TRAINZ™ SIMULATOR 2009

WORLD BUILDER EDITION

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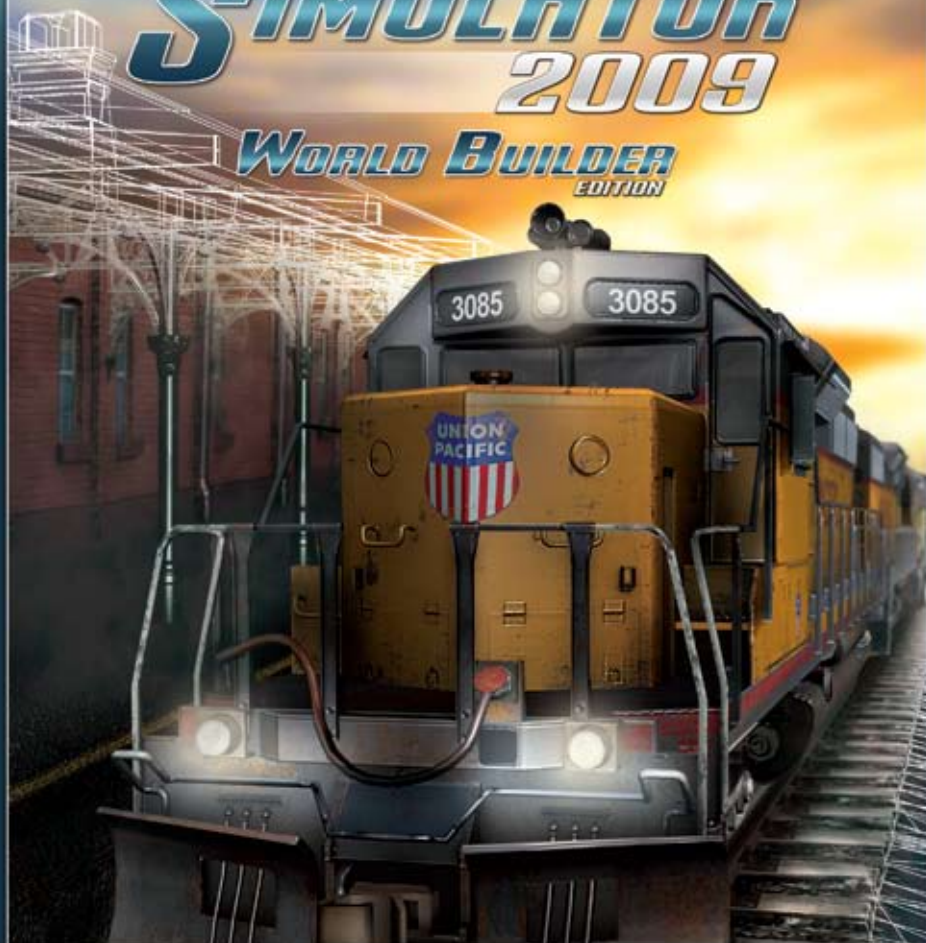
MANUAL

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INTRODUCTION TO TRAINZ

Trainz is a very flexible piece of software that appeals to a huge variety of train lovers and gamers from around the world. Many fans spend their time creating their dream world of rails using the Surveyor module. Many more love to hop in the cab and take on the role of Driver. Others wile away the hours operating a number of trains issuing orders to the AI drivers and interacting with industries and passengers. Some just like to watch or to collect new content from the Download Station. Then there are historical rail fans, narrow gaugers, tram drivers and even groups who operate shipping lines. No matter what your preferences, you will find many hours of enjoyment ahead in the world of Trainz.

One of the most important elements of Trainz is provided not by Auran (the developer) but by the Trainz Community; friendship. In a world where fads come and go, the Trainz Community has grown steadily week upon week and year upon year. The Trainz Forums have always been a place for a friendly word of advice or to source information (and of course an occasional waffle).

INTRODUCTION TO TRAINZ

With Trainz 2009 we have introduced a new in-game browser called Trainz Online which we hope will expand the community even further. By using the iTrainz Chat window, the Knowledge Base, the Forums and the Trainz Gallery, we expect to see more and more people sharing their passion for Trainz online.

Whether you are 8 or 88, please take your time to read through the manual and discover the flexibility of Trainz and how to become part of the largest railroad simulation community in the world.

This manual will focus primarily on the new features introduced for Trainz 2009. For more detailed instructions on individual buttons and menus throughout the game, we have also included the full manual from TRS2006.

