

# iTrain



## Manual

**Step by step**

Version: 4.1 First version.

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## PREFACE

During the Dinamo-users day of January 18, 2014 in Houten (NL), the question was asked whether there was a brief guide to make a simple layout in iTrain, a step by step approach. This was not available and I have taken it upon me to make this.

If there are still ambiguities or questions you can ask them on the forum under "Support" -> "General".

The images come from a Windows 10 system with a preference for Look & Feel "Nimbus" and display of the switchboard "Classic" is chosen. You can also select "Contrast" or "Dark".

For the screen you could choose "Dark", in this case the screen will use less energy.

I did not use "Dark" because too much toner or inkt would be used during printing

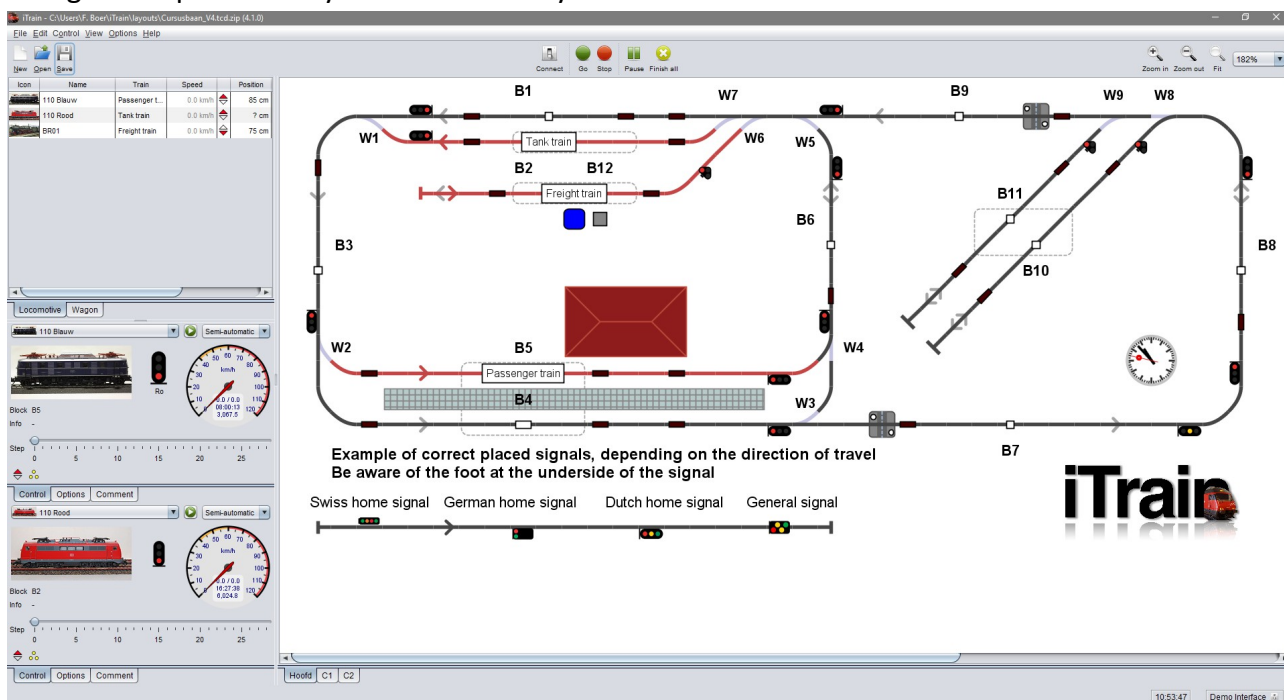
Key concepts covered here will be explained and you need the "iTrain manual" for further explanation of concepts. I will tell the page numbers if necessary.

Also, I have not given addresses to the various elements.

If you need to do something with the mouse I will talking about "clicks" and if something needs to be done with the keyboard I will talking about "pressing".

For the switchboard, in stead of using press the space bar you can also double-click at the icon in the toolbar.

This guide explains how you can make a layout that will look like this:



Give names to elements, use capital letters and delimiter "-" (minus) or "\_" (underscore), at the description you can use anything you like. Make names as short as possible and be consistent. Some keys are changed or added in version 3.0, "B" = block, "F" = Feedback, "P" = arrow, "S" = Signal. If you have selected a track element then with these keys the rail element will be replaced by the chosen element and also placed in the right direction. With these keys you can very quickly create a block.

