



TrainSimWorld 2 starters guide

Rush Hour edition

Rudolf Heijink

Version 2.0 August 2021



This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

You are free to:

- **Share** — copy and redistribute the material in any medium or format
- **Adapt** — remix, transform, and build upon the material

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:



Attribution — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.



NonCommercial — You may not use the material for [commercial purposes](#).



ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the [same license](#) as the original.

No additional restrictions — You may not apply legal terms or [technological measures](#) that legally restrict others from doing anything the license permits.

Notices:

- You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable [exception or limitation](#).
- No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as [publicity, privacy, or moral rights](#) may limit how you use the material.

Preface

Introduction

For a long time I thought it would be useful to create a starters guide for Trainsimulator, to make it easier to start using this game. I did not complete that project, but created a Starters Guide for TrainSimWorld in 2017. Now, we are at a point that TSW is replaced by a next generation, using the name TSW2. TSW2 is both familiar with TSW but also different. That is why I follow DTG and I created a new Starters Guide, specific for TSW2. This Guide will not cover DLCs and it only touches briefly on the routes that come with the core game. For Route DLCs I already created a number of Route Guides. Loco DLCs are included in the Route Guide they fit best with.

Most of this edition is new. I changed the structure, to make it better accessible for new players.

Images

Each chapter is introduced with a screenshot I made in game. In updated versions the screenshots will be replaced by newer ones, representing new content and features.

Acknowledgements

A big thank you to all community members that contributed to the contents of this guide. May will not be aware of their contribution, but lots of information comes from the community forums.

I definitely like to honor [Olaf the Snowman](#) for his knowledge on UK railroading and the willingness to share this with us.

Matt Peddleston contributed a lot, lately with his tutorial on braking, which I thankfully use as a source for this guide.

Frontpage image:

In game screenshot. GE 4/4 ii at the Arosa Linie.

Disclaimer

This guide is provided “as is” the author cannot accept any consequences from the use of this guide.

The contents is the sole responsibility of the author.

Contact

Comments are welcome at trainsimulator@hollandhiking.nl.

But please be aware that I cannot provide you help with your game issues. If you have any questions, please use one of the regular community forums.

Enjoy reading!

Rudolf Heijink

Contents

Preface	3
1 Introduction	10
1.1 About this guide	10
1.2 NEW Newsletter	11
1.3 Donations	11
1.4 You can help me	11
1.5 How to read this Starters Guide	11
2 Before you buy this game	13
2.1 TrainSimWorld2.....	13
2.1.1 About TrainSimWorld2.....	13
2.1.2 A brief history	14
2.1.3 A short review.....	15
2.1.4 What is new in TSW2.....	15
2.1.5 What's new after introduction.....	16
2.2 Rush Hour update.....	17
2.2.1 What has been changed	17
2.2.2 More information	18
2.3 Alternatives for TSW2.....	19
2.3.1 Stick to TSW2020.....	19
2.3.2 Open Rails and Microsoft Train Simulator.....	19
2.3.3 Trainz	20
2.3.4 Derail valley	20
2.3.5 DTG TrainSimulator	20
2.3.6 Run8.....	21
2.3.7 Open BVE	21
2.3.8 World of subway.....	21
2.3.9 SimRail	21
3 Buying TSW2.....	22
3.1 Should I buy it now?	22
3.2 TSW2 purchase options.....	22
3.2.1 TSW2 platforms	22
3.2.2 System requirements PC version.....	23
3.2.3 Create a Steam account (PC only)	24
3.3 TSW2 editions.....	24
3.3.1 For new players, not owning TSW2020.....	26
3.3.2 For existing player, already playing TSW2.....	26
3.4 Downloadable content	27
3.5 TSW XBOX Collector's edition	28
3.6 Using the PC download key at Steam.....	28
3.7 XBOX controller	28
3.8 TrackIR	29
3.9 Raildriver.....	30
4 Preparations	31
4.1 Game manuals.....	31
4.2 Video tutorials	32
4.3 Other guides	32
4.4 In game documentation	33
4.5 Streams.....	33

4.6	Support site	33
4.7	Roadmap.....	33
4.8	DTG Live.....	34
4.9	Malware protection.....	34
5	Playing basics	35
5.1	Introduction.....	35
5.2	Where to start playing?.....	35
5.3	Driver avatar.....	36
5.3.1	Initial setup	36
5.3.2	Change driver avatar	36
5.4	Basic introduction.....	37
5.5	Review your game settings.....	37
5.6	The Route menu	38
5.7	The in game webshop.....	39
5.8	Navigation basics and user interface.....	39
5.8.1	The Control Guide.....	40
5.8.2	Navigating using keyboard and mouse	41
5.8.3	Navigating using the controller	41
5.9	The HUD.....	41
5.9.1	HUD Guide	43
5.10	Driving.....	44
5.11	Braking.....	44
5.12	Pick up passengers.....	45
5.13	Using the 2D map	46
5.14	Route information page	48
5.15	Coupling and uncoupling.....	48
5.16	Setting switches.....	48
5.17	Signalling.....	48
5.17.1	Basics	48
5.17.2	Passing a signal at danger.....	49
5.17.3	Essential game settings	50
5.17.4	Setting units	50
5.17.5	Configuring the HUD.....	50
5.17.6	Configuring your screen	50
5.18	Safety systems and driving aids.....	51
5.18.1	Alerter.....	51
5.18.2	Cruise controls	51
5.18.3	Safety systems	52
5.19	Trouble shooting for beginners	53
5.19.1	Read the documentation.....	53
5.19.2	Google is your friend	53
5.19.3	Look for a Steam Guide	53
5.19.4	Ask a question at a forum.....	53
5.19.5	Update your computer software.....	53
5.19.6	Check your system specs	53
5.19.7	Remove all mods	53
5.19.8	Submit a ticket.....	54
5.19.9	Some common issues	54
6	Dovetail Live.....	56
6.1	Create an account.....	56
6.2	Check if you are connected	56

6.3	Screenshots	56
6.4	Drivers logbook.....	57
6.5	Mastery.....	58
6.6	Community challenges	58
7	Content types	59
7.1	Tutorials.....	59
7.2	Scenarios.....	59
7.3	Scenario planner.....	59
7.4	First person mode.....	59
7.5	Time table.....	60
7.6	Journeys.....	61
7.7	Progress views	61
7.7.1	Objective viewer.....	61
7.7.2	Pause screen.....	62
8	Rewards	63
8.1	Introduction.....	63
8.2	Action points.....	63
8.3	Levels	64
8.4	Journeys.....	64
8.5	Medals	64
8.6	Achievements	65
8.7	Mastery.....	66
8.7.1	In game mastery screen	66
8.7.2	DTG Live mastery screen	67
8.7.3	Setting up your reward tile.....	68
8.8	Challenges.....	69
8.9	Tasks/collectables.....	69
9	HUD settings.....	72
10	Key bindings	75
10.1	Camera keys	75
10.2	Walking keys.....	76
10.3	Driving keys	77
10.4	Braking keys.....	77
10.5	Light keys.....	78
10.6	Safety systems keys	78
10.7	Setup keys.....	79
10.8	Other keys	79
11	Game settings.....	80
11.1	Sound settings	80
11.2	Screen settings	81
11.3	Game play settings	81
11.4	Where to change settings.....	81
11.5	Advanced cab sway settings.....	82
11.6	Setting the number of allowed liveries	83
11.7	Setting passenger density.....	83
11.8	Performance tuning.....	83
11.9	Advanced engine.ini settings full list	84
12	Advanced topics	85
12.1	Preserved collection	85

12.1.1	What is preserved collection	85
12.1.2	Status overview of TSW2020 DLC.....	85
12.1.3	Why would you still play TSW2020?	86
12.1.4	Uninstalling TSW2020 DLC	87
12.2	Time tables	88
12.3	Combining the German DLC	89
12.4	Screenshots	89
12.5	ToolkitForTSW	91
12.6	Multiple units	91
12.7	Starting on a grade	92
12.8	Sandpatch driving issues	92
12.9	Take control of a train	92
12.10	Turntable	92
12.11	Switching liveries	92
12.12	Snow	93
12.13	XBOX controller not recognized	93
12.14	Hijack an AI service to bypass a stuck stop signal	93
12.15	Climbing back at the platform	94
12.16	Train wash	94
12.17	Train lights	94
12.18	Realistic driving experience	94
12.19	Wind mills.....	95
12.20	Donkeys	95
12.21	Platform information Systems.....	95
12.22	Level crossings	95
12.23	Mirrors.....	95
13	Modding.....	96
13.1	Introduction and warnings	96
13.2	Sharing user created scenarios.....	97
13.3	Livery designer.....	97
13.4	Sharing liveries.....	97
13.5	Using unsupported settings.....	98
13.6	Using Mods that come in .pak files	99
13.7	Experiments with settings	100
13.7.1	Improvement of visual quality.....	100
13.7.2	Advanced cab sway settings.....	101
13.8	Setting passenger density.....	102
13.9	Performance tuning.....	102
13.10	Creating mods with .pak files	103
13.10.1	Unpacking game files.....	103
13.10.2	Get access to the livery.....	104
13.10.3	Detailed how to video	104
13.11	Consist editing	104
13.12	Messing with .sav files.....	104
13.13	Adapting shaders:.....	104
13.14	Setting the number of allowed liveries	105
14	Known issues.....	106
14.1	Lost game saves due to update	106
14.2	Foreign keyboards	106
14.3	Login Dovetail-Live	106
14.4	Cannot move with XBOX controller.....	106

14.5	Loading screen when switching camera from front to back	107
14.6	Weird behaviour when trying to resume a saved game	107
14.7	HUD issues	107
14.8	Game always starts in a tutorial or journey.	107
15	Communities	108
15.1	Introduction.....	108
15.2	DTG sites.....	108
15.3	Steam forum.....	109
15.4	UKTS.....	109
15.5	Railworks America	109
15.6	Rail-sim.de	109
15.7	DutchSims.....	109
15.8	Railsim.fr.....	109
16	Frequently asked questions	110
16.1	Can I run this game at my system?.....	110
16.2	Can we create our own content?	110
16.3	Does TSW2 support VR?	110
16.4	Does TSW2 support TrackIR?	110
16.5	Does TSW2 support RailDriver?.....	110
16.6	Will there be steam engines?	110
16.7	When do we get multiplayer?	110
16.8	What about free roam.....	111
16.9	Will there be DLC with	111
16.10	Will this be the end of Trainsimulator?	111
16.11	Will this be the end of TSW2020?	111
	Availability of this guide.....	112
	Index	113

List of figures

Figure 1 Bookmark button in Adobe Reader	12
Figure 2 XBOX controller	28
Figure 3 Link to the game manual	31
Figure 4 Turn off auto-load journeys to avoid confusion	37
Figure 5 Filter routes by operator	38
Figure 6 Routes screen with avatar and filter	38
Figure 7 In game shop page	39
Figure 8 Control guide for keyboard	40
Figure 9 Control guide for controllers	41
Figure 10 Speedometer HUD functions	42
Figure 11 The HUD Guide	43
Figure 12 Example of gradient and speed profile	47
Figure 13 Pause menu map	47
Figure 14 Menu to get permission to pass signal at danger	50
Figure 15 The blue line shows the target speed for the cruise control	52
Figure 16 Check your DTG Live login status	56
Figure 17 Drivers logbook sample page	58
Figure 18 Search/filter option timetable mode	60
Figure 19 Select a specific Journey Chapter	61
Figure 20 Objective viewer	62
Figure 21 Overview of medals	65
Figure 22 Achievements details page at steam	65
Figure 23 In game Mastery screen, SKA route opened	67
Figure 24 Mastery rewards for TSW2020 for the second level can be activated in TSW2	69
Figure 25. Collectables for Sandpatch Grade	70
Figure 26 Task progress in player profile	70
Figure 27 All separately switchable elements in the HUD	72
Figure 28 Stop Marker	73
Figure 29 Preserved collection overview	87
Figure 30 Manage you installed DLC	88
Figure 31 Steam list with DLC	88
Figure 32 Setting to include/exclude HUD for Dovetail Live screenshot	90
Figure 33 Enabling Banking for Sandpatch	91
Figure 34 Unblock a blocked route after resuming a save	93
Figure 35. Climb back at the platform in GWE can be done at these locations	94



1 Introduction

1.1 About this guide

Train simulation is a serious game with a fairly steep learning curve. To give you a head start, I created this guide, which targets Train Sim World2. It has editions for PC, available at steam or the Epic Games Store, PlayStation or the XBOX.

This version targets the **Rush Hour update**, which is available already for the Epic Games Store and will be available for other platforms soon. I created a little logo to show you where to look for changes and information specific for the Rush Hour update:



Note: this edition is based upon the Epic Games Store edition of TSW2. This uses the upgraded Rush Hour core game, but not all functions are available yet. After the first Rush Hour Route, the Boston Sprinter Route is available (somewhere in August 2021, would be my guess), there will be a version 2.1 of this guide.)

This guide should help you with following questions:

1. What kind of game is it?
2. Should I buy this game?
3. Where can I find additional content and tools?
4. Which communities are useful for me?
5. Additions to the official game manuals
6. Tips and tricks you won't find in the official game manual, most of them provided by community members.

In addition to this manual I created a number of route guides with specific information on signalling, the rolling stock and whatever I can find for you. Check out my website for them!

1.2 NEW Newsletter

At the website you now can subscribe to my free newsletter. It will inform you about new guides, updated guides and software updates. Just complete the form. Your mail address only will be used to send you this newsletter. You find the form here:

<https://www.hollandhiking.nl/trainsimulator>

1.3 Donations

In order to provide this content, I need to spend some money , e.g. the newsletter is not free, webhosting, additional tools and so on. I appreciate a onetime contribution of Euro 5,- (no need to repeat this or send more money). There is no obligation to do this, but I am grateful.

You can use this link, the QR code, or use the paypal link at my website.

https://www.paypal.com/cgi-bin/webscr?cmd=_donations&business=LNBS2R49HHBF6¤cy_code=EUR&source=url



1.4 You can help me

If you want to help me to create Guides or Tools, please contact me directly. I would love to form a small team. See the preface to find my email address.

1.5 How to read this Starters Guide

With respect to the TSW edition, I changed a lot in the structure of the guide. You can read it in order of your phase in playing the game. The guide starts with the question: Should I buy this game?

In case you say yes, the next chapter gives some information on your options in buying TSW2 and the downloadable content that accompanies the game and you may want to buy as well.

Once you own the game, some basics to get you started will be covered.

Hopefully you will get very enthusiastic now and for that case, this Guide provides a lot of details you may like to know. This is really advanced stuff and hopefully it is fun to read about it and try some things.

If you open this document using Adobe Reader, you can open the bookmarks tab at the left side. This will show you the contents of this guide and it allows you to navigate quickly.

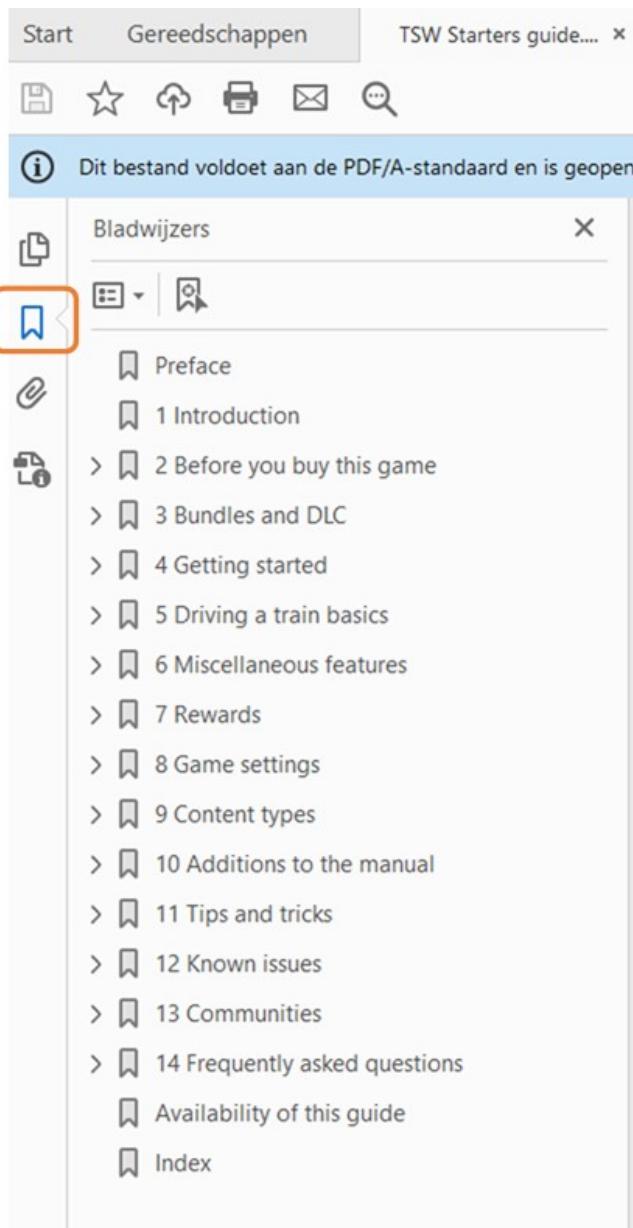


Figure 1 Bookmark button in Adobe Reader



2 Before you buy this game

2.1 TrainSimWorld2

2.1.1 About TrainSimWorld2

TrainSimWorld2 (TSW2) is a first person railway simulation program, or train simulator. Essentially, the game purpose is that you drive a train safely from A to B, performing a number of tasks on your way and avoiding violation of the basic rules for a train driver:

1. Never exceed the maximum allowed speed.
2. Never pass a signal at danger without explicit permission to do so.
3. Drive according to the time schedule, do not depart early, do not arrive late.
4. Perform all work orders.
5. Comply with safety regulations.

The game has no end, you can play it as long as you like. Also it is not competitive, you cannot win a game, but you can:

- Learn about different signalling rules
- Learn about the huge differences between different trains
- Enjoy beautiful landscapes
- Find out if you would like to be a train driver
- Walk along the tracks and find objects.
- Get points, achievements, medals and more
- ...

Because a train drives on track, driving a train seems simple. Once the engine is working you can only drive and stop forward or backward. It is far more complicated than you might think.

- Trains are heavy, which means it takes a long time to make them stop. The braking system is not very helpful.
- Stopping exactly at the right spot is hard, if you combine it with the requirement to arrive on time.
- Signals may be difficult to see in time.
- Safety procedures may interrupt driving if you are not alert all time.
- Landscape (especially grades) and weather conditions have a lot of impact on the behaviour of a train.
- Trains have some flexibility, especially with long trains this may result in speed differences between front and rear.
- Steam engines have a lot of particular optimization rules to make them run properly, especially going up a hill. (Note TSW2 does not yet have any steam engines).
- You will have very different driving experiences at the various routes, ranging from very dynamic starting/stopping at Bakerloo Line via driving high speed up to 320km/h or driving a 5000 ton freight train on a steep slope where you need four engines.

This makes train simulators a specific class of simulation games.

Train Sim World 2 (TSW2) is a third generation train simulator. Still, the key is you are a train driver and performs the tasks a train driver performs. It is new in a number of ways:

1. The game engine is more based on train physics than its predecessors, contributing to realism.
2. Trains and landscape are modelled with more detail than its predecessors. Just have a look at the picture above this chapter and see how much detail there is in the flowers.
3. TSW has a number of features like a cold boot, probably fairly realistic handling of multiple units and brakes. You can use these features and gain a lot more of insights in how you keep these engines running, though it is possible to just drive them more like TS2020.
4. New is that the game is much more prepared for new gameplay and multiplayer options, though these will not be available in the foreseeable future. An example is that you walk now along the tracks, enter a train that is driven automatically, operate the turntable and switches by walking to the correct location. I'm sure there will be a gameplay possible where a driver and shunter work together to compose a train. Probably it will be possible to have a separate dispatch role.
5. This will be the first train simulator that will run on other platforms than Windows. Xbox and PS4 versions are available.
6. New is service/timetable mode, a whole day with scheduled trains. You pick one of them and drive that train to its destination. What would happen if other players pick other trains and drive these?
7. It has a number of features we take for granted, but that are in fact very new and innovative. One of them is that if you own additional engines, they can be integrated in the existing game, providing more variety.
8. There are some very limited ways to create your own content. You can create liveries and you can create very simple scenarios (not more than driving a train from A to B unfortunately).

So, this all sounds good. The downside is. you need a powerful game PC to play.

If you are not sure if you will like to play this type of game, you may choose Open Rails. This is free and you can find out if you like the concepts, though I think in the long run, TSW2 will be far superior. See also section 2.3.2

2.1.2 A brief history

TSW was developed as the successor or Trainsimulator (see 2.3.5), which is technically end of life. It would be very hard to increase realism and make changes so it runs more smoothly as to add more features, while not breaking existing content. But, even today Trainsimulator is still a very interesting simulator which you may enjoy playing.

TSW became available, I think somewhere in 2017. People may disagree with me, but I think essentially DTG did a good job. It runs far more stable than Trainsimulator and it has a number of features that people may take for granted, but that are new. This guide is about all these features, so I will try not to elaborate a lot on them here. Over the last three years TSW was developed a lot further and it has a number of features the initial version did not have. I cannot resist to name a few, which are available in TSW2020:

- Passenger services
- Riding as a passenger
- Walking along the tracks
- High detailed worlds
- The layer system that adds drives and additional rolling stock if you own a combination of DLC.
- Console versions for XBOX and Playstation
- Safety systems, AWS, PZB, ATC and ACSES.
- Journeys
- Mastery

The problem is DTG did not manage to fulfil an number of urgent wishes, among them:

- A content editor
- Multiplayer
- Steam engines
- VR, TrackIR and Raildriver support

So I think they got stuck and realized they were going into a dead end. Therefore they decided to step back a bit and restart development, based on the huge amount of experience and made the decision to issue it as a new game and not as an update. That is how TSW2 was born in 2020.

Note: Raildriver support is in beta now. TrackIR and steam engines are in development. There will not be a full content editor for a number of reasons.

2.1.3 A short review

In the gaming community there are a fair number of people that are very critical towards DTG and TSWx. In part this is justified, but when people speak about a bug galore and similar terms, this is not justified.

It is a complex game and some people blame the game for incompetence to play and get things working.

My very short review:

- TSW2 runs fairly stable, far more stable than the “old” Trainsimulator game.
- You can play most of the content without problems.
- You may or may not be happy with the amount of detail provided in the simulation. There are some technical limitations and of course the detail level is limited by development costs as well.
- Some people complain about the number of DLC. DLC will increase the game play and it is the business model for this game. Without DLC it would not exist. But you can just buy the DLC that are worth the money for you. In the long run, buying all DLC is not a good idea
- There is a roadmap, showing what they are actually working on. Outside this roadmap there are no promises and that is good.

2.1.4 What is new in TSW2

I recommend to study the web page and answers to questions posted there as well. I only can give a brief summary:

<https://live.dovetailgames.com/live/train-sim-world/about-trainsimworld>

The link to the Q&A session is here:

<https://www.youtube.com/watch?v=OIS-BXQFdjk>

Note this stream is divided in a number of parts, each one clearly visible announced, so you can select the part you want to see easily.

The parts are (in order):

1. Transition
2. Preserved collection
3. Livery designer
4. Scenario planner
5. Features
6. Tech
7. Routes
8. Communication

I recommend to watch this video it is very clear. There now quite a few devstreams that showing content. This Q&A does not show anything yet.

- Adhesion simulation, in simple terms wheel slip. This should give us more realism when driving, especially with heavy freight trains uphill.
- Support for 4k video, so higher resolutions
- A better HUD, better instructions. Not sure what this exactly means.
- Scenario Planner, a tool you can use to set destinations and locos to create scenarios. The Scenario Planner will be usable on most routes and with most rolling stock.
- In-game Livery Designer, a tool to create your own liveries. I think this also is mostly pre-cooked and will not give a very large degree of freedom.
- Driver Logbook. (available as beta)
- Train weights. Loaded trains will feel loaded.
- LZB safety system
- Rudimentary platform passenger information systems

There are two new routes:

1. Köln-Aachen, featuring the ICE3 with a max speed of 260 km/h. This is spectacular, but 70 km is a bit short for an ICE.
2. Bakerloo Line a short 14 miles London metro line with one single electrical multiple unit

Both routes are passenger only, initially, but Köln Aachen will have freight trains if you own the preserved collection routes Main-Spessart Bahn and Rhein-Ruhr Osten.

Additionally, the Sandpatch route will be improved and number of drives will be added. It also will be available for consoles now, which is good. A new feature is that weight of wagons is taken into account and there will be a different driving experience between loaded and empty trains.

2.1.5 What's new after introduction

After its first release a lot of new stuff is added or is on its way. I mention those new developments here:

1. Passenger information systems have evolved. At the Münich-Augsburg route they even represent delays properly. Work is continued.
2. There is a beta now for RailDriver. It does not yet support all routes, but it is there.
3. Steam engines are in development, though it will take time to release them.
4. TrackIR support is in development.
5. Mastery is back

6. There now is a drivers logbook
7. They are working on support to have multiple timetables on a route.
8. Reserved collection stock will be compatible with the livery editor
9. Scenario planner works on all routes (except for some bugs)
10. Sound issues have a high priority to get fixed
11. Work is done on performance improvements. This is ongoing and needed so we can have more trains on a route and so on.
12. At the moment three third party development teams are creating their own content. More will follow.
13. Working Level crossings (not yet for all routes).
14. TVM safety system
15. Dynamic passenger information on trains (SHE route only at the moment), which makes it possible to add destinations on other routes very easily.
16. Work is in progress to support multiple timetables.

I probably forgot a few developments. Let me know!

What this makes clear is that this game is not dead. About 80 people are working on it and the number is still growing. With each new route you see new features and there is a team to update existing content with improved features as well.

Warning: I used an NVidia 660GTX which is underpowered, but it worked. After about 200 hours playing TSW the card was defect. It is possible that that it was overcharged, so be careful if your system does not meet the requirements!

2.2 Rush Hour update

2.2.1 What has been changed



If you are a new player, you may want to skip this section for the moment.

Since the initial release of TSW2 we have seen a number of updates. Some older routes have been updated to present standards and new features were added. We also see new content coming at a fairly high speed. About one DLC per month at the moment.

The Rush Hour update comprises of a number of separate updates:

1. **Free** An update for the core game, including changed menus, grade profile, TrackIR support, additional controller functions, far more passengers and more variation in passengers, some fixes, performance improvements, upgrade to Unreal Engine version 4.26
2. **Paid** The release of a bundle with three new routes with Rush Hour as central theme. More passengers and more variety in passengers, busy timetables
3. **Free** Two existing routes, Bakerloo Line and Köln-Aachen get Rush Hour features as well.
4. **Free** Some other routes will be upgraded and a number of bugs will be fixed, including Bakerloo Line, West Somerset Railway, Main Spessart Bahn.
5. **Free/ Paid** Support for the next generation consoles.
6. **Free** File size is much smaller, due to better compression techniques in the Unreal Engine.

In summary this is a big pack of changes. Also, very recently it announced that the Scenario Planner and Livery Designer will get a major update. No details are known yet, but they are working on possibilities to share your creations.

For existing player this means they will get an enhanced playing experience and some of the content updates are really exciting.

The major disadvantage is that you need to download all content again, which may be a huge download.

Tip: to avoid a long waiting time before you can play again, you may uninstall most content. This also is necessary if you are low on free disk space. Steam needs a lot of space for the update! I do not know how to do this at the consoles, but in Steam you can proceed using the procedure described in chapter 12.1.4

The text was written for a different context, but it serves the same purpose.

2.2.2 More information

For the Rush Hour release there is a Q&A here: <https://live.dovetailgames.com/live/train-sim-world/rushhour>

Some articles give more background on the new features and how the routes are built:

Topic	Link
General Q&A	https://live.dovetailgames.com/live/train-sim-world/rushhour
Creating Boston Sprinter route	https://live.dovetailgames.com/live/train-sim-world/articles/article/creating-northeast-corridor-boston-providence
First screens Boston Sprinter	https://live.dovetailgames.com/live/train-sim-world/articles/article/boston-sprinter-first-screens
Creating London Commuter route	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-building-brighton-main-line
Creating Dresden Nahverkehr	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-building-riesa-dresden
24 hour timetable	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-creating-24-hour-timetables
Immersion, updated controllers, gradient profile and TrackIR	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-creating-immersion
Upgraded passenger system	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-creating-passengers
Season ticket background	https://live.dovetailgames.com/live/train-sim-world/articles/article/rush-hour-now-all-summer-long
Epic Games Store announcement	https://live.dovetailgames.com/live/train-sim-world/articles/article/tsw2-epicgames-store

You also can watch a number of live streams relevant for Rush Hour:

Q&A stream, including demos of TrackIR, the new menus and the gradient profile:	https://www.youtube.com/watch?v=eyQFkMmX1Ng
Q&A stream introducing the upgraded passengers (no demo unfortunately) and also some information is given on the Scenario Planner and Livery Designer, mainly about sharing content using DTG Live:	https://www.youtube.com/watch?v=hrBgkm7Pjik

Roadmap stream explaining updates to older routes coming with the Rush Hour Core update

<https://www.youtube.com/watch?v=eoK5uoau9Wc>

In the period towards the publishing dates of TSW2 community members asked a lot of questions. There were answered in a number of streams and at forums. Sam, the community manager prepared a list which summarizes all these questions and answers. Though it targets mainly on existing players, it may be interesting to scroll through the list and see if it is helpful to you.

<https://forums.dovetailgames.com/threads/train-sim-world-2-frequently-asked-questions.25065/>

2.3 Alternatives for TSW2

If you are not sure if you will like this game, or if your computer does not meet the requirements, there are some alternatives.

2.3.1 Stick to TSW2020

If you do own TSW2020:

You can continue to play TSW2020. It will work, you can buy the available TSW DLC and at any moment you can switch to TSW2 if you like. But, there will be no more bug fixes and no more new DLC.

If you do NOT own TSW2020 already:

In general, my advice is not to buy TSW2020 anymore. TSW2 has the same price and many routes were updated for TSW2. You simply will get a better gaming experience. The only reason to buy TSW2020 is because of the attractive DeLuxe bundle, which gives you six routes for the price of two, if you do not yet own them. You will get TSW2 copies for free then.

2.3.2 Open Rails and Microsoft Train Simulator

Microsoft Train Simulator (MSTS) exists since 2001 and still has a large fan base. You still can run the program, even on a Windows10 computer and it is still useful because of the widely used assets that are part of the routes included in the base game. You can buy it directly from Microsoft for US\$ 1.99. (Yes this is correct!).

