

Add-on for

Microsoft® Train Simulator



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Tramway **BERLIN-KÖPENICK**



Manual

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Tramway Berlin- Köpenick

Manual

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Preface

Foreword

Thank you for buying and installing our Addon „Tramway Berlin-Köpenick“.

The time is 1970 and the place is Berlin and up until now no one has been able to document this so effectively as we have

in this simulation. Therefore we are proud to say that this is a rather special product.

In the 1970s the Berlin-Köpenick tramlines had the particular task of transporting workers from the residential areas of Köpenick to the industrial areas of Oberschöneide along the Wilhelminenhofstraße, where around 25,000 people were employed.

These trams were literally filled to bursting point when the shift changes started in the state owned enterprises (VEB) such as the VEB Kabelwerk Oberspree, VEB Werk für Fernsehelektronik, VEB Batterie- und Elementefabrik (BAE), VEB Transformatorenwerk Oberspree and the VEB Berliner Metallhütten- und Halbzeugwerke BMHW. During peak times up to 7 services were continually running from Köpenick to Oberschöneide. Increasing the frequency was the only way to effectively get the workers to and from their work places.

But it wasn't just the trams as there were also public facilities such as day nurseries, nursery schools as well as other cultural institutions situated along the line so, in many ways it can be said that the trams became an integral part of everybody's life.



A further distinctive feature in Schöneeweide was the works railway which had been operated by the Berliner Verkehrsbetriebe (BVB) since 1903 in order to connect the factories with the marshalling yards in Rummelsburg. The local residents named this tramline irreverently but nonetheless affectionately „Bullen“ (Bulls) on account of the robust looking electric locomotives.

All that has now become a part of history and large industry with names like KWO, KWK, ORWO, TRO, Siemens, AEG, Niles, WF, BMHW and more recently Orenstein and Koppel who are well know manufactures if locomotives have all long since moved away from Berlin. However life goes on and in the mean time the buildings have been assigned to other functions.

A feeling for this long gone era however can still be sensed if you go there. An „Insider“ going into the Köpenick Forum will still meet many of those who once lived and worked in the municipality of Köpenick, and Köpenick does have its attractions boasting the largest water and woodlands areas in Berlin. Now, of course the mood has changed and is different to that in the other centres– here you’ll meet people, who have spent their whole lives living and working here and there is still a rather special bond amongst these people .

The staff of the tram service actually knew many of their passengers personally und I myself can remember as a child exchanging a few nice words with the lady conductors and even being given sweets while travelling on my „favourite“ 82, 83 and 86 services. This was quite simply an expression of the friendliness that was experienced by all people.

Anyway, enough said and it was not my intention to completely immerse myself in times gone by but, a little „nostalgia“ is never a bad thing although this is not something that goes without saying in our “former capital”. I hope I have succeeded with made my little contribution to reawakening a small part of Berlin’s past industrial history.

Finally I’d just like to point out that this work is based on my own personal experience so it’s therefore fair to say that I am writing about and reliving a part of my own history as well.

Jan Bleiß

Credits

Many people were of great help to me during the making of this project. The first people I would like to personally thank, are the members of the development team:

TrainTeamBerlin:

Daniel Kirchner (vehicles, cabs, sounds, webmaster)

Jan Bleiß (objects, route, sounds, manual)

Michael Pabst (Acts)

Benjamin Ebrecht (Acts, objects)

Thanks also to „our guests“

Ralf Riemer (Tramtracks)

Christoph Schneider (that excellent programme „Wetter 2.0“)

Hagen Knop (tramline signals)

Cornelia Lubing (Köpenick depot, Köpenick town hall)

Oneal Smyrl (water textures)

Technical help, information, pictures, historical data and facts, provision of services:

Dr. Birgit Wolf-Bleiß for proof reading the manual,

www.ddr-plakate.de for allowing the use of genuine GDR advertising pillars posters

www.german-railroads.de gave us genuine GDR cars,

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The Gramzow Railway Museum allowed us to photograph the L22 to our heart's content,

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Sebastian Röber
Paul Stix
Marcus Baer
Patrick Amelung
„Brabaks & Brüderchen“
Marc Beindorf
Frank Gutschmidt

System requirements

In order to run the Tramway Berlin Köpenick effectively, you will need at least the following:

- Processor with 1,6 GHz
- ca. 300 MB free harddisc space
- min. 128 MB RAM
- CD-ROM drive
- 3D graphics card with 64 MB
- Sound card
- Microsoft Train Simulator
- Windows XP, 2000, 98 or NT

Installation

If you have Windows XP, 2000 or NT you will need to be logged on as system administrator before beginning with the installation.

