

Type	Train Simulator Classic - Addon
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Foreword

Dear customer,

thank you for your interest in our product "Class 483/484 ExpansionPack". With this add-on you have purchased a very special implementation.

A few months ago, on request from virtualTracks, we started to develop the suitable vehicle for the virtual Berlin inner circle line ("Ringbahn"). It was agreed from the beginning that this commissioned work would not set the right frame to develop a full-fledged "all-round" solution within the scope of the track addon, as is the case, for example, in our Class 481 addon. In the meantime, the advance version "Ringbahn Acht Neuntel" ("Circle line eight-ninth") was released - the success and in particular the great interest in the "new one" inspired us to take further steps in the development: you now own the result with this ExpansionPack as an extension of the Ringbahn vehicle.

We have deliberately decided to let the final "Ringbahn" vehicle also benefit from the additional features, but also to limit their area of operation to the route addon. In this sense, this ExpansionPack focuses on equipping the vehicle with additional train destination displays, announcements and paintworks. This includes four scenarios for the "Through The Heart of Berlin" addon line S25. Actually, this is not the traditional field of operation of the Class 483/484 - nevertheless, the scenarios partly have a real background and are as usual all created according to original timetables.

By the way: it is worth taking a regular look at our forum www.trainteam.berlin/forum or our Facebook page <https://www.facebook.com/TrainTeamBerlin>. So you stay up to date with updates and follow-up products. In this sense, we wish you at least as much pleasure with this add-on as we had during the creation.

TrainTeamBerlin
Berlin, in November 2023

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The team and thanks

At this point, the team is proud to present itself:

Software programming: TrainTeamBerlin
Sales: TrainTeamBerlin

Benjamin Ebrecht	3d models/repaints, scripting, scenarios, manual
Nick Zimmermann	3d-Models/Repaints
Denny Göring	Scenarios
TRAXX-Driver	Scenarios
Zahnpabst & Friends	Scenarios
Benjamin Duven	Announcements

Furthermore, we would like to thank all other (partly anonymous) helpers and licensors who have contributed to the success of this add-on! A very special thanks goes to all the tireless beta testers and encouraging helpers who have contributed their part to the attention to detail of this add-on.

One or more textures on 3D models used in this addon have been created with images from CGTextures.com. These images may not be redistributed by default, please visit www.cgtextures.com for more information.

System requirements

Processor (CPU):	QuadCore 3 GHz
Memory (RAM):	8192 MB
Graphics card:	DirectX 10 capable or better, 1024 MB physical graphics memory
Hard disk space:	1200 MB
Sound card:	Soundblaster or compatible gamer card

Software:

- mandatory: Train Simulator Classic
- mandatory: Addon "Ringbahn Berlin" ("Berlin Circle line")

- optional: TrainTeamBerlin "Scenario Pack Vol 1" or "Scenario Pack Vol 3" (only needed for playing the delivered scenarios)

The AddOn was developed for Train Simulator Classic (v75.8a/ 2023).

Please note that the latest updates are required for each addon.

Installation & Configuration

Installation:

To install the addon, run the installer in exe format. **Please note, that the "Ringbahn Berlin" Addon has to be installed at least in Version 1.0 or higher.** Follow the instructions and install the package in your Railworks main directory, which is usually automatically detected.

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During the installation, you have the option to select or deselect the installation of the scenarios. It is recommended that you do not install the scenarios if you do not fulfill the necessary system requirements.

This completes the installation.

Note: If the setup is not running properly or the installation is incomplete afterwards: it is possible that due to unfavorable local configuration or simply false alarms of various protection software (antivirus, firewall, ...) the setup is blocked. In this case, please make sure that the setup is not blocked by your protection software. This can be done, for example, by another configuration or temporary deactivation. Running "as administrator" can also be helpful.

Uninstallation:

If you intend to remove BR 483/484 ExpansionPack from your hard disk, select the start menu item "TrainTeamBerlin" → "Class 483/484 ExpansionPack" → "Uninstall" and follow the instructions. Now the AddOn is removed from your PC.

Note: Please note that some vehicle folders are shared by multiple addons. Uninstalling this addon will remove all files associated with this addon. If you have installed additional addons from TrainTeamBerlin at the same time, you may have to reinstall them after the uninstall of this addon has been completed.

Configuration:

You can adapt the behavior of the vehicle to your personal needs with numerous adjustment options. Please refer to the corresponding chapter in the "Ringbahn Berlin" manual. The option file of the ExpansionPack vehicles can be found differently under ..\RailWorks\Assets\TrainTeamBerlin\TTB_BR483-484_ExpPack\Scripts\Options (see also below).

Furthermore, the vehicle is prepared to be controlled by external hardware. The "RailDriver" can be used for this purpose. But also the throttle lever of a joystick as a driving brake lever and the pedals of a PC steering wheel set are conceivable for the operation of the SiFa.

