

Manual to Plug-in 2 for EEP 18.2

Dear customers, first of all we would like to heart-fully thank you for purchasing EEP 18.2 Plug-in 2.

This plug-in includes both improvements and new functions. For this reason, we invite you to read the following information carefully and in particular the installation instructions.

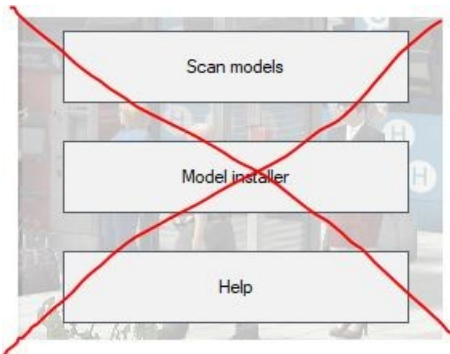
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Installation instructions

Please make sure that update #2 of EEP 18 is installed. This is the prerequisite for this plug-in. You can verify this by checking that the version number 18.2 is displayed in the lower-left corner of the loading window. If your system is running a 64-bit architecture, the notation (x64) will also appear alongside the version information.

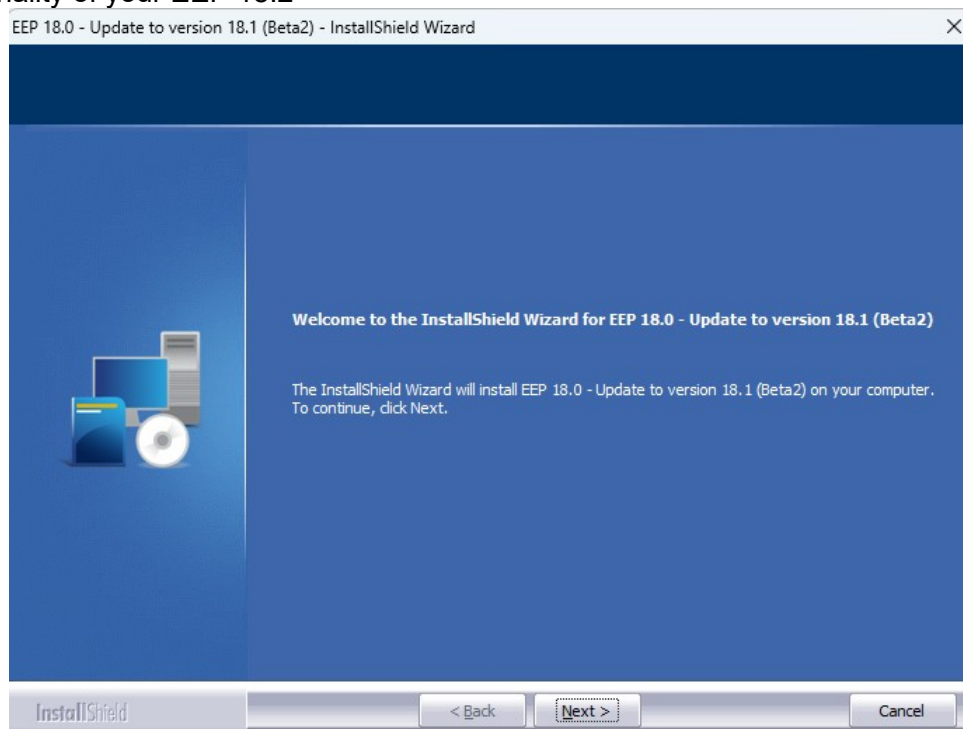


The Plug-in needs its own installer to upgrade, since it brings new features besides the new models. For this reason it is not possible to open this file directly via the "Model-Installer of EEP 18.2.

If necessary, please leave your EEP 18.2!

Please start installing the Plug-in by double clicking on the file **V18TSP10066**.

A message informs you that this program will operate changes to your computer. Please allow this by clicking Yes to proceed with the installation. The installation window then appears and prompts you to accept the user license and once these steps are completed, the program then extends the functionality of your EEP 18.2



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If the installation was completed successfully, you will see EEP 18.2, followed by Plugins 1, 2, in the lower-left corner of the launcher window. Since I also have Plugin 1 installed, it is displayed as well when the program starts.



New models included with EEP 18.2 Plugin 2:

Plugin 2 for EEP 18.2 includes a set of basic models consisting of rolling stock, real estate structures, landscape elements and goods that can be used to recreate a logging operation.

Rolling stock

The files for the following models are stored in:

Resourcen\Rollmaterial\Schiene\Gueterwaggons

They are available in the Rolling stock drop-down menu in the 3D window's editing mode under:

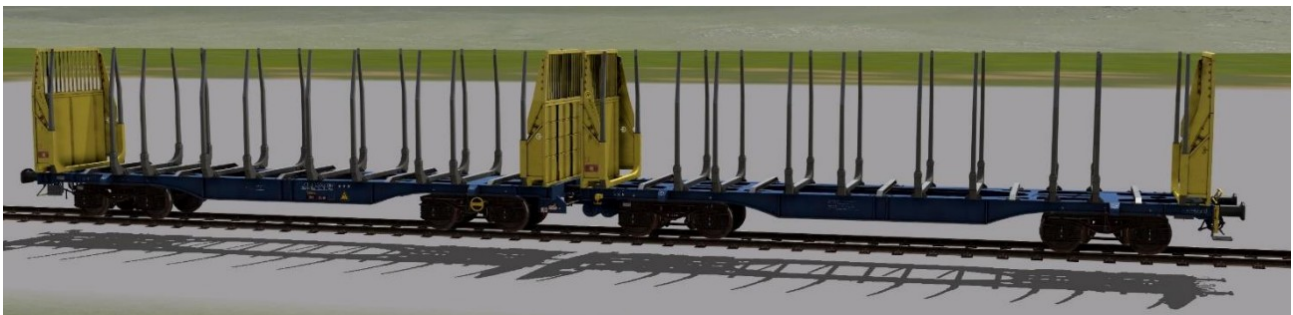
Rolling stock / Railway track / Standard gauge 1435 mm / Wagons / Freight wagons

InnoFreight 90ft sggrs 5wd A (SM2)

File: IF_W90ftA5wd_SM2.3dm

InnoFreight 90ft sggrs 5wd B (SM2)

File: IF_W90ftB5wd_SM2.3dm



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Real estate structures

The following models are stored in:

Ressourcen\Immobilien\Verkehr\Landwirtschaft

They are available in the 2D and 3D windows under:

Static structures\Traffic\Agricultural vehicles

Komatsu 901XC pre-programmed (SM2)

File: LS2_K901xc_IM_SC_SM2.3dm

This is a machine equipped with a script that continuously repeats its work cycle.