## Step by step

Start iTrain and click New, this can also done via "File", "New".

Confirm the question that you want to make a new project and answer the import locomotives question with "no".

You will get a blank switchboard, this is where your layout is drawn.

## Settings

We're will first create all the settings for the layout which are important.

Click on Edit, Settings (no picture is shown in this document).

### Scale and Gauge

Here you can set the scale of the layout.

Select the track width, eg for H0: H0, H0e or H0m.

### Speed

The maximum speeds. Let's keep the current values.

**Remark:** not all settings may be shown, enlarge the size if you want to see them all.

## Interface

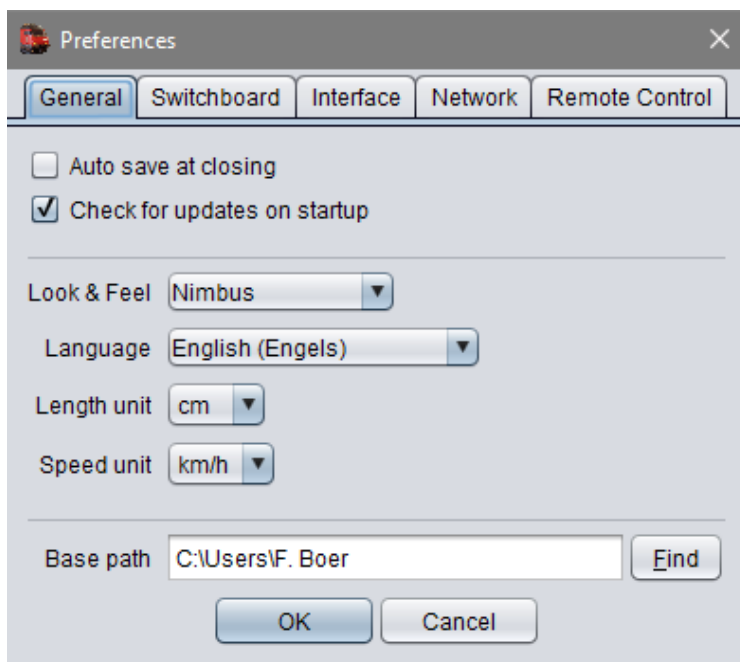
Click Edit, Interface (no picture is shown in this document).

Now you can either choose the "Demo interface" or the interface that you use at your layout.

For more information see pages 19/21 and 183 and further.

## Preferences

Click on Edit, Preferences and get the next picture:



In the "General" tab you can set the units and how the environment looks like (Look & Feel) and saving the project at closing. If the check mark is on then the layout is without any question saved, if unchecked then iTrain will ask if the layout should be saved. As Look & Feel the style Nimbus is used.

The "Language" will be standard "System Default" for your own language, to create an English version I had to select "English".

At "Base path" you can indicate where the used files can be found, see page 18 of the manual.

In the tab "Switchboard" you can set the display style of the layout. Here I use "Classic".

## **Switchboard editor**

The elements of the layout you can be placed in different ways on the layout.

You can do this in advance or in the Switchboard editor.

It is not possible to copy for example a turnout to another place and then give that one another name, they both have now a new name. You have to use Edit/Accessory; Copy.

Also the naming of these parts are important, a short name is the best. Try to use consistent names. You can always make additions at "Description".

In this guide I make the Switchboard items in the Switchboard editor.

Click Edit, Switchboard. Give it a name (if requested), and then click OK.

You will receive a number of cells, you can increase or decrease the amount of calls later.

We now start with the layout drawing, only the first lines.

Select horizontal about 15 cells and click the rail element icon at the top of the toolbar.

This rail element is vertical if you start, this we rotate by pressing 2 x on R, the line is now horizontally.

If you press now the space bar then the row of cells is filled with rails.

You can do this also for the other 3 horizontal rows. Clicking the icon upper right is not needed.

The vertical lines in the same way, first click the rail element icon and press 2 x on R or T.

Now the curves, click the curve icon in the toolbar.