Overview of the contents

In the following, we give you a brief overview of the contents delivered in the ExpansionPack, which are expanding the Ringbahn vehicle:

- 5 new liveries for the Class 483/484
 - o 483 001 "Ich bins": Special labeling for the first passenger use of the new Class in early 2021
 - o 483 001 "Complete": livery on the occasion of the delivery of the last series vehicle of the new series
 - o 483 004 "Ideenzug": Foiling in prototype camouflage look to draw attention to the exhibition of the "Ideenzug" mockup in Berlin in 2021
 - o 484 003 "Ich bins": labeling on the pre-series produced vehicle to indicate the new model series during the test drives
 - o 484 085 "Complete": Decal on the occasion of the delivery of the last series vehicle of the new series
- Extended train destination displays
 - o The series vehicles as well as special paintwork vehicles are equipped with numerous new train targets can be signed
 - o 27 lines and 94 destinations can be combined
 - "S0": Display of any destination without line number is possible
 - "S1" – "S10": different line-target-combinations according to real line courses are defined
 - Consideration of the lines according to the chronicle of the Berlin S-Bahn 2000 - 2024 and possible future lines
 - Special displays such as "Nicht einsteigen" ("No boarding") and "Sonderzug" ("special train") can be signed
 - o Navigate through lines and line targets with your keyboard or mouse
 - o The stations along the addon "Through The Heart Of Berlin" can also be displayed in the FIS monitor
- Consists of all vehicles for the quick drive mode
- 4 scenarios for the "Through The Heart Of Berlin" (S25) route addon
 - o Selected trips according to original timetable
 - o A scenario mix according to real motives and partly fictional motives is delivered
 - o Use of station announcements and additional elements for gameplay
- Further:
 - o All vehicles are also supplied in a resource-saving version for computer-controlled traffic (AI traffic, not drivable by the player)
 - o Additional station announcements
 - Extension of the station announcements for the lines S25 and S26
 - These can also be used in own scenarios by using scenario triggers
 - o Additional 3rd rail triggers placed along the route
 - Triggering spark breaks and clicking noises in the appropriate places in the scenarios
 - Template for own scenarios is included



- Renaming of the station "Unter den Linden" to the "Brandenburger Tor" according to time period of the scenarios
 - Template for renaming the station in own scenarios included
- The following AI vehicles are included in the addon
 - BR 481 (traditional livery and redesign)
 - BR 143
 - BR 232
 - Freight wagon Res676

Operation of the vehicle/ train destination display

The handling of the vehicles of this ExpansionPack corresponds essentially to those vehicles from the "Ringbahn" addon, which are extended here. For details, please consult the Ringbahn Addon manual.

Only the control of the train destination display has been extended to allow meaningful navigation through the mass of possible combinations. The different operation is presented below:



Nr.	Element	Shortcut keys	Nr.	Element	Key Abbreviation
1	FIS: Touch button target up		4	FIS: Touch button line down	Ctrl + 0
2	FIS: Touch button target down	0	5	FIS: Display of current destination	-
3	FIS: touch button line up	Ctrl + DC	6	FIS: Display of current station	-

The destination display can be operated in two modes:



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When setting the line S0, all destinations can be selected and displayed without line display including special destinations.

Depending on the selection of a line from S1 to S10, corresponding destinations are selected in the background and a subset of destinations per line can be selected. The following line profiles/destinations are stored in addition to the blank signs (line only):

Line	Route/ train destinations (selection)
S1	Potsdam Hbf - Wannsee - Zehlendorf - Potsdamer Platz - Frohnau - Oranienburg
S11	<i>No line course stored - only line display without destination</i>
S12	<i>No line course stored - only line display without destination</i>
S15	Central station - Gesundbrunnen - Frohnau
S2	Rangsdorf - Blankenfelde - Lichtenrade - book - Bernau
S21	<i>No line course stored - only line display without destination</i>
S22	<i>No line course stored - only line display without destination</i>
S25	Teltow city - Potsdamer Platz - Tegel - Hennigsdorf - Velten
S26	Teltow City - Potsdamer Platz - Waidmannslust - Birkenwerder/ Pankow - Blankenburg
S3	Falkensee - Spandau - Charlottenburg - Ostbahnhof - Friedrichshagen - Erkner
S3X	Ostbahnhof - Ostkreuz - Köpenick - Friedrichshagen
S4	<i>No line course stored - only line display without destination</i>
S41	Ring clockwise with wayside stops and Schöneweide
S42	Ring counterclockwise with wayside stops and Schöneweide
S45	Bundesplatz - Südkreuz - Hermannstraße - Schönefeld Airport - BER T1-2
S46	Westend - Bundesplatz - Südkreuz - Hermannstraße - Grünau - Königs Wusterhausen
S47	Südkreuz - Tempelhof - Hermannstraße - Schöneweide - Spindlersfeld
S5	Falkensee - Spandau - Westkreuz - Ostbahnhof - Mahlsdorf - Hoppegarten - Strausberg Nord
S7	Potsdam Hbf - Wannsee - Charlottenburg - Ostbahnhof - Ostkreuz - Lichtenberg - Ahrensfelde
S75	Falkensee - Spandau - Westkreuz - Ostbahnhof - Ostkreuz - Lichtenberg - Wartenberg
S8	Wildau - Zeuthen - Grünau - Pankow - Blankenburg - Birkenwerder/ Nordbahnhof
S85	Grünau - Schöneweide - Schönhauser Allee - Pankow/ Schönholz - Waidmannslust
S86	<i>No line course stored - only line display without destination</i>
S9	BER T1-2 - Airport Schönefeld - Grunewald/ Spandau - Falkensee/ Pankow - Blankenburg
S10	<i>No line course stored - only line display without destination</i>

