



TruckTool

Quick Start Guide

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1. How to get access to TruckTool

Access is given based on email domain names e.g., @logisnext.eu.

Public emails such as @gmail.com, @wanadoo.fr, @orange.fr are not allowed.

In special cases (small dealers with no company emails etc.) access for specific emails can be given.

Before creating a password, your company's domain name needs to be added to the list of allowed domains.

This is done by sending the company name, domain name, and brand to a technical support engineer by email.

Dealers can control the access of individual persons by removing their email access rights when they leave the company.

1. How to get access to TruckTool

Responsibilities of different roles on accessing TruckTool:

Technical support engineer

Handles all domain name rights requests.
Creates access for domain names based on requests received from dealers.

Dealer

Sends their own and their sub-dealers' domain names to a technical support engineer for activation.
Takes care of user accounts; if a user leaves the company, they should close the email account which was used to create a TruckTool password.

Sub-dealer

Takes care of user accounts; if a user leaves the company, they should close the user's email account.

Users

Registers their emails with TruckTool desktop application and refreshes TruckTool usage time by connecting to the internet regularly.

1. How to get access to TruckTool

Examples of handling individual users inside a company:

- A. All users have their own email addresses, which they can use to register a TruckTool password and to log in to TruckTool.

- Easy to remove access if a user leaves the company.

- This should be the first choice of authentication scheme.

- B. All users receive a common email address and password to use with TruckTool.

- Good for companies with a lot of personnel with no personal email addresses (mechanics etc.).

- When someone leaves the company, either the email or the password must be changed and redistributed inside the company to remove access.

- C. Company does not have an individual domain name.

- A single email address can be registered instead of a domain name.

- This will be done only in the case where a company domain name does not exist.

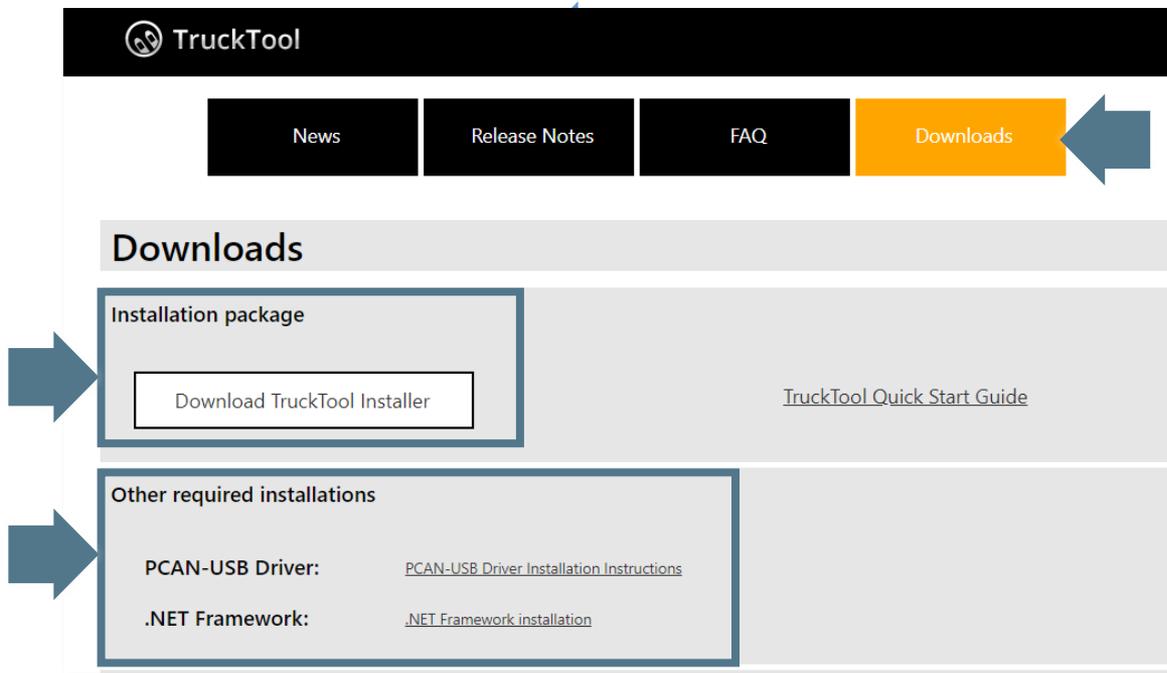
- Name of the user and the company must always be included in the request for single email access.

2. Installing TruckTool

Browse to new.trucktool-online.com and select the 'Downloads' tab.

Download TruckTool by clicking the 'Download TruckTool Installer' button.

Please note the other required installations listed on the page; these are needed for TruckTool to run.



The screenshot shows the TruckTool website's navigation menu and the Downloads section. The 'Downloads' tab is highlighted in orange and has a blue arrow pointing to it from the right. Below the navigation menu, the 'Downloads' section is titled. Under 'Installation package', the 'Download TruckTool Installer' button is highlighted with a blue box and a blue arrow pointing to it from the left. To its right is a link for 'TruckTool Quick Start Guide'. Under 'Other required installations', there are two entries: 'PCAN-USB Driver' with a link to 'PCAN-USB Driver Installation Instructions', and '.NET Framework' with a link to '.NET Framework installation'. This entire section is also highlighted with a blue box and a blue arrow pointing to it from the left.

2. Installing TruckTool

Install TruckTool by following the instructions in the installation wizard.

If needed, **install all the needed prerequisites** according to the instructions provided on the download site.

If you get this error message:



Please double-check the prerequisite installations and try again.

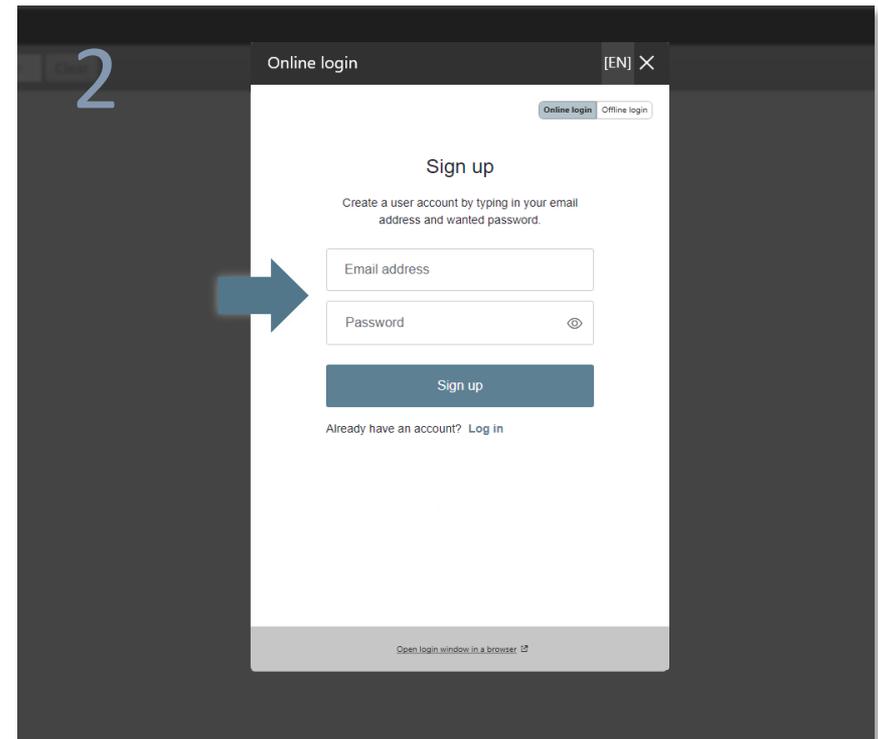
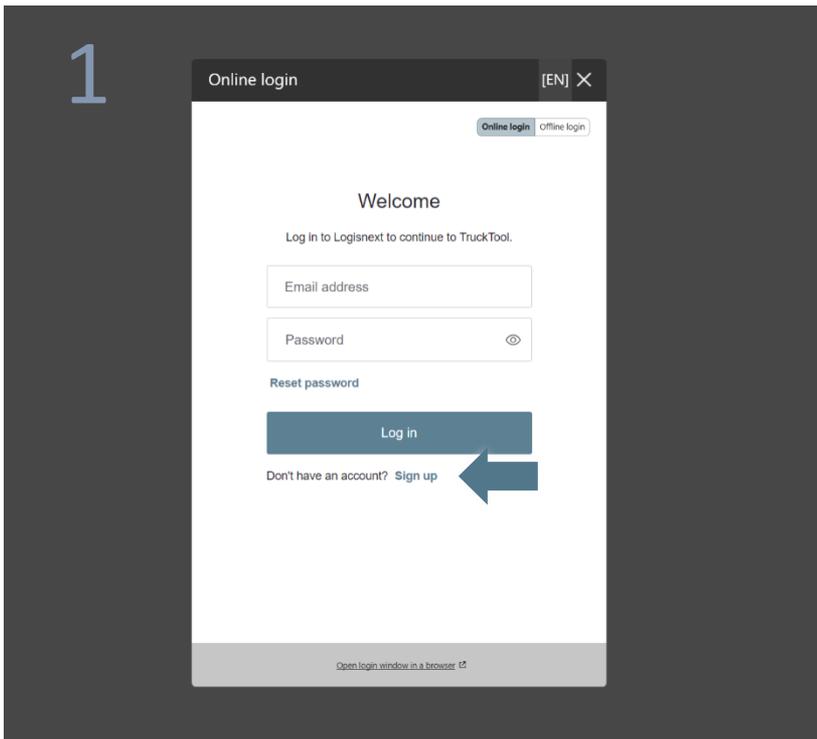
Manually uninstall old versions of TruckTool from your computer (guide can be found at [Instructions web page](#)).

If the problem persists, please contact your technical support engineer.