INTRODUCTION TO TRAINZ

Common terms used in this manual:

- Click - use the Left Mouse Button (LMB)
- Double-Click - clicking the LMB twice
- R-Click - use the Right Mouse Button (RMB)
- Mouse-over - move the cursor over an object and pause
- Drag - click and hold the LMB then drag the item
- Hotkey – press the key described to carry out the action

GETTING STARTED

To get the most out of your Trainz experience, it's a good idea to do a little preparation first. Make sure your PC has up to date graphics drivers, clean your mouse and keyboard, grab the beverage of your choice, adjust your chair, and you'll be ready for a rail journey of a lifetime. Welcome to the world of Trainz.

Once you have installed Trainz click on the Launcher icon. A hardware check will run automatically to verify if your computer is up to date and is capable of running Trainz. You will then be prompted to enter your Serial Number and your Planet Auran profile.
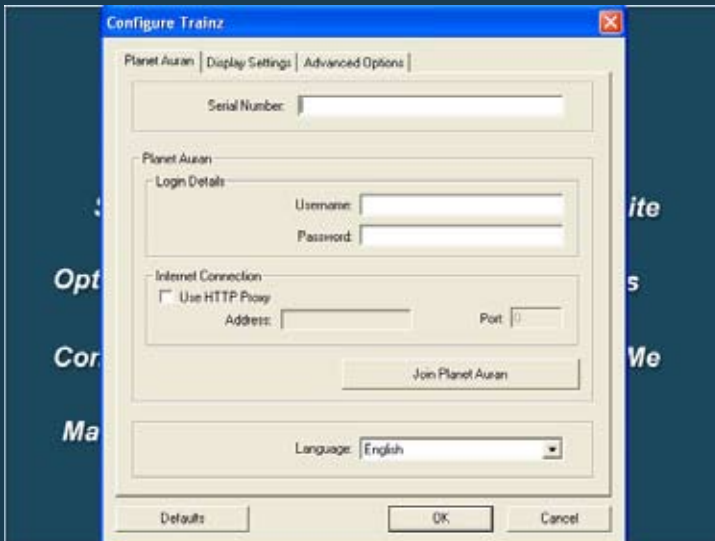
GETTING STARTED

To create a new profile, click on Join Planet Auran. (Although not compulsory, you must be online to register with Planet Auran). Once you have a Planet Auran profile you can register your Serial Number which opens up access to over 100,000 items available on the Trainz Download Station. You can update or change these details by clicking on Options on the Trainz launcher at any time.

Once these details are entered, click on Start once again to launch Trainz. At the Main Menu you can choose to browse Trainz Online, chat to other Trainz users with iTrainz chat or enter one of the 3D modules; Surveyor, Driver or Railyard.
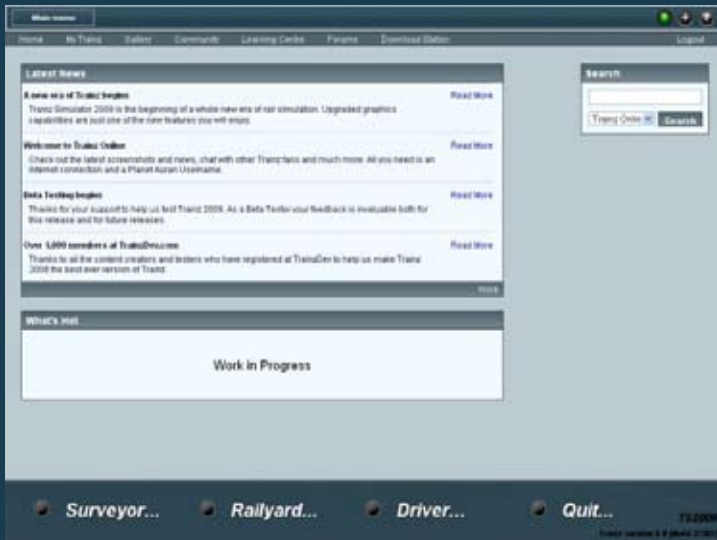
GETTING STARTED

Choose Surveyor to build or modify routes, place trains, set up Driver Sessions and much more.

Choose Driver to drive a single train in simple DCC or Cab mode, switch from loco to loco, control multiple trains using Driver Commands or go into Free Roaming camera where you can sit by the tracks and watch the world go by.

Choose Railyard to view your collection of locos and stock, read more about each item and choose your Favorites.

YOUR FIRST DRIVING EXPERIENCE

Click on Driver to open the main Driver Menu. You are presented with a list of installed Routes and each Route has a number of Driver Sessions. Routes contain the "world" components such as terrain, buildings, track, trees and trackside objects. Sessions contain the "variable" aspects such as locos, rolling stock, time of day, weather and other Rules.