The following train destinations can be displayed in free mode (S0):



[Blank sign]	Schönholz
Ostkreuz	Hennigsdorf
Karlshorst	Gesundbrunnen
Köpenick	Nordbahnhof
Friedrichshagen	Potsdamer Platz
Erkner	Anhalter Bahnhof
Wannsee	Tegel
Grunewald	Rangsdorf
Westkreuz	Blankenfelde
Charlottenburg	Mahlow
Zoologischer Garten	Lichtenrade
Hauptbahnhof	Marienfelde
Friedrichstraße	Südkreuz
Alexanderplatz	Teltow Stadt
Potsdam Hauptbahnhof	Lichterfelde Süd
Warschauer Straße	Lichterfelde Ost
Wartenberg	Tempelhof
Ostbahnhof	Herrmannstraße
Ahrensfelde	Neukölln
Springpfuhl	Baumschulenweg
Strausberg Nord	Bundesplatz
Strausberg	Halensee
Hoppegarten	Westend
Mahlsdorf	Olympiastadion
Wuhletal	Pichelsberg
Lichtenberg	Priesterweg
Treptower Park	Falkensee
Schöneeweide	Spandau
Grünau	Yorckstraße
Zeuthen	Adlershof
Königs Wusterhausen	Beusselstraße
Schönefeld Airport	Bornholmer Straße
Bernau	Karow
Book	Landsberger Allee
Blankenburg	Lankwitz
Pankow	Wildau
Schönhauser Allee	BER airport
Greifswalder Straße	S-Bahn Berlin GmbH
Spindlersfeld	Pendelverkehr (shuttle service)
Oranienburg	Probezug (trial train)
Birkenwerder	Sonderzug (special train)
Hohen Neuendorf	Werkstattzug (Workshop train)
Ring UZS	Stadtrundfahrt (City tour)
Ring GUZS	Nicht Einsteigen (Do not board)
Zehlendorf	Ansage beachten (Observe announcement)
Frohnau	Gartenfeld
Waidmannslust	Velten

Configuration of the vehicle

The modules of the script system for the BR483/484 offer the possibility to set various options by the end user. This means that every user can adapt the vehicle to his ideas within a certain framework - where it serves the fun factor, even outside realistic limits ☺

The vehicles of this ExpansionPack are set in the option file **TTB_BR483-484_Options.lua**, which is stored in the folder

```
..\railworks\Assets\TrainTeamBerlin\TTB_BR483-484_ExpPack\Scripts\Options
```

In this file all preselections are made, each setting is explained again in the file itself and the possible value range is specified.

- First and **foremost, the language selection** options. LANGUAGE is to be made: *this affects the log outputs in the game as well as those of the log files. Prefabricated are the languages German ("GERMAN") and English ("ENGLISH"). You can create and integrate your own language files (cf. Chapter Assistance for creators)*
- The option **options.DEBUG_MODE** regulates the mode for debug outputs and is not relevant for driving.
- Furthermore, the log mode can be set in the option file in the **options.LOG_MODE** field. *It is possible to generate no outputs, outputs in log files, in-game (only a small subset of outputs from the file) as well as in-game and in a file simultaneously. The latter is also preset. File outputs are stored in the folder*

```
..\railworks\Assets\TrainTeamBerlin\TTB_BR483-484_ExpPack\Scripts\Logs
```

according to the file schema TTB_<vehicle number>_Log.txt. A separate file is created for each vehicle. In case of malfunctions or incorrect operation, which actions were taken or at which point to look for solutions... all those things can be traced in detail in these files. For support requests, it is therefore sometimes quite helpful to attach the content of the log files (in particular that of the active driver's cab). All old log files are automatically deleted when a new game is started.

- With **options.SIFA_MODE** can be set whether the SiFa to game start should be activated or not. Regardless of the pre-selection, the (de)activation can still be made during the game.
- The setting **options.FAHRSPERRE_MODE** regulates whether or not the safety system "Mechanische Fahrsperr" should be activated at game start. Regardless of the pre-selection, the (de)activation can still be made during the game.
- The option **options.SANDER_RESERVOIR** usually regulates the stock of the sand storage container. The value corresponds to the remaining duration in seconds, which can still be sanded, the value range extends from 0 - 9999. If a different default is made in a scenario via vehicle parameters, this default value is temporarily overwritten.
- The setting **options.SPARK_PROBABILITY** has an influence on the probability of a spark breakaway occurring at the pantograph when it enters or exits a 3rd rail gap. Values between 0



and 1 are accepted. By default of 1, a spark will occur on each pantograph at each end of the 3rd rail, never at 0. At values between 0 and 1, note that the probability per vehicle is given - this means that the probability of the occurrence of a spark at a busbar end for a complete train (=8 cars) is significantly higher than indicated.

Assistance for creators

With this addon, experienced hobbyists receive additional material to optimally use the BR 483/484 in their own scenarios on the Teltow Stadt - Hennigsdorf line (Addon "Through The Heart Of Berlin"). Please note that working with the following material requires a certain level of expertise and that only limited support can be provided for your own use of these materials. If you have any questions, please preferably use our support forum at <https://trainteam.berlin/forum/>, so that other users can also benefit from the answers.