3. Creating a user account

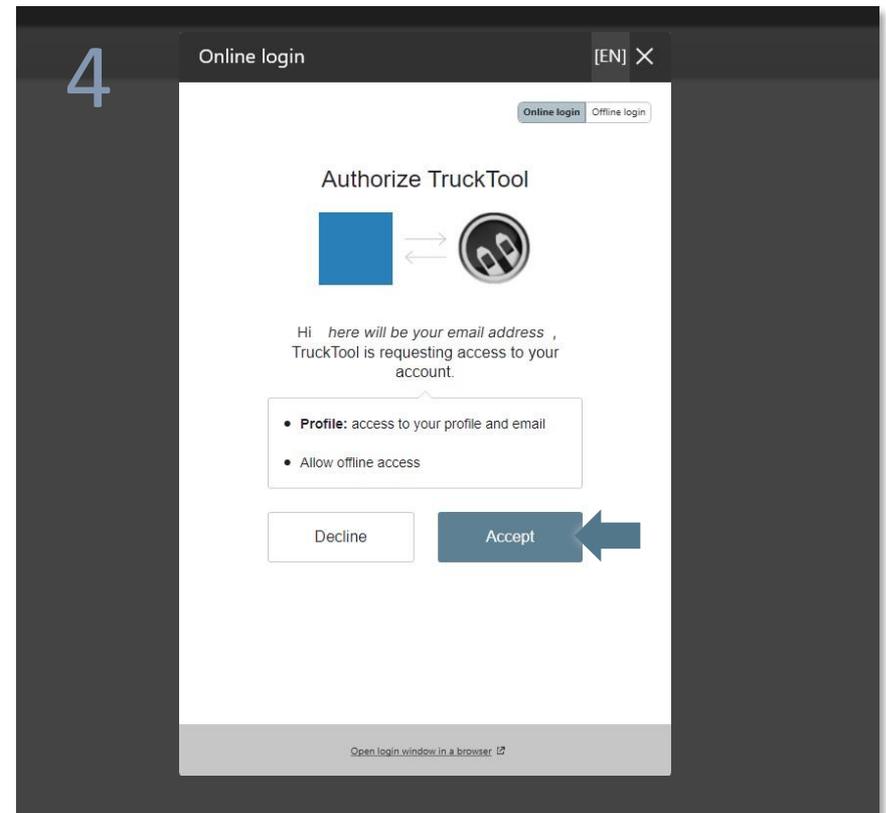
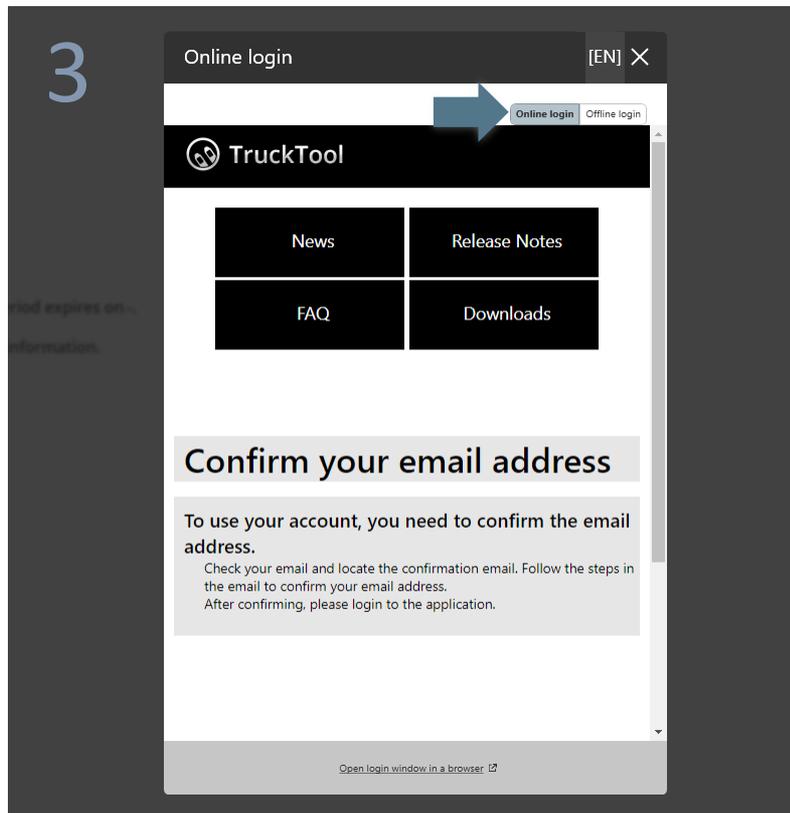
After the domain name/email address has been approved by a technical support engineer, you must create a TruckTool password with your company email.

1. Launch TruckTool. Make sure you have a stable internet connection.
2. Click “Sign up” (picture 1).
3. Enter your email address and password for TruckTool (picture 2).
4. Press “Sign up”.



3. Creating a user account

5. You will receive an email for verifying the email address. Click the link in the email and return to TruckTool.
6. Continue the account creation by clicking the "Online login" button (picture 3).
7. You need to authorize TruckTool to access your account information. This is done by clicking "Accept" (picture 4).
8. After you have done these actions, you have created a user account and will be automatically logged in to TruckTool.

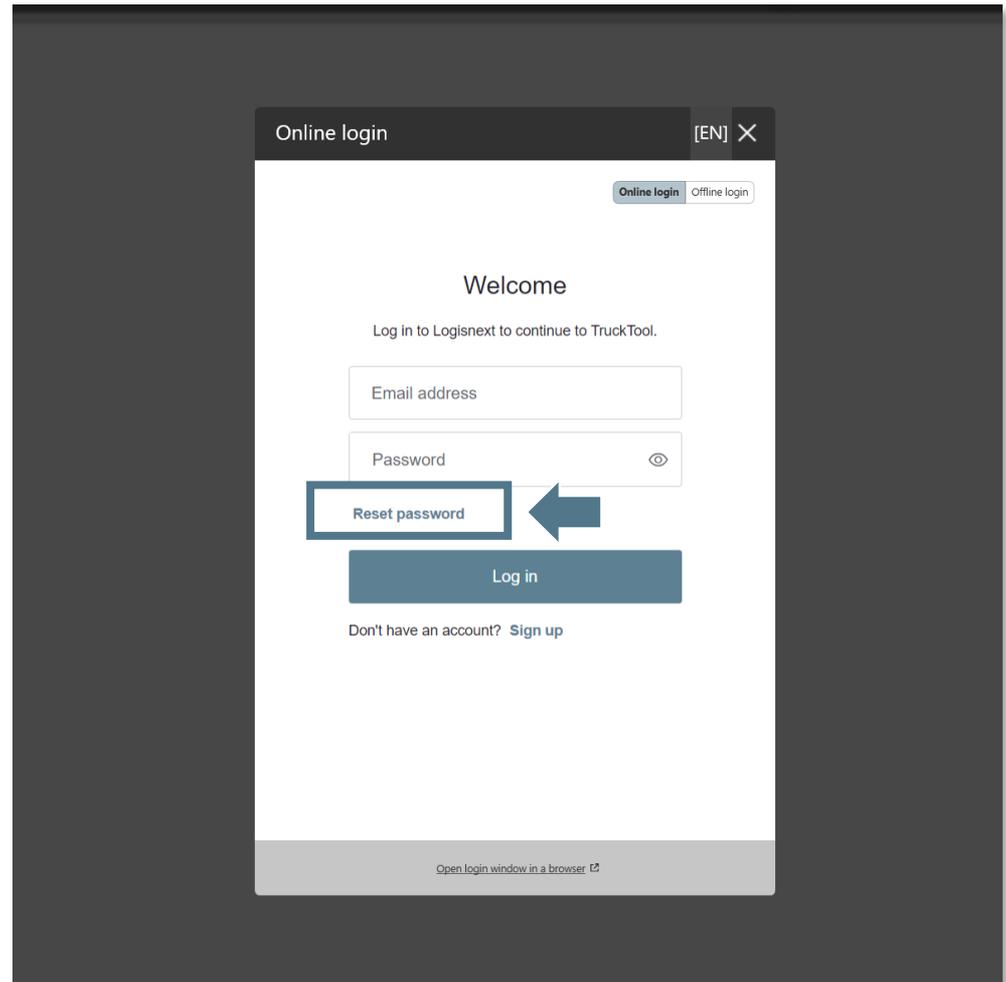


4. Password resetting

You can reset your TruckTool password from the TruckTool login window with the “Reset password” link.

You can change your password as often as you wish.

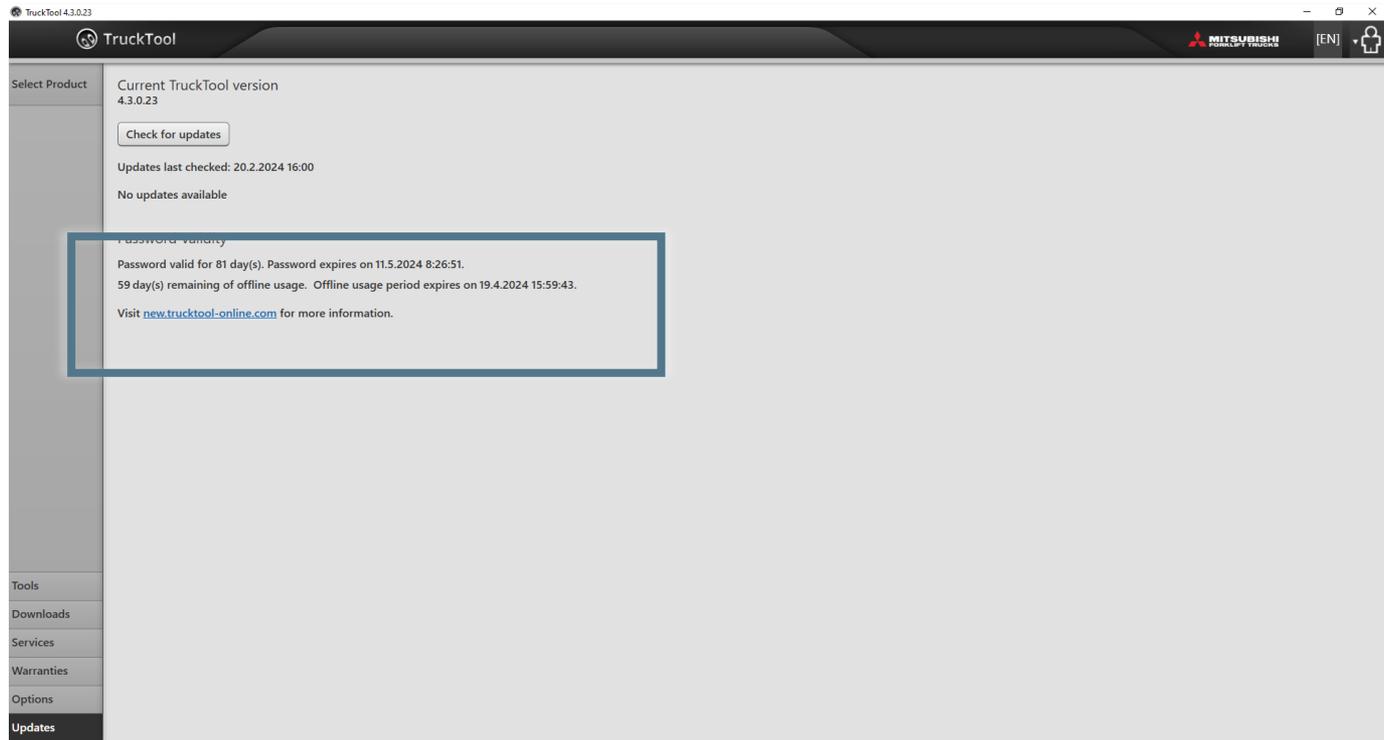
Password change is required every 120 days.