<https://www.microsoft.com/en-us/store/p/train-sim/9wzdncrfj2zq>

But there is a new game engine that is compatible with this simulator. It is called Open Rails. Version 1.3.1 is available now and it is free. (The version number means that it covers all basic functions MSTS has and some more).

Download it here:

<http://www.openrails.org/>

You still will need the original MSTS if you want to create content, but for just driving you no longer need MSTS, though you may still need some of the MSTS routes. For playing the game Open Rails is a better solution. It is almost compatible, but behaves a bit different, because they tried to improve physics. Gradually it will get additional features MSTS does not have.

Please be aware that the graphics quality of the old MSTS content may look very outdated, once you have seen TSW2 or TS2021.

Note: Jim Shilliday says this cheap version of MSTS you can buy now will not work together with Open Rails because it is an app and has a very different installation method which is not compatible with Open Rails. So

you need to search for the original discs and get them somewhere second hand if you want to create content. Otherwise you may just install the present version and copy the routes to OpenRails (not checked if you can do this, but not much to lose here).

A big disadvantage is that the visual quality of the graphics will look outdated, but it is far less demanding for your computer. The latest version of Open Rails has some downloadable content (one of them a BNSF (payware) route, which is nice for non-US citizens, because BNSF does not grant licenses outside the USA). Maybe this content has a higher quality than the original MSTS content.

Tip: if you are new to train simulation, try this, without investing money you can find out if you like train simulation.

2.3.3 Trainz

Trainz is another simulator. I never owned it, so cannot tell if it is any good. It has a far smaller customer base than the other train simulators.

At the steam forums I found this description of Trainz by [cuavas](#)

"The best way to explain Trainz is that it's a model railway simulator that's grown train driving features. It has a big emphasis on building your own layouts, and it lets you control multiple trains with a virtual Digital Command Control system as you would with a model railway. Cab mode, which has some level of vehicle dynamics simulation, was added later. (There was also a cut-down version called Trainz Driver that omits the layout editing features.) There's a fair bit of free content available for Trainz."

2.3.4 Derail Valley

Derail Valley is targeting to a very realistic driving experience. It is still in development. I think you may like it most if you have a Virtual reality device. As far as I can see, graphics quality matches TrainSimulator more or less.

https://store.steampowered.com/app/588030/Derail_Valley/

<http://www.derailvalley.com/>

It looks like it has one small world and it is mainly about having a driving experience. There is some economy aspect involved as well.

I think this may be interesting, given the positive comments of the fans and it is good for DTG to have some serious competition.

2.3.5 DTG TrainSimulator

In 2009 Kuju presented something they called RailSimulator. This evolved to RailWorks and what is now called TrainSimulator2020 (TS2020), which is developed further by DTG. DTG now has about 50 people working on this product, so it is kind of huge. It is the predecessor of TSW.

Note: recently TS2021 came up. If you own an older version, you get the core game update for free, but you need to buy the bundle if you want the new routes. I did not adapt the naming in this guide.

For TS2020 a large amount of additional content is available. DTG has announced that they will continue support and development for TS2020. This is discussed often by the community, but the simple fact that it will take 2-3 years before DTG will make a profit on TSW (my estimation), makes me believe they will not abandon the "cash cow" in the next few years. Experience with MSTS shows that there will be a fan base for TS2020 for a long period of time, so no need to worry.

TS2020 is a good alternative if you do not have the patience to wait for TSW2 to grow. Maybe you want to play both. Believe me, there will be a lot of fun playing TS2020 for the next years, where the amount of available content is a big selling point.

In 2019 DTG released a 64-bit version. You get it for free together with the 32 bit version. This circumvents some limitations in route size and amount of detail possible in rolling stock, because it allows more than 4Gb RAM to be used for the game.

In principle it should run more stable with regard to more demanding routes. Unfortunately it is less tolerant for bugs in content and crashes more often. Into my opinion TSW is far more stable and crashes far less than TS2020.

The result of this innovation is that people say there is no future for TSW ... which has been influenced by the decision of DTG to stop development of a flight simulator. I still believe our best bet for a decent Train Simulator is TSW for the next few years, so it better be successful.

Though TS2020 is a good grown up game, it feels old and low graphics quality if you played TSW2 for a while. Be warned.

Note: if you buy TrainSimulator it will be upgraded to the latest version of the core game for free. But you will not get the new routes that are sold together with the core game. So if you buy now a legal copy of say TS2014, the core game will be upgraded to the latest version but you will retain the routes for the TS2014 game. So if you can buy a cheap elder version somewhere, with a valid registration key, do so!

2.3.6 Run8

As far as I understand Run8 is targeting to a more realistic driving experience, including multiplayer, and a more or less realistic looking dispatch panel. For more information see <http://www.run8studios.com/>

At the moment I only see US based content and prices are a much higher than for the DTG simulators. The landscape detail quality is below the present standards for TS2020.

2.3.7 Open BVE

Open BVE has some focus in Japan and the UK. It may be interesting if you like to play with a train simulator on exotic operating systems, e.g. Mac, Linux, iOS or Android. On the negative side, landscape detailing is low (as far as I can see at some YouTube videos), but it is free, so why not give it a try? <https://openbve-project.net/>

2.3.8 World of subway

This is not a real alternative, but it has a good reputation. There are four relatively short subway routes. Each of them is a standalone game which gives you an experience of being a subway driver. Buy them at steam.

<https://store.steampowered.com/developer/tmstudios/list/35946/>

2.3.9 SimRail

SimRail is a new train simulator. It still is in development with a Polish company. It is scheduled to be available in September 2021 and causes quite lot of debate at the forums. Originally this company developed profession train simulators to educate drivers, but they co-operate now with a game company.

We need to see if this works and for which platforms it will be available.

A link to steam: https://store.steampowered.com/app/1422130/SimRail_2021__The_Railway_Simulator/



3 Buying TSW2

3.1 Should I buy it now?

In order to find out if TSW2 is something for you, you should answer following questions with yes:

1. Do you like the idea of being a train driver, which requires a lot of focus and concentration, while for long periods of time nothing sensational will happen?
2. Do you possess a PC that meets the minimum requirements for TSW2 (see below)?
3. Do you like to have a realistic driving experience? Like being able to walk around the train, walk along tracks, ride as a passenger, perform cold boots?
4. Would you like to play with setting up multiple units, cold boots for engines etcetera?
5. Can you afford to pay Euro 30 or US\$ 40 for this game?

If you answer most questions with yes, then you may consider to buy this game. If the problem is in the second question, you may either invest a lot of money, or try one of the alternatives.

You also may want to wait for the next sale. It definitely will be much cheaper then. I think you can get it for Euro 10 if you have enough patience.

3.2 TSW2 purchase options

3.2.1 TSW2 platforms



TSW2 is available for PC, XBOX and PlayStation. Using a console may be an option if you cannot afford to buy an expensive game PC or if you prefer to play on a large TV screen using a controller.

Points to consider for your choice:

- It is NOT possible to transfer game content between platforms/editions.** For each platform edition you need to buy the core game and all DLC again. Please be aware of this, it can be very expensive.
- This also holds for the two game shops for PC, the Epic Games Shop (ESG) and steam. If you bought the game for ESG, you cannot mix it with content you bought at steam. On the other hand, you can run both editions at the same computer without problem, but they will be completely separate.
- I love to use the XBOX controller also when playing at the PC, but I recommend to have at least a keyboard available when playing (if this is supported for consoles), but I am not sure this is a good solution to handle the controls in the engine. For this keyboard and mouse are more suitable.
- TrackIR only works on the PC versions, because there are no drivers available for consoles at the moment.
- Raildriver only works on the PC versions.
- All DLC are available for console as well. In most cases additional content will be available for all platforms at the same day.
- For consoles some restrictions apply to content, because the performance of especially the elder consoles is in general less than PC performance. . You may have shorter trains in some cases and in München Augsburg you cannot use additional drives with trains from other routes (this is called layers and will be explained in more detail in chapter 12.3).
- It is interesting to see how players are divided between the supported platforms. In the end of year Q&A DTG states that all three platforms are about equally important for business.

Major store locations:

Platform	Store	Url
PC, steam	Steam	https://store.steampowered.com/app/1282590/Train_Sim_World_2/
PC, EGS	Epic Games Store	https://www.epicgames.com/store/en-US/p/train-sim-world-2
PC, steam	DTG webshop	https://store.dovetailgames.com
PC, steam	Rivet webshop	https://www.rivet-games.com/products/
Playstation	Play Station Store Europe	https://store.playstation.com/en-gb/product/EP2866-CUSA19355_00-TRAINSIMWORLD21D/
Playstation	Play Station Store US	https://store.playstation.com/en-us/product/UP3004-CUSA19462_00-TRAINSIMWORLD21D/
XBOX	XBOX store	https://www.microsoft.com/en-gb/p/train-sim-world-2/9pbb13rrd77z#activetab=pivot:overviewtab

You may find some other stores as well, offering good discounts. Personally the DTG store is not very good, but sometimes they have discounts you will not find in other stores.

The Rivet webshop only sells their own TSW2 products. They will follow discounts provided at steam accurately and it is nice to support this not so big DLC developer by buying directly from them.

3.2.2 System requirements PC version

Minimum:

- OS: 64-bit Windows 7 Service Pack 1, Windows 8 / 8.1 or Windows 10
- Processor: Intel Core i5-4690 @ 3.5 GHz or AMD Ryzen 5 1500X @ 3.7 GHz
- Memory: 8 GB RAM
- Graphics: NVIDIA GeForce GTX 750 Ti or AMD Radeon R9 270 with 2 GB VRAM or more
- DirectX: Version 10
- Network: Broadband Internet connection

- Storage: 20 GB available space
- Sound Card: DirectX Compatible
- Additional Notes: Requires mouse and keyboard or Xbox Controller

Recommended:

- OS: 64-bit Windows 7 Service Pack 1, Windows 8 / 8.1 or Windows 10
- Processor: Intel Core i7-4790 @ 3.6 GHz or AMD Ryzen 7 1700 @ 3.8 GHz
- Memory: 8 GB RAM
- Graphics: NVIDIA GeForce GTX 970 or AMD Radeon RX 480 with 4 GB VRAM or more
- DirectX: Version 10
- Network: Broadband Internet connection
- Storage: 20 GB available space
- Sound Card: DirectX Compatible
- Additional Notes: Requires mouse and keyboard or Xbox Controller

You can trade some components a little bit. If you own an SSD and have a powerful processor, you may use a bit lower quality graphics card. If you are willing to accept some stutter and low frame rates and/or lower visual quality, you may use systems that are a bit under the level indicated.

What certainly will not work is a laptop without a separate graphics card.

Bottom line, you can try. If you play less than two hours, you can get a refund at steam. Unfortunately two hours may not be enough to really experience the game.

3.2.3 Create a Steam account (PC only)

TSW2 runs using the Steam gaming platform, in case you use a PC. So, if you do not yet have a Steam account, your first step is to create one:

<https://store.steampowered.com/>

You may start downloading the Steam software. This software gives you a kind of dedicated web browser to manage all games you purchase at steam.

You may click at the login button to create an account. I recommend to install Steam as well on your smart phone for double verification and more safety.

3.3 TSW2 editions



Here it may feel a bit overwhelming, due to the complexity. I tried to make a scheme on how can proceed from here, because there are several bundles you can choose from. In general, it is good to watch for a sale, around the year there are many sales.

In general a good strategy is this one:

- Subscribe to DTGs newsletter
- Put the game in Steam at the Wishlist

Now you just wait till a sale that suits you is announced. A discount of 50% for the Core game is definitely possible with some patience. For additional routes, 50% is about the maximum you may get after a long waiting time.

In the scheme below, you can see an overview of all bundles that are available now. This may change over time.

Content options	TSW2 Core	TSW DeLuxe	TSW2 Collectors	TSW2 RH	TSW2 RH DeLuxe	TSW2020 Deluxe
price in Euro's	30	50	55	40	50	50
TSW2020 core game						x
TSW2 core game	x	x	x		x	
Sandpatch grade route	x	x	x		x	
Bakerloo Line	x	x	x		x	
Köln-Aachen	x	x	x		x	
East Coast Way		x	x			
Hauptstrecke Rhein-Ruhr			x			
Peninsula Corridor			x			x
Long Island Railroad						x
Main-Spessart Bahn						x
Northern Trans Pennine						x
Sandpatch grade (TSW2020 version)						x
Boston Sprinter				x	x	
Nahverkehr Dresden				x	x	
London Commuter				x	x	

Let me explain this all:

The TSW2 Core consists of the core game plus the routes:

1. **Sandpatch grade.** This is a US freight route operated by CSX. This route was the first route for TSW, but it is now seriously upgraded and made more attractive. It really is a showcase of what you potentially can do with the game. It is good for up to about 50 hours direct game content, if you play all activities once.
2. **Köln-Aachen.** A German route, which is a combination of the ICE3 which runs at high speed (up to 250 km/h) and much slower regional trains.
3. **Bakerloo Line.** A London Metro Line

You always need to own the TSW2 Core game in order to be able to play. For Rush Hour you get a free update for the core game, which includes a nice number of features.

East-Coast Way is a commuter route. It is relatively easy to play and therefore a very suitable addition for new players.

Hauptstrecke Rhein-Ruhr is a German route. Its base form has only commuter services, which is not very interesting. If you own some more DLC, you will get a lot of additional fun.

Main-Spessart Bahn is also a German route. Into my opinion, you must buy this route, if you want to play any German content. During sales, you may get it discounted for 50% of the official price.

Long Island Railroad is a commuter line in the New York area. It is much more interesting to drive than you might think in advance.

The Rush Hour pack, or Rush Hour Season ticket as it is called now, will bring you a bundle of three routes. Your bundle discount is about 55%. You can purchase the routes individually as well.

Boston Sprinter is a new route in the Rush Hour pack. It provides commuter services in the Boston area.

Nahverkehr Dresden is a new route in the eastern part of Germany. It will come with a huge amount of rolling stock, though nothing is really new. It is part of the Rush Hour pack.

London Commuter also is a very busy commuter service, bring you from London to Brighton. It is part of the Rush Hour pack.

TSW2020 is the old version of TSW2. It is still available but will not be updated. But, if you own this route you will get a free TSW2 copy of most of the DLC. It may be attractive to buy the Digital DeLuxe edition and then get the TSW2 versions of the DLC.

DTG created a number of bundles. If you play Trainsimulator, you may be used to the opportunity to buy the core and combine it with the latest content bundles. DTG decided to do it a bit different. You need to buy a core bundle and then add the Rush Hour pack if you want it. But, make it really hard to understand, if you own the core you always will get a free upgrade of the core pack, which includes the Köln-Aachen route and the Bakerloo line to be upgraded for Rush Hour features.

I really hope, you are still capable to understand this.

3.3.1 For new players, not owning TSW2020

First make sure to choose your favourite platform and stick to it for the rest of your life!

You always will need the TSW2 Core game. You can choose one of four bundles, with an increasing price and amount of routes:

1. TSW2 Core game, including three routes. Two of them are upgraded for Rush Hour.
2. TSW2 Deluxe which adds one nice route, that is easy to play and suitable for new players. It is easier to play than the core routes.
3. The Collector's edition comes with 6 routes in total.
4. The Rush Hour DeLuxe edition comes with the core game and the Rush Hour routes.

If you are not interested in Rush Hour:

Go for options 1 to 3 above.

Additionally, you may want to buy the TSW2020 Deluxe pack, which has a number of interesting routes.

If you want to play the Rush Hour routes:

Choose option 4, which includes Rush Hour. Alternatively get some more routes and choose options 2 or 3 and buy the Rush Hour pack separately.

If you are interested in one of the Rush Hour routes

You can buy the Rush Hour DeLuxe bundle anyway. It is still the cheaper option. The alternative is to buy the TSW2 DeLuxe or Collectors edition and pay the full price for the route you want.

Additionally, you may want to buy the TSW2020 Deluxe pack, which has a number of interesting routes.

3.3.2 For existing player, already playing TSW2

You will get the core update for free, so you only need the Rush Hour Season ticket.

Additionally, you may want to buy the TSW2020 Deluxe pack, which has five additional routes. Even when they are discounted, this option still may be interesting.

If you are only interested in one of the routes, just buy this route, but chances are low it is a good deal to buy the other routes later and save some money.

3.4 Downloadable content

In addition to the core game you can purchase additional routes and engine packs, for which the generic name is “Downloadable Content” or DLC briefly. A complete list can be found here:

<https://store.steampowered.com/dlc/1282590/>

There are seven types of downloadable content (here things are getting complicated):

TSW2 Routes, which are routes created originally for TSW2. All NEW routes appearing after August 20th 2020 are TSW2 Routes. These DLCs normally will contain a full route and some engines and wagons. The engines may be brand new models or older ones that are re-used.

TSW2 Route bundles. At the moment only the Rush Hour season ticket. See 3.3 for details.

TSW2 engine DLCs. These contain one or more engines and zero or more wagons. Until now they also contain one or more tutorials, three scenarios and they may contain additional timetable services. Be aware that Engine DLC always require you to own a specific route DLC, also if they can be used at other routes.

TSW Preserved Collection Routes. These routes were originally developed for TSW. If you own them and if you own TSW2 you get both the TSW and the TSW2 version of the route without additional cost. These routes are compatible, but do not yet have all TSW2 functionality. See section 12.1 for more details,

TSW Preserved Collection Engine DLC. These DLC are also fully TSW2 compatible, but may lack some advanced features. As with the routes, you can install and use both the TSW and the TSW2 version. See section 12.1 for more details,

TSW Routes. At the moment of writing the North East Corridor route will NOT get a TSW2 compatible version, which means you still can use it in TSW but you cannot use it in TSW2.

TSW Engine DLC. At the moment of writing, two Engine DLC will not be usable in TSW2. The GP40-2 and the Amtrak SW1000R will not be usable in TSW2.

Note If you own a DLC in TSW2020, you do NOT need to buy it again for TSW2. You always are entitled to get a TSW2 copy for free.

At first this looks a bit complicated and you must be careful in your purchases for two aspects:

1. TSW2 Compatibility, see also section 12.1 for more details
2. Dependencies on other Route DLC

Make sure to check this before you buy and eventually ask community members for advice.

In the long run, it is pointless to buy all available DLC. You simply will not have enough time to play all content. So it is a good idea to have a clear view of what you really like. This little checklist may help you a bit:

Area	Choices to make	My choice
Do want present day or do you prefer history stuff?	Old/New/heritage line	
What type of traction do you prefer?	Diesel/Electric	
Do you prefer lower speed or high speed?	Slow/fast	
Which countries would you like? (At present limited choice)	Germany, UK, USA, Canada, France, Switzerland	
Which type of challenges	Freight, passenger, shunting	
Landscape types	Mountains, rural, cities, industry	

You can use the third column to make up your mind. Let me know if I missed important choices!

There is one more important thing to say. If you own a cluster of DLC, you will be rewarded by additional variation in rolling stock, you may get additional tasks you can do etcetera. At the moment, this is expanded most for the German routes. One example, if you bought the BR155 DLC, which belongs to the Ruhr-Sieg Nord, you can use the engine as will at Main Spessart Bahn, Rhein-Ruhr Osten and probably more routes. This holds for the line Köln-Aachen as well. For the UK routes, only the West Somerset Railway gets some additional content choices. For the other countries this is not (yet) applicable.

Tip: If you like to get a recommendation for which DLC to buy, please give the information in the checklist above. Just asking which DLC is the best one, will not help you. For a good advice you should make your question specific. And provide enough information about your taste. In general, there is no best route or DLC, so if you want anything better than a list of very various opinions, be specific.

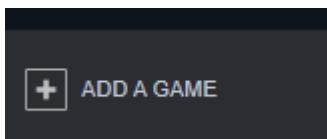
3.5 TSW XBOX Collector's edition

If you own the XBOX collector's edition, you may read this message if you intend to buy TSW2.

<https://forums.dovetailgames.com/threads/preserved-collection-for-disk-owners-of-train-sim-world-2020.25166/>

3.6 Using the PC download key at Steam

If you buy the route directly from DTG or from another shop, you get a download key. At steam in the lower left corner, you find the ADD A GAME button. Follow the instructions to add your game to Steam.



3.7 XBOX controller

You may want to use the XBOX controller as an additional device. It works nice and I used it a lot especially in first person mode. For this purpose it is now less relevant, because you can do a lot more now with the keyboard and mouse, which is improved a lot. For driving I rely on the keyboard and for camera movements I use the mouse plus keyboard. It may depend on your taste what you prefer.



Figure 2 XBOX controller

For TSW2 the commands for the XBOX controller have been revised, so it will be easier to use. It now has two driving modes, Immersion mode which is the default and feels more natural and the classic driving mode, which supports more functions. In the settings you can change this (see 11.3). For a number of preserved collection scenarios, the system will switch to classic mode automatically, because the instructions would not match with the key bindings otherwise.

3.8 TrackIR



Driving in a simulation has two important deviations from reality:

1. The resolution of what you see on track is much lower than in reality.
2. You need your mouse, controller or keyboard to look around, where you normally would do that by turning your head or eyes.

TrackIR offers a solution for the second point. TrackIR will track your head and eye movements so you have an additional driving control. It gives a lot of additional freedom in your movements. Now you can have a quick look at your gauges or controls and you keep your hands free to handle the throttle and brake levers.

If you play on PC, starting with the Rush Hour core update TSW2 supports TrackIR.

To use it, you need at least a camera and TrackIR software. You also may buy a special infrared camera with sensors you can attach to your headphone or cap. Solutions that seem to be working properly are:

Viewtracker: <https://store.steampowered.com/app/929270/ViewTracker/> a payware software package (rather cheap though). In addition you need a camera and you must be connected to steam to run it.

OpenTrack: <https://github.com/opentrack/opentrack> This is free open source software. If you look at the webpage, at the right side you see a button that says “releases”. There you can download the executable. Alternatively you can use this download: <https://sourceforge.net/projects/opentrack.mirror/>

AITrack: <https://github.com/AIRLegend/aitrack> is an addition to OpenTrack. It's function is to monitor your head position. It passes the head position to OpenTrack, which controls your game.

I found an article at Reddit that explains in more detail what you need and how to setup your configuration.

https://www.reddit.com/r/StarWarsSquadrons/comments/kbpq2s/use_opentrack_aitrack_to_get_headtracking_with/

TrackIR: this combines all hardware and software you need. It comes with a price, around Euro 250 for a complete set. Here is the product website:

<https://www.naturalpoint.com/trackir/>

It may be a bit of a hassle to find a local distributor, because it is a niche product and the free solutions give it serious competition.

If you want to see it in action, watch this stream, starting round 1:01 where Matt Peddleston drives at Bakerloo line. <https://www.youtube.com/watch?v=eyQFkMmX1Ng>

Tip: Press **F9** to activate/deactivate TrackIR during gameplay.

You also may have a look a SmoothTack: <https://smoothtrack.app/>

I did not try it, it cost \$10 and uses an app on your smartphone as tracking device.

At the TSW2 forum, this topic may provide you with a number of tips and tricks to get started:

<https://forums.dovetailgames.com/threads/trackir.42668/>

In this section the most useful tips and tricks will come as soon as I have tried it all by myself.

3.9 Raildriver

Raildriver is a hardware device you can use to control trains. In this video you get a lot of information on how to set it up or use it:

<https://www.youtube.com/watch?v=cBMLWXaSrY4>



For more specific information on raildriver see

<http://raildriver.com/products/raildriver.php>

Note that you need Windows 10, older versions do not support TSW2. Here you also may find information on distributors worldwide. At the moment it is hard to find one. It looks like production is stopped at the moment.



Starting with the Rush Hour update, raildriver will support a large number of different locomotives, but not yet all of them. Support for missing engines will be added over time.

Note: Raildriver will NOT work with the consoles, only with PCs. This is mainly due to the manufacturer of raildriver. The raildriver hardware is not supported for consoles yet.

You can download templates to get legends for all buttons here:

<https://drive.google.com/file/d/1Y4FuN6yC6Z1UNtCZMLaDPcDDDZTP-Ua7/view>



4 Preparations

4.1 Game manuals

There is a quick start guide, which you can download from the sales page:

https://store.steampowered.com/app/1282590/Train_Sim_World_2/

In the right side bar there is a link to the manual:

The screenshot shows the Steam store page for 'Train Sim World® 2'. At the top, there are 'RECENT EVENTS & ANNOUNCEMENTS' with cards for 'Train Sim World 2 | Livery Designer' (posted Aug 19) and 'Train Sim World 2 | Roadmap Announced!' (posted Aug 18). To the right, there's a PEGI rating of 3 and game details: TITLE: Train Sim World® 2, GENRE: Simulation, DEVELOPER: Dovetail Games, PUBLISHER: Dovetail Games - TSW, FRANCHISE: Train Sim World, RELEASE DATE: 20 Aug, 2020. Below this, a sidebar contains links: 'View the manual' (which is highlighted with an orange box), 'View update history', 'Read related news', 'View discussions', and 'Find Community Groups'. At the bottom, there are 'Share' and 'Embed' buttons.

Figure 3 Link to the game manual

The manual is very basic, essentially it only covers the cold boot procedures briefly and the controls at the XBOX or PlayStation controller.

Here you find a list with links to a good number of manuals:

<https://forums.dovetailgames.com/threads/available-manuals-for-the-main-games-and-dlcs.42397/>

Note for most recent routes there is no manual available.

4.2 Video tutorials

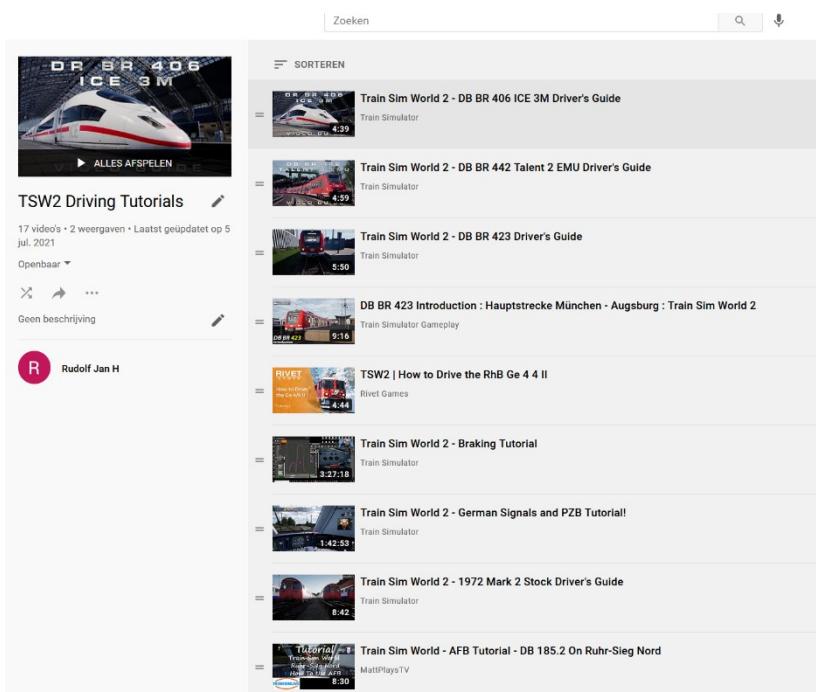
Recently DTG started to create video tutorials for each loco.

The bad news is that the Tutorials Playlist of DTG does not cover the tutorials from other sources. Also the progress speed is very low and it merely just shows where to find all levers, switches and buttons.

Therefore I started my own playlist where I collect TSW2 tutorials, including the official tutorials, but also a guide on how to setup raildriver, the Rivet driving tutorials and whatever is interesting and has a tutorial nature.

<https://www.youtube.com/playlist?list=PLa2JNNN51aoHlefzwI4kaPwbY0PJ0VgOZ>

Please let me know if you are missing relevant tutorials.



4.3 Other guides

In addition to this guide, a number of other guides are available or will be available in due course:

- The Scenario Planner Guide, explains you need to know about creating scenarios.
- The Safety Systems Guide will provide more detail on safety systems like ACSES and PZB. (coming soon)

- For a number of routes, there are Route Guides, pointing you at a number of interesting details and background for routes and trains. At this moment, TSW2 routes are not yet covered, except for some preserved collection routes.

You can download them for free here: hollandhiking.nl/trainsimulator

4.4 In game documentation

In the game you find tutorials and scenarios that introduce the game features.

4.5 Streams

The streams give you a lot of additional information. They are useful if you intend to buy a DLC but also to learn about undocumented features. In the week just before the release, a lot of gameplay of TSW2 is shown in the live stream. Have a look at them if needed.

There are about 2-3 live streams every week (not all for TSW2). You can access them at YouTube or Twitch.

<https://www.youtube.com/user/RailSimulatorDotCom/videos>

Recently DTG has introduced weekly streaming sessions. Most of them for TSW2 and some for TS2020. These streams are good chance to get some additional information and driving tips or they are just fun to watch.

The streams will be announced on Friday or Monday here:

<https://forums.dovetailgames.com/forums/announcements.73/>

4.6 Support site

If you're experiencing problems with Train Simulator, please visit the Customer Support website at <http://dovetailgames.kayako.com/> and submit a ticket. Our Support Team is standing by to assist! if you have a non-support question or query then you can email train-simulator@dovetailgames.com

(source: DTG)

The support centre is working reasonably well. They are responsive and will forward issues to the dev team. The problem with DTG is that they are slow in fixing issues and most issues never will be fixed. Keep reporting them. In the end that must help because each ticket you file costs them a lot of money.

4.7 Roadmap

DTG publishes a roadmap, which will be updated every two weeks on Tuesday afternoon. This roadmap informs you on what DTG is actually working on. You will find there the information on new routes, loco's, fixes. Game features and more. It is helpful to have a look at it and it may help you to make decisions on which DLC you will buy, so you do not spend all your money to see the DLC you really want, appear a few weeks later.

<https://live.dovetailgames.com/live/train-sim-world/tags/roadmap>

Till now for each roadmap update there has been a Q&A livestream session at YouTube in the evening.

You may be interested in the 2020 end-of-year Q&A stream. It gives a very nice insight in how DTG works and what we can expect in future. It is a very long stream but you can learn a lot:

<https://www.youtube.com/watch?v=UvjAhm6BXBg>

4.8 DTG Live

You may want to create an account for Dovetail Live. See chapter 6 for details and what you can do with Dovetail Live.

4.9 Malware protection

If you're on Windows 10, a recent update rolled out a new malware protection which specifically stops unknown software from writing to particular places. It seems Microsoft think pretty much everything except their own software is "unknown" so if you've turned this on then you need to enable your games to write.