- **Activation of player vehicles:** is done with the asset folder TrainTeamBerlin\TTB_BR483-484_ExpPack
- **Activation of AI vehicles:** is done with the asset folder TrainTeamBerlin\TTB_BR483-484_KI
- **Station announcements:** The Teltow Stadt - Hennigsdorf extension route ("Thorough The Heart Of Berlin") does not have the station announcement triggers installed, which trigger announcements of the Class 483/484. These must be placed manually in the scenario. To do this, two actions must be performed:
 - A station announcement trigger from the player's vehicle's asset folder is placed at any point where a station announcement is to be played when the player drives over it. Place the "TTB Trigger Station Announcement" in the direction of travel and enter a station code in the right text field of the signal flyout. The useable abbreviations for the "Through The Heart Of Berlin" add-on route are listed in the table below.
 - A scenario script must be placed in the scenario folder, which triggers the command to play the corresponding announcement based on the station code. For this purpose, ready-made scripts are in the folder ..\Railworks\TTB-Material\TTB_BR483_ExpansionPack\Template_SzenarioScript templates for four train categories, one of which can be used. It is important that the player consist has the same category as the folder name from which the script comes. In addition, NO AI train is allowed to have the same train category as the player train consist (otherwise AI trains also trigger announcements when driving over).
 - The template scripts may be included in freeware scenarios for downloading.
- **Platform display:** the route addon Teltow Stadt - Hennigsdorf ("Through The Heart of Berlin") does not have the station display triggers installed, which display the next station on the FIS monitor of the Class 483/484. These must also be placed in the scenario. This is possible in two ways:
 - In the folder ..\Railworks\TTB-Material\TTB_BR483_ExpansionPack\Template_BstgDisplays, you can find a template for the file ScenarioNetworkProperties.bin. This can be imported at the beginning of the scenario construction (if no file of the same name exists in the scenario folder).
 - If a ScenarioNetworkProperties.bin already exists in the scenario, it can be made readable with the serz.exe from the Railworks main directory. Do this with the template and your file in the scenario folder. Use a text editor (e.g. Notepad++) copy all XML entries of the tag "cScenarioNetworkProperties-cUnlinkedPropertyPair"



from the template to the file in your scenario folder. Then the ScenarioNetworkProperties.xml is to be transferred again with the serz.exe into the binary format ScenarioNetworkProperties.bin. The temporarily created xml file can then be deleted.

- The template may be used for freeware scenarios and be published with them.
- **3rd rail Trigger:** The Teltow Stadt - Hennigsdorf addon route ("Through The Heart Of Berlin") does not have the Busbar Triggers installed, which triggers the threading and re-threading of the pantographs at the end of the 3rd rail. These must also be placed in the scenario. This is possible in two ways:
 - In the ..\Railworks\TTB-Material\TTB_BR483_ExpansionPack\Template_Stromschiენტrigger is a template stored for the file ScenarioNetworkProperties.bin. This can be imported at the beginning of the scenario construction (if no file of the same name exists in the scenario folder).
 - If a ScenarioNetworkProperties.bin already exists in the scenario, it can be made readable with the serz.exe from the Railworks main directory. Do this with the template and your file in the scenario folder. Use a text editor (e.g. Notepad++) and copy all XML entries of the tag "cScenarioNetworkProperties-cUnlinkedPropertyPair" from the template to the file from the scenario folder. Then the ScenarioNetworkProperties.xml is to be transferred again with the serz.exe into the binary format ScenarioNetworkProperties.bin. The temporarily created xml file can then be deleted.
 - The template may be used for freeware scenarios and published with them.
- **Combination database:** A combination of the scenario trigger databases for platform display and busbar trigger is located in the folder ..\Railworks\TTB-Material\TTB_BR483_ExpansionPack\Template_Kombi. This can also be used for freeware scenarios and published with them.
- **"Unter den Linden" station:** In the route addon Teltow Stadt - Hennigsdorf ("Through The Heart Of Berlin") an era is represented in which the station "Unter den Linden" was approached. It has since been renamed the "Brandenburger Tor". You can also easily implement this in your own scenarios.
 - Apply from the folder ..\Railworks\TTB-Material\TTB_BR483_ExpansionPack\Template_BrbTor the file +000000-000001.bin in the subfolder "Scenery" of your scenario (create subfolder manually if necessary). Under the condition that the Asset folder TrainTeamBerlin\TTB_BR483-484_ExpPack is activated, the station will be renamed.
 - The scene tile may be used in freeware scenarios and published with them.
- **List of station abbreviations: the following** abbreviations can be used for manually setting the platform display triggers for the Teltow Stadt - Hennigsdorf route:

Abbreviation	Stationsname
BTLS_	Teltow Stadt
BLIS_	Lichterfelde Süd
BOSS_	Osdorfer Straße
BLIO_	Lichterfelde Ost
BLAK_	Lankwitz
BSDE_	Südende
BPRS_	Priestweg
BSKR_	Südkreuz
BYOR_	Yorckstraße
BAHU_	Anhalter Bahnhof
BPOP_	Potsdamer Platz
BTOR_	Brandenburger Tor
BFRI_	Friedrichstraße
BORS_	Oranienburger Straße
BNB_	Nordbahnhof
BHUM_	Humboldthain
BGB_	Gesundbrunnen
BBOF_	Bornholmer Straße
BWOK_	Wollankstraße
BSNL_	Schönholz
BARF_	Alt-Reinickendorf
BKBO_	Karl Bonhoeffer Mental Hospital
BEBD_	Eichborndamm
BTG_	Tegel
BSZF_	Schulzendorf
BHLS_	Heiligensee
BHND	Hennigsdorf
BWM_	Wilhelmsruh
BWIN_	Wittenau
BWAI_	Waidmannslust
BPKW_	Pankow

- **List of station** announcement abbreviations: the following abbreviations can be used for manually setting the station announcement trigger for the Teltow Stadt - Hennigsdorf route:

Abbreviation	Announcement	Special feature
BTLS	Teltow Stadt	Line end
BLIS	Lichterfelde Süd	
BOSS	Osdorfer Straße	
BLIO	Lichterfelde Ost	
BLAK	Lankwitz	
BSDE	Südende	
BPRS2E	Priesterweg	Announcement S2 End station
BPRS25	Priesterweg	Announcement S25/26
BPAPV	Südkreuz (lower floor)	
BYOR	Yorckstraße	
BAHU	Anhalter Bahnhof	Announcement S2/25/26
BPOP	Potsdamer Platz	
BTOR	Brandenburger Tor	
BFRI	Friedrichstraße	
BORS	Oranienburger Straße	
BNB	Nordbahnhof	
BHUM	Humbildthain	
BGB	Gesundbrunnen	
BBOF2	Bornholmer Straße	Announcement S2
BBOF25	Bornholmer Straße	Announcement S25/26
BWOK	Wollankstraße	
BSNL25	Schönholz	Announcement S25
BSNL26	Schönholz	Announcement S1/26
BARF	Alt-Reinickendorf	
BKBO	Karl Bonhoeffer Nervenklinik	
BEBD	Eichborndamm	
BTG	Tegel	
BSZF	Schulzendorf	
BHLS	Heiligensee	
BHND	Hennigsdorf	Line end
BWM	Wilhelmsruh	
BWIN	Wittenau	
BWAI26	Waidmannslust	Announcement S26 line end
BPKW	Pankow	

Final notes/ FAQ

At this point, further valuable information should be collected, which can be important for the smooth operation of the vehicle and freedom from errors.

Computer-controlled traffic

TrainTeamBerlin pursues a strict separation of vehicles that are used in player operation from those that are **controlled** exclusively by the computer in the course of a scenario ("AI traffic", "AI" as an abbreviation for "artificial intelligence").

The richly equipped player vehicle is correspondingly resource-heavy and neither suitable nor equipped for pure, mass operation in the AI traffic scheme. It is therefore highly recommended to use only the additionally supplied AI vehicles in AI traffic. They are specially designed to be used in large quantities and at the same time not to burden the computer nearly as much as with the same number of player vehicles.

In addition, for most AI vehicles, the corresponding manuals contain further information on how their additional functions can be quickly and easily configured in the scenario (e.g. Destination display).

Control mode

Within the scope of the possibilities of the simulation platform "Railworks", the present vehicle is designed to be a high realism simulation that is as realistic to the original as possible. It is therefore **not intended** to control vehicle in simplified control mode (HUD, F3/F4 keys).

It is possible to disable many of the new, complex features for simple and pure fun driving. This should nevertheless be carried out in any case with the mode of expert control.

Saving a Scenario/Rolling Start

The present vehicle is not intended for saving scenarios. In principle, it is possible to use the save function, but the context of the scripts executed in the background will most likely no longer match the state stored in the game - with malfunctions or at least confused behavior of individual systems is to be calculated. The same applies to the "Rolling Start" function.

Since the scenarios with this vehicle usually have a limited length, this should not be a major problem.

FAQ: If you have further questions, please also take note of the latest findings in the development team's support forum on <http://www.trainteam.berlin/forum>. In addition, relevant findings are bundled in the FAQ on the corresponding product page in the shop.

More (AI) vehicles

The vehicles presented in the further course are designed as AI vehicles (AI = artificial intelligence) and intended for computer-controlled traffic in scenarios. The vehicles can NOT be driven by the player. The wagons do not correspond to the technical and functional level of player vehicles, but can also be put in player train consists if necessary.

BR114/143



- Unlock in the scenario editor: **GermanRailroadsRW\Rollmaterial**
- Set of 2 locomotives of series 114 and 143 with original sound
- automatic pantograph selection:
 - normal: rear pantograph
 - 1st locomotive within double traction: front pantograph
 - engine marked as "defective": both pantographs lowered
- delivered versions:

- 114 015	traffic red, DB Regio, train destination indicator
- 143 877	traffic red, DB Regio, with destination indicator
- Train destination indicator (pixel-precise original) can be set via DynamicNumbering
 - Car number contains a letter that selects a destination display
 - available destination signs:



A RE5 Falkenberg (Elster)	K RE4 Luckenwalde
B RE5 Lutherstadt Wittenberg	L RE4 Ludwigsfelde
C RE5 Rostock	M RE4 Jüterbog
D RE5 Stralsund	N RE4 Wismar
E RE5 Neubrandenburg	O RE4 Wittenberge
F RE5 Jüterbog	P RE4 Lutherstadt Wittenberg
G RE5 Halle (Saale)	Q RE4 Falkenberg (Elster)
H RE5 Berlin Gesundbrunnen	R RE4 Rathenow
I RE5 Berlin Südkreuz	S RE4 Stendal
J RE5 Berlin Hbf	T RE4 Schwerin Hbf
	U RE4 Berlin-Spandau
	V RE4 Berlin Hbf
	W RE4 Berlin Südkreuz
X RE3 Stralsund Hbf	e RE9 Berlin Schönefeld Airport
Y RE3 Schwedt	f RE9 Berlin-Brandenburg Airport BER
Z RE3 Elsterwerda	g RE9 Berlin Südkreuz
a RE3 Wünsdorf-Waldstadt	h RE9 Berlin Hbf
b RE3 Berlin Gesundbrunnen	
c RE3 Berlin Südkreuz	
d RE3 Berlin Hbf	
i RE7 Belzig	n RB22 Michendorf
j RE7 Berlin Ostbahnhof	o RB22 Potsdam Hbf
k RE7 Berlin Wannsee	p RB22 Berlin Schönefeld
l RE7 Dessau	
m RE7 Wünsdorf Waldstadt	q RB Lutherstadt Wittenberg
	r RB Leipzig Hbf
t Do not board	s RB Bitterfeld
u Replacement train	
v [empty train sign]	

BR231 - 234



- Unlock in the scenario editor: **TrainTeamBerlin\TTB_BR232_KI**
- Set of 7 locomotives of class 231, 232, 233 and 234 in different versions
- matching original sound
- available vehicles:
 - 231 012-8, WFL, DR livery
 - 232 004-2, ITL, silver, "W232.01"
 - 232 045-5, East West Railways, red-white
 - 232 262-6, DB AG, traffic red
 - 233 233-6, DB AG, traffic red
 - 233 493-6, DB AG, yellow, DB Bahnbau, Königsborn, "Tiger"
 - 234 242-6, DB AG, traffic red

BR481



- Unlock in the scenario editor: **TrainTeamBerlin\TTB_B-WT_KI-Verkehr**
- Trainset of the BR481 (S-Bahn Berlin) with original sound
- randomly offset opening and closing doors, process based on ZAT method including opening driver's door
- Livery versions:
 - Traditional
 - Redesign
- predefined consists delivered
- Train destination indicator can be selected in two different modes:
 - a) classic preselection via dynamic numbering
 - Locomotive number contains a letter that selects a destination display
 - available destination signs are listed on the next page
 - b) Preselection of the destination display via vehicle parameters
 - intended for complex cases that cannot be covered by a)
 - an additional parameter is attached to the vehicle number
 - The command always has the format "ZZA=XX,YYY", so that as vehicle number for example "481_001-1a_ZZA=01,134" for display "S1 Friedenau" is created
 - XX denotes a line number (without "S"), lead zeros if necessary!
 - YYY refers to a destination station, carrying leading zeros if necessary!
 - Line and target codes are set out in the Annex to this Handbook
 - Possible input modes are:
 - Line 0/ destination (destination code + 300) => Alternating image "Shuttle traffic"/ "<destination code>"
 - Line 0/ Destination > 900 => Display of special destinations
 - Line x/ target <300 => free choice of line/target combinations

Available displays in DynamcNumbering mode:

a	S1 Oranienburg	z	S42 Ring
b	S1 Frohnau	A	S45 Südkreuz
c	S1Potsdam Hbf	B	S45 Bundesplatz
d	S1 Wannsee	C	S45 Schönefeld Airport
e	S2 Bernau	D	S46 Westend
f	S2 book	E	S46 Königs Wusterhausen
g	S2 Blankenfelde	F	S47 Herrmanstraße
h	S2 Lichtenrade	G	S47 Spindlersfeld
i	S2 Priesterweg	H	S47 Schönevide
j	S2 Südkreuz	I	S5 Spandau
k	S2 Potsdamer Platz	J	S5 Mahlsdorf
l	S25 Teltow city	K	S5 Hoppegarten
m	S25 Lichterfelde South	L	S5 Strausberg
n	S25 Lichterfelde Ost	M	S5 Strausberg Nord
o	S25 Priesterweg	N	S7Potsdam Hbf.
p	S25 Südkreuz	O	S7 Ahrensfelde
q	S25 Potsdamer Platz	P	S75 Westkreuz
r	S25 Nordbahnhof	Q	S75 Wartenberg
s	S25 Gesundbrunnen	R	S8 Birkenwerder
t	S25 Schönholz	S	S8 Zeuthen
u	S25 Tegel	T	S8 Grünau
v	S25 Hennigsdorf	U	S85 Waidmannslust
w	S3 Erkner	V	S85 Grünau
x	S3 Ostbahnhof	W	S9 Pankow
y	S41 Ring	X	S9 Schönefeld Airport

BR483/484



→ Unlock in the scenario editor: **TrainTeamBerlin\TTB_BR483-484_KI**

→ Trainset of the BR483/ 484 (S-Bahn Berlin) with original sound

→ randomly offset opening and closing doors

→ Paintwork versions:

- BR 483/ 484 series vehicles in traditional colors
- 483 001 "Ich bins"
- 483 001 "Komplett"
- 483 004 "Ideenzug"
- 484 003 "Ich bins"
- 484 085 "Komplett"

→ predefined consists delivered

→ Similar to the player vehicle, the AI vehicle can process parameters attached to the vehicle number. These parameters are processed to game start and the vehicle number is shortened to the usual length. Multiple parameters are entered separately by an underscore "_", also before the first parameter entry there is an underscore.