There are several in game tutorials to teach you how to use both the simple speed controls (DCC) and the realistic in-cab driving mode (Cab). Start with the Controls tutorial. Click on British Midlands 2 in the Routes column then click on Tutorial 1 in the Session column. Click Load to load the tutorial. When you're comfortable with the controls, move on to Cab mode (City and Country USA 2 – Tutorial 3).

YOUR FIRST DRIVING EXPERIENCE

In Trainz you can also give commands to AI Drivers to carry out tasks such as delivering freight, coupling and decoupling and keeping to a passenger schedule. To learn about Driver Commands try Highland Valley Industries – Tutorial 5.

Whilst in Driver you can use either your mouse or Hotkeys to drive. Experiment with different camera positions (Hotkeys 1-4) and use your mouse-wheel to zoom in and out.. R-Click and hold to move your camera around or whilst in Free roaming mode (Hotkey 4), R-Click to move around the world. Whilst in Internal View (Hotkey 1) use the "[" or "]" keys to move to different camera views.

Tracking camera (Hotkey 3) selects the closest pre-placed camera, If there are no pre-placed cameras then it defaults to tracking view.

Once you have tried out a number of Sessions, you'll be ready to create your own Sessions.

CREATING A SIMPLE DRIVER SESSION

From the Main Menu, click on Surveyor. You are presented with a list of installed Routes and each Route has a number of Sessions. You can either edit an existing Session or create a new Session. To create a new Session, click on the name in the Route column, then click Load. To edit a Session, click on the name in the Session column.

Every Session must include at least one locomotive. To add a loco, click on the Trainz tab (F7). A list of locos and rolling stock is displayed. You can scroll down the list or type a name into the

Name field. To select a loco, click on the loco name and the loco will appear in the small 3D preview window. L-Click on a piece of track in the 3D world to place the loco.

Repeat these steps to add rolling stock or other locos. You can also use the Move, Delete or Direction tools to change items once they have been placed in the world.

CREATING A SIMPLE DRIVER SESSION

To add a whole consist (train), click on Train Mode (Hotkey C) and choose from the list. Make sure you have sufficient room on your track to add the consist.

You can also add Session-specific Rules which includes issuing Driver Commands. Rules and Commands are explained later in this manual. Once you have a number of trains on your track, click on QuickDrive (Ctrl-F2). You will be prompted to Save and then Name your Session. Click on the checkmark and you will load into your newly created Driver Session.

BUILDING YOUR WORLD

Whilst driving or operating locos is a big part of the Trainz simulator experience, Surveyor is where the creative juices can flow. Surveyor is a toolset that is both fun to use and yet powerful enough to create your ultimate dream railroad.

Click on Surveyor then Create New to open a new route. Choose a name for your Route and the map settings then you're ready to start.

Navigate around the terrain by clicking and holding your RMB. Move the Compass cursor up the screen to move forward and down the screen to move back. You can also use the arrow keys to turn the camera.
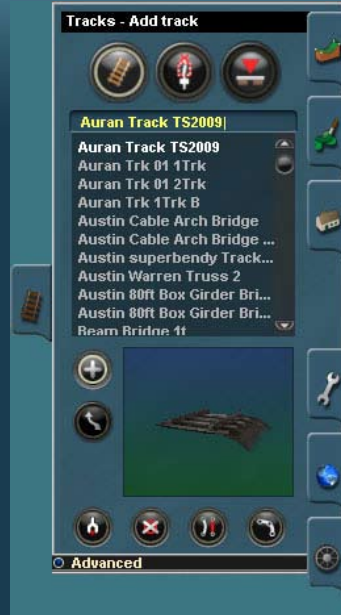
Click on the Track tab (F4) and click in the Track Selection field to highlight the current track name in Blue. Type "Au" into the name field and the list of tracks moves to show items starting with Au. Click on the

white "Auran Track TS2009" name in the list. Now click on the terrain grid in the 3D world and move your cursor and click a second time. Congratulations, you have laid your first piece of track.

BUILDING YOUR WORLD

Hold Ctrl and as you move your cursor, L-Click occasionally to lay continuous track. Hold Shift whilst clicking to avoid "snapping" to nearby nodes.

To add a new node and create a turnout, click on an existing piece of track and move your cursor and click again. Note that a junction lever has been automatically added.