This will manifest in TSW2 as things like

- unable to save progress
- configuration/settings won't stick and revert
- steam can't install new stuff

You may find this Microsoft support article helpful <https://support.microsoft.com/en-us...-folders-b5b6627a-b008-2ca2-7931-7e51e912b034>

This does NOT apply if you use 3rd party malware protection (e.g. Norton, F-Secure) instead.



5 Playing basics

5.1 Introduction

This was a lot of information already. Now it is time to start playing.

Note: I can only try things using a PC and an XBOX controller for PC. If you play at a console, the information I provide may be less accurate. Please let me know, I could use some help for making sure the content for this Guide is good for consoles as well.

5.2 Where to start playing?

When you buy TSW you get an overwhelming amount of content. Some of the content is far more complex to drive than other content. If you do not feel comfortable by diving in the deep right away, it may make sense to start in this order:

If you never played with a new loco, it always is a good idea to spend 5-10 minutes to run a loco tutorial. Usually this tutorial shows you how to get the engine started, how to drive and how to brake. The bad news is that the tutorials tend to disable controls, though DTG is removing these restrictions because they are confusing if you make any mistake. If you do something the tutorial designer did not expect, this may run you into trouble. In that case, start again and make sure to do as you are told.

Once you did the tutorial, I suggest to move on to Timetable mode and select a straight forward drive. You will in most cases not get any instructions, except where to stop. Select good weather (in TSW2 driving in bad weather will be harder) and do NOT yet turn on the safety systems.

It seems natural just to follow the journeys, but unfortunately the journeys are not always organized in a way that makes sense, e.g. by following a sequence of drives or gradual increasing difficulty. It may be better to make your own choice and pick some standard drives. If you bought the East Coast Way route, start with the class 377. It is easy to drive, drives are not very long and you learn a lot. Then you may move on to Köln-Aachen and try the 442 to get more experience. For this loco there is a short video tutorial. From this point, try some freight and do some Sandpatch timetable services. You will see these are much harder to play. The

Sandpatch scenarios are hard (well most of them). Bakerloo line may cause you some trouble to get started and a lot of trouble keeping the timetable, but it has a huge number of drives to practice.

5.3 Driver avatar

5.3.1 Initial setup

You will need a driver avatar. Follow the steps in the menu to set one up. A few things to keep in mind:

1. Your game progress is registered for each avatar separately. No totals over all avatars will be counted.
2. The avatar will be dressed according to the route you are using.
3. If other people use your account to play TSW2, they may set up their own avatar.
4. You may choose to use avatars per country or even route.

Probably Mastery and Steam achievement do not know about your avatar, they will register progress based on the account you use.

Note: for your avatar, you can select the uniform you prefer. Unfortunately you cannot change this later in game, without deleting your avatar.

5.3.2 Change driver avatar

You can change the avatar you are using, but the location where you can do that is a bit strange. You need to select your Player Profile page from the Main Menu. This is available only if you have selected a route.



Now, at the bottom of the screen, you see the Q button, which says “Switch Profile”

It now asks to confirm if you want to log out the profile. You are not logging out anything, but you select another profile, so confirm this. Unsaved game progress will be lost here, so that may be the reason for this question.

From here you can create a new profile or select another existing profile.

5.4 Basic introduction

Once you setup your avatar, you automatically will land into a general game introduction. It explains how to navigate in the game. For each route you will need to do a short introduction as well. It may be a bit pointless for experienced players, but if you are new to the game, it is recommended to pay some attention to this introduction.

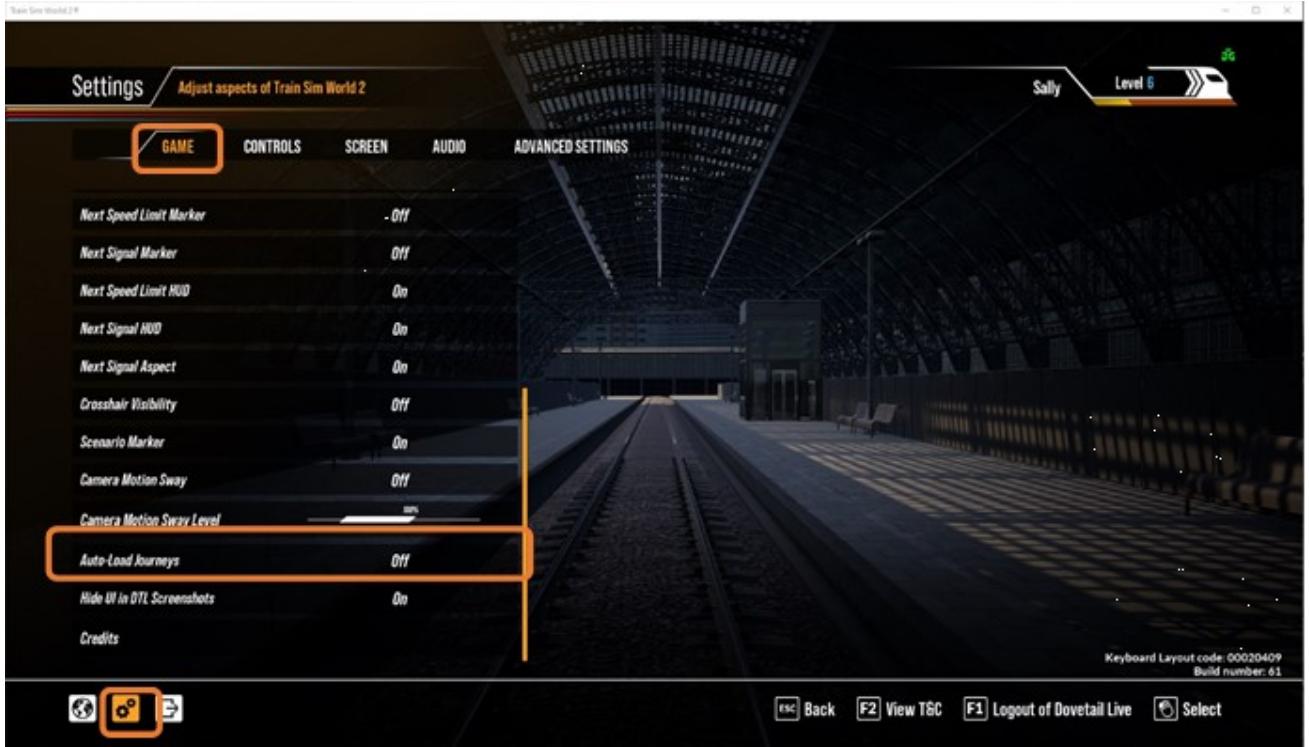


Figure 4 Turn off auto-load journeys to avoid confusion.

5.5 Review your game settings

At this point, you should review your game settings. Two settings are specifically important:

1. The graphics settings, depending on your hardware. You may turn on FPS for a moment to judge if it is working as desired. On PC you do this using the F3 button.
2. You definitely **should turn off Auto-load Journey mode**. This causes the game to jump directly into the next journey. I see lots of new users totally confused by this behaviour. Select the settings menu, then the Game tab and locate the Auto-Journey feature a bit down the list. See Figure 4.

3.

5.6 The Route menu



The Rush Hour update introduces a new Route Menu. It shows all routes in a fancy way, probably the newest route first (need to confirm that). A new feature here is the filter option (F button). At the moment this allows you to select routes by operator. Unfortunately there are not (yet) other selections. Also, the filter setting is not remembered over game sessions.



Figure 6 Routes screen with avatar and filter

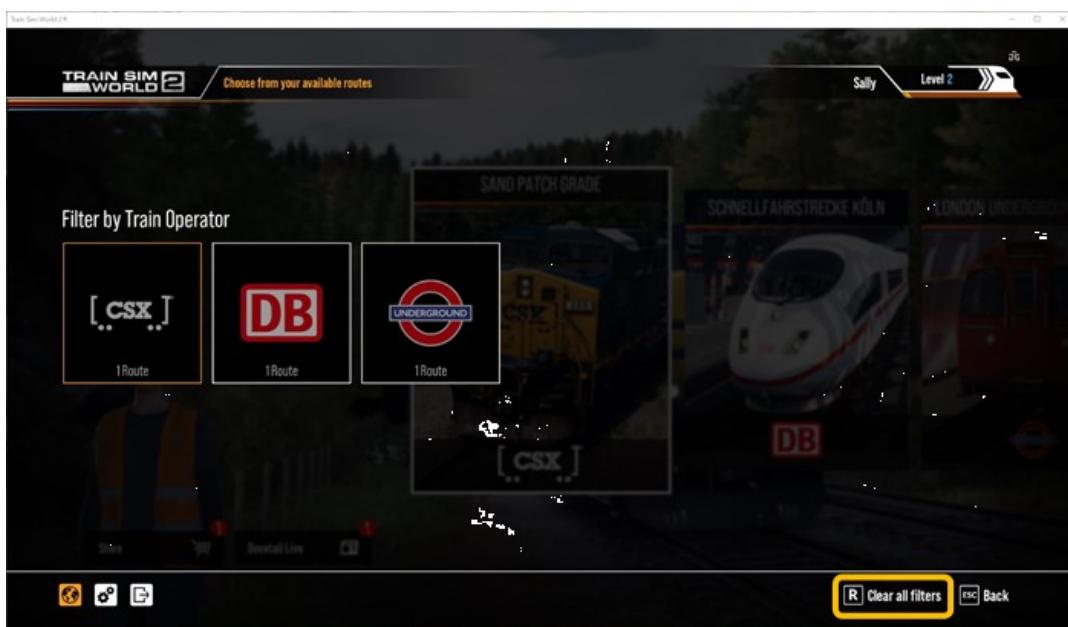


Figure 5 Filter routes by operator

A curious choice is that you only can reset the filter from the filter page....

Notice you also see your avatar here, neatly dressed according to the chosen route.

5.7 The in game webshop



DTG provides an in game webshop. I never used it, hopefully it will sell you a DLC suitable for the platform you are playing at.

The intention is to provide similar filters for selection in the shop and for the route selection screen.

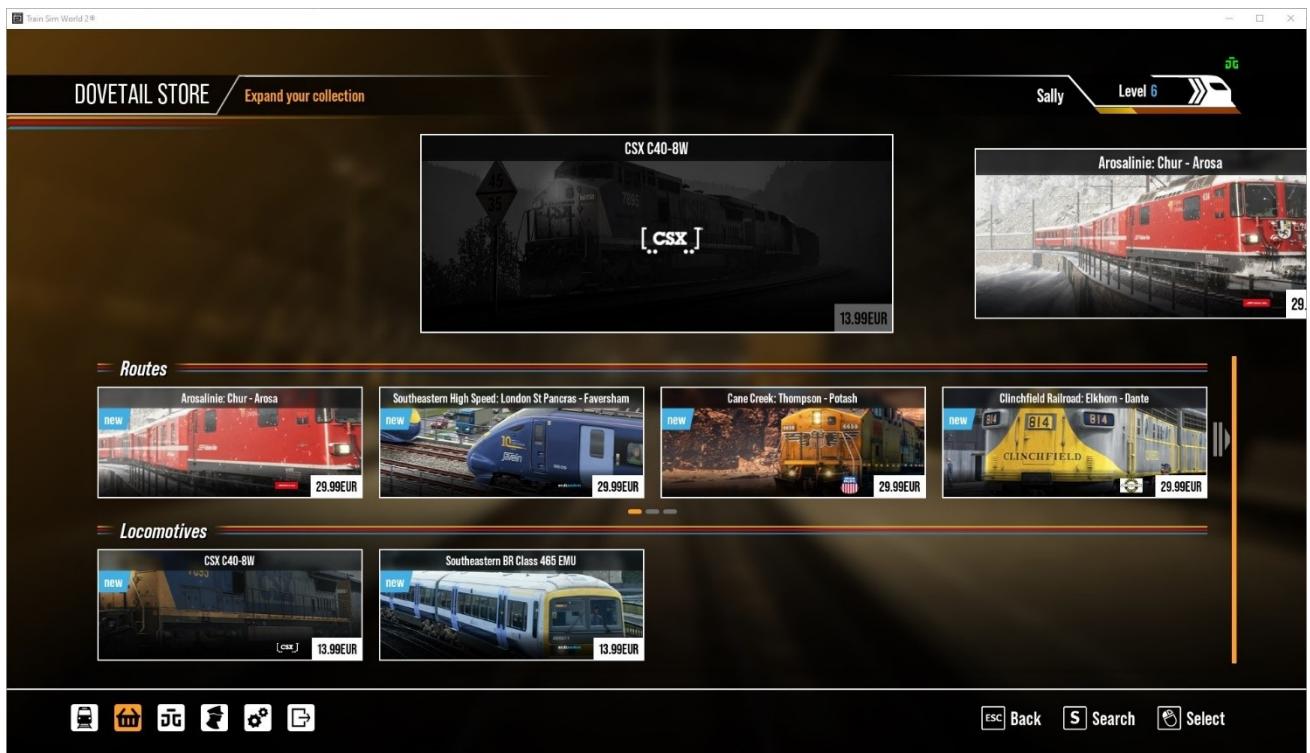


Figure 7 In game shop page

5.8 Navigation basics and user interface

In the area of the simulated world you can walk around free, but you cannot fly.

You can use either keyboard and mouse or controller. These will be discussed separately, but you can switch between them. It is to some extent possible to change the key bindings. In this manual I will not use that, but in a later chapter settings are covered thoroughly. If you need a quick overview. In this stream round timecode 00:56 the settings are briefly introduced (The stream is played at an XBOX console).

<https://www.youtube.com/watch?v=nO20prSSTMQ>

For the controllers, you can choose between two sets of commands:

1. **Immersion mode (default).** This is an easy to use set of commands. It does not use complicated sequences. Since the Rush Hour update, most commands you really need will be available at the controller. Make sure to read the manual or review the controls to use in the settings menu.
2. **Classic mode.** This is outdated, and few people will prefer this mode. You may need it for some of the preserved collection routes, though work is done to make them fully compatible with the immersion mode.

Note: For preserved collection routes some scenarios and tutorials may use classic mode, because they were designed to give instructions based on this mode. Using immersion mode would be very confusing.

You can choose the preferred set in the settings menu.

Some common functions:

Function	Description
Run/walk	Move slow or a bit faster. In the Settings menu you can select a default
Crouch	You will be a bit smaller and can reach places you normally cannot reach. I remember two situations where it was useful. Once when I got stuck between a coupling and platform and once where I wanted to get close to a collectable.
Torch	Very useful in tunnels, but also in a few cases in the cab or engine room.
Climb	Needed if fall from a platform or in a number of cases to enter the engine cab.

5.8.1 The Control Guide



The Control Guide is one of the tabs in the pause menu (press escape during gameplay). It will show the key bindings for controllers or keyboard. Which one is shown, depends on what you play. Try switching between controller and keyboard while you show this screen!

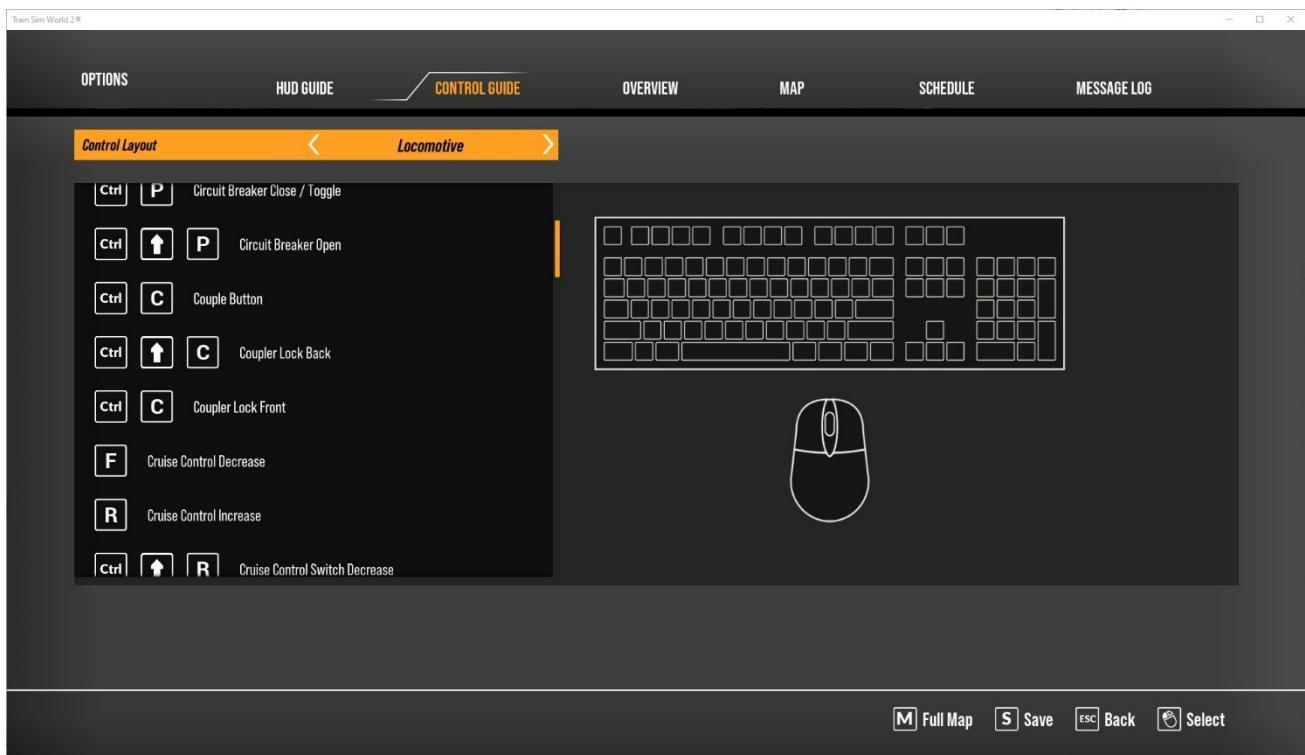


Figure 8 Control guide for keyboard

And one of 'the screens for the controllers

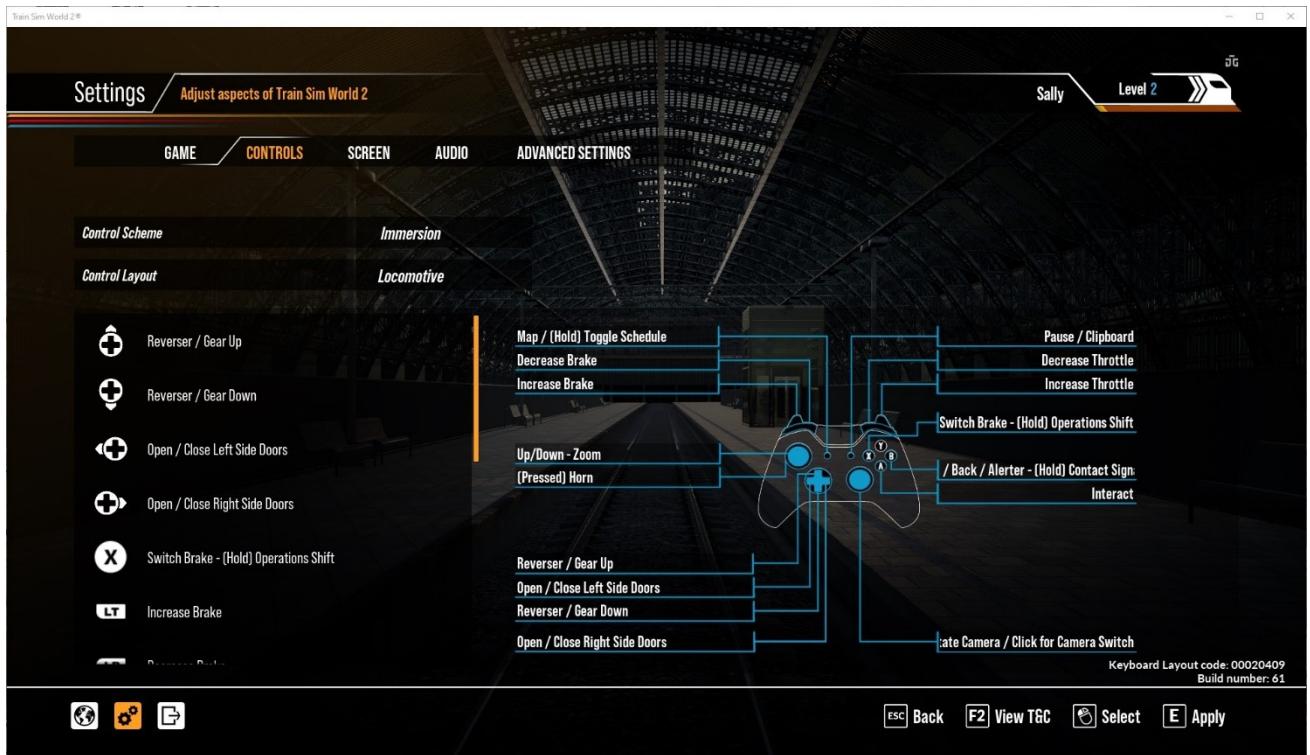


Figure 9 Control guide for controllers

5.8.2 Navigating using keyboard and mouse

The consoles do not support a mouse, just a controller and a keyboard. For PC it works fine to use keyboard and mouse combined.

5.8.3 Navigating using the controller

The key bindings are well shown in the quick start manual, you also can review them during game play at the pause menu:

5.9 The HUD

Now you are seated it is time to talk about the HUD. HUD stands for Head Up Display. You may want to use the instruments in the cab. However, this is a simulation and it may be harder than in reality to keep sight of your instruments and the tracks at the same time. If you own TrackIR this may help a lot, because then you can use your head to look down quickly and you will not be dependent of the keyboard, mouse and XBOX controller to change views first. People tend to forget that you are not in a real cab and even if it is faithfully created, it is different from reality.

In this section, the main aspects of the HUD are covered. In a later chapter we will dive into more detail.

The Speedometer HUD layout depends both on some settings and on the train you are driving. In the route tutorials the Speedometer HUD is briefly explained, but if you are new to the game, you may have forgotten

most of it. Therefore I give one example here. Read on through the next sections in this chapter and then read the following text again, to gain a better understanding.

Tip: There is a setting that allows you for a small or a big version of the lower left part of the HUD. DTG calls it **Speedometer HUD**.

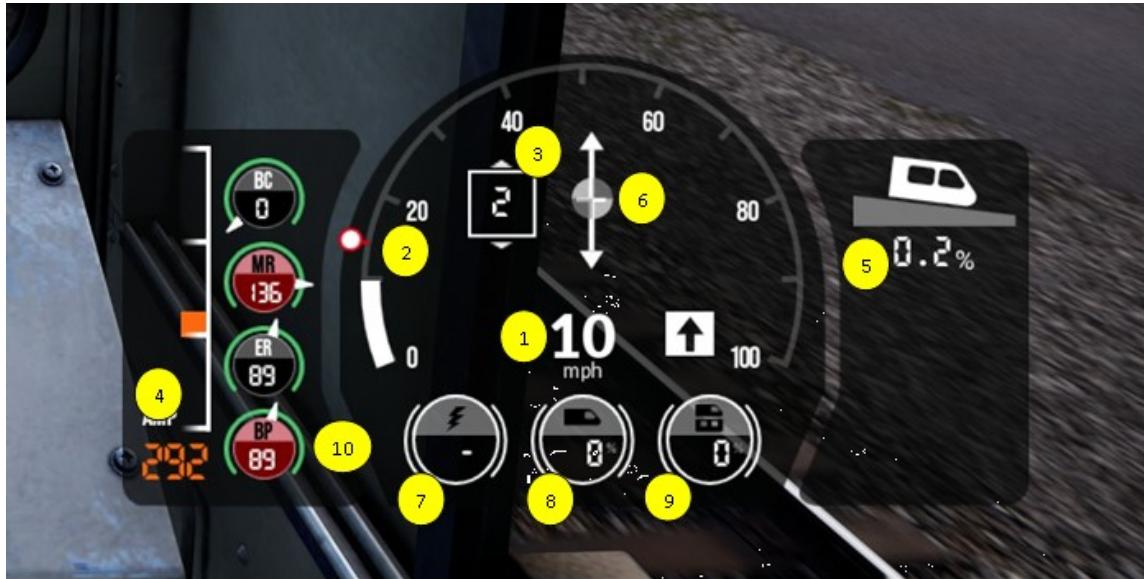


Figure 10 Speedometer HUD functions

In the table, the numbers refer to the numbers in the figure.

Nr	Indicator	Explanation
1	Speed numeric	The actual driving speed in km/h or Mph depending on selected units
2	Speed ring	This ring also shows the actual speed. The red circle shows the allowed track speed. Due to signalling this is not always the maximum speed you are allowed to drive. This ring will turn yellow or red when overspeeding.
3	Throttle position	The actual setting of the throttle. This is a bit rough, it does not always show all detail. The arrows indicate in which direction you can adjust the throttle. If the square around is, is red, this means the throttle is locked and no power can be applied.
4	Power meter	This shows how much power is applied to the train. The units depend on train type. In this case, a GP38-2 it shows amperes. If this value sticks at zero while you apply the throttle, you did not setup your engine properly. It may take a few seconds before you see power.
5	Grade	Grades affect your driving a lot. Going downhill, may cause your train to accelerate and you may need to brake to control speed. It also makes braking harder. Going uphill, requires more power to apply and it may be difficult to get moving. Note: the grade direction refers to the front of the train and unfortunately not always to the driving direction. This is a known issue.
6	Accellero meter	This shows if your speed is increasing or decreasing. Unfortunately it is hard to read in this HUD version. Note: there is a Mod for this. See chapter 13.6

7	Electric brake	Shows the actual setting of the electric brake as a percentage of the max setting. If the electric brake is applied, you may see a negative value at the power meter.
8	Loco brake	Shows the actual amount of braking set for the loco brake lever.
9	Train brake	Shows the actual set position for the train brake lever.
10	Train brake air	These gauges show the actual braking status. The values and number of gauges depend on the loco you drive. You should know the expected values when brakes are fully released and also when they are applied. There is a lot to tell about this. I may write a separate braking guide.

[breblimator](#) gives this simplified explanation. The problem is that it that these gauges depend on the loco you are driving, so you may see different gauges here.

Text	Full name	Description
BC	Brake Cylinder	Loco brake pressure, should be zero when driving
MR	Main Reservoir	Total air 'to disposal'
ER	Equalizing Reservoir	Target air pressure for brake pipe
BP	Brake Pipe	Whole train brake pressure. When you release the brakes, you need to wait till this value equals the ER value

5.9.1 HUD Guide



In game, there is a HUD Guide, which you can access from the Pause menu (press escape during gameplay). Unfortunately it does not represent the actual train you are driving, but is a static image.

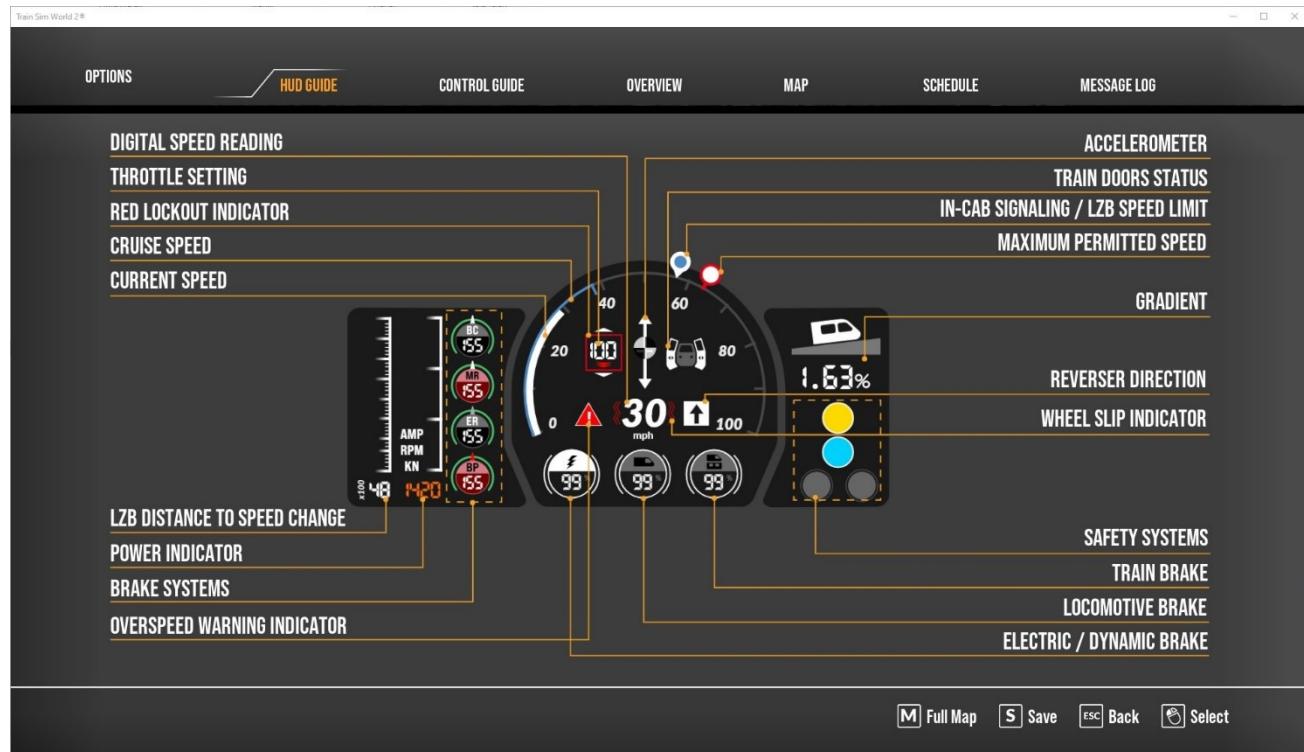


Figure 11 The HUD Guide

5.10 Driving

In details, the way you drive an engine may vary a lot. In this section the common basics are covered. It is always necessary to read the manual and to do the in game tutorial when drive an engine you do not yet have any experience with. Though generally the steps are predictable, each loco may require specific setup procedures. In general, setup is most easy for timetable mode.

You may want to consult my route guides or other sources to discover a lot more of the fine details that may be helpful.

The key steps are:

- Turn the master key on (**Ctrl+W**)
- Set the reverser to forward (**W** or **S**, depending on loco)
- Release the brakes (**:** key and sometimes **I** as well)
- Apply some power (**A** will increase power, **D** will decrease power), but not too much, normally 20-30% of the max should be OK.

For a long train it may take quite some time before you actually are driving. Light passenger trains will respond more directly.

Driving is the easy part, before you cause any accidents, let's see how to stop.