Click on the machine's roof or use the on/off control axis to start it.

The machine successively cuts down 5 trees and then removes their branches.

At the beginning of each cutting operation, the Komatsu's internal Lua script sends the message:

"start" with ID 1.0
to EEP's external Lua environment.

Once the fifth tree has been delimbed, the script sends:
"finished" with ID 2.0



If you click on the roof again, the 5 trees first regrow. Once this operation is complete, the script sends:

"regrown" with ID 3.0

The Komatsu then starts cutting down the first tree again with the message:

"start" (ID 1.0)

The model's Lua messages can be intercepted in your project's Lua script using the function:

EEPOnMessageFromStructureLua()

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Komatsu 901XC static (SM2)

File: LS2_K901xc_IM_Flat_SM2.3dm

Static version of the machine.

Sawdust pile (SM2)

File: LS2_Fleck_Sawdust_SM2.3dm



Available under:

Structures\Equipment\Freight, goods

Landscape elements

The files for the following models are stored in:

Resourcen\Lselemente\Animations\Figuren

To insert them:

In the 2D and 3D windows, go to:

Landscape elements → Animations → People (for the lumberjack and the construction equipment operator)

Static structures → Others → Others (for the lumberjack with a pre-programmed chainsaw)

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Lumberjack with pre-programmed chainsaw (SM2)

File: LS2_AM_Hlz_E6_Skn_SC_SM2.3dm

Left-click on the lumberjack to start his work cycle. To stop him, left-click again. The lumberjack will stop at the end of his current cutting cycle.

It is recommended not to interrupt his activity before he is seated again.

A right-click on the lumberjack allows you to select a specific pose (except for the cutting action, which must be activated with a left-click), but this will then be a static pose. Ideally, switch back to the “remain idle 1” pose before restarting a complete work cycle with a left-click.

Lumberjack AS (SM2)

File:

LS2_AM_Hlz_E6_Skn_LSA_SM2.3dm

Construction equipment operator AS (SM2)

File:

LS2_AM_Opr_E6_Skn_LSA_SM2.3dm



A left-click allows you to change the color of the work clothes and add a little tan.

A right-click opens a menu allowing you to select different animations.

The files for the following models are stored in:

Resourcen\Lselemente\Flora\Vegetation

To insert them:

In the 2D and 3D windows, go to:

Landscape elements → Flora → Conifers

Douglas fir 1 — Dg_30m_1_SM2.3dm

Douglas fir 2 — Dg_30m_2_SM2.3dm

Douglas fir 3 — Dg_15m_3_SM2.3dm

Douglas fir 4 — Dg_05m_4_SM2.3dm

Douglas fir 5 — Dg_01m_5_SM2.3dm



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Felled Douglas fir 1 — Dg_30m_cut1_SM2.3dm
Felled Douglas fir 2 — Dg_30m_cut2_SM2.3dm
Felled Douglas fir 3 — Dg_30m_cut3_SM2.3dm

Douglas fir – branches removed 1 — Dg_Brnch1_SM2.3dm
Douglas fir – branches removed 2 — Dg_Brnch2_SM2.3dm

Spruce – branches removed 1 — Sp_Brnch1_SM2.3dm
Spruce – branches removed 2 — Sp_Brnch2_SM2.3dm

Douglas fir – log 1 — Dg_Log1_SM2.3dm
Douglas fir – cut log 1 — Dg_Log1c_SM2.3dm
Douglas fir – log 2 — Dg_Log2_SM2.3dm
Douglas fir – cut log 2 — Dg_Log2c_SM2.3dm
Douglas fir – log 3 — Dg_Log3_SM2.3dm
Douglas fir – cut log 3 — Dg_Log3c_SM2.3dm
Douglas fir – log 4 — Dg_Log4_SM2.3dm

Douglas fir – stump 1 — Dg_Stump_SM2.3dm
Douglas fir – stump 2 — Dg_Stump2_SM2.3dm
Spruce – stump — Sp_Stump_SM2.3dm



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Forest module (in plant group)

Douglas fir forest module (SM2)

File: Dg_30m_W1_SM2.3dm



Goods

The files for the following models are stored in:

Resourcen\Goods\Boxes

Douglas fir – bundle of logs 1 – 2.5 m

File: LS2_Dglz_LogBd1_2h_SM2.3dm

Douglas fir – bundle of logs 2 – 2.5 m

File: LS2_Dglz_LogBd2_2h_SM2.3dm

Douglas fir – 13 ft timber pallet 1

File: LS2_Dglz_TmbPI13_1_SM2.3dm

Douglas fir – 13 ft timber pallet 2

File: LS2_Dglz_TmbPI13_2_SM2.3dm

Douglas fir – log 1 – 2.5 m

File: LS2_Dglz_Log1_2h_SM2.3dm

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Douglas fir – log 1 – 5 m

File: LS2_Dglz_Log1_5_SM2.3dm

Douglas fir – log 2 – 2.5 m

File: LS2_Dglz_Log2_2h_SM2.3dm

Douglas fir – log 2 – 5 m

File: LS2_Dglz_Log2_5_SM2.3dm



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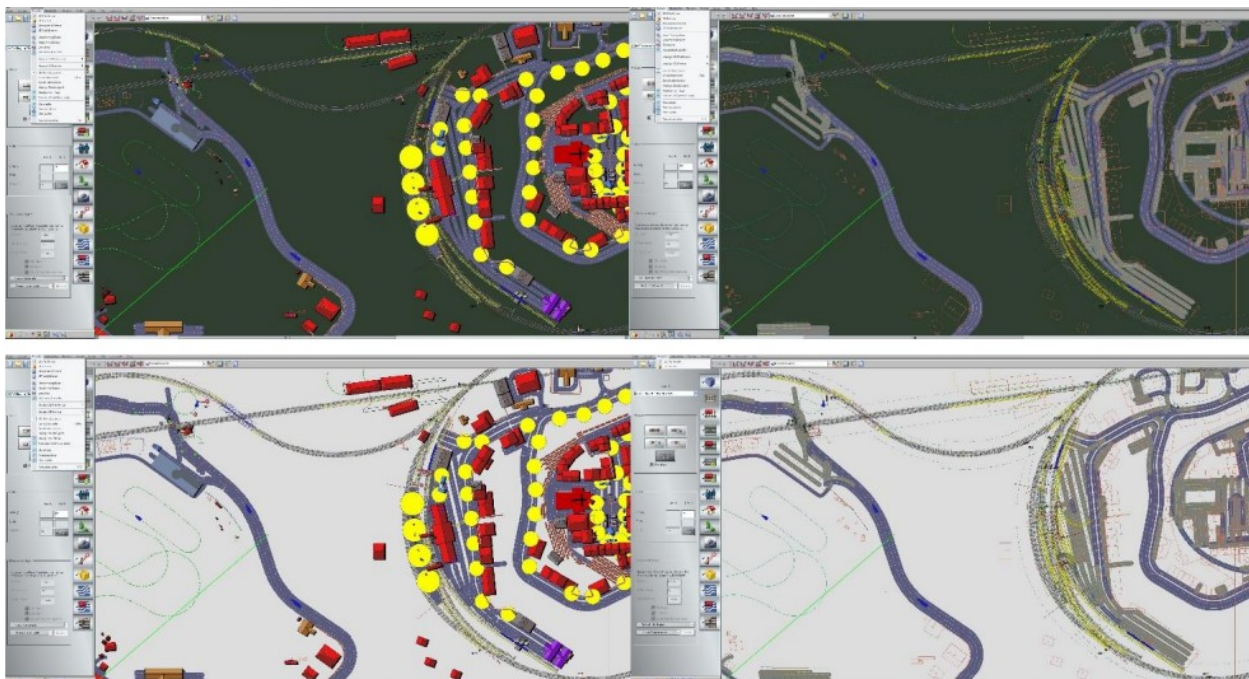
New features:

Dark background color in the 2D layout window:

When the terrain relief is disabled, you can switch between the old white background and a new dark background using the shortcut Shift + C.

The selected option is saved in EEP's settings and will be retained the next time the program is launched.

Even with the dark background enabled, you can still switch between the two display modes using the Hide fill icon or the C key.



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Hide terrain while editing 3D surfaces

Thanks to the new Hide terrain checkbox, it is now possible to make ground textures invisible while editing surfaces.



This makes it possible, in particular:

- to immediately see what is located beneath the surface
- to work on tracks and connections
- to avoid having to move the camera underneath the terrain.



New laser rangefinder in 3D editing mode

Plugin 2 introduces a laser rangefinder available in 3D editing mode. It can be activated via the corresponding icon in the lower toolbar.

Measuring the distance between two models

Click on two models successively with the left mouse button.

EEP then displays:

- the coordinates of the first object (x1, y1, z1)
- the coordinates of the second object (x2, y2, z2)
- the shortest distance between the two objects.

The first click defines the starting point and the second click defines the endpoint.

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Measuring between two points on the terrain

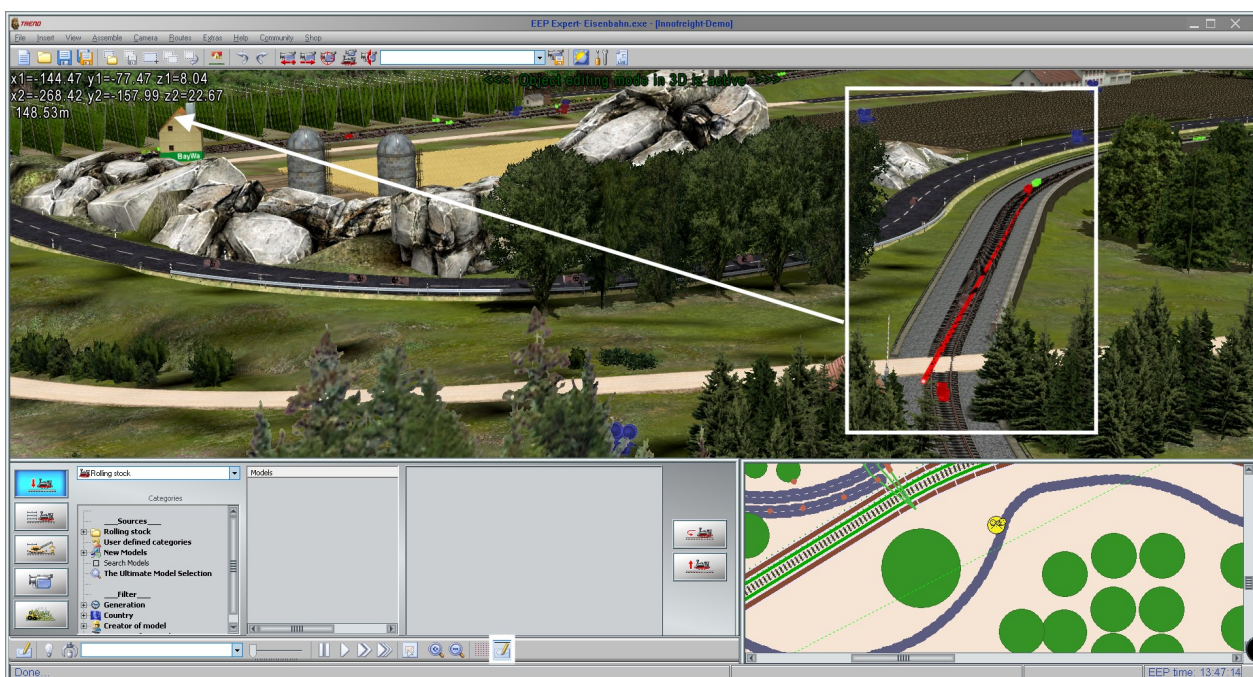
Hold down the *Ctrl* key while clicking.

The laser will then directly measure the distance between two points on the ground.

If you release *Ctrl* near an object, the laser will automatically select a point on that object.

If you press *Ctrl* again and move the cursor, the beam will pass through the object and find a point on the terrain again.

