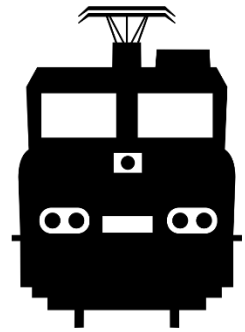




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# TrainworX

Dutch Trainsimulator Addons



Version 1.0 Build 20181001





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# 1 Introduction

## 1.1 How this manual is organized

The Retro Canvas Route has been built as a fictitious line of the Dutch National Railways (Nederlandse Spoorwegen, NS), representing the years around 1990, with a strong bias towards driving pleasure, both for the eye and the mind. The infrastructure is characterized by concrete sleepers and colour light signals. Apart from some sidings all tracks have been fitted out with overhead lines. The surrounding landscape and city buildings will create a realistic impression. The effective track length is around 55 km.

In this manual you will find instructions on installing the route in chapter 2. The software includes all necessary Wilbur Graphics scenery and rolling stock assets. We expect that you already own the DTG ELAP addon, plus the ChrisTrains rolling stock that is used in the scenarios. Chapter 3 contains an overview of the route and track plans of all station yards, followed by an index of the included WG rolling stock in chapter 4. There you will also find a specification of the ChrisTrains assets that are needed to run the scenarios. Chapter 5 will introduce you to the NS lightsignals system ('NS daglichtseinen 1954'), while chapter 6 is reserved for an overview of all available scenarios.

In the Appendix user manuals excerpts of all included Wilbur Graphics locomotives can be found.





## 2 Installation

### 2.1 Download contents

The TrainworX/Wilbur Graphics Retro Canvas Route (RCR) is being offered as a .zip-file and will contain the following items, apart from the `readme.txt` -file :

- Folder DE with a German language user manual (WG\_RCR\_DE\_V1\_0\_build\_20181001.pdf)
- Folder EN with an English language user manual (WG\_RCR\_EN\_V1\_0\_build\_20181001.pdf)
- Folder NL with a Dutch language user manual (WG\_RCR\_NL\_V1\_0\_build\_20181001.pdf)
- Installer program `TwX_RCR_V10.exe`

Please see the *release notes.txt* for the latest changes and corrections.

### 2.2 Installation

After starting the installer you will be prompted to

- Select a language (Dutch/English/French/German)
- Indicate an alternative path to the installation folder (default is `../SteamApps/Railworks/etc.`)
- Accept the licence agreement (EULA)
- Make a selection from the available objects (in this case only one)
- Enter the install key (a series of 6 digit groups)

### 2.3 Removing the Retro Canvas Route

To remove the RCR we strongly advise you to limit this action to the deletion of the folder:

67ac1f9a-b1ca-4bd3-89e4-b27d24a15b23

From the folder as specified by the path below:

```
C:\Program Files (x86)\  
Steam\steamapps\common\RailWorks\Content\Routes
```

### 2.4 Required add-ons

You cannot simulate railway services in a Dutch route without having ChrisTrains rolling stock on the roster. We therefore are assuming that most of these products have already been acquired by our esteemed users. In chapter 4 we will summarize the ChrisTrains rolling stock objects that have been scheduled to make an appearance in the route's scenarios. You will find more details there about the discount that ChrisTrains will offer our users when ordering missing items with them.

In the RCR route we have been using scenery objects that DTG have omitted from newly bought TS versions since 2015. This concerns passenger characters on platforms, some railway personnel etc., but is also important for rendering the terrain. User who came on board from that version on can remediate this by purchasing the DTG addon *European Loco and Asset Pack (ELAP)*, which is (reasonably priced) on offer at the Steam website.

## 2.5 Settings and hardware requirements

The hardware and software requirements that are recommended by Train Simulator 2019 supplier DTG have been observed by the developer when building this product.

### Minimum system requirements:

OS	Windows® Vista / 7 / 8/ 10
Processor:	2.8 GHz Core 2 Duo (3.2 GHz Core 2 Duo recommended), AMD Athlon MP (multiprocessor variant or comparable processors)
Memory:	4 GB RAM
Graphics:	512 MB with Pixel Shather 3.0 (AGP PCIe only)*
DirectX®:	9.0c
Hard Drive:	6 GB HD space
Sound:	Direct X 9.0c compatible

\* Laptop versions of these chipsets could work but are not supported by TS 2019. It may be possible that the drivers for your video and sound cards must be updated.

We suggest that you will incorporate the graphics settings in your version of TS 2019 as shown in the pictures below:





You could consider to make adjustments to these settings when implementing this route on more advanced PCs than specified by DTG, but we have not tested this product under those conditions.

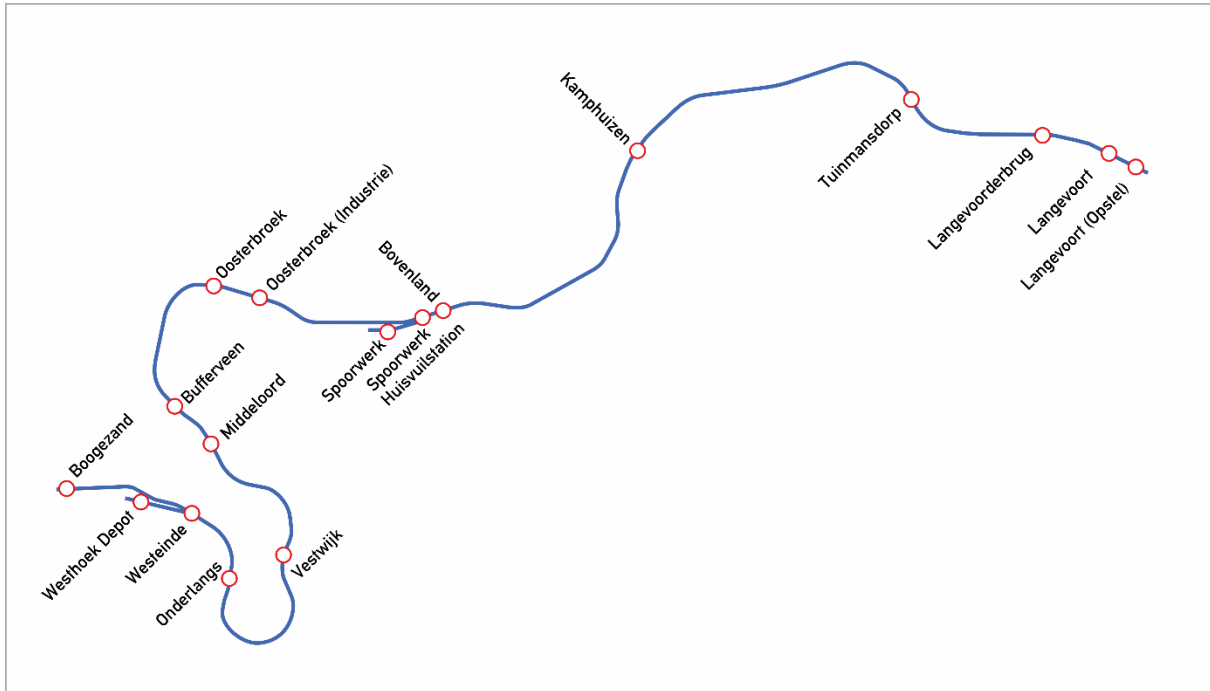
When running scenarios in this route the required memory capacity will, under normal circumstances, not exceed 2.5 Gigabytes. We nevertheless recommend to limit the number of parallel and background jobs anyway.

## 2.6 Notice to (beginning) scenario creators

It goes without saying that user who are building their own scenarios will have a responsibility of their own for an acceptable framerate and other performance parameters. When TS is running in its own window you will be able to keep a close watch on these in the Task Manager window (speedlink CTRL+ALT+DEL). When required the sim's framerate can be made visible in the TS window by hitting SHIFT+Z.

## 3 The route

### 3.1 Overview



### 3.2 Sections numbering

Ever since the beginning of railway history safety requirements made it necessary to introduce signalling, for which railway lines got divided into sections, taking braking distances into account. Access to sections is controlled by home signals. In this route sections have been numbered as given in the table below:

Section no.	Location
01	Westhoek Opstelsterrein (Wh), Boogezand (Bgz)
02	Westeinde (We)
03	
04	
05	Onderlangs (Odl)
06	
07.a/b	
08	Vestwijk (Vw)
10	
11.a/b	
12	Middeloor (Mdo)
13	
14	Bufferveen (Bfv)
15	
16	Halte Oosterbroek (Obk)



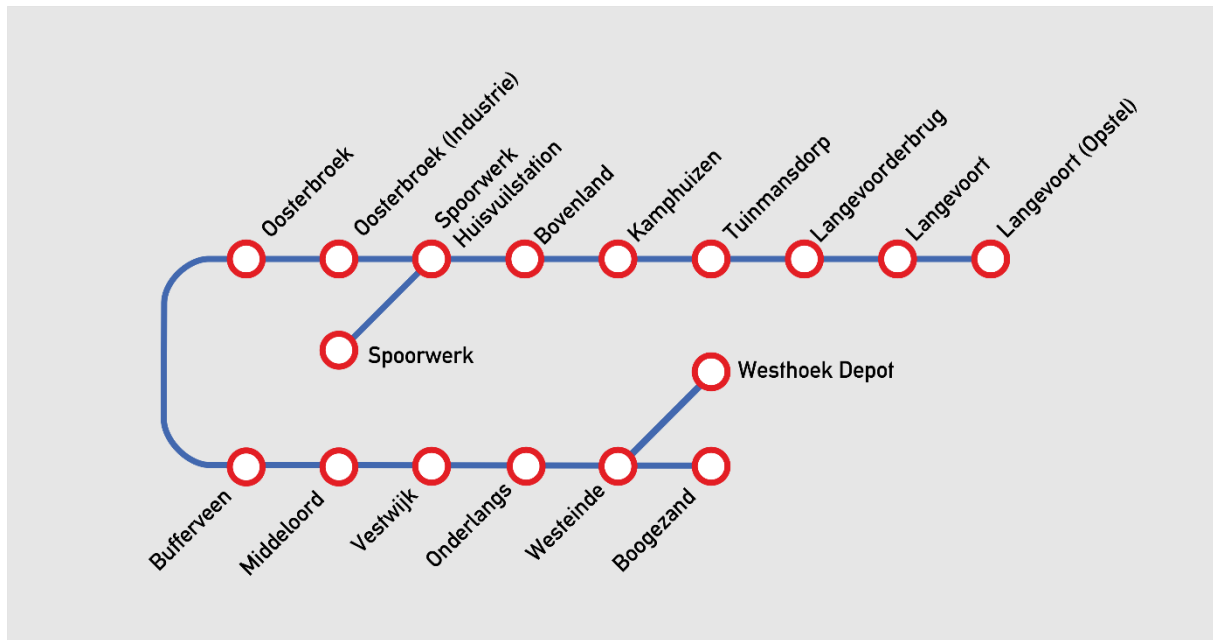
17	
18	Oosterbroek Mach. Fabriek (Obk MF)
19	
20	Spoorwerk Werkplaats & VAM-station (Spw VAM)
21	Spoorwerk Rangeer (Spw Ra)
22	Halte Bovenland (Bvl)
23	
24	
25	
26	Kamphuisen (Khz)
27	
28	
29	
30	Halte Tuinmansdorp (Tmd)
31	
32	
33	Langevoorderbrug (Lvb)
34	Langevoort (Lvt)
35	Langevoort Opstelrein (LvO)