5.11 Braking

Braking is the hardest part of your driving experience. There is a huge diversity in braking systems and in the way brakes will respond to your request. In this section, the technical details will not be covered, It is just to get you going.

Essentially there are four types of brakes, but not all of them will be present at any loco.

The **hand brake** or **parking brake** should prevent a parked loco to get moving. Also wagons may have parking brakes. Normally, you need not to bother about them. (Key **V** to toggle)

The **loco brake**, also called **direct brake**, is used to brake if you are driving a light engine (this is an engine without any wagons). It responds very direct (keys **I** to release or **J** to apply). It also can be used in yards for short trains at low speed.

The **drivers brake** or **train brake** is used to brake the whole train. It uses air pressure in some form to brake each individual wagon. Because the changes in pressure must travel through the whole train, it takes time before brakes are applied. If you brake to the max, it may take minutes to release the brakes. The brake keys are **;** to release the brakes and **;** to apply.

The last one is the **dynamic** or **electric brake**. The electric brake works by generating electricity from the moving energy in the loco. It is a bit like a dynamo. Because generating electricity will cost energy, this will slow down the train. The dynamic brake becomes less effective as you drive slower. The key to release is **.** and to apply you use **.**

Some engines may have a combined power/brake handle. In this case, the **D** key will set braking, if no power is applied.

The dynamic brake and train brake may be combined in a single handle as well. Not all trains do have a dynamic brake.

Now let's be practical:

1. If you drive one or two locos only or during shunting with short trains, use the **loco brake**.

2. If you go downhill and need to slow down, use the dynamic brake, where necessary combined with the train brake. Note it takes about 10 seconds before the dynamic brake starts working. So apply it timely. Use the dynamic brake for fine tuning and the train brake for coarse stings if the dynamic brake does not offer enough braking power.
3. In all other cases, use the train brake. You need to find out when to start braking, but start timely and do not apply too much braking power. That also is something you need to learn by practice.
4. If try to brake hard, your brakes will not release timely and your train speed may decrease too much or you may stop too early. Unfortunately the timetables in game are not always designed properly and may not allow decent braking.
5. Starting at a grade. Apply the loco brake, then release the train brakes. Apply some power and once power is up, release the loco brake very gradually. If there is no loco brake, apply a small amount of power and then release the train brake. It can be very hard, but keep trying!
6. Before braking, set the throttle always to off.
7. Brakes may have separate settings for passenger mode and freight mode. Check if such a setting exists and choose the proper one. Usually, freight mode works more slowly but freight trains usually have a lower allowed maximum speed.
8. Before you can depart, you need to charge the brakes with air. This may take several minutes if you drive a long train. Watch especially the Brake Pipe. Its level should be equal to the equalizer reservoir before you depart.
9. Some train brakes are a one way system. You can increase brake power, but you cannot gradually decrease brake power. If you try to decrease, it will completely release the brakes.
10. Each time you apply brakes, it uses air from the reservoir. It takes time to refill the reservoir. If you brake again right away, you have less air in the brake system main reservoir and your brakes are working less effective. Worst case, you drive downhill and your brakes refuse any service. In this case you still can use the emergency brake and then be very patient till all systems are recharged. You will learn that later, but for now you are good to give it a try.

Tip: if you have trouble finding the correct stopping point, pressing **Ctrl+7** toggles a coloured guidance on track to help you estimate the distance.

Tip: some trains have multiple braking systems. Especially for the older UK engines you need to choose between freight and passenger mode and between airbrakes and vacuum brakes. This topic is covered elsewhere. For now it is OK just to be aware of this.

5.12 Pick up passengers

To pick up passengers, make sure your whole train is along the platform. Once you stopped, you can open the doors. For some trains, there is not a button in the cab, because the guard/conductor will open the doors. In other cases, you first need to select which door to open and then you press some button to unlock the doors.

An interesting detail: in some UK trains you cannot open doors from the inside, only from the outside. In this case the procedure is to open the window and then you can open the door.

To open and close passenger doors, you can either use the in game controls in your cab, if they are available, or press the **Tab** key, which opens a small menu that allows you to open or close doors.

Note: you now also can use the **Y**-key to open the left side doors and the **U**-key to open the right side doors. Rebinding these keys was bugged, but is fixed starting with the Rush Hour core update.

Modern trains will have traction locked while the doors are open. This means you cannot move the throttle. Before departing, make sure the throttle is in Off position and the brakes are fully released.

5.13 Using the 2D map

By pressing key [9] you open the 2D map. This map is not yet very good, but it is helpful for a number of reasons:

1. To identify the path for your train.
2. To set switches
3. To identify problems, e.g. if you have to wait long for a signal, you can check if there is a train blocking the path.

If you hover over the switch symbol at the 2D map, the actually selected path will be shown in purple colour. This is very helpful.

The path for the player train is shown as a light blue line. This helps you in a yard to set all switches properly.



Via the pause screen, you can open a simplified map, which shows the route and gives you a rough idea where you are. The major advantage is that shows game locations in the map as well. Here you can click on "Full Map" to see the 2D map.

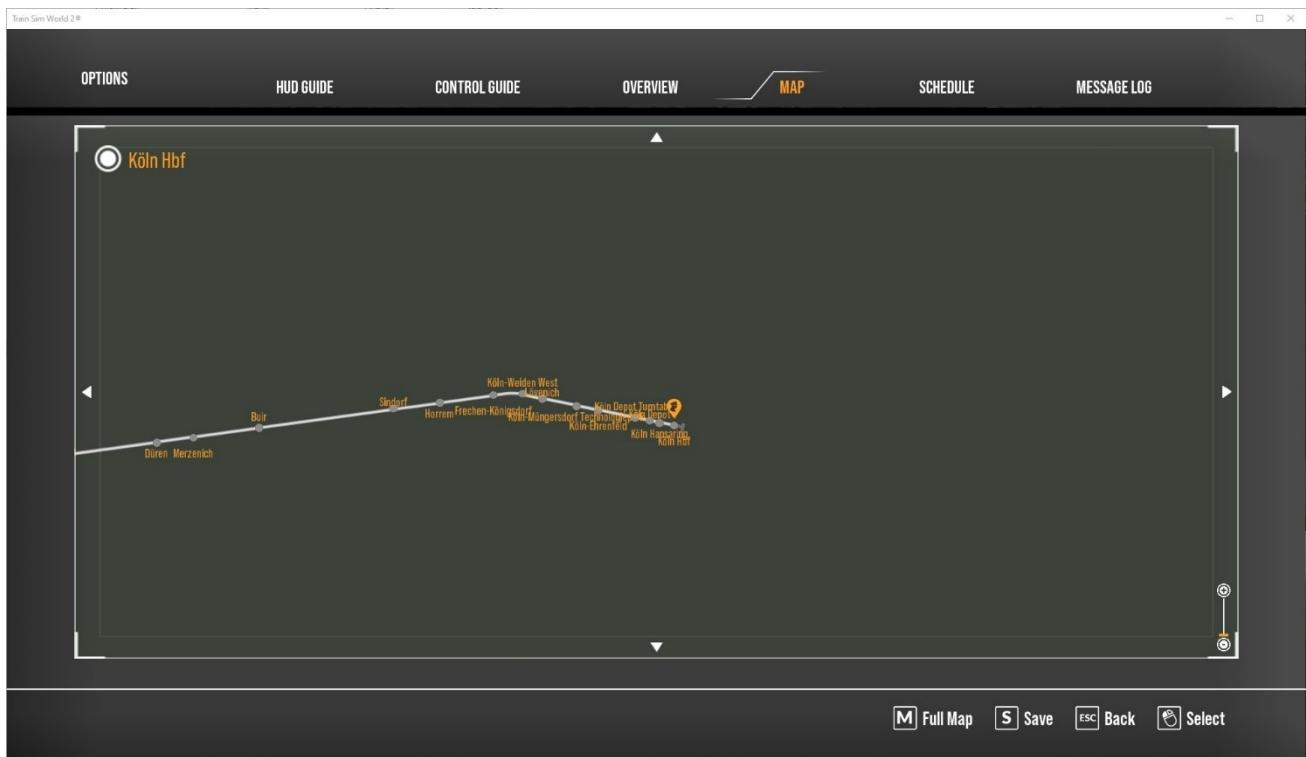


Figure 13 Pause menu map

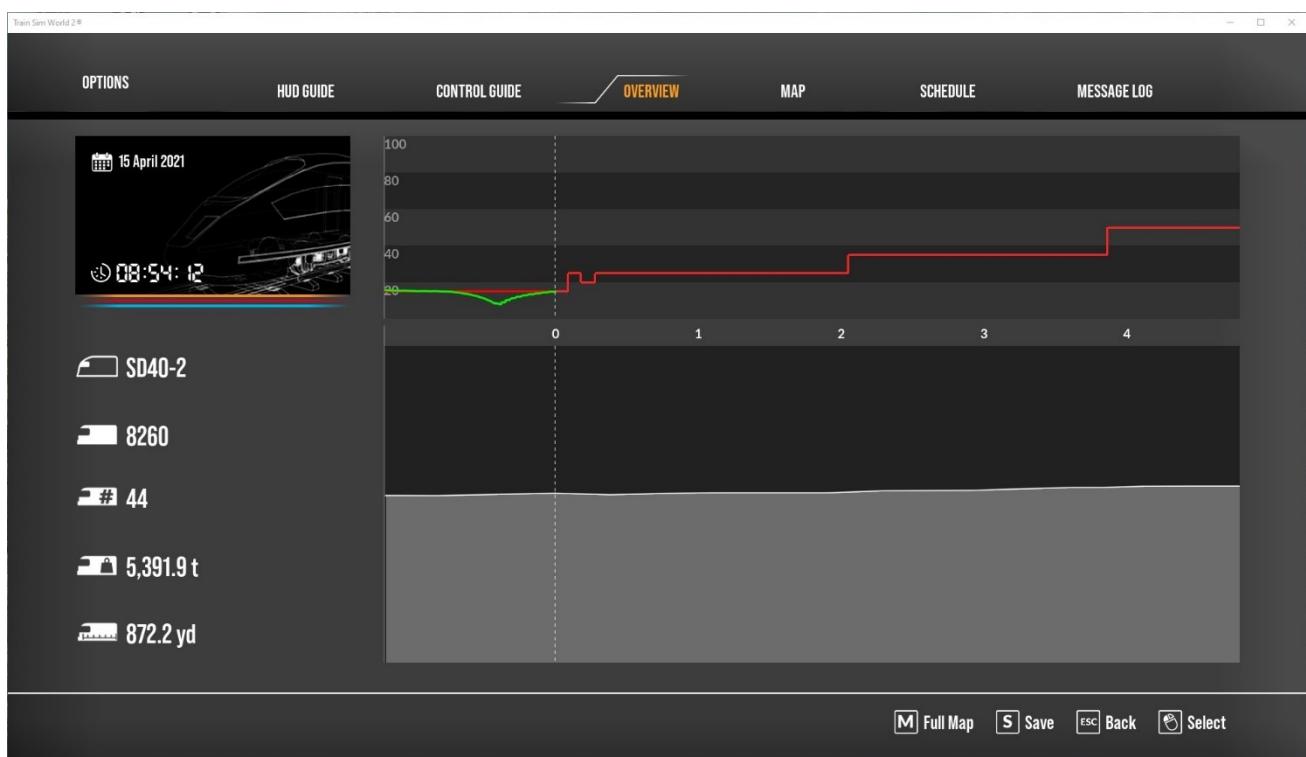


Figure 12 Example of gradient and speed profile

5.14 Route information page



The HUD functions will inform you about the current grade and first upcoming speed limit.

New in the Rush Hour update is the improved pause screen (press escape to enter), which informs you about the grade changes and speed limits for the next few kilometres. This saves you from surprises by hidden much lower speed limits. It is not yet working great, but it is a step forward. At the same page you find information on your train length and weight, which is very useful.

5.15 Coupling and uncoupling

There are a fair number of coupling systems. For now it is important to know there are automatic and manual coupling systems.

For automatic coupling, you just need to place the two train parts connected to each other.

For manual coupling, stop a short distance before you touch the other train part and the drive your train slowly against the other train (max 2.5 Mph or 3km/h).

They you need to get off the train and use the mouse or XBOX controller to couple manually. You also can use the external cameras key [3] or [8] to do this.

Some electrical multiple units may have a button in the cab to couple/uncouple. Check the manuals or just look around in the cab to find out about this. You will rarely be required to use this. I have only seen it in a few scenario's, where you will be instructed how to do it.

5.16 Setting switches

There are three ways to set switches:

1. Click on the blue dot of the switch you want to change in the 2D map (key [9]).
2. Get out of your train and walk over to it, and click the lever.
3. Fly to the switch in free cam mode (key [3] or [8]) and click the lever, you don't need to leave loco.

In most cases, the path for your train is light blue coloured at the map. Sometimes this is bugged, but you always can see the destination marker.

By hovering your mouse over the switch at the map you can check the switch settings.

Note a scenario can block these functions, sometimes you need to wait till you get instructions to set a switch. It is also possible that the methods are blocked in a scenario by the game.

5.17 Signalling

By now you may realize that there is a large diversity in signalling, as there is in all other train driving aspects.

Signalling is about other trains that may be at your track, speed limits, marking potentially dangerous situations (the top fun aspect is the signal tell you to use the horn). The departure order as given by the guard is a signal as well.

5.17.1 Basics

Let's talk here about the most visible aspect of signalling. The signals you see along the track. The two main variants are semaphore signals (today still in use!) and light signals.

In principle, the route manual should provide you with some information on signalling specific for the route you will drive. You may drown easily in the details of the rules, so if you do not remember all right away, if you know about the five rules below, not too much can go wrong, though your drive may not be optimal.

1. If you see **green**, proceed. (**Note**, for German routes the HUD may show green, where you actually should slow down).
2. If you see **yellow**, slow down and prepare to stop
3. If you see something **flashing**, slow down
4. If you see **red** combined with **other colours**, slow down, it is likely you must stop soon.
5. If you see **red only**, never pass, unless you got explicit approval. Doing otherwise is “game over” in TSW.

There may be a lot of other types of guidance for your behaviour as well. Most important are speed limits. Normally these should be announced in advance and you must adhere to them. You also must adhere to the maximum allowed speed of your train and sometimes your train is so heavy that it has a long braking distance which you need to take into account.

If you are new to train simulation, I recommend to turn on the HUD functions that show the next signal, next signal aspect and next speed limit.

5.17.2 Passing a signal at danger

The game will end as soon as you pass a signal at danger. If this happens to you, from the menu it may be possible to load the “last checkpoint”. This is an automatic game save, but be aware it will not be preserved if you close TSW2 and restart later. It also will not be available before the first stop. Also, be careful, this will not always save you. The save function in TSW2 is complex and in many cases not working properly.

If you stop before a signal showing stop (RED in the HUD), you may want to ask permission to proceed anyway. You do this by pressing the TAB  key. This brings up a menu as shown in Figure 14.

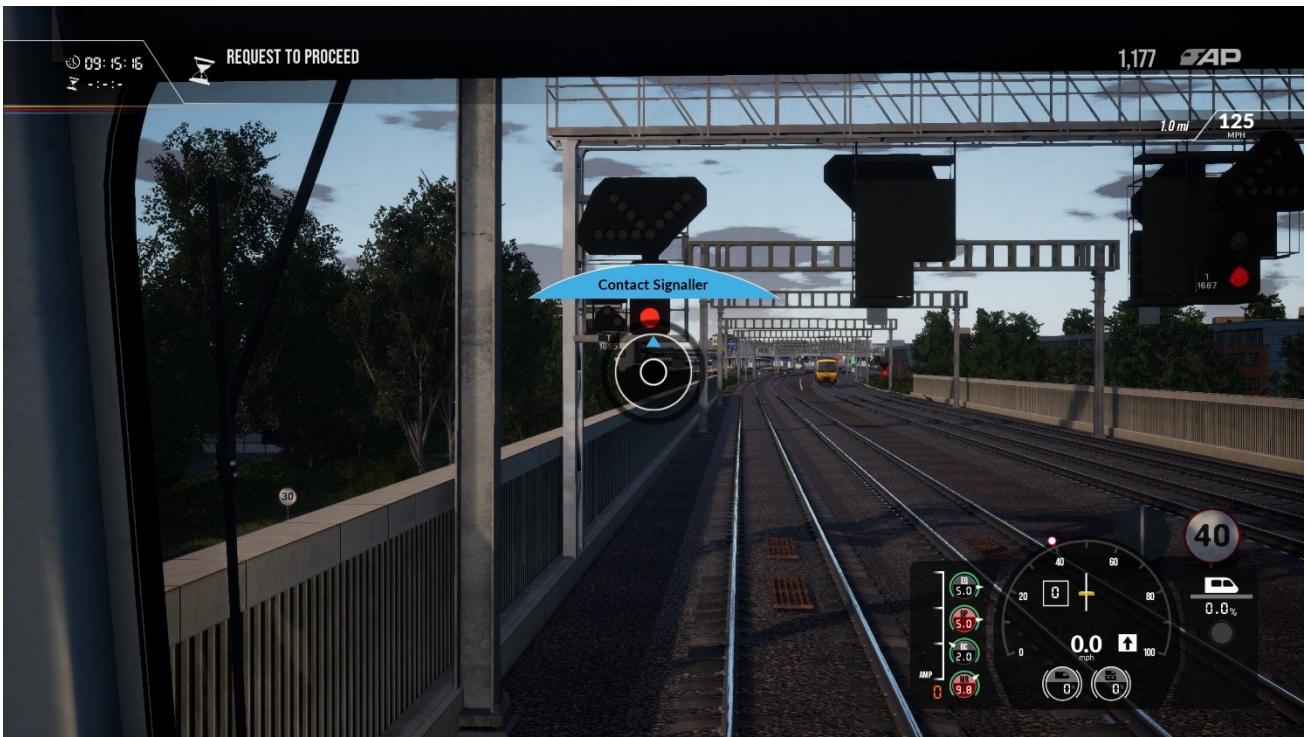


Figure 14 Menu to get permission to pass signal at danger.

Make sure use the correct driving direction. If you reversed, you may need to drive a little bit to get permission for the correct signal. If you drive too fast then, or stopped at a very short distance, the signaller may not respond in time.

If anything blocks your way, the game will deny the permission. If it says “No route available” there may be something wrong seriously. You can check if there is anything blocking the route and if you set all switches properly. If that is not the case, you can first try to save the game, go to the main menu and then load the saved game again. If this is not working, you will need to restart the service, because there is some bug in the service.

5.17.3 Essential game settings

At this point, you may be interested to learn about a number of game settings that make your life easier or more difficult as you want. In this section, not all game settings will be covered, just the most important ones.

5.17.4 Setting units

Depending on the route you drive, you may want to set the units to Metric or Imperial. You can do this while playing, pause the game (**Esc**) and then select the game settings. It is recommended to use the value to **Automatic**. The route will determine the units that are used. It may take a bit of time to get used to another unit system, but since also speed limits are in the units used by the route, this makes life a bit easier.

5.17.5 Configuring the HUD

The default settings are not too bad, but after you gain a bit of experience, I recommend to read chapter 9 about all settings and key bindings for HUD elements. Because you can do so many things, it takes some time to discover it all and to find what you like best.

5.17.6 Configuring your screen

For newer consoles the game engine renders at 4k resolution and then it is downscaled to the external resolution. You can apply the proper setting in the settings menu, using the setting **Display Mode**. This setting is only for consoles.

For PCs you should adjust the resolution to match your screen resolution. You also may set the graphic detail levels according to how powerful your system is.

The good news is that you can do this during gameplay, there is no need to restart the game.

Using the **F3** or **Ctrl+F3** key you can turn on the frame rate indicator. If you are generally above 30fps you are good to go. Just try till you find a proper balance between performance and graphics quality.

5.18 Safety systems and driving aids

Trains are heavy and, because they are bound to track not very flexible. Therefore train accidents may have serious consequences. To improve safety a number of driving aids have been introduced in course of time. These aids can be very different, depending on country and era. Also the impact can be very different. Using them increases realism and may keep you busy. By default in TSW2 all safety systems are turned off.

If you are a new player, this is OK, leave it for a while. If you want to start using it, start using the Alerter and add other systems later. You also may like the cruise control, which helps you not to overspeed.

5.18.1 Alerter

The Alerter is a device that checks if you are still capable to drive the train. It may come in a form than you need to press a button at regular intervals (e.g. 30 seconds). In another form it checks if you are active using throttle and brake. If you use it, the alerter will not bother you. If you do not touch them, there will be a visible and/or audible signal and you need to acknowledge.

If you fail to acknowledge, the emergency brakes will be applied. In some cases, pressing the button will release them, other system brake the train to a shameful stop and you may try again.

Activate the alerter: **Shift+ Enter** (at the **Numpad**).

Acknowledge: **Q**

5.18.2 Cruise controls

Some trains may have a cruise control. They do not always work in the same simple way, so please check the game manual.

The most common procedure is to activate the cruise control using **Ctrl+R** (for the German ICE trains, you will need to activate it at one of the digital screens in the cab).

Then you can increase the target speed by pressing the **R** button or decrease the target speed using the **F** button.

You can see at your speedometer in the HUD the settings of the cruise control as a blue line around the speed gauge.



Figure 15 The blue line shows the target speed for the cruise control

Then apply the throttle as desired. This is the simple use. You also can activate the cruise control while driving, but this is advanced use.

In most case you can turn on the cruise control while driving, but specific undocumented procedures may apply.

If you need to brake, you can set a lower target speed, or set the throttle to off and start braking using the train brake. In some cases this will disable the cruise control. If you do not set the throttle to off, you may cause a traction lockout.

5.18.3 Safety systems

As a driver it is easy to miss a signal or overlook a speed warning. The driver safety systems should protect the train against serious accidents. In general, except for LZB they do not really intend to be helpful yet.

These systems vary in complexity and by country. If you want to try using the, the British AWS is a good starting point. AWS does not enforce anything, except that you MUST acknowledge the alerts.

You find it at some of the preserved collection UK routes.

The German system PZB is a more complicated and very prescriptive. The used terminology does not really help to use these functions easily.

For high speed lines in Germany (currently the ICE3 only) you may find the LZB system. LZB combines cruise control with in cab signalling. It will see a long distance ahead and it will drive the train by itself. This is nice for a short distance, but on the long run it is boring of course.

In the US ACSES and ATC are the more advanced systems. They are in itself a bit more friendly to the driver than PZB. I will create a separate guide covering the various safety systems.

In this stream, Matt will give a tutorial on PZB and LZB.

<https://www.youtube.com/watch?v=Ry8FuUphDgU>

I recommend watching this stream anyway. It gives you valuable driving tips for Köln-Aachen.

Once you are a bit used to playing train simulations I recommend to turn the safety systems on.

5.19 Trouble shooting for beginners

In this section a number of issues starting players may experience. If the solutions do not help, you also may want to read the know issues section (Chapter 14).

5.19.1 Read the documentation

Always make sure to read the documentation provided. It may not have the best quality, but there is useful information. You also should play the tutorials and later all scenarios, it is remarkable to see many people do not even do this.

5.19.2 Google is your friend

Type your problem in Google and you may find a bunch of answers. Most questions have been asked before.

5.19.3 Look for a Steam Guide

For a number of issues, there are Steam Guides. You find them at the game page. In case of TSW2, you also may have a look at the steam guides for TSW. Most of them will be relevant for you.

TSW2 steam guides can be found here: <https://steamcommunity.com/app/1282590/guides/>

TSW2020 steam guides can be found here: <https://steamcommunity.com/app/530070/guides/>

5.19.4 Ask a question at a forum

If nothing else helps, you may try asking a question at one of the forums (see chapter 15). There is a helpful community, but please make sure to do the steps mentioned before first. It is impolite to ask a question if you did not do this.

If you ask a question, give detailed information. You may use this small checklist:

- Which route are you driving?
- Which tutorial/scenario?
- Which loco?
- Describe the steps/situation as clearly as possible.
- In case of crashes, specify which hardware and operating system you use.

In many cases you will get at least some tips.

5.19.5 Update your computer software

Make sure to sue the latest Windows version and latest graphics drivers. This is especially useful if you get weird errors like crashes, extremely low framerates and so on.

5.19.6 Check your system specs

Did you check if you meet the minimal PC specs for TSW2? If not, nothing will really help you. This game is demanding, better be prepared. You can play it on a good gaming laptop. If it's not a gaming laptop, chances are low.

5.19.7 Remove all mods

For PC players, a number of mods were created. Not all mods work properly and some may cause game crashes or strange behaviour. You should uninstall them, as well as remove all not officially supported game settings.

5.19.8 Submit a ticket

You should not have very high expectations from the DTG support desk. They do a good job, but in many cases they cannot solve your issue. Contact details for the support site are in chapter 4.6.

5.19.9 Some common issues

My TSW2 crashes frequently. Make sure to uninstall all Mods and modded settings. Check if you have the most recent driver version, make sure Windows is fully updated. If this does not work, you can check the local game cache, but this is rarely needed. You also may need to turn off DirectX12 if you set this switch on. Make sure not to use any mods designed for elder game versions, including Unreal Engine v4.23 compatible mods. It also may be something is wrong with the hardware of your computer.

My DLC is not visible. You may not yet have downloaded it. For loco DLC's , be aware that they require a specific route you must own. Refer to the sales page for more information. Not all preserved collection DLC are already available for TSW2.

When I start the game it always starts the same drive. By default, the game will start the next journey drive in the list. You can resolve this in the setting, by turning off the setting autoload journey. See for more details 5.5, 7.6 and 11.3.

My train will not start driving. In most cases you missed a startup task. Review the manual. After releasing the train brakes it may take up to 2 minutes before you can drive. Also make sure all doors are locked. In case of an emergency brake application or if the PCS switch is tripped, you may need to perform a specific recovery procedure. Check the manual!

After a passenger stop my train does not move. Make sure to set the throttle in OFF position. Close the doors, release the brakes completely and then try again.

I am stuck at a red signal. Check the 2D map if any train is coming. Check the 2D map if all switches are set properly (the blue line is your path). If nothing seems wrong, try to save the game, exit to the main menu and then try to resume the saved game.

I cannot reset a driver alert with the key Q. This is a bug in the game and occurs at German routes. There is a simple workaround: stand up (key E) and sit down again. Best before you start driving.

When I load a saved game ... In TSW reloading a saved game may result in weird errors. Varying for a red signal, no power, safety systems going nuts. This is because saving the complete game state is quite complex and error prone. We have to live with this for the time being. What you can try: stand up and sit down again, turn off the safety systems. Brake and then release brakes and apply power again. In some cases you cannot do anything, you need to start again.

Note: I encountered serious bug in the save game function for one preserved collection route. Other players reported similar issues for other routes. Till this is solved, resuming a saved game should be considered as a last resort action.

I cannot start the engines at Sandpatch. For the AC4400, play the introduction tutorial. There is one additional point, set in the screen the traction to Lead as well. For the GP38-2 and the SD40-2 you need following controls to be set properly:

1. **Field generator** on, Engine Run on
2. **Cutout valve** to Freight or Passenger (whatever you need)
3. At the bottom of the console, there is a control to set up multiple units. Set this up to **Lead or Dead**

You also may get the Sandpatch Route Guide I created, or consult the steam guide on this topic. Driving multiple unit trains impose specific setup requirements.

I cannot start the train at Bakerloo. Read the quick start guide and follow all steps carefully.

I cannot set AFB for the ICE3. The keyboard keys will not help you out here. There is a display in the loco, marked AFB where you can set it. where you can configure AFB.

6 Dovetail Live

6.1 Create an account

You may want to subscribe to DTG Live. This gives you access to the official game forums, and you can use the Mastery feature if you like. I cannot give you proper deep link, but you will find it. It is also described in all game manuals. <https://live.dovetailgames.com/>



At the moment, Mastery is not working if you play using the Epic Games Store.

The Driver's logbook and DTG Live screenshots do work. They are not separated from the results you got at steam.

6.2 Check if you are connected

It may be useful to know you are connected to Dovetail Live. You can see it in any of the menus, where you will see a small DTG logo:

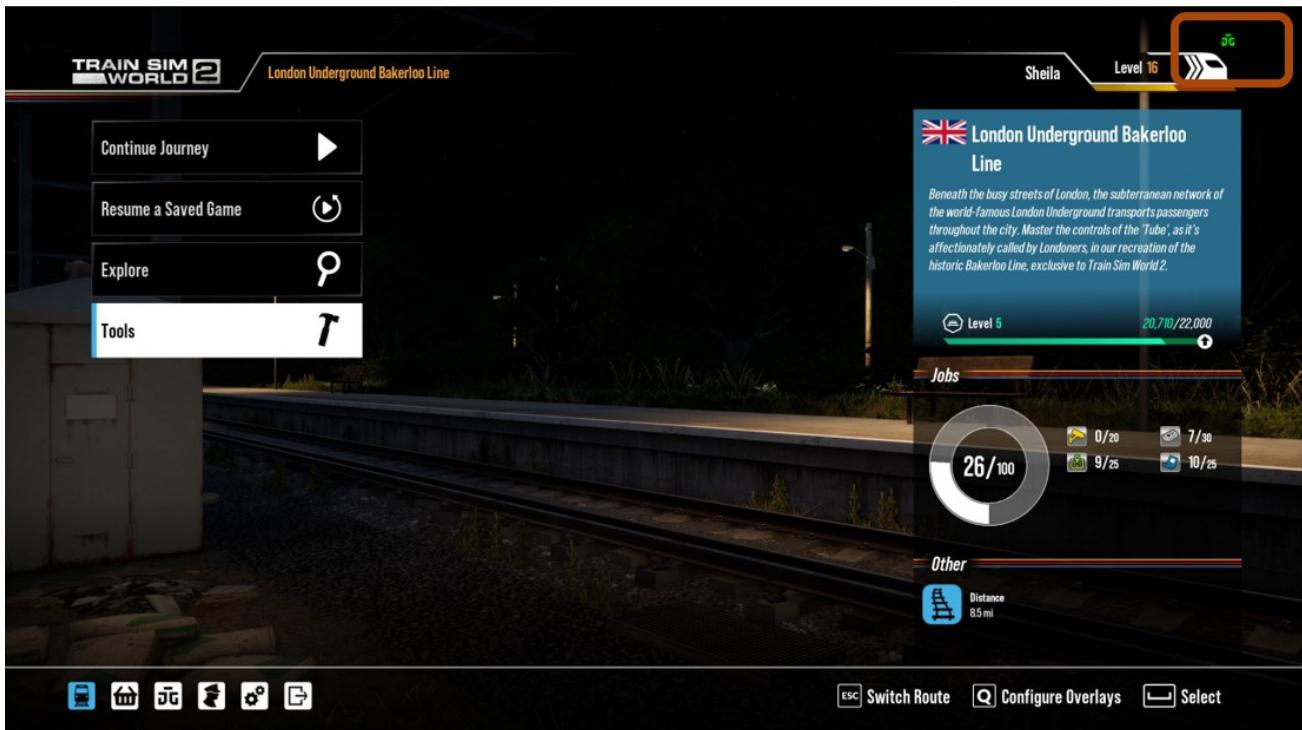


Figure 16 Check your DTG Live login status

6.3 Screenshots

TSW2 has a new way added to create screenshots and save them into your profile. You can share them using Facebook or Twitter.