The setup programme for Tramway Berlin-Köpenick should start automatically after inserting the CD-ROM into the drive. If this does not happen then, click START -> RUN and enter „D:\setup.exe“ (D represents the drive number of your CD-ROM drive).

After choosing the language for installing, a welcome screen will be displayed which contains further important information. Click „Next“ to continue with the installation.

The programme will then automatically search for the path where your copy of Microsoft Train Simulator has been installed. If the path to your copy of Microsoft Train Simulator cannot be found then click „Search“ and enter or search for it manually.

Finally the chosen path will then be displayed for you to confirm after which, all necessary files will be copied into target folder.

A link will be created on your Windows desktop in order for you to start the Tramway Berlin-Köpenick . This concludes the installation. The „Tramway Berlin-Köpenick“ CD-ROM does not have to be in the drive when you drive the trains in the train simulator.

In order to start the Tramway Berlin-Köpenick just click on the desktop icon with the name „Tramway Berlin-Köpenick“.

If the Raildriver's CabController is connected to your system, you will be asked if you would like to use this device with Tramway Berlin-Köpenick. For more information on the use of the CabController please refer to the section with the heading „Information for Users of the Raildriver's CabController“.

Information for Users of the „Raildriver’s CabController“

The real trams that are depicted in our simulation have a very specific set of controls which is impossible to simulate with the resources available to us in train simulator. However we have done our very best and implemented a number of things that will require certain adjustments. These adjustments allow effective control of the trams with the „Raildriver CabController“ but at the cost of some realism.

The adjustments for the „Raildriver’s CabController“ will be made automatically, when you start the Tramway Berlin-Köpenick from the desktop link. This will enable you to use Raildriver’s CabController.

If you decide to use the Raildriver’s CabController then you will be switched automatically to the Raildriver CabController.

In order to control the trains with the Raildriver CabController, choose the Raildriver Manager from the „Acela Express“ list of locomotives.

Removing of Tramway Berlin-Köpenick

If you wish to remove Tramway Berlin-Köpenick click on „Start“ in the Windows task bar and choose „Settings“ followed by „Control Panel“. Double click on the symbol „Add or Remove Programs“ which will open a window containing a list of the software that has been installed on your computer. Look for and click on „aerosoft’s – Strassenbahn Berlin-Köpenick“ once. After this click on “Add/Remove” to begin with de-installing will.

The Route

The route consists of two lines in their entirety, several branch lines and two maintenance yards. During my description of the route I will not be able to avoid mentioning a number of street names so you may find it useful to take a look at a map of Berlin in order "get into the picture". If you don't happen to have a map of Berlin then I would suggest taking a look at Google Maps. Our starting point is Mahlsdorfer Straße in 12555 Berlin.

Linie 82

Line 82 begins in Mahlsdorf Süd – Hubertus in the middle of an idyllic residential area surrounded by woods and a settlement that was built in the middle of the 1920s. The route itself runs through the settlement in Uhlenhorst, on to Dammvorstadt and finally ends at the tram station in Köpenick. The residential area with its four story apartment blocks was built in the 1960s by the VEB Werk für Fernseh elektronik in order to provide adequate accommodation for the work force. The residents in these apartment blocks used line 82 and later line 19 mainly to get to their places of employment in Oberschöne weide.

A line coming from Köpenick branches at this point to the terminus Hirtestraße and the supplementary line 19 terminates here together with line 86 from Schmöckwitz and supplementary line 83E from Wendenschloß.

The Dammvorstadt stretches as far as the Köpenicker Bucht, were the rivers Dahme and Spree meet. At Köpenick station, a number of residential houses and business buildings dominate the cityscape. At Seelenbinderstraße, the tracks merge with those coming from Friedrichsagen. This is line 84 from the water works and line 87 coming from Rahnsdorf.

After driving past the water works (which are listed as an historical building and therefore under preservation order) you come to the junction Bahnhof- / Lindenstraße.

Here the track branch left towards Alt-Köpenick– this branch line will be dealt with later – but our route branches to the right in the direction of Wuhlheide.