### 3.3 Station layouts descriptions

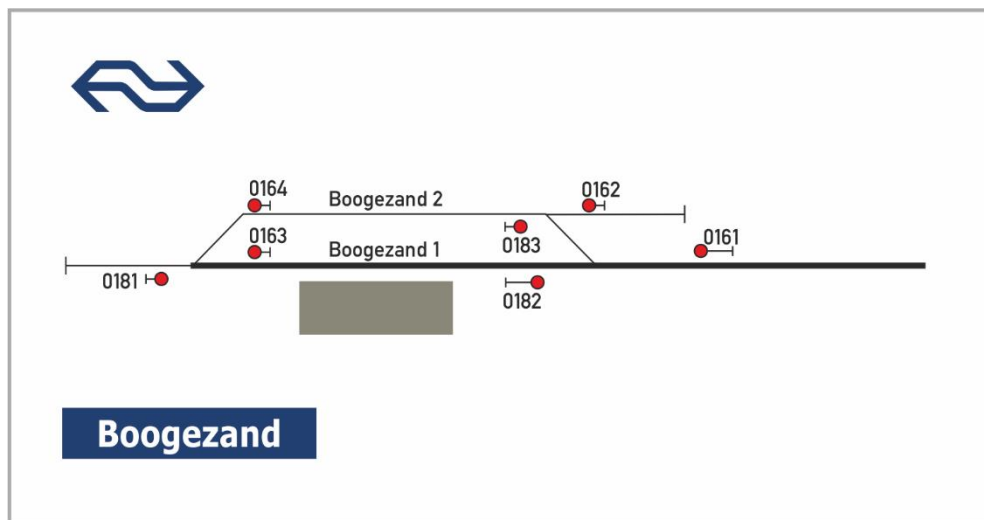
#### 3.3.1 Overview

For each station layout in the route a schematic picture has been included, referencing to signal numbers and siding and platform names. Signals are identified by a four-digit code, in which the left hand positions have been reserved for the two-digit section-ID.

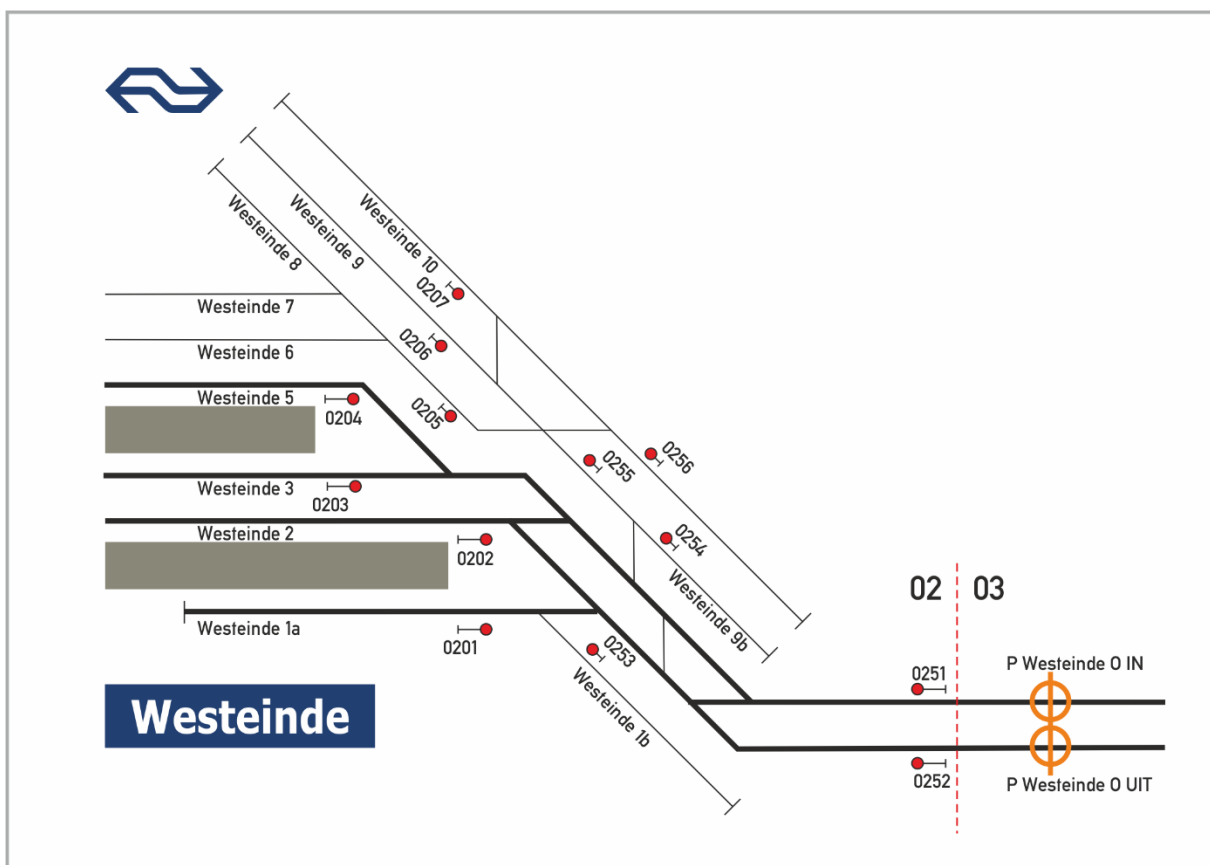
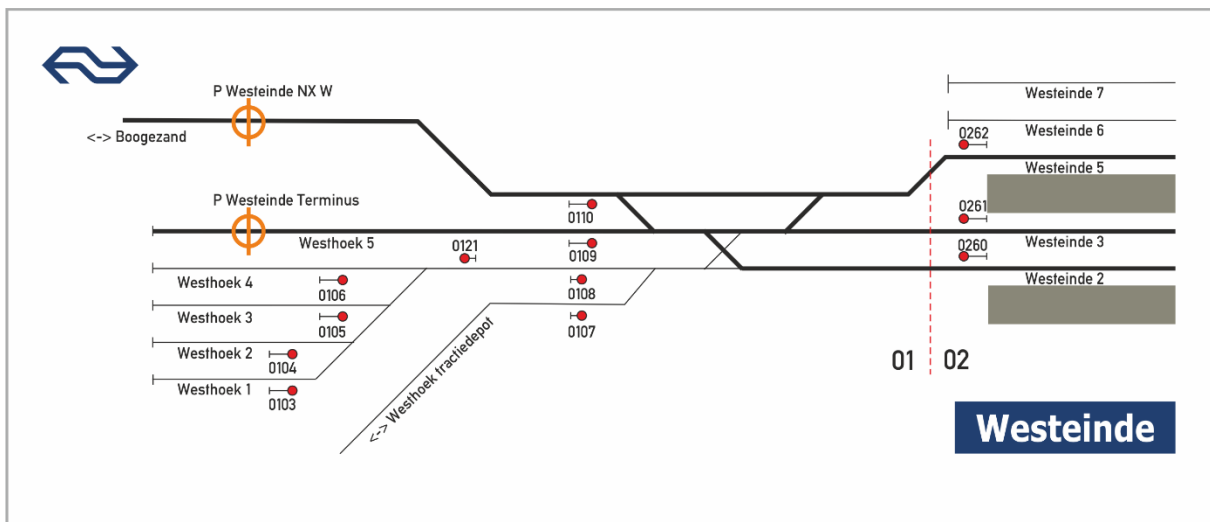