On the PC using an Xbox controller to take a screenshot you hit the X button and hold it down, once it takes the screenshot it asks you if you want to upload it to DTG Live.

They should appear on the Railfan Shots tab of your Dovetail Live profile:

<https://live.dovetailgames.com/live/train-sim-world/profile/shots>

- **Xbox One** – Hold the X button
- **PlayStation 4** – Hold the Square button
- **Steam** – Press Ctrl + F10

All of the shots you save will be added to your Dovetail Live Profile online at trainsimworld.com. You can see your gallery of Railfan Shots [here](#). Log in, click on “Profile” and then “Railfan Shots” to see these. You can then click on each capture to see which Route and Scenario they were taken on and edit details like the name so you can keep a personal record. You can also share to social media from here.

There is a restriction, you can only take these screenshots if you are driving a train. It does not work from first person mode and they will cover only say 70% of your screen.

I assume DTG will add more features later and use this as the base for the weekly screenshot competition.

Note: the screenshot function may be confusing. See chapter 12.3 for all details and options.

6.4 Drivers logbook

A new function is the drivers logbook. At the moment this is still in its infancy and very beta. The idea is that can collect there the details of how well you have driven a certain route, scenario or service.

You need to be logged in during gameplay and you can review it from the profile page at DTG:

<https://live.dovetailgames.com/live/train-sim-world/profile/drivers-logbook>

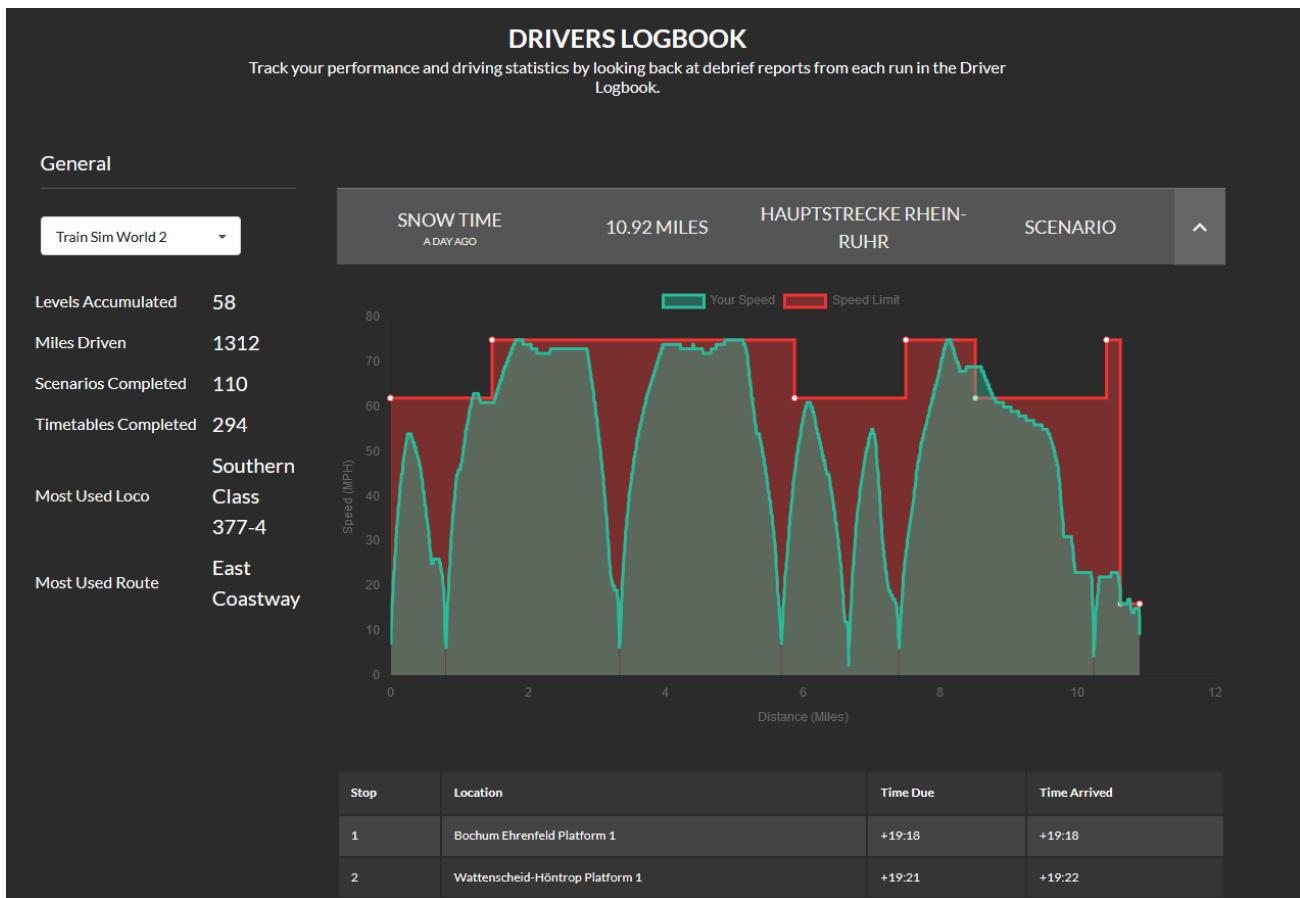


Figure 17 Drivers logbook sample page

6.5 Mastery

You also will find your Mastery status at the DTG site. See 8.7 for more details.

6.6 Community challenges

DTG started again with community challenges, where we as a community get a common task. You can win stuff like screen backgrounds or similar. See also 8.8.



7 Content types

7.1 Tutorials

Tutorials consist of step by step instructions for a specific purpose. Most of them are very short. For the newer DLC they are restricted to show you a simplified cold boot, drive a bit and brake. If you are new to TSW, it is best to start playing at least the introductory tutorials for the route.

7.2 Scenarios

Scenarios are bit of a mix. Some are just game drives, others can be considered as a showcase for the features we may get when the scenario editor is available. Finally, some scenarios have a tutorial character and demonstrate game features.

7.3 Scenario planner

With the Scenario Planner you can relative easy create your own drives. There is a limit of 30 scenarios per route and it is very simple right now, but you may expect more development in this area. The Scenario Planner is covered in a separate guide, because I expect there will be a lot to say about this. You can download this guide from my website.

7.4 First person mode

In the Explore menu you can select explore on foot. Then you can choose season, time of day and a location. You now can walk along the tracks or at the station platforms.

If you are at one of the stations, you can enter a train that stops at the station and ride as a passenger, or you go to the cab and take control of the train and drive it yourself (you only can do this if the train is stopped).

You also can try to locate the tasks/collectables (see 8.9).

7.5 Time table

As a basis there is a timetable that lasts 24 hours. Trains are scheduled in the 24 hours scheme. You can take control of each of these trains, while the others are driven automatically.

During this process you can set season and weather, but you also can select a livery if more than one liveries is supported for an engine. If you own the GP-40 DLC, at the NEC or Sandpatch route you can drive a number of services with the GP-40 instead of the GP-38. For the automatically drive trains, the game will select the livery at random. Same thing for the German routes, where you get more timetable drives and more variety.

For most present DLC the major issue with time table mode is that it feels a bit boring, with little variety in the types of tasks. For the NEC route DTG did a great job for the diesel shunting services, for Ruhr-Sieg North they seriously attempted to increase variety. For WSR a number of very short shunting duties are included.

At the moment there is only one timetable per route. DTG is working on the feature to allow multiple timetables.

Tip: at the top of the Timetable there is a search option that allows you to filter the services you can choose.

Tip: if you own the Rhein-Ruhr Osten preserved route, you will get additional S-Bahn drives at the Köln-Aachen Route. Need to wait a while till it is available.

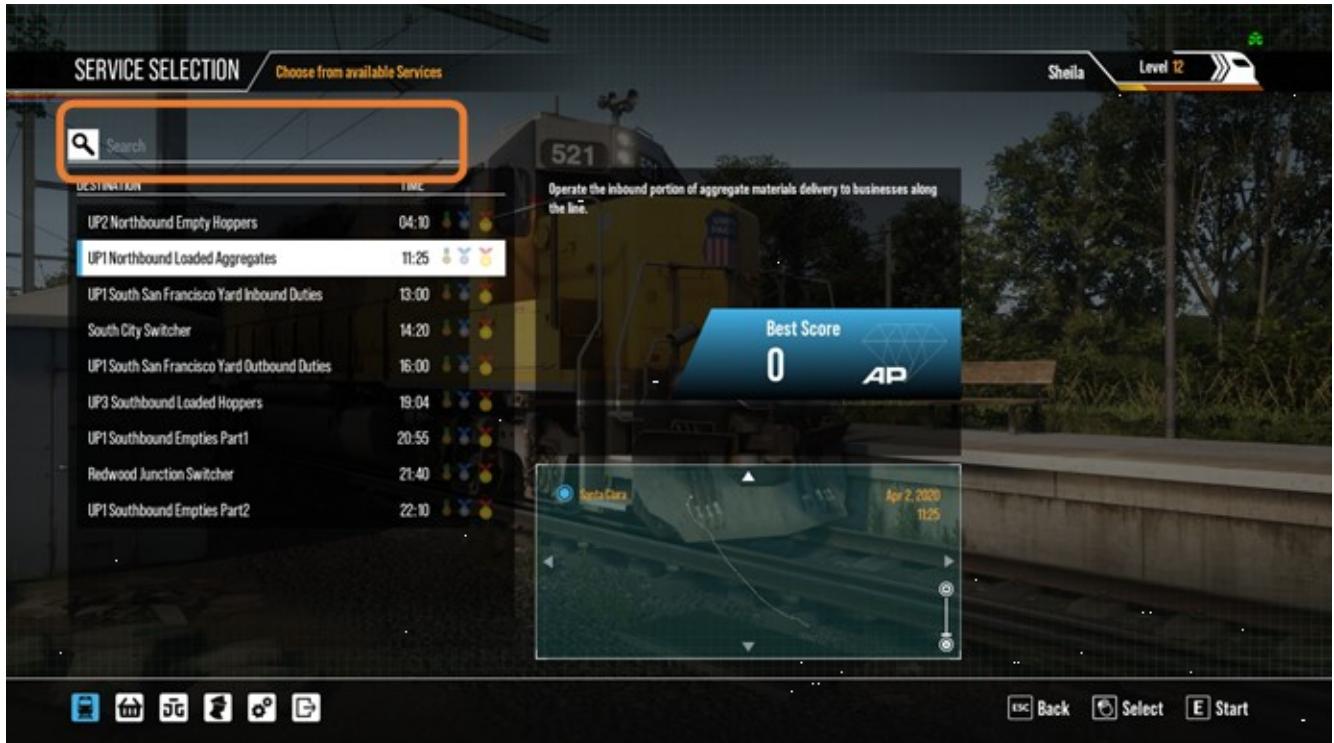


Figure 18 Search/filter option timetable mode

It may be overwhelming to see the huge amount of timetable drives. Some of these drives are a bit more interesting than others, for example because they use a slightly different path or because of other rail traffic. These drives are collected here:

<https://forums.dovetailgames.com/threads/awesome-tsw2-service-mode-runs.32010/>

To find them even more easy, an excel list has been compiled by [LeadCatcher](#). (Thanks a lot for doing that!) You can find a link towards it at the forum page.

7.6 Journeys

A journey is a set of tasks, spread over approximately 24 hours. For TSW2 this is improved, at least for the new routes, so there is more variety. A Journey comprises of a set of tutorials, scenarios and timetable services in a more or less ordered way. For the timetable services you cannot select the weather type. Originally it was heavily focussed on a specific loco, the new journeys gives you more of an experience, starting simple and then do the more challenging drives.

Tip: There is a new setting that makes TWS2 start the next Journey automatically after each drive. You can turn this on or off as you like. Be aware that there is a bug, it blocks resuming from a the last checkpoint, so passing a red signal at danger is really fatal then.

You should be aware that the Journey menu actually has three levels. At the first level, if you double click it will start the next drive in the journey. The bad thing is that you will not get any clue on what the journey contains and you cannot just monitor your progress.

If you click one at the Continue Journey or Start New Journey button, it expands and will show one or more chapters.

Single click at a chapter, to show the contents of the selected chapter. What this all looks like is shown in Figure 19.

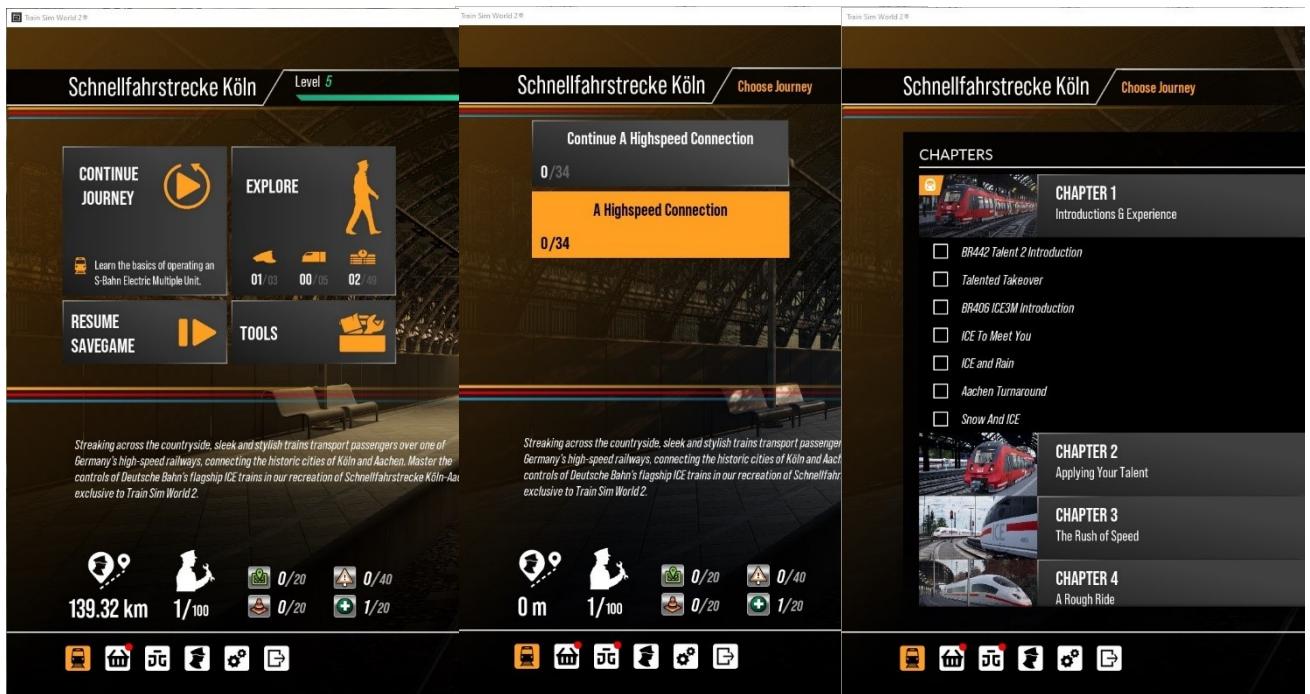


Figure 19 Select a specific Journey Chapter

7.7 Progress views

7.7.1 Objective viewer



If you press the key **T** during gameplay, you see an overlay that shows driving progress (objective viewer). If you place the mouse cursor right at the scrollbar, you can scroll through the list. For the Rush Hour update, this function is revised and works better now.

Pressing the key **T** again makes the objective viewer vanish again.

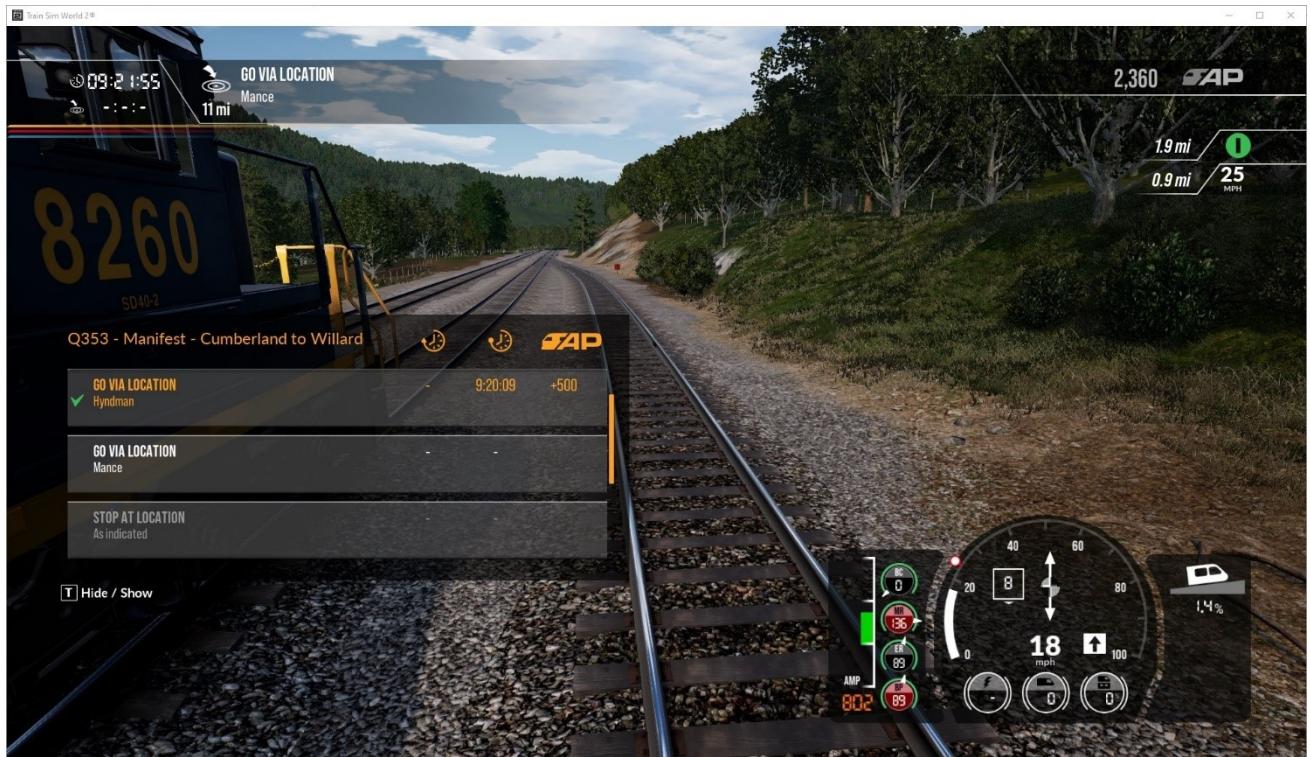


Figure 20 Objective viewer

Note: for users of a controller, the scroll function now should work.

7.7.2 Pause screen

The **escape key** pauses the game and brings up a lot of functions that may be useful. It gives access to the settings, save game, return to the main menu and the new functions that show you the actual status of your current drive:

- General information, train length, train weight, actual location
- Schedule with all instructions for this gameplay
- A screen showing the upcoming gradients and speed limits
- Information about the speedometer HUD
- All key bindings for controls and keyboard
- A simple map giving you an idea where you are at the route
- Access to options, save game, return to the main menu and so on.
- A log of all communications and instructions

In previous chapters most of the features are discussed already, so no reason to repeat it here.



8 Rewards

8.1 Introduction

TSW2 has a number of features to “reward” you for experience. Over time this has been extended a lot. Now we have:

- Action points
- Levels
- Journeys
- Medals
- Tasks (Collectables)
- Achievements
- Mastery
- Challenges

None of these have any impact on the actual gameplay. Only Mastery rewards you with a little bit additional scenery or decals for the livery designer and task will change a little bit what the game looks like (only scenery). So, if you do not like them, ignore them.

8.2 Action points

The core system are Action Points. For certain actions in game you are rewarded with points. These points are added at the level of your avatar, engine and route. While you collected enough points you get a higher level. This looks nice and may encourage you to gain more experience, but the system is poorly designed and little thought was given to balance to points. In the next table I reconstructed more or less an overview of how to get points. Curiously, this may vary by scenario and by route.

Stopping at a station	500	You get less points for stopping too far away from the stopping point, but you need to do it very bad to get less than 400 points.
Driving under speed limit	30	Distance driven based. I think you get around 200 points per mile
Driving max 2Mph above speed limit	15	
Driving more than 2Mph above speed limit	0	The acceptable overspeed level may vary by loco type.
Coupling or uncoupling	250	
Loading a wagon	7-9	May vary by route and service
Unloading an wagon	5-15	May vary by route and service
Go via point	250	
Stopping properly	500	Points are deduced depending of the actual stopping distance versus the indicated spot.
Pick up passengers	500	Points are deduced for arriving late, but you will get a minimum of 250 points

Contrary to TS2020 you will not get points subtracted, so no need to be afraid you end with a points total below zero. The points will be added to your avatar, route and engine experiences. Each of them will level up each time you collected a number of points. There is no competition, so you just do it for yourself.

If want to get a large number of points, you need to play stopping passenger services. Peninsula Corridor may reword you with up to 25.000 points for a single all stops drive. In contrast, a freight service may reward you with no more than 4000 points, if there are no intermediate stops or go via instructions.

8.3 Levels

A number of Action Points builds op to a level. There are levels for avatars, routes and engines. There seems not be something like a highest level and unlike TS2020 levels are not published. So, no need to work on getting a higher level. Levels may give access to Mastery levels and Achievements though.

8.4 Journeys

A Journey is a collection of tutorials, scenarios and timetable services. Once completed a Journey it is registered, just like completing all scenario's, tutorials and services. This does not always work properly, be warned.

8.5 Medals

The number of action points has an upper limit for each drive. In addition to the action points, you get a medal if you managed to complete a drive successfully. You will NOT get a medal in all cases if you save the game, return to the main menu and continue later. I think, but did not test it, that once you have a medal, you cannot improve your performance and get a higher medal.

Medal	Requirement
Gold	Over 90% of achievable points
Silver	Over 70% of achievable points
Bronze	Over 50% of achievable points

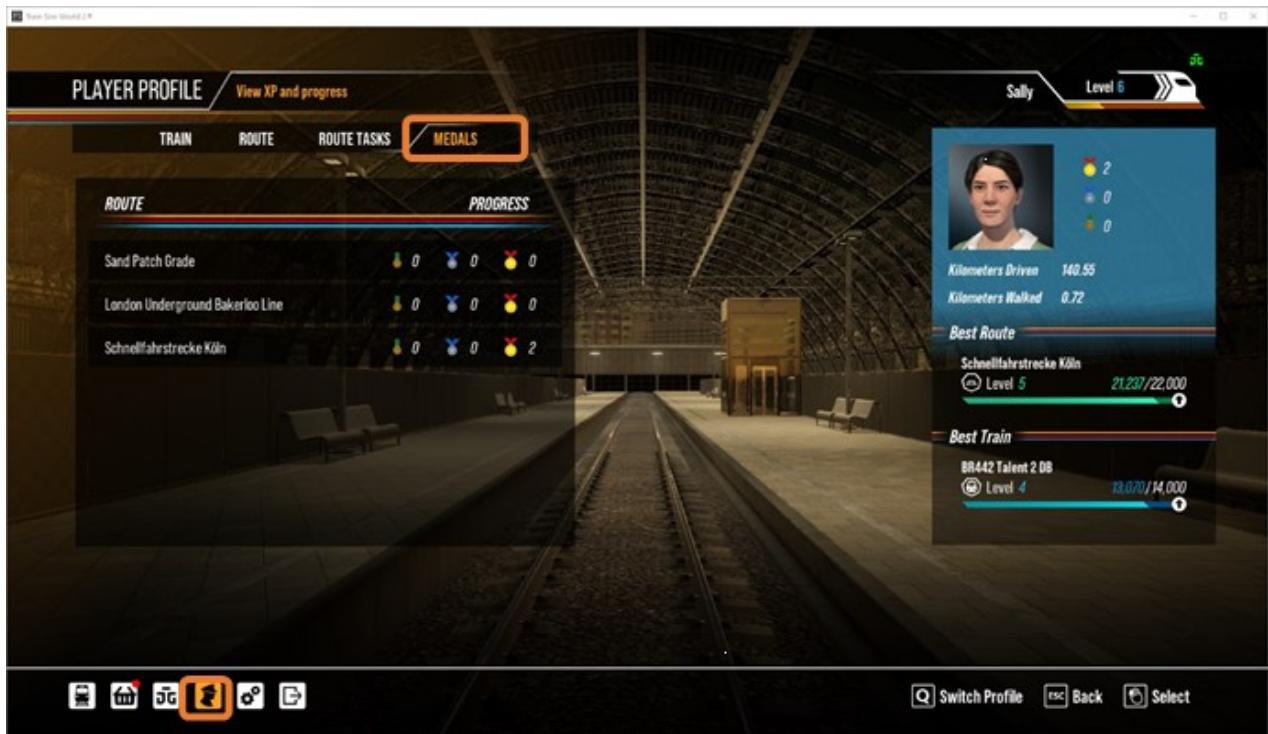


Figure 21 Overview of medals

At the overview page for each route, you cannot see the amount of medals you collected, but at the old player profile pages, a new tab is added to show the number of medals. Medals are not always working properly and not for all services you will be able to get a gold medal. If you restart or resume a saved game, you will not always be able to get a medal.

8.6 Achievements

Achievements are rewards that are managed by steam. You can see an overview at the product page. Contrary to TS2020 no information on achievements is given in game, you need to consult steam to see your progress. Achievements are just for the honour, you do not get any rewards. In TSW2020 they were bugged seriously, but some work has been done to improve this. It is still not always working. XBOX and PlayStation have similar systems, but they have different names. For the Epic Games Store I have not yet seen it, but rudimentary information is set in the game download, so who knows ...



Figure 22 Achievements details page at steam

8.7 Mastery

Mastery gives you a number of activities to complete and you get some (small) rewards. In order to use Mastery you need to login with Dovetail Games Live. You can get an account at the DTG website. In all manuals this is documented.

Note: Mastery is not yet working for the Epic Games Store platform

The rewards come at two levels. If you complete the first level, you get some decals you can use in the livery editor. For the second level you can add an enhanced scenery tile to the route. Examples are balloons, a fair and for TSW2 various farmers markets seem to be popular. For Clinchfield there is only one level, which gives you a camp place when you got it.

Tip: if you obtained Mastery level 2 awards in TSW2020, they will be given to you in TSW2.

For TSW2020 Mastery is made available again, so you still can complete the challenges.

You can view the status of your mastery at three places:

1. When you start TSW2 and you have signed in for DTG Live, you see the Mastery screen.
2. In game press the button marked **JG** at the bottom of the screen This gives you the choice between Mastery and the latest TSW2 news from DTG.
3. You also can login at your profile page at the DTG site There are a number of tabs, one for mastery.

Mastery is updated near real time, but you may experience some delays.

At the moment mastery applies to the three TSW2 core routes Sandpatch, Bakerloo and Köln-Aachen. It is well possible to add temporary mastery challenges. We have seen one example, using Sandpatch where you could win some winter decals.

8.7.1 In game mastery screen



Revised for the Rush Hour Core game update

The in game Mastery screen for TSW2 will appear automatically provided you are logged in (Not sure if this will stay for Rush Hour. The EGS version is not doing this). You can click at the route you like to view and this reveals your tasks and the progress. The information on the rewards you may get is improved for the Rush Hour release. The home screen shows all routes, for which mastery is available, including routes you do not own (this screen looks much better now). You can click on a route to see the requirements and progress. IN this screen, you may click on the rewards to get an idea of what you will get.