At the point where we leave the residential area, you'll see the forest range „Alte Försterei“ on the right hand side – we drive past the old forester's lodge here – this is where the 1. FC Union Berlin had its pitch and clubhouse. This football club belonged to the VEB Kabelwerk Oberspree.

At that time, the road had only two lanes but this was later expanded to 4 in the 1970s. The route continues on to Wuhlheide which is surrounded by pine and oak trees, on past the KWO house of culture and crosses under the Berlin outer ring. This was a railway line that was built in the 1950s that completely encircled Berlin. Here you'll notice the bridge over the Spree that was a bulky box girder bridge until 1976.

Shortly after that we reach the Pionierpark „Ernst Thälmann“ which was re-named „Freizeit- und Erholungszentrum“ (Rest and Recreation Centre). A particular feature of this park is the narrow gauge railway which was built by pioneers in 1956 and served as a stepping stone for many young railway enthusiasts to a career in the German State Railways (Deutsche Reichsbahn). It was here that many of them learned about railway trades such as station master, signal man, chief guards, engine drivers etc. and this was done under the supervision of qualified staff from the railways.

Continuing on we then reach the Oberschöneeweide industrial area which was built at the turn of the 19th and 20th centuries and this, in turn led to the building of the appropriate residential areas.

The VEB Werk für Fernsehelektronik (where mainly picture tubes were manufactured) is the first factory that we pass on our journey. This building was erected in 1902 by Niles AG and was used for vehicle manufacturing for many years. A particular feature is its 70 meter (229 feet) high tower on which, the owner's name was displayed which was Niles AG until the war. Afterwards it belonged to WF and today it's Samsung.

As we turn into the Wilhelminenhofstraße we see the VEB Batterie- und Elementefabrik (BAE) and to the left, the VEB Kabelwerk Oberspree site which was built by AEG. Here mainly high tension and signals cables were manufactured.



The main entrance to the KWO works was at Rathenauplatz and a well known pub named „Stumpfe Ecke“ which was mainly frequented by the shift workers still exists. At that time in the GDR this type of establishment was usually associated with such institutions and was opened at 6 in the morning and midnight.

The three chimneys you see here are part of the the KWO's own power station. To be honest, this add-on is actually far too „clean“ since the Wilhelminenhofstraße was particularly dirty at that time due to the high traffic density and the surrounding industrial emissions. This was, in fact one of the main reasons why the modern residential areas of Dammvorstadt, Allende I and Allende II were built for the workforce in Köpenick.

Behind the cabling works in Nixenstraße you'll see the site of the Transformatorenwerk Oberspree (TRO). These works were also built by AEG and you it still displays their name at Königsplatz.

We reach the end of Wilhelminenhofstraße at Königsplatz which is the point where the Edisonstraße crosses. In those days there used to be a maintenance area where all lines crossed and these included two of those used by the „Bull“. And because of the heavy loads carried by the goods trains, these tracks had to be strengthened by welding steel plates underneath them.

Frequent maintenance and repairs at Königsplatz often resulted in somewhat chaotic circumstances since all traffic – whether cars, trains or buses were affected.



At this point I would like to add a personal note: It was here that I was „infected“ by the “railway virus“. It was here that I saw for the first time how one man using a red and white flag halted all traffic in order to make way for a droning and whistling “Bull“ – a jaw dropping experience that I'll never forget!

Now let's continue on to Edisonstraße, across the Griechische Allee and the large market place which then takes us to Rummelsburger Landstraße, where we arrive back at Wuhlheide. Wuhlheide takes its name from the river Wuhle, which we crossed further back at the first petrol station in Lindenstraße the area stretches from that point to here.

A large soviet garrison with officer's quarters was situated here together with the Elisabeth hospital. The tram stops at the both the hospital and the garrison.

In order to get to Karlshorst, we travel past the harness racing tracks which used to be a popular destination – it even has its own platform between the Elisabeth hospital and Hegemeisterweg and, during bigger events a number of trains were parked here in order to get passengers away quickly after the races. The same applies to the „Alte Försterei“ and the facility in Nixenstraße.

When we turn into Ehrlichstraße we drive past the only petrol station in Karlshorst which was often packed with long queues of cars waiting to fill up.