5. Password validity

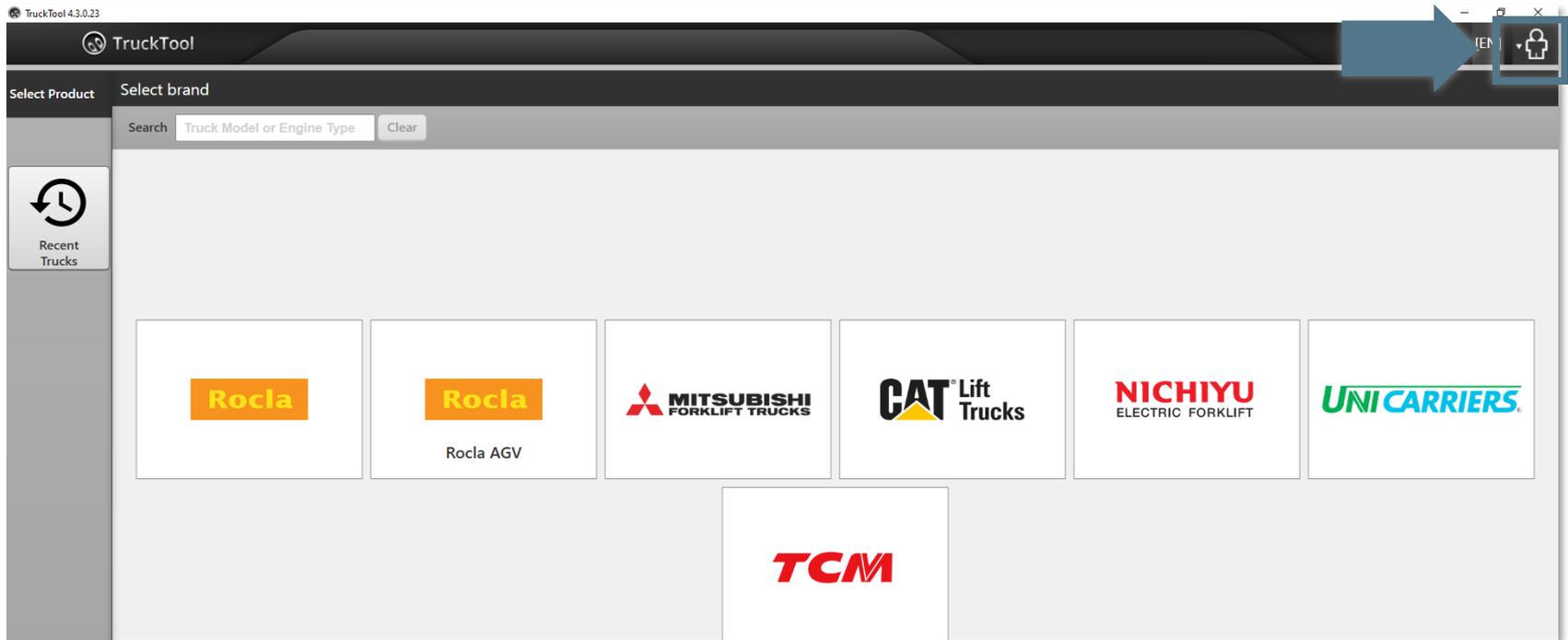
Login to TruckTool client is valid for 60 days, after which an internet connection is required.

Information on the remaining offline usage time can be found from TruckTool's Updates view.



6. Logging out

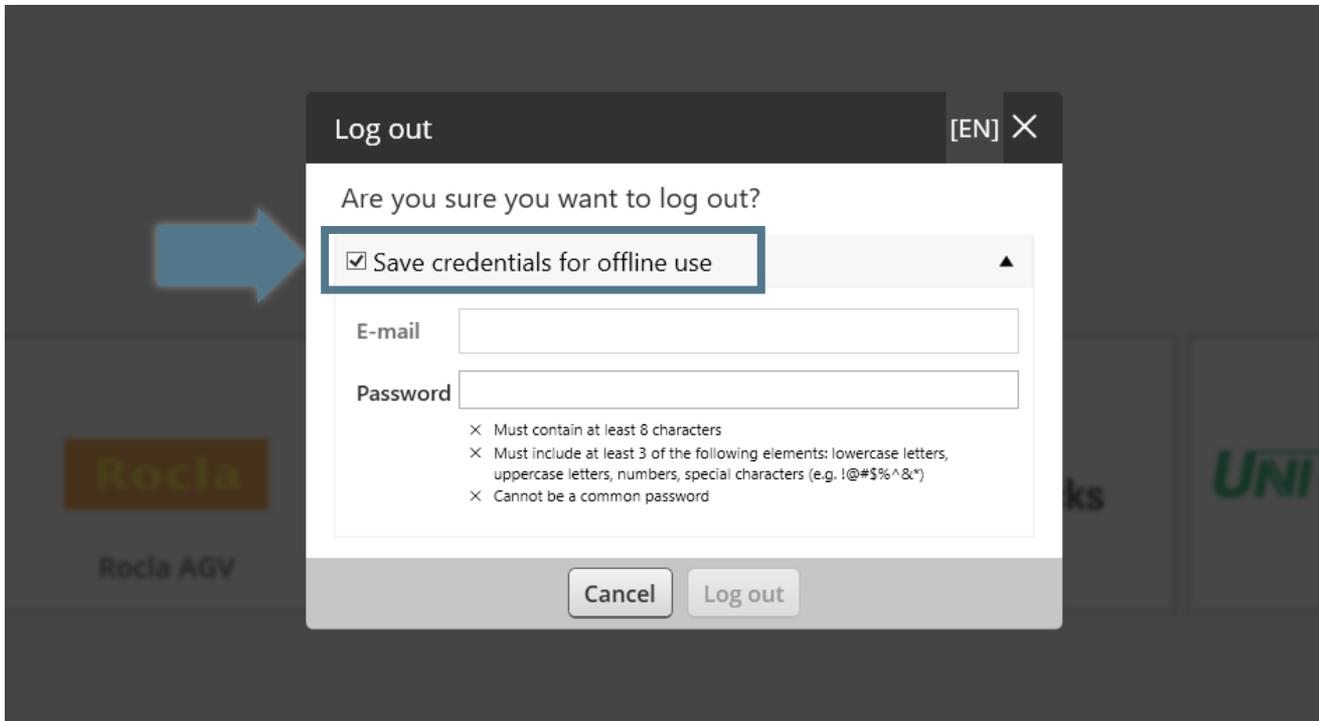
You can log out from TruckTool by clicking the person icon in the upper right corner of the window.



6.1 Logging out – preserving offline access

If you require offline access to TruckTool, select "Save credentials for offline use".

Insert your e-mail and a password to the password field. The password does not need to match your online password, but it can if you want.



Log out
[EN] X

Are you sure you want to log out?

Save credentials for offline use

E-mail

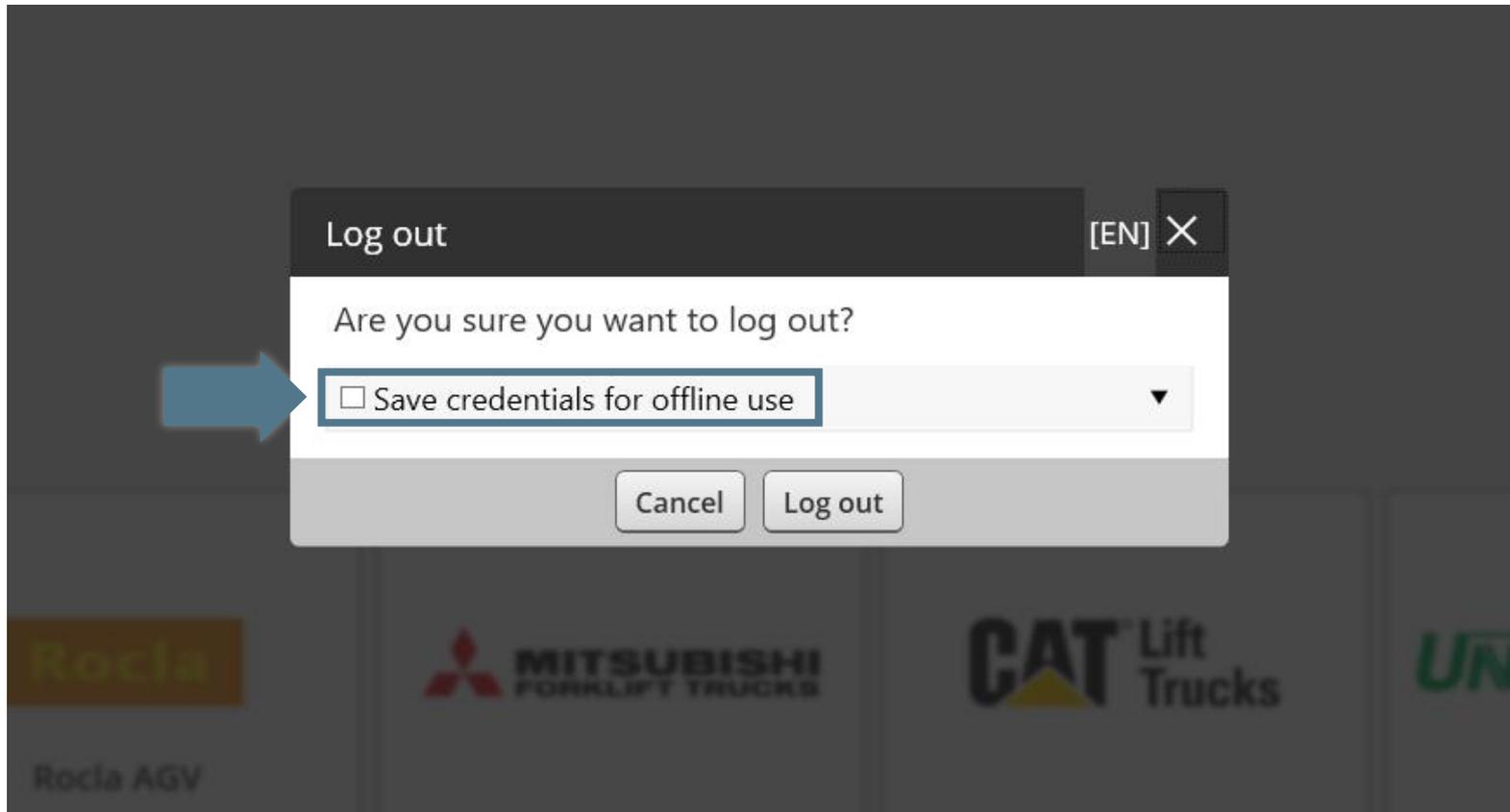
Password

- × Must contain at least 8 characters
- × Must include at least 3 of the following elements: lowercase letters, uppercase letters, numbers, special characters (e.g. !@#%&*)
- × Cannot be a common password

