-cab controls.

3.4   Driving

Each locomotive will have its own specific instructions (see 3.11), but the following general instructions should allow you to get most modern locomotives moving. These are for a diesel locomotive; electric and steam locomotives are slightly different:

1.   Move the direction lever (steam locos: the reverser) up to put the train into forward gear;

2.   Move the brake lever down to release it.

3.   Move the power lever up to around half way to apply power. The train should start to move.

4.   Notice the speed shown in the HUD train speed indicator starts to rise, and underneath it is the current speed limit. Exceeding the limit can cause a train crash and is penalised in career scenarios.

5.   As your train moves further, notice that the driver information display is also moving to the left. Take note of the signals coming up (either by direct observation or using the information display as a guide) and be prepared to stop. A train will take much longer to stop than a car.

6.   Assume you now need to stop at a signal or station. Well in advance, move the power lever to the neutral point (normally the bottom, sometimes to the dotted line) and let the train coast.

7.   Start to apply brakes by moving the brake lever up. Notice how the brake system pressure increases (vacuum brake: decreases).

8.   The indicated train speed should now be decreasing. Judge how much brake pressure you need and, possibly, return the brake lever to **Release**, to reduce pressure again.

9.   When you are stationary it is good practice to leave the brake lever at **Service Maximum** pressure – about 70% in most cases.

As you progress through the scenario look at the top left information on the driver interface. This shows your expected time at the next destination, together with the scheduled time. Remember to load passengers or freight as required. The required loading time will be indicated on the driving interface.

If you want to save your place in a scenario and restart it later, press the Escape key or the Pause button on the HUD and click the Save option, or press the F2 key. Note: each time you save a scenario it overwrites any previously saved scenario.

3.5   Changing Your Point of View
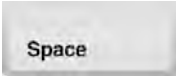
Initially, the camera is usually positioned outside and above the train (the external front camera), or inside the cab (the Cab view). There are many other views - some of the most useful ones are:

Button	Key Equivalent	Action
	1	Cab view, the point of view of the train driver.
	2	External front camera. This is initially set to follow the leading vehicle.
	4	Trackside camera. Moves ahead of train to watch it approach and pass, then moves further along the track.
	↓ ↑	Move the viewing position forwards or backwards (or in yard view move the viewing position higher or lower).
	← →	Move the viewing position to the left or right

You can control the camera's field of view and direction with the mouse:

Button	Mouse Equivalent	Action
	Mouse scroll wheel away	Zoom in. Like using a zoom lens on a camera, the viewing position does not change.
	Mouse scroll wheel back	Zoom out.
	Hold the right mouse button down & move the mouse	Pan (direction of view).

3.6   Some other Useful Controls

Button	Key Equivalent	Action
	T	Load or unload passengers or freight.
	H	Locomotive lights. Press again to cycle through different light states. Your locomotive's manual should tell you what these are.
	V	Windscreen wipers. Click once to switch on, and again to switch off.
	Q	Alerter. Use of this feature will depend on the train and route being used. In general, this will warn of an approaching signal and you must respond to the alert, or the emergency brakes will be applied. Typically a buzzer will also advise you to acknowledge the warning.
	B	Sound the train's external bell, if present.
	Space	Sound the train's external horn or whistle, if present.
	Backspace	Apply emergency brakes. This sets the brakes to 100% and locks the other controls. Once the train has come to a complete stop, the other controls will unlock. Emergency brake use (however caused) is penalised in career scenarios.

3.7   Driving Information

In **3.3 Controlling your Train** the sections of the HUD were outlined. Here is some more detail about the information displays.

First, the speed limit area:

Current speed, with the current speed limit immediately below. Units are either kph or mph, depending on the route's country.
The area underneath is used by some locomotives to report engine RPM and generated (or returned) electric current.

The scenario information area:

The coloured circles show force on the passengers: the white dot moves up when slowing, down when speeding up, and sideways

02:30:25

Ebbsfleet Intl 5

@ ⎯ in 10.88 Miles (ETA: 02:51:15)
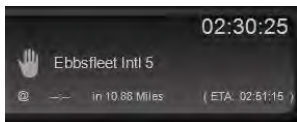
when cornering. This is translated into a comfort level in scenarios. Current time, next stopping point, distance and estimated time of arrival (ETA) to the next stop.

And finally, the driver information area:
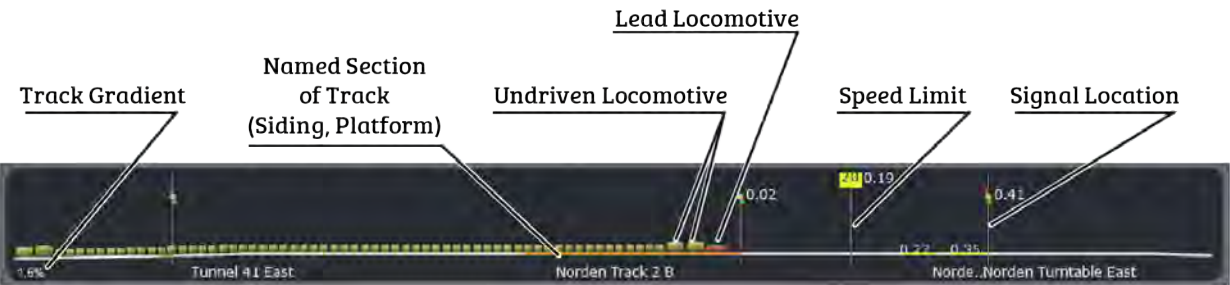
Lead Locomotive

Track Gradient   Named Section of Track (Siding, Platform)   Undriven Locomotive   Speed Limit   Signal Location

0.02   0.19   0.41

1.6%   Tunnel 41 East   Norden Track 2 B   0.22   0.25   Norde..Norden Turntable East

The display at the bottom of the driving interface gives you the key information necessary to drive a train, in particular:

- The track shows the incline, in percent for USA and Europe, and 1-in-N in the UK.
- The wagons or carriages that make up the train.
- The distance to the next signal (but not whether you are cleared to pass it).
- Speed limits, tunnels, sidings and station names.

Use this information to anticipate the route ahead and plan accordingly.

3.7.1   Links to other information

To the left of the driving interface is a group of three buttons:

Button	Key Equivalent	Action
	9	Display a top-down track and signal map. See **3.8 The 2D Map View.**
	F1	Display the task list containing scenario information. See **3.9 Task Information**.
		Display consist information (locomotives, wagons, coaches). Press again to revert to information display. Use this display to set handbrakes and for coupling/uncoupling operations.

3.8   The 2D Map View

The 2D map can be accessed via the map icon on the driving interface or by pressing the 9 key. It displays the track layout and the setting of all of the junctions along with the tasks in your current scenario. At each track junction, the highlighted line shows the current setting. The overall route your locomotive is set to follow is shown in navy blue.

You can change the setting of manual junctions by clicking on the junction. This is especially useful for setting paths in complex yards. Other junctions are controlled by the requirements of the scenario, so just like a real driver you cannot deviate off-path. When playing free roam scenarios, all junctions are manually operated and so you must set your own path in advance.

➢ The simulation does not stop while you are looking at the map.

3.8.1   Map Control

The map occupies the whole screen as shown here.
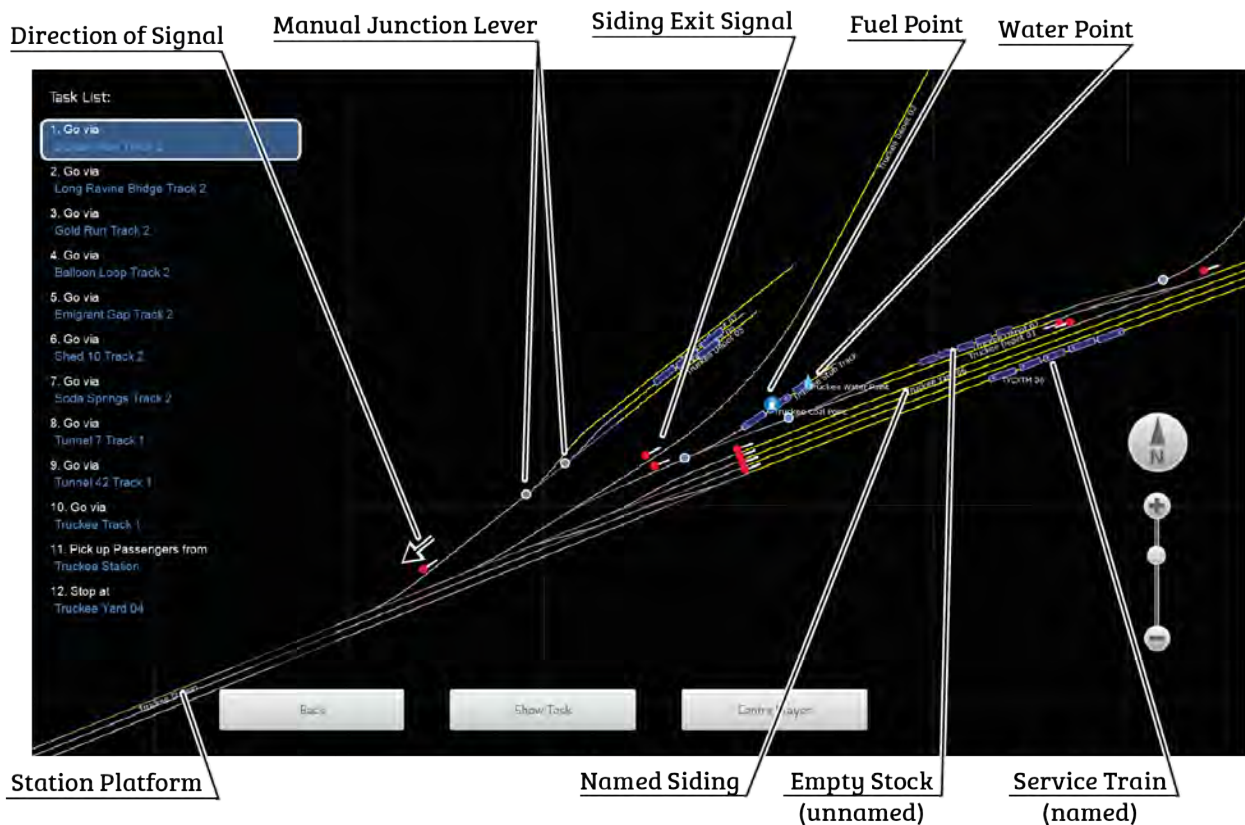
The task list, shown here on the left hand side, is displayed if you are in a task-based scenario and irrespective of its display in 3D view.

The controls for the map are as shown below:

Show Task	Moves the focus of the map to the currently selected task in the list.
Centre Player	Keeps the train you are driving in the middle of the display. It will remain centred on the train until you pan the map yourself.
Mouse scroll wheel	Zoom the display in and out.
Back, 9, right mouse button	Return to the 3D view.
Left mouse button	Move around the map by holding down the left mouse button and moving the mouse to drag the map around.

3.8.2   Map Overlays

Additional information is displayed on the map in overlays:

Left side	The task list, if active. Free Roam scenarios have no task list so this is blank.
Bottom	Control buttons.
Right side	The mouse zoom slider and a mark indicating the north direction. The map is not rotatable, so north is always up.

3.8.3   Map Symbols

The following symbols are used on the map. Routes can change the colour used for junctions and control points and the actual symbol used for a signal.

Junctions	Set to the direction that is highlighted with a coloured line – yellow in this case.
Locomotive path	Dark blue line. This is the path the locomotive will take as it proceeds. Junctions with circles (in this case yellow) at the base can be changed with a click. Other junctions are under the control of the signaller.
Other Track	Grey lines.
Fuel	Fuelling (coal, oil, water etc) points are shown as icons, such as those near the centre of this image.
Manual Junctions	Junctions (points, switches) are shown with a circle at the base when they can be controlled by the player: Left-click on the circle to change the junction. In a Free Roam scenario all junctions are manually controlled.

Signal locations	The location (but not the state) of signals are indicated by the red symbols.
Siding & Platforms	Named stretches of track are used to indicated sidings, platforms, and waypoints. Sidings are coloured light yellow (see the top of this image), passenger platforms are green (see bottom left), tunnels and waypoints are orange. The name will appear next to the track.
Other Trains	Trains are shown as coloured rectangles which will move to reflect the actual location of the train. See the example just above the north indicator.

3.9   Task Information Displays

The task or scenario information displays are an overlay on the main view that remind you of the tasks to be done and how to do them. You can if you wish ignore them for the majority of the time.

Display the task list containing scenario information.

The Task List on the left of the screen provides a recap of the initial scenario instructions at the top, and underneath a scrolling list of the individual steps. The steps are expressed in ordinary language, but for clarity the common ones are:

Couple	Drive to the location indicated, stop, and couple the train you are driving to other rolling stock.
Go Via	Drive to and continue over a section of track: **there is no need to stop here**.
Pick Up	Stop at a station platform and load or unload passengers, then continue.
Stop at	Stop your train at a particular point. Normally used to change direction.
Drop off	Stop your train at a particular point and uncouple the indicated part of it, then continue.

When displaying the task list (F1), for a pickup passenger task you will also see a "walking man" and a large blue arrow pointing down to the location of the next task as shown here:

For other tasks you will see other icons in the circle, but always in the same style.

If your task requires stock it will be found where the arrow points there also. If you cannot see this, you are still too far away or are looking in the wrong direction. In this case, use the 2D map (key 9, see **3.8 The 2D Map**) to locate where you are going and check that the route to it has been set.

In Task Lists, the rolling stock is referred to using the stock number. All rolling stock in the game is assigned a stock number. Stock numbers can be seen for your train in the Coupling View (**4.9.2 Train Coupling and Brake Display**) and displayed using the **Display engine and wagon numbers** function:

Display labels. Show the names of trains and locations relevant to the current scenario in the 3D scene.

Display engine and wagon numbers. This displays engine and wagon numbers in the 3D scene. That this option is only available if Display Labels is already selected.

The buttons at the right can be used to perform various actions as you drive. These buttons are just for your convenience and the tasks can all be done in other ways as well.

When performing scenario tasks:

- Ensure that your locomotive is on the track section indicated, not just on the right length of track. This is particularly true of sidings, where the siding marker may not extend the whole length of the siding itself. Check using the HUD track display to be sure.

- Ensure that the right end of stock is used for the action. The scenario will fail if, for example, you couple a wagon to the front of your train when the scenario asked for it to be on the back.

- Passenger train scenarios often pick up passengers at the scenario starting point. Don't forget to do this before leaving!

3.10 Pausing and Quitting TS2014

Press the pause button (or the Escape key), to bring up the **Pause Menu**.

While this is displayed, game time is paused. To resume, click **Continue** or press the Escape key again. This menu looks like this:

This menu contains the following options

Continue	Returns to the simulation.
Save	Save your scenario run so that you can return to it later. You will be asked to confirm this. You can only save one run for each scenario.
Controller Layout	Shows a diagram of usage of the buttons for an Xbox 360 controller (see **6 Game Controller**)
Keyboard layout	Shows the keyboard assignments for the TS2014 controls (mostly described in **4 Driving Scenarios**).

World Editor	Enter the world editor to enable you create and modify TS2014 content (see **9 The Build Screen**).
Options	Contains two controls, for HUD type and opacity (see below).
Quit	Leave the simulator and return to the scenario selection screen. You will be asked to confirm this.

The **Options Dialog** is accessed from the **Pause** menu and looks like this:
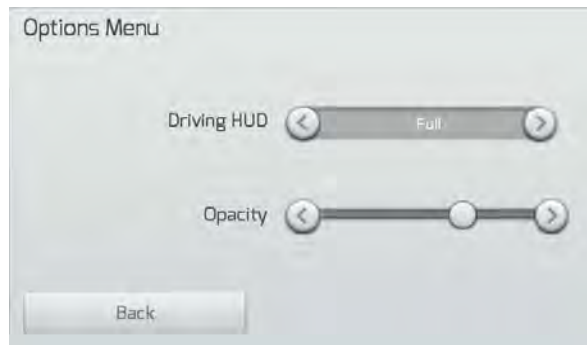
It contains just two controls:

Driving HUD	Change the makeup of the driving overlay. See **4.7 The Head Up Display (HUD)**
Opacity	Change the level of transparency of the driving overlay from transparent to completely opaque.

3.11   Additional Manuals

Most additional products bought for TS2014 will include manuals describing how to use them to best effect. These usually include descriptions of the route and scenarios, and instructions on driving the locomotives.

These manuals will be installed along with the rest of the game content and are available under **Manuals** in the game folder.

The simplest way to access that folder is by selecting Settings from the main menu and clicking on Tools and then Manuals, although this is only possible when the game is running in **Windowed** mode (not **Full Screen**: see **10.1 Graphics Settings**). Many but not all manuals are available in several languages, so under **Manuals** is a set of folders, one for each language. The most complete set of manuals is available in English:

DE   German
EN   English
ES   Spanish
FR   French
IT   Italian
PL   Polish
RU   Russian

For another way to find the manuals folder:

- Bring up the Steam Client and select the LIBRARY view

- Right-click on **Train Simulator 2014** name under Games and select Properties.

- Select the tab LOCAL FILES and click on BROWSE LOCAL FILES to bring up Windows Explorer

- Open the **Manuals** folder.

Manuals describing routes often include details about or specific instructions for driving locomotives that are included with those routes. For example:

Route	Locomotives described
London Faversham High Speed	Class 395 EMU, Class 375 'Electrostar' EMU.
Hamburg Hannover	DBAG Class 101, DBAG Class 294
Donner Pass Southern Pacific	SW1500 Yard Switcher, GP9 Road Switcher, SD40-2, SD40T-2 and C44-9W.

Some routes also include important additional information about driving on that route, for example regarding signage, signalling, and safety conventions. Examples from the routes listed above:

Route	Information
London Faversham High Speed	Train destination codes, TVM operation, signal aspects, safety systems.
Hamburg Hannover	AFB power control, LZB and PZB signal operation, SIFA, signal aspects.
Donner Pass Southern Pacific	Description of US Searchlight signals.

You are encouraged to familiarise yourself with this information to get the best out of the scenarios included with the routes.

3.12 Community

There is a thriving community of people using Train Simulator, and they congregate in a number of online forums. These:

- Provide information, encouragement and support in using the simulator;

- Background on railway practice and aspects of realism;

- Downloads of scenarios, routes and models for you to use;

The official RailSimulator.com websites are:

www.railsimulator.com

> RailSimulator.com home and Train Simulator product page, including company information, links to the Steam store, product support, and press coverage.

www.engine-driver.com

> Articles and additional information covering the use of the simulator, creating scenarios and routes, railway history and other topics.

www.facebook.com/railsimulator

> Announcements, comment and competitions connected with Train Simulator products.

www.twitter.com/railsimulator

> Announcements and chatter about Train Simulator.

There are also many other third party websites whose users provide significant though unofficial support as well as downloads of routes, scenarios and new models. A search for Rail Simulator Forum in your favourite search engine should find them.

4   Driving Scenarios

Driving trains in TS2014 is achieved using scenarios, which are accessed from the Drive screen . This section describes scenarios, the Drive screen, and how to set up a custom scenario using Quick Drive.

4.1   Scenarios

Gameplay sessions in TS2014 take the form of scenarios, which are normally based on some real-life situation that the driver must work through. A scenario will start with trains and other rolling stock placed on the track. The train driver must then drive the train to achieve the goal. A common scenario is to drive the train from one place to another to a specific timetable.

There are several types of scenario, as described in the following sections.

4.1.1   Free Roam Scenarios

In this type of scenario, there is no goal, and no required objectives (such as meeting a timetable or picking up passengers). There are no AI trains (other trains run by the software with

which you can interact) on the route in this mode. You can drop off and collect rolling stock from your train, and (if provided) you can select one of several locomotives within the scenario to drive.

Having selected a Free Roam scenario, click on a train in the scene and start driving. Note that some trains in the scenario may be located out of your immediate view. You can use the 2D Map view (**3.8 The 2D Map View**) to locate them.

All junctions in Free Roam are manual and need to be set by the player to achieve the desired path. Press G to switch the junction ahead or Shift+G to change the junction behind. Alternatively use the 2D Map and click on the desired points. As there is no goal in Free Roam mode, you can exit at any time by selecting the **Quit** icon in the **Pause** menu, or by pressing Ctrl+Q on the keyboard.

It is easy to create your own free roam scenarios using the **Build** tools, and you can also clone and modify existing ones to suit your needs better (for example, adding different carriages, or changing locomotives).

Pros: Ultimate freedom; Simple to create; Get to know a train or route.
Cons: No interaction; Limited challenge.

4.1.2   Standard Scenarios

Standard Scenarios are focused on a specific assignment, and set a goal to achieve by accomplishing various objectives along the way. Objectives could include stopping to pick up passengers, deliver freight, or meeting a timetable. Scenarios are often timed, and your success at completing a scenario is measured against achieving the required objectives and completing them within the time allowed. Standard scenarios automatically finish when the goal is completed.

You can create your own standard scenarios using the **Build** tools, and you can also copy (**Clone**) and modify existing ones to suit your needs better (for example, adding preferred carriages, moving locomotives), although there are some limitations.

Pros: Challenging to complete; Short & Long Duration; No nagging!
Cons: No Career points; Limited flexibility.

4.1.3   Career Scenarios

Career Mode Scenarios extend Standard Scenarios to include a scoring system so you get feedback on your driving performance and can compare your skills with others.

Your performance is monitored as you go, and any warnings will appear in the area of the HUD above the Scenario information as shown below. TS2014 calculates your score based on a range of factors including: adherence to speed limits, passenger comfort, timeliness, and fuel efficiency. Each one uses a balance of factors depending on the situation.
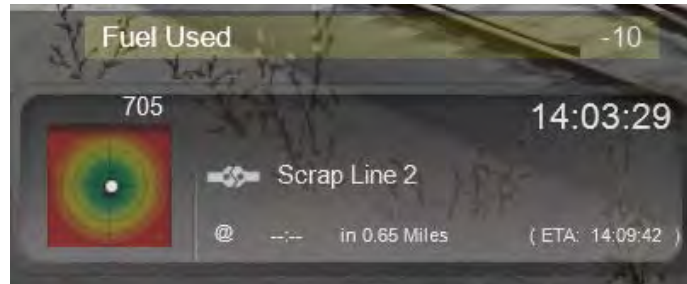
You also accumulate career points as well as earning various achievement awards, which are made visible through Steam, allowing you to compare your performance with friends and the rest of the TS2014 community. Your career achievements can be seen on the Career page (from the main menu), and in the Steam Client page for TS2014. Career mode scenarios automatically terminate once the main goal is completed.

You can create Career Scenarios using the Build tools although they are the hardest to create, and you can also clone and modify existing ones to suit your needs better (for example, adding preferred carriages, moving locomotives).

➢ Self or third party-built career mode scenarios do not affect your Steam career points.

Pros: Gain Career points & Achievements; Challenging to complete; Long Duration
Cons: Long Duration; "Big Brother" is watching.

4.1.4   Quick Drive Scenarios

Quick Drive scenarios enable you to select a route, a locomotive, a start and end point, and the conditions in which you want to drive. Like Standard scenarios, they are not part of the Career system. Quick Drives continue for a short time after the destination is reached, and the goal will always be "Drive to …". Within a Quick Drive there can be other trains moving around on other tracks.

Quick Drive scenarios themselves are created each time you run one. However, they do require predefined consist setups associated with the locomotives, and these can be made using the Consist Editor.

Pros: Any train on Any route; Easy setup; Quicker to play; Drive "odd" combinations
Cons: Limited interaction; Limited challenges;

4.2　Scenario Availability

The scenarios you have available to play depend on three things:

Which routes you have installed. Most routes come with several scenarios already available to use on that route, though usually only for the stock included with that route.

Which additional rolling stock you have. Most items of rolling stock – usually locomotives – are packaged with some additional scenarios. They are likely to be set in one of the routes on which the locomotive was most commonly used.

Which scenarios you have downloaded or built yourself. Sources include the Steam Workshop and the various freeware forums. There are a very large number of scenarios available to play from these sources.

It needs to be noted that although TS2014 can be used to create Career mode scenarios, **only unmodified Career mode scenarios distributed through commercial Steam products count towards your Experience points**. Other scenarios are, however, monitored and do have a ranking table.

The net effect of this is that only "official" scenarios are counted towards your "grand total" point score, but you can still check yourself against your peers on scenarios devised by others.

4.3　The Drive Screen

You choose a scenario by first selecting the scenario type from the **Drive** screen, which has buttons that select the different types:

Career Scenarios　　Access the Career scenarios available for every game route you have installed.