*Tuinmansdorp station*

### 3.3.2 Boogezand

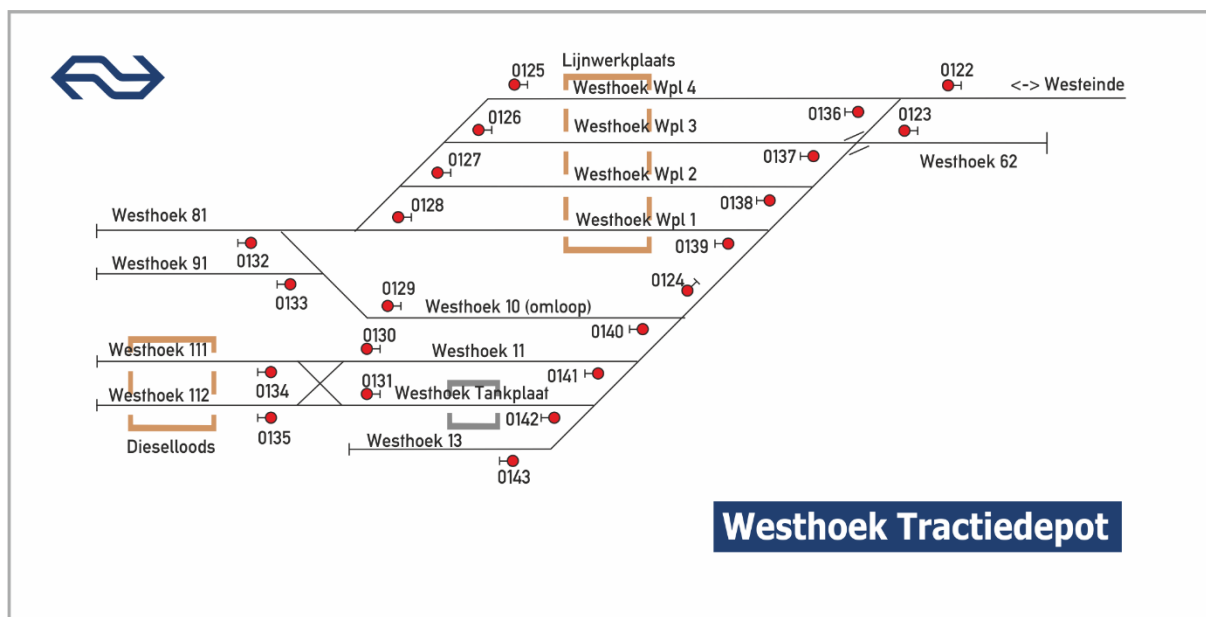


### 3.3.3 Westeinde



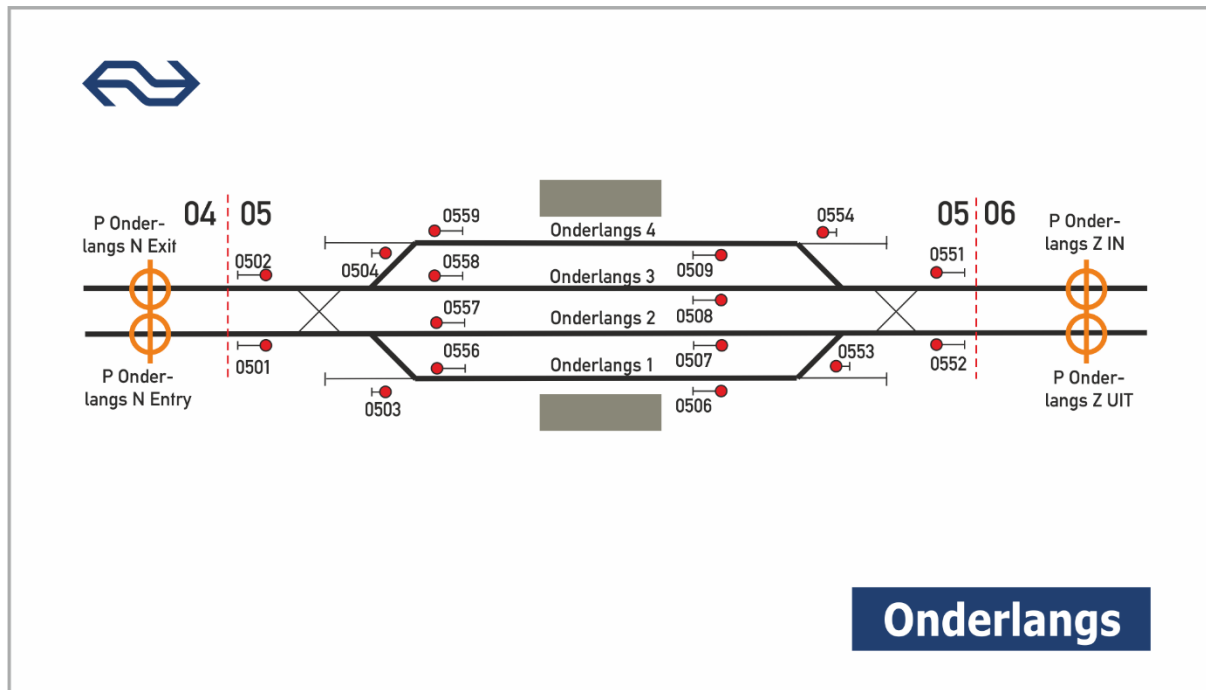


Next to the passengers station the MPD Westhoek is also part of the layout:

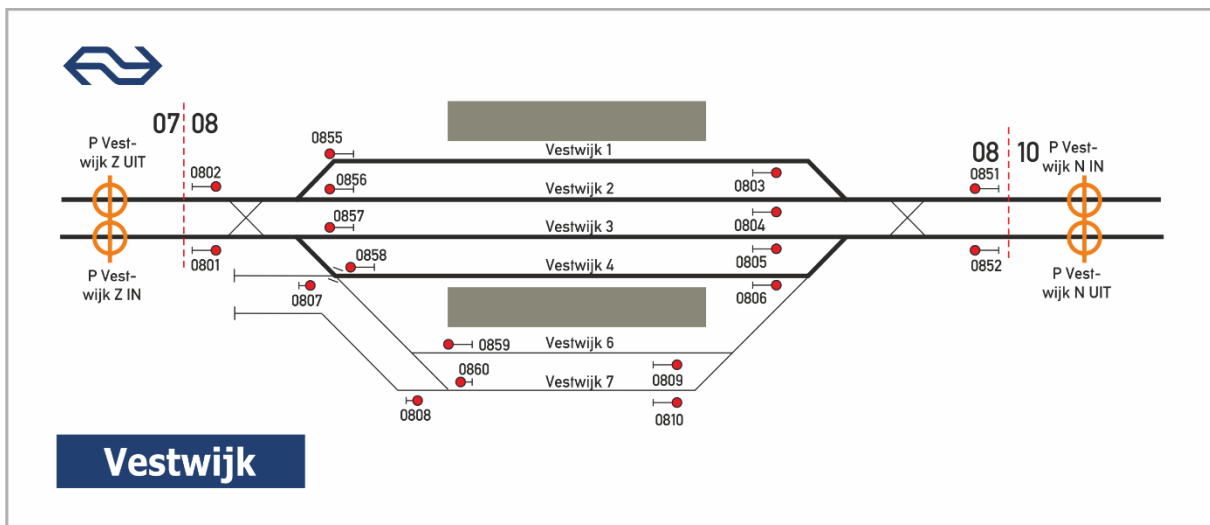




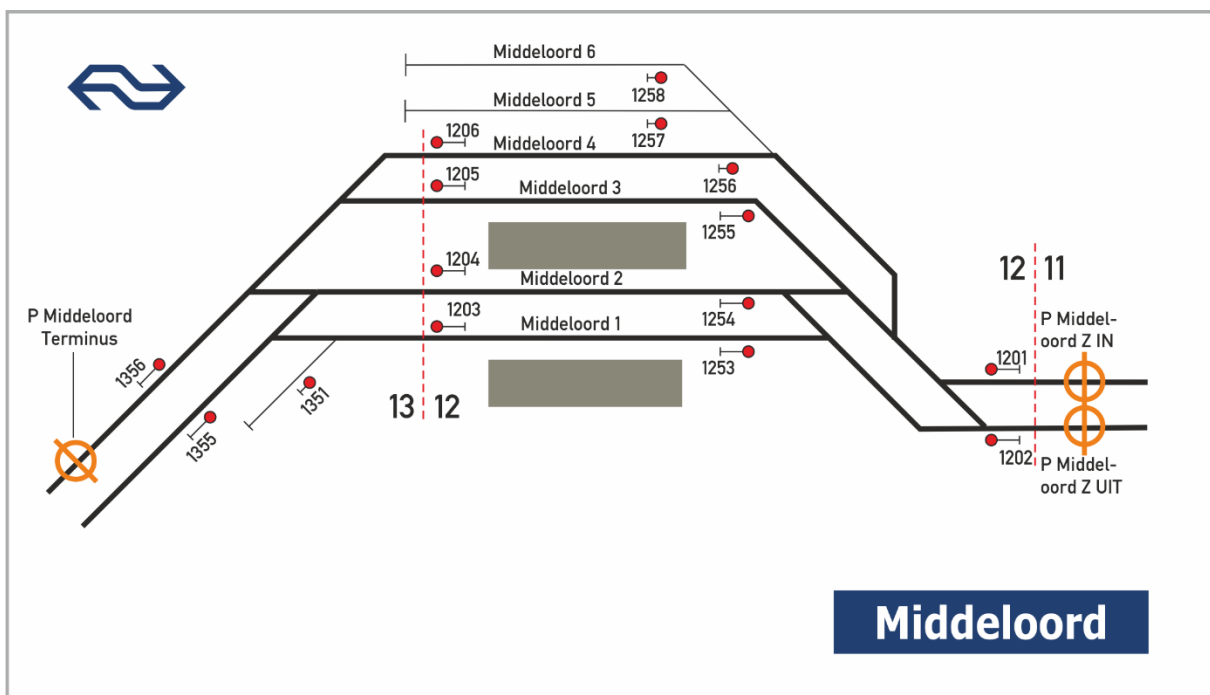
### 3.3.4 Onderlangs



### 3.3.5 Vestwijk



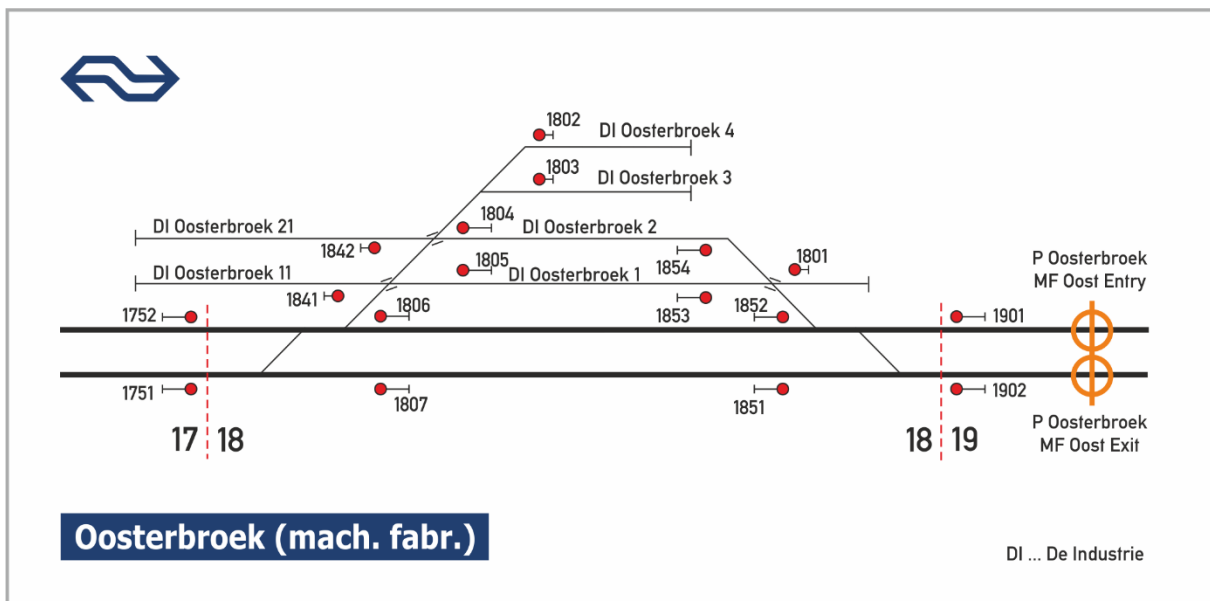
### 3.3.6 Middeloorde



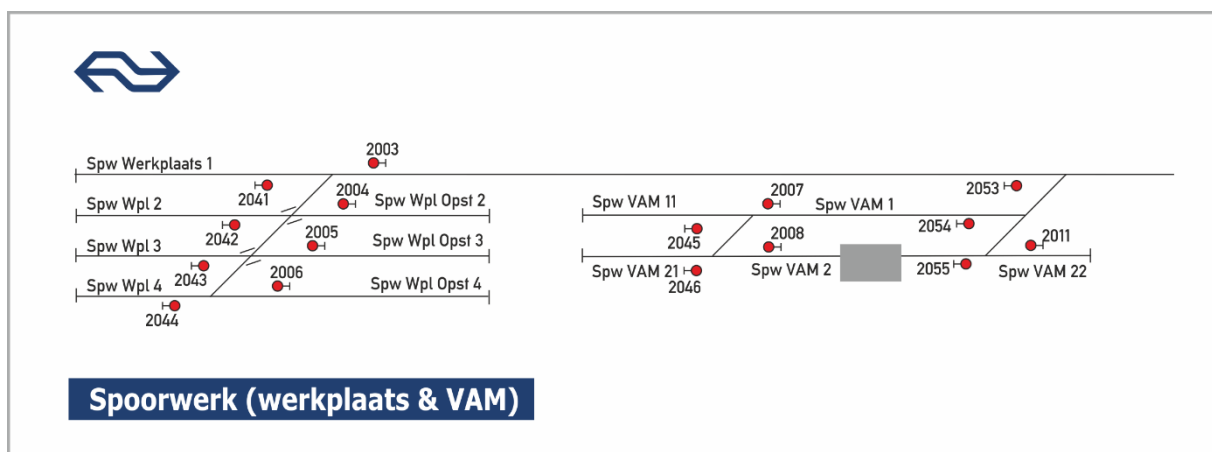
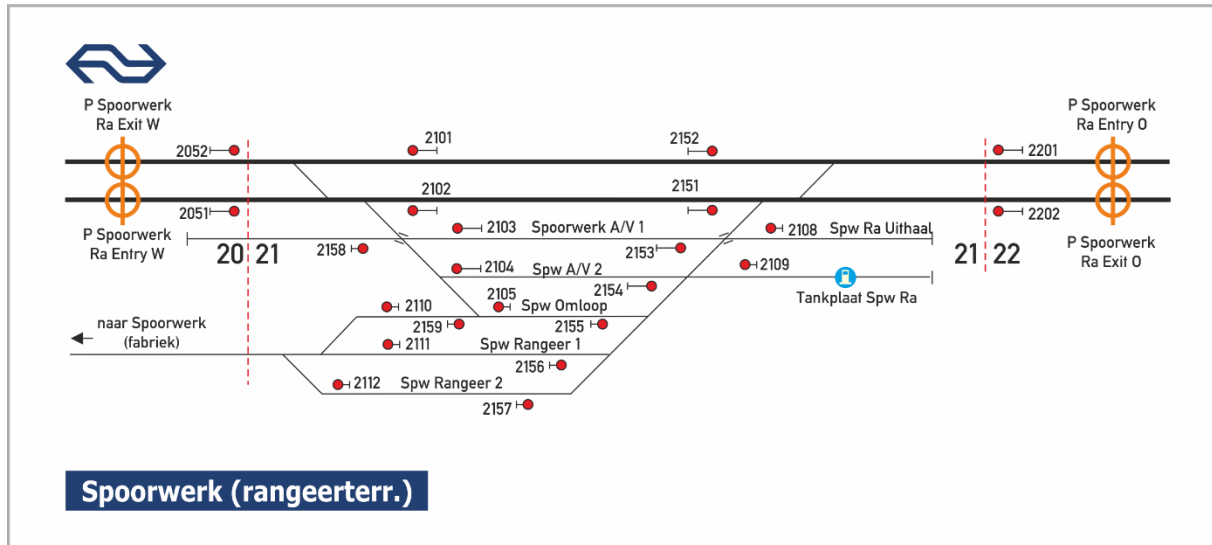