Cancel
Log out

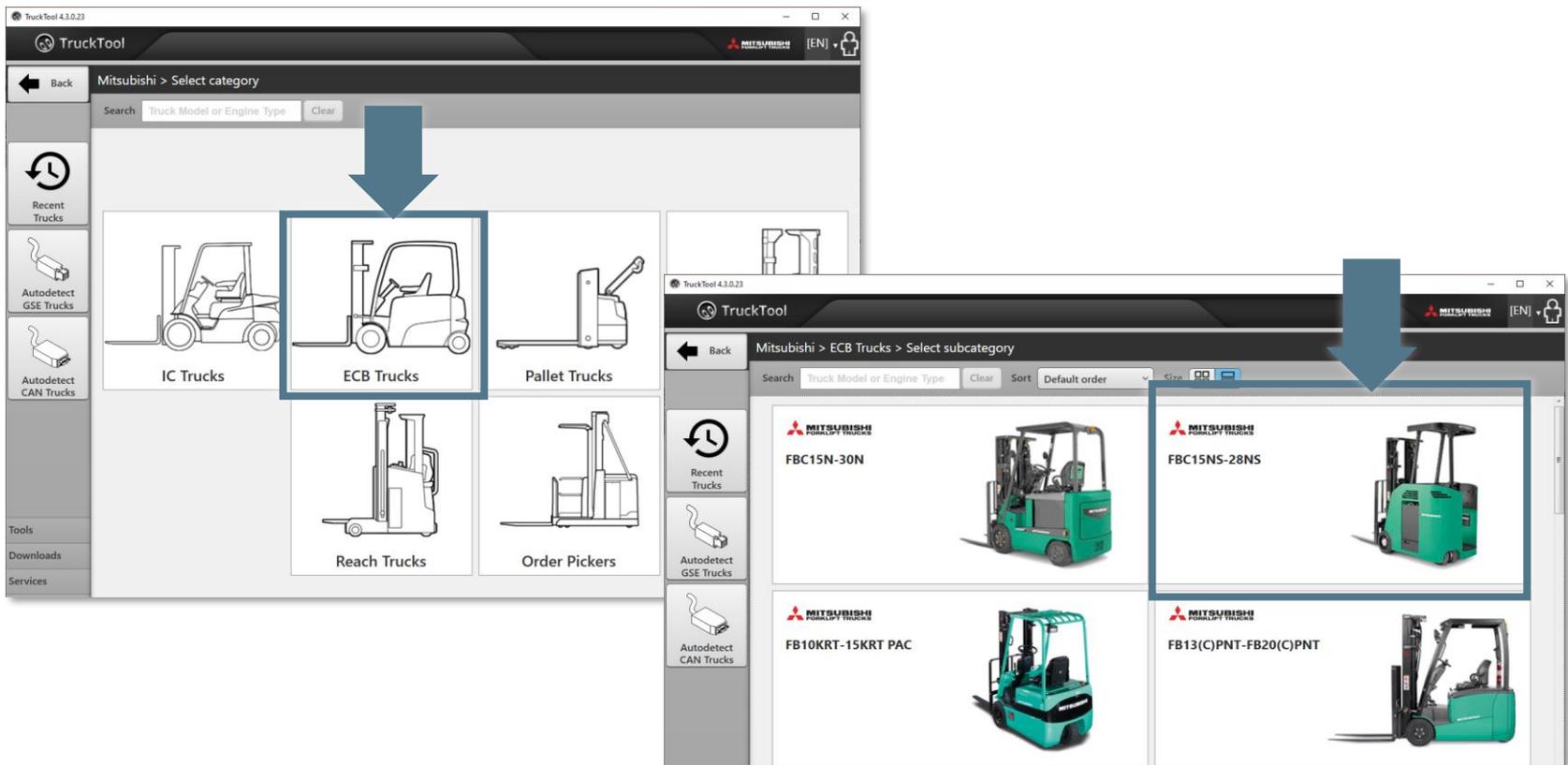
6.2 Logging out – without offline access

If you do not require offline access to TruckTool, uncheck "Save credentials for offline use".



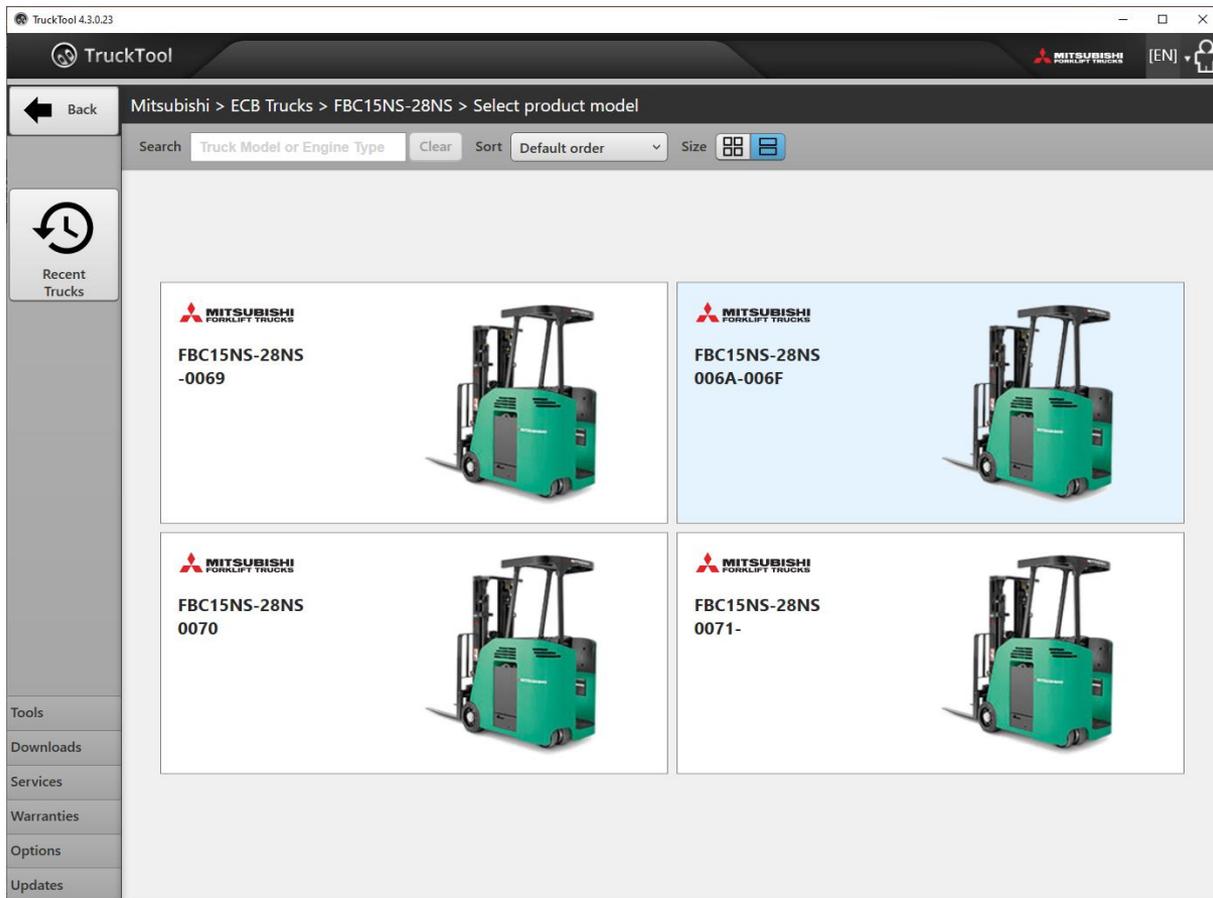
7. Selecting a model and connecting to the truck

Select a truck category and a subcategory.



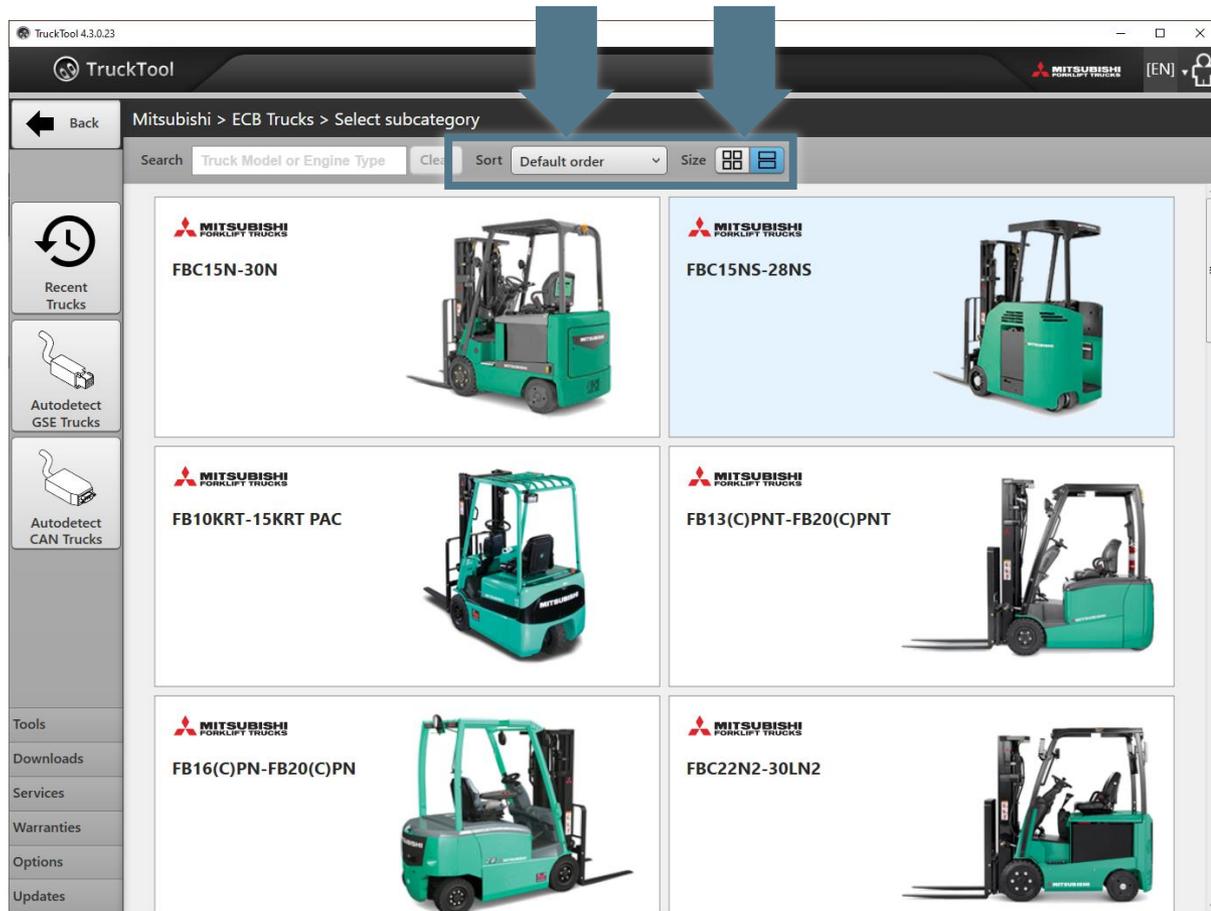
7. Selecting a model and connecting to the truck

Select a truck product model if needed.