Tracks - Add track

Auran Track TS2009|

Auran Track TS2009
Auran Trk 01 1Trk
Auran Trk 01 2Trk
Auran Trk 1Trk B
Austin Cable Arch Bridge
Austin Cable Arch Bridge ...
Austin superbendy Track...
Austin Warren Truss 2
Austin 80ft Box Girder Bri...
Austin 80ft Box Girder Bri...
Beam Bridge 1t

Advanced

Once you have laid your track, place a train on it and click on QuickDrive to load straight into a Driver Session. You can move back and forward between Driver and Surveyor as you add more scenery, topology, ground textures and watch your dream railroad come to life.
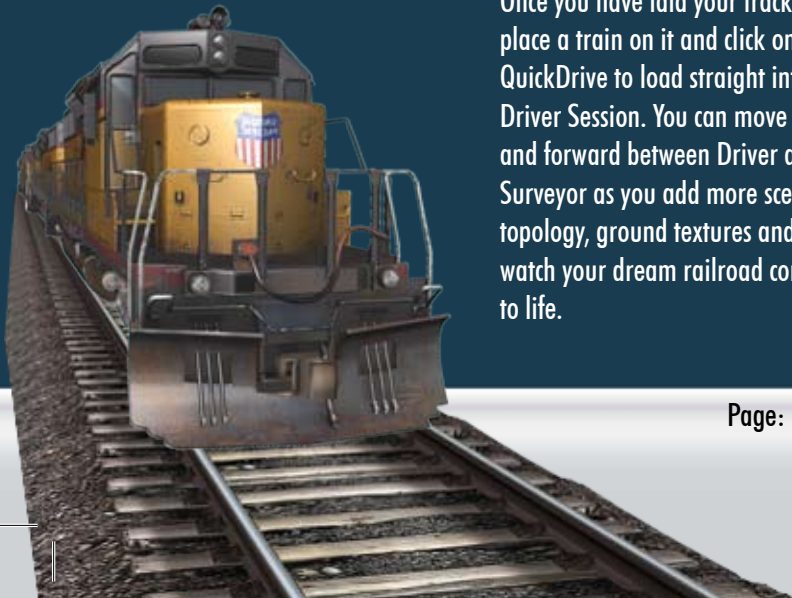
REFINING YOUR EXPERIENCE

Rules are a very powerful way of expanding and customizing your Trainz experience. Based upon TrainzScript programming language, Rules provide non-programmers the capabilities to "program" a variety of instructions and behaviours for Drivers, locos and even interactive industries.

Every Session has a number of default Rules pre-loaded. In Surveyor, click on the Edit Session Rules icon, then click on Start-up Options, then click Edit. Here you can change the Start-up settings for your Session such as weather, time of day and realism level. Click the checkmark to save your changes.

To allocate Drivers to various locos , click on Driver Set-up then Edit. You can also add Driver Commands for each Driver. R-Click on the small green arrow and choose a Command from the list.

To add more Driver Commands to your list, edit the Driver Command Rule.

REFINING YOUR EXPERIENCE

There are almost 100 Rules included and many more are available on the DLS. Rules allow you to add customized displays, speed rules, lighting, objectives, scoring systems, playing sounds and much more. It is even possible to create a whole scenario in a single Rule.

NEW SURVEYOR TOOLS

Ground Types:

There are two ground types:

- Classic, 10m grid - This is the original Trainz ground type.
- Classic, 5m grid - This ground type uses the classic texturing technique, but stores four times the number of sample points.

Click on the Topology tab (F1) then R-Click on Add Ground. Choose the Ground Type by clicking on the arrow (either 10m or 5m) and click the checkmark to save your selection. L-Click on the terrain to update the baseboard to your chosen Type. You can update baseboards either in the 3D world view or in the Mini-Map 2D view.

NEW SURVEYOR TOOLS

Displacement Brushes:

To create a larger section of terrain quickly and easily, use the Displacement Brush tools. Click on Topology/Advanced then scroll through the list of Displacement maps. Click on Select Area then click and drag to highlight the area that will be updated. You can update an area that encompasses many baseboards. Click on Fill Area to apply the chosen Displacement Map.

You can also use use the Displacement maps in conjunction with the Adjust Height and Plateau tools. By adjusting your cursor Radius and Sensitivity you can get a variety of effects. To clear the Displacement map, click the X on the
Displacement window.

Plateau Smoothing:

Using the Plateau tool (with no Displacement map) and adjusting the sensitivity you can smooth areas using a "painting' action and by varying the speed of your
cursor movement.

Searching and Filtering Content:

Click on the Content Search Filter (Ctrl-Shift-F) to open the Search Filter window. Type the word "brown" in the Keyword field. Click on Paint (F2), Objects (F3), Track (F4) or Trains (F7) tabs and note that each list has only items with the word "brown" shown in the list.

NEW SURVEYOR TOOLS

Your search can be refined using additional filter options. Click on the +
and the Name filter appears. With the Trainz tab open, click in the Name
entry field and type C and notice how the list shortens. Type O and this
search is refined even further.