→ The parameter "**PASS=0**" ensures that no passengers are sitting in the vehicle from the start of the game, for example to show empty rides. Example of entry: **9480_0483_001-4A_c_PASS=0"**

→ Train destination indicator can be selected - classic preselection of a train destination via dynamic numbering

- Locomotive number contains a letter at the last position (!) that selects a destination display
- Example: **9480_0483_001-4A_c**
- the marked "c" encodes the destination display "S1 Potsdam Hbf"
- Available ads are listed in the following table:



a	S1 Oranienburg	A	S45 Südkreuz
b	S1 Frohnau	B	S45 Bundesplatz
c	S1 Potsdam Hbf	C	S45 Schönefeld Airport
d	S1 Wannsee	D	S46 Westend
e	S2 Bernau	E	S46 Königs Wusterhausen
f	S2 book	F	S47 Herrmanstraße
g	S2 Blankenfelde	G	S47 Spindlersfeld
h	S2 Lichtenrade	H	S47 Schöneeweide
i	S2 Priesterweg	I	S5 Spandau
j	S2 Südkreuz	J	S5 Mahlsdorf
k	S2 Potsdamer Platz	K	S5 Hoppegarten
l	S25 Teltow city	L	S5 Strausberg
m	S25 Lichterfelde South	M	S5 Strausberg Nord
n	S25 Lichterfelde Ost	N	S7 Potsdam Hbf.
o	S25 Priesterweg	O	S7 Ahrensfelde
p	S25 Südkreuz	P	S75 Westkreuz
q	S25 Potsdamer Platz	Q	S75 Wartenberg
r	S25 Nordbahnhof	R	S8 Birkenwerder
s	S25 Gesundbrunnen	S	S8 Zeuthen
t	S25 Schönholz	T	S8 Grünau
u	S25 Tegel	U	S85 Waidmannslust
v	S25 Hennigsdorf	V	S85 Grünau
w	S3 Erkner	W	S9 Pankow
x	S3 Ostbahnhof	X	S9 Schönefeld Airport
y	S41 Ring	Y	S9 BER T1-2
z	S42 Ring	Z	S9 Spandau
:	S1 Zehlendorf	0	S85 Pankow
;	S1 Potsdamer Platz	1	S85 Frohnau
@	S7 Wannsee	2	S8 Hohen Neuendorf
!	S25 Velten	3	S8 Wildau
„	S26 Teltow city	4	S75 Spandau
\$	S26 Lichterfelde South	5	S75 Warschauer Straße
%	S26 Potsdamer Platz	6	S5 Westkreuz
&	S26 Waidmannslust	7	S5 Charlottenburg
(S26 Blankenburg	8	S5 Warschauer Straße
)	S3 Spandau	9	S5 Ostbahnhof
?	S3 Westkreuz	+	S86 Grünau
{	S3 Charlottenburg	-	S86 book
}	S3 Ostkreuz	*	S6 Hauptbahnhof
[S3X Ostbahnhof	/	S6 Garden field
]	S3X Friedrichshagen	=	S15 Gesundbrunnen
<	S45 Hermannstr.	_	S15 Hauptbahnhof
>	S45 Gesundbrunnen	#	Not boarding
	S45 BER T1-2	‘	Shuttle service
\	S46 Gesundbrunnen	~	Workshop train
^	S47 Südkreuz	.	Special train
`	S47 Gesundbrunnen	,	[empty display]

Freight wagon Res676



- Unlock in the scenario editor :**TrainTeamBerlin\TTB_GW_st**
- Wagon set with several freight wagons, which were placed particularly resource-saving
- Original sound
- automatically mounted end of train signals

→ available vehicles:

Res - 676: 4-axle. Flat wagon with stanchions

- "DB" - brown
- "DB Bahnbau" - yellow/black
- "HVLE" - grey
- "PKP" - blue

Available loads:

- | | |
|---------------------------------|---------------|
| - empty with/without stanchions | - Wire rolls |
| - Excavator | - Cable drums |
| - Concrete blocks | - Rails |
| - Concrete pipes | - Sand |
| - Bulldozer | - Gravel |

Scenarios

In this section we would like to introduce you to the included scenarios. We will list the framework data of each scenario and give further information that can be helpful for the smooth running of the program and thus for solving the task.

**TTB BR483 EP 01: Island operation mode**

Vehicle: BR483+BR484 three-quarter train

Difficulty: medium

Season / Weather: Summer, clear

Time: 23:28

Duration: 1:05 hours

Description: We are writing Friday, July 29, 2022: In the coming days, construction work is due on the north branch of the S2, so that an island operation will be created between Buch and Bernau. The S-Bahn has decided to equip the circuits for a few days with the brand new vehicles of the BR483/484. For this purpose, the trains from the Ring sub-network are inserted appropriately with the last S2 passenger journeys.