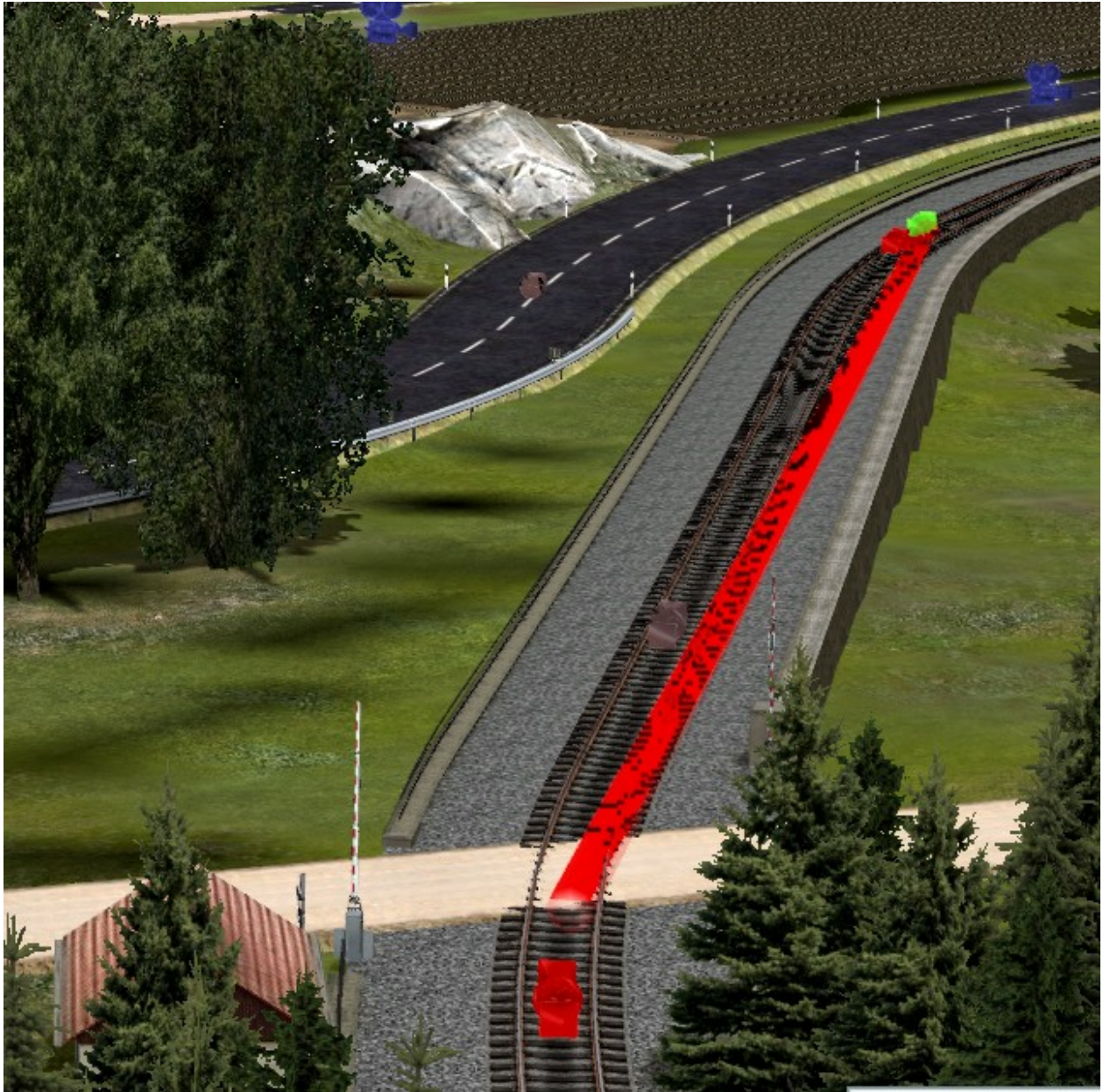
The section of the beam hidden by the object is displayed flashing to make its path easier to see.



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Temporarily thicken the laser beam

If the beam is difficult to see, press *Shift* + *S* (*S* = *Size*) to temporarily display a thicker laser beam.



Vertical measurement or height difference

The measured distance always corresponds to the shortest straight line between two points.

To display only the height difference (Z axis), you can:

Press *X* to align the X coordinates.

Press *Y* to align the Y coordinates.

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The laser beam is now perfectly aligned with the vertical Z axis.

The displayed value directly corresponds to the difference in height or size between the two objects.

Example: comparing the height of a grandfather and his grandson.

1/ After activating the rangefinder, click on the boy and then on the grandfather (the height difference will be displayed on the object that was selected first).

2/ Then press Shift + X.



Measuring the distance from the center of the layout

To determine the distance of an object from the center of the layout:

1/ Double-click the point to be measured.

2/ Press Shift + C (C = Center).

The distance to the center of the layout is then calculated.

Starting a new measurement

To perform a new measurement, click the rangefinder icon to deactivate the laser, then activate it again. A new measurement will then begin.

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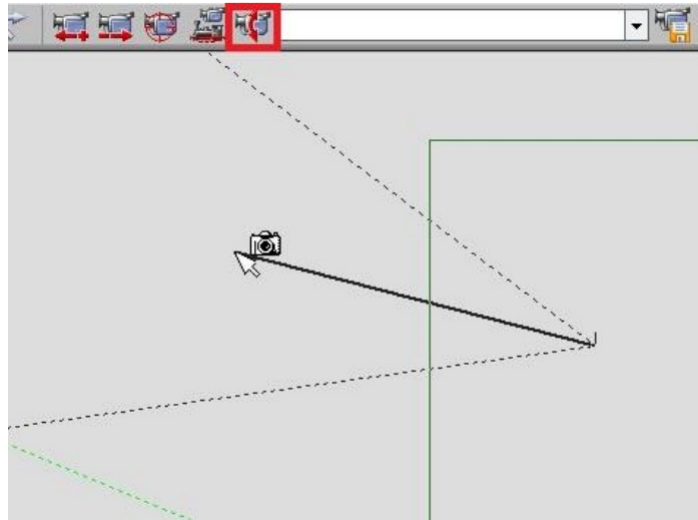
Positioning the camera target outside the layout

It is now possible, in 2D view, to place the camera target outside the boundaries of the layout.

To do this:

- 1/ Click the Place a New Camera icon.
- 2/ Position the camera origin inside the layout.
- 3/ Hold down the left mouse button and drag the cursor beyond the layout boundaries.
- 4/ Release the mouse button.

The camera is then placed, and EEP automatically switches to 3D mode.



Activating a contact only if a specific vehicle is present in the train

Thanks to Plug-in 2, a contact point can now be triggered only when a specific vehicle is part of the trainset.