Ehrlichstraße leads on to a residential area with a number of multiple family dwellings that were built in the 1920s. At the other end of this residential area we approach Klingenberg, where there are a number of smaller works buildings. After going past the engineering trade works and the Karlshorst furniture factory, you'll see the Klingenberg gas coking works with its large gasometer. When we turn into Köpenicker Chaussee, we reach the Klingenberg power station stop. This power station was built in the 1920s to meet the fast growing demand for electricity in the state capital. Its 8 chimneys together with the coking works and the legacy left by steam engines working in the nearby marshalling yards in Rummelsburg were all responsible for making Klingenberg one of the dirtiest areas in Berlin.

However improvement came later when the steam engines disappeared and two new larger chimneys were built. There was also a rubber works here and behind that the Rummelsburg prison was situated, whose prisoners had to do some of the dirty work in the rubber works.

After that we see the Kosanke settlement which was built up by the GDR after 1961 as a garrison for the border guards. Behind that there is the Rummelsburg state combine for civil engineering, where concrete was mixed and construction equipment was stored.

I'll not go into commenting on the prison or the garrison since this has been done adequately by others.

At this point the nearby Ostkreuz with its prominent trademark, the water tower can now be clearly seen. This marks the end of our journey.

Finished? Not quite! You can drive back if you like since you can actually drive around the Ostkreuz loop – a fact that doesn't always go without saying in MS Train Simulator!

The Bull

The reason the Oberschöneweide works railway got its name is not authenticated but it's likely that the droning and brawny bull-like electric locos are the real reason. One thing is certain though - not one wagon was ever pulled by a real bull since the line was electrified from the very start.

This rail system connects the Oberschöneweide industrial areas with the Rummelsburg maintenance station which served as a consignment and handover point for the German State Railway (Deutsche Reichsbahn) trains.

The route can begin at the KWO port in the WF yard or from the many other sidings. The actual starting point is a siding at the eastern end of Wilhelminenhofstraße. Since this stretch has very few points, some curious marshalling was possible: one loco pulled the front part of the train and then a further loco followed with the rear part of the train. This was most likely due to the limited shunting alternatives. The sidings were limited in length and it's possible that this was done deliberately to reduce "pestering" of road traffic with more than one train at a time.

The main route for the Bull in 1975 runs along Wilhelminenhof-, Edisonstraße, Rummelsburger Landstraße through Karlshorster Heide past the Nalepastraße transformer works and the Karlshorst furniture factory. It crosses the tramlines at Blockdammweg and continues past the Klingenberg coking works where it finally reaches its destination at the Rummelsburg handover point.

There is a branch line off from Königsplatz which continues along the Wilhelminenhofstraße to Nalepastraße. Here there's a lay-by and this is where the transit sheds for the locos were situated.

The route was lengthened in 1975 during the development of the Edisonstraße which resulted in the dismantling of the goods line along the Nalepastraße through the Schwarzen Weg of the small garden colony „Am Wilhelmstrand“ up to the above mentioned transformer works.

It's definitely worth mentioning a particular line, which leads to the Schöneweide station from the junction of Siemensstraße and the Wilhelminenhofstraße crossing over the Stubenrauch bridge,. This was in service until around 1980 and branched off from the lay-by at Wilhelminenhofstraße. We have not depicted this line since this would have gone beyond the scope of this project.

Köpenick depot

The longest branch line of this route is situated in the southeast and branches off from the junction Bahnhofstraße/Lindenstraße towards the southeast into the old town of Köpenicks. The trams on the 83, 84, 86 lines coming from the Bahnhofstraße and the 85 and 95 lines coming out of Schöneweide frequented the route.

The route runs through the heart of Köpenick, going past the town hall, that became world famous by a “coup de main” of a shoemaker named Voigt – otherwise known as the „Hauptmann von Köpenick“ – in 1906.

He “acquired” the uniform of a captain and walked through Berlin accompanied by a couple of soldiers to Köpenick where he then occupied the town hall. The reason he did this was to force the issue of a residential permit which he lacked and was causing him grief.

The mayor told him that he wasn't in a position to do this so the “captain” then demanded in the name of his majesty that the mayor surrender the city treasury. The monarchy, a captain's uniform and

threat of treason was reason enough to obey everything in those days and afterwards, of course the whole world laughed over the extent of German obedience to authority.



Straße, with its excellent fish shops, onto Wendenschloßstraße and finally to the Köpenick depot , which itself is one of the oldest of its kind in Berlin.