### 3.3.8 Oosterbroek

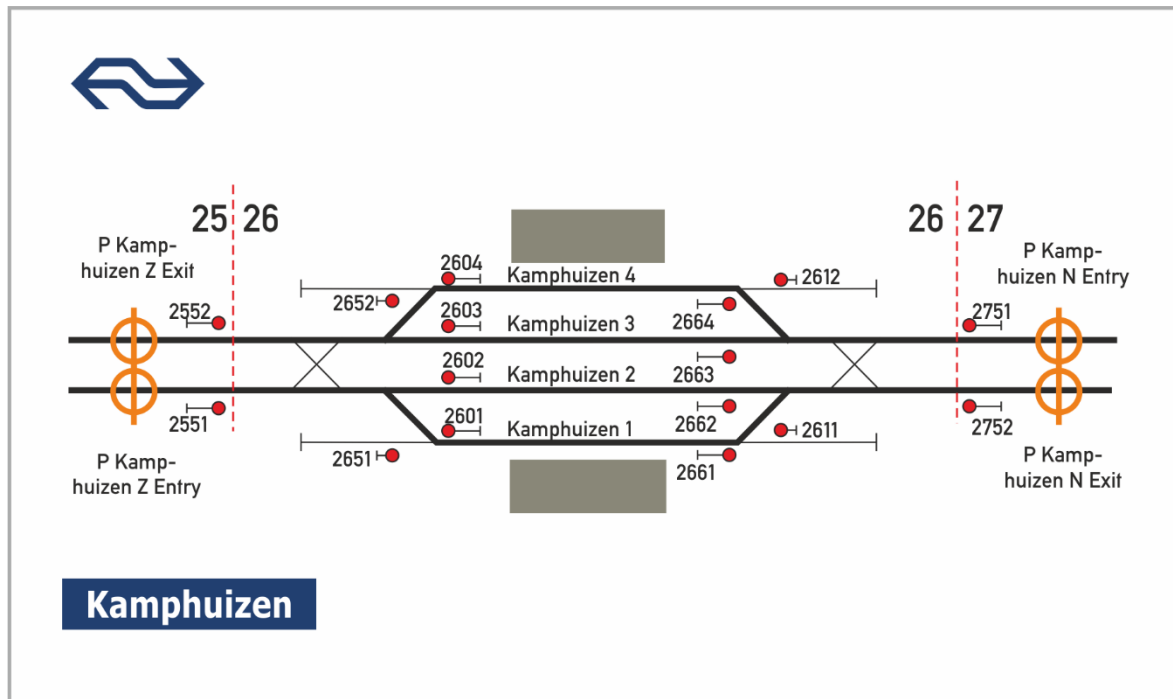


### 3.3.9 Spoorwerk

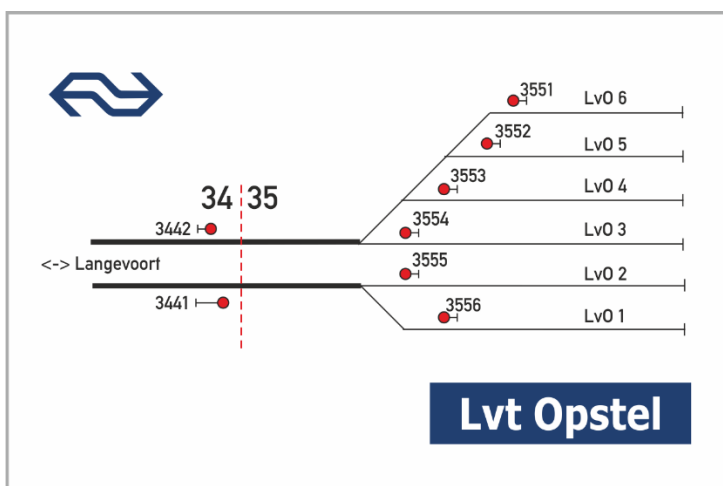
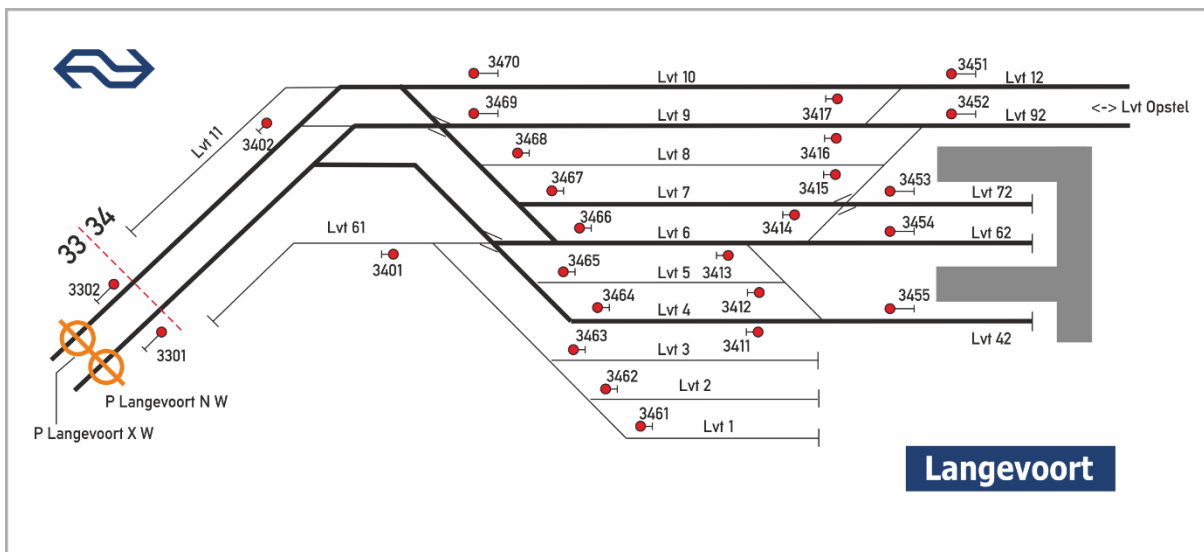




### 3.3.10 Kamphuizen



### 3.3.11 Langevoort



## 4 Rolling stock

When the RCR's installation has completed the following rolling stock will be available for deployment in the scenarios:

### 4.1 Wilbur Graphics

#### 4.1.1 Tractievoertuigen

##### Object Browser

WG NS 1123

WG NS 1143

##### Folder

NS\_1100\_tp4

NS\_1100\_tp4

##### Asset Name

WG\_NS\_1123

WG\_NS\_1143



##### Object Browser

WG NS 1615

WG NS 1722

WG NS 1734

WG NS 1737

##### Folder

NS\_1700

NS\_1700

NS\_1700

NS\_1700

##### Asset Name

WG\_NS\_1615

WG\_NS\_1722

WG\_NS\_1734

WG\_NS\_1737



### Object Browser

WG NS 2407  
 WG NS 2454  
 WG NS 2561

### Folder

NS\_2400\_tp4  
 NS\_2400\_tp4  
 NS\_2400\_tp4

### Asset Name

WG\_NS\_2407  
 WG\_NS\_2454  
 WG\_NS\_2561



### Object Browser

WG NS 325 huisstijl  
 WG NS 345 huisstijl

### Folder

NS\_200\_tp4  
 NS\_200\_tp4

### Asset Name

WG\_NS\_325  
 WG\_NS\_345



### Object Browser

WG NS 622 huisstijl  
 WG NS 673 huisstijl  
 WG Locon 9702

### Folder

NS\_500\_tp4  
 NS\_500\_tp4  
 Locon 9702

### Asset Name

WG\_NS\_622\_huisst  
 WG\_NS\_673\_huisst  
 WG\_Locon\_9702





### Object Browser

WG SSN BR 23 023

WG SSN BR 23 023 T26

### Folder

DB\_BR\_23

DB\_BR\_23

### Asset Name

WG\_DB\_BR\_23\_023

WG\_SSN\_BR\_23\_023\_T26



### Object Browser

WG V100 VolkerRail 203-1 'Tom'

WG V100 VolkerRail 203-5 'Tyke'

WG V 100 Locon\_220

### Folder

V\_100

V\_100

V\_100

### Asset Name

WG\_V100\_VolkerRail\_203\_1

WG\_V100\_VolkerRail\_203\_5

WG\_V\_100\_Locon\_220



## 4.1.2 Reizigersmaterieel

### Object Browser

WG tb CIWL F 1287

WG tb CIWL PS 4035

WG tb CIWL R 4008

### Folder

CIWL\_train\_bleu

CIWL\_train\_bleu

CIWL\_train\_bleu

### Asset Name

WG\_CIWL\_F\_1287

WG\_CIWL\_PS\_4035

WG\_CIWL\_R\_4008





### Object Browser

WG DB 119 Apmz

WG DB 119 Bpmz

### Folder

DB\_119\_ABpmz

DB\_119\_ABpmz

### Asset Name

WG\_DB\_119\_Apmz

WG\_DB\_119\_Bpmz



### Object Browser

WG NS ICR Apmz

WG NS ICR BDpmz

WG NS ICR Bpmz

### Folder

NS\_ICR\_ABpmz

NS\_ICR\_ABpmz

NS\_ICR\_ABpmz

### Asset Name

WG\_NS\_ICR\_Apmz

WG\_NS\_ICR\_BDpmz

WG\_NS\_ICR\_Bpmz



### Object Browser

WG SSN Mitropa WRm 217

WG SSN Bm 232

WG SSN Bm 232 blauw

### Folder

DR\_Mitropa\_WR4g

DB\_Abüm4

DB\_Abüm4

### Asset Name

WG\_SSN\_Mitropa\_WRm\_217

WG\_SSN\_Bm\_232

WG\_SSN\_Bm\_232B



### 4.1.3 Goederenmaterieel

Object Browser	Folder	Asset Name
WG DB Cargo Fals 167	DB_Fals_167	WG_DB_Cargo_Fals_167
WG DB VTG Fals 167	DB_Fals_167	WG_VTG_Fals_167
WG DB Fads 176	DB_Fads_176	WG_DB_Fads_176
WG NS Fals 254 (Kalk)	NS_Fals_254	WG_NS_Fals_254