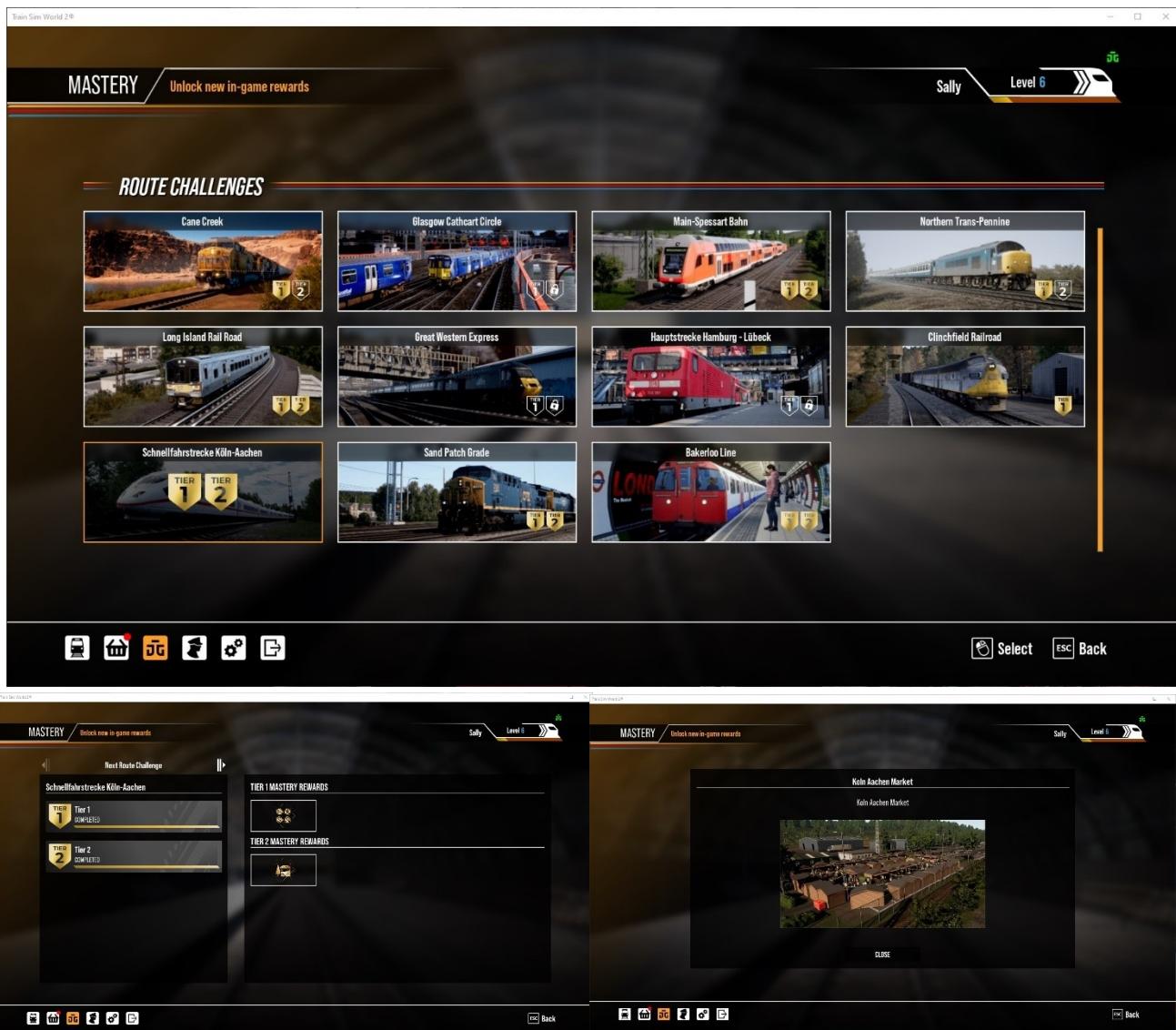
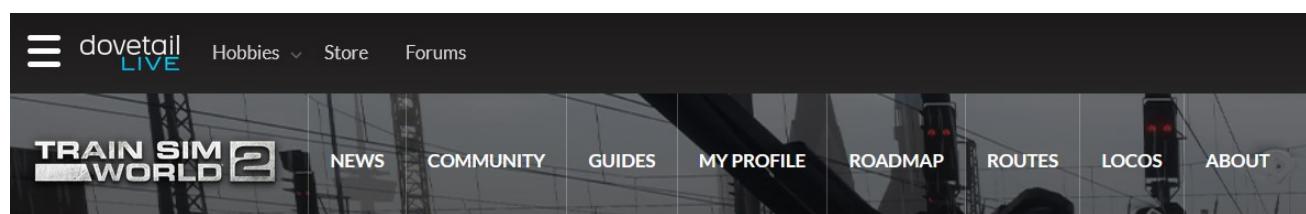


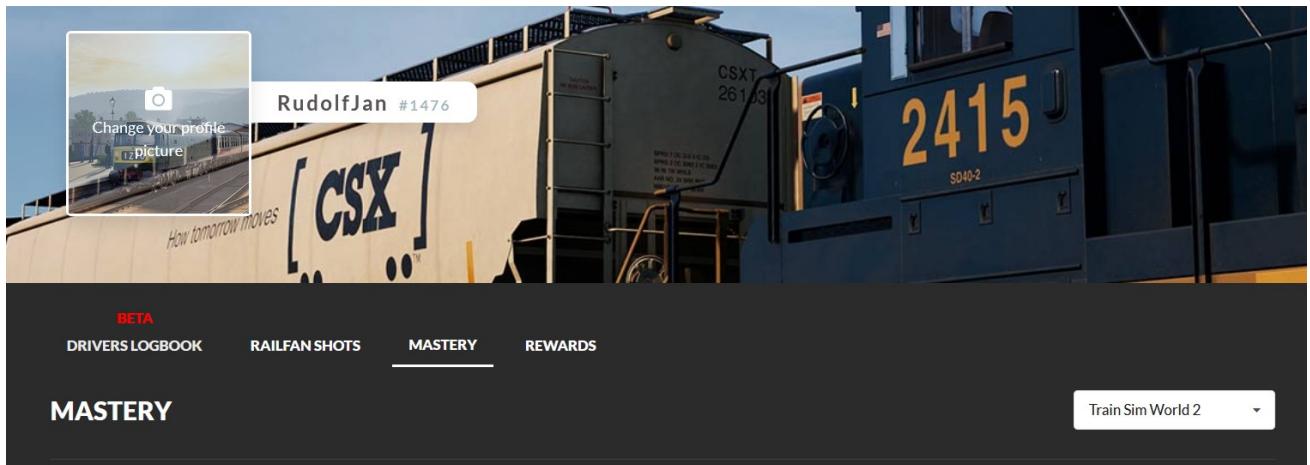
Figure 23 In game Mastery screen, SKA route opened

8.7.2 DTG Live mastery screen

If you navigate to the DTG website (<https://live.dovetailgames.com/live/train-sim-world>) you see a menu like this:



Choose MyProfile and then Mastery. Now make sure to select TSW2 at the right side. Essential it looks very similar to what you see in game.



8.7.3 Setting up your reward tile

If you completed a tier 2 Mastery task (for Clinchfield level 1), you get an adapted in game tile. You can turn on or off these tiles from the menu.

1. Select a route
2. Then select the button “Configure overlays” (key)
3. Now you see a screen that looks like Figure 24. Click on the tile and you see a preview. If the location symbol is visible, the tile is active in the route.

It is not documented where you can find those tiles and it may be a bit hard to locate them.

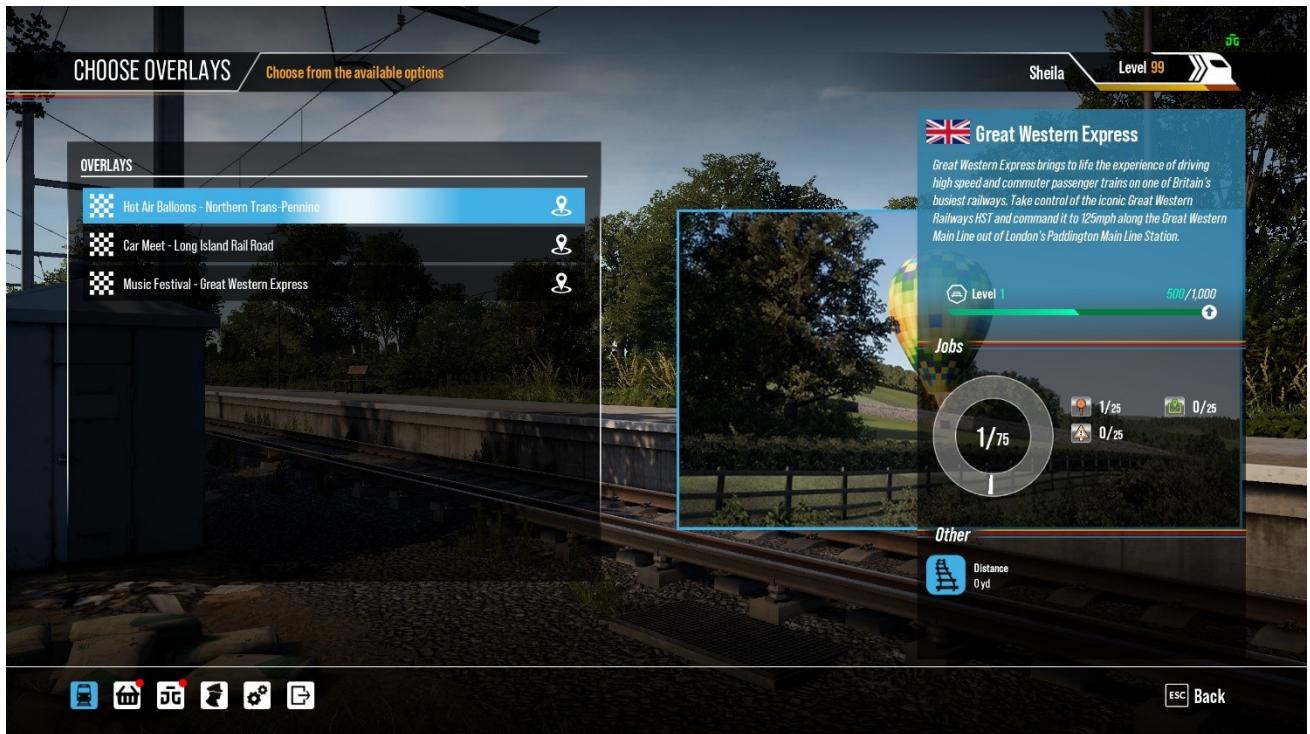


Figure 24 Mastery rewards for TSW2020 for the second level can be activated in TSW2

8.8 Challenges

Challenges work similar to Mastery, but here the whole community may gain a reward for completing a task within a given period of time. Rewards until now are background screens or stuff like that. Nothing to get very excited about. At the moment new challenges are issued regularly.

<https://live.dovetailgames.com/live/train-sim-world/challenges>

8.9 Tasks/collectables

When in walking mode you can perform four different actions and get an achievement if you complete each.

Note DTG decided to rename **Collectables** to **Tasks** starting with TSW2020, but also the term **Jobs** is used. I use them in a mixed way and in the game guides you probably will find the term Collectables still to be used a lot.

You do not need to do anything, just get near enough...



In the menu you can see your progress at the player profile page or in the main menu of the route.

Figure 25. Collectables for Sandpatch Grade

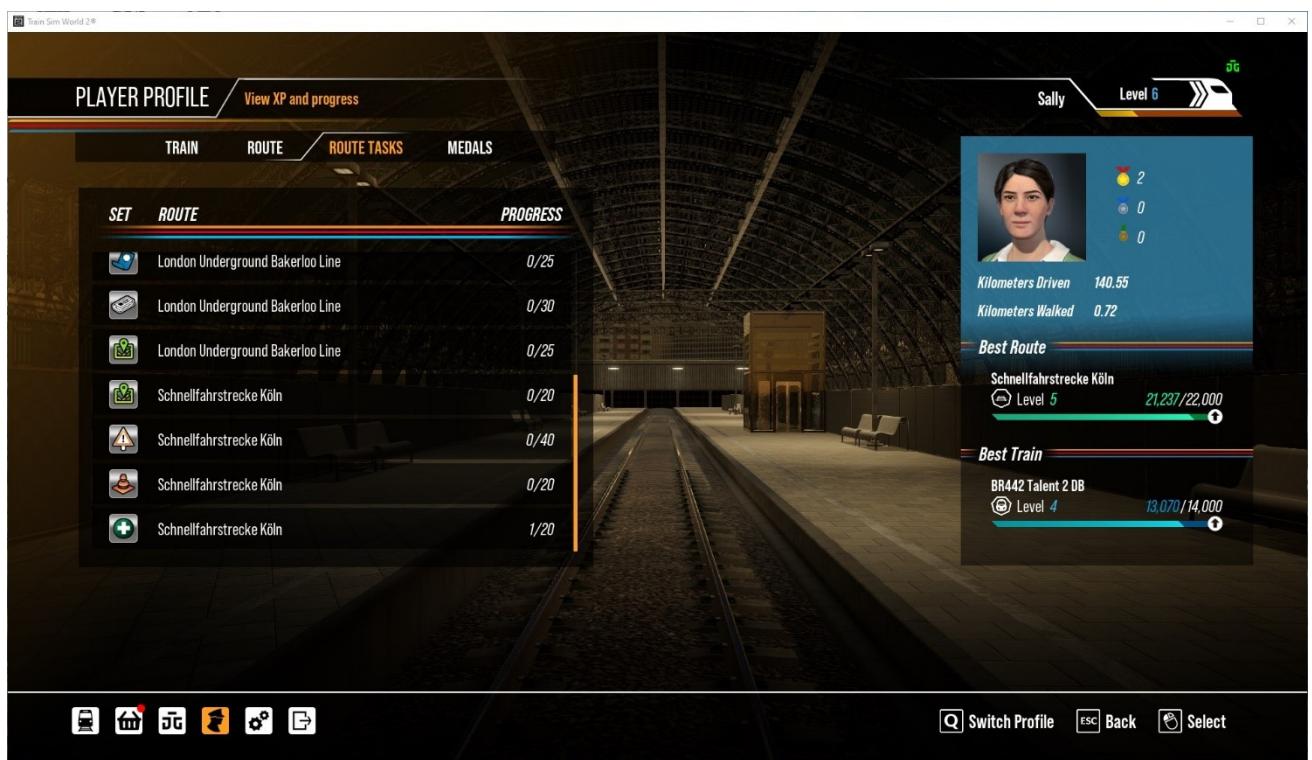


Figure 26 Task progress in player profile

At steam, for many routes user guides are available to help you find the collectables. A direct link to these community guides for TSW2020:

https://steamcommunity.com/app/530070/guides/?searchText=&browsefilter=trend&browsesort=creation_order&requiredtags%5B%5D=Loot&requiredtags%5B%5D=-1

For TSW2 you also can find a number of guides, I think all routes are covered by different authors. These guides are located here:

[https://steamcommunity.com/app/1282590/guides/?browsefilter=trend&requiredtags\[\]>Achievements&requiredtags\[\]>English](https://steamcommunity.com/app/1282590/guides/?browsefilter=trend&requiredtags[]>Achievements&requiredtags[]>English)



9 HUD settings

The HUD is to a high degree configurable. You can do this both during gameplay using the keyboard, or by changing the settings in the settings menu.

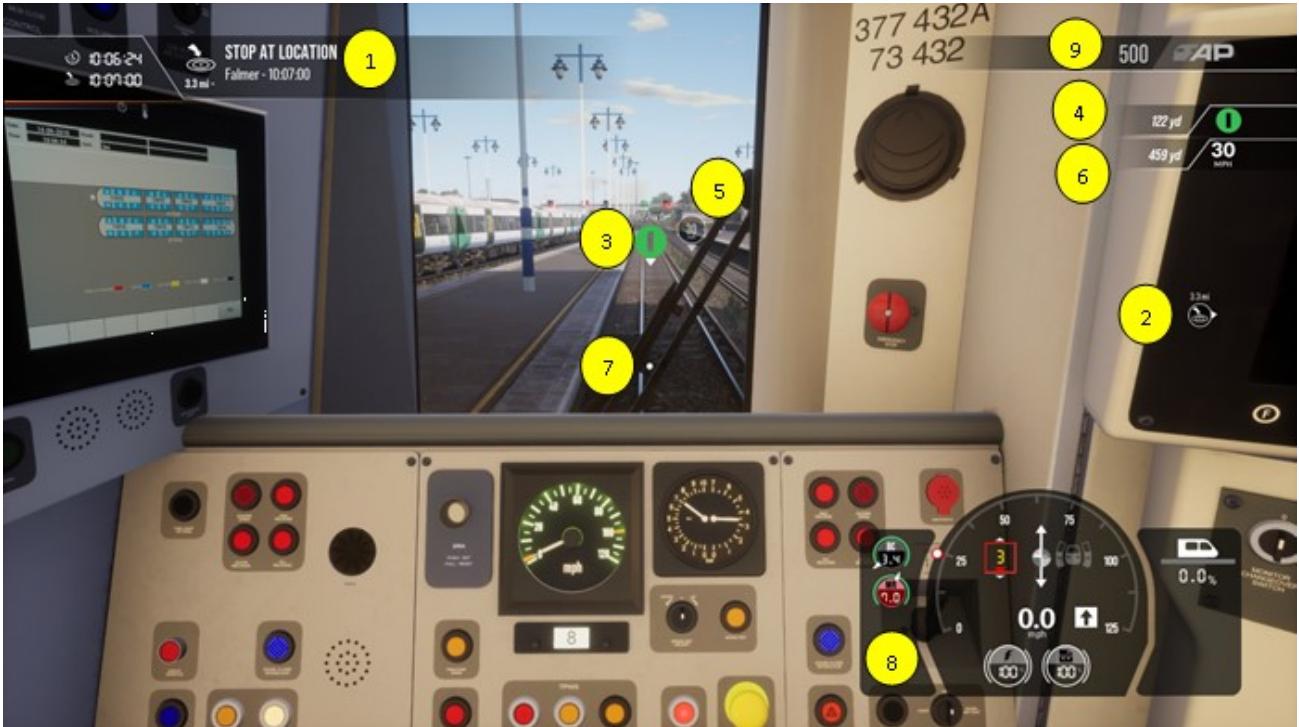


Figure 27 All separately switchable elements in the HUD

The HUD (heads up display) is an overlay on the game screen to provide you with additional information. Essentially the HUD has two display styles:

1. Markers, showing you destination, next signal and next speed limit in the landscape ahead of you
2. HUD version, text blocks showing the information on screen

In Figure 27 all elements are shown and most of them of them can be turned off individually. The numbers below refer to the numbers used in the screenshot. The names refer to the names that are used in the settings menu.

1. **Objective HUD**, which shows your next task. It also shows the distance to the next driving task, the scheduled arrival time and the actual time. You cannot turn this off individually
2. **Objective distance marker**, a floating target that shows where to go. It is possible to assign a number of tasks where you need to determine the order yourself (e.g. release all brakes). In that case you will see more than one objective marker.
3. **Next signal marker**. As shown here, it also shows the signal aspect. You can turn that off.
4. **Next Signal HUD**. The HUD element that shows the distance to the next signal. It also can show the aspect, as shown in the screenshot.
5. **Next speed limit marker**, shows the next speed limit distance and location.
6. **Next speed limit HUD**. The HUD version of the next speed limit
7. **Reticule Centre dot**. This is a focus point for the mouse. If you right click at the mouse, it will fix itself, which makes it easier to set a control. You can turn the visibility on or off.
8. **Speedometer HUD/compass**
9. **Score Marker**, show your actual score for this drive
10. **Notifications**. (Not shown) if you activate a control, at the right of the screen a text shows the present value.
11. **Button Prompts**. This shows a text with each control in the 3D world. This is useful because it tells you whether the control is functional. Many controls are not documented at all ...
12. **Stop Marker**. A colored track, starting red and ending green to give you guidance where to stop your train. (See Figure 28)
13. **Frame rate** (not shown)



Figure 28 Stop Marker

There are two ways to turn HUD elements on or off. You can use the Settings menu, which you can access at several locations, including through the Pause menu (press **Esc** to enter this menu). For a number of settings

there are key binding you can use to toggle the setting. This works quite well, except for cases where the effect is not immediately visible, like with the Stop Marker.

Nr	Element	Key	Setting?	Comment
1	Objective HUD		No	
2	Objective distance marker	Ctrl+1	yes	
3	Next signal marker	Ctrl+3	yes	
4	Next signal HUD	Ctrl+4	yes	
	Next signal aspect		yes	
5	Next speed limit marker	Ctrl+2	yes	
6	Next speed limit HUD	Ctrl+4	yes	
7	Reticule centre dot	Ctrl+8	no	In the settings this is called “Crosshair” and “Reticle Opacity Circle”. There also is an “Auto hide” option for game controller users.
8	Speedometer HUD	Ctrl+5	no	
9	Score marker	Ctrl+6	no	
	Notifications		yes	
	Button prompts		yes	
	Stop marker	Ctrl+7	yes	
	Frame rate	Ctrl+F3	No	
	Whole HUD	F1	No	
	Schedule	T	No	Shows the schedule as an overlay

Note: Ctrl+4 cycles you through setting the Next speed limit and Next signal settings. Make sure to do this while these elements are visible, because you do not get feedback.

Note: For ctrl + [5] (HUD), ctrl + [6] (score), ctrl + [8] (reticle), you may need to change the key bindings, because on some keyboard, when you type ctrl+5 it understands ctrl + []

Tip from [dark-rabbit](#)



10 Key bindings

10.1 Camera keys

The cameras work different from what you are used to in TS2020. The “**Boom camera**” replaces the front and rear view, the head out camera works only for the right window.

The Float camera is a new camera, that allows more freedom.

The key bindings for the camera are still a mess. You need keyboard, mouse and XBOX controller to be able to use all possibilities and there still are a number of bugs.

Description	Key	XBOX	Comment
Set cab camera	1		
Head out camera	→		From cab camera
Back to cab camera	←		From headout camera
Set instrument camera	←		From cab camera, detail view on instrument board
Back to cab camera	→		From instrument camera
Boom camera	2		This camera is intended to follow the train. By pressing the key multiple times you can switch from front to rear.
Floating camera	3		Same as Boom Camera, but you can now look in any direction
Free camera	8		Move anywhere, though it works more like the 4-key in TS2018. The zoom and altitude functions are not working properly.
Go to 2D map	9		Press again to go back to 3D
Return from 2D to Pause menu	Esc		
Move to next rail vehicle	Ctrl + →		For Boom or Floating camera

Move to previous rail vehicle	Ctrl + ←	For Boom or Floating camera
Moves to next cab	Ctrl =	I think this is not yet working properly, so be careful. Because TSW supports true multiple units it may have unanticipated consequences when you are driving. It doesn't bring you to engines at the other end of the train, only adjacent engines.
Moves to previous cab	Ctrl -	I think this is not yet working properly, so be careful. Because TSW supports true multiple units it may have unanticipated consequences when you are driving. It doesn't bring you to engines at the other end of the train, only adjacent engines.
Exit cinematic camera	Enter	I found this instruction in the input mapper file. It seems not to be functional.

Tip: if you are in cab view(key 1), you can use the left and right arrow key to cycle along a number of submodes. This is very handy, because you will pass the gauge panel, radio, switch board, fuse box etcetera. The implementation is dependent on the loco type.

10.2 Walking keys

Command	Keyboard	Mouse	Comments
Walk forward	W, ↑		
Walk backward	S, ↓		
Toggle run/walk	Numlock		Keep it pressed. Use the game options menu to set the default
Toggle head light	L		Very useful in tunnels or in a dark cab to find the cab light switch
Toggle crouch	C		
Change game mode/climb	E		E.g. climb on the train, sit in the driver seat ...
Interact			
Move side wards	A,D, ←→		
Turn			A bit primitive but you can look into other directions using the mouse
Zoom			

Tip: you can change walking or running as a default in the game settings.

10.3 Driving keys

Description	Keyboard	Comment
Change reverser	W	For setting the reverser you may either need S or W, depending on the engine you drive
Change reverser	S	For setting the reverser you may either need S or W, depending on the engine you drive
Increase throttle	A	Status is shown in the HUD, but not in braking mode for the combined power handle in the AC4400CW
Decrease throttle	D	Status is shown in the HUD, but not in braking mode for the combined power handle in the AC4400CW
Cruise control on/off	Ctrl+R	
Cruise control increase	R	
Cruise control decrease	F	
Gear increase	Ctrl+A	
Gear decrease	Ctrl+D	

Tip: for easier driving, rebind the gear to Page Down and Page Up. For German trains that also support PZB you need another combination. It makes driving a lot easier than the default.

Also mentioned: Ctrl+A and Ctrl+D to set the Tap changer (Br 155 engine). I do not think this is used, you can use A and D instead.

10.4 Braking keys

Command	Keyboard	Comments
Decrease independent brake	[Independent brake may have another name depending on the engine, it is the brake you use when driving as a light engine.
Increase independent brake]	
Decrease automatic brake	;	Also named Train brake or Driver brake
Increase automatic brake	'	
Decrease dynamic brake	,	Also named electric brake
Increase dynamic brake	.	
Emergency braking	Backspace	
Release emergency brake	Shift+Backspace	
Hand brake	\	Also named parking brake
Release hand brake	Shift+\	
Set brake to lap	/	Not yet tested

10.5 Light keys

Command	Keyboard	Comments
Switches to next headlight state	H	This function is not always used consistently. For a finer control, you better use the switches inside the cab, when available.
Switches to previous headlight state	Shift+H	This function is not always used consistently. For a finer control, you better use the switches inside the cab, when available.
Switches to next tail lights state	Ctrl+H	
Switches to previous tail light state	Shift+Ctrl+H	
Toggles cab light	L	In some cases you need to use Shift+L to decrease The key may have some side effects
Cab light decrease	Shift+L	
Toggles instrument lights	I	In some cases you need Shift+I to decrease The key may have some side effects, e.g. turn on a reading light. For the BR155, please consult the Ruhr-Sieg Nord Route guide for all wonderful details.
Toggles both step lights and platform lights	K	Only for the engine you are currently driving. Applies to US engines only
Toggles ditch lights	J	Only for the engine you are currently driving. Applies to US engines only

Dependent on the engine you drive, it may be better to use the physical controls or the light configuration switches you may find somewhere in your cab. The key bindings for light are a bit rough and not very subtle.

10.6 Safety systems keys

Command	Keyboard	Comments
Request permission to pass signal at danger in forward direction and open close doors for passenger trains	TAB	The TAB Key DOES work as advertised in asking permission to pass signal at danger but you will be denied by the dispatcher UNLESS your route can be connected to your objective by the dispatcher.
Request permission to pass signal at danger in backward direction	Ctrl+TAB	Not documented, not yet seen, I guess this exists
Toggle Alerter isolated	Shift+Numpad Enter	
Toggle safety functions isolated	Ctrl+Numpad Enter	
Reset alerter/fault	Q	This key is widely used to acknowledge any alarming sound, which includes alerters, PCS, AWS and maybe more
PZB Acknowledge	Page Down	For PZB you should consult the Signalling and Safety Systems Guide
PZB Clear	End	
PZB Override	Del	

The key bindings may have a rather rough effect. In general I recommend to use the controls in the engine to set up safety systems properly.

10.7 Setup keys

Command	Keyboard	Comments
Engine start	Z	Used for diesel engines
Engine stop	Shift+Z	
Toggle master key	Ctrl+W	The master key may have different names
Master Key off	Ctrl+Shift+W	Seldom used, if ever
Pantograph raise/toggle	P	You may need to select a pantograph first. Not seen that function has a key binding
Pantograph lower	Shift+P	
Circuit breaker	Ctrl+P	Never used this key binding
Circuit breaker off	Ctrl+Shift+P	Never used this key binding

This section is a bit arbitrary. There may be more steps needed. Most of them are not bound to a key, which is not a big problem. You also may need to go to another cab to do some settings, or even outside the engine.

10.8 Other keys

Function	Keyboard	Comment
Sander	X	You need to hold the key
Lead axle sander	Ctrl+X	You need to hold the key, needs confirmation
Increase wiper speed	V	
Decrease wiper speed	Shift+V	
Climb stairs, climb into a train and so on.	E	
Toggle bell	B	Not all locos have a bell
Horn (high tone)	Space bar	You need to hold the key to continue sound. For some locos the key bindings for high and low horn have been mixed up.
Horn (low tone)	N	
Couple	Ctrl+C	Not checked if this actually is used. It may be used for automatic coupling Multiple Unit trains
Uncouple	Ctrl+Shift+C	
Coupler Lock Front	Ctrl+C	No idea what this actually does
Coupler Lock Back	Ctrl+Shift+C	
Open/close doors	TAB	This will bring up a menu, that allows you to open doors.
	Y	Alternatively you now can use the Y-key or U-key for this purpose.
	U	



11 Game settings

Warning: I used an NVidia 660GTX which is underpowered, but it worked. After about 200 hours playing TSW the card was defect. It is possible that that it was overcharged, so be careful if your system does not meet the requirements!

11.1 Sound settings

All sound volumes can be set with a slider in a range of 0 to 100%. At least some people complain this is not loud enough and sounds are hardly audible (partly true, but maybe you don't want to turn up the volume of your speakers too much for a single game).

It is possible to set higher values, but then you no longer can use the in game settings menu to adjust the sound volumes. A better option is turn the volume of your speakers a bit up. My feeling is that the overall volume is set a bit low.

Setting	Description	Comment
Master volume	Basic sound volume	
Ambient volume	Surrounding scenery sound level	
Dialog sound volume	Volume for dialogs	
Main Menu UI volume	No idea what this doing exactly	
External Alert volume	Plays sounds for alerters and safety device while you are not in the cab	
SFX volume	SFX stands for sound effects	
Window Audio Focus	No idea what this is doing.	
Subtitles	Turns subtitles on or off in scenarios	Keep this on if you turn off dialog sound. For some routes there is no dialog sound, so you may miss some information if you turn this off.

11.2 Screen settings

Setting	Description	Comment
Screen Resolution	This one sets the screen resolution	Best is to make it match the resolution Windows recommends
Window Mode	The way the game is displayed on your screen	Best choice is Windowed FullScreen
VSync	Synchronizes the graphics card with the monitor.	Keep it off if you limit the frame rate below 60fps.
Anti-alias method:	Way to reduce image artefacts	FXAA is generally recommended.
High Screenshot quality	This sets the screenshot quality to a max, which may consume a lot of disk space	
FPS limit	Sets a limit to the frames per second rate	Higher fps especially makes fast moving stuff look better. A very high fps may cause trouble

A somewhat technical discussion on VSync: http://www.tweakguides.com/Graphics_9.html

As far as I understood, if you have a very high fps (above 60) you may try to turn it on if you experience distortion, otherwise leave it off.

11.3 Game play settings

In this section a mix of settings that influence game play is presented.

Setting	Description	Comment
Run/walk	Sets how fast you walk in first person mode	Set it in the settings menu, but you can override the setting in game
Disable junction derail	If you set this to true, the game will not complain about junctions that are set wrong	This horrible UI design because it is stated as a negative instruction. Think twice before you set this!
Measurements	Sets unit system to imperial (Mph) or metric(km/h)	The value Automatic will switch depending on route you drive
Grade units	Sets the way grades are represented in the HUD either a division or a percentage	The value Automatic will switch depending on route you drive
Temperature units	Degrees Celsius or Fahrenheit	Not relevant, it is not actively used in the game The value Automatic will switch depending on route you drive
Camera Motion Sway	Turns cab sway on or off	Use this setting according to your preferences.
Camera Motion Sway level	You can now select how much cab sway you like to have. Set it a high for a bumpy ride and low for modern fast trains.	
Auto-Load Journeys	Load next Journey game play automatically when you finished a journey	Confusing for many users.
Hide UI in DTL Screenshots	Prevents you to clobber Dovetail Live screenshots with HUD functions	See also chapter 12.3

11.4 Where to change settings

There are number of way you can change these settings. Each way is different in what you can set and how easy you can adapt the changes.

- In game settings menu: you can access this at any moment during gameplay and the good news is that all settings will be active right away. So, this is very powerful to play with the settings and see the effects right away.
- Keyboard mappings: you can remap the keys and this will have effect right away. You only can do this from the menu in the game.
- In game, using key combinations
- Change the .ini files: you can directly edit the .ini files. The settings will be effective after a restart of the game and you must avoid typing errors of course.
- Use ToolkitForTSW: better than editing the .ini files, you can use ToolkitForTSW. ToolkitForTSW supports all settings except keyboard mapping. And allows you to make backups of the .ini files as well.

Notes: you find the .ini files in a folder below the Documents folder: \Documents\My Games\TrainSimWorld2\Saved\Config\WindowsNoEditor

For the Epic games Shop platform, you need this folder:

: \Documents\My Games\TrainSimWorld2EGS\Saved\Config\WindowsNoEditor

11.5 Advanced cab sway settings

Note: you can use **ToolkitForTSW** as well to define these settings for various situations. It also will support use of EGS next to steam.