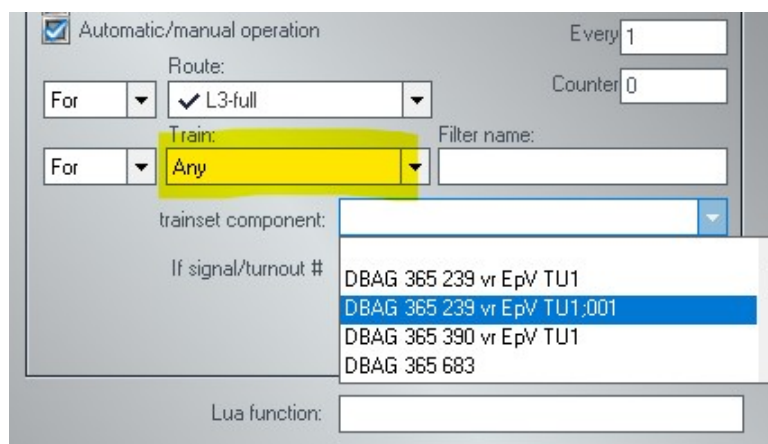
To use this feature:

- 1/ Leave the Train or Vehicle filter set to Any, then open the Trainset component drop-down list.

- 2/ Select the desired vehicle.

This list contains all vehicles of the same class present on the current layout:

- Locomotives and rolling stock for contacts placed on railway tracks.
- Road vehicles for contacts placed on roads.



The vehicles are displayed under the names assigned to them when they were first placed on the layout.

This is especially useful for shunting, since train names may change during coupling and uncoupling, while vehicle names and routes stay the same.

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Permanent construction grid icon in 3D edit mode

In 3D Edit Mode, the Construction Grid icon is now permanently available in the bottom toolbar.



It allows you to quickly enable or disable the grid display, which appears when, for example, you select a building structure in Edit Mode.

New control panel (GBS) tiles

The control panel has been expanded with tiles:

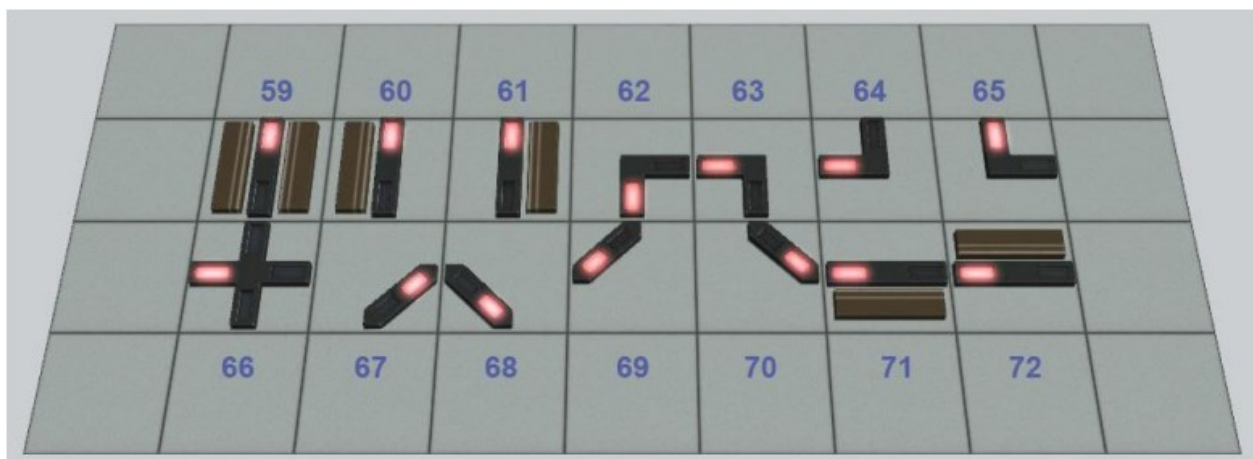
59 to 72

In the illustrations:

illuminated track sections correspond to **Track A**
non-illuminated track sections correspond to **Track B**.

For the crossing (**tile 66**):

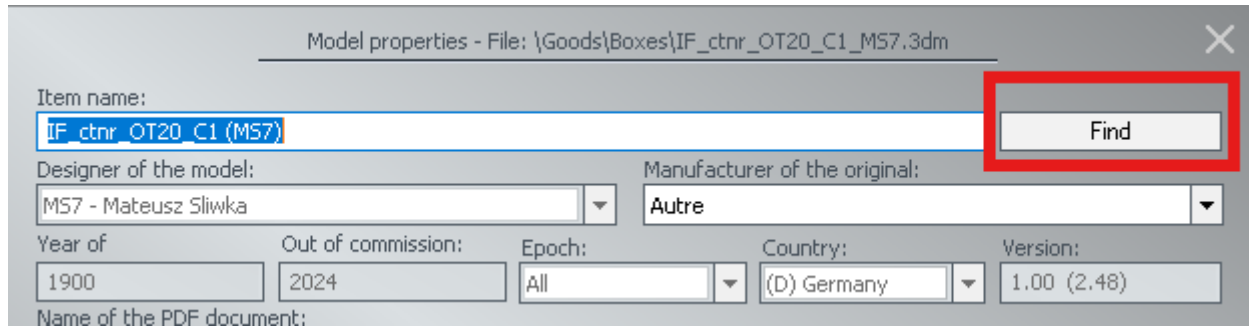
Track A corresponds to the illuminated section
Track B, Track C, and Track D are assigned clockwise.



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Finding a model's location via its properties

Plug-in 2 adds a Locate button to the **Model Properties window**, to the right of the field containing the model name.



Shop or free models

For models purchased from the Shop or available for free, the Locate button is always active.

Clicking this button:

- automatically opens the corresponding folder in the resources
- directly selects the model's .ini file.

Base models

For EEP base models, the button is only active if the file:

Resourcen1.pak

has been extracted (**Tools** → **Extract Resources**) and the contents of the Resourcen.unp folder located in the root of the EEP18 installation folder have been moved to the Resourcen folder.

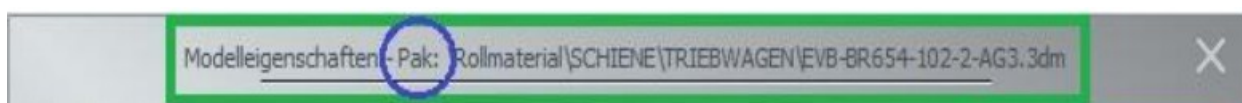
The models must, of course, be scanned again after moving the files.

In this case, the button opens the corresponding folder.

If the base resources have not been extracted, the button remains grayed out.