7. Selecting a model and connecting to the truck

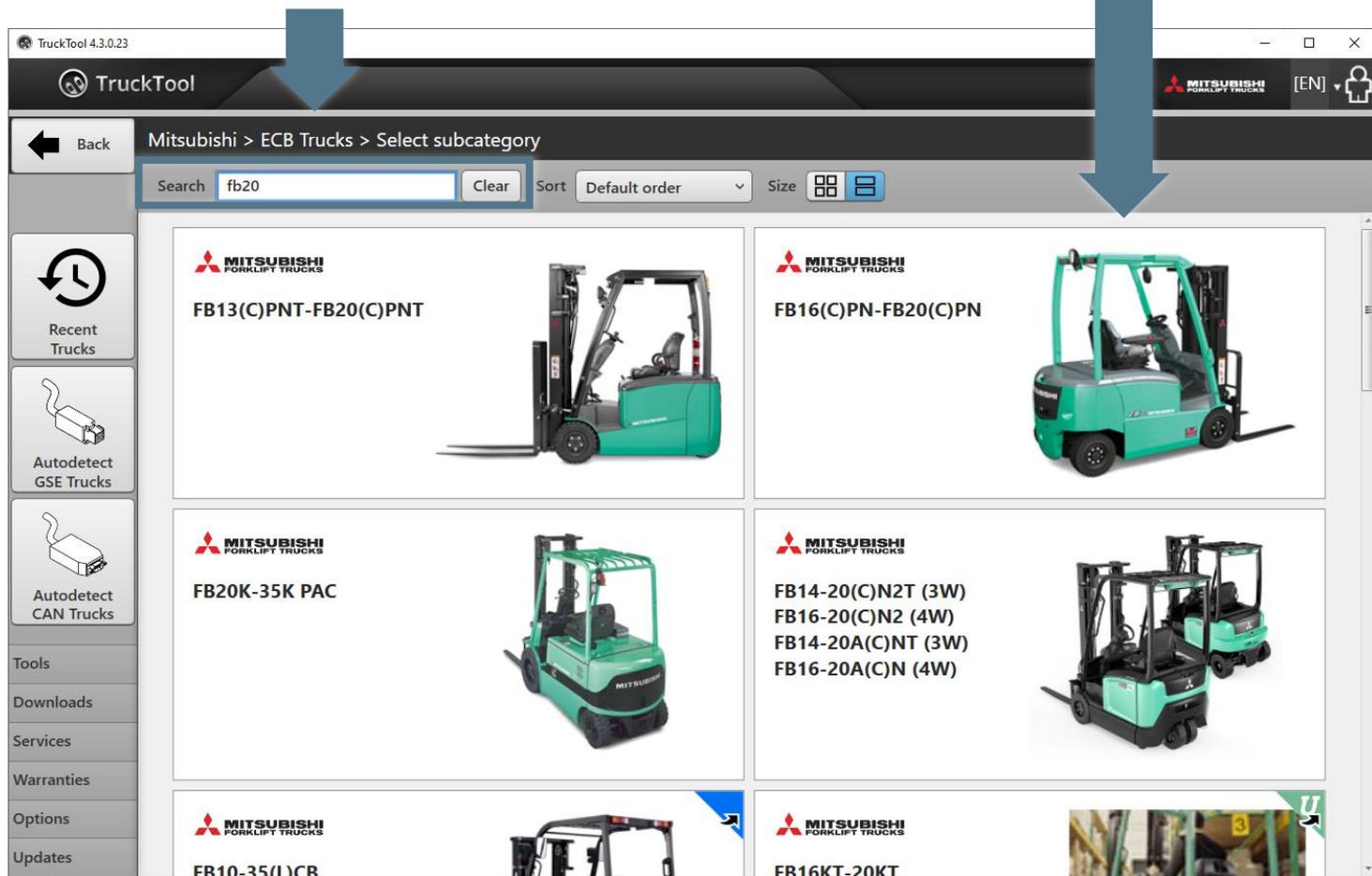
You can change the truck order and tile size.



7. Selecting a model and connecting to the truck

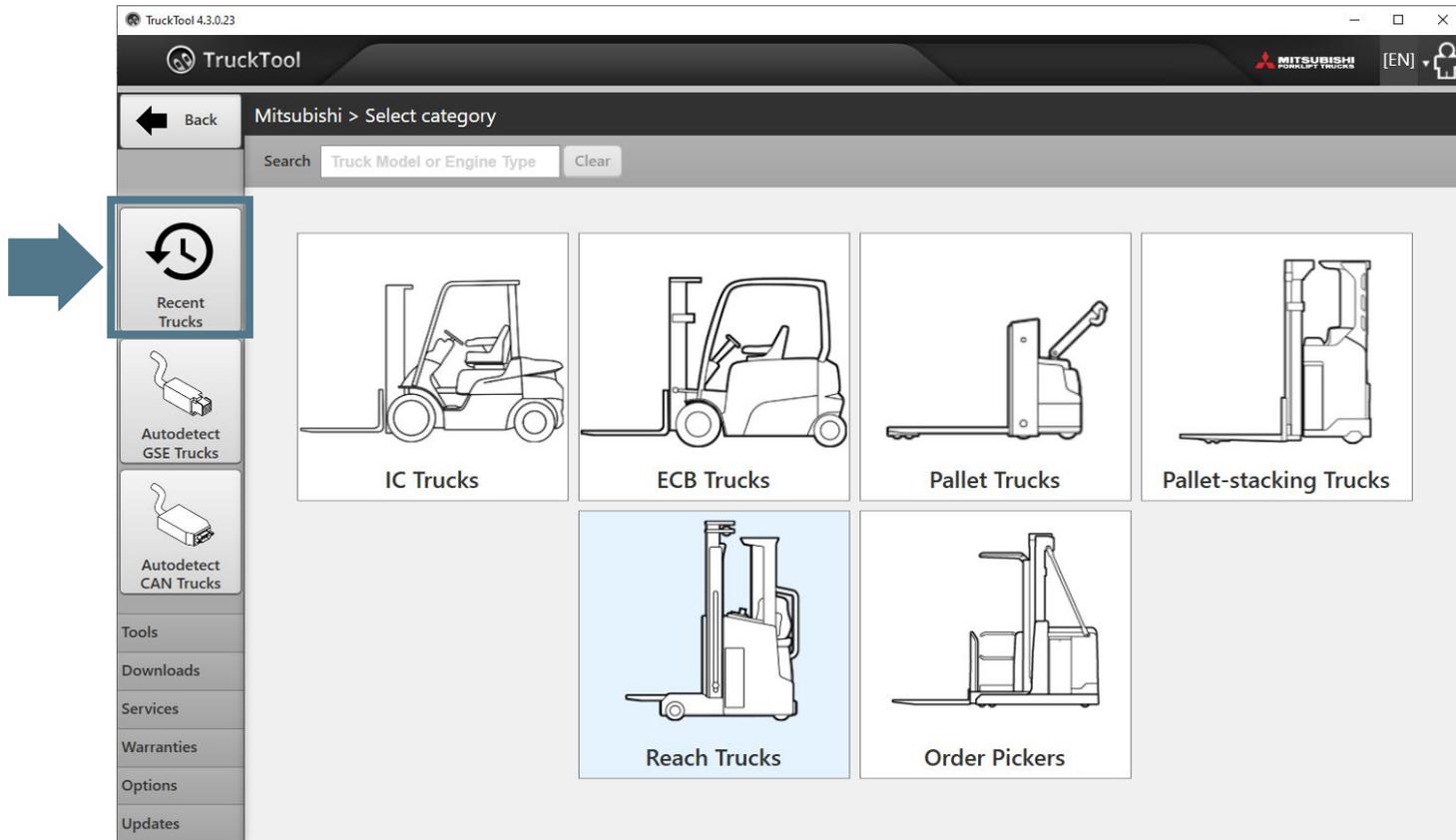
Use search to filter trucks by name, engine type or serialnumber.

Select a truck model from search results.



7. Selecting a model and connecting to the truck

You may view your recently connected trucks from the Recent Trucks button.

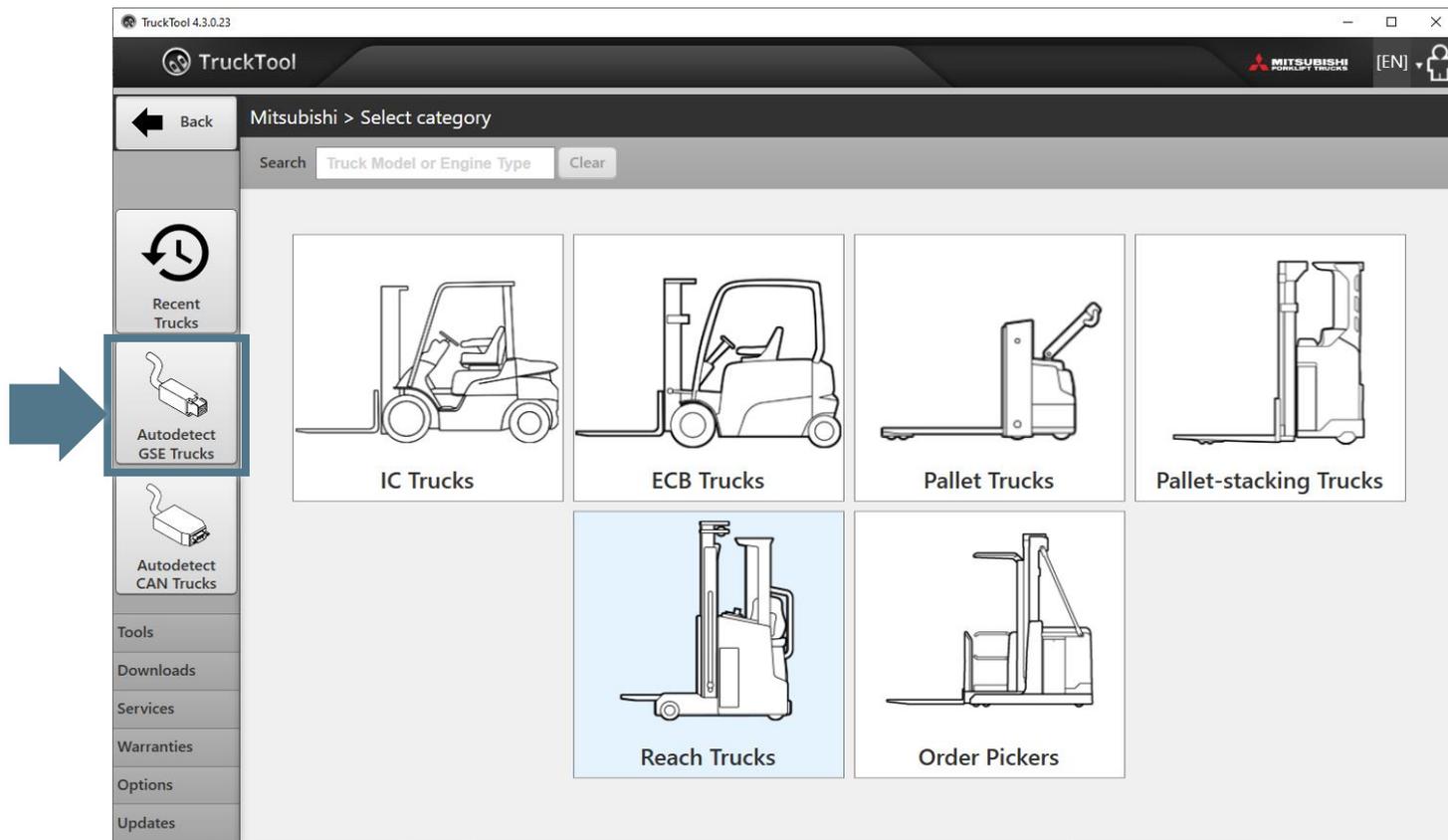


7. Selecting a model and connecting to the truck

You may detect the connected GSE truck by clicking the 'Autodetect' button.