Object Browser	Folder	Asset Name
WG DB Glmhs 50 flash	DB_Glmhs	WG_DB_Glmhs_flash



## Object Browser

WG DB ZZw 51 Esso 581226 rmlptfrm  
 WG DB ZZw 51 EVA 572355  
 WG DB ZZw 51 Mobil 580783  
 WG DB ZZw 51 Shell flash  
 WG DB ZZw 51 VTG 596551  
 WG NS ZZw 51 NAM 500813

## Folder

DR\_ZZw\_51  
 DR\_ZZw\_51  
 DR\_ZZw\_51  
 DR\_ZZw\_51  
 DR\_ZZw\_51  
 DR\_ZZw\_51

## Asset Name

WG\_DB\_Esso\_ZZw\_51\_rmlptfrm  
 WG\_DB\_Eva\_ZZw\_51\_572355  
 WG\_DB\_Mobil\_ZZw\_51\_580783  
 WG\_DB\_Shell\_ZZw\_51\_flash  
 WG\_DB\_VTG\_ZZw\_51\_596551  
 WG\_NS\_NAM\_ZZw\_51\_500813





### Object Browser

WG EDK6a gen schutwgn  
WG EDK6a SHM transp

### Folder

EDK\_typ\_6a  
EDK\_typ\_6a

### Asset Name

WG\_EDK6a\_gen\_schutwagen  
WG\_EDK6a\_gen\_transprt



### Object Browser

WG NS Gs flash

### Folder

NS\_Gs

### Asset Name

WG\_NS\_Gs\_flash



### Object Browser

WG NS Sgns 7 20' A-M-H  
 WG NS Sgns 7 20' APL  
 WG NS Sgns 7 20' Cont. Ships  
 WG NS Sgns 7 20' Gouda VV  
 WG NS Sgns 7 20' HAPAG  
 WG NS Sgns 7 20' MAERSK  
 WG NS Sgns 7 20' TrnwrX  
 WG NS Sgns 7 20' T-T-V  
 WG NS Sgns 7 40' APL  
 WG NS Sgns 7 40' ContShips  
 WG NS Sgns 7 40' Gouda VV  
 WG NS Sgns 7 40' HAPAG  
 WG NS Sgns 7 40' MAERSK  
 WG NS Sgns 7 40' TrainworX  
 WG NS Sgns 7 ledig

### Folder

NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns  
 NS\_Sgns

### Asset Name

WG\_NS\_Sgns7\_2A2M2H  
 WG\_NS\_Sgns7\_2A2A2A  
 WG\_NS\_Sgns7\_2C2C2C  
 WG\_NS\_Sgns7\_2V2V2V  
 WG\_NS\_Sgns7\_2H2H2H  
 WG\_NS\_Sgns7\_2M2M2M  
 WG\_NS\_Sgns7\_2T2T2T  
 WG\_NS\_Sgns7\_2T2T2V  
 WG\_NS\_Sgns7\_4A  
 WG\_NS\_Sgns7\_4C  
 WG\_NS\_Sgns7\_4G  
 WG\_NS\_Sgns7\_4H  
 WG\_NS\_Sgns7\_4M  
 WG\_NS\_Sgns7\_4T  
 WG\_NS\_Sgns7\_lm



### Object Browser

WG NS Slps ACTS flash  
 WG NS Slps ledig mat flash

### Folder

NS\_Slps  
 NS\_Slps

### Asset Name

WG\_NS\_Slps\_ACTS\_flash  
 WG\_NS\_Slps\_lm\_flash





### Object Browser

WG NS SSImas53  
 WG NS SSImas53 GP200  
 WG NS SSImas53 NKF  
 WG NS SSImas53 rails  
 WG NS SSImas53 sparren  
 WG NS SSImas53 stammen  
 WG NS SSImas53 trekkers

### Folder

NS\_SSImas53  
 NS\_SSImas53\_basis  
 NS\_SSImas53  
 NS\_SSImas53  
 NS\_SSImas53  
 NS\_SSImas53  
 NS\_SSImas53

### Asset Name

WG\_NS\_SSImas\_53  
 WG\_NS\_SSImas\_53\_GP200  
 WG\_NS\_SSImas\_53\_NKF  
 WG\_NS\_SSImas\_53\_rails  
 WG\_NS\_SSImas\_53\_spar  
 WG\_NS\_SSImas\_53\_stam  
 WG\_NS\_SSImas\_53\_JD\_5100



### Object Browser

WG SBB Gbs

### Folder

SBB\_Gbs

### Asset Name

WG\_SBB\_Gbs



### Object Browser

WG SNCF Gas A

### Folder

SNCF\_Gas

### Asset Name

WG\_SNCF\_Gas\_A



## 4.2 ChrisTrains



© ChrisTrains

We are very pleased to mention that ChrisTrains will offer a special discount to our users when buying missing rolling stock from this supplier. The discount concerned has been sent to you together with the install key. The ChrisTrains webshop can be visited via this link:

[https://www.christrains.com/ts\\_buy.html](https://www.christrains.com/ts_buy.html)

### 4.2.1 Motive power

#### Object Browser

NS Class 2200 ...  
 NS Class 6400 ...  
 NS mp3000 ...

#### ChrisTrains Shop

ChrisTrains NS2200 for Train Simulator  
 ChrisTrains NS6400 for Train Simulator  
 ChrisTrains mp3000 for Train Simulator

### 4.2.2 Electrical Multiple Units (EMUs)

#### Object Browser

CT NS VIRMm ...  
 NS DD-IRM ...  
 NS Mat64 Plan V ...  
 NS V-IRM ...  
 NS ICMm ...  
 NS SGM ...

#### ChrisTrains Shop

ChrisTrains NS IRM for Train Simulator  
 ChrisTrains NS IRM for Train Simulator  
 ChrisTrains NS Mat64 for Train Simulator  
 ChrisTrains NS IRM for Train Simulator  
 ChrisTrains NS ICMm for Train Simulator  
 ChrisTrains NS ICMm Paint Pack  
 ChrisTrains NS SGM for Train Simulator

### 4.2.3 Goods rolling stock

#### Object Browser

NS FCCPPS  
 NS Hbbkkss  
 NS Koppelwagen  
 NS Tads ...

#### ChrisTrains Shop

ChrisTrains NS FCCPPS for Train Simulator  
 ChrisTrains NS mp3000 PTT Paint Pack  
 ChrisTrains NS Koppelwagen for Train Simulator  
 ChrisTrains NS Tads wagon for Train Simulator

## 5 Signalling

### 5.1 Introduction

#### 5.1.1 Definitions

*Home signal:*

A light signal which can show 'Danger'.

*Speed limit:*

Depending on your speed:

- To reduce speed to the prevailing speed, or
- To increase speed to the prevailing speed

*P-signal:*

An automatic signal, marked ,P'.

*Drive on sight:*

To be able to stop at any given spot behind the signal.

Limit your speed. Do not exceed 40 km/h.

*Speed:*

Number x 10 km/h

*Line speed:*

The line's permitted maximum speed

*Local speed:*

Locally permitted maximum speed, as indicated by signs or signals.

#### 5.1.2 Signal positions

Signals can be found at the right hand side of tracks, or above a track for which they are valid, with the exception of signals:

- On left hand tracks of double track sections or lines;
- Midget signals that cannot be placed at the right hand side, due to local circumstances.

#### 5.1.3 Signals validity

All signals are valid for trains and yard movements.

#### 5.1.4 Speed adjustments

When adjusting speed you must observe the following rules:

- Speed reductions must be started when the first vehicle of a consist passes the signal that is indicating a speed reduction
- Speed increments can only be effected when the last vehicle of a consist has passed the signal that allows a speed increment.

## 5.2 Light signals

### 5.2.1 Definitions

Red variant indicates "Danger". The term *red variant* implies that a signals' shown primary colour is **red**.

Green variant indicates "Passing allowed". The term *green variant* implies that a signals' shown primary colour is **green**.

Yellow variant indicates "Speed reduction". The term *yellow variant* implies that a signals' shown primary colour is **yellow**.

White variant indicates "Passing allowed". The term *white variant* implies that a signals' shown primary colour is **white**.

### 5.2.2 Related signals

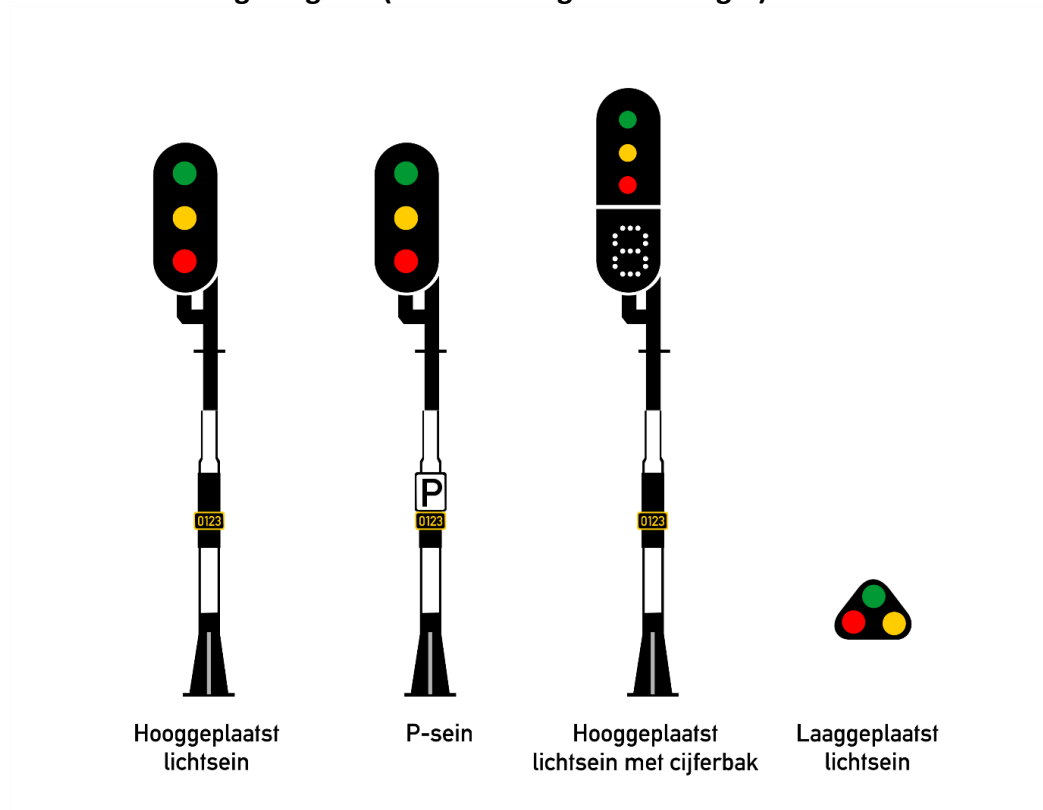
The Dutch National Railways signalling system "Signalstelsel 1954" which has been applied to the Retro Canvas Route will either require a train driver:

- to drive at a given speed -or-
- to reduce speed



Signal indications will be arranged in such a way that a train driver can follow up on the instructed actions. The signal 'Reduce Speed' will be shown at such a distance that a required speed reduction can be timely carried out. Timely means that the available braking distance is sufficient to get at the required speed.