Quick Drive　　Access the Quick Drive feature to select a route, locomotive, location, time, and weather of your own choosing.

Tutorials　　Access the scenarios specifically marked as Tutorials for every game route you have installed. Tutorial scenarios are normally Career scenarios and have additional instructions and a goal suitable for learning about some aspect of a route or locomotive.

Standard Scenarios　　Access the Standard scenarios available for every game route you have installed.

Free Roam Scenarios　　Access the Free Roam scenarios to enable you to familiarise yourself with a route.

Resume   Only enabled if you have saved your position in a previous drive using the F2 key (or equivalent). Select this to reload from that save point. You can only have one save point for each scenario at a time.
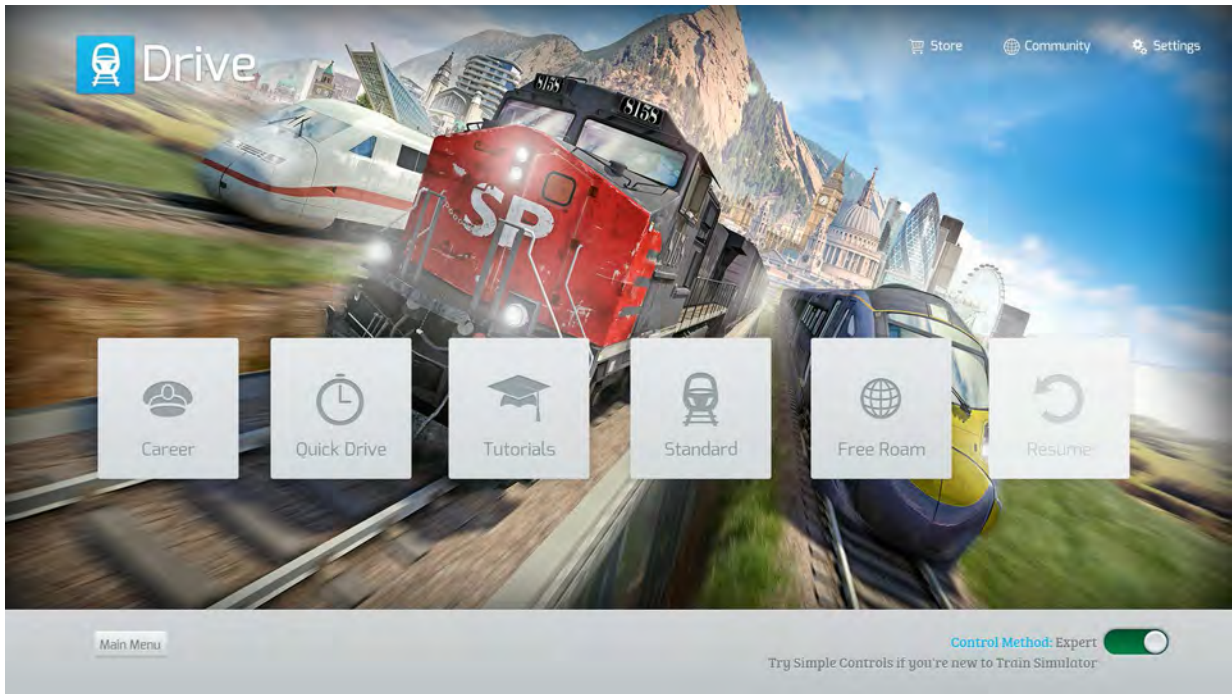

At the bottom of the screen is a toggle button which selects from **Simple** or **Expert** driving mode. Changing this button is the same as changing the setting under **Gameplay Settings** (see **10.2 Gameplay Settings**). If set to **Simple,** Career mode scenarios will not credit experience points or achievements, because all players need to be scored using the same control mechanism.

➢ Some locomotives are not compatible with **Simple** mode operation.

4.4   Running Scenarios

4.4.1   Selecting a Scenario

The scenario screens filter the available scenarios by type (Career, Standard, Free Roam or Tutorial) but all follow the same pattern, shown below:
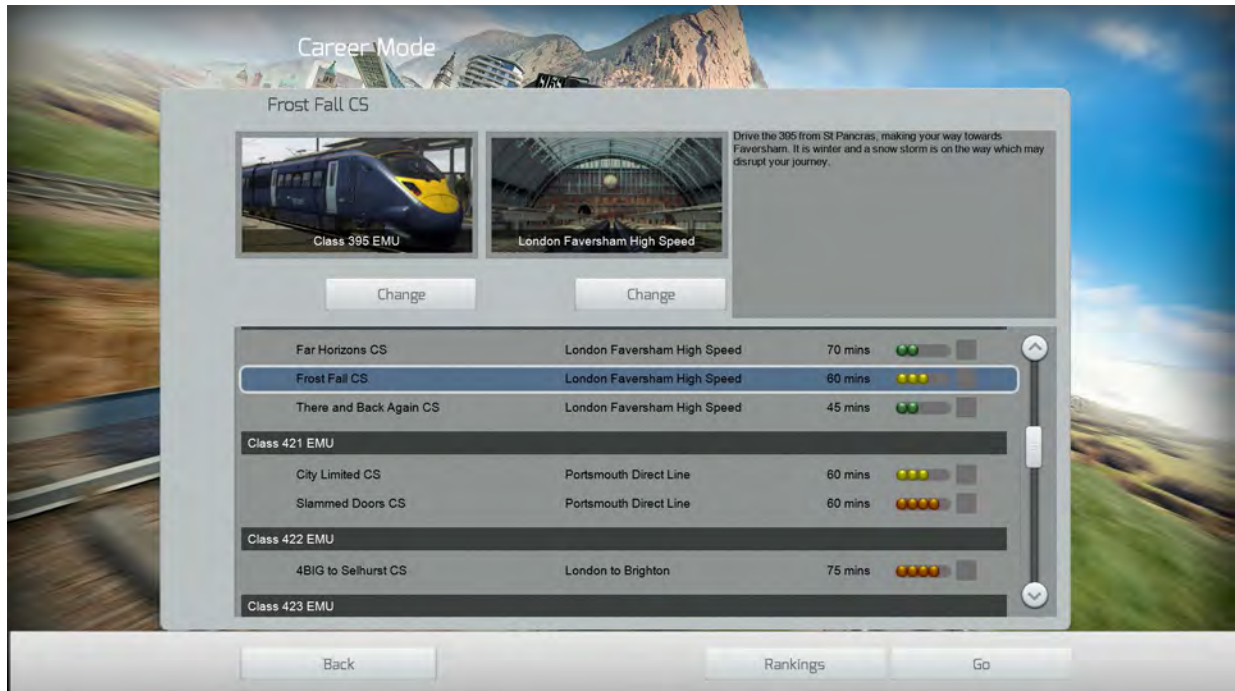
At the top of the screen is the name of the currently highlighted scenario, and underneath it are the thumbnails for the locomotive and the route used on that scenario. To the right hand side is a short description of the scenario – usually describing where you start and what the goal is.

Underneath those is a list of scenarios. Initially this list will show the scenarios for the combination of loco and route shown, but you can scroll the list to see others. Also, you can click on the locomotive or route picture at the top:

- If you click on a locomotive, the scenario list is grouped by locomotive type;

- If you click on a route, the scenario list is grouped by route.

The three different scenario screens each retain their own selection type (loco or route).

When you select one of the **Change** buttons, the **Drive by Route** or **Drive by Train** selection screen is displayed as appropriate. Again, they both follow the same pattern as shown below.
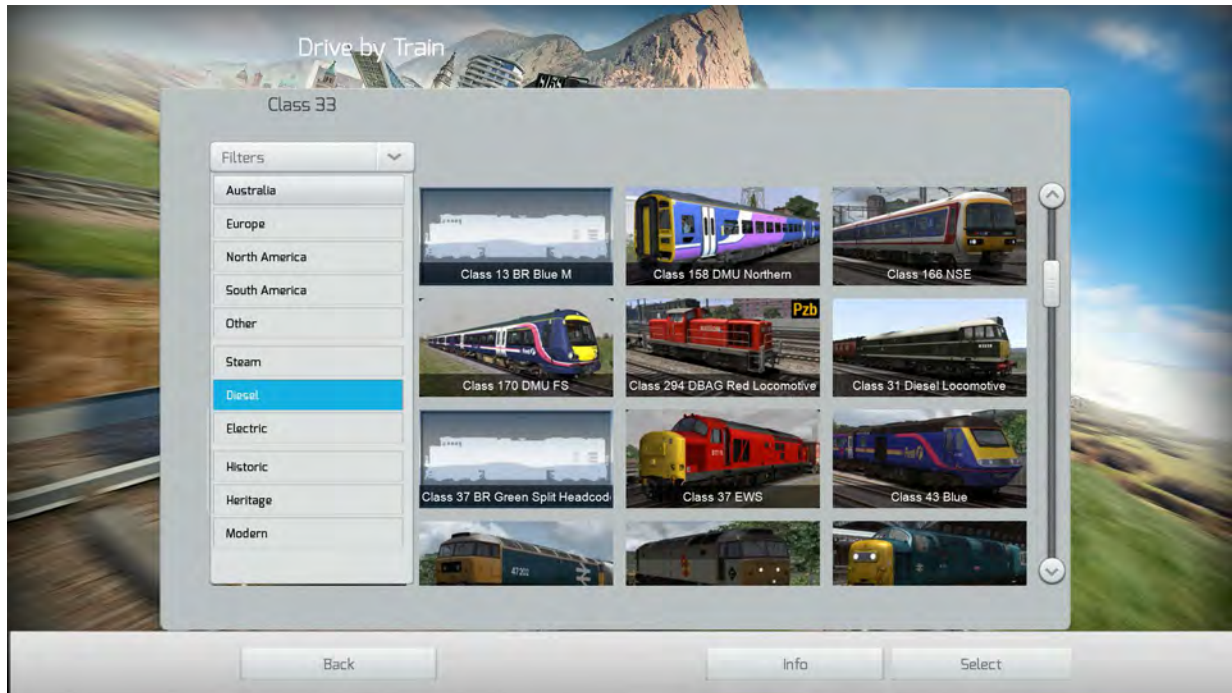
In the screenshot the grey filter selector is shown expanded, but initially it is collapsed. Click on **Filters** to expand and again to collapse. Click on the categories – Europe & Steam, for example – to filter the locomotives in the list to match those features. To unselect a category, click on its name again.

Locomotives or routes whose image is a white silhouette, as is true for the Class 13 BR Blue M in the sceeenshot, can be played, but the game could not find a suitable thumbnail image for them. For trains, the silhouette indicates the general type (diesel, electric, steam) of the train.

➢ There can be trains (or routes) hidden behind the **Filters** list. Collapse it to see them!

If you select something and click on the **Info** button (at the bottom of the screen), an overlay is displayed with more information about it. Click again on **Info** to remove this overlay.

Click on **Select** to select the train or route and return to the Scenario menu.

Click on **Back** to return to the scenario menu without changing the earlier selection.

4.4.2   The Scenario List

For each scenario, the following is displayed in the list:

- The Scenario's Name;

- The route the scenario runs on (if grouped by loco), or the player locomotive the scenario uses (if grouped by route);

- The expected time to complete it. For career scenarios you should note this: late completion is penalised. For standard scenarios it is only a guide, and for free roam the time spent is entirely up to you;

- The difficulty level: the number of dots and the colour change to indicate increasing difficulty: ;

- A Checkbox which is ticked if you have already completed the scenario. You can play a Career scenario again to improve your performance: if, on a subsequent attempt you can improve your score, your new points total for that scenario will replace the earlier one, and you will be credited the difference towards your experience points.

At the bottom of the screen is the **Rankings** button. Clicking this shows the rankings for those Steam users who have completed the scenario before you.

4.4.3   Selecting a Scenario

To select a scenario, either:

- Use the **Change** button under the locomotive picture to select an alternative locomotive.

- Use the **Change** button under the route picture to select an alternative route.

- Scroll the list at the bottom, using the scrollbar, mouse wheel, the keyboard up/down arrow keys, or the arrow pad on the controller, to view the other available scenarios.
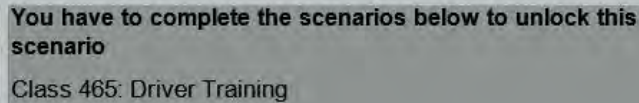
When you see a scenario that you wish to play, click on its name to select it (highlight in blue/white) and then click on the Go key (A button).

4.4.4   Locked Scenarios

Some Career and Standard mode scenarios are Locked, signified by the red padlock icon at the side. This means you cannot play them (yet):
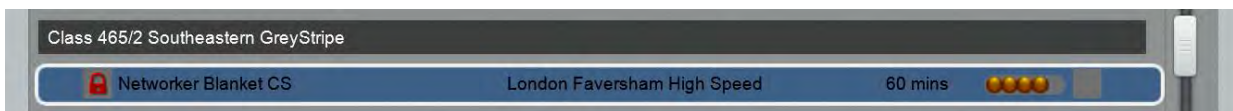
These scenarios require that you have successfully completed another before you can play it. If you attempt to select the scenario, the description will tell you which scenario you have to complete to unlock it:

You have to complete the scenarios below to unlock this scenario

Class 465: Driver Training

4.4.5   Playing the Scenario

To play the selected scenario, click on **Go** (**A** on the controller). The scenario will load, which may take some time depending on the route's size, and then you will be presented with instructions on what to do.

4.4.6   Chained Scenarios

In TS2014 it is possible for one scenario to automatically "chain" or link to another. So that when you complete the first part, the second part is loaded. This is an automatic process but involves a loading phase.

4.4.7   Resuming a Saved Scenario

The **Resume** button at the right of the **Drive** screen is used to resume the last a scenario you saved. The name of the scenario is displayed at the bottom of the screen when you hover your mouse over the button (or move focus to the button, if using the controller).

You save your position in a scenario using the **Save** option on the **Pause** menu, or the F2 key on the keyboard. Only one saved run is possible for each scenario.

4.5   Quick Drive Screen

Quick Drive provides a great way of exploring routes in different ways. Simply pick your train, your route (including start and end points), the environment and then start driving. For an extra challenge, use the **Random** option to be given a new set of conditions.
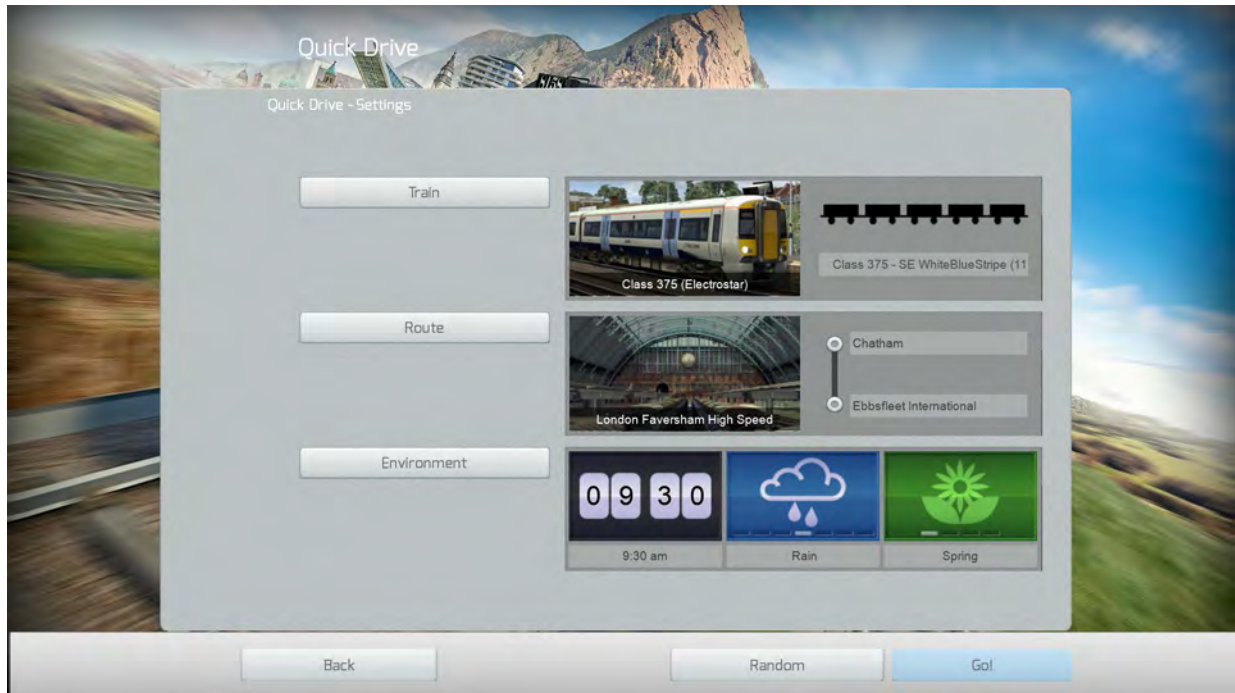
Select **Train** here to select a different train, or **Route** to select a different route to those shown, or **Random** to ask the game to select a new combination for you.

1. You can click **Go!** at any time on this screen to drive using the indicated selection. The following instructions explain how to change the selected train, route, and environment.

2. Clicking on **Train** shows the **Quick Drive - Select Loco** screen. On the top left, the **Filters** button can be clicked to drop down buttons that if clicked show only locos matching that type.
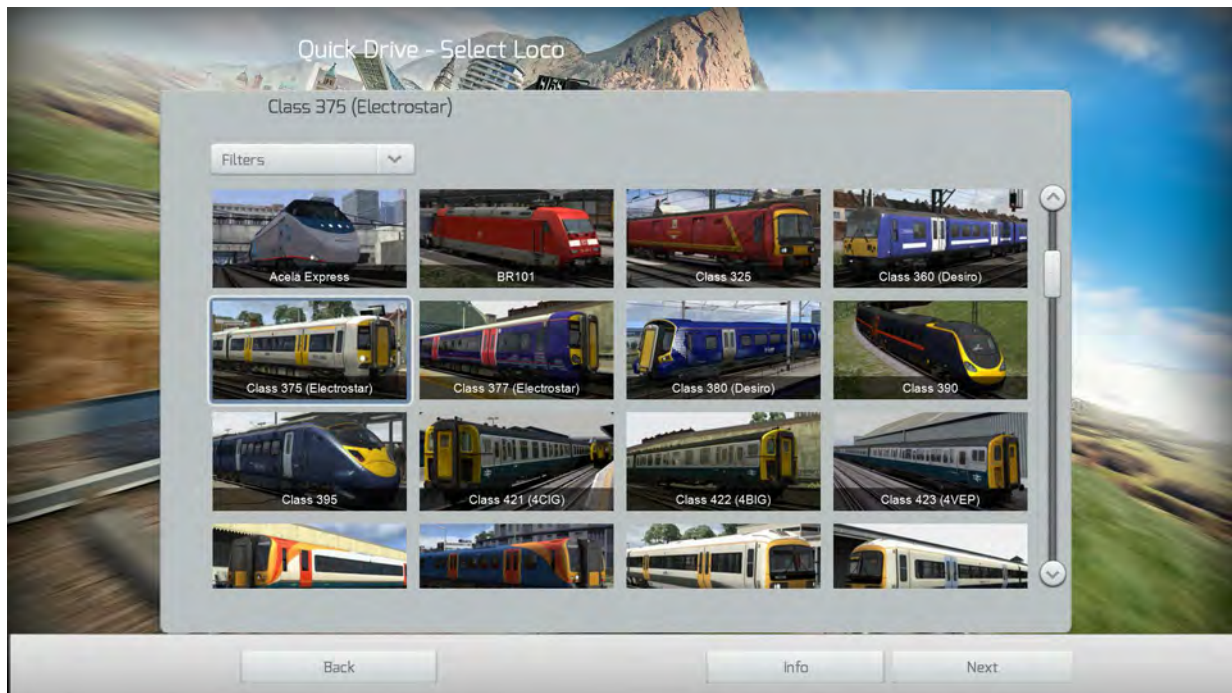
3. Click on the loco you want to drive. It will be outlined with a white line (as shown for the Class 375 Electrostar, centre left).

4. (You can click on the **Info** button to show more about the loco you have chosen).

5. Click on **Next**. The **Quick Drive - Select Consist** screen is shown:
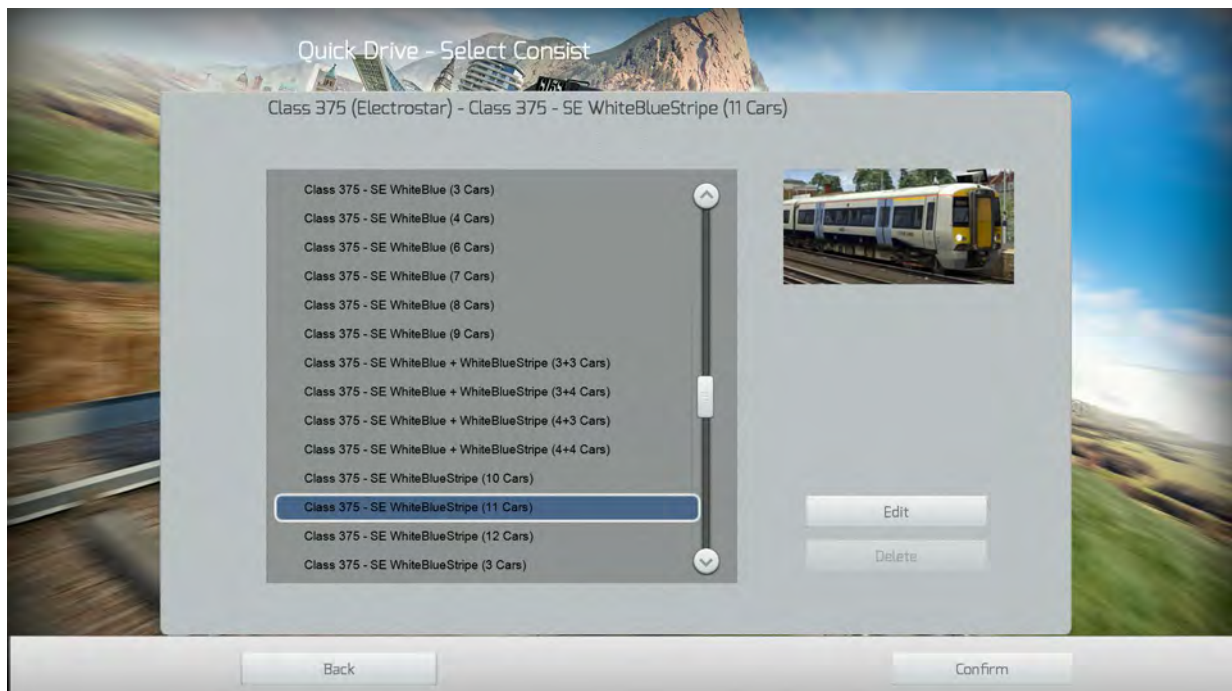
A Consist is an arrangement of rolling stock, and this screen shows the consists that include the locomotive you have selected.

6. Click on the name of the consist that you wish to drive now.

7. (You can also select a consist, then click **Edit** to load it into the Consist Editor, to create a new consist based on an existing one. See **9.3 Custom Consists for Quick Drive** for more information).