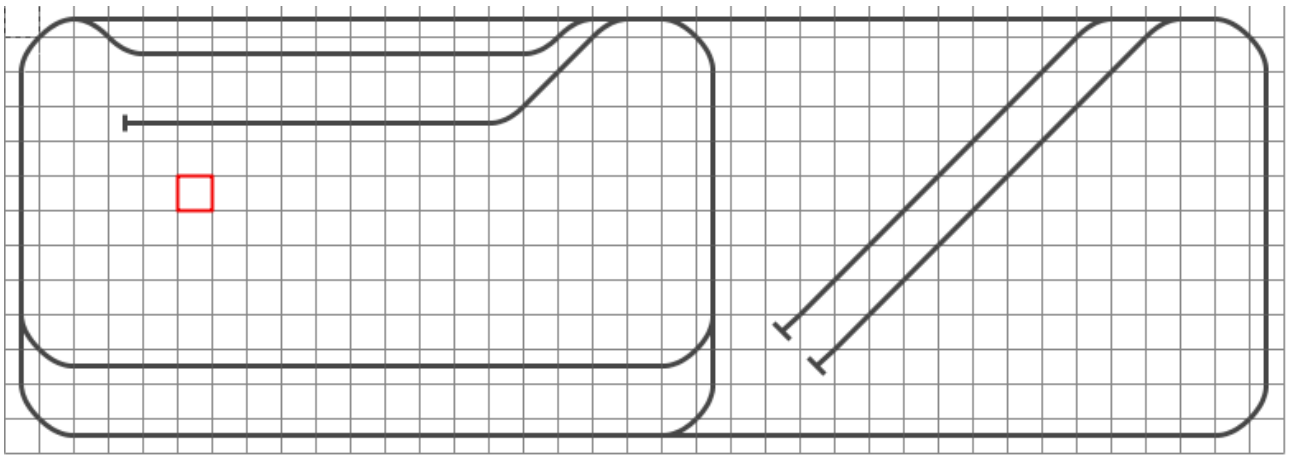
If you have enough space then you take the less sharp turn (45 °) otherwise the sharp turn (90 °), here I take the less sharp.

Select the cell where the curve element have to be placed and press the space bar.

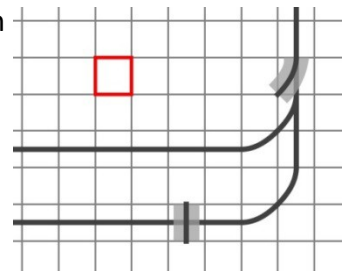
Do this for all the curves in the layout, to rotate select the icon and press R or T.

You can do this also for the turnouts. Use lefthand and righthand turnouts.

After this, you have something which looks like the picture below.



If you have gray spots in the layout then there are 2 or more elements in the same cell. Like here in this picture:



You can remove the wrong element in the following way, if the gray stain around the wrong element as shown here at the vertical rail, then select the cell and press Del.

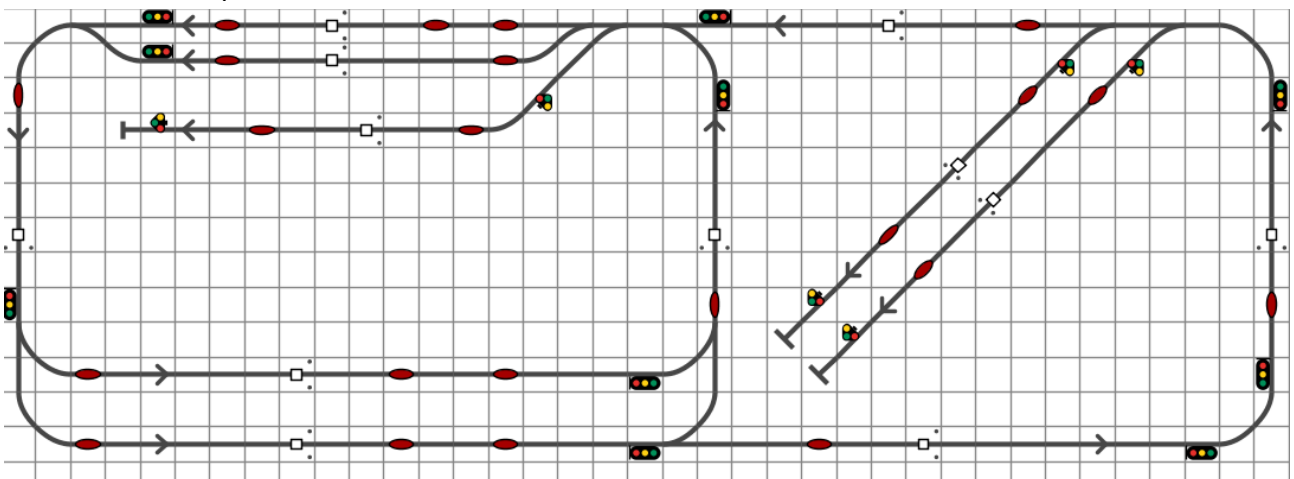
If the bottom element is to be removed then press Shift + DEL.