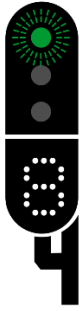



### 5.2.3 Pictured light signals (standard height and midget)


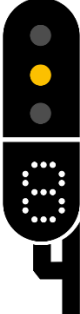



### 5.2.4 Green variants

Picture	Signal	Indication
	<i>High green</i>	Pass with local speed. If this is not known, then depart at 40 km/h.
	<i>Flashing green</i>	Pass at 40 km/h.


	<i>Flashing green with digit</i>	Pass at speed as indicated by the number shown (x 10 km/h)
	<i>Midget green</i>	Pass at 40 km/h.

### 5.2.5 Yellow variants


Picture	Signal	Indication
	<i>Yellow (high and midget)</i>	Reduce speed to 40 km/h or lower when necessary in order to stop at the next "Danger" showing signal.
	<i>Yellow with digit</i>	Reduce speed as indicated by the number (x 10km/h). A speed reduction must be ultimately effected at the next light signal.

	<i>Flashing yellow (high and midget)</i>	Drive-on-sight
---	--	----------------

### 5.2.6 Red variants




Picture	Signal	Indication
	<i>Red (high and midget)</i>	Stop in front of the signal.

### 5.2.7 White variants



Picture	Signal	Indication
	<i>Departure light signal</i>	Permission to depart.

## 5.3 Signs





### 5.3.1 Speed signs

Picture	Signal	Betekenis
	<i>Speed reduction sign</i>	Reduce speed as indicated by the number (x 10km/h).
	<i>Speed sign</i>	Pass at speed as indicated by the number (x 10km/h)
	<i>Line speed sign</i>	Permission to increase speed as indicated by the number (x 10km/h)

### 5.3.2 Other signs

Picture	Signal	Indication
	<i>Track end stop</i>	Stop in front of signal.
	<i>Station approach sign</i>	Station without entry signal at brake distance.



		<i>Sign 'Overhead line ends'</i>	Do not pass with raised pantographs.
		<i>Number sign</i>	Indicates the location where a train head must be stopped, depending on the number of coaches as shown by the sign.
		<i>Number sign</i>	Indicates the location where every stopping train must be brought to a halt, when other number signs do not apply.
		<i>P-Sign</i>	P-signal (automated signal along the line outside station layouts).

## 6 Scenarios

### 6.1 Gameplay Settings

When playing the scenarios we recommend the following TS Gameplay settings:



These settings assume that steam locomotives will be fired by the player. Coupling actions will also be part of the player's tasks. Of course you may activate the settings concerned.

## 6.2 Tasks

### 6.2.1 Overview

00 Materieelshow		FR	
98 Quickdrive Langevoort-Boogezand		QD	
99 Quickdrive Boogezand-Langevoort		QD	
01 IC Boogezand-Langevoort	NS 1700 6 ICR	TT	R
02 IC Langevoort-Boogezand	VIRM 6-bak	TT	R
03 IC Langevoort-Westeinde v.v.	ICM 4 + 2	TT	R
11 Boogezand-Langevoort	SGM2	TT	Spr
12 Langevoort-Boogezand	Plan V 2x2	TT	Spr
14 Stoptrein naar Langevoort	SGM2	TT	Spr
21 Ertstrein Westeinde-Langevoort	NS 2200 mu 20 Fals	ST	G
22 Ketelwagens Langevoort-Westhoek	NS 1100 4-ass ketelwagens	ST	G
23/0 Bediening Machinefabr. Oosterbroek (1)	NS 200	ST	Rangeren
23/1 Bediening Machinefabr. Oosterbroek (2)	NS 2200 goederenwagens	ST	G
24/0 Bediening VAM-station Spoorwerk (1)	NS 500	ST	Rangeren
24/1 Bediening VAM-station Spoorwerk (2)	NS 2400 VAM	ST	G
25 Werktrein Middeloord-Langevoort	NS 2400 SSImas	ST	G
26 Kalkwagens Langevoort Westhoek	NS 1700 20 Fals 254	ST	G
27 Goederentrein Spoorwerk-Westeinde	NS 2407 en 2561	ST	G
28 Ophalen gestrand treinstel Plan V	NS 6400 with koppelwagen	ST	G
31 SSN Langevoort - Westeinde(1)	VR V100 cat + SSN 23 023	ST	Extra
32 SSN Langevoort - Westeinde(2)	SSN 23 023	TT	Extra
91 Inspectierit Boogezand-Langevoort	mP 3000 Jules	ST	Extra
97 Railfan Westeinde		FR	
98 Railfan Bovenland		FR	

TT = Time tabled, ST = Standard, FR = Free Roam

R = Express passenger service, Spr = Sprinter (Stopping passenger service), G = Goods service, Extra = extra service



*Rolling stock show on Bufferveen yard.*

### 6.2.2 01 Intercity Boogezand-Langevoort

For getting familiar with the RCR a time table scenario has been made available in which you drive a through passenger service consist of a NS 1700 series electric loco and ICR type coaches on the full length of the route. You will encounter various other rolling stock combinations along the way.

### 6.2.3 02 Intercity Langevoort-Boogezand

Another intercity service, now with a VIRM, but the other way around. You will only stop in Langevoort, Middeloord and Westeinde. The scenario ends on Westhoek Track 5.

### 6.2.4 03 IC Langevoort-Westeinde v.v.

Intercity service with a four coaches NS ICM ('Koploper') EMU. After stops in Kamphuisen, Middeloord and Vestwijk you will change cabs in Westeinde. After that you will return along the same stations to Langevoort, where the scenario ends.

### 6.2.5 11 Boogezand-Langevoort

This stopping passenger service will naturally stop at all stations, after which the scenario ends in Langevoort. Your consist exists of two SGM2 EMUs, totalling six coaches. The time table has been set up for a maximum speed of 130 km/h taking all stops and speed limits along the way into account.

### 6.2.6 12 Stopping passengers service Langevoort-Boogezand

You will perform the same task as in scenario 11, but in the reversed direction and with three Plan V two coach EMUs.

### 6.2.7 14 Stopping passenger service to Langevoort

This scenario has been modelled on the same lines as scenario 11, but things will now start to roll at night with two SGM2 EMUs.

### 6.2.8 21 Iron ore train Westeinde Opstel-Langevoort Opstel

Bringing a heavy iron ore train from Westeinde to Langevoort will enable you to find out what it is like driving 20 wagons and 1,000 tonnes, headed by three 2200 locos in multiple unit mode.



*You may encounter a signal at danger along the way.*



### 6.2.9 22 Tank cars Langevoort-Westhoek

In this standard scenario you are tasked with driving a tank cars train, headed by the NS 1143 electric engine, from Langevoort to Westhoek. Keep your speed around the 100 mark and enjoy the snowy landscape.

### 6.2.10 23/0 Local goods Machinefabriek Oosterbroek (1)

Shunting service in Oosterbroek Industrie yard. You will put a consist together that you can collect in scenario 23/1.

### 6.2.11 23/1 Local goods Machinefabriek Oosterbroek (2)

After leaving Westhoek Track 4 you will now deliver a number of empty SSImas 53 and Gs wagons at Oosterbroek 1 Industrie. Next, you will collect the waiting consist at track 21 and bring it to Langevoort 6 where this scenario will end.

### 6.2.12 24/0 Local goods VAM-station Spoorwerk

Shunting VAM garbage cars in Spoorwerk (Ra) yard. You will shift empties and loaded wagons in order to get a consist ready at track Spw A/V 2 for collection in scenario 24/1.

### 6.2.13 24/1 Local goods VAM-station Spoorwerk

Before leaving Westhoek with the NS 2407 diesel loco you have to pick up a number of VAM empties which must be delivered at Spoorwerk A/V 1. Next, you will collect the waiting consist at track Spw A/V 2 and bring this to Langevoort where the scenario ends.

### 6.2.14 25 Maintenance of way train Middeloord-Langevoort

Today you will ferry a maintenance of way train between Middeloord and Langevoort Opstel. You may expect to run the engine at full power all the time, without exceeding speed limits.

### 6.2.15 26 Mineral cars Langevoort Westhoek

Fals 254 self-discharging mineral wagons were a common sight in Holland during the nineties of the 20<sup>th</sup> century. You will bring a limestone ('kalksteen') train from Langevoort to Westhoek with an NS 1700.



#### 6.2.16 27 Goederentrein Spoorwerk - Westeinde

You will drive a mixed goods train with double heading by two NS 2400 diesel engines. It is raining but that is not unusual by this time of the year. There is much traffic on the route and there is a maintenance crew at work, somewhere down the line.

#### 6.2.17 28 Plan V EMU Recovery

A Plan V EMU has been broken down and must be recovered in the Oosterbroek MF yard. For this job a NS 6400 diesel loco have been assigned to you. Your first action is to pick up a coupling car in Westhoek MPD.

#### 6.2.18 31 SSN Langevoort – Westeinde (1)

The *Stoomstichting Nederland* preservation society will run a steam special today with the SSN 23 023 and ex-DB and ex-DR Mitropa coaches from Langevoort to Westeinde, but at first the SSN-consist must be taken in tow to Langevoort by a V100 diesel since the 23 023 cannot be turned in Langevoort.

#### 6.2.19 32 SSN Langevoort - Westeinde (2)

Now you have the opportunity to drive a former Bundesbahn series 23 steam locomotive when bringing the SSN Jubilee Special from Langevoort to Westeinde, stopping in Middeloord only. At the destination you have to uncouple the loco and leave it at a track near the MPD diesel shed.