8. Click on **Confirm**. You will return to the main **Quick Drive** screen showing your new selection.

9. Click on **Route** to show the **Quick Drive - Select Route** screen, which is similar to this:
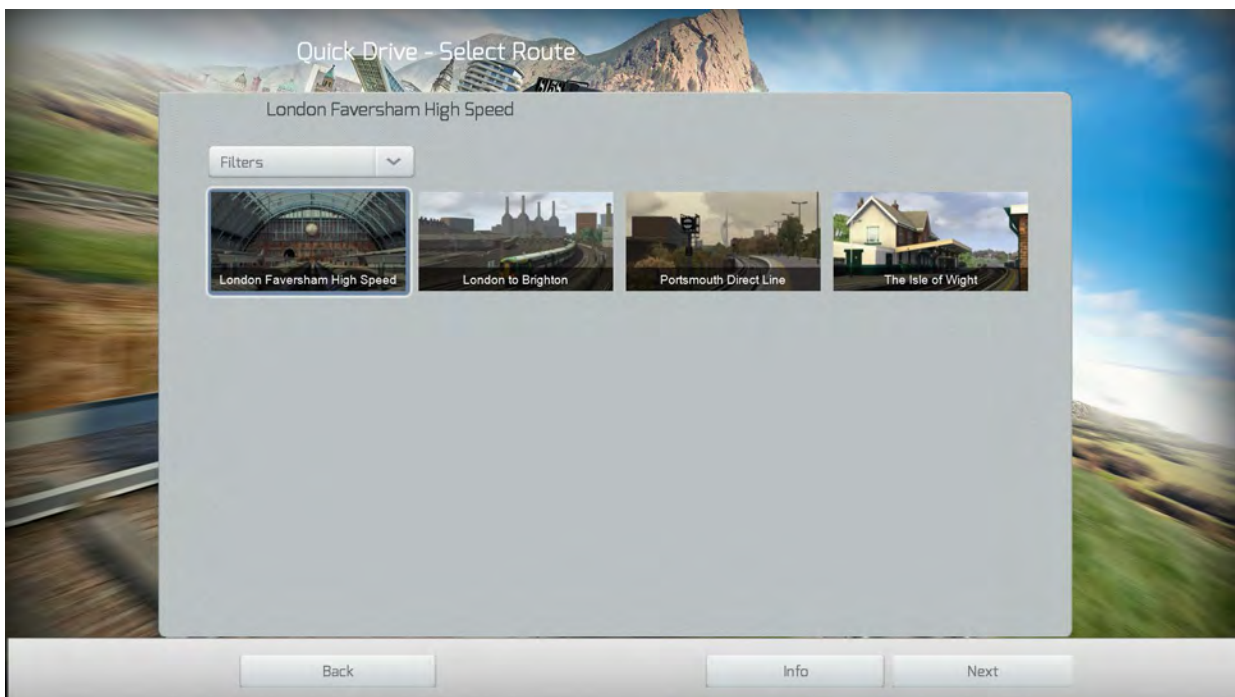
10. Click on the route you want to drive your train in. It will be outlined with a white line (as shown for London to Faversham High Speed in the example above).

11. You can click on **Info** to show more information about the route you have chosen.

12. Click on **Next**. The **Quick Drive - Start and Destination** screen is shown:
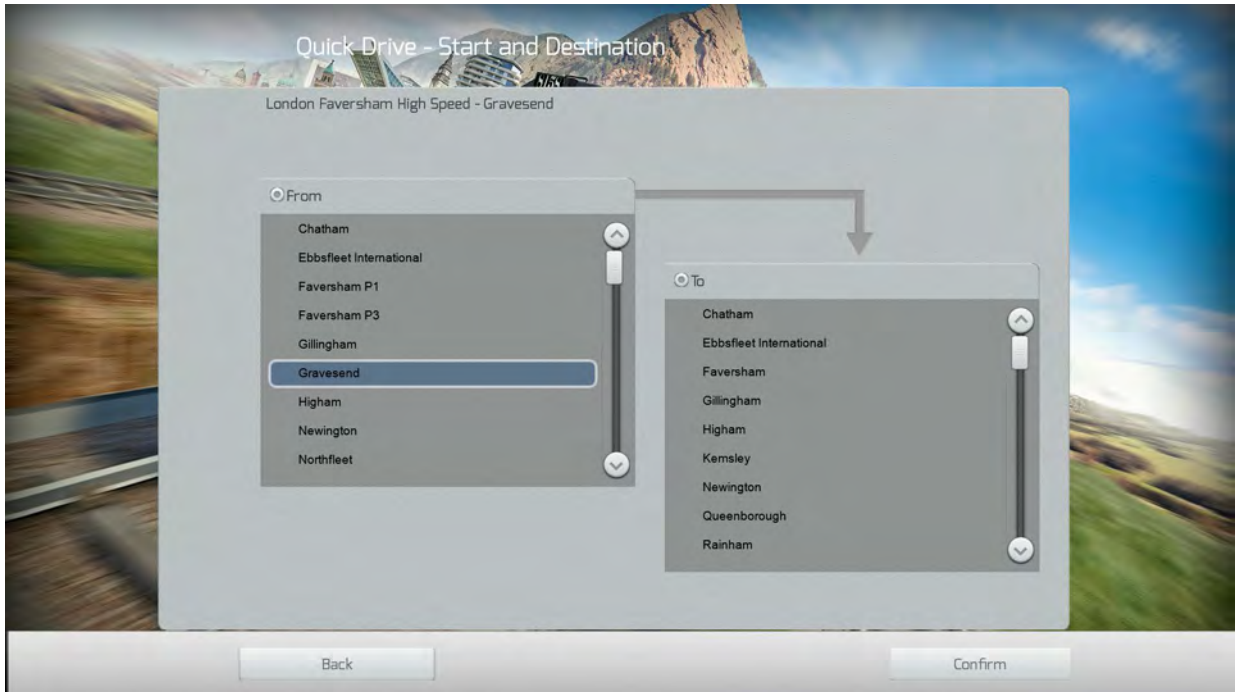
13. Notice that near the top is the name of the route you have chosen. In the **From** column select the name of the station on that route you will start at.

14. (Optionally, click on **Confirm**.)

15. In the **To** column select the name of the station to finish at. Only stations reachable from the start will be displayed in the **To** list.

16. Click on **Confirm**. You will return to the main **Quick Drive** screen.

17. Clicking on **Environment** shows the **Quick Drive - Environment** screen:
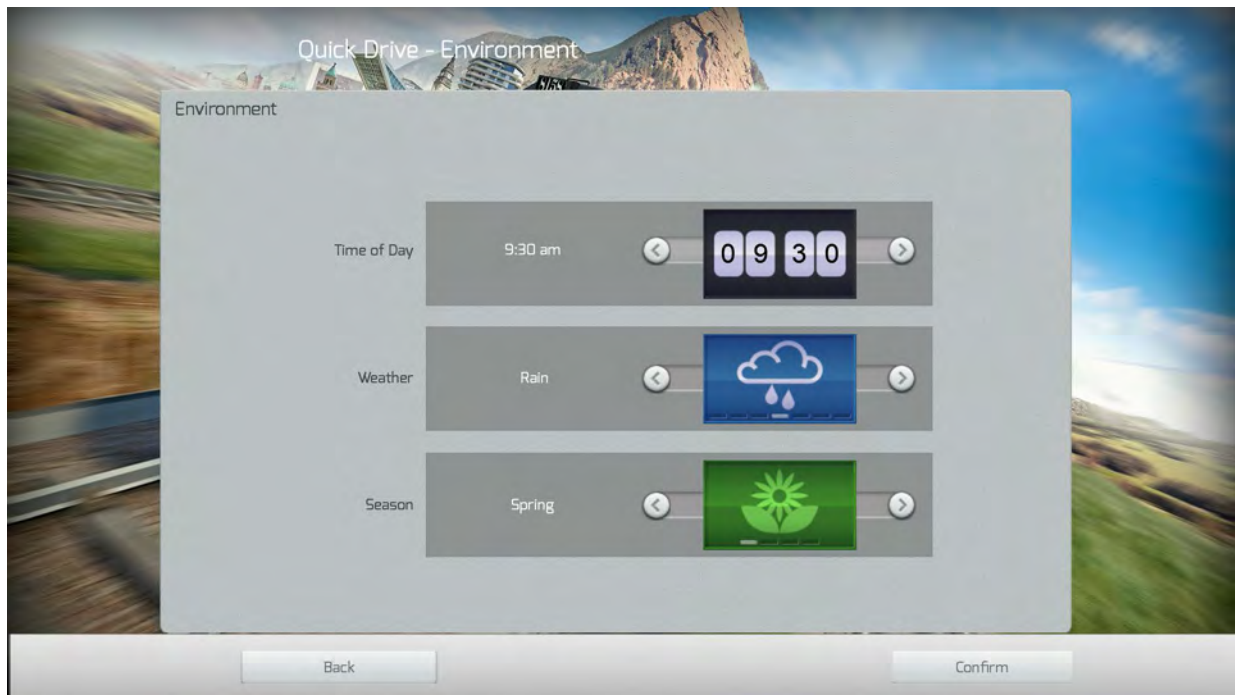
18. Use the controls to select the time of day, weather and season you wish to drive.

- Changes to **Time of Day** affect light and the path of the sun and moon in the sky;

- Changes to **Weather** affect clouds in the sky, and the chance of snow or rain;

- Changes to the **Season** affect the appearance of plants and the landscape.

19. Click on **Confirm**. You will return to the main **Quick Drive** screen.

20. Click **Go!** to drive using this selection.

21. The game will load. It may take a minute or two depending on the size of the route.

➢ There is an increased chance of wheelslip in wet conditions.

4.6   Driving Control Methods

TS2014 lets you control the Train in four ways:

Driving Interface   The Driving interface, also known as the Head Up Display (HUD), is a set of mouse buttons and levers that overlay on the 3D view. It is visible by default when you start TS2014.

PC Mouse   You can use the mouse to move controls in the cab of the train. This mode requires that you use cab view (press 1 to select cab view).

PC Keyboard   Most controls have a keyboard key assigned to them, so you can use a PC keyboard.

Xbox 360 Controller   You can use an USB Xbox 360 Controller pad. See **6 Game Controller** for the key mappings. Some people prefer this as the controls are available in a small unit. (TS2014 is compatible with Steam's Big Picture).

An option for those not controlling the train using the HUD is to display a Mini-HUD which only includes the informational displays from the normal version.

If you wish to use the mouse to manipulate the train controls in the cab, first switch to the cab view (see **4.14 Changing Your Point of View**) and then left-click on the control, and, holding down the left mouse button, drag the control in the direction in which you wish to manipulate it. Look at the locomotive-specific information in the Driver Manual for details of the in-cab controls. Controls which can be manipulated have tooltips associated with them. Tooltips on controls can be enabled or disabled using **User Hints** setting under **Gameplay Settings**.

If you do not wish to see the Driving Interface displayed, use the F4 key. This will cycle between the full display, a minimal display and none at all.

The Pause Menu (see **3.10 Pausing and Quitting TS2014**) has an **Options** panel with settings for:

No HUD   Nothing is displayed. You must use the keyboard or XBox controller to control the game, whatever dials and displays the Cab View provides from the real locomotive, and your own knowledge of the route being travelled and its signaling.

Minimal HUD   A cut-down version of the HUD is displayed, with no locomotive controls but with the route indication diagram, the current speed and other information.

Full HUD   The only HUD which you can control the train with, this is also the default setting. You can still control the train using the Cab controls if you wish. The controls present on a Full HUD depend on the game mode (Simple or Expert) and the type of locomotive (Steam, Diesel, Electric).

➤ You can also select the HUD using the Xbox 360 controller's left joystick, and the F4 key.

4.7   The Head Up Display (HUD)

In the lower part of the screen you will see the Head Up Display (HUD). This is a combined information and control panel that enables you to control the train you are driving. This section describes all the variations you can select or encounter, but it is suggested that you get to know the game using the default setting of the Full HUD.

The following illustration breaks the HUD into parts:
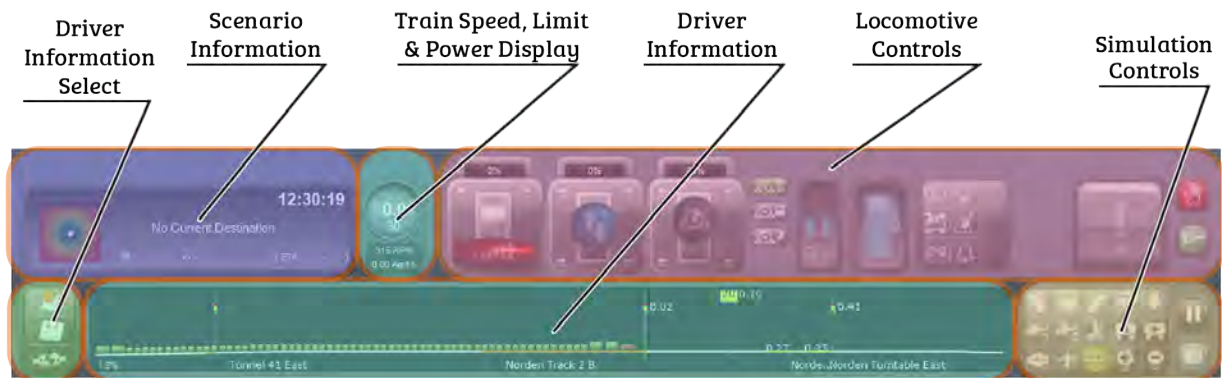
Scenario Information 4.8 Information Displays	Information about the next place to stop, the current time and the passenger comfort level.
Train Speed 4.8 Information Displays	Train speed, track speed limit, and current locomotive power output.
Driver Information Select 4.9 Track Displays.	Shows either the track ahead display or the coupling display, in the Driver Information area; the centre button shows the scenario tasks.
Driver Information 4.9 Track Displays.	Either the track ahead or the train coupling display.

Locomotive Controls	Controls and information for your locomotive.
4.10 Traction Controls	
4.13 Other Locomotive Controls	
Simulation Controls	Mostly controls for the simulation view point, also the pause and snapshot buttons.
4.14 Changing Your Point of View	
4.15 Simulation Controls	

4.8   Information Displays

On the left hand side of the HUD are a group of information displays, as follows:

Current speed, with the current speed limit immediately below. Units are either kph or mph, depending on the route's country.

The area underneath the speed is used by some locomotive models to report generated electric current and engine revolutions, and is otherwise blank.
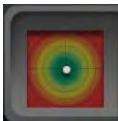
The coloured circles show force on the passengers: the white dot moves up when slowing, down when speeding up, and sideways when cornering. Extremes of movement are translated into a lack of comfort level score in career scenarios.
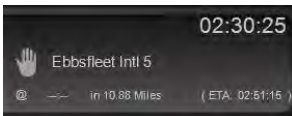
The current time of day in the simulator, and some task information:

- the name of the next stopping point
- the distance to the stop
- the booked time of arrival
- the estimated time of arrival (ETA).

Free Roam scenarios only display the current time here as there is no scenario task to perform.

4.9   Track Displays

TS2014 gives you access to a range of other information:

Button	Key Equivalent	Action
	9	**Display 2D map**.
	F1	**Display Task Information**.
		Display Coupling view (locomotives, wagons, coaches).
	F3	**Toggle Minimal HUD**. This toggles the Driver's overlay between Off and the minimal HUD.
	F4	**Toggle Full HUD**. This toggles the Driver's overlay between Off and the full HUD.
	F5	**Engine information**. Show detailed technical information about the locomotive. It is only available if the HUD is Off.
	F6	**Display labels**. As you drive your train, names of trains and locations relevant to the current scenario appear on screen. These labels are valuable for identifying locations, other trains, and vehicle numbers used in the scenario. Press the the key again to turn off the display.
	F7	**Display engine and wagon numbers**. This displays the engine and wagon numbers relevant to current display. That this option is only available if Display Labels (above) is already selected.

4.9.1   Track Ahead Display

The display at the bottom of the Driving Interface gives you the key information necessary to drive a train. Use this information to anticipate the track ahead and plan accordingly:
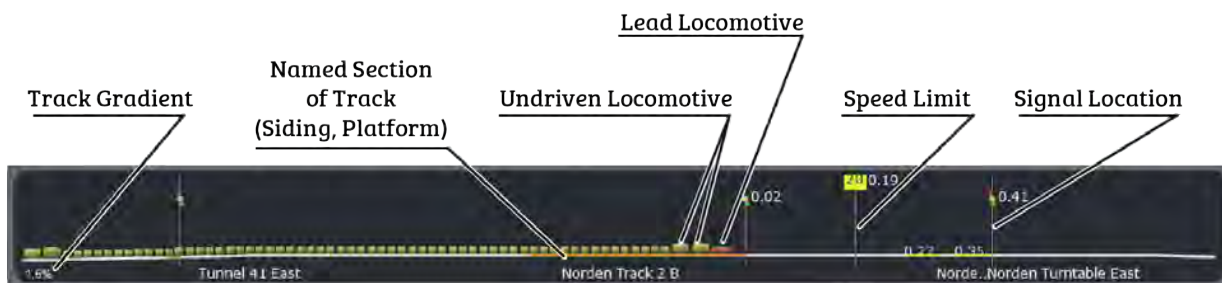
The bottom part shows the incline and the wagons or carriages that make up the train. The upcoming signals and speed limits are shown in digits and proportionally. Coloured sections on the white track line indicate marked track, with the marker name below. The colours normally used are:

■	Yellow	A siding, normally used for storage or transfer.
■	Green	A passenger platform.
■	Orange	A "destination". Destinations are just points of reference for the scenario, for example a "Go Via" instruction.

(However some routes redefine these colours).

The overall scale – and the size of the blobs representing the train – changes with speed so the longer the train, and the faster you go, the further ahead you can "see" in the display. Small blobs are also used for a very long train, so the more of the train fits on the display.

4.9.2 Train Coupling and Brake Display

When performing shunting operations, it can be convenient to switch to the coupling view to enable you to couple and uncouple rolling stock. In real life this would often be performed by shunter engineers (people) – or perhaps by the driver – manipulating the coupling mechanism.

The coupling view replaces the normal "track ahead" view with the current train consist in the HUD. It can be accessed using the keyboard or mouse:

Display Coupling view (locomotives, wagons, coaches).

What you see in coupling view depends on the current train consist. The view below shows a long consist – longer than the view can accommodate, so there is a scrollbar at the bottom of the view. The primary locomotive is always highlighted in red at the right hand end of the consist.

You can see that the symbol: is shown below some of the items. This is the manual handbrake control. Click on it to engage the handbrake, and it changes to . Click again and it is released.

Between the stock is another symbol, representing the coupler itself.: . When the stock is not moving you can click on this to uncouple the train at that point. The display will change to show only the stock still coupled to the locomotive.

You can attach (or reattach) stock to your train by reversing the locomotive very slightly back onto the stock. The view will change to something like this:
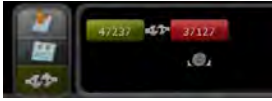
Note the coupler between the locomotive (in red) and the other item of stock has a gap in it. Clicking on a coupler in this state will make the coupling and the consist will be formed.

If you are using Automatic Coupling, a setting in the Gameplay Settings, reversing onto stock in this way will cause the stock to be coupled to your train without any further action.

4.10 Traction Controls

This section describes the controls used to move and stop the locomotive. Later sections include the other controls, for example wipers, horn and lights.

4.10.1   The Minimal HUD

Use the minimal HUD if you wish to use the in-cab controls, keyboard, or the Xbox 360 controller without the visual feedback that the full HUD provides.

You can switch to the Minimal HUD using the keyboard key F4, or the Pause menu Options dialog, or the left-right axis on the XBox controller's left joystick. It looks like this:
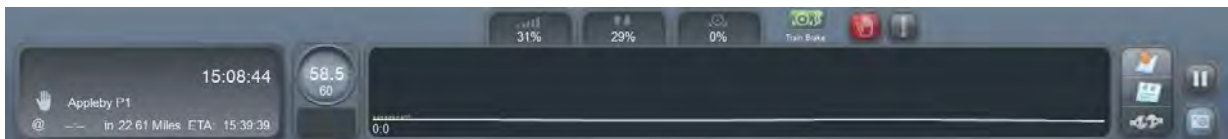
The minimal HUD only shows the route data and some train state information, but almost none of the train's controls. As for the full HUD, there is variation between the appearance for steam, diesel and electric locomotives - the one shown above is for a steam locomotive.

4.10.2   The Simple Driving mode HUD Controls

The Simple HUD looks like this on a Diesel locomotive. An Electric locomotive would not have a Fuel bar, and a Steam locomotive would have 5 bars (Fire mass, Brake pressure, Boiler level, Coal, Water) in the same style.

Acceleration and Braking · Direction · Fuel · Emergency Brake

The Simple HUD combines the throttle and brake control and this is shown as a single control. Drag the slider to the top to apply power and to the bottom to apply braking.

The direction change button. Click to change the train's direction of travel.

The Fuel gauge, absent on Electric locomotives, tells you how much fuel is left. The train stops when you run out.

The Emergency Brake stops the train as quickly as the real train can do so: it is not immediate.

4.10.3   Expert Mode Full HUD: Overview

Different types of locomotive have different controls on the Full HUD. This is what it looks like for a Diesel Loco:

Power · Direction · Brake Lever · Brake Type · Brakes · Fuel · Driver Vigilance · Engine Start
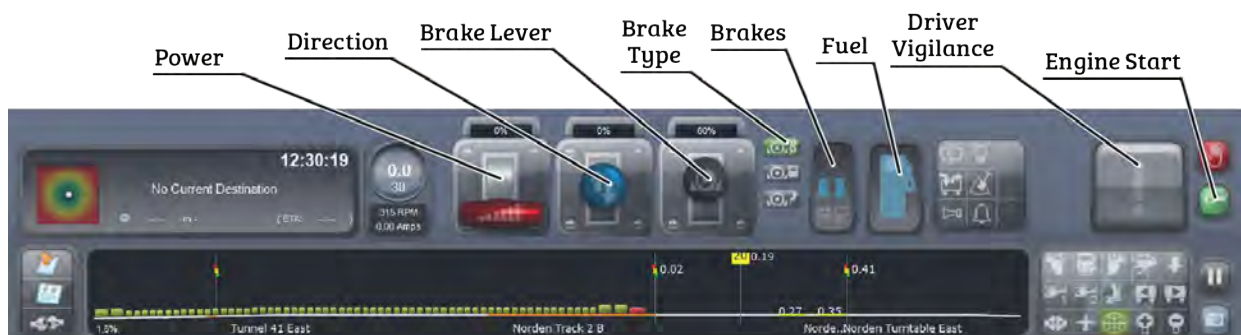
And this is for an Electric Loco. Note that the power button now combines acceleration and braking and the brake control is therefore disabled:
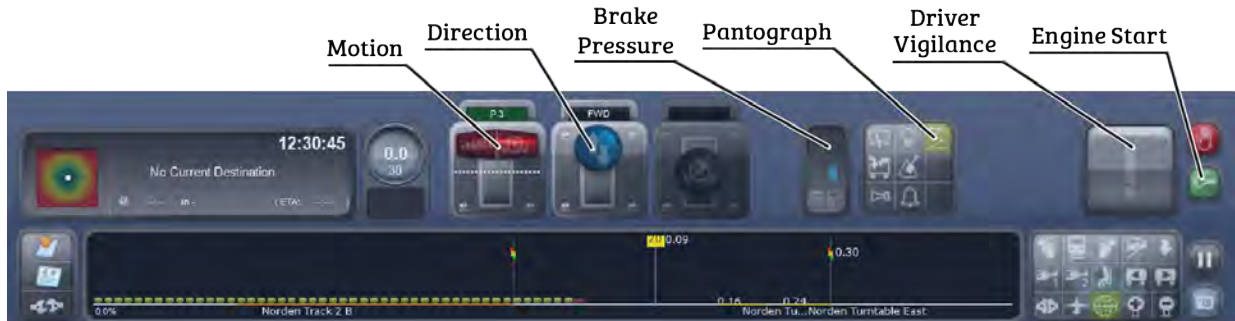
And this is for a Steam Loco:
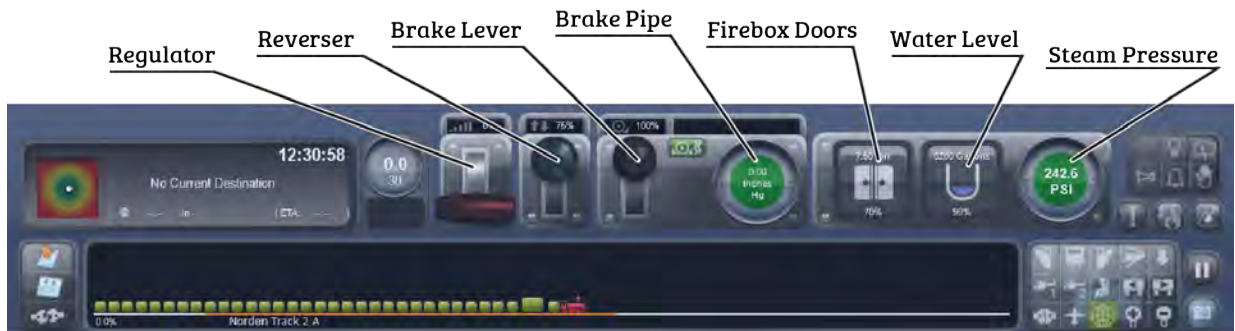
4.10.4   Expert Driving Mode HUD Controls for Diesel and Electric Trains

The driving controls are (left to right):

Throttle   Controls the power available from the locomotive engine for acceleration.

Reverser   Selects forward or reverse gear. Direction is relative to the cab the driver is in.

Brake   Train brake control.

Brake Selector	Selects which of the brake types the brake lever relates to (see below). For trains with multiple brake systems, several different brakes can be active at the same time.