To identify a base model:

- "Pak" appears in the title bar as long as the model has not been extracted.



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Connecting a track to the ruler

With Plug-in 2, a track can be connected to the ruler when it is active.

This feature is particularly useful for:

- perfectly aligning several tracks vertically
- creating layouts with a defined angle
- precisely positioning tracks at specific coordinates.

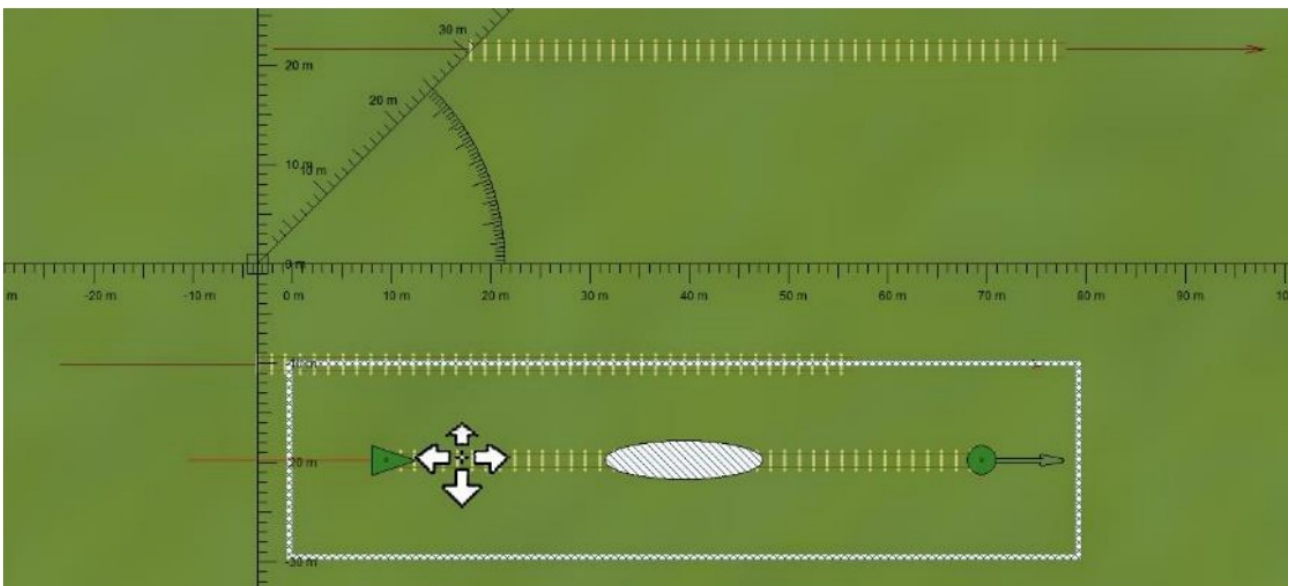
To do this:

1/ Activate the ruler.

2/ Move the new track while holding down the left mouse button.

3/ Move the beginning of the track towards the ruler.

4/ When the end of the track reaches the ruler, it automatically snaps to it.



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Cancelling an automatic route request

When an automatic route request is made and all destinations are occupied, the route enters a waiting state.

During this state, EEP continuously checks whether a destination or the access track becomes available.

With Plug-in 2:

- this waiting state is indicated by a **blue light** on the route's departure signal
- the indication is visible in both **2D** and **3D** modes.



Cancelling the waiting state

A new option is available in the departure signal's properties:

Stops automatic opening process on request

Position:

☐ Hide Signal in 3D

☒ Automatically open the route

☒ Stops automatic opening process on request.

Delete the route

OK

When this option is checked and the route receives the command:

Dissolve / Cancel

all previous requests to open this route are:

- cancelled
- ignored
- deleted.

Regardless of where the command comes from:

- a train automatically leaving the track section
- a contact point
- a signal linked by an "if... then..." condition
- the Lua function `EEPSetSignal()`
- a manual click by the user.

In this mode, the Dissolve / Cancel command effectively means:

STOP + FORGET THE WAITING STATE

If the option is not enabled, the Dissolve command is simply ignored.

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Recommended procedure in case of a blockage

If a route remains blocked:

- 1/ Switch to 3D Edit Mode.
- 2/ Open the Route Editor.
- 3/ Open the properties of the relevant departure signal.
- 4/ Enable On request, terminate an opening process.
- 5/ Return to 3D operation mode.
- 6/ Dissolve the route.

After eliminating the blockage, for example through manual shunting:

- 1/ Return to the Route Editor.
- 2/ Disable this option again.
- 3/ Return to operation mode.
- 4/ Reactivate the route normally.

Ability to connect complete blocks to other models

Until now, automatic connection via anchor points worked only with individual models.

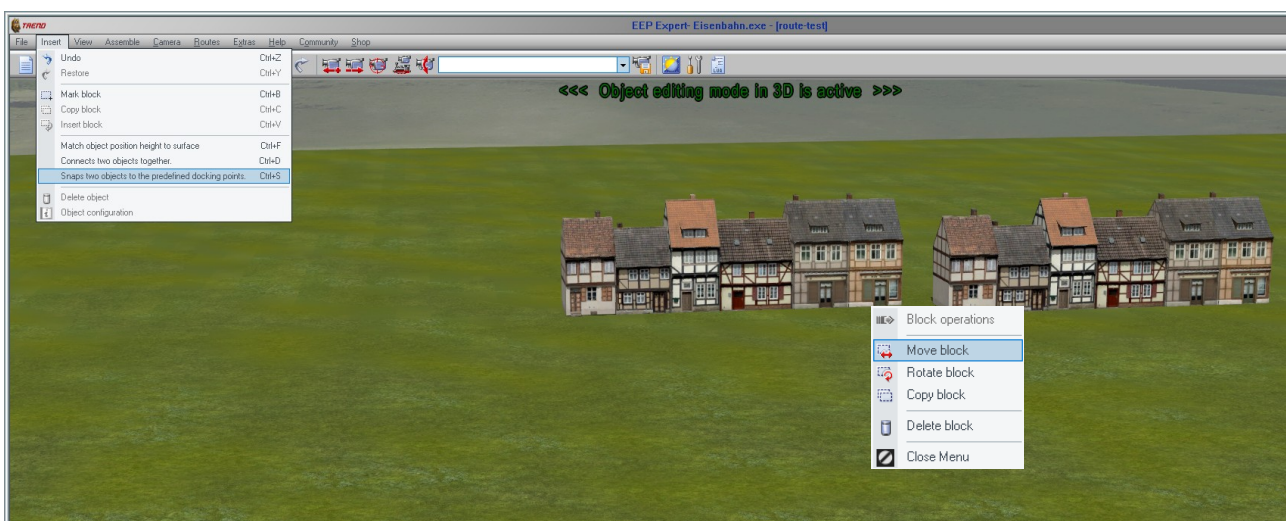
With Plug-in 2, it is now also possible to snap:

- complete blocks
- to other blocks
- or to individual models.