Click on + again to add a new filter. This time Asset Kuid filter appears
in the Filter window (since after the default, the order is Alphabetical).
Click on Asset Kuid to open a drop down menu. Scroll through the list
and click on Category. This brings up a new dropdown list of the avail-
able categories with the default option being Routes. Click on Routes to
show the list of sub-categories..

If you are missing items from your list, click on Clear to reset the filters.
To close the Search Filter click on the Content Search Filter icon
(Ctrl-Shift-F) once more.

NEW SURVEYOR TOOLS

Bookmarks:

The bookmarks are located on the Search Filter window. R-Click on a bookmark to apply a bookmark at your current cursor location. Alternatively use Ctrl 1 through to Ctrl 0 to set the bookmarks. L-Click on the bookmark to return to that location or simply press the appropriate number 1 through to 0.

Picklist:

Using Content Manager, you can add items to your Picklist. In Surveyor open the Content Search Filter (Ctrl-Shift-F) and these items will appear in the in-game Picklist.

Replace Asset Tool:

The Replace Asset tool allows you to replace textures, scenery or track assets on an existing map with a different item. Click on Main Menu then Replace Assets to bring up the Replace Asset Tool. This is where you will list the items you want to replace and the item you wish to replace them with.

NEW SURVEYOR TOOLS

Open the appropriate Asset Tab on the right hand side (Paint, Object or Track) as this is where you will select the items. Type in the name of the item or use the "Get" function to select the texture, scenery object or track you wish to replace. Click and drag the white text item from the list into the "Assets to replace" window. Note, you must drag the name of the item and not the actual item from the 3D world or the 3D preview window.

Next, find the new item you wish to use, then drag that item text into the "Asset to replace with" window.

Click on Replace to complete the process.

Using this tool you can change hundreds of miles of track with a few mouse clicks. Try using the Auran Track TS2009 to replace your existing track or even replace your winter trees with autumn sets.

SURVEYOR OPTIONS

Video Settings:

Trainz is a 3D program that allows users to add unlimited objects into a scene. The better your computer hardware, the more objects you can display on screen and the smoother the graphics will appear. You can adjust the performance settings at any time in-game using Options/Video Setting in the Main Menu. There will always be a trade off between performance and graphics and it is up to you to find a combination that suits each individual route. Note that you can also adjust your screen resolution and turn shadows on or off under Options on the Trainz Launcher.

The draw distance can now be increased from 1500m to 5000m. The scenery detail slider will not only reduce the distance that objets will be drawn, but also the Level of Detail of objects that take advantage of this feature. As more items are created that use Level of Detail, performance can improve dramatically since objects that are miles away can be reduced in complexity.

Compatibility Mode allows maximum compatibility with existing content, however it will have a negative impact on performance. Keep Compatibility Mode 'On' if scenarios do not look or behave correctly. You will have to restart the game for changes in Compatibility Mode to take full effect.

Surveyor Settings:

You can also adjust various preferences including mouse speed and auto-save frequency.

NEW DRIVER OPTIONS

For Trainz 2009 World Builder Edition, we have focused primarily on underlying graphics systems, new Surveyor tools and improvements to Content Manager. A broad range of new Driver-specific features will be released with the upcoming Trainz Engineers Edition.

Driver to command:
Drivers will choose the shortest valid route to their destination without taking into account current positioning of other traffic. If other traffic is on the required line when the Driver arrives to a certain block, the Driver will wait for the traffic to move rather than navigating around the obstruction.

Navigate to:
Drivers will choose the shortest valid route to their destination along clear blocks. If other traffic is on the required line when the Driver arrives, the Driver will navigate around the obstruction and re-path to the destination.

A taste of things to come:
The Trainz team will be working on a number of new features to make the driving experience more realistic and to improve the performance of AI Drivers. These new features will be released in the upcoming Trainz Simulator 2009: Engineers Edition.

TRAINZ ONLINE

Home:

Trainz Online is designed to broaden the Trainz community and bring together people who share common interests. TS2009 ships with an "Offline" version which is a snapshot of Trainz Online features, or by logging on you will get the latest version of news and more.