This is where the trams of the 83, 83E, 84, 85 and 86 lines originated, which is what you are now able to do with our simulation.

Nalepastraße depot

This branch begins at Königsplatz and continues via Wilhelminenhofstraße to Nalepastraße. The sidings in the depots have been separated according to incoming and outgoing tracks which doesn't actually correspond to the real layout but this was the only possibility open to us to make the Ostkreuz loop accessible.



The depot has two sheds which are both accessible. If you get going early in the morning you'll soon see that we didn't limit traffic activity just to the daytime.

Rolling Stock

TDE



Four axled T4-62 was constructed by the VEB Waggonbau Gotha to provide an attractive new vehicle for the larger district capitals of the GDR. At the beginning they were used in Dresden and Magdeburg but since these cities were also served by Tatra trains from Prague in the middle

of the 1960s within the framework of the so called RGW-programme, they were also used as large capacity trains by the TDE for all services to (East) Berlin.

They were mainly used in the southeast at the Lichtenberg and Köpenick depots. Service ended in 1996 and the last line to be serviced by the TDE was the Uferbahn Schmöckwitz (line 86 and from 1993, line 68).

These vehicles have automatic driving control and the driver only has to operate one controller similar to those in the city trains (S-Bahn). Stepping up the resistance levels was load dependant and was done automatically with a cam controller. The brakes were operated with the help of a chain drive using the same controller. This, along with the rather feeble cam chains was often the cause of cold sweat situations for the drivers.

If the train wouldn't work, some drivers just went into the passenger compartment, lifted a slab on the floor and simply kicked the control unit. This resulted in a tremendous flash and the train would then work. Braking wasn't as easy though and if the brakes failed, the driver had to revert to other means (track and hand brakes) to get the tram to stop.

TE



The two axled TE62 was based on the older Berlin vehicles (e.g. T24) in the German State Railways maintenance facility (RAW) of Schöneeweide and were rebuilt in order to meet the demand for more improved vehicles. For this reason it was named Reco-train because it was reconstructed from older material.

These trains had only one bogie which was directly connected to the coach body. All unevenness, each impact, any stones laid by ill bred school children onto the rails, or any points resulted in heavy jolting which was accompanied by a rattling noise. This was the reason the tram was nicknamed "The Bone Jolter" („Knochenrüttler“).

This tram used a steering wheel for controlling and braking which was similar to those used in the Wartburg and Trabant cars.

Apart from the loosening of various attachments caused by the jolting and vibration (You can imagine how long ago these trams were in the RAW), these trains were, in fact very robust. The pantograph shank attachments were a weak point which often broke and this led to power cuts (something we've have taken account of in the activities!).

L22



Original picture of Gramzow

Our "Bull" loco was built in 1913 by AEG and was used continually after this to perform its task along the route. It also has a "sister" loco - the L21 - which can sometimes be spotted in service.

This loco weighs 38 tons (not to mention a service weight of 38.9 Mp) which is distributed onto four wheels, thus producing an axle load of 9.5 tons and this is one of the main causes of the above mentioned problems at Königsplatz! It develops a continuous output of 120 kW and can reach a top speed of 25 km/h.

These was not the only locomotives of this type in service - there were also smaller electric locomotives in the 1950s called Akku-KöF which were equipped with a pantograph and also some type V22 light diesel shunters which were operated in the 1970s and 1980s.

Speeds, traffic regulations and signals

Traffic regulations

The maximum permitted speed for a tram is 60 km/h if it is being driven on rails that are not on a road. As soon as it is travelling along a street rails, it was subject to normal road traffic regulations and may not exceed 50 km/h. Any exceptions to this rule are indicated by normal road signs or reduced speed signals that hang on the overhead wires.

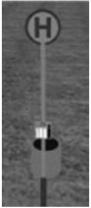
The maximum speeds are shown in the route monitor (F4 key).

German regulations on giving way are also valid: Main roads have right of way over side roads or you exercise the right before left rule, and the "Bulls" always give way to trams.

The „Bull“ has to stop at crossings on main streets and must operate the whistle after checking that the crossing is clear before continuing.

If a car should get too near – which could happen in real life – then you should brake and hold back – you don't want to dent your tram as this would get you in trouble with the boss and he may take revenge and assign you the "bone jolter" for your next trip!