Now place the other required elements, such as the blocks element and the feedbacks. the signal element is not necessary, but gives later a good impression in the functioning of the layout.

If the element in the tool bar shows the same angle as the element in the layout and you press the space bar then the element is replaced.

In a block **should** be at least the following elements: the block element, an arrow (if there are multiple arrows in a block then they all must point in the same direction), one or more detectors.

You then have a picture that looks like this:



## Blocks

Now you're going to name the elements, starting with the blocks.

Double-click on a block element and you get the following picture:

In this window, enter the Name, the gauge of the track and the length.

Block 4 and 5 have as type "Station", blocks 10 , 11 and 12 has the type "Siding" and the rest "Free track".

In the Options tab you can still fill out some stuff. At block 8 the "Direction" is set in "Bi-directonal". All other default values are OK for this moment.

The other tabs, we do not need at this moment.

Do this for all block elements, for the lengths of the vertical blocks use 70 cm, use 140 cm for the

horizontal blocks, except for the siding which is 100 cm long.

In the tab "Board item " you can change the direction of the text, by default it is set to horizontal. With vertical tracks it can be easy to set this to "Up". I sometimes see people shuffle "Up" and "Down" to use, you keep turning your head while following a train.

To close the window click OK.

## Feedbacks

The feedbacks must have a name and type. Fill in type "Occupancy".

The name I have composed "F\_block number – number of the feedback in the block".

This should also get a length. Enter 22 cm.

## Signals

For the signals I used the NS (Dutch) type. Please select the country and/or type which you want to use.

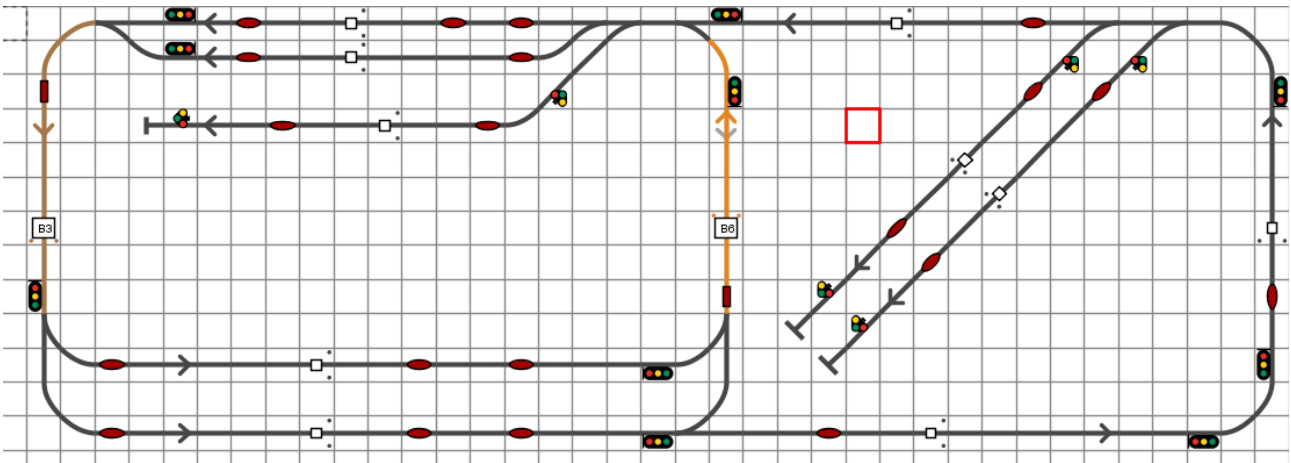
Double-click a signal and give it a name. Name: "S-Block Number". Then click OK.

Under a signal you see a foot, this side must point to the block, this is the side from which the train comes. To see the foot better, you can rotate the signal, then rotate it in the correct position again.

## Construct blocks

If all eligible elements for a block have a name and other settings you can start to construct blocks. This is done by marking all the elements associated with a block.