This information comes from [londonmidland](#)

See also: <https://forums.dovetailgames.com/threads/guide-enable-realistic-head-sway-in-tsw-2.31762/>

Disclaimer:

This setting will change head sway across all routes. For routes which have incorrect track properties, such as GWE, this will greatly affect final results, making it look off and way too exaggerated in some cases.

Open the engine.ini file with a text editor and under [SystemSettings] add the following:

```
ts2.CameraMotionSway.EnableUprightCompensation=0
ts2.CameraMotionSway.KSitting.Y=100.0
ts2.CameraMotionSway.KSitting.Z=50.0
ts2.CameraMotionSway.LSitting.Y=10
ts2.CameraMotionSway.LSitting.Z=1
ts2.CameraMotionSway.SittingPivotOffset=-200
ts2.CameraMotionSway.LSitting.X=10
```

You can see [a video](#) and see for yourself. This demonstrates heads both at high and low speeds using the class 377 at ECW.

Some people used different settings depending on the route:

The Class101 at Tees Valley

```
ts2.CameraMotionSway.EnableUprightCompensation=0
ts2.CameraMotionSway.KSitting.Y=100.0
ts2.CameraMotionSway.KSitting.Z=50.0
```

```

ts2.CameraMotionSway.LSitting.Y=10
ts2.CameraMotionSway.LSitting.Z=2 - 7.5
ts2.CameraMotionSway.SittingPivotOffset=-200
ts2.CameraMotionSway.LSitting.X=10

```

For Sandpatch grade:

```

ts2.CameraMotionSway.EnableUprightCompensation=0
ts2.CameraMotionSway.KSitting.Y=100.0
ts2.CameraMotionSway.Ksitting.Z=65.0
ts2.CameraMotionSway.Lsitting.Y=17
ts2.CameraMotionSway.Lsitting.Z=7.5
ts2.CameraMotionSway.SittingPivotOffset=-200
ts2.CameraMotionSway.Lsitting.X=10

```

Setting	Range	Description
EnableUprightCompensation	0-1	Keeps your body/head angle ‘stuck’ the train so when going round corners, you will follow the train ‘tilting’
Ksitting.Y		The amount your head moves horizontally. The lower the value, the more you will ‘move’ left to right when going round corners. Sometimes even clipping out of the train.
Ksitting.Z		The speed of the ‘bounciness’
Lsitting.Y		The ‘weight’ of the train. Lower values mean it’ll ‘wiggle’ a lot.
Lsitting.Z		The amount of bounciness. Lower values result in more/more exaggerated bounces
SittingPivotOffset		Adjusts the camera which goes backwards and forwards, when braking and accelerating.
Lsitting.X		The speed of the camera going backwards and forwards.

11.6 Setting the number of allowed liveries

You need to create a shortcut to the game and add there this option to the command line (target field in the shortcut window):

-maxGameLiveries 255

11.7 Setting passenger density

You can increase the passenger density in the engine.ini file with this setting:

```
[SystemSettings]
ts2.passenger.DensityScale=3
```

Values could be up to 100. It is not a perfect solution, your new passengers will not have a shadow.

Tip comes from user [geloxo](#) See also:

<https://forums.dovetailgames.com/threads/increase-passenger-density-at-stations.37188/>

11.8 Performance tuning

Many people are trying to improve performance of the game. I just give one link here to the discussions on this topic. However, when experimenting with it be careful. It may cause the game to crash. In that case your first thought should be to undo all these settings instead of blaming DTG.

This one may be interesting. It may increase fps and loading of tiles.

<https://forums.dovetailgames.com/threads/got-stuttering-on-pc-with-gsync-or-vsync-monitor-microsoft-have-released-a-patch.36266/>

11.9 Advanced engine.ini settings full list

<https://forums.dovetailgames.com/threads/frequent-pauses-lasting-1-2-2-seconds.35878/#post-256015>

ToolkitForTSW supports managing these advanced settings. You can create smaller subset from the 180!!! Settings and use these sets in game, or even for a specific situation.



12 Advanced topics

12.1 Preserved collection

12.1.1 What is preserved collection

Preserved Collection is a complex topic and relates to a large number of questions. For the predecessor of TSW2, DTG created a number of DLC. For TSW2, DTG essentially made copies of most of these DLC and then adapted the copy to work with TSW2. From moment this is done, you have a new TSW2 DLC, which may look like the original DLC, but is completely unrelated. If you own TSW2, you may find two copies of each of these DLC

You still can buy the TSW2020 DLC and, if you own TSW2 you will get the TSW2 version for free. This also holds if you buy TSW2 later.

You also can buy the TSW2 version of this DLC, but in this case you will **NOT** get a copy of the TSW2020 DLC.

DTG announced they will stop all development on TSW2020, including bug fixes. They did not say there will not be any bug fixes or development for the TSW2 versions of these DLC. At the moment some fixes are on the roadmap. These fixes will only be applied to the TSW2 versions.

12.1.2 Status overview of TSW2020 DLC

In Figure 29 an overview of all TSW2020 DLC. Most of them have the status Preserved Collection in TSW2, which means that upon launch of TSW2 some restrictions applied:

1. You cannot create liveries for the engines and wagons (at least partially this will come, but it still is work in progress).
2. Adhesion physics is implemented in a minimal fashion, just to make it work. You will experience adhesion issues in bad weather though.

Since TSW2 has been released, about one year ago a lot has been done. There is a small team focused on existing routes and bring them up to date. For some routes they did a lot of work. The general rough view is that this will be done:

1. Bug fixes
2. Climb up the platform anywhere
3. Working level crossings
4. Better skies
5. Immersion controller
6. Sometimes upgraded scenery
7. In some cases a lot of additional drives, or even a new timetable (for Rapid Transit)
8. Working platform passenger information systems
9. Compatibility with the Livery Designer
10. Compatibility with RailDriver

Progress is not very fast, but when Rus Hour arrives, for these routes the first upgrade is done:

- Rapid Transit
- West Somerset Railway
- Long Island Rail Road
- Main-Spessart Bahn
- Bakerloo Line

Later this year Peninsula Corridor and Oakville Subdivision will be upgraded.

Once it is all done, the process may start again, but probably with smaller improvements.

12.1.3 Why would you still play TSW2020?

I can think of a number of reasons why you still may want to play TSW2020:

1. You still like to play the NEC route or the old Sandpatch route.
2. TSW2 has bugs that are not in TSW2020 (definitely true for most preserved collection routes)
3. You prefer the old HUD
4. You think TSW2 is not (yet) worth the money

You can do so, and if you own NEC this may be a reason to keep TSW2020 installed.

Routes					
Name	Acronym	Country	Traction	TSW2 preserved collection?	Comment
Heavy Haul	HH	USA	diesel	No	Full featured remake for TSW2
North-East Corridor	NEC	USA	electric	No	Not available for TSW2
Long Island Railroad	LIRR	USA	electric, third rail	Yes	
Peninsula Corridor	PC	USA	diesel	Yes	
Great Western Express	GWE	UK	diesel	Yes	
Northern Trans Pennine	NTP	UK	diesel	Yes	
Tees Valley Line	TVL	UK	diesel	Yes	
East Coast Way	ECW	UK	electric, third rail	Yes	
Rapid Transit	RT	DE	electric	Yes	
Ruhr-Sieg Nord	RSN	DE	electric	Yes	
Main_Spessart Bahn	MSB	DE	electric	Yes	
Rhein-Ruhr-Osten	RRO	DE	electric	Yes	
Hauptstrecke Rhein-Ruhr	HRR	DE	electric	Yes	
Oakville Subdivision	OS	CN	diesel	Yes	
Locos					
Name	Base route	Country	Traction	TSW2 preserved collection?	Comment
GP-40-2	HH	USA	diesel	No	Not available for TSW2
BR182	RT	DE	electric	Yes	
BR155	RSN	DE	electric	Yes	
BR204	MSB	DE	diesel	Yes	
M3	LIRR	USA	electric, third rail	Yes	
Heavy freight pack	NTP	UK	diesel	Yes	
Class 33	WSR	UK	diesel	Yes	
Class 31	TVL	UK	diesel	Yes	
Class 52	WSR	UK	diesel	Yes	
Class 20	TVL	UK	diesel	Yes	
Amtrak SW1000R	NEC	USA	diesel	No	Not available for TSW2
Caltrain MP36PH-3C 'Baby Bullet'	PC	USA	diesel	Yes	
Caltrain MPC 15 DC	PC	USA	diesel	Yes	

Figure 29 Preserved collection overview

12.1.4 Uninstalling TSW2020 DLC

If you still want to keep TSW2020, you may want to save disc space, by uninstalling most of the DLC. The first step is to open the game page in steam. At the right side of the screen, you see an overview of the DLC, see Figure 30. Click the manage DLC button. Now you can uncheck each DLC to remove in the Enabled column. If you need them again, later, check them again and they will be downloaded again.

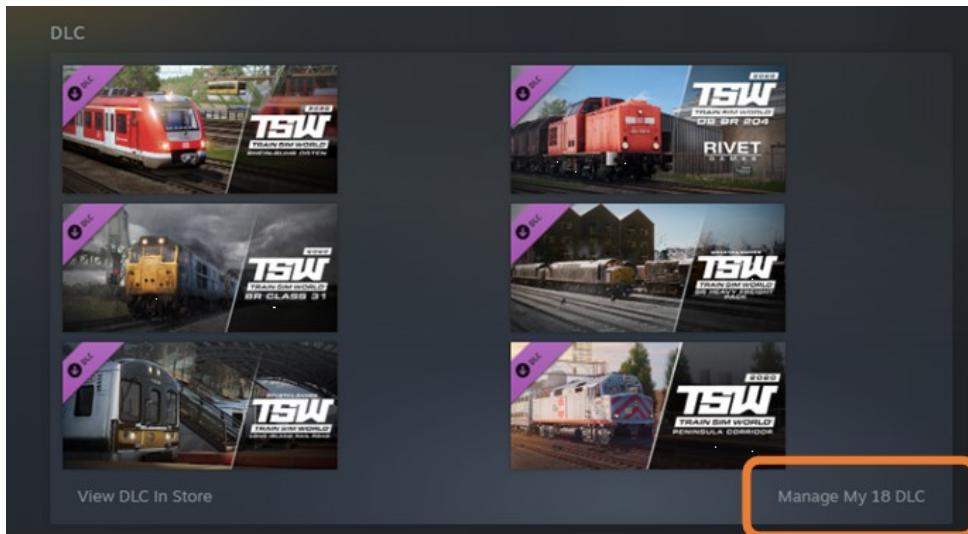


Figure 31 Steam list with DLC.

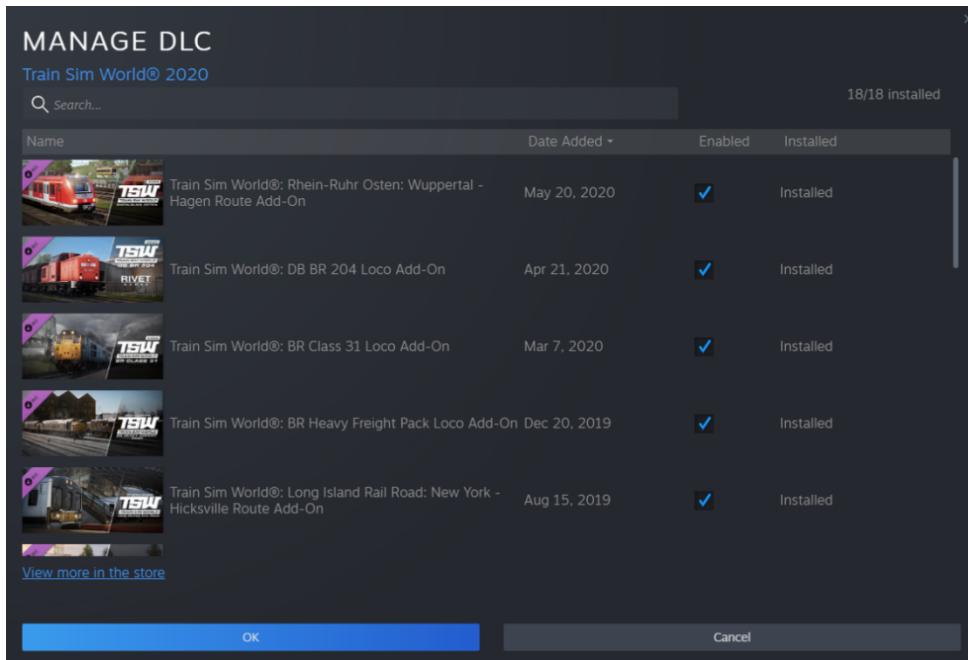


Figure 30 Manage you installed DLC at steam.

12.2 Time tables

At this site you can find most time tables in an online version, collected with admirable patience!

<https://smtimetables.herokuapp.com/>

If you prefer PDF timetables, look here:

<https://forums.dovetailgames.com/threads/wonterails-service-mode-timetables.17878/>

12.3 Combining the German DLC

The German routes have multiple layers in the timetable. This means that a route has layers for the services you get with that route, but if you own other routes or DLC as well, you may get additional services, or a larger variety in rolling stock you can use and will see. A simple example, if you own the main Spessart Bahn and the BR182 DLC, the BR182 engines will pull a number of freight trains. Same if you own RSN, at MSB you will see BR143 loco's pull lighter freight trains. Now the number of routes grow, it becomes fairly complicated to present an overview of combinations that are available. There are more details than can be provided, but this is my attempt:

Route	Service Types	RT		RSN				MSB		RRO		HRR		SKA		MAG		MAG		HBL				
		BR1442	BR182	BR185.2	BR143	BR155	BR363	BR185.2	BR146.2	BR204	BR422	BR185.5	BR425	BR442	BR101	BR442	BR406	BR403	BR423	BR403	BR423	BR112	BR182	MCRE
Rapid transit	EMU passenger																							
	Loco passenger		DB																					
Ruhr-Sieg North	Freight																							
	Freight coal																							
	Passenger																							
	Diesel shunting																							
Main-Spessart Bahn	Heavy freight																							
	Banking loco																							
	Banked freight																							
	Light freight																							
	Double headed freight																							
	Passenger																							
	Diesel shunting																							
Rhein-Ruhr Osten	Passenger (S-bahn, RB)																							
	Freight																							
	Passenger (RE)																							
Hauptstrecke Rhein-Ruhr	Passenger (S-Bahn)																							
	Passenger (RE)																							
	Passenger (RB)																							
	Passenger (IC)																							
	Freight																							
Köln-Aachen	Passenger (S-Bahn)																							
	Passenger (RE)																							
	Passenger (ICE)																							
	Freight																							
Münich-Augsburg	Passenger (S-Bahn)																							
	Passenger (ICE)																							
	Passenger (RE/RB)																							
	Freight																							
Hamburg-Lübeck	Passenger IC																							
	Passenger																							
	Freight																							

Legend

Loco comes with this Route	
Separate loco DLC for this route	
Loco usable for timetable	

[breblimator](#)

also attempts to create an overview, which I like very much. You may prefer it above my overview. Here is the link

https://docs.google.com/spreadsheets/d/1W5-ueaP4-UmdhZMKpdH0yTADmY4gNyMw_dRNi86G57o/edit#gid=0

12.4 Screenshots

You can take screenshots in three ways:

1. F12 key will make a screenshot including the HUD, which are uploadable to steam. **Only for the steam platform, not for the Epic Games Shop.**
2. Ctrl+F12 key will make a screenshot but it will switch off the HUD and uses a higher resolution.
3. Ctrl+F10 will create a screenshot that will be stored at your DTG profile page.

Screenshots made with Ctrl+F12 are saved in a folder under your "Documents" folder:

Documents/My Games/TrainsimWorld2/Saved/Screenshots/WindowsNoEditor/

For the Epic Games Store:

<Documents/My Games/TrainsimWorld2EGS/Saved/Screenshots/WindowsNoEditor/>

In order to increase the confusion, screenshots created using F12 are stored here:

<steam\userdata\<userid>\760\remote\1282590\screenshots>

The part **<userid>** in the path is user dependent, so you need to find out the correct value by yourself. It is a numeric value.

Note: ToolkitForTSW has a function to view screenshots from both sources. You also can rename the screenshots. ToolkitForTSW is a free toolkit for TSW users. TSW2 version coming soon!

For the Dovetail Live screenshots, there is a setting in the settings menu. By default, screenshots are created with the HUD invisible. If, for whatever reason you want to show the HUD, you can turn on this setting:

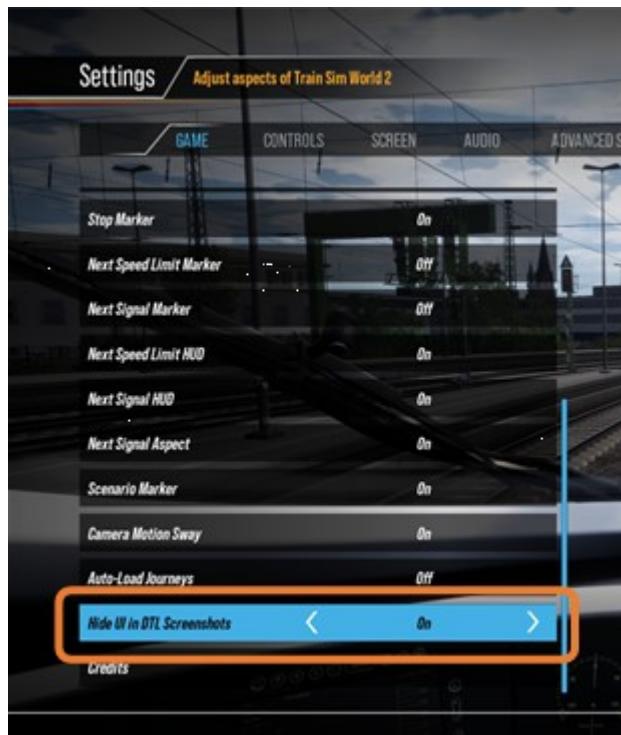
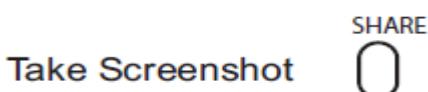


Figure 32 Setting to include/exclude HUD for Dovetail Live screenshot

According to the manual, when you are driving, you can make a Dovetail Live screenshot or videoclip using the XBOX controller, however this does not seem to work at a PC:

The PS4 controller only has a button to create a screenshot:



12.5 ToolkitForTSW

At the same download page where you find this starter's guide, you can download **ToolkitForTSW**, a toolkit for TSW2 users. The TSW2020 version will be downloadable in future, but probably it will no longer be maintained.

At the moment it has limited functionality. In version 0.8 you can:

1. Unpack the core game and DLC
2. Make backups of screenshots, game settings, save files and so on
3. View game files
4. View key bindings
5. Manage user created scenarios
6. Editor for user created scenarios
7. View and edit game settings
8. Save multiple game settings files
9. View and save all screenshots (both steam and DTG)
10. Manage mods.
11. Start TSW, with a selected game settings file, mods and optionally turn railroad radio stations on.

More features are coming. For a download location see Appendix A.

12.6 Multiple units

The Sandpatch route heavily uses multiple units. Setting these up requires some relatively complex steps. You will find an explanation in the Route Guide for Sandpatch. This Route Guide is available from the download page hollandhiking.nl/trainsimulator



Figure 33 Enabling Banking for Sandpatch

An addition to the information above. If you have a third engine pushing the end of the train, you need to establish communications with this engine. This is called **Banking**. For Sandpatch Grade, you turn it on using the **DISP** button at the radio console.

12.7 Starting on a grade

If you need to stop at a steep grade, it may be hard to get driving again. In general, you can proceed as follows:

1. Apply the loco brake. This holds the train at the spot
2. Release the train brake and wait till it is completely released.
3. Apply a small amount of power, 10-20% but avoid wheel slip.
4. Sanding may help as well
5. Once you see the power increase, gradually release the loco brake

12.8 Sandpatch driving issues

When driving Sandpatch, be aware that the startup procedures are changed a bit with respect to TSW2020. Play the tutorials and consult the quick start manual.

12.9 Take control of a train

Every AI train has its physics simplified, in order to improve performance of the game. Therefore, you need to sit in the driver seat before setting up the engine. This tells the game engine that your train is the player train.

For passenger trains, you can take control by sitting in the driver seat as long as the train is stopped. If it starts moving, you need to wait till the next stop.

12.10 Turntable

In order to use the turntable, you need to sit down. Then you first unlock the turntable and then turn. Lock the turntable again and continue your journey.

Anyone else struggling to turn on the monitor in turntable tutorial? Neither mouse click or W-key working for just this.

Solution: First you have to right click on the mouse for interactive options! This is a general procedure if you want to use the mouse to set controls.

12.11 Switching liveries

Some engines can be used in two different liveries. You can choose your livery in this way:

At the services tab, you select one of the engines. Now at the bottom of the screen you see the key Q appear.

Press Q and you see both liveries.

Secret tip: in one of the updates of the GWE route DTG added a class 66 in EWS livery. You can select this one in services mode.

Note 1: choosing another livery may result in a different set of available timetable drives. For instance, at MSB banking drives are only available for the Railion version of the BR185.2

Note 2: At the LIRR route, the livery system is abused to allow you to select trains of different length. Handy, but confusing. It would be more natural to introduce different views on the available timetable drives.

12.12 Snow

You may have noticed there is a temperature setting in TSW2. This is functional, the temperature indicated is the in game temperature. You cannot set the temperature. The pattern is set for the route. Therefore, at some routes you cannot have snow, e.g. peninsula Corridor does not have snow, not even during winter.

Temperature is modelled quite detailed. It changes by season, time of day and even altitude. So if the snow melts, you know why.

12.13 XBOX controller not recognized

If you have used the mouse, TSW may think that you do no longer want to use the XBOX controller and you cannot use it for example to move in first person mode. In this case it works if you switch to the 2D map (key 9) and then go back to game using 9 again.

12.14 Hijack an AI service to bypass a stuck stop signal

Aergistal gave us this tip:

At the end of a 40 min scenario on the Main-Spessart I got the dreaded stop signal (denied, no route available) just before the final station. The culprit was another service that had no intention to leave (waited 10 min). So I ran the 1 km to the station and hopped aboard. There was already an AI driver and you were not allowed to sit, but you could still operate the controls. You need to set the Reverser to Neutral. Then the AI train proceeds and frees the blocked route.

<https://www.youtube.com/watch?v=tmRHknw8PvQ>

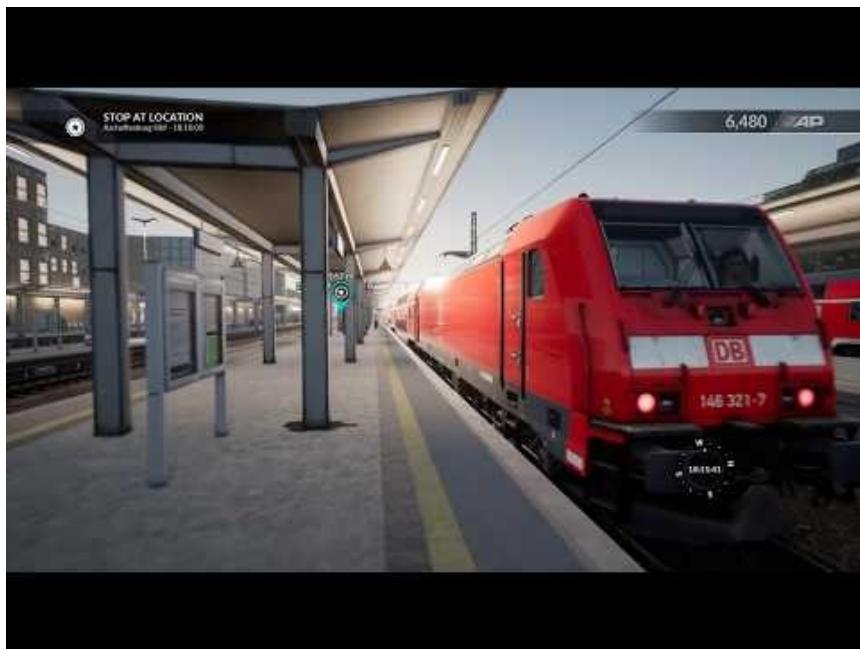


Figure 34 Unblock a blocked route after resuming a save

12.15 Climbing back at the platform

After a misstep you may end on track next to the platforms. Fortunately you can save yourself!



Figure 35. Climb back at the platform in GWE can be done at these locations.

You can either use the entries at the ends of most platforms or the steps at regular intervals along the platforms. To use the steps you need to use the E key or Y button at the XBOX controller. Not all routes have steps! For newer routes, you can climb back at any location, you do not depend on steps. It has been announced this will be implemented for all existing routes in future.

12.16 Train wash

Several routes have train wash facilities. Not all of them are animated and they do not actually clean your train.

12.17 Train lights

Lights in the passenger compartments can be turned on or off in some trains, but not all. You can do this from the driver seat and for some trains from one of the coaches. Try it, or see the route guides for details.

The controls may have a fairly large variety in naming. Train Line, train lights, passenger lights, saloon lights. For the UK Class 101, you can set them for the whole train or just for the coach you are in at the moment and there may be more variety. In most cases this is not documented.

Tip: At the Bakerloo Line you may notice passenger lights go out regularly for short periods. Very annoying for the passengers but well modelled. In reality at some points the third rail is interrupted and then the passenger lights are not powered.

12.18 Realistic driving experience

If you like to add more realism, there are some tools you may like to use. This forum topic may be a good starting point:

<https://forums.dovetailgames.com/threads/the-railway-daily-duties.38101/#post-282445>

12.19 Wind mills

Near Salisbury and Rockwood on Sandpatch there are some windmills. They are animated. In TSW2020 they were turning only if there actually was wind. Unfortunately, this feature is removed in TSW2, probably for performance reasons.

12.20 Donkeys

A number of routes, if not all of them contain an easter egg in the form of a donkey. It can be a real donkey, maybe hidden in a shed somewhere, but it also can be a statue or a drawing. Can you find them all? A real challenge.

12.21 Platform information Systems

At the Bakerloo line, information is shown about the trains that will depart. However, this is based on a precalculated schedule from the timetable and it will not be updated if you are late. It also does not work with the Scenario Planner. It is a last minute surprise we got because a DTG team and a bit of spare time to do something fun.

The Munich-Augsburg route has an improved system, which also shows actual delays. DTG intends to add this to the preserved collection routes as well.

12.22 Level crossings

For the original Sandpatch route level crossings were actually working, but because they were consuming a large amount of resources, this feature was removed for TSW2. Now they are back and will be implemented where applicable for all routes.

12.23 Mirrors

Mirrors do not work. This is a limitation of the Unreal Game Engine. For the Bakerloo route, a solution is implemented that makes it looks a bit like the mirrors are working, but it is fake.



13 Modding

13.1 Introduction and warnings

Soon after TSW was published for the first time, people started to discover how to adapt the game in many ways. Now you can do a number of things, the game does not support:

1. You can share user created scenarios with the Scenario designer
2. You can share user created liveries
3. You can apply settings that are not supported, to make the game look nicer
4. You can use liveries that replace the official content
5. Some people can even extend the gameplay

In summary this is named **modding**. Modding only works if you play on a PC, for the consoles it is not possible as far as known.

In this chapter, information is collected to help you to get started with modding. Before doing so, a warning must be given:

All modding you apply has impact on the game that is not supported. I have experienced that if you do not really understand what is happening, this may have unexpected effects. It also may cause TSW2 to crash, freeze or other effects. So, lesson 1:

If you have mods installed and the game is not working properly afterwards, remove all mods and test again before complaining with DTG or in public.

I have seen people blaming DTG for issues they caused by using unsupported stuff.

The first part of this chapter, will focus on using mods. In the second part, you will find some information that may be useful if you want to create your own mods.

13.2 Sharing user created scenarios

With the scenario planner/designer you can create very simple scenarios. These scenarios are stored in a subfolder from your documents folder:

\Documents\My Games\TrainSimWorld2\Saved\SaveGames

For the Epic Games Store:

\Documents\My Games\TrainSimWorld2EGS\Saved\SaveGames

File names start with USD followed by a unique code (GUID) and file type .sav

Example:

USD_2F3A356E-42C4-768E-DC50-67A86347DF45.sav

If you get a user created scenario somewhere, just put it in this folder and start the game.

Sharing it, is bit more complicated. The file is a binary file, you cannot read easily. You can use ToolkitForTSW, which has a tool to find out the scenario name and route for you. You then can select the scenario, create a simple readme file and pack it into a zip file for distribution.

ToolkitForTSW is available from the same site were you found this guide.

You should be a bit careful. I do not know what happens if you import a scenario with liveries you do not own or with rolling stock you do not own. Expect unintended interaction with other mods.

13.3 Livery designer

This may be helpful for you to create liveries in real used colour schemes:

<https://de.wikipedia.org/wiki/RAL-Eisenbahnhfarben>

There is a logo pack for the livery editor. Please use it with respect for the owners of the brands. One of the major reasons the livery editor is so restricted. Do not distribute liveries created using this pack.

<https://forums.dovetailgames.com/threads/mod-download-tsw-2-livery-editor-logo-pack.32287/>

13.4 Sharing liveries

For the Livery designer, all liveries are stored in a single file. There is a tool you can use to pick out a specific livery and distribute it. You can find this tool here:

<https://github.com/RagingLightning/TSW2-Livery-Manager/releases>

The liveries are stored in the file

UGCLiveries_0.sav

You find it in the folder

\Documents\My Games\TrainSimWorld2\Saved\SaveGames

For the Epic Games Store:

\Documents\My Games\TrainSimWorld2EGS\Saved\SaveGames

You can use the same tool to import liveries.

But take care here. There is a Mod that will add a number of brand decals of railway companies to the livery editor. I do not know what will happen if you insert a new livery that depends on other mods if you did not install those mods. It may be dangerous, do you remember which mods you need over a year?

In future Toolkit for TSW may support this function as well.

13.5 Using unsupported settings

Both Unreal and TSW2 do have a huge number of game settings to play with. At the forums, a number of these settings are reported to do nice things. In game, there is a file named

... \Documents\My Games\TrainSimWorld2\Saved\Config\WindowsNoEditor\Engine.ini

For the Epic Games Store (you guessed it 😊)

... \Documents\My Games\TrainSimWorld2EGS\Saved\Config\WindowsNoEditor\Engine.ini

It is an ordinary text file and you can open it with Notepad or Notepad++ (I prefer the latter).