Signals



Stopping point: You must stop at this signal, so that the signal itself is situated next to the middle of your train. In the case of signs displaying „HH“ (double stopping point) you must stop so that the signal is at the end of the tram.

Route separation point: At such points, two separate electrical current supplies cross and are therefore insulated from each other which results in the pantograph being briefly cut from the power supply. The signal requires you to cut the traction current (- driving regulator is off), because there is danger of heavy spark generation which may cause a short circuit.





Signal: This picture shows a mobile optical signaling system, which is used on single track traffic at road works. When the pantograph on the railcar brushes over the contact on a mast marked with an „S“, this will switch the signal in front of the driver to green, which means he may continue driving. The signal changes to red for the opposite direction. There is also a second signal light on the mast which is switched to red when the signal area is approached. This is to only allow one tram in the area at any one time and also to prevent another tram “getting in quickly” after the first tram.

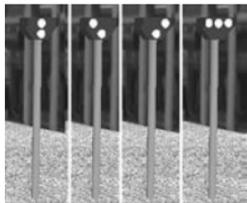


Point: (with direction indicator) doesn't work in TS but it's there anyway.

Speed limits: The speed limit indicates the speed that may not be exceeded after passing. If there is only a single digit, then this is to be multiplied by 10 km/h. It's also possible that a speed limit is active even if there is no signal hanging on the overhead lines. This will be a speed limit for road traffic and is indicated by a sign on the side of the road. This applies to the tram driver as well!

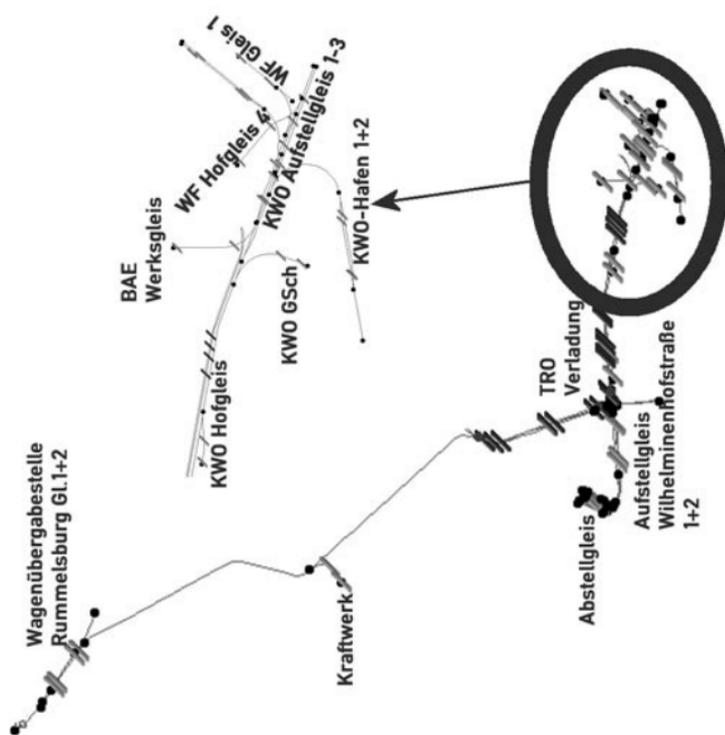


Light signals: Terms read from left to right:

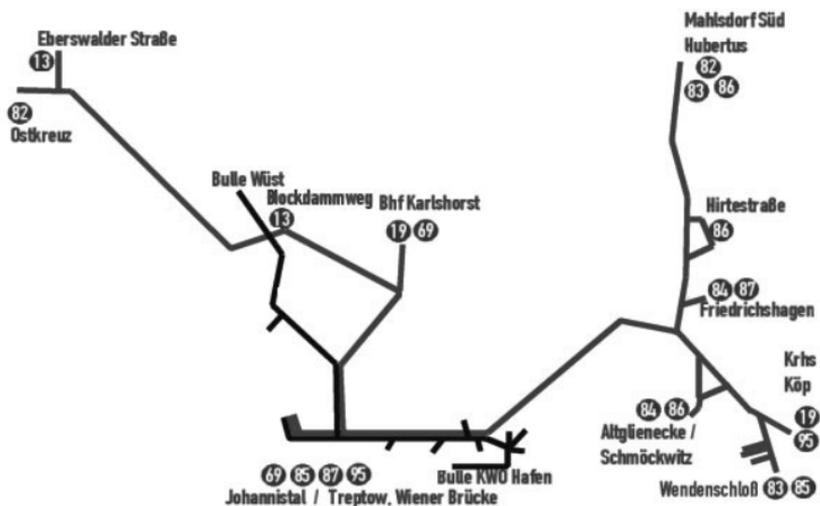


1. Driving straight on only permitted (not any other!).
2. Driving on the left branch line only permitted (not any other!).
3. Driving on the right branch line only permitted (not any other!).
4. Stop. Driving past is not permitted.