News items will be posted to Trainz Online on a regular basis. If you have newsworthy items including reviews of 3rd party routes or content please submit them to TrainzOnline@auran.com.
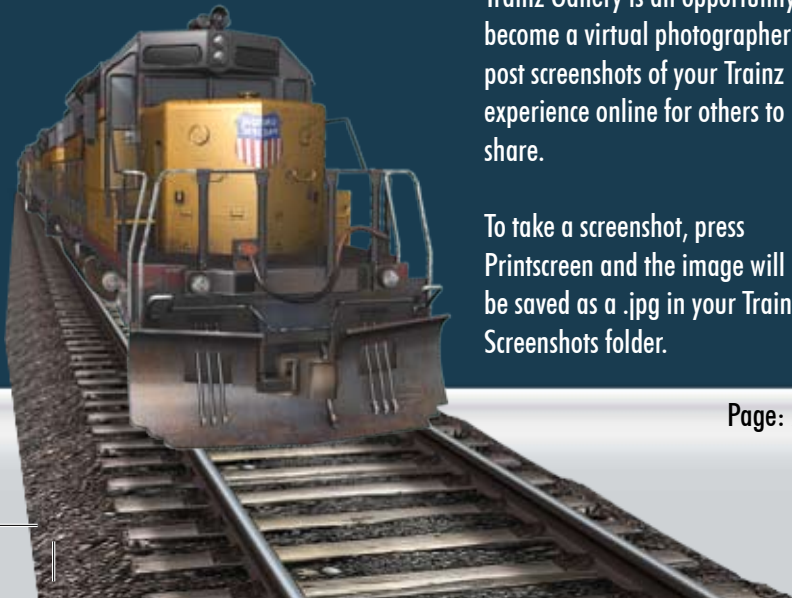
My Trainz:

Under the My Trainz tab you can check your Planet Auran details and set your Trainz Online preferences.

Gallery:

Train photos have been a passion for many people for many years.

Trainz Gallery is an opportunity to become a virtual photographer and post screenshots of your Trainz experience online for others to share.

To take a screenshot, press Printscreen and the image will be saved as a .jpg in your Trainz/Screenshots folder.
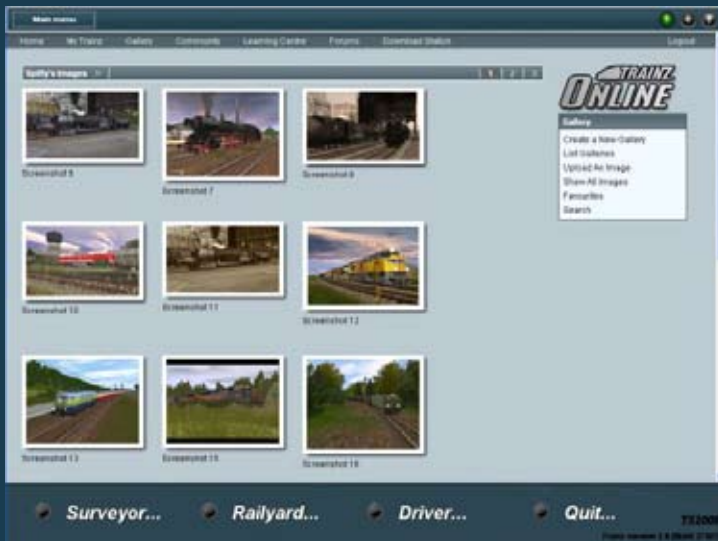
TRAINZ ONLINE

To upload an image, click on Upload Image and browse through the numbered screenshots. Enter a title, search tags and a description of the screenshot.

When browsing the Gallery, users can add Tags and Comments to help others find content that interests them.

Users can create also their own Galleries to view their favourite screenshots taken by others.

TRAINZ ONLINE

TrainzDev:

TrainzDev.com is a content development based portal where users can find out more about the behind the scenes activities in developing Trainz. You are welcome to join the TrainzDev community and become involved in creating content for future versions of Trainz.

Community:

Here you will find some of the latest or more popular forum threads and information about people from the Trainz community.

Download Station:

The Download Station has over 100,000 items related to every possible facet of rail. Some of the top content and latest content can be found on the Download Station page.

iTrainz Chat:

To chat with other Trainz fans, click on the iTrainz Chat icon in the top right of the Trainz Online Homepage. This opens the Chat Buddy List. Click on #trainz to open the general Trainz chat channel. Begin typing and press Enter to "publish"' your words for others to see.

You can create your own chat channels, add a Buddy and Ignore users. Ignore will stop you from seeing any comments from that person but they will still be able to see your comments.

MANAGING YOUR CONTENT

Content Manager V2.0 (CM2) is a very handy tool that helps you find, filter and manage your Trainz content; both what is installed on your hard drive and also what is on the Trainz Download Station. It also helps content creators edit content and check for errors. Detailed Help is included in CM2 under the Help menu and tutorials will be available through Trainz Online.

Open Content Manager V2.0 by clicking on the Content option on the Trainz Launcher. You will be prompted to enter your Planet Auran Username or to create one if you haven't already registered. By register-ing your Trainz Serial Number in your Planet Auran profile you will be able to search and download from the Trainz Download Station.