Plug in the GSE cable before clicking the Autodetect button.

If autodetection fails, select the truck manually.



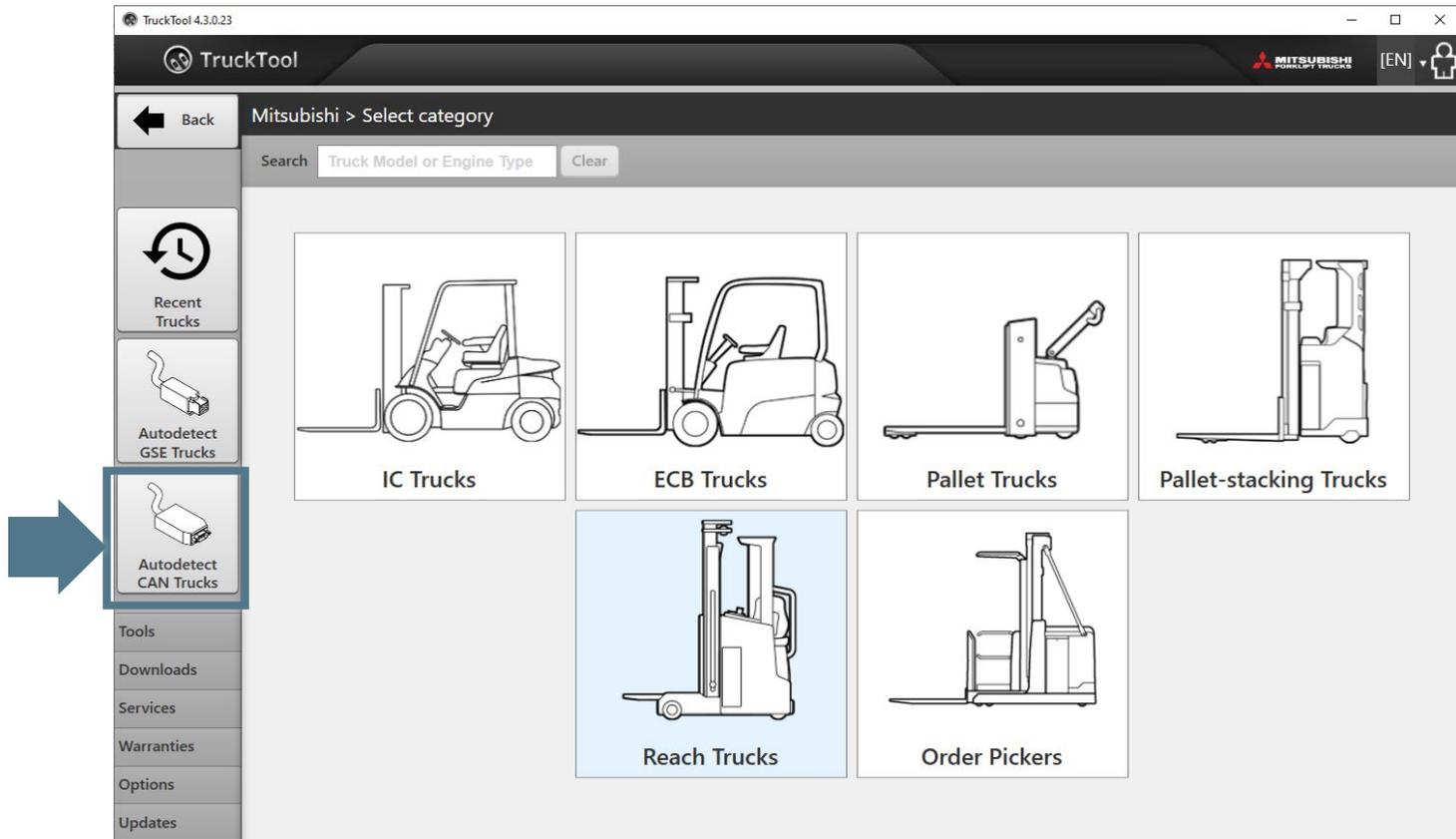
7. Selecting a model and connecting to the truck

You may detect the connected CAN truck by clicking the 'Autodetect' button.

Plug in the CAN cable before clicking the Autodetect button.

Please note, that only some CAN trucks are supported for autodetection.

If autodetection fails, select the truck manually.

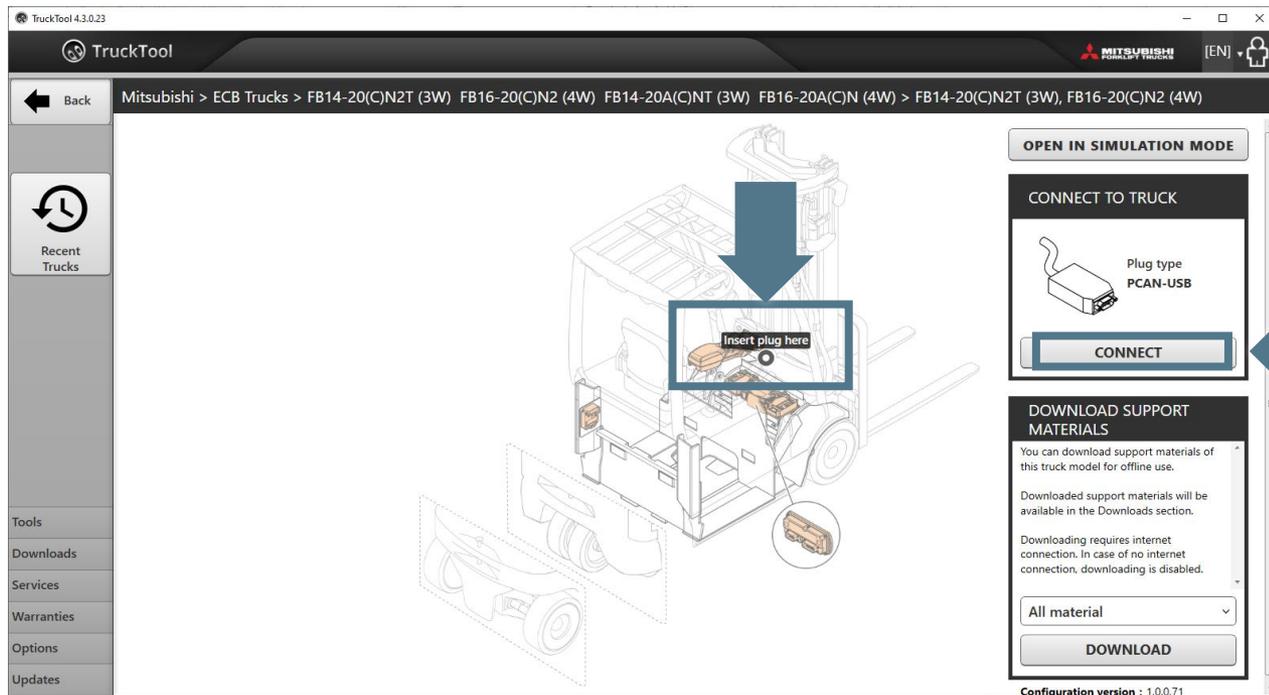


7. Selecting a model and connecting to the truck

After you have selected the correct truck model:

1. Connect a dongle to your pc.
2. Connect a dongle to the location on the truck shown in the picture.
3. Click the connect button.

TruckTool connects to the truck.



7. Selecting a model and connecting to the truck

After the connection is started, fill in the truck serial number and mast serial number and click the 'OK' button.

The screenshot shows the TruckTool 4.3.0.23 interface. A 'Serial Number' dialog box is open, prompting for the truck's serial number and mast serial number. The 'Serial Number' field contains 'EFB27B-12345' and is marked as 'Required'. The 'Mast Serial Number' field contains '123456789' and has a green checkmark. A blue callout box points to an 'X' icon in the top right corner of the dialog box, with the text: 'If needed, you can cancel the connection by clicking the X icon (available a few seconds after the Serial Number dialog is displayed)'. The background interface shows a truck diagram with various components labeled, such as 'Dual Joystick', 'Armrest, Optional', 'EPS, Slave', 'EPS, Master', 'VCM, Master', and 'VCM, Slave'. The right sidebar shows a list of components with their status indicators.

NAME	VALUE
VCM, Master	
VCM, Slave	
Traction, Right, Master	
Right, Slave	
Left, Master	
Traction, Left, Slave	
Pump, Master	
Pump, Slave	
EPS, Master	
EPS, Slave	
Operator Panel	
Armrest, Optional	
Dual Joystick Armrest, Optional	
Single Joystick Armrest, Optional	

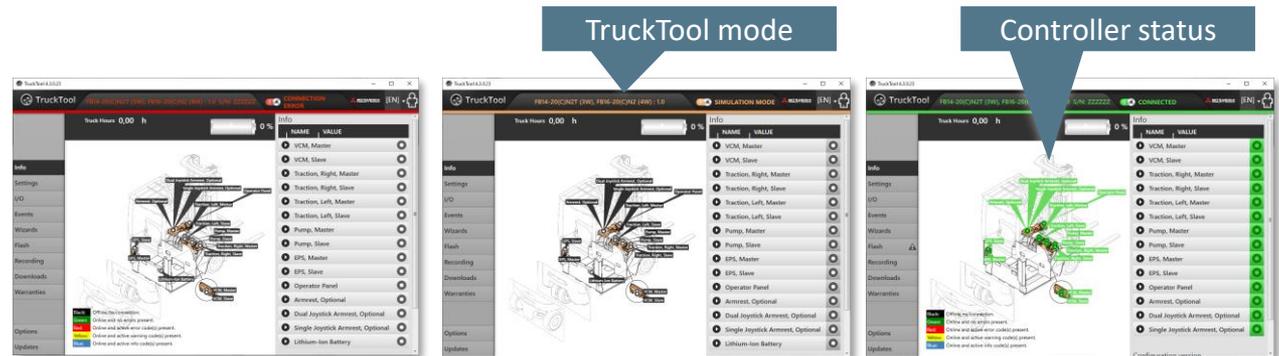
Configuration version
VERSION
1.0.0.71

Black: Offline, no connection.
Green: Online and no errors present.
Red: Online and active error code(s) present.
Yellow: Online and active warning code(s) present.
Blue: Online and active info code(s) present.