Depending on the locomotive, there can be three types of brake selectable (top to bottom):

Train brake	Brakes on the carriages and wagons attached to the locomotive using vacuum or air pipes or electrical systems.
Locomotive brake	Brakes on the locomotive wheels.
Dynamic brake	Braking effect applied by making the wheels turn a motor (for example an alternator, and often called regenerative braking) or by connecting a large flywheel to the wheels.

Note: Some locomotives combine the throttle and brake control and this is shown as a single control. Drag the slider to the top to apply power and to the bottom to apply braking

This shows, left to right:

- Brake cylinder pressure
- Brake pipe pressure.

4.10.5   Expert Driving Controls for Steam Trains

Steam trains require careful use of a range of controls. TS2014 provides the option of an Automatic Fireman to allow you to focus on driving the locomotive. Beginners are strongly recommended to make use of this option (check the **Automatic Fireman** option on the **Gameplay Settings**).

Steam trains have a slightly different set of controls and so if you have any of this type of train, you will see the following.

Brake lever and pressure display. The gauge shows the brake pipe pressure, which is the force on the brake shoes. Use the buttons in the centre to switch between train (if present) and locomotive brake systems.

Blower: on/off control. The blower is used to strengthen the fire when there is no steam exhaust to assist it.

Real life steam trains have a host of interacting elements, of which TS2014 provides a simplified view in the HUD:

The Firebox control shows the weight of fuel and percentage full. The ideal weight is not 100% and is often 70%. Click on the control to open the doors for the fireman to shovel more coal in. Click again to close.
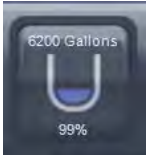
The Water control shows the current amount of water in the boiler and its percentage full. Click on the control to open the injectors to add more. Click again to shut off the injector.

Letting the boiler go empty causes the locomotive to fail.

The two controls are important to keep the locomotive fuelled, but a steam engine driver must also keep an eye on the boiler pressure. The following shows the regulator and reverser levers on the left and the boiler pressure on the right:

The boiler pressure is reduced by the train using steam through the cylinders, and increased by the action of the fire. Most steam locomotives do not have excess steam generation capacity, so driving them well is requires correctly balancing the position of the reverser and regulator levers.

TS2014 makes balancing this easier: keep the boiler pressure gauge showing green – that is, not losing pressure – for as much time as possible. If the pressure gauge is red, the locomotive is using more steam than it can make and so the boiler pressure is falling. This might be appropriate for short periods (e.g. quick hill climbing) but cannot be sustained for long.

The information readout is available for some locomotives, and shows its state:

This shows, left to right:

- Boiler level
- Boiler Pressure
- Fire Mass
- Water level
- Coal level.

4.10.6   Expert Keyboard Controls for Steam Trains

You can control the train to a fine degree using either the keyboard or the in-cab controls (using the mouse). **Do not use these if you are using the HUD controls**.

J	Small ejector on/off
C	Cylinder cocks on or off. The cylinder cocks are valves that enable condensed water to leave the cylinder.
F	Open or close the locomotive fire box, to enable the fireman to shovel coal into it.
Shift **F**	
R	Increase or reduce the rate the fireman shovels coal into the firebox.
Shift **R**	
I	Turn on or off the Live steam injector. This uses steam direct from the boiler to move additional water into the boiler.
K	Increase or reduce the flow of steam to the live injector.
Shift **K**	
O	Turn on/off Exhaust injector. This uses steam waste steam from the cylinders to move additional water into the boiler.
L	Increase or reduce the flow of steam to the exhaust injector.
Shift **L**	
N	Increase or reduce blower. The blower is a fan that increases the air through the fire, making it hotter. It is powered by steam from the boiler. While running, the blower is not often needed because the exhaust steam draws air through the fire as well.
Shift **N**	
M	Increase or reduce the damper. The damper covers an opening in the firebox that allows fresh air into the fire. Closing the damper reduces the air and hence the temperature of the fire.
Shift **M**	
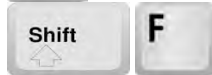
4.11 Simple Mode Driving Controls

When you first install TS2014, the driving controls are set to 'Expert'. You can change to the simple set of driving controls using the Driving Model option on the Gameplay Settings menu or with the toggle at the bottom of the scenario screen.

➢ Not all trains can be driven with simple controls and you cannot play career mode scenarios in this mode.

The driving interface overlay gives you all the route information you need simplifies the complexity of the driving controls. The following simple controls are the most important:

Accelerate. Click on the upper part of the control or left click and drag the control upwards to increase the speed. (This will be achieved through a combination of releasing the brake and applying power.)

Decelerate Click on the lower part of the control or click and drag the control down to decrease the speed. (This will be achieved through a combination of reducing power and applying brakes.)

Reverse direction. Click on the control to change the direction of the locomotive. You should be at a complete stop to do this.

Emergency Brake. Apply emergency brakes. This sets the brakes to 100% and locks the other controls. Once the train has come to a complete stop, the other controls will unlock.
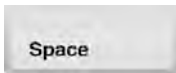
Horn. Sound the horn or whistle.

The information areas of the display and other controls shown are described in the next sections – those that are not available if the Driving Model option Simple Controls is selected are shown as Expert.

4.12 Expert Driving Controls

To experience the full features of the simulation, you must the Expert mode (this is set via the Driving Model option on the Gameplay section of the game Settings menu). All locomotives can then be accessed and career mode scenarios are available.

The expert driving control set is shown as follows:
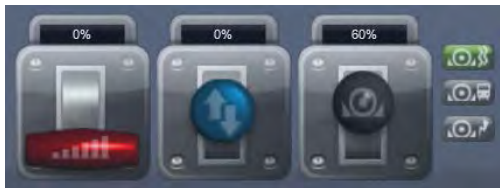
The expert driving control set provides additional flexibility. The key components are (left to right):

- Throttle (Diesel/Electric locomotives) or Regulator (Steam trains)
- Reverser
- Brake

Depending on the locomotive/consist, there are three types of brake selectable (top to bottom): Train brake (highlighted), Locomotive brake and Dynamic brake.

 Many modern locomotives combine the throttle and brake control and this is shown as a single control. They can also use notched levers, hence "P3" in this image.

 A small number of trains also have a Gear control. This is displayed to the left of the Throttle control.

The keyboard equivalents for these functions are:

D A	Decrease or Increase throttle or Steam engine regulator
S W	Forward or Backward for Diesel and Electric, Decrease or Increase Steam engine reverser
: ; " '	Decrease or Increase the Train brake
{ [}]	Decrease or Increase the Locomotive brake
< , > .	Decrease or Increase the Dynamic brake
E	Transmission Gearbox select a higher gear
Shift E	Transmission Gearbox select a lower gear
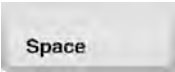
You can also manipulate the in-cab controls – click and hold the relevant control and drag it in the required direction.

4.13 Other Locomotive Controls

Not all controls are available on all locomotives.

Button	Key Equivalent	Action
	T	**Load/unload** passengers or freight
	H	**Lights.** Repeatedly pressing will cycle through headlight states if appropriate.
	V	**Windscreen wipers**. Click once to switch on and again to switch off.
	Z	**(Expert) Engine stop/start**. By default engines will already be running at the start of a scenario. Press this button to stop and then again to restart the engine.
	P	**(Expert) Raise/Lower Pantograph** (Electric trains only) .
	Q	**(Expert) Alerter.** The alerter is a system used on some trains to ensure that the driver has seen a signal. If the alert sounds (a black/yellow striped symbol is shown on the Driver's display), you must acknowledge by clicking on the Alerter button or the emergency brakes will be applied.
	X	**(Expert) Sander**. Causes sand to be laid on the rails next to the wheels to assist with adhesion.
	B	**Bell**. Ring the locomotive bell, if present.
	Backspace	**Emergency Brake.** Apply emergency brakes. This sets the brakes to 100% and locks the other controls. Once the train has come to a complete stop, the other controls will unlock. Note: Not all trains have an emergency brake.
	Space	**Horn.** Sound the horn or whistle, if present.
	? /	**Handbrake on/off.** This icon is displayed in the Coupling view

Button	Key Equivalent	Action
	Shift Ctrl C	**Couple manually.** You can also use the coupling view to couple.

4.14 Changing Your Point of View

TS2014 gives you many ways of observing the simulation. Initially, the camera is positioned outside and above the train (the front external camera "2").

You can control the camera direction by pressing and holding the right mouse button and moving the mouse.

Use the following controls to change cameras as you drive:

Button	Key Equivalent	Action
	1	Cab view, the point of view of the train driver (or fireman/engineer)
	2	External front camera. This is the initial view and initially set to follow the lead locomotive.
	3	External back camera. Initially set to follow the last vehicle of the train.
	4	Trackside camera. Jumps ahead of train to watch it approach and pass, then repeats. Click again to reposition view.
	5	Passenger view. Not available for all vehicles.
	6	Front coupling camera, looks straight down from roof height onto the coupling selected using the Ctrl-left and right arrow keys.
	7	Overhead camera, linked to the driving cab position, looking straight down from high up.
	8	Detach camera from train for general exploration. There is a limit to the distance (about 4km) that you can get from the train.
	Shift 2	Head-out-of-cab left and head-out-of-cab right. Often useful when driving steam and engine-in-front Diesel locomotives.
		Alternate camera for the current view.
	Ctrl + =	Move back to previous cab. For consists with multiple cabs

Button	Key Equivalent	Action
	Ctrl –	Move forward to next cab. For consists with multiple cabs

You can select which vehicle the external (helicopter) view cameras follow while in that view. Initially, the front camera follow the lead locomotive and the rear camera follows the last vehicle of the train.

Button	Key Equivalent	Action	Views
	Ctrl ←	Select the next vehicle towards the back of the train	
	Ctrl →	Select the next vehicle towards the front of the train	

The following keys control the position of the viewer in the world (which is normally also relative to the train), although they can't all be used in all views:

Button	Key Equivalent	Action	Views
	↑	Move forward	
	↓	Move backward	
	←	Move sideways to the left	
	→	Move sideways to the right	
	Ctrl ↓	Move lower (down).	
	Ctrl ↑	Move higher (up).	
	↑	Move forward (i.e. towards the ground).	
	↓	Move backward (i.e. away from the ground).	

You can also use the Shift key in combination with the arrow keys to move faster:

	Shift	(with arrow keys) Move faster	

Finally, you can change the angle of view and the direction you are looking in:

Button	Equivalent	Action
	The mouse scroll wheel	Zoom. Like using a zoom lens on a camera: the viewing position does not change, but the angle of view does;
	Hold the right mouse button down & move the mouse. Gamepad users use the right joystick.	Pan (direction of view). Some views (especially Cab views) limit the range of motion, so for example in head-out-of-cab view you cannot look back into the cab.

4.15 Simulation Controls

The following controls are used to control the simulation itself.

Button	Key Equivalent	Action
	Ctrl S	**Take screenshot.** An image file will be placed in the directory "My pictures" with a file name indicating the location (lat/long) and time. You will also have the option to upload your picture to your Steam account so that you can share it with the TS2014 community
	Esc	**Pause.** This suspends the simulation and displays a menu. See **3.10 Pausing and Quitting TS2014**
	Ctrl Q	**Exit.** You will receive an option to exit or continue.
	Ctrl E	**Enter World Editor.** See **9 The Build Screen** for more information.
	F2	**Save position in Scenario.** You can also do this via the **Pause** menu.
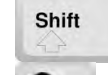
4.15.1 Task Information

The scenario information can be displayed by pressing the task information icon or F1 at any time. Press F1 again to turn off this display.

Note the six symbols on the right. These can be used to control some features of the simulation. The bottom five symbols are always displayed:

Button	Key Equivalent	Action
	Tab	Ask the signaller for permission to pass Red signal ahead.
	Ctrl Tab	Ask the signaller for permission to pass Red signal behind.
	G	Change switch ahead
	Shift G	Change switch behind
		Change to another cab on this train

The top slot can be blank, or it can display one of the following symbols, depending on the current context:

Button	Key Equivalent	Action
		Blank: if no other symbol is appropriate to the context. Does nothing.
	Shift Ctrl C	Couple rolling stock together.
	Shift Ctrl C	Uncouple rolling stock.
	T	Fuel the locomotive that is next to the fuelling position. Applicable to Diesel or Steam locomotives only.
	T	Load items from the goods transfer point into the wagon that is next to it.
	T	Unload items from the wagon onto the goods transfer point that is beside it.
	T	Open the doors of the carriages on the train, to allow passengers to embark or disembark. Doors close when the scenario's pre-set time interval has elapsed.

5 Driving a Locomotive

This section describes how to drive a locomotive. TS2014 has been designed to allow you to slowly build up your skills in operating complex vehicles by using the difficulty settings (**Driving Model**) in the options menu and **Drive** screen. If you are not familiar with the operation of locomotives, we strongly recommend starting with the "simple" control setting, particularly when using steam trains.

5.1   Driving a Steam Locomotive

Until you are proficient at driving steam engines, switch on the **Automatic Fireman** to reduce your workload (to turn on the Automatic Fireman, click on the **Settings** screen from the main menu, click on **Gameplay Options**, select **Automatic Fireman** and then return to select your train/route/scenario).

When driving a steam train, there are three key controls:

Regulator. This allows steam to pass from the boiler to the cylinders, which turns the wheels and moves the locomotive.

Manipulate the regulator by clicking and dragging the control to change the amount of steam used.

Reverser. This can be switched between Full Forward and Full Reverse and must be used before setting off. Use a high reverser setting to give maximum power. This uses a lot of steam, so slowly reduce the reverser setting as you speed up.

Train Brakes. This applies the brakes on the locomotive and any other attached vehicles that have brakes.

5.1.1   Starting a Steam Train

- Release your brakes.
- Once they are fully released and the brake pipe pressure becomes constant (see the pressure display), apply the brakes slightly until they are in the Running position. Leaving them in the Release position would waste steam (because steam is used to maintain a vacuum).
- Wind the reverser fully forwards.
- Open the regulator to about 50% and the train starts to move.
- When you reach about 10mph, wind the reverser back to about 45%.
- As you pick up speed, continue to wind the reverser back until it is about 15-20%.

5.1.2   Driving Tips

- If you then need to go faster, increase the regulator until you reach your desired speed.
- When going uphill, you may need to wind the reverser forwards and/or open your regulator to keep speed up.
- When going downhill you can coast by closing the regulator completely and setting the reverser to about 45%.
- If you begin to lose boiler pressure you are probably using more steam than you are generating so adjust the regulator and reverser or you will lose power.

5.1.3   Stopping the Train

- Always give yourself plenty of room to stop – a train can take ¾ of a mile to stop from 65 mph.

- Apply the train brake.

- Leave the brake control in this position, and the brakes will come on slowly until they reach their maximum force.

If you only want to make a partial brake application, after applying the brakes, release them until the control is in the **Self LAP** position (if there is one). This will hold the braking force at its current level.

5.2   Driving a Diesel Locomotive

The key controls:

Throttle . Generally, "straight" diesels have a continuously variable throttle, but some, particularly diesel-electrics, may be notched into a small number of discrete settings.

Reverser. The reverser on a diesel locomotive usually has three positions: Forwards, Reverse and Neutral.
When stationary, always move the reverser to the neutral position.

Brakes. Diesel trains often have three types of brakes – Train brake, Locomotive brake (normally only used when driving a locomotive on its own – a 'Light Engine') and dynamic brake. Use the buttons on the right to select the brake you wish to use and then move the control.

Gear. Some locomotives have a gear control. Gears are numbered, with "0" being neutral.

Start up/ Shut down. Trains are normally running when the scenario begins.

Some locomotives (including the German BR294) combine the throttle and train brake into one control. When driving these, reducing the throttle (D key) applies the brakes once the control passes zero.

5.2.1   Starting the Train

- Start up the locomotive if it is not already running.

- Move the reverser to the Forwards position.

- Release the train brakes and locomotive brakes if applied.

- Move the throttle to around 25%. Do not use full throttle from a standing start as this can cause wheel slip or overload the traction motors, causing the power to trip out.

- When you've reached around 10 mph, you can normally then give the locomotive full throttle. Be more careful in wet or icy conditions.

5.2.2   Stopping the Train

- Apply the train brake control until it is in the **Self LAP** position.

- Increase or decrease the braking force by moving the train brake control within the **Self LAP** position.

➢ Always give yourself plenty of room to stop – a train can take ¾ of a mile to stop from 65 mph.

5.3   Driving an Electric Locomotive

Very often, electric locomotives are presented in scenarios with the pantograph or rail collector shoe "off". You must raise the pantograph before the train will move. The key controls are:

Throttle . Depending on the prototype the throttle may be "notched", so there are only a few – typically 5 – possible settings. You may have to flip between two settings to maintain a particular speed.

Reverser. The reverser on electric locomotives has three positions: Forwards, Reverse and Neutral. When stationary, always move the reverser to the Neutral position.

Brakes. Electric trains often have three types of brakes – Train brake, Locomotive brake (normally only used when driving a locomotive on its own – a 'Light Engine') and dynamic brake (which stores motion energy in a flywheel or an alternator). Use the buttons on the right to select the brake you wish to use and then move the control.

Pantograph. Click to raise or lower the pantograph/3rd Rail shoes (if applicable), which collect electricity from the available power supply.

Start up/ Shut down. Trains are normally running when the scenario begins.

5.3.1   Starting the Train

- Raise the pantograph if it isn't already raised.

- Start up the locomotive.

- Move the reverser to the Forwards position.

- Release the train brakes and locomotive brakes if applied.

- Move the throttle to around 25%. Do not use full throttle from a standing start as this can cause wheel slip or overload the traction motors, causing the power to trip out.

- When you've reached around 10mph, you can normally then give the locomotive full throttle. Be more careful in wet or snowy conditions.

➢ Some electric locomotives have very complicated control systems – for example, the BR Class 86, and this is reflected in the model. You are advised to read the associated manual before attempting to drive these.

5.3.2   Stopping the Train

- Apply the train brake control until it is in the **Self LAP** position.

- Increase or decrease the braking force by moving the train brake control within the **Self LAP** position.

If the emergency brake is triggered, either by the automatic systems or by user command, the emergency condition can be reset by moving the brake to its maximum position and then back to normal use.

➢ Always give yourself plenty of room to stop – a train can take ¾ of a mile to stop from 90 mph.

5.4 Automatic Safety Systems (AWS, ATP, ETRMS)

There are a number of automatic safety systems in use on the real railways, and TS2014 simulates several of them:

AWS	**Automatic Warning System**. A warning bell or buzzer that warns of adverse signals.
ATP	**Automatic Train Protection**. A system that applies the train brake automatically if you pass a signal set at danger.
ERTMS	**European Rail Traffic Management System**. A network-wide system that provides in-cab signalling and safety warning systems.

Many modern locomotives are fitted with one or more of these systems, and the in-game experience is similar. There is a warning acknowledge button which must be pressed soon after a tone sounds in the cab.

For ERTMS-signalled routes there are no external signals. Instead the permitted line speed, as well as the current vehicle speed, is shown in the cab.

> ➢ The information here is very generic and you should check the manual provided with specific models for more details or superseding information.

Tone	Meaning
Clear medium-high tone	Line ahead clear, no need to acknowledge.
High warble	Acknowledge.
Low, loud buzzer	Warning sound: signal ahead at Warning or Danger

AWS is provided to give train drivers in-cab warnings of the approach to signals, reductions in permissible speed and temporary/emergency speed restrictions, and to apply the brakes in the event that a driver does not acknowledge cautionary warnings given by the system.

As a train approaches a signal, it passes over AWS track equipment (magnets) which are fixed to the sleepers between the running rails. The magnets are sensed by a receiver mounted under the leading end of the train.

If the signal ahead is displaying a clear aspect (green), a bell (or an electronic ping) sounds in the driver's cab, and the AWS Sunflower indicator displays "all black". No action in respect of the AWS is required of the driver.

If the signal is displaying a caution or danger aspect (yellow, double yellow or red), a horn sounds in the driver's cab and the display shows "all black". The driver has to acknowledge the warning by pressing the "AWS Acknowledgement" push button. When the driver operates the push button, the horn is silenced and the AWS Sunflower changes to a segmented yellow and

black circular display. If the driver fails to acknowledge the warning horn within a set time period, the brakes are applied automatically.

Where AWS equipment is provided on the approach to reductions in permissible speed and temporary/emergency speed restrictions, the cab equipment always operates in a manner equivalent to the approach to a signal displaying a caution or stop aspect. The driver receives a warning and has to respond to it accordingly; otherwise the brakes are applied automatically.

5.5   Activity markers

When playing scenarios, you can use your cursor to start key activities. As you move your cursor over the appropriate object (platform, junction etc), you'll see the following icons. Click to carry out the relevant activity.

	Load bulk freight		Load fuel
	Load Container		Load passengers
	Couple		Load water
	Uncouple		Set junction

6 Game Controller

People who use their PC for gaming frequently have game controllers attached and TS2014 supports use of the Microsoft XBox 360 USB controller with your PC. Both the Wired and Wireless versions are supported.

While driving, the control layout map (shown below) is available from the **Pause Menu**, **Controller Layout** entry.

The controller will be automatically enabled if it is detected as active when the game starts. You can use the **Control Method** screen (see **10.4 Control Methods**) to configure it, and enable it if you activate the controller after you start TS2014.

➢ You cannot enable the controller while you are playing a scenario.

Some additional notes on using the controller follow.
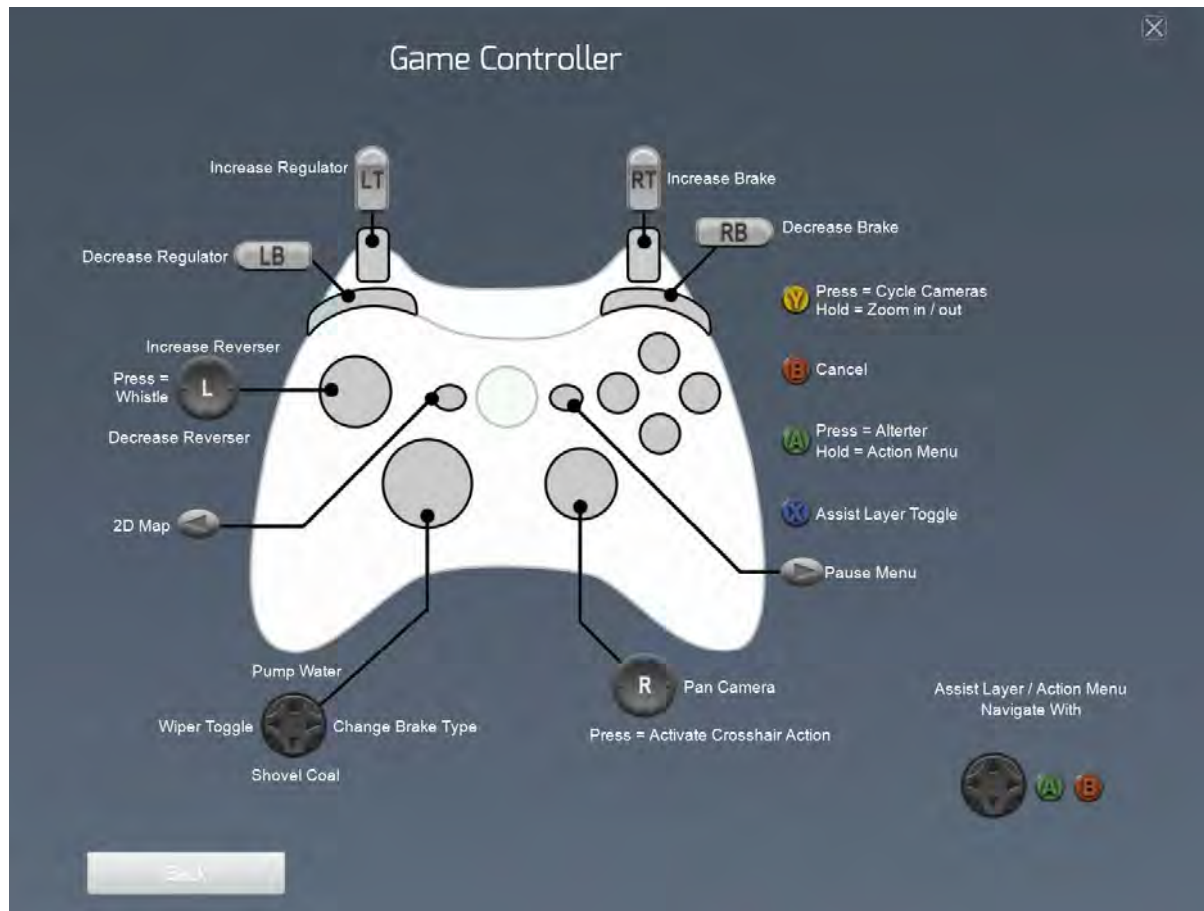
6.1   Using the controller in free roam

In free roam, the following actions control the camera position:

- Left thumbstick - moves the player position
- Right thumbstick - looks around
- When the hand icon appears over a drivable locomotive, clicking the right thumbstick will take control of that locomotive.