To do this, one of the following options must be enabled:

Connect two objects together

Snap two objects to predefined docking points



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Block to individual model

A block can also be snapped to a single model, for example:

- a fence post
- a pillar.

Warning: Make sure to activate Move block from the model that will be used to create the connection. If you want the block to be connected via the half-timbered house on the left within your block, right-click directly on that house to open the context menu. Only its anchor points will be activated.



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Recovering block models placed outside the layout boundaries

When inserting blocks, some elements could occasionally be positioned outside the layout boundaries.

Possible consequences:

- objects that cannot be selected
- difficulties modifying them
- in some cases, EEP crashes.

Plug-in 2 therefore introduces a safety feature:

- in both 2D and 3D modes
- all objects extending beyond the boundaries are automatically moved back to the edge of the layout.

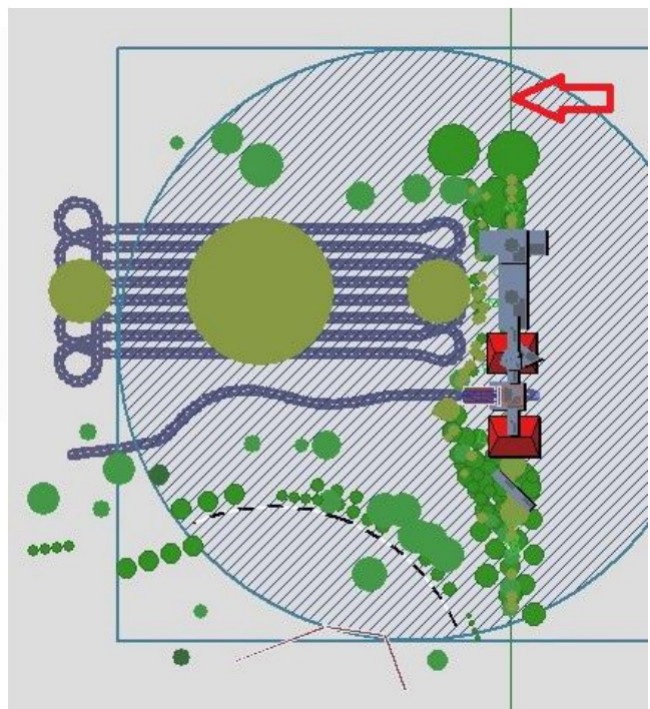
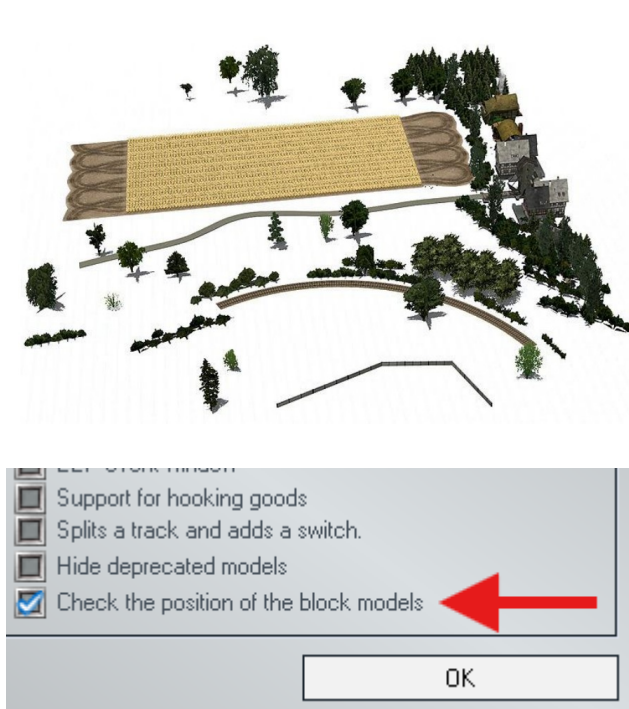
The objects may:

- overlap
- stack on top of each other
- intersect.

However, they always remain selectable.

This feature is enabled by default under:

Program settings → Feature options



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Inserting blocks at their original coordinates

It is now possible to reinsert a saved block exactly at its original position.

To do this:

1. Hold down Shift before going to the menu icon to select Open block.
2. Select either:
 - File → Open block file, or
 - click the Open block file icon.

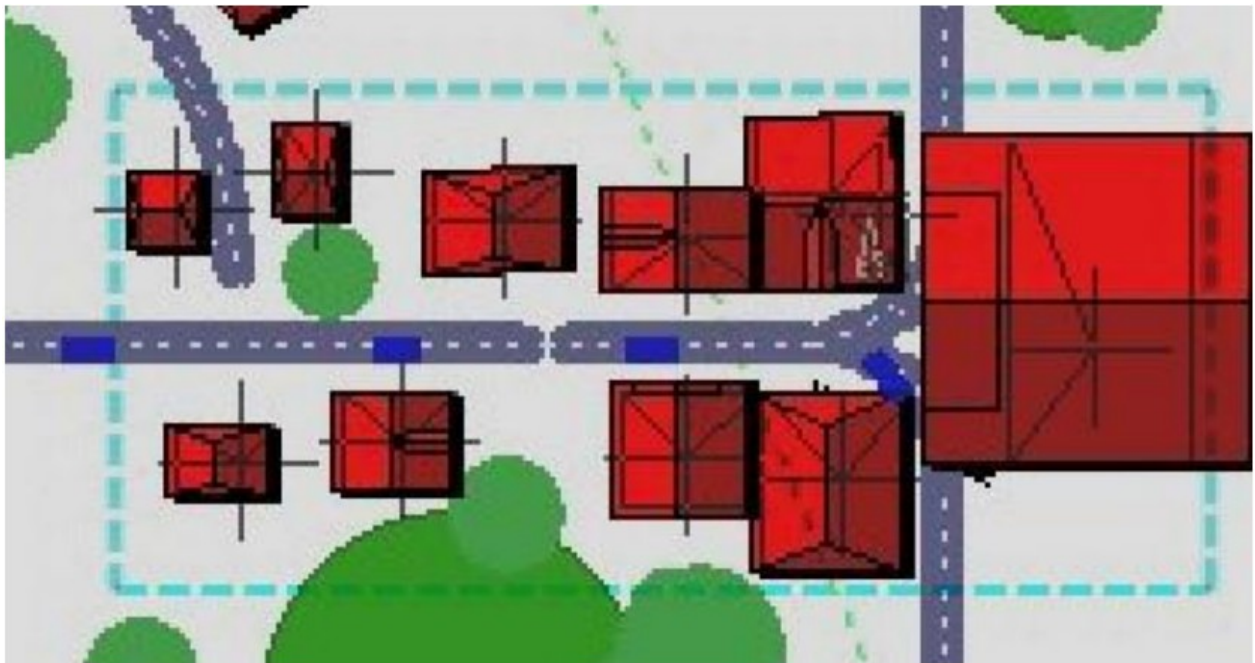
The block will then be placed at its original coordinates, i.e. the coordinates at which it was saved.