7. Selecting a model and connecting to the truck

TruckTool mode and controller statuses are indicated by colored labels:

- ORANGE** TruckTool in simulation mode
- BLUE** TruckTool in TTP edit mode or controller info code active
- BLACK** Controller not connected
- GREEN** Controller online and no error code
- RED** Controller connection error or error code active
- YELLOW** Controller online and warning code active

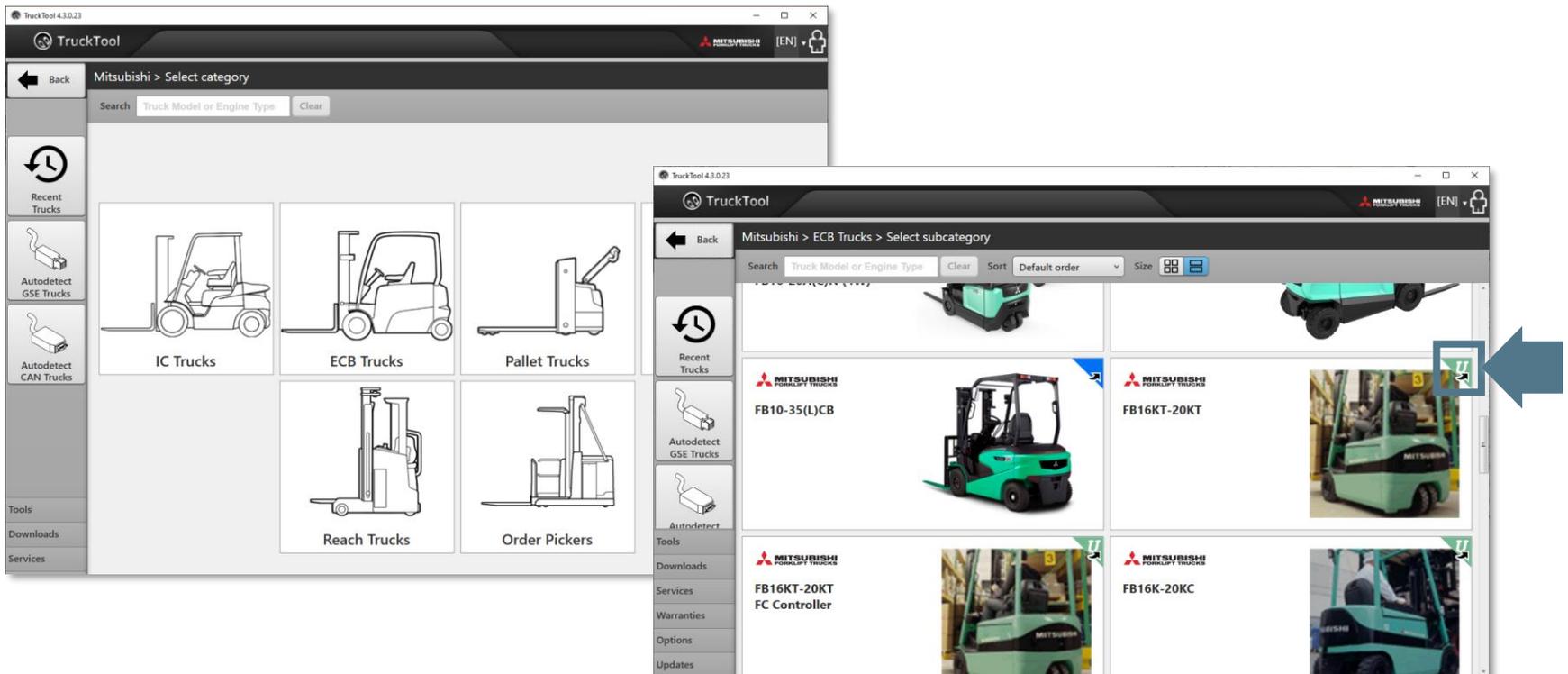


8. Selecting and connecting to a legacy truck

Select a brand and a subcategory.

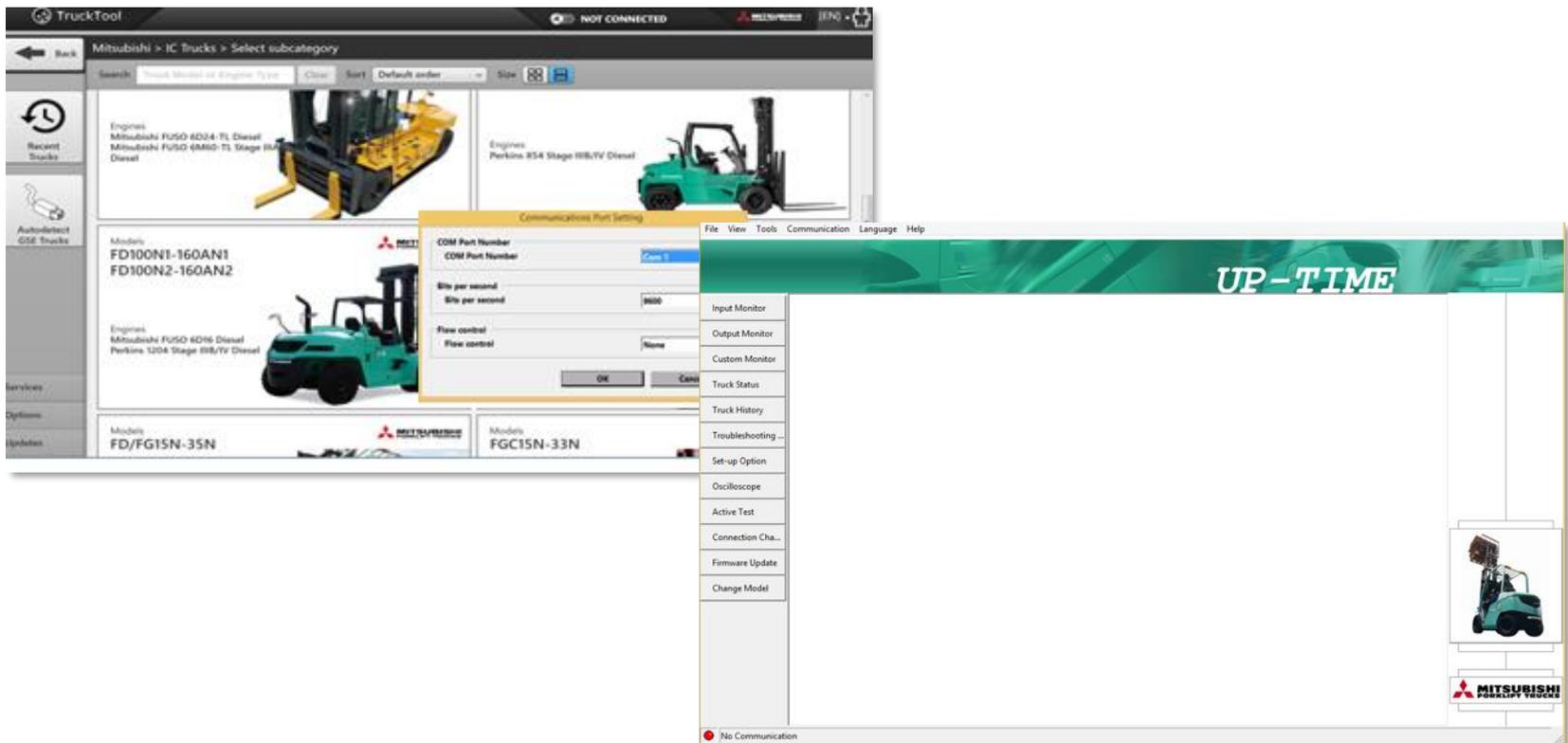
Legacy trucks are highlighted with an external software symbol on the top-right corner of the truck image. Clicking on such a legacy truck opens the external software.

You do not need to install the external software separately; they are included in the TruckTool installation.



8. Selecting and connecting to a legacy truck

Depending on the truck model and the legacy tool, follow the instructions for that software.



9. Summary of TruckTool views

TruckTool has the following views:

[Info](#) - Information about controllers, locations, and truck status.

[Settings](#) - Functions for editing, importing, and exporting.

[I/O](#) - Values of inputs and outputs.

[Events](#) - Active error codes, error history, and list of all truck-specific error codes.

[Wizards](#) - Calibration, testing, and truck configuration wizards.

[Flash](#) - Functions for flashing controllers.

[Recording](#) - Recording object values and showing values in a graph.

[Downloads](#) - Downloading documents and files for use when an internet connection is not available.

[Services](#) - Used to create a service record for service. Visible if a supported truck model is connected. Always visible in disconnected mode.

[Warranties](#) - Produces and lists a TruckTool parameter (TTP) file entries for warranty related operations.

[Options](#) - Different settings of TruckTool.

[Updates](#) - Check for TruckTool updates, password validity, and offline usage time.

[Tools](#) - Contains launchers for various tools.

9.1 Info view

The info view shows general information about each controller and their locations in the truck.

Status info is indicated by colors. To see error codes and descriptions, select the Events view.

TruckTool 4.3.0.23

FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N

CONNECTED

Truck Hours 0,00 h

0 %

Info

NAME	VALUE
▶ VCM, Master	●
▶ VCM, Slave	●
▶ Traction, Right, Master	●
▶ Traction, Right, Slave	●
▶ Traction, Left, Master	●
▶ Traction, Left, Slave	●
▶ Pump, Master	●
▶ Pump, Slave	●
▶ EPS, Master	●
▶ EPS, Slave	●
▶ Operator Panel	●
▶ Armrest, Optional	●
▶ Dual Joystick Armrest, Optional	●
▶ Single Joystick Armrest, Optional	●