7 The Career Screen

The Career screen shows your Steam game profile and what you have achieved so far with TS2014. The screen is tabbed using the areas down the side:

- Your Profile
- Your Achievements
- Friends

On the right hand side of the screen is additional information. For the Your Profile tab, it contains some information about your performance in completing Career mode scenarios.

The screen looks like this:
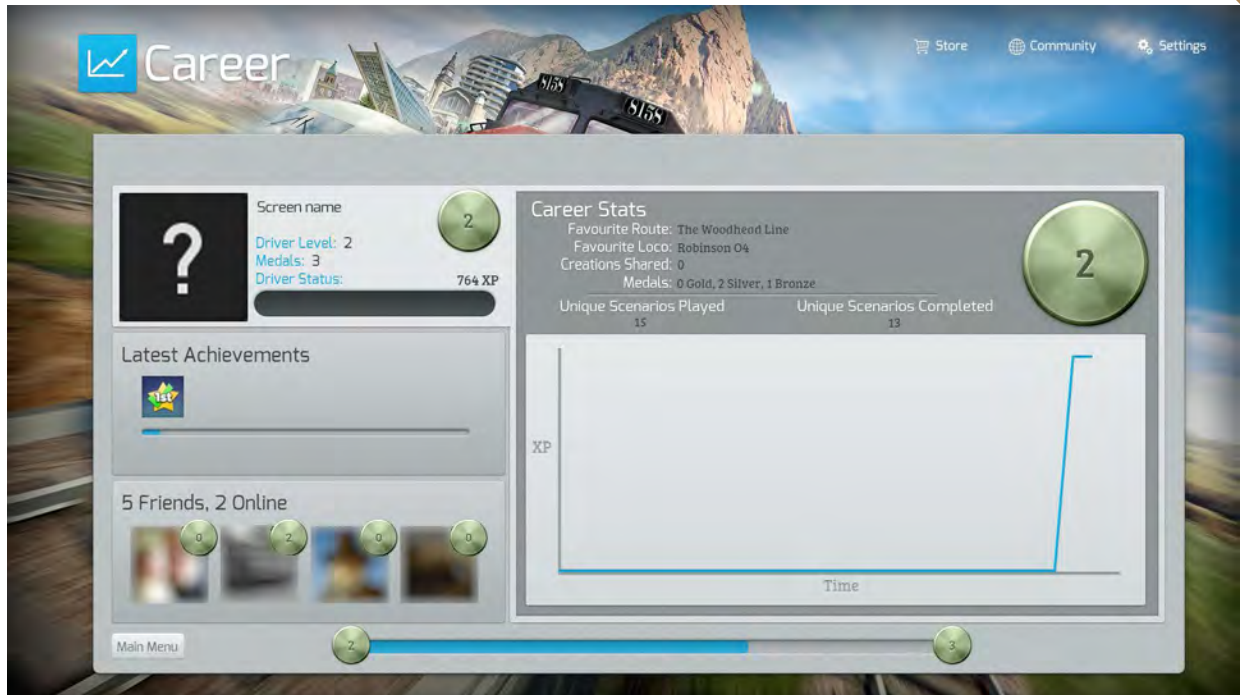
This shows some stats about the current player, their current "medal" (based on experience points), and the change in experience points in the recent past.

Clicking on the Latest Achievements tab reveals the possible Achievements on the right hand side as shown in this example:
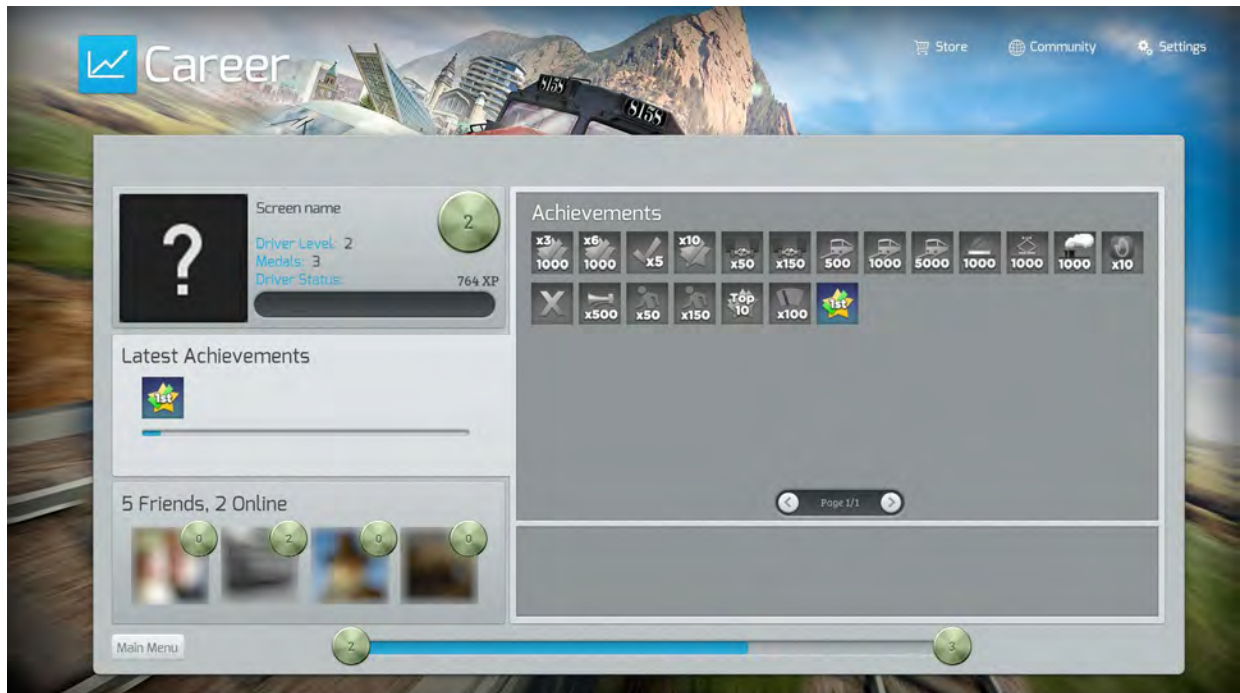
Finally, clicking on the Friends tab at the bottom shows a list of those people you have marked as your friends in the Steam Client, and their achievement status: For each friend the page lists a box like this:

This shows the Steam screen name (login name) of your friend, their current driver level and experience points, and whether they're online.

You can also see some of this information outside TS2014 using the Steam Client.

8   The Store and Your Steam Collection

TS2014 includes a shopping system that lets you acquire new content and a browsing interface to explore the products you have already bought.

The in-game Store extends the functionality that is provided in the Steam shop (steampowered.com) by enabling more sophisticated filtering based on specific features of the addons, text searching, and larger graphics and slideshows.

Product availability, prices, special deals, and other detail will not differ between Store and websites. The Store is accessed from the main menu's Store button and can also be accessed by clicking on the View button for the featured items from the main page.
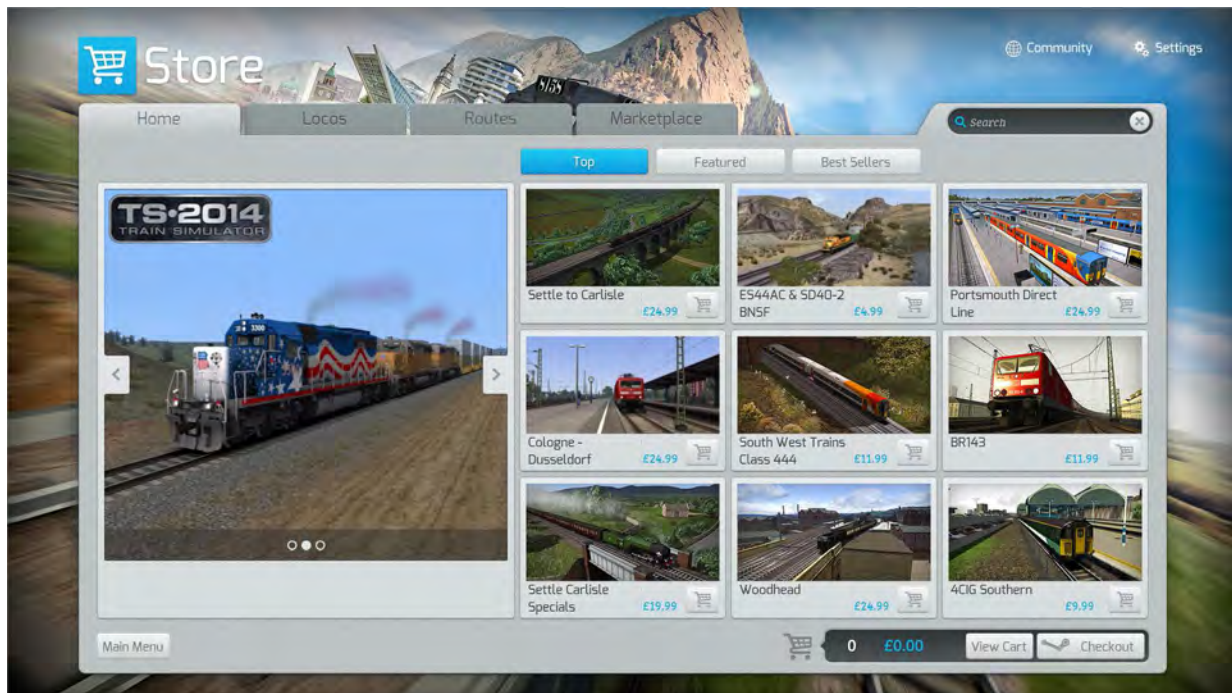
8.1   Browsing the Store

There are several Tabs on this screen that subdivide the available products into groups. In addition, you can use the Search facility in the top corner to find things if you know part of its name.

The tabs are:

Home   This screen (shown above) is the initial view, and shows either the **Top** items, the **Best Sellers**, or the **Featured** items. In addition it shows a slideshow of recent content.

Locos   The Locos tab shows the set of available locomotives. At the top of the tab are selectors to filter the products shown by Country of origin or Type (Steam, Electric etc).

Routes   The Routes tab shows the set of available routes.

Bundles   The Bundles tab shows the set of grouped products. Typically these are offered at a discount to the sum of the individual prices.

Marketplace   The Marketplace includes smaller value items (such as wagons or buildings).

For each of the main tabs, click on the product picture to display more information, or on the Cart button beside the price to add it to your shopping cart.

Typing text into the Search area at the top right side of the screen will interactively select those products matching the text. So for example, typing "scot" could result in the Flying Scotsman and the Western Lines of Scotland packs remaining displayed while all others are hidden, as shown here:
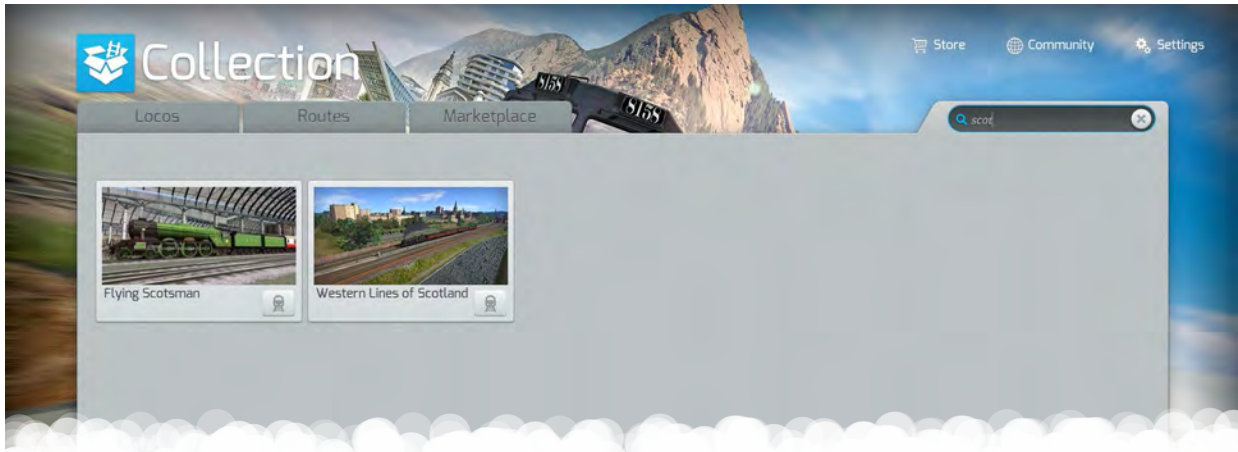
On some tabs (**Locos**, **Routes**, **Bundles** and **Marketplace**), you can click on the dropdown menus just above the product addon grid to filter the displayed addon products. The set of filters available varies by context. Click on the product image to display more information about it, as in the following example:
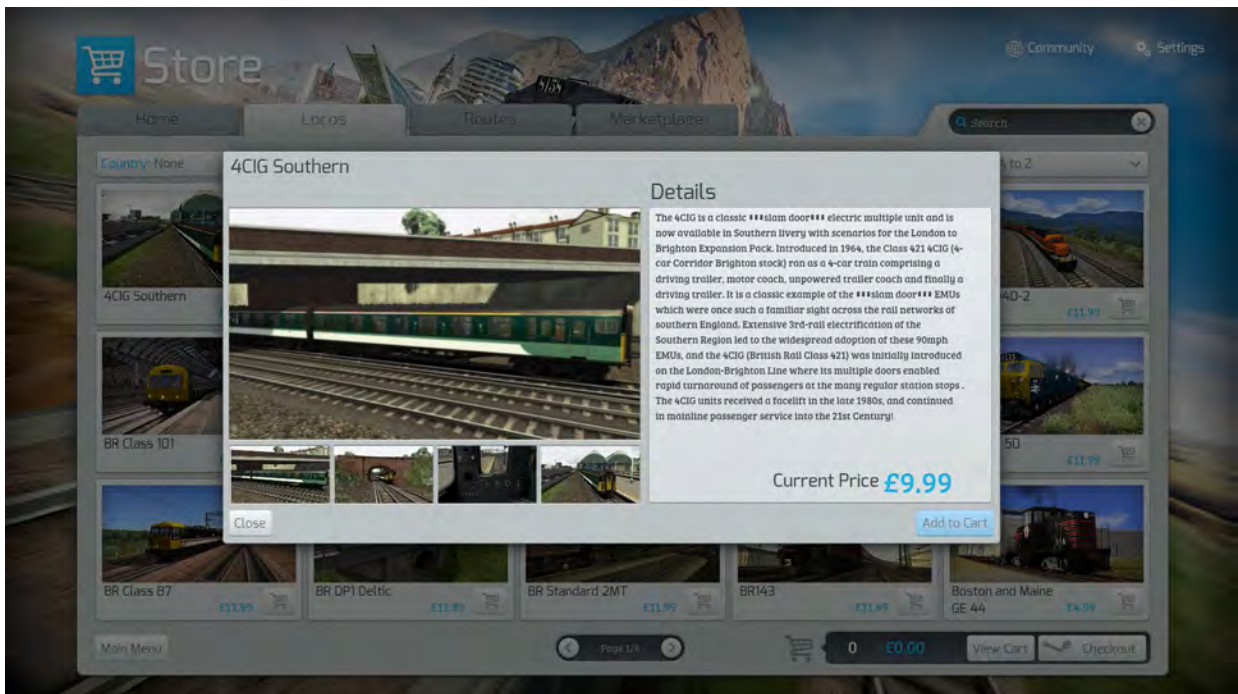
- Click on **Add to Cart** to put the item in your shopping cart.

- Click on **Back** to return to the product listing.

8.2   Buying Addons from the Store

Click on the **Cart** button beside the price to add it to your cart. The image below shows a section of the screen after the top (red) locomotive has been added to the Cart. Note in the bottom line is "1", signifying one item in the cart, and the total cost of the items:
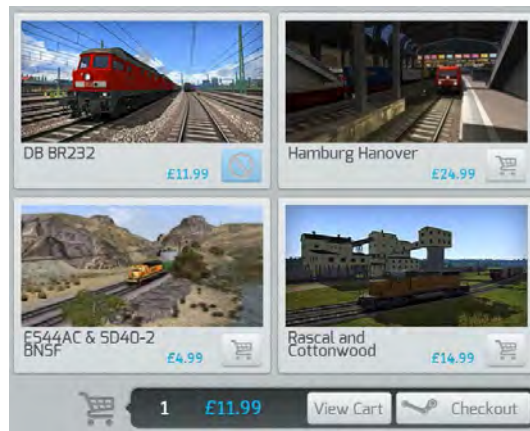
Notice now that the cart button for the red locomotive has changed to a crossed-circle symbol, signifying that you cannot buy it again: Steam will only let you buy each addon once.

➢ To buy products that you already own for a friend, you need to visit the Steam Store directly and purchase an addon voucher (DLC Voucher) for those products.

To view the current contents of your cart, click on **View Cart**. This displays a view similar to the others, showing those products added:
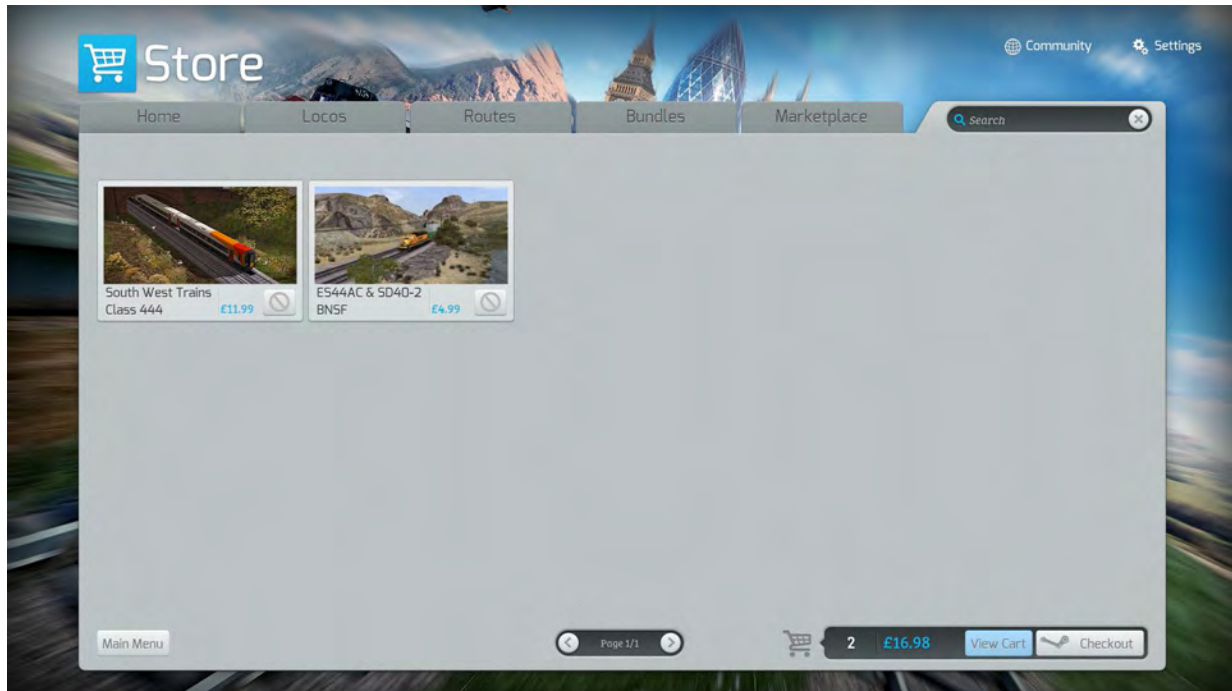
> ➤ The contents of your Cart will be retained even if you exit and restart TS2014.

To remove items from your cart, click on the crossed-circle in the lower-right corner of the product tile.

Once you have selected the items you wish to buy, click on **Checkout**. The screen will change to the Steam Overlay and the Steam web page will be displayed using the Steam Overlay feature.

At the top left of the screen is the time of day, at the top right is the Train Simulator product name, and between them is a "link" that can be used to return to the simulation. You can also use Shift-Tab to do this.

The browser used on this screen is an instance of Windows Internet Explorer. You should ensure that the Internet Settings in Control Panel are set up to allow web access to the internet.

Return to TS2014 from Game Overlay (and vice versa).
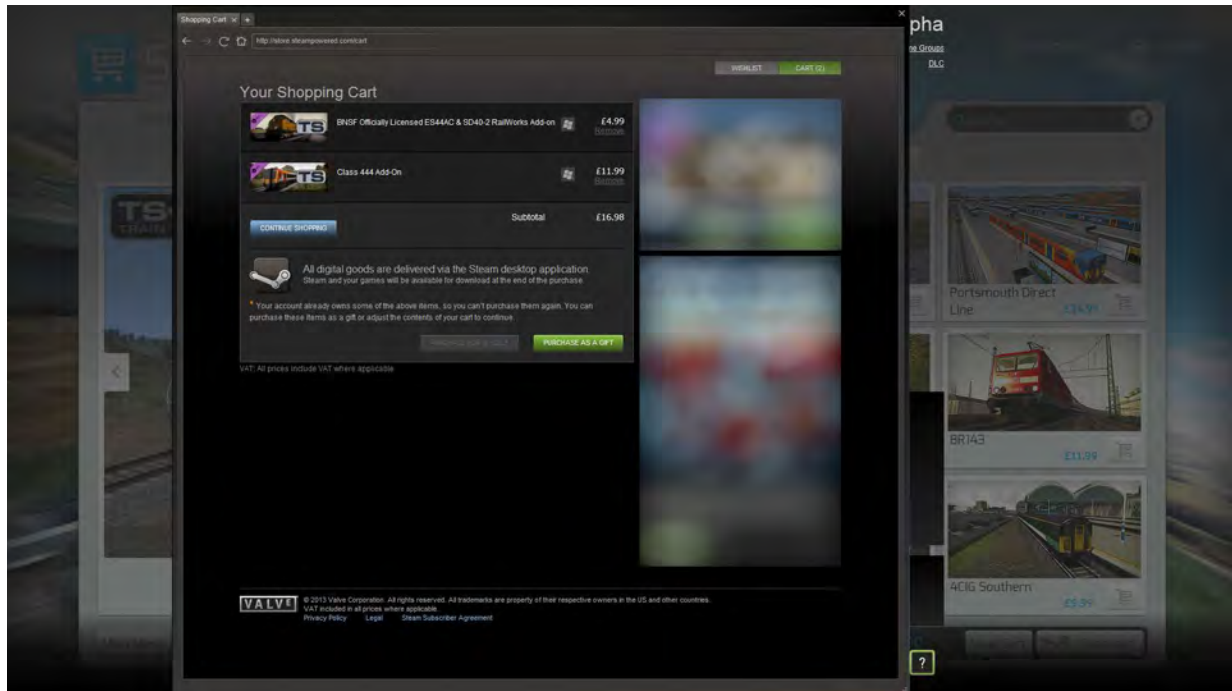
The items you selected are listed and you can now checkout to complete the transaction as normal. At this point, click:

Purchase for Myself   To go through the Steam Checkout procedure

Remove   (Underneath price of product) To remove the product from your basket. The product will also be removed from the in-game Store when you return.

Continue Shopping   To browse other game products available on Steam.

> ➢ If you click Checkout to add an item, it will be retained in your account's Steam shopping cart until you buy it or remove it. So, if you just close the overlay, the items will remain when you next time you visit Steam. If you don't wish to buy an item, you must explicitly Remove it using the Remove link (under the price).

Once you have bought the product, exit the Overlay using Shift-Tab or clicking on the link at the top of the overlay screen.

Steam will not download items until you exit TS2014, so if you wish to use them straight away, return to the Main Menu and Quit the Game. The Steam Client will download the new purchases.

8.3   The Steam Collection

The **Collection** screen shows a list of the various Steam products (routes and locomotives) that you have purchased.

When you buy items from the Steam Store, they will cease to be visible on the **Store** page and appear instead on this page.

Use the page advance buttons at the bottom of the list to page through your list. If you have difficulty finding the content you are looking for, click on the drop-down filter boxes along the top of the list to restrict the list to select items that you want to see displayed, or use the Search box to search by product name.

➢ This screen displays Steam-bought products, not individual items. To locate specific trains that you have bought, use **Quick Drive** from the **Drive** screen. To list all the routes you have installed (whether or not bought from Steam) use the **Build** screen.