Click on the block element and press "G", the element is now orange, also select the other components belonging to that block and press "G". Here a picture how it looks with 2-filled blocks. The letter "G" stands for "Grouping".



B6, block 6 is selected with "G", this is orange.

B3, block 3 has already been created, you can see this because this is brown.

Once the selection is ready then select an empty cell and press "G".

Do this for all the blocks. A turnout is never part of a block, blocks are between 0 or 2 turnouts.

Never place a feedback or arrow direct next to a block element. If you want to drive virtual then the name of the train covers the feedback. Virtual drive is drive on the layout without the interface connected and clicking with the mouse to activate the detectors on and off, making it appear that the train is moving.

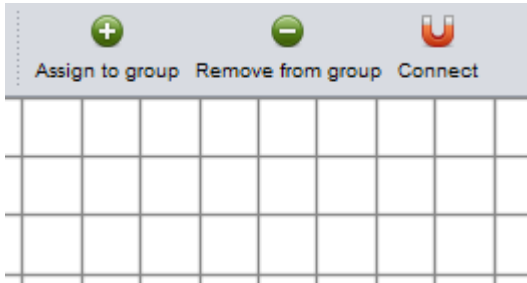
In the Dutch forum, section Veel gestelde vragen (FAQ), you can find a (Dutch) document about virtual drive.

If all blocks are created then the connection between the blocks need to be made, you can do this with "Auto fill". Double-click a block element and you will see that there is a button with that caption.

Click on "Auto fill", now the tabs "Next" and "Previous" are filled with the detectors, turnouts and signals. In the tab "Feedbacks" the detectors will be shown with their length and position.

Do this for all blocks. If you have added a block or changed detectors or direction of travel you will have to reconnect the connected blocks, including the block itself "Auto fill" will check for changes.

The block connections can also be created via the the button Connect. This will set all connection on the active page.



If you are starting with a layout from version 4.0 then you have to press the Connection before you can run trains.

### Texts and other elements

Near the blocks you can add text with the name of the blocks, I do this mostly with only the "B" of block and then the number. This you can do this with the other elements too.

To decorate the layout you can add a platform between the tracks, select the multiple cells and click the "Platform" icon and press the spacebar.

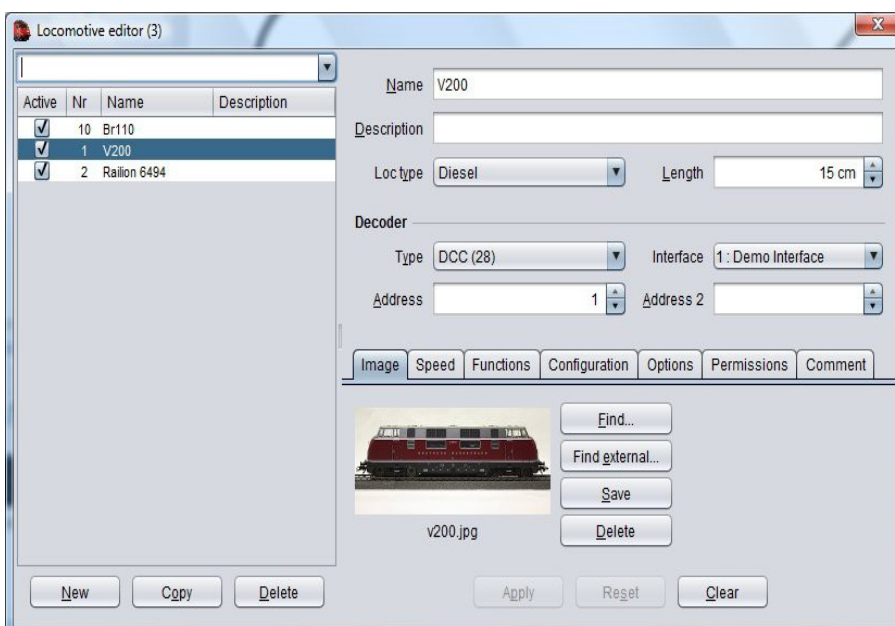
Also there is the "Station", this is a dotted line that is filled with a light grey color. Select the cells around the tracks of the station in and click the "Station" icon and press the spacebar. Double-click anywhere in the station grid and give it a name and select a type.