Overview:
CM2 displays a selection of assets in the main window. Clicking on the tabs at the top of the window will change which selection is displayed. Installed shows all local (i.e. on your PC) content whilst Download Station shows everything on the Trainz Download Station. Note that on start-up it may take a few minutes to populate the Download Station listing.

R-Click on any item to display the various options available to you such as Open for Edit or Download. You can't edit non-local items and can only download items from the Trainz Download Station.

MANAGING YOUR CONTENT

Down the left hand side are a number of Tools such as Download Helper and Search. Click on the double arrow to open and close these windows. You can resize or scroll up and down within each window. Remember to close unused windows to give yourself more workspace. Entries are saved whilst a window is closed.

Under File/Settings you can set preferences, add your Planet Auran details, check your First Class Ticket status, delete or reset filters. Under File you will also find options to Import, Repair and Launch Trainz.
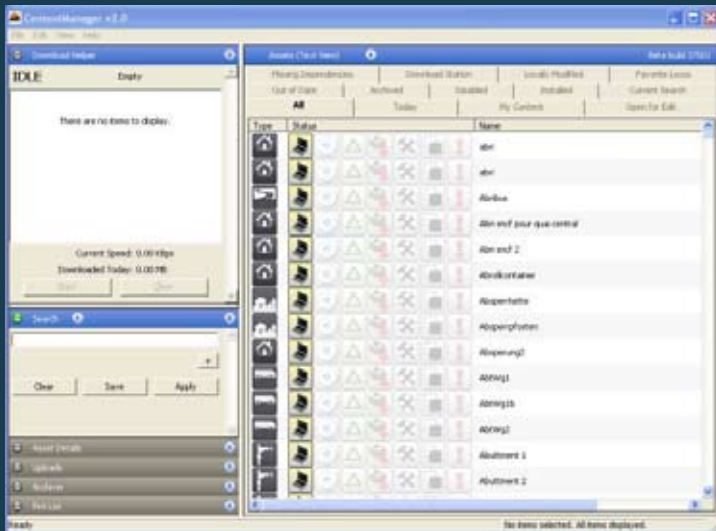
Searching and Filtering:
Typing in the Keyword field will display all content that matches the characters typed. You can further refine the Search by clicking on the + icon and choosing entries from the drop down box.

For example:
- Click on the Installed tab.
- Type BR in the keyword field and click Apply.
- The number of items selected is displayed on the bottom of the window.
- Next click on + and then click on the down arrow next to Name.
- Choose Category and a new drop down menu appears.
- The default Category is Routes.
- Click on the down arrow next to Routes and choose Train Vehicle.
- Click on the + icon to bring up another filter option.
- Name is the default option added.
- Type in Class and you now have a list of locomotives with the name Class and also BR somewhere in the title.
- Note that this list includes BR HST Class which would not show in the list if you simply used Name = BR Class.

You can Save various searches. The last 4 searches are saved automatically in each session. Saved searches also have a new tab added at the top of the Asset window.

Downloading:
Click on the Download Station tab (or under search choose Location = Download Station). Search for an item you wish to download. L-Click to select the item or use Ctrl-A to select all items in a list. Hold Ctrl and L-Click to select several items from a list.

MANAGING YOUR CONTENT

Once selected, drag the items onto the Download Helper window
(or R-Click and choose Download). CM2 searches for dependencies for that
item and displays an > arrow to indicate dependencies are available.
Items that are already installed are not included in this list. This system
allows you to build a large database of installed assets and removes the
need to re-download the same items over and over again. Click Start to
begin downloading. The progress is shown in the Helper window.

Sorting and Columns:
If you have a long list of items in the main Asset window, click on the
headings to sort by that column. Click again to reverse the sort order. You
can also add new column headings by R-Clicking on a column and checking
a new option.

Viewing Dependencies:
Select an item and R-Click then choose View Dependencies. This lists all
dependencies and a summary of any missing or faulty items. Click on View
in Main List to show all dependencies. Remember that the original asset is
not included in this list.

Using the Pick List:
You can build a picklist by dragging items into the Picklist Tool window.
Create multiple searches and drag the resultant items onto the picklist. The
items in your picklist are shown in Surveyor in the Content Search Filter
window. Of course only local (downloaded) items can be placed in Surveyor.

MANAGING YOUR CONTENT

Opening for Edit:
To edit an item you must first get "access" to the item. Select the item and R-Click to bring up the options menu. Choose Edit then Open for Edit or use Ctrl-E. Remember that most the built-in content does not ship with the source art files. This keeps installation and download size smaller but built-in items may show an error after re-commiting.