➢ You will have rolling stock (carriages, wagons and possibly even locomotives) that are not visible in the game user interface. You can see everything you have using the game's scenario editor.

An example of a well-stocked Collection page is shown here:
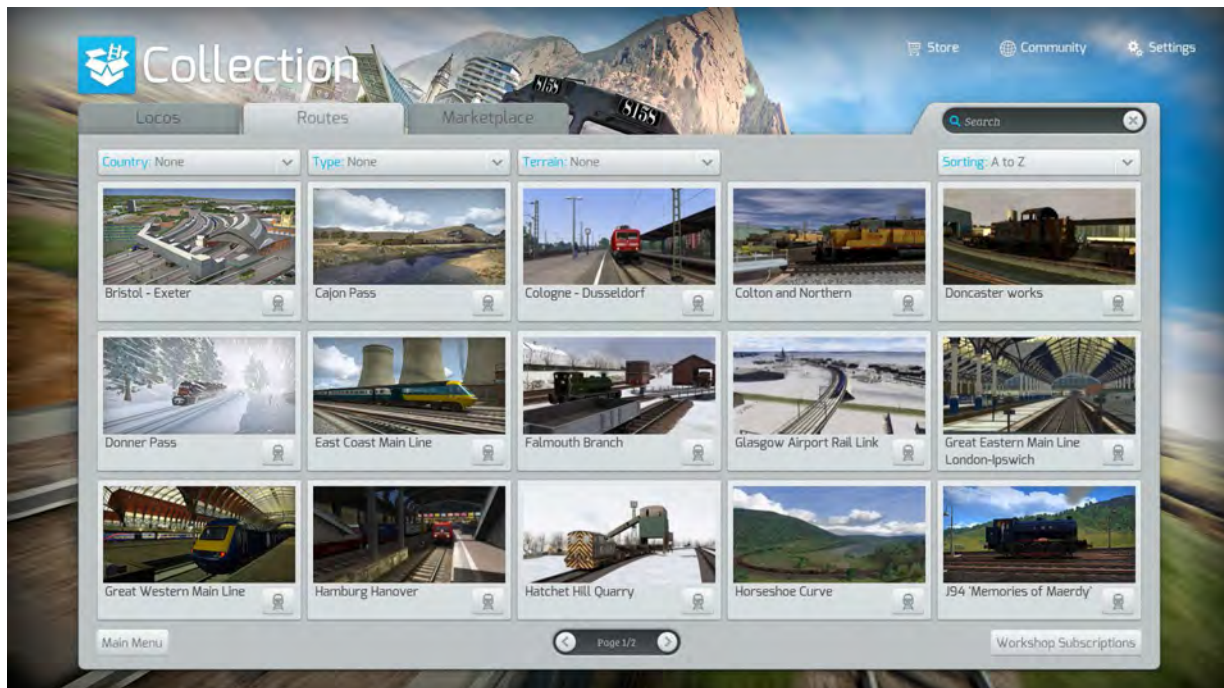
8.4 The Steam Workshop

As well as acquiring new content from the Store, there is a wealth of additional content freely available from other TS2014 players like you. This is contained in the Workshop provided by Steam.

➢ Content provided in Steam Workshop is not provided by RailSimulator.com and so we cannot be responsible for the quality of the material provided there.

➢ This facility is partly provided by Valve Corporation through their Steam Workshop facility and we can not guarantee the ongoing availability of this system.

At the bottom of the **Collection** screen is the **Workshop Subscriptions** button, which enables access to the Steam Workshop **Workshop Subscriptions** screens.

Steam Workshop enables you to "subscribe" to either a scenario for a route, or to a route itself. In either situation, you are subscribed in the same way that you are subscribed to TS2014 itself: should the content be updated, Steam will automatically update your copy. Similarly, if you delete your copy from the disk (manually) and then ask Steam to verify the game, it will re-download the missing files.

Steam Workshop scenarios and routes must adhere to some restrictions that scenarios and routes distributed in other ways do not have:

- Scenarios and Routes must only use assets from official Steam routes.

- Workshop Routes can only include the "route files", that is, no assets specific to the route of any sort. This essentially means they have to be cloned from an official Steam route.

Once a Workshop Route is made publicly available, it cannot be modified: should the author wish to extend or change it, they must change the route ID and issue it as a new route. This means that scenario authors have a known stable base on which to create their content.

The Subscription screen looks like this:
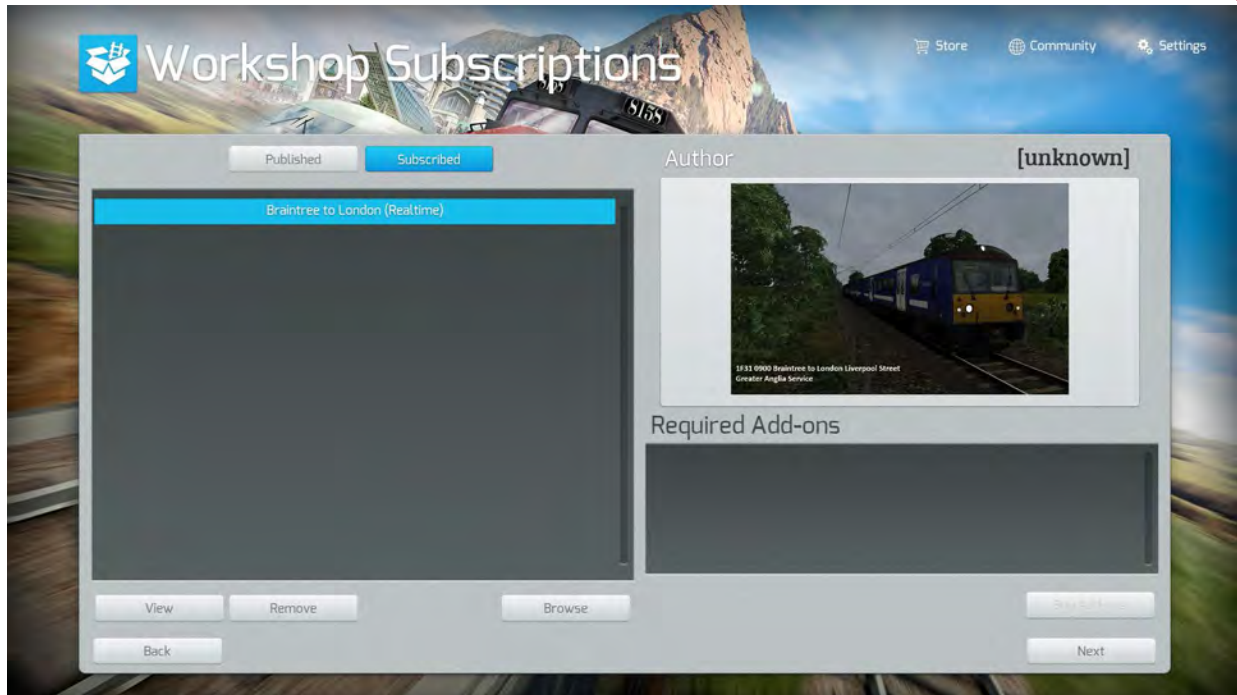
Above the list are two buttons indicating what is displayed:

Published   Changes the items listed above to show those you have published to Steam Workshop.

Subscribe   Changes the items listed above to show those you have subscribed to (that is, not those you have published).

The rest of the screen contains two lists – the leftmost one showing the currently subscribed-to content, or your own published content. There are several buttons under this list:

Browse   To browse for items to subscribe to (install) on the Steam Workshop website. Clicking this button will switch to overlay view. See **8.5 Browsing Steam Workshop** for details.

View   Click **View** with a subscribed addon selected in the list above to show that item in the Steam Workshop, using the Steam Overlay.

Remove   Click **Remove** with a subscribed addon selected to unsubscribe from that item and delete it from your computer.

                      Click **Remove** with a published addon selected to unpublish that item from the Workshop and delete it from your computer.

Back   Return to the Collection screen.

On the right hand side of the screen are two areas: the upper area shows the scenario or route image saved with it, together with the author name. Underneath that is some information about the Steam products this one relies on.

You can subscribe to content for which you don't have the required content, but you cannot use it until you do have all the requirements.

Underneath the list of required addons are two more buttons:

Buy DLC Select the addon products you don't have that are required to run this scenario in the Store ready for you to buy them.

Next Loads and runs the scenario, equivalent to Go on the scenario list screen.

Once you have all the required items, you can enjoy your new route or scenario.

8.5   Browsing Steam Workshop

A new installation of TS2014 will not be subscribed to any Steam Workshop content so the most likely thing to do first is to browse what is available. Click on the Browse button at the bottom of the Workshop Subscriptions screen to do this.

This will cause the Overlay to be displayed with a web browser which will open at the Steam Workshop page as shown here:
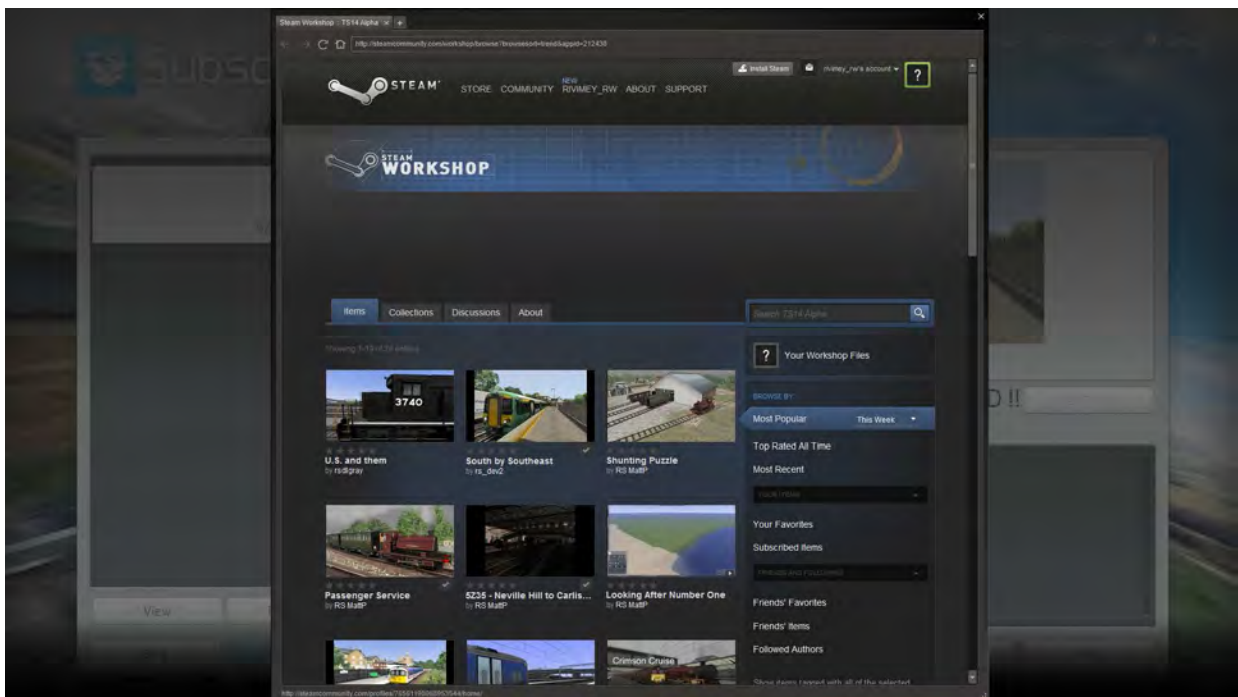
In the centre of this screen (as shown here) is a set of tabs, the default one being Items. To the right of this is a search box in which you can enter search terms for scenarios or routes that you might enjoy.

Beneath the tabs is a grid of pictures, one for each scenario, that were uploaded by the author when the content was published. Hover the mouse over to show a green **Subscribe** link, or click on the picture itself to find out more about it.

When you find a scenario that you like the look of, and have or are prepared to buy the required components, click on the green **Subscribe** button.

Steam will notify your Steam Client and download the scenario automatically. The subscription to this item persists until you explicitly unsubscribe.

You can click the **Next** button to run the selected scenario or show the scenarios available for the route.

9   The Build Screen

The **Build** screen is the start point if you want be creative with TS2014. The options available here enable:

- Creation or modification of a route or scenario;

- Creating a copy (**Clone**) of a route or scenario so you can modify or extend it;

- Publishing a route or scenario to the Steam Workshop.

9.1   Route Actions

The main **Build** screen is split into four sections:

- The list of routes installed on your computer. There could be more listed here than in the **Collection** screen's **Routes** list, because the list here includes every route, not just those installed from Steam;

- A pane that includes the latitude and longitude (in decimal degrees[1]) of the route's origin (the place on the Earth's surface nominated as 0,0 in the game coordinate system).

- A set of command buttons down the right hand side of the screen that, mostly, act on the route selected;

- Further navigation buttons along the bottom of the screen.

The screen looks like this, with one "custom" route installed:
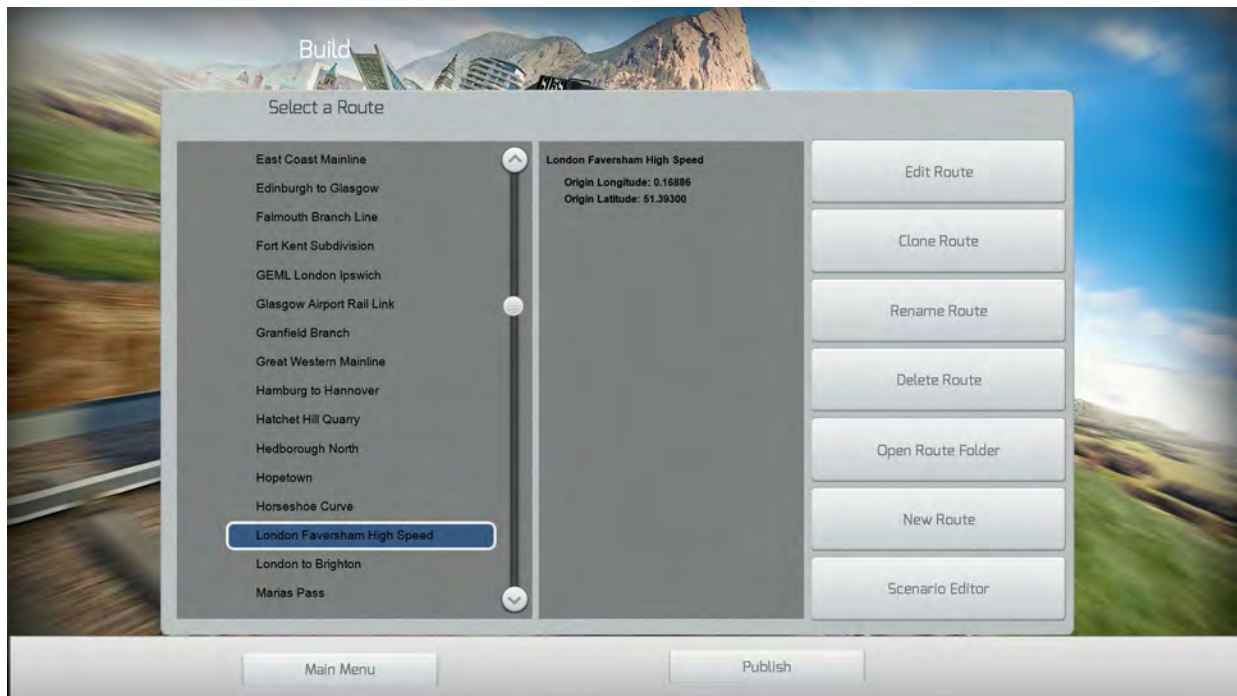
The command buttons on the right act as follows:

Edit Route   Runs the game Editor for the route selected on the left.

Clone Route   Creates a copy of the route files (but not assets) of a route using a new name.

Rename Route   Renames a route. You will be prompted for a new name.

Delete Route   Delete the route files (but not its assets) from your computer.

---

[1] Degrees and decimal fractions of a degree (3.92), and not degrees and minutes (3'55").

Open Route Folder	[Only in Windowed mode]. Opens a Windows Explorer window at the folder containing the route's files.
New Route	Create a new route by copying the setup, but not the track, terrain, or assets, of another route.
Scenario Editor	Enter the Scenario Editor.

➢ It is out of the scope of this manual to describe the scenario and route editors. They are described in the Creator Manual. Also visit **www.engine-driver.com** for articles and information about these features. Some of this information is only available in English.

9.1.1   Edit Route

Start the game Route Editor for the route selected in the left column.

There is always a scenario loaded in the editor even while editing the game world rather than a particular scenario, which is referred to here as the Implicit scenario. This scenario determines what season and time of year it is in the editor, the time of day, which rolling stock is present and where, and where in the world you start editing.

Scenarios have an internal name, a long string of digits, which is also the name of the folder. The implicit scenario is the one with the "lowest" name when sorted.

9.1.2   Clone Route

Use this if you wish to extend or modify an existing route from Steam.

This can be used, for example, to modify the era of a route by adding or deleting features such as overhead catenary that would be out of place, or alternatively to extend a route with a new branch line.

There is a checkbox asking whether to clone the scenarios found with the route as well as the route itself:

- Do check this if you are only plan on changing scenery – field textures, houses, roads, bridges, fences etc.
- Don't check this if you plan to change (rather than add) to the track work. Modified trackwork (compared to the original route) can cause scenarios to fail in ways that are very hard to fix.

Changing track-items linked to the track, such as signals, level crossings, mileposts, speed restriction signs and so on may or may not cause problems, depending on the item and the scenarios.

9.1.3   Rename Route

This action renames a route. You will be prompted for a new name.

There is no advantage other than for your personal benefit to doing this. As noted earlier, routes have an internal name which is not affected by this. As a consequence, you can have two routes with the same apparent name.

9.1.4   Delete Route

This action deletes the route files (that is, the definition of which things area where, but not the things themselves) from your computer. You are prompted, to make sure you want to do this.

- For a route downloaded from Steam as a result of either buying it or subscribing to it in Workshop, the route files will be deleted but can be automatically re-downloaded by Steam. This is because Delete Route here does not delete the Steam Subscription.

- For a route created by you – as a result of Clone Route, New Route or similar, or obtained from a non-Steam source (such as a 3rd party vendor or a freeware site), the route files will be deleted permanently.

In either case, a route normally has a number of Asset files – the trees, buildings, track and roads – that it uses, and these are not deleted by this option.

9.1.5   New Route

You will be prompted to enter a name for the route, and the latitude and longitude of the route origin, which can anywhere in the world. Be very careful to enter the location correctly, using decimal degrees (not degrees and minutes) and checking that the values entered are the correct way round. Note: the location 0,0 degrees is in the ocean off the Ivory Coast of Africa.

You must also select a "donor route" from which the basic route setup will be taken. This setup is largely the track type, the ground and sky textures and the way weather works. Once you have done this, the route will be dependent on some assets provided with the selected route, but not on the route itself.

Having entered this information, the route files will be loaded and the editor started at the route's origin.

9.2   Scenario Actions

Clicking on Scenario Editor takes you to the Scenario Editor screen, which looks like this:

On the left hand side is a list of routes you have installed (the same set shown on the Build screen). Next to that is a list of the scenarios, grouped by scenario type (Standard, Career and Free Roam).

Select the scenario you wish to manipulate using the Route and Scenario lists.

Beside the lists are the command buttons, which work in similar way to those for Routes:

Edit Scenario Edit the selected scenario with the scenario editor.

Clone Scenario Creates a copy of the scenario files of a scenario using a new name.

Rename Scenario Rename the selected scenario. You will be prompted for a new name.

Delete Scenario Delete the selected scenario.

Open Scenario Folder [Only in Windowed mode]. Opens a Windows Explorer window at the folder containing the scenario's files.

New Scenario Create a new scenario.

Within the world editor, scenarios are represented by the Scenario Marker. The marker for New scenarios is placed at the route origin and can be moved as required. The marker for Cloned scenarios is placed above that of its parent.

9.3   Custom Consists for Quick Drive

The list of train formations (consists) presented when you select a Quick Drive locomotive on the **Quick Drive - Select Loco** screen is determined by the available Quick Drive Consist definitions. There are normally some defined with each locomotive, but with TS2014 you can extend them using the custom consist editor. Once you have done this, you can select the consist in the normal way. At present, you cannot export or edit a consist definition in the UI.

To define a consist:

1.   Navigate to the **Quick Drive - Select Loco** screen;

2.   Click on the **Custom** locomotive as shown below:
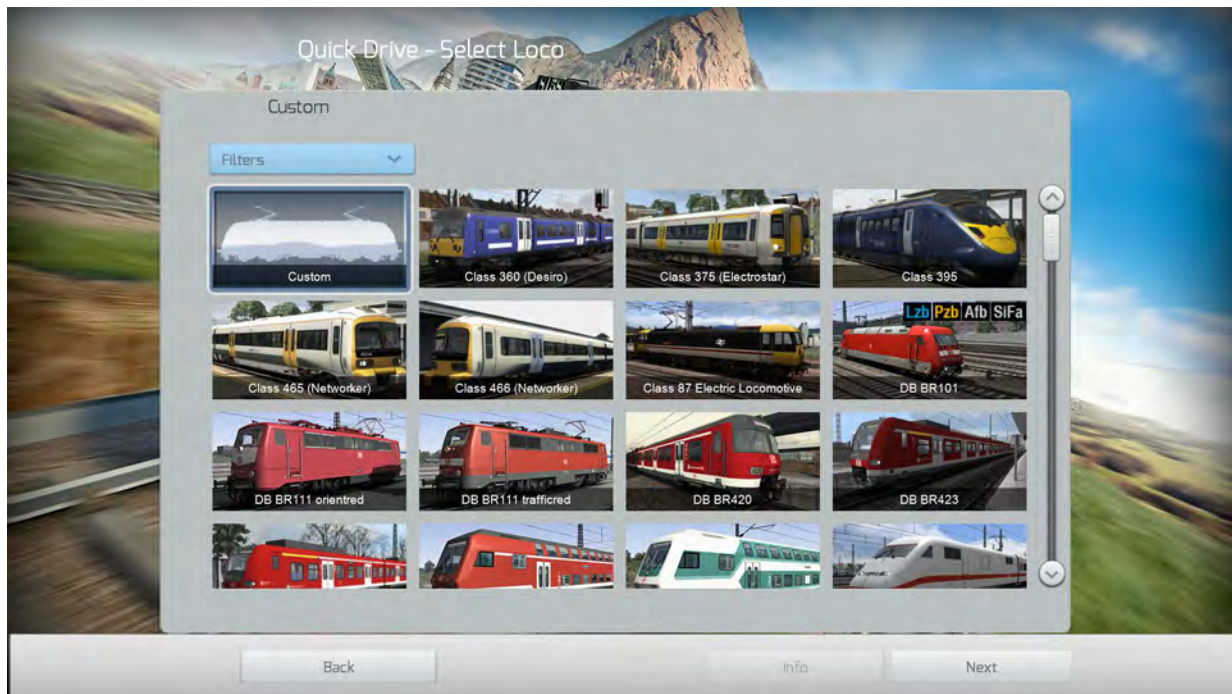
3.   Click on **Next** to reach the **Quick Drive - Select Consist** screen:
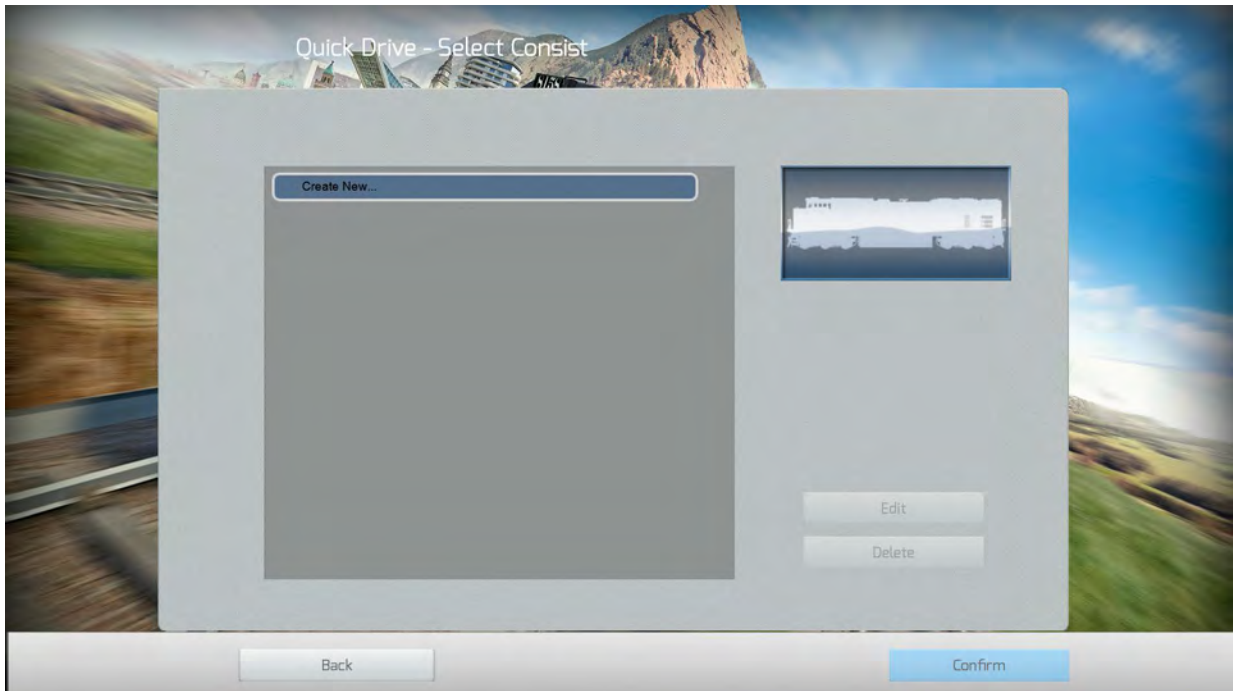
4. Click on **Confirm** to reach the **Build Consist** editor screen. The2re will be a delay while the rolling stock blueprints you have installed are scanned and loaded.