Track layout of the works railway



Overview of the tram lines



Activities

Oh no, not that!

Content: Driving the 19 line as replacement due to an accident Nalepastraße depot to S-Bahnhof Köpenick.

Duration: About 30 minutes with TDE+BDE; winter, evening.

Almost time for a break

Content: Driving the 82 line from Hubertus to Ostkreuz and back to Hubertus.

Duration: About 100 Minutes with TE+BDE, summer, afternoon.

Early shift in Köpenick

Content: Three part trip

Part 1: Assembling the train at the Köpenick depot (TE+BE+BE), Deadhead to Lindenstraße and then 82 line to Hubertus.

Part 2: Change train with colleague - 83 line from Hubertus to Schlossplatz with TDE+BDE.

Part 3: Return journey 83 line to Hubertus with TDE+BDE.

Duration: 60 minutes, beginning at 4:30, Spring.

Narrowly earned gain

Content: Two part trip

Teil1: Special excursion after the football game of the "Alte Försterei" from Wuhlheide to city train station in Köpenick with only a few stops on the way.

Teil2: Empty return to Wuhlheide and again as special excursion to Ostkreuz station with few stops in between with TE+BDE.

Duration: About 1 hour, summer, Saturday afternoon.

Saturday afternoon service

Content: You are on standby duty on the bull and are waiting at the KWO. Suddenly someone knocks on the door. Brigade Leader Margot is standing there holding a cake tin full of plum cake and a glass of whipped cream. "I hope you have your own coffee" she says smiling at you. She then says "Have a nice Saturday" and leaves. As she goes, she points out that the football game in the "Alte Försterei" is now being transmitted by Berlin Radio. You're driving the bull and must deliver a tank wagon.

Duration: About 30 minutes, summer, Saturday afternoon.

Goods service in the rain

Content: two part activity

Part 1: Your task is to pick up goods wagons from A and bring them to B, C, and D where you also be required to pick up something. Just before you're due to finish, your loco breaks down. You have ring up for help.

Part 2: Your next task is to drive the second Bull to the break down point and tow it back to the Nalepastraße depot, after which the rest of the goods wagons need to be distributed. Each journey is with a Bull and goods wagons.

Duration: About 60 minutes, Autumn, rain, afternoon.

Shooting the bolt and Litzenbrücke

Content: Two part trip

Part 1: 95 line from Königsplatz in the direction of the Köpenick hospital with TE+BE+BE.

Part 2: Towing the train from part 1.

Duration: 30 Minutes, beginning 14:46, winter, fair weather.

A bull in the night

Content: Just before knocking off you have to collect some goods wagons from the works and bring them to Rummelsburg. Your time is limited and you have to be finished by 23:30.

Duration: 45 minutes, beginning at: 22:47, summer, fair weather.

Short trip

Content: Drive the 13 line from Ostkreuz to Blockdammweg and back.

Two part trip. TE+BDE.

Duration: 23 minutes beginning 7:12, spring, fair weather.

86 line at knocking off time

Content: Four part trip

Parts 1+2: From Kirchstraße to Hubertus and back. Park the train (TDE+BDE) at Köpenick depot on account of a failure.

Parts 3+4: Assemble a replacement tram at Köpenick depot: TE+BE.
Trip to Hirtestraße and back to the depot.

Duration: 60 Minutes beginning 18:56, summer, fair weather.

19 line to the hospital

Content: Trip with TDE+BDE on the 19 line from city train station Karlshorst in the direction of the Köpenick hospital. Provisional bi-directional traffic due to an accident on the way

Duration: 30 minutes beginning 17:21, spring, rain.

The Collector

Content: Collect goods wagons in Oberschöneeweide with the type 22 loco and then onto Rummelsburg. After that park the bull in the Nalepastraße depot.

Duration: 50 minutes beginning 13:12, summer, fair weather.