This file may look like this:

```
[Core.System]
Paths=../../../../Engine/Content
Paths=%GAMEDIR%Content
Paths=../../../../Engine/Plugins/Developer/AnimationSharing/Content
Paths=../../../../Engine/Plugins/Editor/CryptoKeys/Content
Paths=../../../../Engine/Plugins/Editor/CurveEditorTools/Content
Paths=../../../../Engine/Plugins/Enterprise/DatasmithContent/Content
Paths=../../../../Engine/Plugins/Experimental/AutomationUtils/Content
Paths=../../../../Engine/Plugins/Media/MediaCompositing/Content
Paths=../../../../TS2Prototype/Plugins/DLC/AC4400CW_YN3b/Content
Paths=../../../../TS2Prototype/Plugins/DLC/Bakerloo/Content
Paths=../../../../TS2Prototype/Plugins/DLC/Bakerloo_Route_Gameplay/Content
Paths=../../../../TS2Prototype/Plugins/DLC/BKR_LUL_72stock/Content
Paths=../../../../TS2Prototype/Plugins/DLC/BiLevelAutorack/Content
Paths=../../../../TS2Prototype/Plugins/DLC/CoalHopperBethogonII/Content
Paths=../../../../TS2Prototype/Plugins/DLC/CSX50ftBoxCar/Content
Paths=../../../../TS2Prototype/Plugins/DLC/CSX5201CuFtCoveredHopper/Content
Paths=../../../../TS2Prototype/Plugins/DLC/CSXDOT117TankCar/Content
Paths=../../../../TS2Prototype/Plugins/DLC/CSX_GP38-2/Content
Paths=../../../../TS2Prototype/Plugins/DLC/GundersonHuskyStack/Content
Paths=../../../../TS2Prototype/Plugins/DLC/KAH_DB_BR442/Content
Paths=../../../../TS2Prototype/Plugins/DLC/KAH_DB_ICE3M/Content
Paths=../../../../TS2Prototype/Plugins/DLC/KolnAachen/Content
Paths=../../../../TS2Prototype/Plugins/DLC/KolnAachen_Route_Gameplay/Content
Paths=../../../../TS2Prototype/Plugins/DLC/SandPatchGrade/Content
Paths=../../../../TS2Prototype/Plugins/DLC/SD40-2_YN3b/Content
Paths=../../../../TS2Prototype/Plugins/GenericDiorama/Content

[SystemSettings]
r.EyeAdaptationQuality=False
r.MaterialQualityLevel=0
r.Color.mid=0.50
r.ViewDistanceScale=5
r.MotionBlurQuality=0
foliage.LODDistanceScale=3
```

UnfocusedVolumeMultiplier=1.000000

You should not touch the first part of this file, but below the line

[SystemSettings]

You can add additional settings. Later in this chapter, you will find a number of examples.

ToolkitForTSW supports using this and has a list with all available settings, though they are not documented.

13.6 Using Mods that come in .pak files



Mods that were created for TSW2020 likely will NOT work for TSW2 and may cause game crashes. There also is no guarantee that mods developed for TSW2 still will work with the Rush Hour update. You can try it, but install one mod at a time, do a lot of testing and then you may try the next one. Looking forward to hear about the results.

Installing Mods is very easy.

- Mods come in files of the .pak file type.
- You need to place them in the **Content/DLC** folder
- There is one restriction: you can only apply one mode for a certain functionality. If you installed multiple mods only one will be active.
- The mod will replace the TSW2 functionality completely, for instance if you install a mod for a livery, you can no longer access the original livery.

ToolkitForTSW has a tool to manage installation of mods and you even can combine this with a far more customized game startup procedure.

Two good sites to find Mods for TSW2 are:

<https://mods.trainsimcommunity.com/mods/c3-train-sim-world-2>

also good is:

<https://rail-sim.de/forum/filebase/filebase/1225-train-sim-world/>

Both sites will present .pak files, scenarios and liveries designer liveries.

Be careful here. TSW2020 mods in general do not work for TSW2. If a Mod description does not explicitly mention it is suitable for TSW2, leave it alone.

I will not discuss here all possible mods, but some are general and useful.

This mod improves the accelerator bar and changes the circle back to a simple line.

<https://forums.dovetailgames.com/threads/download-patch-accelerometer-stability-meter.28289/>

This one will turn off all noise from finding collectables, hitting an objective etcetera:

<https://forums.dovetailgames.com/threads/mod-download-tsw-2-ui-button-objective-and-menu-silencer.28892/>

Well, I cannot resist this link, which points to a number of nice additions for Bakerloo Line:

<https://forums.dovetailgames.com/threads/mod-download-bakerloo-line-enhancements.27406/page-2#post-188788>

13.7 Experiments with settings

Both the TSW2 game and the Unreal Engine have a huge amount of settings. A lot of them you can just use, I give some examples below this introduction, but for a few you need to use the Unreal Console. This is described here:

https://train-sim-world.fandom.com/wiki/Console_Commands

You can download a full list of settings here:

<https://forums.dovetailgames.com/threads/frequent-pauses-lasting-1-2-2-seconds.35878/#post-256015>

I understand you can use the Unreal Console to get this list as well, using the DumpConsoleCommands: * instruction, but I did not try it. Unfortunately, none of the settings are explained.

Note ToolkitForTSW has this list included and provides some function to manage this huge list and use it in game. You need version 0.9 of the toolkit to make this work.

There also is a list with Unreal settings, which are nicely annotated :

<http://www.kosmokleaner.de/ownsoft/UE4CVarBrowser.html>

I am still looking if ToolkitForTSW can easily import those annotations.

13.7.1 Improvement of visual quality

[pschlik.572](#) created an excellent guide on this topic. Most of what I have written in this section comes from his information and experiments.

<https://forums.dovetailgames.com/threads/a-guide-to-engine-ini-settings.4672/>

Setting	Description	Comment
Eye Adaptation	If you set this, the game will try to adapt to the behaviour of your eyes. It may cause a very leak overexposed dashboard. You can turn this off.	Use ToolkitForTSW or edit the engine.ini file
Low Material Quality	Set its value to 0 to improve rendering of grass, low fps impact	Use ToolkitForTSW or edit the engine.ini file
Screen percentage	You can set this below 100% for a better performance. I think you best don't touch it	Use ToolkitForTSW or the in game settings
View distance scale	Determines how far away objects will be rendered. A value of 5 seems to be optimal.	Use ToolkitForTSW or edit the engine.ini file
Motion blur	Motion blur is intended to give a sense of high speed, which looks horrible at low speed. It is default on, but you can turn it off in game. Unreal supports several levels of motion blur	In game: on or off only with the keyboard. In engine.ini or with ToolkitForTSW you can set it at any supported level.

Foliage distance	Makes trees and bushes look better at some distance. A value of 3 is recommended.	Use ToolkitForTSW or directly in engine.ini
Gamma correction	Allows to define where the value 0.5 in the color channels is mapped to after color grading (This is similar to a gamma correction). Value should be around 0.5, smaller values darken the mid tones, larger values brighten the mid tones, Default: 0.5	In engine.ini, using r.Color.mid.

Note: `ViewDistanceScale` can be set from the game settings, but it will have a value up to 3. I am not sure if and how this interferes with the Unreal setting. Probably the safest way of working is to keep `ViewDistance` in the `GameUserSettings.ini` in sync with this value. ToolkitForTSW will take care of this for you, if you use ToolkitForTSW to manage the settings.

There are many more settings, but these ones seem the most useful for starting players.

13.7.2 Advanced cab sway settings

This information comes from [londonmidland](#)

See also: <https://forums.dovetailgames.com/threads/guide-enable-realistic-head-sway-in-tsw-2.31762/>



Note you now can change the amount of cab sway in the game settings. Try that first.

Disclaimer:

This setting will change cab sway across all routes. For routes which have incorrect track properties, such as GWE, this will greatly affect final results, making it look off and way too exaggerated in some cases.

Open the `engine.ini` file with a text editor and under [SystemSettings] add the following:

```
ts2.CameraMotionSway.EnableUprightCompensation=0
ts2.CameraMotionSway.KSitting.Y=100.0
ts2.CameraMotionSway.KSitting.Z=50.0
ts2.CameraMotionSway.LSitting.Y=10
ts2.CameraMotionSway.LSitting.Z=1
ts2.CameraMotionSway.SittingPivotOffset=-200
ts2.CameraMotionSway.LSitting.X=10
```

You can see [a video](#) and see for yourself. This demonstrates heads both at high and low speeds using the class 377 at ECW.

Some people used different settings depending on the route:

The Class101 at Tees Valley

```
ts2.CameraMotionSway.EnableUprightCompensation=0
ts2.CameraMotionSway.KSitting.Y=100.0
ts2.CameraMotionSway.KSitting.Z=50.0
ts2.CameraMotionSway.LSitting.Y=10
```

ts2.CameraMotionSway.LSitting.Z=2 – 7.5
 ts2.CameraMotionSway.SittingPivotOffset=-200
 ts2.CameraMotionSway.LSitting.X=10

For Sandpatch grade:

ts2.CameraMotionSway.EnableUprightCompensation=0
 ts2.CameraMotionSway.KSitting.Y=100.0
 ts2.CameraMotionSway.Ksitting.Z=65.0
 ts2.CameraMotionSway.Lsitting.Y=17
 ts2.CameraMotionSway.Lsitting.Z=7.5
 ts2.CameraMotionSway.SittingPivotOffset=-200
 ts2.CameraMotionSway.Lsitting.X=10

Setting	Range	Description
EnableUprightCompensation	0-1	Keeps your body/head angle ‘stuck’ the train so when going round corners, you will follow the train ‘tilting’
Ksitting.Y		The amount your head moves horizontally. The lower the value, the more you will ‘move’ left to right when going round corners. Sometimes even clipping out of the train.
Ksitting.Z		The speed of the ‘bounciness’
Lsitting.Y		The ‘weight’ of the train. Lower values mean it’ll ‘wiggle’ a lot.
Lsitting.Z		The amount of bounciness. Lower values result in more/more exaggerated bounces
SittingPivotOffset		Adjusts the camera which goes backwards and forwards, when braking and accelerating.
Lsitting.X		The speed of the camera going backwards and forwards.

13.8 Setting passenger density

You can increase the passenger density in the engine.ini file with this setting:

```
[SystemSettings]
ts2.passenger.DensityScale=3
```

Values could be up to 100. It is not a perfect solution, your new passengers will not have a shadow.



Note: For the Rush Hour update the passenger system has changed a lot. It may be this will no longer work at all. Also, you may consider if you still need it.

Tip comes from user [geloxo](#) See also:

<https://forums.dovetailgames.com/threads/increase-passenger-density-at-stations.37188/>

13.9 Performance tuning

Many people are trying to improve performance of the game. I just give one link here to the discussions on this topic. However, when experimenting with it be careful. It may cause the game to crash.

This one may be interesting. It may increase fps and loading of tiles.

<https://forums.dovetailgames.com/threads/got-stuttering-on-pc-with-gsync-or-vsync-monitor-microsoft-have-released-a-patch.36266/>

13.10 Creating mods with .pak files

I cannot provide a full modding guide here, but this information should help you a bit. The first thing you need to do is unpack the game .pak files. You can proceed as described below, or use ToolkitForTSW.

The next step is you need or get access to the livery, which resides in the files with type .uasset and .uexp. As far as I know, .uasset is an index files and it points to locations in the .uexp file. For liveries, there is a toolkit available, which is discussed below. For other purposes, you need to find out the structure of the files on your own. It is possible, but I am only aware of one guy that actually is doing that. Unfortunately he does not release his way of working.

13.10.1 Unpacking game files

First you will need an Unreal Engine Account from

<https://www.unrealengine.com/>

Download the UE4 Engine, Unreal Engine 4.26 (this version is compatible with TSW2 Rush Hour) and install it.



Note: You probably need to download Unreal again, because the Unreal version increased from 4.23.1 to 4.26

Navigate to the Unreal Engine 'UnrealPak.exe' file, that should be found here

C:\Program Files\Epic Games\UE_4.26\Engine\Binaries\Win64\

Open a command prompt, e.g. right click empty space in the directory and select '*command prompt here*' from the context menu.

Click on your command prompt window and either type or copy this command into it.

```
UnrealPak.exe <filepath>\WindowsNoEditor\TS2Prototype\Content\Paks\WindowsNoEditor.pak -extract
```

where <filepath> refers to the path where you installed TSW.

For DLCs you need to look into the DLC directory, where you will find one single .pak file for each DLC.

<filepath>\WindowsNoEditor\TS2Prototype\Content\DLCS

For UnrealPak, the commandline options are given below:

```
-Test test if the pak file is healthy  
-Extract extracts pak file contents (followed by a path, i.e.: -extract D:\ExtractedPak)  
-Create=filename response file to create a pak file with  
-Sign=filename use the key pair in filename to sign a pak file, or:  
sign=key_hex_values_separated_with_+, i.e: -sign=0x123456789abcdef+0x1234567+0x12345abc  
where the first number is the private key exponent, the second one is modulus and the third one is  
the public key exponent.  
  
-Signed use with -extract and -test to let the code know this is a signed pak  
-GenerateKeys=filename generates encryption key pair for signing a pak file
```

```
-P=prime will use a predefined prime number for generating encryption key file  
-Q=prime same as above, P != Q, GCD(P, Q) = 1 (which is always true if they're both prime)  
-GeneratePrimeTable=filename generates a prime table for faster prime number generation (.inl  
file)  
-TableMax=number maximum prime number in the generated table (default is 10000)
```

Those parameters must be specified *after* the name of the pakfile, which is always the first argument. So, for example:

```
UnrealPak.exe filename.pak -extract D:\ExtractedPak
```

Note: You also can use the free ToolkitForTSW, much easier. See page 112 for how to get it.

13.10.2 Get access to the livery

You need a tool called UModel for this. You can download it here:

<https://www.gildor.org/en/projects/umodel>

13.10.3 Detailed how to video

There is a more detailed YouTube video that explains the whole process and also explains how to assemble a .pak file again:

<https://www.youtube.com/watch?v=oMDKx6ft1zs>

13.11 Consist editing

This is a bit of advanced stuff, but there is a kind of consist editor, which makes it possible to replace engines and trains. I did not try to use it, but just in case you like it, it is worth to mention. Be careful, though and do not complain if you blow the DLC you try to change.

<http://www.trainsim.cz/?mod=article&showid=2413&query=>

13.12 Messing with .sav files

The settings files, user created scenarios and liveries are saved in .sav files

You can use this tool to have a look inside them, or export them to a json file (yes this is stuff for programmers and not for ordinary people):

<https://github.com/13xforever/gvas-converter>

Unfortunately it is not working properly. Reading arrays and structs does not work and the tool is missing a number of datatypes. If you want to give it a try, be prepared to do a lot of additional work.

In the Scenario Planner Guide (<https://www.hollandhiking.nl/trainsimulator>) you can find an incomplete description of the file structures in the .sav files. You also may want to consult the source code of ToolkitForTSW to get started with reading .sav files.

<https://github.com/RudolfJan/ToolkitForTSW>

13.13 Adapting shaders:

It is possible to make colors in TSW look a bit different, maybe better to apply an additional tool called Reshade. There is a fairly complicated instruction in the DTG forums. I did not try this, but I mention it since it is there. It is confirmed that it will work with TSW2 as well, but you may have some trouble to get it working properly.

<https://forums.dovetailgames.com/threads/tsw-with-reshade.21305/>

13.14 Setting the number of allowed liveries

You need to create a shortcut to the game and add there this option to the command line (target field in the shortcut window):

```
-maxGameLiveries 255
```



14 Known issues

In this chapter I report issues I encountered or that were reported by other users at various locations.

14.1 Lost game saves due to update

Your game status is stored in your documents folder. So, make sure to create a backup regularly, you may easily lose all game progress.

ToolkitForTSW has a backup/restore that will do this for you.

14.2 Foreign keyboards

Initially there have been a lot of issues with non-UK keyboards. Most of them are solved now, but if you live in a very exotic country, it is possible that your keyboard is not working properly. In this case, file an issue with the DTG customer service. You can set your keyboard to UK-English and language to UK-English as well. This at least makes your keyboard working.

In game you can find a keyboard code. It helps if you add this code to your ticket.

14.3 Login Dovetail-Live

The credentials for the Dovetail Live account are not saved properly, so you may be asked to login again. It seems to be improved, but it is not fully solved. It seems to help if you change your Dovetail Live password.

14.4 Cannot move with XBOX controller

If you use the XBOX controller, it may be handy to use the mouse to set in game controls. Once you have done that, you cannot move your camera with the XBOX controller anymore. A workaround is to activate the 2D view (key 9) and then go back to 3D mode, pressing key 9 again. It is a very annoying issue.

14.5 Loading screen when switching camera from front to back

Sometimes you may see loading screens (especially at Sandpatch) when you switch camera from the front to the back of the train and vice versa. This is behaviour of the game engine for performance reasons.

14.6 Weird behaviour when trying to resume a saved game

The save game function always had its issues and was not always very reliable. Unfortunately, at least for two preserved collection routes the instructions are mixed up completely, which makes it impossible to continue playing. Hopefully this will be fixed soon.

14.7 HUD issues

The HUD does not respond correct with respect to the driving direction of the train. An engine has a front side and a backside. Sometimes you drive from the second cab at the backside, which is the front of the train. In this case the game may mix up following controls:

- 1 It may locate a signal behind the train instead of a signal in front of the train
- 2 It may mixup the left and right doors
- 3 It may mixup the direction of the gradient indicator
- 4 It may mixup the direction of the accelerometer
- 5 It definitely will mixup the front and back of the train if you use the external camera 2 or 3.

14.8 Game always starts in a tutorial or journey.

This is not a bug, just an annoying feature. You could have seen it in chapter 5.5 of this guide.



15 Communities

15.1 Introduction

For TS2018 a large number of community sites, called Dovetail Live exist, where you find help for this game. Most of them introduced a TSW forum as well. Of course information is limited, but a large part of the information in this guides comes from knowledge acquired from community sites. I recommend to participate actively. I mention only a few site to get you started. Please forgive me if your favourite site is not mentioned, but you always can ask me...

15.2 DTG sites

Dovetail has created a new community site, called Dovetail Live. You can become a member and log in during gameplay. They promise specific benefits. At the moment your credentials are not stored properly, so you may need to login again later. At the moment it just supports the Mastery feature (see 0). You can register here:

<https://live.dovetailgames.com/#/>

The official game site has a specific section for TSW:

<https://train-simulator.com/category/train-sim-world/>

You will find the latest news here. DTG also has a Face Book site.

DTG has its own forum where you can discuss DTG products. This forum is very active, so it is a good starting point to ask questions, but also to report and discuss issues.

<https://forums.dovetailgames.com/forums/trainsimworld/>

15.3 Steam forum

At steam you can find a fairly active game forum. If you post anything, in general you get replies within short notice. The forum is mainly in English, but few posts are in French, German, Russian, Chinese and Spanish.

Direct link:

<http://steamcommunity.com/app/530070/discussions/>

15.4 UKTS

UKTS is a very active British community site with a large download base (not yet for TSW though) and an active and helpful forum. All communications is in English language.

<http://forums.uktrainsim.com/index.php>

15.5 Railworks America

Railworks America is the US counterpart for UKTS. More targeted to US related issues. Also a large download section, tutorials and a well-organized forum. Of course, all is in English language.

<http://railworksamerica.com/>

15.6 Rail-sim.de

A large community targeting to German language is rail-sim.de. Of course it is in German language, but you really need this for any German/Austrian/Swiss content.

<http://www.rail-sim.de/>

15.7 DutchSims

DutchSims is a rather new Dutch community. Previously Treinpunt was there, but they replaced to software by a new platform, which has not been a great success. Also a download section, mainly targeted to Dutch content. The forum is mainly in Dutch. Interest in TSW is very low in the Dutch communities.

<https://dutchsims.nl/portal>

15.8 Railsim.fr

For the French community railsim.fr is a good starting point. The link is here to the TSW forum. Almost everything is in French language.

<http://www.railsim-fr.com/forum/index.php?showforum=32>



16 Frequently asked questions

16.1 Can I run this game at my system?

Your system specs should be around the minimum specs published by DTG. As you can see at the screenshots, far more detail is provided than we are used with Train Simulator. Therefore system requirements are much higher.

16.2 Can we create our own content?

To a very limited extend. You can create simple scenarios and you can create liveries for existing content. You cannot create routes, engines, scenery assets, though some hacks may be possible. At least, they were in TSW but we do not yet know if the same hacks work in TSW2.

16.3 Does TSW2 support VR?

TSW does not support any Virtual Reality systems. Not heard if anything is in development.

16.4 Does TSW2 support TrackIR?

YES but only for PC.

16.5 Does TSW2 support RailDriver?

Yes, but only for PCs.

16.6 Will there be steam engines?

Yes! DTG started working to support steam. It will take some time before the first DLC will be available.

16.7 When do we get multiplayer?

There are a number of indications the game is well prepared for multiplayer. There is no announcement on Multiplayer, so do not expect anything.

16.8 What about free roam

In TS you have freeroam mode, where you jump at an engine and drive without any task or schedule. DTG seems not to be a fan of this way of driving. Service mode comes more or less close to this. You can jump onto a train and take control, but you are bound to the schedule. Also some scenarios offer parallel task, where you can choose a train to drive. Using the Scenario Planner you can create scenarios that work more or less like the quick drives you may know from Trainsimulator.

16.9 Will there be DLC with ...

We need passenger trains, more routes, more countries and much more ...

Creating new rolling stock is much more challenging than it used to be for TS2020 because we want more details, better sound quality etcetera. You need a real engine to achieve all this for at least a whole day. So you need fans at the railway companies. Also getting licenses for using brands can be difficult. Some companies feel more at ease with this than others. This limits the possibilities a lot if you want to work according to the rules.

The TSW2 roadmap gives some insight in what is coming in the next 3-4 months. See also 4.7

16.10 Will this be the end of Trainsimulator?

DTG states they will continue to support Trainsimulator and create new content. There are reasons to believe that this is a correct statement. DTG is a commercial company and they make a lot of money with Trainsimulator. TSW is now becoming mainstream with a team of about 80 persons working on it. So it probably starts contributing to profit now. But we still see a lot of new additions for Trainsimulator.

Some people are worried because Microsoft says Windows10 is the last Windows version. I also believe Windows is far from dead. The difference is that Microsoft has a different update strategy and is focussing more on supporting multiple platforms, especially Mobile.

16.11 Will this be the end of TSW2020?

TSW2020 will not be gone. There are no plans to withdraw the game and you will be able to buy all DLC that are available. You still need it you like to drive the North-East Corridor route or the GP40-2 at Sandpatch.

If you buy DLC and they are in preserved collection, you will get the TSW2 DLC for free in addition. The other way round will not work. If you buy a TSW2 preserved collection DLC, you will not get a TSW2020 copy.

The only restriction is that there will be no more bug fixes or maintenance updates for TSW2020. At some point this may become an issue, but not for the moment. So in de foreseeable future, TSW2020 will exist next to TSW2 and this will give you time to consider to switch to TSW2 or not.

BUT: unless you badly want the NEC route, the only reason to buy TSW2020 by now is for the nice bundle of DLC that may come cheap for you.



Availability of this guide

This guide and ToolkitForTSW are available here:

Site name	URL
Holland Hiking	http://www.hollandhiking.nl/trainsimulator/index.php

At this location you also find useful guides and tools for Trainsimulator

Index

2020 end-of-year Q&A stream	33	collectables	70
2D map	48, 75	combined power/brake handle	44
a cruise control	51	combining German DLC	89
Accellero meter		community guides	70
Speedometer HUD.....	42	community sites.....	108
Achievements	65	compass	73
ACSES	52	Configure overlays	68
Action Points.....	63	connected to Dovetail Live	56
adhesion physics.....	85	contact signaller.....	49
adhesion simulation	16	Continue Journey	61
AFB	55	control display	73
alerter	51, 78	couple	79
alternatives	19	coupling	48
ambient volume	80	crouch	40, 76
Android	21	cruise control	51, 77
antil alias.....	81	HUD.....	51
ATC.....	52	Customer Support website	33
autoload next journey	61	Cutout valve	54
automatic brake	77	dependencies.....	27
automatic coupling.....	48	dialog sound volume.....	80
avatar.....	36	direct brake	44
Bakerloo Line	16, 94	disable junction derail.....	81
Bakerloo Line.....	25	Display Mode	50
basic rules	13	ditch lights.....	78
bell	79	DLC is not visible	54
boom camera.....	75	documentation	53
brake mode.....	45	donkey	95
brake to lap.....	77	Dovetail Live.....	34, 108
brakes	44	Dovetail Live account.....	106
braking.....	14	download key.....	28
button prompts	73	downloadable content.....	27
buy decision.....	22	driver alert with the key Q	54
bypass stuck signal	93	driver brake.....	Zie
cab camera	75	Driver Logbook.....	16
cab light	78	driver safety system.....	52
cab sway	81	drivers brake	44
cab sway settings		drivers logbook	57
advanced	80	driving	44
Challenges.....	69	driving a train.....	13
checklist	27	DTG live	108
circuit breaker	79	DTG Live	56
classic mode	39	DutchSims	109
climb	40, 94	dynamic brake	44, 77

electric brake	44
Speedometer HUD.....	43
emergency brake.....	77
engine start.....	79
external alert volume	80
eye adaptation.....	100
features	14
Field generator	54
first person mode	59
key mapping	76
first person railway simulation.....	13
first steps	44
floating camera.....	75
foliage distance.....	101
forums	53
fps	51, 81
fps limit.....	81
frame rate.....	73
frame rate indicator	51
free camera	75
freeroam.....	111
freight mode.....	45
FXAA	81
game introduction.....	37
game mode.....	76
game progress	61
game purpose.....	13
game rules	13
game settings	
essential.....	50
German routes.....	28
getting started	56
Google	53
grade.....	92
Grade	
Speedometer HUD.....	42
grade units.....	81
graphics preset	81
guard.....	48
hand brake	44, 77
head light.....	76
head out camera	75
Head Up Display	41
headlight.....	78
history.....	14
horn	79
horn low tone	79
how to read	11
HUD	41
configuration	50
immersion mode	39
imperial units	81
in game Mastery screen.....	66
independent brake	77
instrument camera	75
instrument lights.....	78
iOS.....	21
journey.....	61
Journeys.....	64
key bindings	
controller	41
keyboard issues.....	106
km/h.....	81
Köln-Aachen.....	16, 25, 53
laptop.....	24
last checkpoint.....	49
layers.....	89
Lead or Dead	54
level crossings	17, 95
levels	64
Linux.....	21
liveries.....	92
Livery Designer.....	16, 110
loco brake	44
Speedometer HUD	43
log	62
logo pack	97
low material quality	100
LZB.....	16, 52
Mac	21
Main Menu UI volume	80
manual	31
manual coupling	48
master key	44, 79
master volume	80
Mastery	66
medals	64
metric units	81
Microsoft Train Simulator	19
mirrors	95
misstep	94
motion blur	100
mouse	
console	41
move sideways	76
Mph.....	81
MSTS	19
multiplayer	14, 110
multiple timetables	17
multiple units	22, 91
navigation basics	37
newsletter	11

next cab	76
next rail vehicle.....	75
next signal HUD	73
next signal marker	73
next speed limit HUD.....	73
next speed limit marker	73
No route available	50
notifications.....	73
objective distance marker	73
objective marker.....	73
Open BVE.....	21
Open Rails.....	14, 19
Open/close doors	79
pantograph	79
parking brake	44
pass a signal at danger	49
Passenger information systems	16
passenger lights.....	94
passenger mode	45
path.....	48
PC specs	53
performance improvements	17
pick up passengers	45
Platform information Systems.....	95
platform lights	78
platform steps	94
Power meter	
Speedometer HUD.....	42
Preserved Collection.....	27, 85
profile page.....	70
PS4	22
PS4 version	14
PZB	52
Q&A	19
questions	22
questions and answers	19
quick start guide	31
quickstart manual.....	41, 92
Rail Simulator	20
Raildriver	15
rail-sim.de.....	109
railsim.fr.....	109
Railworks America	109
recommendation.....	28
red signal	54
refund	24
reshade	104
restart service.....	50
reverser	44, 77
review	15
roadmap	15, 33
rules	13
run.....	76, 81
run/walk.....	40
Run8.....	21
safety functions	78
safety procedures	14
safety systems.....	51
saloon lights.....	94
sander	79
Sandpatch	16, 54
Sandpatch grade	25
saved game	54
Scenario Planner.....	16, 59, 110
scenarios	33, 59
Scenarios.....	59
schedule	62
score marker	73, 74
screen	
configuration.....	50
screen percentage	100
screen resolution	81
screenshot.....	89
screenshot quality.....	81
screenshots	
Dovetail Live.....	56
save location	89
season	60
selected chapter	61
service mode	14
settings menu	82
SFX volume.....	80
shaders.....	104
signal at danger.....	78
SimRail	21
sit down/stand up.....	79
sound issues.....	17
sound volumes.....	80
speed numeric	
Speedometer HUD.....	42
speed ring	
Speedometer HUD.....	42
speed warning.....	52
Speedometer HUD	42
SSD	24
Start New Journey button.....	61
start playing	56
start the train at Bakerloo	55
Starting at a grade	45
Steam account	24
steam engines	16
steam forum	109

Steam Guides.....	53
step lights	78
stop marker	73
Stop Marker.....	44
stopping	14
stream.....	33
subtitles	80
support site.....	33
switches	48
system requirements.....	22
system specs.....	53
TAA	81
take control	92
tasks.....	69
temperature units	81
Tempomat	77
texture quality	81
third party development	17
throttle	77
Throttle position	
Speedometer HUD.....	42
timetable	60
torch	40
TrackIR	15, 41
traction lock.....	45
train brake	44
Speedometer HUD.....	43
train does not move	54
train driver.....	14, 22
train length	62
train lights.....	94
train Line.....	94
train physics.....	14
train wash	94
train weight	62
Train weights	16
train will not start driving.....	54
TrainSimulator2019	20
TrainSimWorld2	13
Trainz	20
TS2017	20
TS2019	
future	20
TSW game site	108
TSW or TSW2	19
TSWTools	91, 104
turn	76
turntable	92
tutorial	35
tutorial on PZB and LZB.....	52
tutorials.....	33
Tutorials	59
UKTS.....	109
units	81
unpack game files	103
view distance quality	100
Virtual Reality.....	110
vsync	81
walk.....	76, 81
weather.....	60
weather conditions.....	14
weird errors	53
windmills.....	95
Window Audio Focus	80
window mode	81
Windows10	111
wiper	79
XBox	14
XBOX collector's edition	28
XBOX controller.....	22, 93, 106
XBOX1	22
XBOX1 version.....	14
zoom	76