The left hand side of the screen has a dropdown control to select the type of item shown in the list below, and a search box. For this screen, the item type "Wagon" includes anything that is not a locomotive.

On the right hand side is a real-time 3D render of the item selected in the list, and below that is a horizontal list showing the consist as it is constructed. It can be rotated by dragging left or right with the mouse.

To create a consist to be used from **Quick Drive**, you create a complete train with a locomotive and the required rolling stock. The **Select Consist** screen for that locomotive will then list consists that include that locomotive.

➢ It is possible to construct consists using this editor that do not have a locomotive. Such consists can be used from the Scenario Editor to populate scenarios, but cannot be directly accessed from Quick Drive.

5. Select a type of locomotive from the dropdown list at the top (**Steam**, **Diesel**, **Electric**) and explore the locomotives in the list below.

6. Select the locomotive you want from the list by clicking on its name. The 3D area shows the model, which can be rotated by dragging with the mouse:
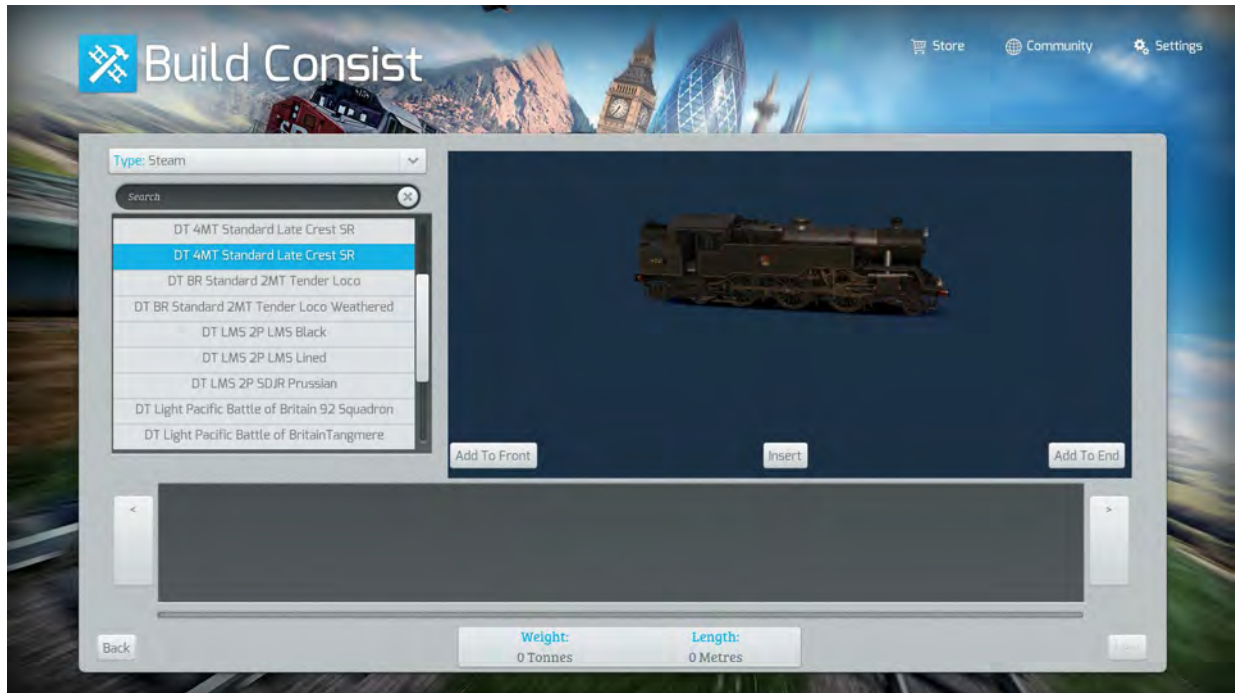
7. Click the **Add To Front** button to add the loco to the "front" of the new consist. For a "light engine" consist this is all you would need. [Tenders for steam locomotives can be found under the item type **Wagons**].

8. Select **Wagons** in the dropdown list.

9. Select the items you want and in the same way as before, add them to the back of the consist using **Add To Back**.

10. The consist being built has a "current item" as shown by the overlaid controls as shown here:

To delete that item, click **Delete**; to make it face the other way, (so the left and right ends are swapped) click **Flip**. To move this item up or down the consist, use the **>>** and **<<** buttons.

11. Notice that at the bottom of the screen are statistics about the length of the consist and its weight (including the locomotive). Bear in mind the capacity constraints of the route and the locomotive!

12. Once you are happy with the consist, click on **Next**. A dialog is displayed prompting for a name to identify this consist, and the country it is valid for.
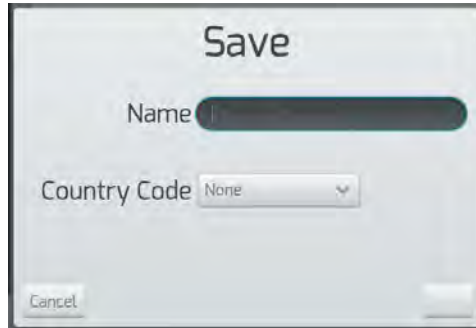
13. Click on Save. The consist is saved and the **Quick Drive - Select Loco** screen is shown.

Once the consist is saved, you can use it within a Quick Drive selecting the locomotive you used in the Consist (careful of similarly-named locomotives!). When you click **Next**, the **Quick Drive - Select Consist** list will include the your consist.

If you find the you get a "Coupling Problem" error message appearing, as in the screenshot below, it is because the two items concerned use coupling mechanisms and cannot, in real life, be coupled together:
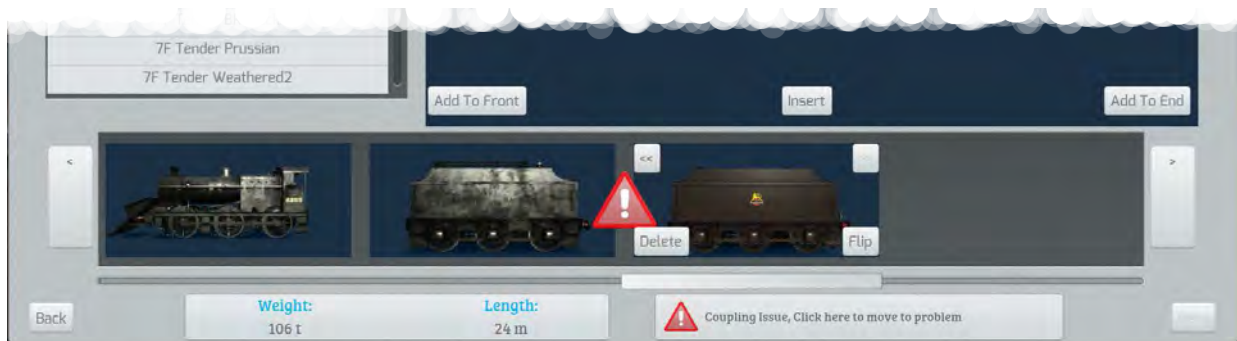
Fix this problem by either flipping, deleting or moving the items until each end can be coupled properly. In the case here, the problem is that steam engine tenders do not couple to the locomotive in the same way as other stock, so the second tender cannot be coupled to the back of the first.

9.3.1 Editing and Deleting Custom Consists

You can edit and delete custom consists as well. If you have created a custom consist it appears on the **Quick Drive - Select Consist** list under **My Trains**.

To delete, click on the consist and then on **Delete**. There is no warning: the consist is deleted.

To edit, click on the consist and then on **Edit**. The consist is loaded into the **Build Consist** screen and you can modify it as needed. When you click on **Next**, the **Save** dialog is presented again. If you enter the same name, the consist overwrites the original consist. If you enter a new name, both old and new are retained.

9.3.2 Editing Provided Consists

If you select a consist provided in a product pack, the **Delete** button is disabled, but the **Edit** button can be used to read the consist into the **Build Consist** editor and so make a copy of the selected consist under a new name.

9.4 The Publish to Workshop Screen

With TS2014 you can publish routes and scenarios you create to the Steam Workshop for others to share. These routes and scenarios are held by the Steam system and so you must be online to use this facility.

➢ This facility is partly provided by Valve Corporation through their Steam Workshop facility and we can not guarantee the ongoing availability of this system.

There are some restrictions that are not present for routes and scenarios that you make for yourself or share in other ways.

• Routes and scenarios can only use assets (rolling stock, buildings etc) from existing products available from Steam (that is, available from the Store);

• Once you have published a scenario to the Workshop, it cannot be modified, although it can be deleted. If you want to issue an update, clone the scenario, rename it suitably, and publish that copy;

• There is a process to publishing routes that involves a test period during which changes can be made. After that test period, no further changes can be made to the route;

The **Publish Route** (and **Publish Scenario**) screens are accessed from the **Workshop** button on the **Build** screen, and look like this:
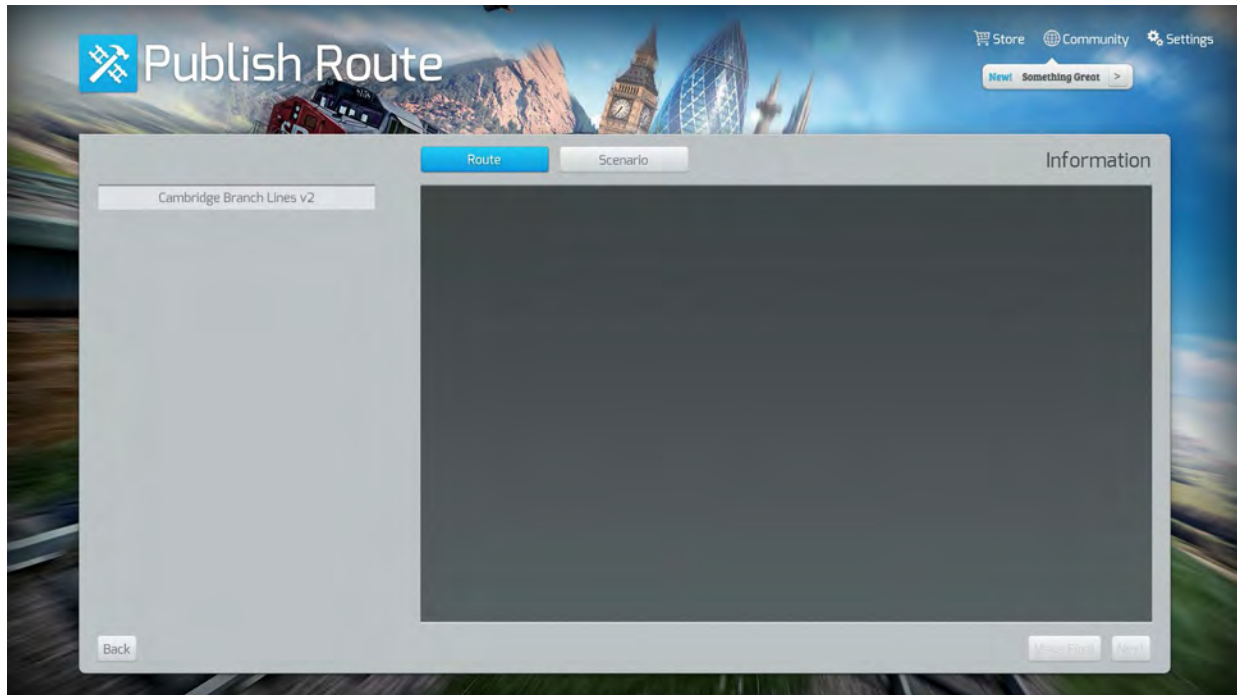
Initially, the Publish Route screen shows on the left hand side the installed routes that can be published. Only routes not downloaded from Steam can be published. In the screenshot above there is just one. At the top of the screen are two buttons:

Routes   Show the currently installed routes in your TS2014 installation that can be published.

Scenario   Show the currently installed scenarios that can be published.

At the bottom of the screen are three buttons:

Back   Takes you back to the Build menu.

Next   Available only after a selection is made, advances to the publishing information screen.

9.4.1   Publishing a Route

Before you use the Build screens to publish your route, you must copy an image into the folder "RouteInformation" within the main route folder. This image will be used to represent the route in the Quick Drive screens. The image must be in PNG format and it must be called "image.png".

Along the left hand side is a list of the routes that you can publish. To proceed, select the route you have been building.

The next thing that happens is TS2014 checks the route satisfies a number of tests. An example of test output is shown here:
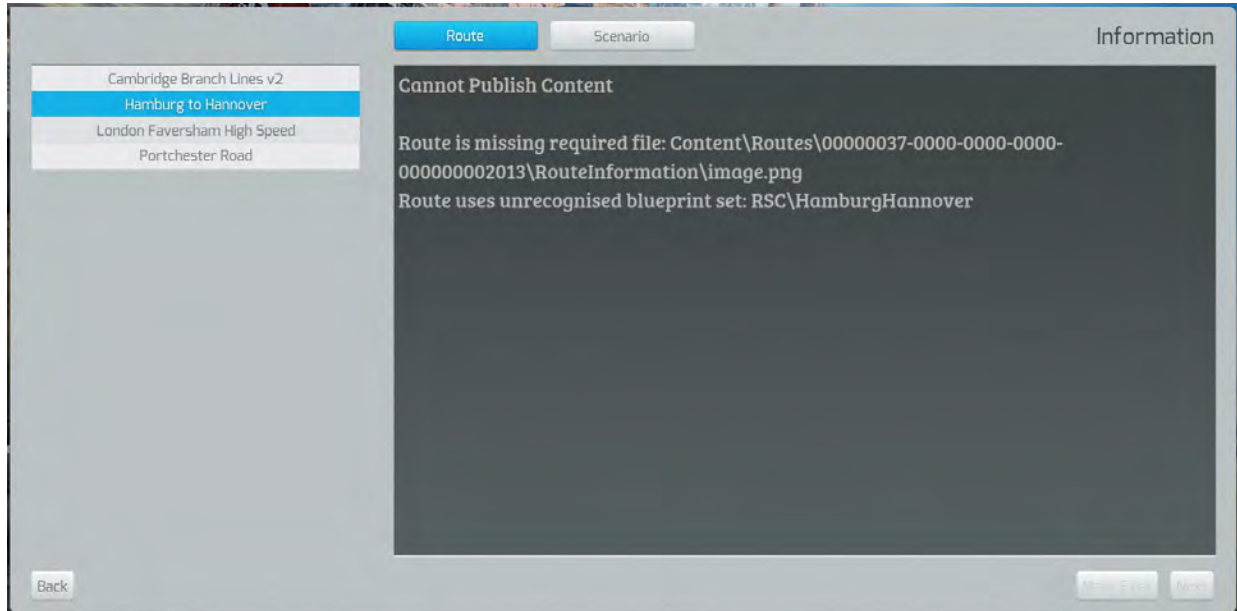
In this case, there is no image.png, which can be rectified, but also the route uses a blueprint set that is not allowable in Steam Workshop.

Assuming your route checks out ok, no messages are displayed and the **Next** button at the bottom right hand corner will be enabled.

Click on **Next**. Another screen is displayed, where you must fill in the fields to populate it in the Workshop in the correct way:

In Game Description   This is a full HTML-coded page that you supply and you can include the usual text decoration and other HTML features. The page is displayed when you click on **Info** for a route.

Workshop Description   The title and main text to be displayed in the Workshop. This will usually be shorter and cannot include HTML.

Visibility   Select the visibility of this route to you alone, you and your Steam Friends, or anyone.

Country   Which country this route is based in.

Loco Type   What traction type was primarily used on this route. This is used in the **Drive** screen's filtering system.

Screenshot	A screenshot of your route, taken from the set of screenshots taken by the screenshot facility in the game.
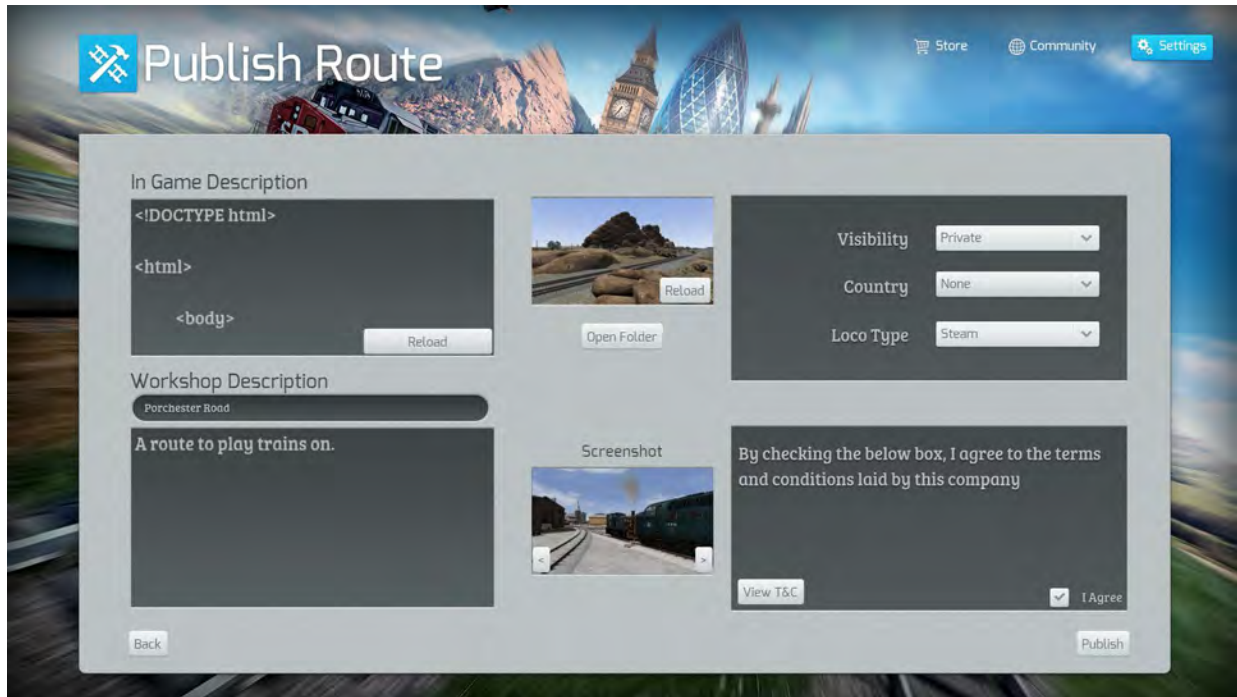
The image top-centre of the screen (with **Reload** over it) is the image.png that you place in the RouteInformation folder. If you need to adjust or replace this image click on **Open Folder** to open a Windows Explorer window at the correct folder.

Click on **Publish** to publish the route to Steam Workshop.

There will be a delay between the route being published by you and it appearing on the workshop to allow for the route to be checked for consistency. Once it has been checked it enters a "preliminary" state, where it can be seen in Workshop but scenarios based on it cannot be published. This is to enable you to make modifications – perhaps at your friends request.

Once you are happy with the route as published, Return to the Workshop screen, select your route, and click on **Make Final**. This will do two things:

- Enable scenarios based on the route to be published.

- Disable any further changes to the route.

9.4.2   Publishing a scenario

Along the left hand side of the first Publish screen is a list of the scenarios that you can publish.

Select the scenario you have been creating.

The checking process is performed for scenarios as for routes (see above). Assuming your scenario checks out ok, no messages are displayed and the **Next** button at the bottom right hand corner will be enabled.

Click on **Next**. Another screen is displayed:

Fill in the fields to populate it in the Workshop in the correct way:

Workshop Description   The title and main text to be displayed in the Workshop. This will be fairly short and cannot include HTML.

Visibility   Select the visibility of this route to you alone, you and your Steam Friends, or anyone.

Country   Which country the route is based in.

| Loco Type | What traction type is used by the player in this scenario. This is used in the Filtering system. |
| Screenshot | A screenshot of your scenario. The arrow keys select pictures from those taken by the screenshot facility in the game. |

There is no **Make Final** stage for scenarios.

9.5 Altering Scenarios

If you want to try predefined scenario out with some variation – whether that is a different locomotive or something else – you can use the **Build** tools to **Clone** the scenario (which you then enter a name for) and then you can edit it. See **9.2 Scenario** for more information.

If you do this for a scenario obtained from Steam, you can then upload that scenario to the Steam Workshop.

➢ Although it is possible to edit the original scenario (without cloning it first) this is not at all recommended. The Steam Client can overwrite the modified files the next time it performs an update on your installation, overwriting your changes.

10 Settings

TS2014 can be configured in many ways. The Settings menu lets you change these settings. Each of these options is described in greater detail below.

Graphics	Display size, detail levels and brightness.
Gameplay	Expert/Simple mode selection, User hints.
Audio	Volume levels and effects.
Controls	XBox Controller setup.
Credits	
Tools	Accessing user manuals and caches.

10.1 Graphics Settings

Use the **Graphics Settings** screen to configure how the game looks on your computer. When you first install TS2014, the installation tries to set graphical setting appropriate to your

hardware configuration. The following options are provided to allow you to tune that configuration:

Master Detail Level   This quickly sets the options based on the performance of your computer. If you wish to set an individual set of features, Click on **Advanced** below.

Screen Resolution   You can set the screen resolution used by TS2014. Higher resolution requires more processing power and can lead to a more jerky experience, depending on which other graphic options are selected. Note that TS2014 will need to restart after changes to the screen resolution.

Full Screen   Switch between windowed and full screen mode. Note that TS2014 will restart after changes to this option.

Screen Brightness   Change display brightness - only applicable to full screen mode.

TSX mode   TSX is a graphics technology that enables dynamic shadow and lighting effects which significantly enhance the appearance of the game. However, to do this TSX increases the resources required of your graphics hardware.

This option is included for backwards compatibility with users who have purchased previous versions of Train Simulator, or who have less powerful computers.

Skin   Selects one of the available skins for the menu system

The following items access subsidiary sets of options:

Google Map Overlay   Click to setup how Google Maps is used in the World Editor to show an image over the terrain:

Advanced   Click to configure in detail the settings set as a group with the **Master Detail Level** control.

Lastly, this button resets the graphics settings:

Default   Restore the graphics settings to default values chosen for your computer.

10.1.1   Google Maps Overlay Settings

You use the Google Map Overlay Settings to configure the use of Google Maps as a guide to route building. It creates an overlay with satellite photography on top of the terrain so you can see where, exactly, various features should be.

Google Maps API Key

You need to apply to Google for a Google Maps API key to use the map frequently. Enter the supplied key text here.

Google Maps Resolution

Select the resolution of the chunks of image to suit your needs.

Map Type   Select the style of map to overlay.

Zoom Level   Select the "view height" of the maps you are using. Google Maps Zoom levels are integers from 1 upwards as you go from very high in the air down to ground level.

Tiles Displayed   How large an area in the editor is covered by the overlay. The tile size refers to the TS2014 game tile of 1024 x 1024 metres, based at the route origin. A 3x3 area means 9 tiles of overlay are shown, which is sufficient.

10.1.2   Advanced Graphics Settings

The Advanced Graphics Settings shown on the Graphical Options screen enable you to fine tune the graphics in the game. It may help to adjust these settings if you are experiencing problems with the game.