Better visibility of blocks in 2D mode

The visibility of blocks has also been improved.

In 2D mode:

- the outline of blocks is now drawn with a thicker line
- blocks are therefore much easier to spot and select.



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Lua offers new functions specific to EEP.

Plugin 3 for EEP 18.1 provides the following new Lua functions:

EEPSetTimeLapse()		EEPSetTimeLapse (TimeLapseFactor)
Parameters	one	
Returns	none	EEPSetTimeLapse (2.5)
Requires	EEP 18.2 - Plug-in 2	
Purpose	Changes the time-lapse factor in EEP	
Notes	- Parameter is the time-lapse factor, ranging from 0.1 (ten times slower motion) to 10 (ten times faster motion). A factor of 1 corresponds to normal speed - The function has no return value.	

EEPSetPrintColour()		EEPSetPrintColour (R, G, B)
Parameters	three	EEPSetPrintColour (236, 0, 22)
Returns	none	print ("In the 'Brand Color Code' of Deutsche Bundesbahn")
Requires	EEP 18.2 - Plug-in 2	EEPSetPrintColour (0, 0, 0) print ("Everything's back to normal now.")
Purpose	Displays the output in the event window in the appropriate colour.	
Notes	- Parameters 1–3 determine the colour based on the red, green and blue components, each in the range 0–255. - The function has no return value.	

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EEPOnMessageFromStructureLua()		EEPOnMessageFromStructureLua (Name, Message-ID, Text)	
Parameters	three	<pre>function EEPOnMessageFromStructureLua (name,id,text) print("Structure "..name.." send message >"..text.."< with ID "..id) end</pre>	
Returns	none		
Requires	EEP 18.2 - Plug-in 2		
Purpose	This is called whenever the internal Lua script of a structure or landscape element sends a message to the external Lua environment in EEP, which can then be processed by the user as appropriate.		
Notes	• First parameter is the name of the structure or landscape element. • Second parameter is the ID of the message. It can be used by the user as a control variable for further Lua actions. • Third parameter is the message in text form, to be output via the print function and/or further processed using Lua. • The parameter names can be freely selected. • EEP requires no return value when calling this function. • ATTENTION: Whether a structure or a landscape element can send messages, and if so, which message text and ID, can be found in the relevant model documentation.		

EEPOnMessageFromRollingstockLua()		EEPOnMessageFromRollingstockLua (Name, Message-ID, "Text")	
Parameters	three	<pre>function EEPOnMessageFromRollingstockLua (name,id,text) print("Rollingstock "..name.." send message >"..text.."< with ID "..id) end</pre>	
Returns	none		
Requires	EEP 18.2 - Plug-in 2		
Purpose	This is called whenever the internal Lua script of a rollingstock sends a message to the external Lua environment in EEP, which can then be processed by the user as appropriate.		
Notes	• First parameter is the name of the rollingstock. • Second parameter is the ID of the message. It can be used by the user as a control variable for further Lua actions. • Third parameter is the message in text form, to be output via the print function and/or further processed using Lua. • The parameter names can be freely selected. • EEP requires no return value when calling this function. • ATTENTION: Whether a rollingstock can send messages, and if so, which message text and ID, can be found in the relevant model documentation.		

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EEPSendMsgToStructureLua()		EEPSendMsgToStructureLua("#-Lua-Name", Message-ID, "Message text")
Parameters	three	
Returns	one	ok = EEPsSendMsgToStructureLua("#4", 1, "start")
Requires	EEP 18.2 - Plug-in 2	
Purpose	Sends a message to the internal Lua script of the specified structure or landscape element.	
Notes	- First parameter is the Lua name of the structure or landscape element. The difference between the Lua name and the model name is the presence of the ID in the header. The ID preceded by # is already sufficient for the argument. - Second parameter is the ID of the message. - Third parameter is the message as text. - Return value is true when the execution was successful false if not. ATTENTION: Whether a structure or a landscape element can receive messages, and which message text with which ID the structure or landscape element may understand, can be found in the relevant model documentation.	

EEPSendMsgToRollingstockLua()		EEPSendMsgToRollingstockLua("Rollingstock name", Message-ID, "Message text")
Parameters	three	
Returns	one	ok = EEPsSendMsgToRollingstockLua("DAF-XF 480SC Kipper Weiss Lua DU1", 3, "end")
Requires	EEP 18.2 - Plug-in 2	
Purpose	Sends a message to the internal Lua script of the rollingstock.	
Notes	- First parameter is the complete name of the rollingstock as string. - Second parameter is the ID of the message. - Third parameter is the message as text. - Return value is true when the execution was successful false if not. ATTENTION: Whether a rollingstock can receive messages, and which message text with which ID the rollingstock may understand, can be found in the relevant model documentation.	

At the time of the initial release of Plug-in 2 for EEP 18.2, only the EEPOnMessageFromStructureLua() communication function can be used in combination with the "Komatsu 901XC vorprogrammiert (SM2)" model.

Other models, including models for the other communication functions, will follow or can be created using HomeNos 18.

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Closing remarks

Many wishes of experienced EEP users and designers have been incorporated into the development of Plug-In 2 for EEP 18.2. The innovations facilitate both the construction and the operation of your layouts.

The Lua extensions also open up completely new possibilities to automate your layouts.

We hope you enjoy this first plug-in to EEP 18.2.

Your EEP-Team of Trend Verlag

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