You have caught such an achievement today and are already in the siding of Nordbahnhof. You first drive as shunting to the platform, change the direction of travel and take over the passengers from the arriving 481, which ends here today. The scheduled route first leads you to the Priesterweg. Due to the expansion work of the Dresden Railway, there is currently rail replacement traffic further south, so that you turn at the platform in Priesterweg. From there it goes to Bernau for you, but your shift ends already in Pankow.

Siding Nordbahnhof	23:28
Norbahnhof	23:30 - 23:34
Oranienburger Str.	from 23:36
Friedrichtstraße	from 23:38
Brandenburger Tor	from 23:40
Potsdamer Platz	from 23:42
Anhalter Bahnhof	from 23:44
Yorckstraße	from 23:47
Südkreuz	from 23:49
Priesterweg	23:52 - 0:04
Südkreuz	from 00:06
Yorckstraße	from 00:09
Anhalter Bahnhof	from 00:12
Potsdamer Platz	from 00:14
Brandenburger Tor	from 00:16
Friedrichtstraße	from 00:18
Oranienburger Str.	from 00:20
Norbahnhof	from 00:22
Humboldthain	from 00:24
Gesundbrunnen	from 00:26
Bornholmer Str.	from 00:28
Pankow	from 00:31

TTB BR483 EP 02: S26 Waidmannslust – Teltow Stadt

Train: BR 484 traditional paint

Difficulty: medium

Season / Weather: Summer, sunny

Time: 02:50 P.M.

Duration: 0:50 hours

Description: After your arrival at Waidmannslust with a short train of Class 484 you go back to Teltow Stadt.

Waidmannslust	dep.	14:50
Wittenau		14:52
Wilhelmsruh		14:55
Schönholz		14:58
Wollankstraße		15:00
Bornholmer Straße		15:03
Gesundbrunnen		15:05
Humboldthain		15:06
Nordbahnhof		15:09
Oranienburger Straße		15:11
Friedrichstraße		15:13
Brandenburger Tor		15:15
Potsdamer Platz		15:17
Anhalter Bahnhof		15:19
Yorckstraße		15:22
Südkreuz		15:24
Priesterweg		15:27
Südende		15:29
Lankwitz		15:31
Lichterfelde Ost		15:33
Osdorfer Straße		15:36
Lichterfelde Süd		15:38
Teltow Stadt	arr.	15:41

TTB BR483 EP 03: Friday, the 13th!

Vehicle: BR483 three-quarter train

Difficulty: Medium

Season / Weather: Spring, cloudy

Time: 4:26 pm

Duration: 0:45 hours

Description: This scenario is based on actual experiences. Of course, slightly modified to make it more playable and to circumvent the technical shortcomings of the TrainSim.

It is Friday the 13th, more precisely Friday the 13th of May 2022!

So you can say it will be a ride into something uncertain! The day had already started badly. It started with a unsightly marriage dispute with your wife - you should get the barbecue meat for the planned barbecue evening. Your wife said, since you only work a shortened shift today, you have plenty of time...

Now you drive your S2 towards Buch and the misfortune takes its course...

You start at Priesterweg, the station you have just reached with your train, coming from Lichtenrade. The train is already fully set up*, open the passenger change doors as soon as you begin. Then it goes on immediately.

(* for technical reasons, the direction of travel must be set to forward >key W< and the light must be switched on with the >key H<)

However, it will be important for the success of the scenario to observe and follow the announcements of the FDL and the written overlays.

Important departure times are (in this scenario, only these times were set in the dispatcher):

Priesterweg	ab	16:27
Yorckstraße	ab	16:37
Teltow Stadt	at	16:57:30 (latest)
Teltow Stadt	ab	16:59

You should stick to these times! In this scenario, using the tab key is not necessary, it could even lead to problems!

I would like to thank Jacqueline Werth, Benjamin Ebrecht and Felix Breitmoser for recording of the announcements. Have a lot of fun on this black Friday.

TTB BR483EP 04: New Train in ancient Tunnel

Train: BR483/484

Difficulty: medium

Season / Weather: Autumn, sunny

Time: 10:06 A.M.

Duration: 1:05 hours

Description: S25 from Hennigsdorf to Teltow Stadt, today (2023/09/18) with the latest train of the S-Bahn Berlin - the class 483/484, to celebrate the delivery of all ordered vehicles.

Hennigsdorf	dep.	10:08
Heiligensee		10:11
Schulzendorf		10:13
Tegel		10:18
Eichborndamm		10:21
Karl-Bonhoeffer-Nervenklinik		10:22
Alt Reinickendorf		10:25
Schönholz		10:28
Wollankstraße		10:30
Bornholmer Straße		10:33
Gesundbrunnen		10:35
Humboldthain		10:36
Nordbahnhof		10:39
Oranienburger Straße		10:41
Friedrichstraße		10:43
Brandenburger Tor		10:45
Potsdamer Platz		10:47
Anhalter Bahnhof		10:49
Yorckstraße		10:52
Südkreuz		10:54
Priesterweg		10:57
Südende		10:59
Lankwitz		11:01
Lichterfelde Ost		11:03
Osdorfer Straße		11:06
Lichterfelde Süd		11:08
Teltow Stadt	arr.	11:11