For decoration you can also add buildings to the layout.

To remove all empty cells surrounding the layout press "C", "C" stands for "Compress".

Now the layout is In principle ready and you can click OK.

### Locomotives





Click Edit, Locomotives. Choose New.

Fill in the name, select Loc type: Diesel, steam, electrical or miscellaneous.

Enter the Length, this is the length including the buffers.

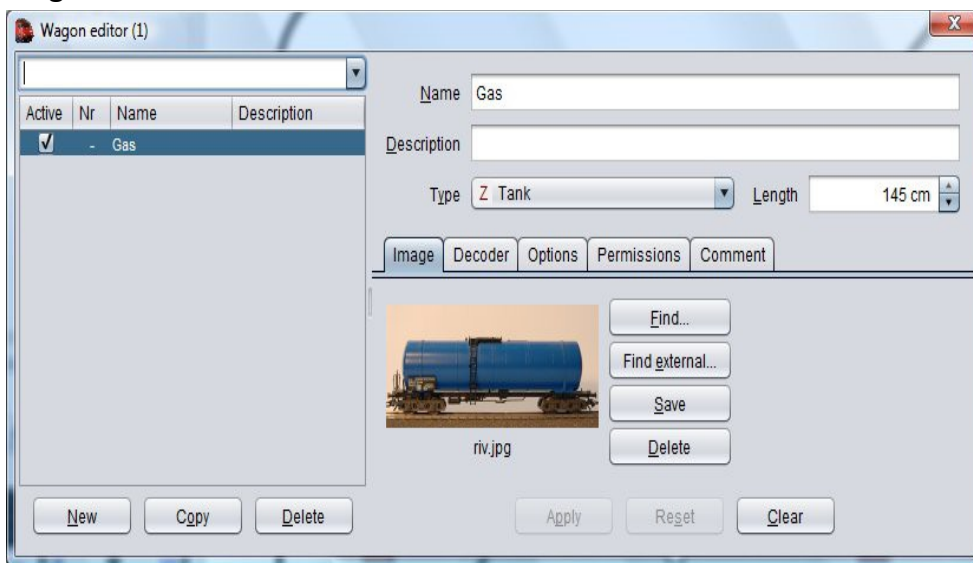
Select the type of Decoder, or with Dinamo you may also use Analog, and choose an address.

At the tab image you can find a picture via "Find" for an iTrain picture or to find a picture of your self, the resolution of these images should be around 360x160 pixels.

If you finish a locomotive then click on "Apply". When you're done click on the X at the top right corner to leave the editor or click New.

Locomotives will drive better if you calibrate them, this can be done through the menu View, Speed measurements, Locomotives. See the manual pages 68/72.

## Wagons



Wagons are optional and you create these especially if they are equipped with decoders, you can then assign an address and functions.

Click Edit, Wagons, and then click New. Give the wagon a Name, select the Type, and enter a length. You can specify the length of 1 wagon but also of eg 4 wagons. If you create a wagon that consists of multiple wagons, you can no longer split train compositions. In the Image tab you can find a picture via "Find".

When you're done with a wagon then click on "Apply". Create as many wagons if you want. Leave then the Wagons editor by clicking on the X in the upper right corner.

## Train types

The screenshot shows the 'Train type editor (0)' window. It has a sidebar with a table containing 'Active', 'Name', and 'Description' columns. The main area has fields for 'Name' (set to 'Goods') and 'Description'. Below these are tabs for 'Options', 'Permissions', and 'Comment'. The 'Options' tab is active, showing 'Speed' (Maximum 0,0 km/h), 'Block' (Reservation count 2), and a checked checkbox 'Align train along the platform'. At the bottom are buttons for 'New', 'Copy', 'Delete', 'Apply', 'Reset', and 'Clear'.

Click Edit, Train types, and then click New. Fill in Name and change Reservation count if required, however 2 is minimum if you are using signals.

The maximum speed can also be adjusted. When you're done with a train type then click on Apply. Close Train types when you are ready by clicking on the X in the upper right corner.