Committing Content:
After importing content you will need to Commit it prior to running Trainz. This process effectively adds the item to the Trainz database and during this process CM2 will perform certain actions such as compressing textures and error checking. These actions will help improve the quality of Trainz content over time.
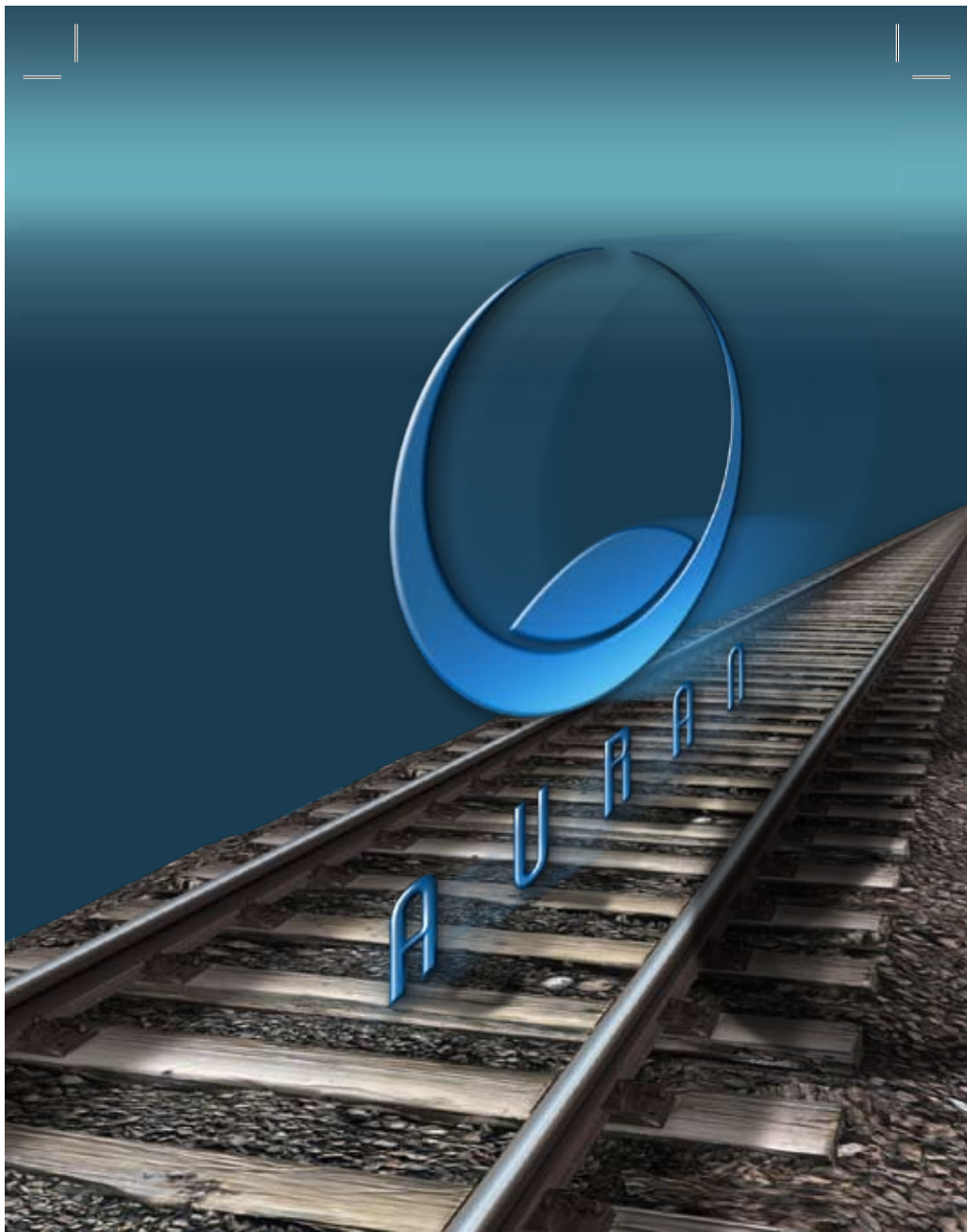
To commit an item or group of items, make a selection the r-Click to bring up the options menu. Choose Editià Commit or use Ctrl-M.

Repairing the Database:
If Content Manager crashes, it may need to repair the database. This process can take many hours if you have a lot of content installed. We strongly suggest that you keep a backup set of all your added content. These crashes are generally caused by faulty content. It is likely that an item that crashes CM2 will crash it if you attempt the same process again.

Having Fun:
Want to have some fun? Try pressing Ctrl-Alt-Shift-P on a new map, stand back and watch (click on the map and press esc to stop). Also try Ctrl-Alt-Shift-Z in a map with road traffic or Ctrl-Alt-A for a spectacular effect.