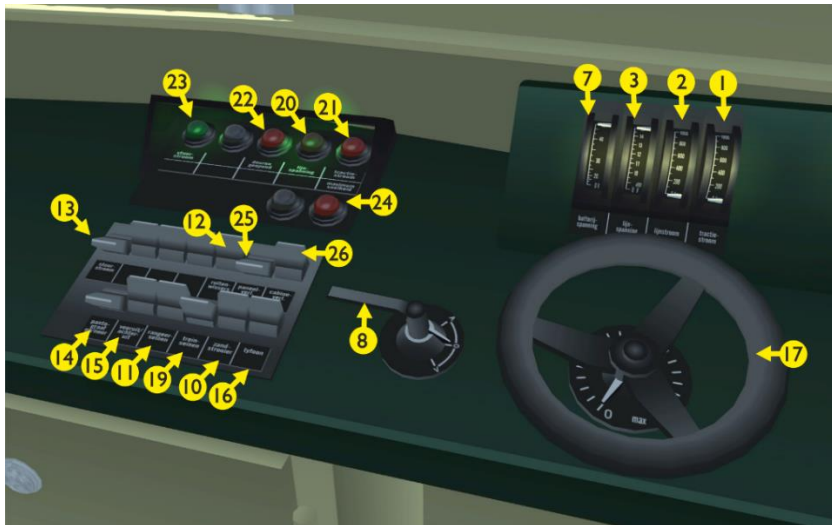
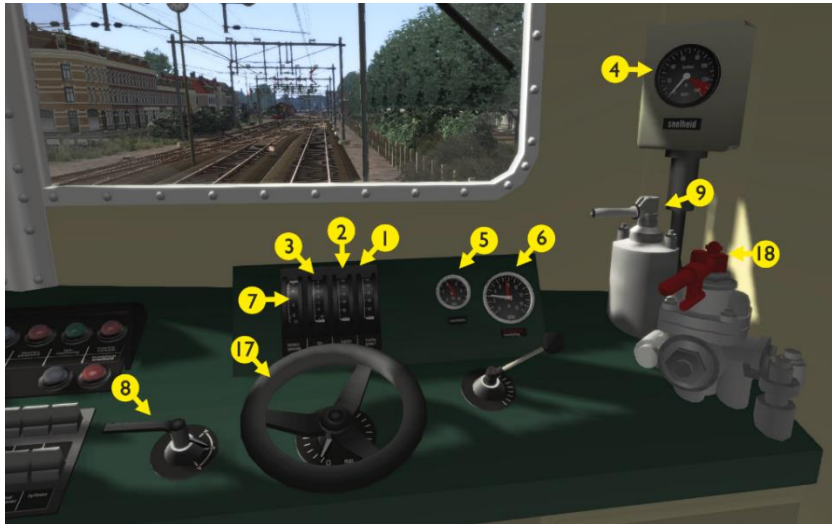
#### 6.2.20 91 Track surveying service Boogezand-Langevoort

This scenario will ask you to drive the survey railcar mP 3000 'Jules' from Boogezand to Langevoort Opstel. There will be no stops, but you may encounter a lot of AI traffic.



## 7 Appendix

### 7.1 Cab layout NS 1100



1	Traction current gauge		14	Pantograph up/down	P
2	Line current gauge			Select front/rear panto	CTRL + P
3	Line tension gauge		15	Horn	Space bar
4	Tachometer		16	Horn (short)	N
5	Brake pressure gauge		17	Regulator	A / D
6	Brake pipe/Main res. press. g.		18	Train brake	; / '
7	Control current tension g.		19	Front/rear lights switch	H / Shift + H
8	Reverser	W / S	20	Indicator light line tension	
9	Engine brake	[ / ]	21	Indicator light line current	
10	Sander	X	22	Indicator light doors	
11	Shunting signals switch	CTRL + F9	23	Indicator light control current	
12	Wipers switch	V	24	Indicator light Vmax	
13	Control current switch	CTRL + 0	25	Panel lights switch	CTRL + F11
			26	Cab lights switch	CTRL + F12

## 7.2 Cab lay-out NS 1700



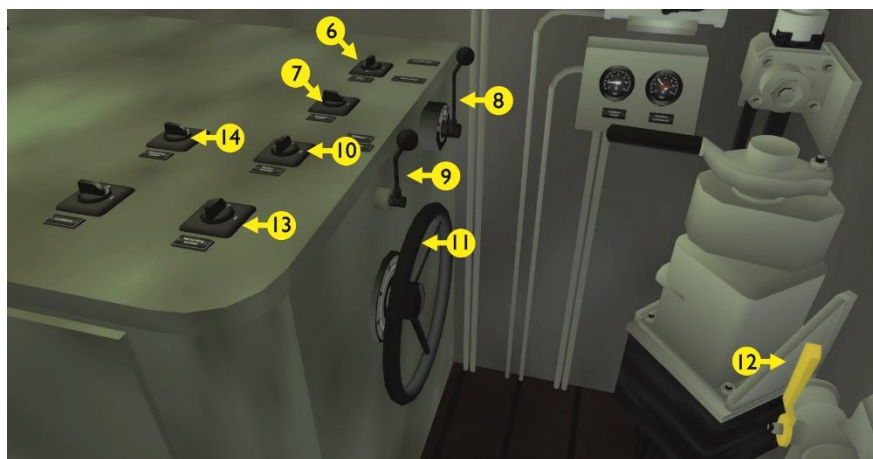
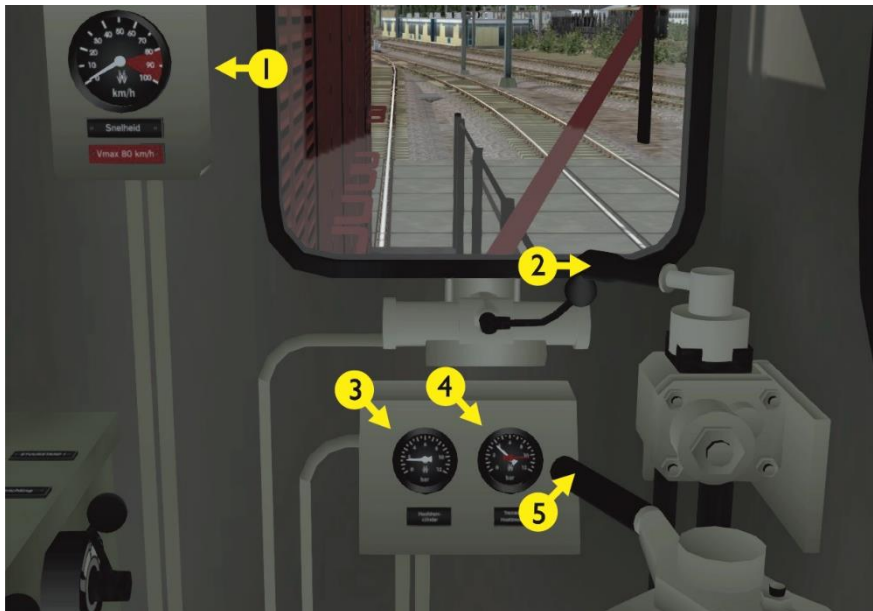
1	Armature curr. gauge M1		13	Sander	X
2	Armature curr. gauge M2		14	Shunting signals switch	CTRL + F9
3	Line tension gauge		15	Wipers switch	V
4	Line current gauge		16	Control current switch	CTRL + 0
5	Tachometer		17	Pantograph up/down	P
6	Brake pressure gauge		18	Select front/rear panto	
7	Brake pipe/Main res. press. g.		19	Horn	Space bar
8	Control current tension g.			Horn (short)	N
9	Field current gauge M1		20	Regulator	A & D
10	Field current gauge M2		21	Train brake	; / '
11	Reverser	W / S	22	Front/rear lights switch	H / SHIFT + H
12	Engine brake	[ / ]	23	Cab lights switch	CTRL + F11
			24	Panel lights switch	CTRL + F12

### Notice:

When using short cut P or switch 17 to raise the pantographs switch 18 will stay in its original position ('forward'). Both pantos will respond, but when driving in the forward direction the front panto will automatically be lowered when the engine's speed exceeds 20 km/h. Should we stop and reverse direction then both pantos will still be up and when exceeding the 20 km speed the front panto will again be lowered. *The driving direction alone will not influence the pantographs' behaviour.* To change the latter you must use switch 18 in the 1700 cab and switch 15 in the 1100 cab, respectively.

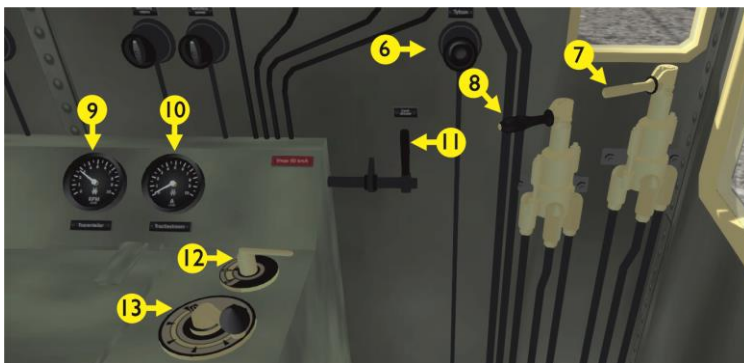
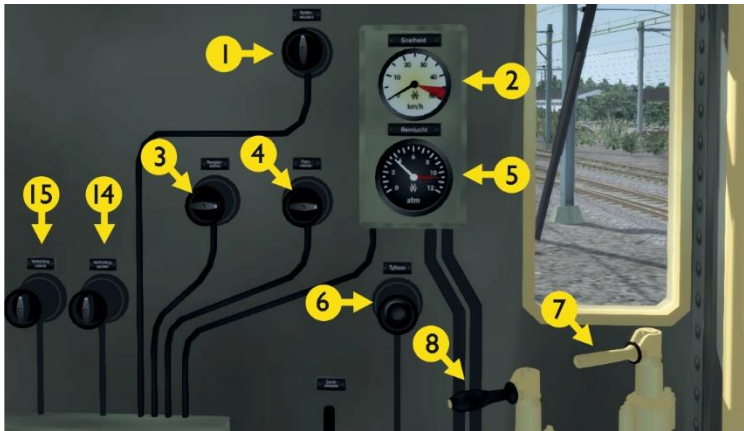


### 7.3 Cab lay-out NS 2400



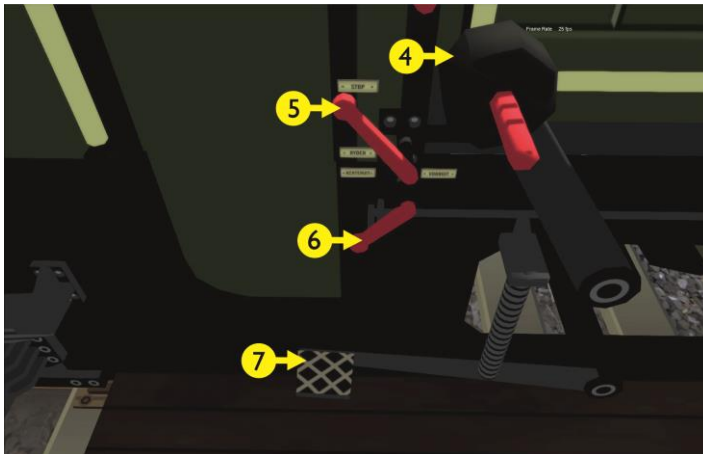
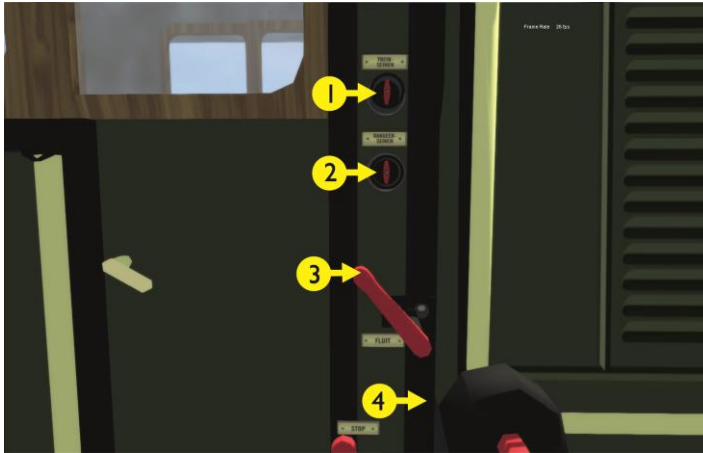
1	Tachometer		8	Reverser	W / S
2	Engine brake	[ / ]	9	Horn	Space bar
3	Brake pressure gauge			Horn (short)	N
4	Brake pipe/Main res. press. g.		10	Wipers switch	V
5	Train brake	; / '	11	Regulator	A / D
6	Front/rear lights switch	H / SHIFT + H	12	Sander	X
7	Shunting lights switch	CTRL+F9	13	Panel lights switch	CTRL+F12
			14	Cab lights switch	CTRL+F11