## Trains

The screenshot shows the 'Train editor (1)' window. It has a sidebar with a table containing 'Active', 'Name', and 'Description' columns, with 'V200' selected. The main area has fields for 'Name' (set to 'V200') and 'Description'. Below these are tabs for 'Composition', 'Functions', 'Options', 'Routes', 'Permissions', and 'Comment'. The 'Composition' tab is active, showing a table with columns: Main, Type, Name, Direction, Length, Detected, and Control car. The table contains two rows: a locomotive (V200, Forward, 15 cm, Detected, Control car) and a wagon (Gas, Forward, 14.5 cm). To the right of the table are buttons: 'Move up', 'Move down', 'Remove', 'Insert', and 'Append'. At the bottom are buttons for 'New', 'Copy', 'Delete', 'Apply', 'Reset', and 'Clear'.

Click Edit, Trains, and then click New.

Type a name and specify a Type. Length is in by the program filled. On tab "Composition" train, you can click "Append". Double-click the field under Type then select locomotive. Under Name, select the locomotive that will be used by the train. If a wagon is used then Click again on "Append".

Double-click the field under locomotive of the new line and choose Wagon. Under Name, select the wagon behind the locomotive. You see that the length of the train is now updated. You may repeat this procedure until the train is complete. In the Options tab, you can fill in the max. speed of the train and the track width if it is different from standard.

If you have clicked on "Append" to add a wagon to the train composition you can choose type "unknown", you can then fill out a length at "Length" itself.

When you're done with a train then click on "Apply". Close Trains, when you are ready, by clicking on the X in the upper right corner.

## Train routes

Active	Type	Name	Description
<input checked="" type="checkbox"/>	M	Keteltrein	
<input checked="" type="checkbox"/>	M	Goederentrein	

Type	Name	Description	Side
↔	B12		Previous
□	B6		Both
□	B1		Next
□	B3		Next
□	B4		Next
□	B7		Next
□	B8		Next
□	B9		Next
□	B12		Next

Click Edit, Train routes, and then click New.

Specify the route Name and optionally a description.

On tab "Items" you can add the route from the blocks .

If the route should be repeated then the last item of the route is the same as the first item.

You can create a route with very minimal 2 blocks, the train runs then from block 1 to block 2.

Only if you find that the route is not going like you want you can add additional blocks.

You can put a wait in the route. A watch is added to the line. The chance that the train stops can be set from 0 to 100%, you can set also the minimum and maximum time. Start with a chance of 100% and if it all runs well you can lower the value. At the first line of a route you don't set a time. The chance of waiting in the last block is always 100%.

If you have a shadow station or just a normal station then begin and end a route here.

In the Options tab you can set how often a route should be repeated, set Repeat to 0 and you will run until you stop the route. Here you can also set the number of reserved blocks.

Set the waiting time to 5 seconds during testing, nothing is more annoying than waiting too long.

New in iTrain 4.1 is making a mixed route, ie shunting and / or normal driving.

As you can see in the picture above, you see at the first and second line a double arrow and at the bottom a tick box "Shunting", the double arrow indicates that shunting is on. If "Shunting" is on, the "Drive occupied block" box is added.

If you enable "Shunting" in the lines of block B12 and B6, the train will be shunt from B12 to B6, stop there and continue driving normally via B1. To put this right, a waiting time of 100% has to be set in B6.

When you're ready then click on "Apply". Close Train routes, when you are ready, by clicking on the X in the upper right hand corner.

You can start a route by dragging a locomotive to a block in the route and in the tab "Options" in the "locomotive control window" choose a Route. Then click on the green arrow of that train/locomotive.

The layout is now ready and can be used for Virtual drive, if you have the real layout then after filling in all required addresses you can connect to the layout also.

On the Dutch forum in "Veel gestelde vragen" (FAQ) you can find a document about special routes in the Dutch language.

### **Locomotive control window and Locomotive list**

By default is the layout on the right hand side of the screen.

On the upper left hand is the loc list and under that a number of locomotive control windows.

The number of loc control windows can be changed by pressing the Alt key and one of the arrow keys.

The border between the loc list and the switchboard can be moved with the mouse.

A locomotive or train can be placed on the layout in 2 ways:

1. Double-click on a block element and use the command "Append" and select a locomotive from a list of locomotives.
2. Via drag and drop. Drag a locomotive control window or a locomotive from the locomotive list to block element.

### **Information about iTrain**

For more features and more extensive details see also the iTrain manual.

And for questions and answers see the iTrain forum.

### **Additions**

For making comments you can send the author or translator a PM through the forum.

Submit further questions on the forum. You will usually receive an answer from someone within 1 to 3 days