Animals...

Content: Drive the Bull from Nalepastraße depot, collect goods train from Rummelsburg and distribute them to the various works.

Duration: 50 minutes beginning 8:38, summer, fair weather.

Second tram

Content: two part trip

Part 1: Start at the Köpenick depot. Drive the TDE+BDE 82 line – replacement to Hubertus.

Part 2: Continue with the 82 line: Hubertus-Ostkreuz. Provisional bi-directional traffic due to storm damage on the way.

Duration: 75 minutes beginning 4:22, Autumn, rain.

Weekend traffic

Content: Drive the 82 service with TE+BE+BE from Ostkreuz to Hubertus. The tram is full because the 1. FC Union is playing. Bi-directional traffic using mobile optical lighting signals due to building work.

Duration: 60 minutes beginning 15:45, Autumn, fair weather

Appendix

Notes on improving the performance

It was intended that this through the city of Berlin should be as accurate as possible. In order to do this, it was necessary to create a large number of objects both in the immediate area surrounding the track as well as at positions further away. Altogether 14,000 objects were placed along the route. The large number of 3D objects requires the appropriate computing power. Nevertheless we have made every effort to keep performance as high as possible.

Despite this should feel that the performance of your computer is not adequate, you will be able to influence this by adjusting some of the settings in the options menu.

Click on "Options" in the home screen and choose "Advanced Display".

Reduce "Visibility" from 2000 m down to a value between 1000 m and 1500 m.

Reduce the „World Object Density“. If you set the value to 8 then some objects are not displayed. Setting to 7 removes street lights and setting to 4 removes smaller objects like trees.

Also you can adjust "Dynamic Shadows", "Structured Sky", "Specular Lighting", "High Detail Shadows" as necessary.

Try to adjust the settings in order to find the right balance between display quality and performance for your computer.

Glossary

AEG	Allgemeine Elektrizitätsgesellschaft AG - General Electric Corporation
AG	Aktiengesellschaft - Shareholding Company
BMHW	VEB Berliner Metallhütten- und Halbzeugwerke – State Enterprise steel works and semi finished products
GDR	German Democratic Republic - 1949-1989 East German communist state
KWK	Kabelwerk Köpenick - Köpenick Cable Works
KWO	VEB Kabelwerk Oberspree – Oberspree State Enterprise Cable Works
MS	Microsoft ®
ORWO	Original Wolfen / Film producers
RAW	Reichsbahnausbesserungswerk – German State Railways Maintenance Works.
RGW	Rat für gegenseitige Wirtschaftshilfe - Council for mutual Economical Assistance.
T24	First large tram production series in Berlin more than 500 T24s were built,
TRO	Transformatorenwerk Oberspree – Oberspree Transformer Works – manufacturers of large transformers.
VEB	Volkseigener Betrieb - Official abbreviation for a legally independant commercial enterprise owned by the state. (1)
WF	VEB Werk für Fernsehelektronik – State Enterprise for TV Electronics
WüSt	Wagenübergabestelle – Train Handover Point. A facility where trains are parked to be handed over to other works.

(1) Source: Dr. Wolf-Bleiß, Sprache in der DDR, Verlag Walter de Gruyter Berlin New York 2001

Add-ons

for Microsoft Train Simulator



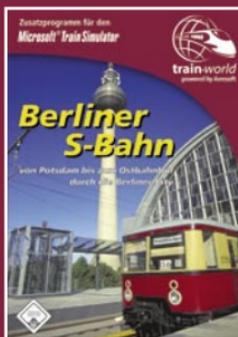
Linie 51

The "Golden Twenties"!

This add-on is placed in the twenties of the last century. We have recreated the Line 51 which runs from the streetcar depot Niederschönhausen to the heart of Berlins city the Kupfergraben at the Museumsinsel. Get ready for a unique ride through the historic Berlin which today is no longer possible!

Linie 51

€ 19.99



S-Bahn Berlin

Discover Berlin City!

Enjoy the typical flair of Germany's capital by driving an S-Bahn train all the way from the Ostbahnhof via Alexanderplatz, Bahnhof Zoo and Charlottenburg right to Potsdam. Control the BR 481/482 and BR477 trains along the so-called "Stadtbahnstrecke" (urban city line) and watch all the original detailed buildings and stations of Berlin City roll by.

S-Bahn Berlin

€ 19.99