## 7.4 Cab lay-out NS 500



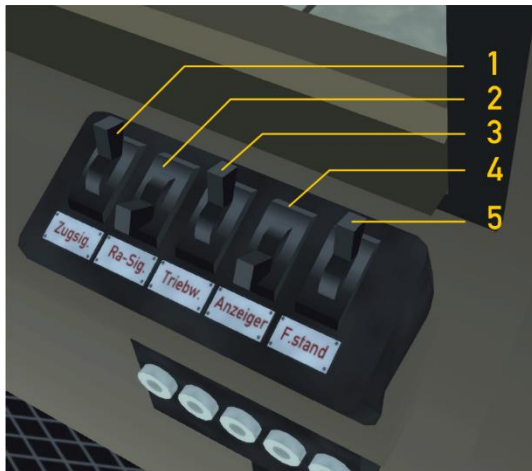
1	Wipers switch	V	8	Train brake	; / '
2	Tachometer		9	RPM gauge	
3	Shunting lights switch	CTRL+F9	10	Traction current	
4	Front/rear lights switch	H/SHIFT+H	11	Sander	X
5	Brake pipe/Main res. press. g.		12	Reverser	W / S
6	Horn	Space bar	13	Regulator	A / D
	Horn (short)	N	14	Panel lights switch	CTRL+F12
7	Engine brake	[ / ]	15	Cab lights switch	CTRL+F11

## 7.5 Cab lay-out NS 200



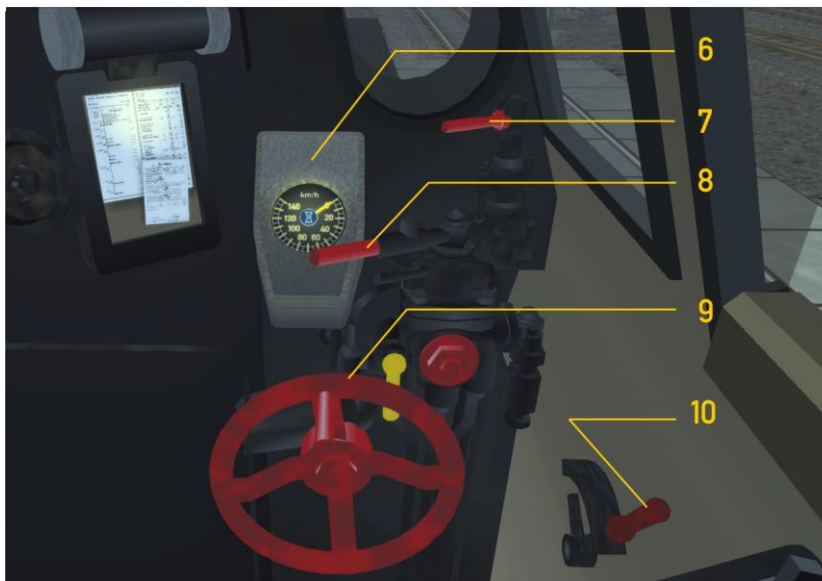
1	Front/rear lights switch	H/SHIFT+H	7	Engine brake	[ / ]
2	Shunting lights switch	CTRL + F9		Sander	X
3	Whistle	Space bar			
	Whistle (short)	N			
4	Train brake	; / '			
5	Regulator	A / D			
6	Reverser	W / S			

## 7.6 Cab lay-out SSN 23 023



Like all modern German steam locomotives the 23-series have been fitted out with an electric lighting system, controlled by a switch panel at the upper right hand side of the cabin. At the start of each scenario the shunting-lights (2) will be switched off, while the gauges lights will be on (4). Motion link and driving/coupling rods lighting may be switched on at dark.

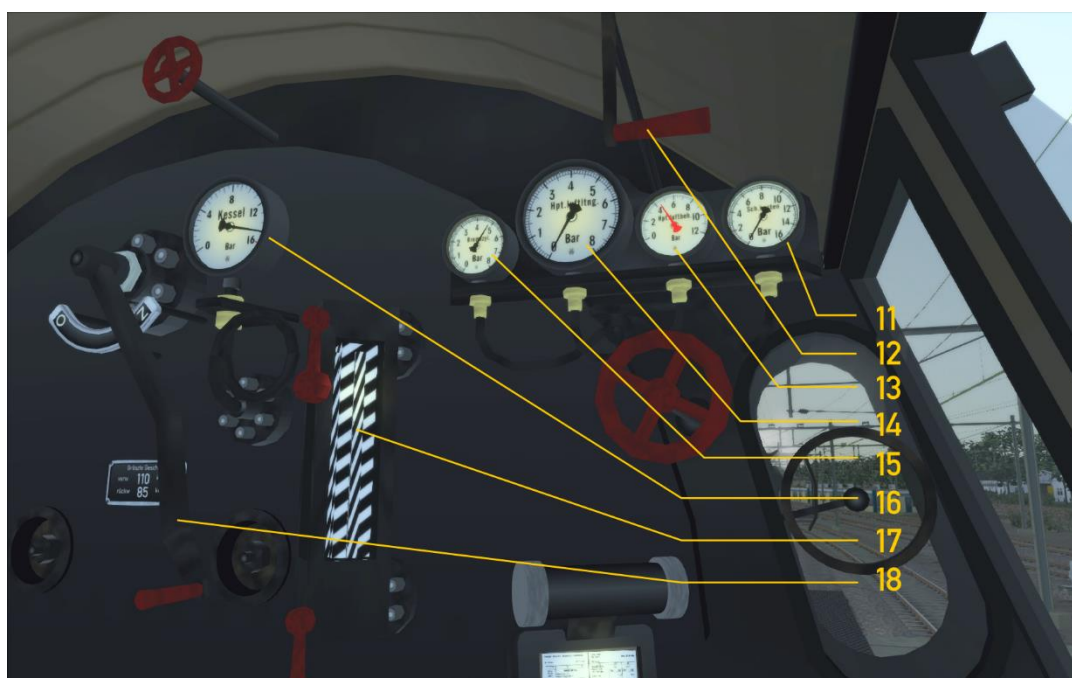
1	Head/tail lights	H / SHIFT + H	4	Gauges lights	CTRL + F11
2	Shunting lights	CTRL + F9	5	Cabin light	CTRL + F12
3	Motion link lighting	CTRL + F10			



The reverser (9) controls the link motion operation. Next the engine and train brakes handles can be seen (7 and 8 respectively) and the speed indicator (6). Handle (10) serves to operate the cylinder cocks. At scenario start they will be opened.

6	Speed indicator		9	Reverser	W / S
7	Engine brakes	[ ]	10	Cylinder cocks	C
8	Train brakes	; ';			





11	Steam chest pressure gauge		15	Brake cylinder pressure gauge	
12	Whistle, long tone	Space bar	16	Boiler pressure gauge	
	Whistle, short tone	N	17	Water level gauge	
13	Main reservoir pressure gauge		18	Regulator	A / D
14	Air brake pipe pressure gauge				



17	Water gauge			Bell	B
19	Dampers	D/SHIFT + D		Blower	, / SHIFT + ,
20	Firebox	F/SHIFT + F			
21	Sander				

## 7.7 Cab lay-out V100



1	Brake pressure gauge				
2	Brake pipe/Main res. press. g.				
3	Front/rear lights switch	Headlights			
4	Shunting lights switch	CTRL+F9			
5	Wipers switch	Wipers			
6	Tachometer				
7	Sander	X			
8	Horn	Space bar			
			9	Horn (short)	N
			10	Reverser	W & S
			11	Regulator	A & D
			12	Train brake	; / '
			13	Engine brake	[ / ]
			14	Cab lights switch	CTRL+F11
				Panel lights switch	CTRL+F12

## **7.8 Frequently asked questions**

**Question:** Why have speed limits been applied to station yard through tracks?

**Answer:** That is a consequence of the station tracks length. Large track yards will not only tax your software and your computer but will result in extended development times as well, and since many different projects compete to get into the building stage, time is always sparse. This is why the distances between yard entry and exit signals will vary around 800 meters, which in turn will result in speed limitations that fit the available braking distances.

**Question:** Why is it that the Doppler effect at level crossings often seems to be curtailed?

**Answer:** When a train approaches a level crossing (LC) warning lights and bells will start flashing and ringing. The sound effect will last for 10 seconds, but the lights will keep on flashing while the booms are down. Most trains will pass the LC at that moment, i.e. just when the ringing ends. This will also prevent the Doppler effect to be audible over the full time lapse of the passing event. When you should approach the LC in for example a shunting engine or a slow local freight you may expect to hear no sounds at all when you finally arrive at the LC.

**Question:** Why do the departure/destination names in the Quick Drive menu window seem to be different from the station names in the route?

**Answer:** When we assigned names to the QD scenario markers we wanted to make a clear separation between goods and passenger services. Location names with the suffix 'Goederen' will result in paths through shunting yard sidings. When this suffix is missing your selection of departures/destinations train will lead your train along station platforms, while yard sidings will be ignored.

## 8 Colophon and credits

### Distribution

TrainworX, Dutch Train Simulator Addons ( <https://www.mersel.nl/shop/> )

### Development:

© Wilbur Graphics, Henk van Willigenburg ( [www.wilburgraphics.com](http://www.wilburgraphics.com) )

### Support:

Erwin Lansbergen a.k.a. Tjoe Tjoe

### Trees, vegetation and characters:

Dovetail Games (DTG ): TrainSim Academy

### Tips and advice:

ChrisTrains.com

TrainworX (Paul Mersel)

Oscar Weijde

Ton van Schaik

### Scenarios:

Wilbur Graphics (Henk van Willigenburg)

Ton van Schaik

Oscar Weijde

### Testing:

Paul Mersel, Ton van Schaik, Oscar Weijde, Jan Peet.

### Printed sources:

- Handboek Machinist, mei 2001, NS Reizigers
- The Nederlandse Modelspoorweg, hfst. 7. Schuyt & Co, Haarlem 1991, by Gerard Tombroek
- Moderne modelspoorwegen reizigersvervoer, L.J. Veen's Uitgeversmij. NV, Amsterdam 1970.

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