In particular, if you have a powerful graphics card, you may find that increasing the Anti-Aliasing setting to "FXAA + 1x2 SSAA" has a beneficial effect on visual appearance.

Each of the Master Detail Level settings (on the Graphics Settings screen) corresponds to a set of these options that has been found to work in many cases.

Master Detail Level   This quickly sets the options based on the performance of your computer.

Anti-Aliasing   TS2014 offers a number of different methods of edge-smoothing. This option allows you to match the technique to the capabilities of your computer and graphics card. The use of the SSAA options will tax your graphics card.

Texture Filtering   The smoothing method to use for textures.

Scenery Quality   The complexity and quality of models and textures used.

Scenery Density   Controls the amount of scenery displayed. Keeping this value at or above 8 is advised.

View Distance   The limit of how far from the camera scenery is drawn.

Shadow Quality   Controls the quality of shadows displayed.

Water Quality   Controls the display quality of water surfaces.

Procedural Flora   Controls the rendering of 'automatic' grass and weeds on the ground.

Adaptive Bloom   Adaptive bloom simulates the eyes adaptation to changes of light level such as when exiting tunnels.

Depth of Field   Simulates the depth of field of a camera so that close up and distant objects are slightly out of focus.

Head Light Flares   Add in flare, or light scattering, around locomotive headlights. This makes the lights easier to see from a distance.

10.2 Gameplay Settings
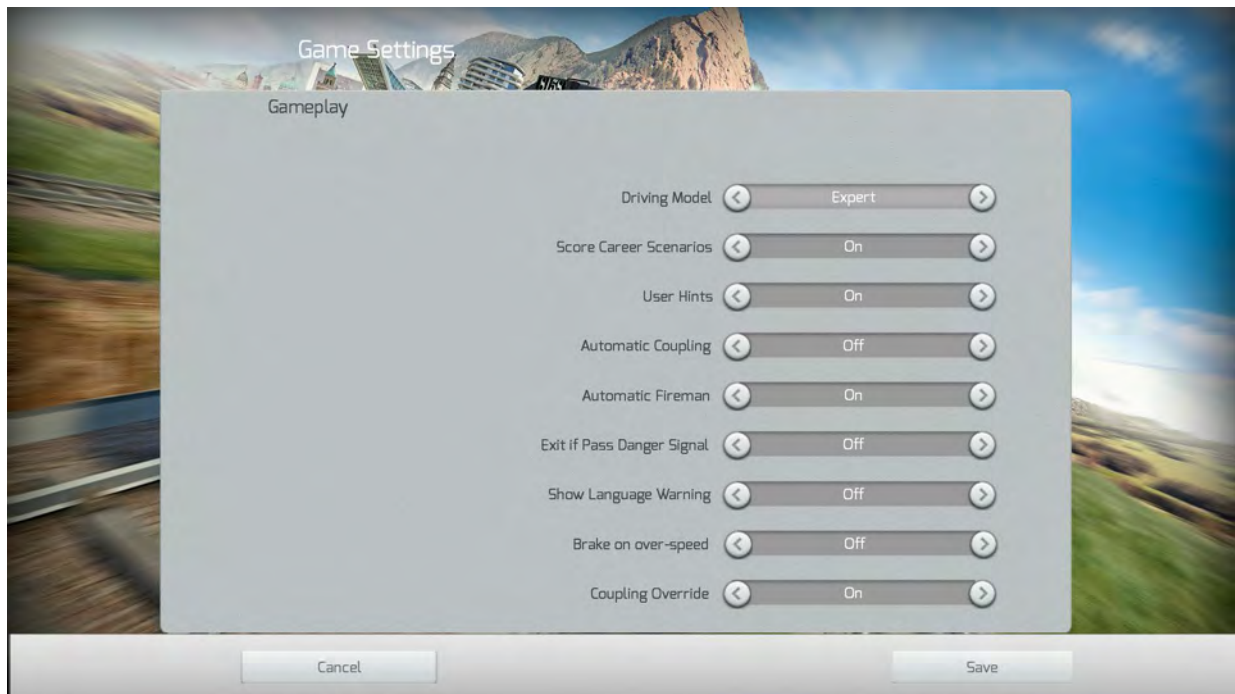
The **Gameplay Settings** screen configure how the simulation itself operates. Settings here will affect what sort of driving experience you have.

Driving Model	Choose either **Expert** or **Simple** to select your control method. See **4.11 Simple Mode Driving Controls** and **4.12 Expert Driving Controls**. Simple controls are close to those of an automatic car, while expert controls simulate those of the actual locomotive.
	Some locomotives do not support **Simple** model controls and attempts to do so are likely to be unplayable.
Score Career Scenarios	If enabled, Career scenarios are scored as usual, otherwise the scoring system for career scenarios is disabled. This is automatically applied if a career scenario is run in Simple driving control mode
User Hints	If selected, the names of driving controls will be shown when the mouse is positioned over them and left for a few moments.
Automatic Coupling	Use this setting to allow vehicles to automatically connect when pushed together.
Automatic Fireman	Use this to allow the simulation to automatically handle coal shovelling and water loading.
Exit if Pass Danger Signal	The scenario will end if you pass a signal at danger.
Show Language Warning	Displays a message if the scenario chosen is not translated into the language you are using.
Brake on over-speed	Applies emergency brake if speed limit exceeded (certain trains only).
Coupling Override	Use this setting to allow vehicles that are equipped with incompatible couplers to connect together.

10.3 Audio Settings

The Audio Settings enable you to control the TS2014 sounds:

Master Volume   Increase or decrease the overall volume of sound from the game.

Ambient Volume   Increase or decrease the level of ambient sounds – background music and the sound of incidental activity – factory work, birdsong etc – when playing.

Background Music   Enable or disable the background music.

Enable EFX   Enables EFX processing actions such as reverberation of sound under bridges and muffling of external sound when within the cab. EFX may have a performance impact on slower computers.

10.4 Control Methods
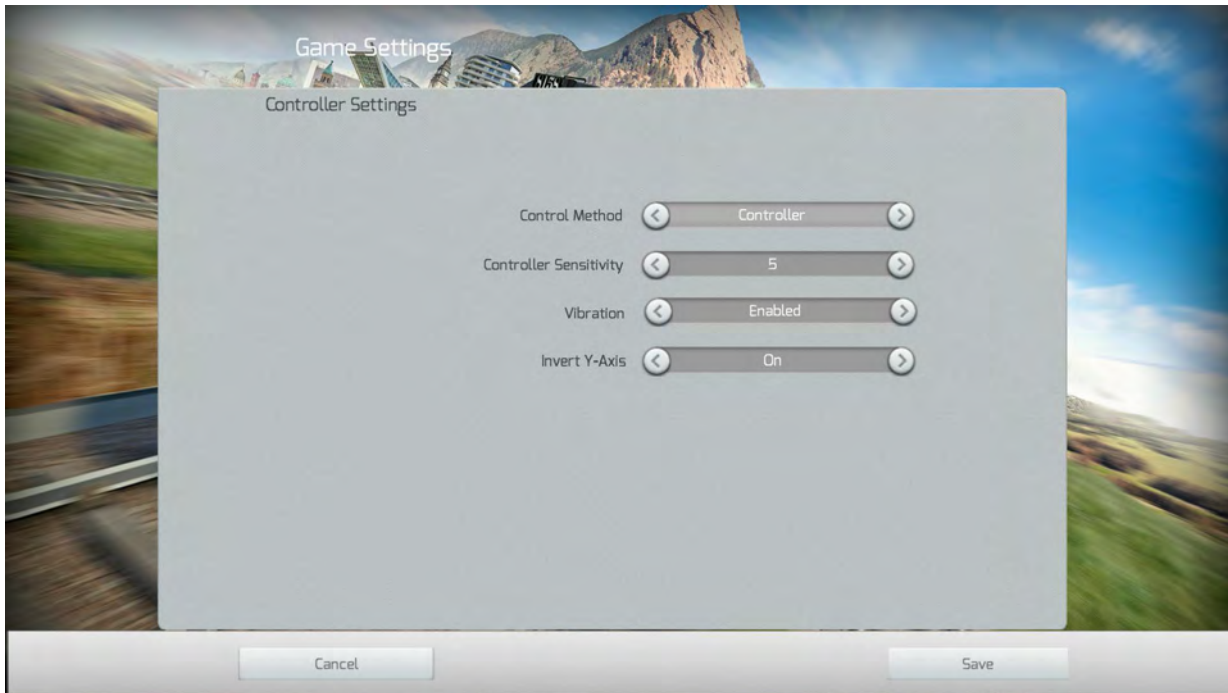
The **Controller Settings** screen enables you to set up a Microsoft Xbox 360 Controller to drive the game.

Control Method
When set to **Mouse/Keyboard**, only the mouse and/or keyboard are used for control. If set to **Controller**, input is also accepted from a connected Microsoft Xbox 360 Controller. This is enabled automatically if the controller is detected when TS2014 starts.

Controller Sensitivity
Applies to the Xbox 360 Control method; it changes how much the controller's joystick has to be moved to adjust the view direction when driving a train.

Vibration
Applies to the Xbox 360 Control method; it enables or disables vibrational (haptic) feedback from the game through the control pad. This feedback is used, for example, when driving over junctions and simulated bad track.

Invert Y-Axis
Applies to the Xbox 360 Control method; Change the sense of the Y Axis (away/near or up/down, as opposed to X Axis which is left-right), so that the actions for up and down movement are reversed.

10.5   Credits

Lists the people who have been involved in making TS2014. If we have inadvertently missed anyone, please let us know!

10.6   Tools and Additional Manuals
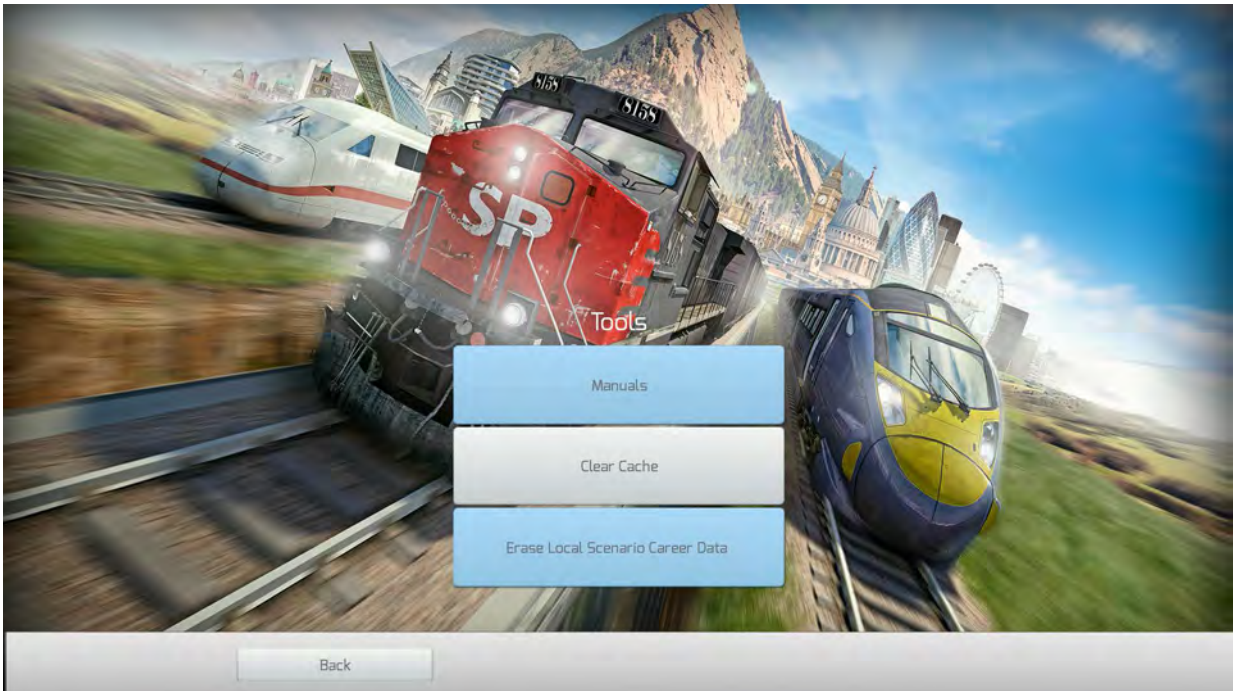
The Tools menu is home for tools you may need.

Manuals	Opens the folder containing the manuals for TS2014 and additional content. These manuals are grouped by language. See **3.11 Additional Manuals** for more, including how to find them and what is in them.
	➤ Note: This only is only available if you are running TS2014 in Windowed mode (see 10.1 Graphics Settings).
Clear Cache	Click this if you are having problems with TS2014 content. Clear Cache removes a number of temporary files and forces some cached databases to be rebuilt. Try using this if TS2014 is behaving inconsistently, particularly after a system failure or crash.
Erase Local Scenario Career Data	Delete career data retained on your computer. Use this only if RailSimulator.com support ask you to.

11 Overview of Changes in TS2014

This is a brief summary of the new features in TS2014.

11.1 General

- User interface redesigned;

- New user manual;

- New in-game Store to display addons (downloads) including item type filters to select and buy direct from Steam;

- Career page to see what you and your Steam Friends have done with the TS2014 Scenarios;

11.2 Driving

- Simplified access to tutorial scenarios;
- Simplified and much improved Career Mode system;
- Improved behaviour of passengers on stations;
- Significantly improved Achievements system including Steam Integration.
- New facility to create and modify train Consists (vehicle arrangements) for use in Quick Drive and elsewhere;
- Ability to create Career Mode scenarios;
- Ability to include in-game scenario instructions;
- Telephoto Camera option (with the mouse wheel) for most views;

11.3 Creators

- Ability to upload game routes to the Steam Workshop;
- Improvements to passenger area definition, incl passenger "exclusion zone";
- Display Google Earth imagery directly on terrain during route creation;
- Updated 3D Studio plugins for 3DS Max 2013;
- Ability to include LUA scripting in scenarios;
- Export Terrain, track, etc, geometry back to the 3D editor to build assets around;
- Rewritten blueprint editor.

12 Railway Terms

This section defines some of the more common railway terms that you might encounter while playing the game. Several terms vary between the USA and UK.

Bogie	UK: applied to items of rolling stock (though not normally locomotives) that have two independently swiveled pairs of wheels, one at each end of the unit. Carriages normally have bogies, and large wagons often do as well. Called a Truck in the USA.
Car / Carriage	UK: a Carriage is an item of rolling stock equipped with seating and used to carry people. In the USA a Car is any item of rolling stock carrying goods or passengers.
Consist	A group of items of rolling stock, not necessarily including a locomotive.
Cylinder cock	A pipe and valve enabling condensed water to escape from steam engine cylinders. Failure to let such water escape can result in massive damage should the engine be moved.

Ejector	A steam engine component that forms a vacuum by filling a space with steam and then condensing it.
Four-Foot	The space between the running lines of a single railway track. An approximation to the 4ft 8 ½ inch standard spacing (gauge).
Gauge	The spacing between the rails of a railway.
Injector	Valve allowing water to be added to the boiler of a steam locomotive.
Light Engine	A locomotive that is travelling without a load, normally because the locomotive is itself needed somewhere else.
Local (train)	A train that stops at most or all of the possible stations on a route, and doesn't often travel very far.
Locomotive	A unit that pulls or pushes other items of rolling stock along the track, exerting Traction.
Multiple Unit	Also called a Railcar, one or more linked passenger carriages that have an internal power source and can be controlled from a driving position at either end.
Permanent Way	The track and track-bed, as a whole, of a railway line.
Point	UK: an arrangement of track rails with a moving part that enables a train to take one of two paths.
Rolling Stock	Generic term for anything that runs on wheels on the railway.
Scenario	A Train Simulator term for a sequence of actions, such as getting a train from one station to another.
Semaphore	A type of Signal that uses a moving bar to indicate its status
Shunter	Something or someone that performs Shunting, and applied to a locomotive (or a class of locomotives) or to a person.
Shunting	The rearrangement of rolling stock, either to/from specific sidings or within a train's formation to assist in offloading at the destination.
Signal	A device that indicates to the driver of a train whether it is safe to proceed. Railway lines are Signalled in a large variety of ways.
Signalled	The application of Signals and control systems for them to a railway route according to one of the accepted signaling systems.
Signalman/Signaller	A person in control of the signaling system for one or more sections of a railway.
Six Foot	The space between two parallel tracks on a double-track railway.

Slug	A locomotive that relies on other locomotives in the train for energy (that is, it has no internal source of power) but does have electric traction motors on its wheels. They are used to increase Traction.
Switch	USA: see Point
Switcher	USA: see Shunter.
Traction	The use of energy (e.g. from a Diesel, Electric, or Steam engine) to move things through the Friction forces between wheels and track.
Train	A Locomotive plus whatever it is pulling – normally wagons or carriages (cars).
Truck	USA: see Bogie.
Valve gear	The set of rods that control when steam is allowed into and out of the cylinders of a steam locomotive through the steam valves.
Wagon	UK: an item of rolling stock used to carry goods (rather than people).
Yard	An area populated with a large number of sidings enabling the shunting (switching) of freight rolling stock.

A much more complete list of terms can be found in Wikipedia under the topic **Glossary of Rail Transport Terms**.

13 Support and Troubleshooting

If you are having trouble running this game, or want to find out more about TS2014, first visit **www.railsimulator.com/support** where you can view the latest troubleshooting FAQs and send us your technical support queries.

For Steam troubleshooting tips, please ensure you have followed instructions supplied by Steam at **www.steampowered.com**

13.1   Processor and Graphics Card Hardware

TS2014 simulates a large game world and this puts more load on the CPU than games with more limited playing areas. To get the best frame rates possible you should use a Desktop processor such as the Intel Desktop Core i5 series ("Sandy Bridge", "Ivy Bridge" or "Haswell"); or the AMD FX series ("Bulldozer" or "Piledriver" at 3.5GHz or above). Mobile (laptop) models of processors are often slower than their Desktop counterparts.

13.1.1   Graphics Card (GPU)

TS2014 requires a graphics card that supports DirectX 9.0c and Pixel Shader 3.0 or above. Most modern graphics cards, such as the nVidia GeForce GTX 560 or AMD Radeon HD 5770 conform to this, although some "integrated graphics" chips typically found on laptop PCs may not.

Although the game will run with 512MB of graphics memory, it is better to have between 1GB and 2GB, and a graphics card with over of 60GB/second memory bandwidth will also help.

13.2   General Troubleshooting Tips

If you have the disc version of this game and the AutoPlay screen does not automatically appear for installation/playing, right-click the disc drive icon found in My Computer and select AutoPlay.

If the game is running slowly, try reducing the quality of some of the video and sound settings from the Game Setting menu. Reducing the screen resolution can often improve performance.

For optimum performance when playing, you may like to disable other background tasks or your Antivirus applications running in Windows. However, ensure you restart your Antivirus applications after you have finished playing the game.

Sometimes Steam thinks it cannot restart the game when the game requests it – for example, when you reset the graphics mode. If this happens you will get a Steam error message box saying "Failed to start game (app already running)". At this point:

1.   Click OK in the dialog with the mouse or keyboard.

2.   Restart the game using the usual Play button on the Steam Client.

13.3   Restoring your copy of TS2014

If you have made changes and can not now run standard routes or locomotives, we recommend that you re-synchronise with the supplied version. To do this:

1.   Exit TS2014 and then Exit Steam

2.   Start Steam again

3.   Select the 'My Games' tab

4.   Right Click on 'Train Simulator 2014' and select properties from the menu that appears

5.   Select the 'Local Files' tab

6.   Click on 'Verify integrity of game cache…'

7.   Once complete, close the Properties window

8.   Any required content will then be re-downloaded

9.   Once listed as 100% Ready, you can start TS2014 again

13.4   Problems Running the Game

Ensure you meet the minimum system requirements for this game and that you have the latest drivers for your video card and sound card installed:

For NVIDIA video cards, visit **www.nvidia.com** to locate and download them.

For ATI video cards, visit **ati.amd.com** to locate and download them.

If you are running the disc version of this game, try reinstalling DirectX from the disc. This is typically found in the DirectX folder on the root of the disc. If you have Internet access, you can visit **www.microsoft.com**to download the latest version of DirectX.

This game also includes a Technical Support file to help you troubleshoot your problem. You can find the Technical Support file in the same folder as your game.

13.5   Game Messages

13.5.1   Unrecoverable Errors

The following errors cause a Free Play session or Scenario to terminate immediately:

Train derailment	Your train leaves the track. This is usually when you travel round corners too fast or pass over a closed junction.
Collision	Your train collides with another train or wagon at speed.
Locomotive ran out of water (steam trains only)	Your steam locomotive runs out of water.
Fusible plug has melted (steam trains only)	Your steam locomotive runs out of water and a safety mechanism allows a release of steam to put out the fire so that it doesn't explode. To avoid this, make sure the boiler water level never drops to zero.

Fatal blowback (steam trains only)	Your steam locomotive enters a tunnel with the firebox doors open. To avoid this, close the firebox doors and turn the blower onto full when entering tunnels.
Firebox extinguished (steam trains only)	You didn't stoke your fire with sufficient coal and it died.
Moved train while doors were open	Your train moves at any point while the doors are open. If you are playing a career mode scenario, it will terminate immediately.
Signal passed at danger (SPAD)	You pass a red signal without requesting permission to do so.

13.5.2   Major Operational Errors

The following errors don't end a Scenario or Free Play session because you can still drive the train. However, you will be penalised heavily in the performance report at the end of the Scenario.

Left station before passenger loading was complete	You leave the station area before the passenger loading bar reaches 100%.
Moved train whilst loading/unloading was under way	You move before the freight/fuel loading bar reaches 100%.

13.5.3   Minor Operational Errors

The following errors don't end a Scenario or Free Play session because you can still drive the train.

Used Emergency brakes	You apply the emergency brakes or cause the automatic warning systems to trigger them.
Speeding	You exceed the speed limit. For each incident of speeding, the start time, maximum velocity, distance travelled, nearest milepost and speed limit is recorded.
Passenger/freight comfort	Passengers experience unacceptable discomfort. This usually happens when you exceed line speed, especially when the train is travelling around corners. It also happens if you apply brakes

too hard.

Wheelslip **(Scenarios only)**	This usually happens when the train accelerates too hard or brakes too hard (especially when pulling a load or if the weather is wet or icy). The best way to avoid wheelslip is to accelerate gently and use the train's sander to apply sand to the track.
Failed to stop at a station **(Passenger Scenarios)**	You don't stop at a station stop required in your Scenario instructions.
Failed to stop for work order **(Freight Scenarios)**	You don't stop for a work order required in your Scenario instructions.
Improper horn use **(Scenarios only)**	You should not sound the horn during hours of darkness.

13.6 Utility Programs

There are a number of utility programs available in the main TS2014 folder. To access these you will have to use Windows Explorer or equivalent.

BlueprintEditor2.exe	The Blueprint Editor, used to create and modify Asset Blueprints files for the simulation.
RWAceTool.exe	Application to convert graphics texture files from PNG format to ACE format.
SerzMaster.exe	Utility to convert multiple files to/from the compact binary format that TS2014 uses.
Utilities.exe	Various tools, including internationalization.
WiperMotion.exe	Utility to monitor wiper blade motion on vehicles.

14 Notices

14.1 Limited Warranty

The following warranties only apply to products sold at retail. These warranties do not apply to products sold online via Steam for which separate warranties exist (see www.steampowered.com).

RailSimulator.com Limited warrants to the original purchaser of this computer software product that the recording media on which the software programs are recorded will be free from defects in materials and workmanship for 3 months from the date of purchase. During such period defective media will be replaced if the original product is returned to RailSimulator.com at the address below, together with a dated proof of purchase, the faulty media, your return address and a statement describing the defects.

This warranty is in addition to, and does not affect your statutory rights in any way. This warranty does not apply to the software programs themselves, which are provided "as is", nor does it apply to media which has been subject to misuse, damage or excessive wear.

14.2 Returns After Warranty

RailSimulator.com will replace user-damaged media, current stocks allowing, if the original media is returned with a cheque or postal order for £7.50 per disc, payable to RailSimulator.com Ltd. Please remember to include full details of the defect, your name, address and where possible, a daytime telephone number where we can contact you.

TS2014 Warranties, RailSimulator.com Limited, The Observatory, Chatham Maritime, Chatham, Kent, ME4 4NT, UK.

RailSimulator.com excludes any warranty in relation to the Product if it is bought second hand and the consumer is not the first end user of the Product.

14.3 Credits

The full credit list can be accessed from the TS2014 Settings menu under Credits.

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