Configuration version

VERSION

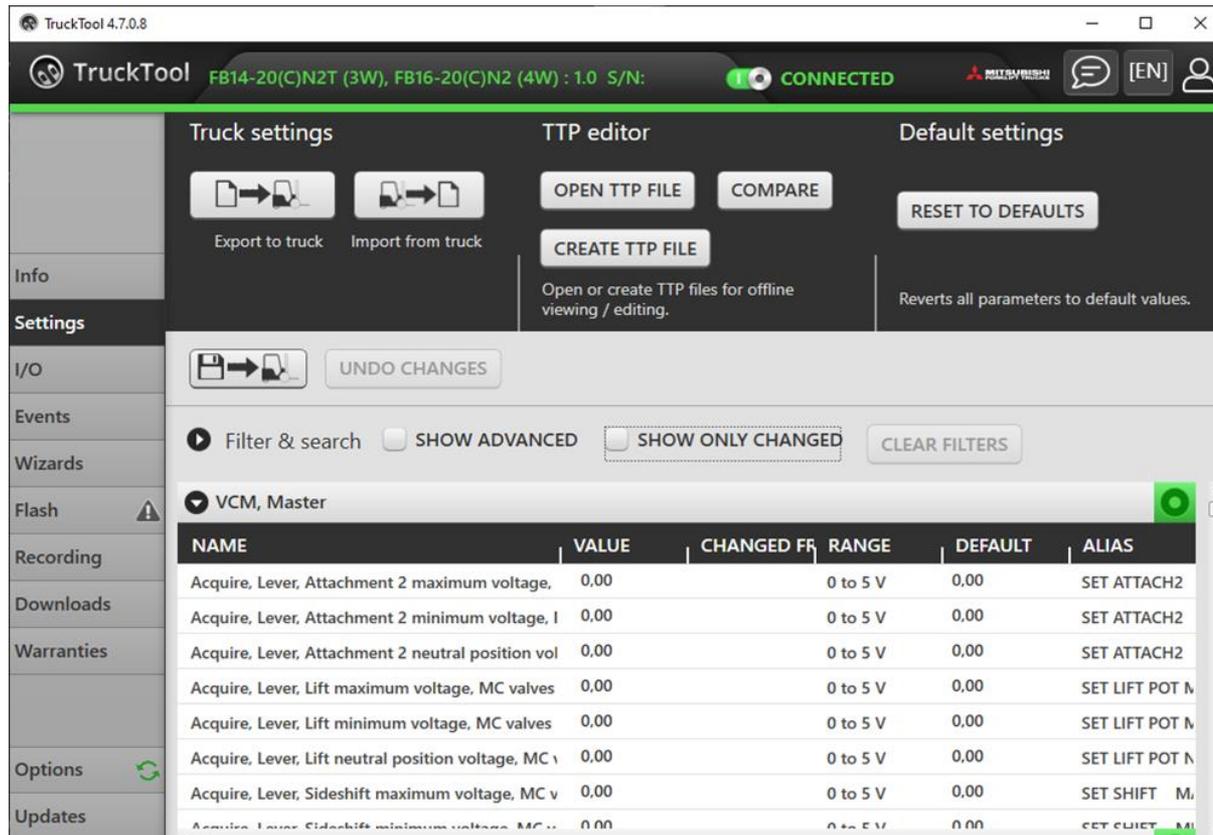
1.0.0.71

Legend:

- Black: Offline, no connection.
- Green: Online and no errors present.
- Red: Online and active error code(s) present.
- Yellow: Online and active warning code(s) present.
- Blue: Online and active info code(s) present.

9.2 Settings view

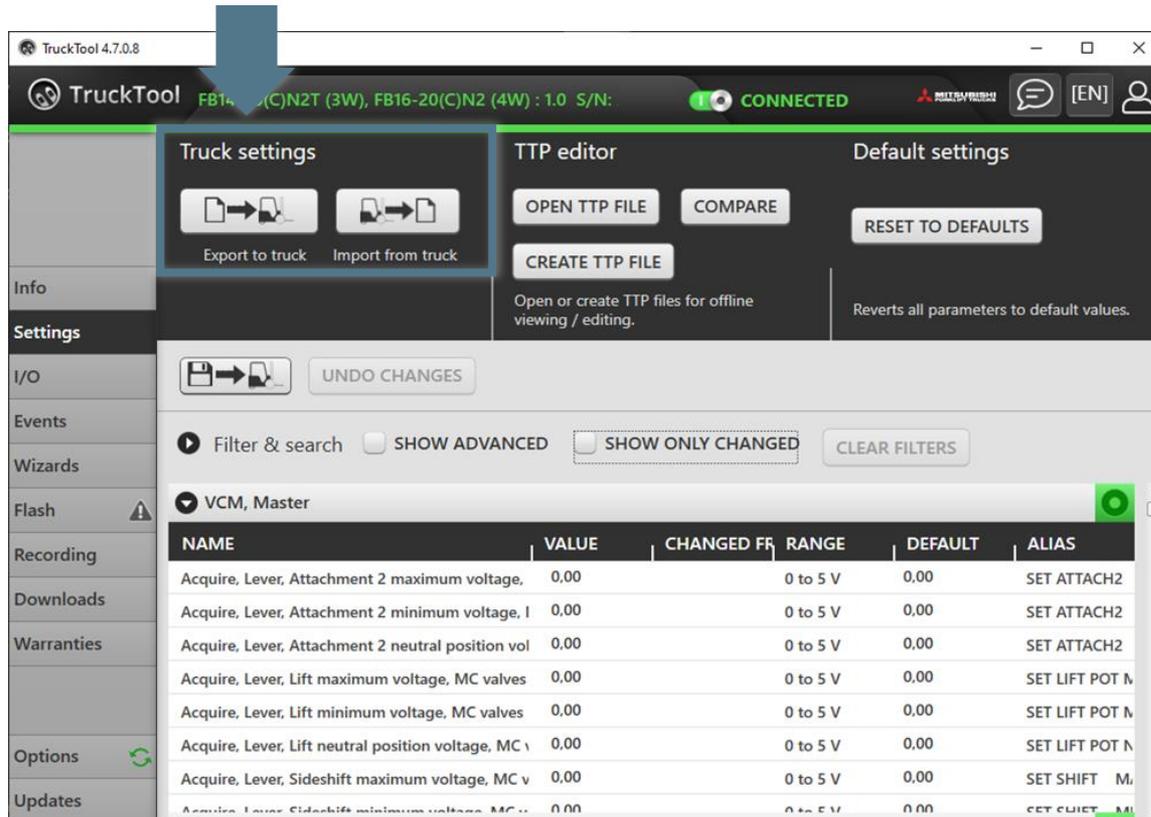
On the Settings view, you can edit single parameters, import, export and create TTP (TruckTool Parameter) files, open the TTP file editor, and reset current parameter values in the truck back to the manufacturer’s default values.



9.2 Settings view

'Export to truck'  action loads parameters from a TTP file to the truck.

'Import from truck'  action loads all parameters and event logs from the truck to a TTP file.



The screenshot shows the TruckTool 4.7.0.8 interface. The top bar displays the truck model 'FB16-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N:' and a 'CONNECTED' status. The left sidebar contains navigation options: Info, Settings, I/O, Events, Wizards, Flash, Recording, Downloads, Warranties, Options, and Updates. The main area is divided into three panels: 'Truck settings' (containing 'Export to truck' and 'Import from truck' buttons), 'TTP editor' (containing 'OPEN TTP FILE', 'COMPARE', and 'CREATE TTP FILE' buttons), and 'Default settings' (containing a 'RESET TO DEFAULTS' button). Below these panels is an 'UNDO CHANGES' button and a 'Filter & search' section with 'SHOW ADVANCED' and 'SHOW ONLY CHANGED' checkboxes. The main data area shows a table for 'VCM, Master' with columns for NAME, VALUE, CHANGED FR, RANGE, DEFAULT, and ALIAS.

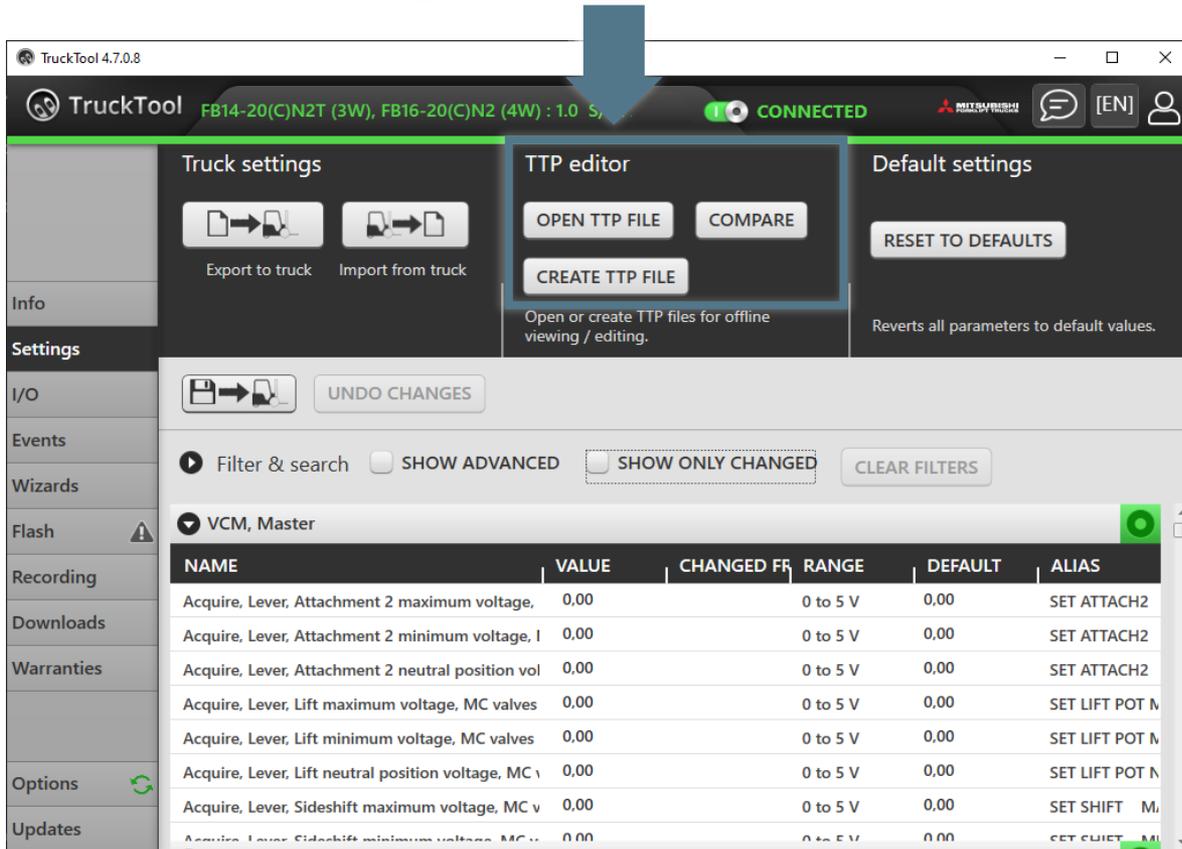
NAME	VALUE	CHANGED FR	RANGE	DEFAULT	ALIAS
Acquire, Lever, Attachment 2 maximum voltage,	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 minimum voltage, I	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 neutral position vol	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Lift maximum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Lift minimum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Lift neutral position voltage, MC v	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Sideshift maximum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M
Acquire, Lever, Sideshift minimum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M

9.2 Settings view

A TTP file editor can be opened from the Settings view.

The editor can also be opened when not connected to a truck.

Create the connection as usual, ignore all connection errors, and open the TTP file editor.



The screenshot shows the TruckTool 4.7.0.8 interface. The top bar indicates the truck is connected: "FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S" and "CONNECTED". The "Settings" view is active, showing three main sections: "Truck settings", "TTP editor", and "Default settings". The "TTP editor" section is highlighted with a blue box and a blue arrow pointing to it from above. It contains three buttons: "OPEN TTP FILE", "COMPARE", and "CREATE TTP FILE". Below these buttons is the text: "Open or create TTP files for offline viewing / editing." The "Default settings" section has a "RESET TO DEFAULTS" button and the text: "Reverts all parameters to default values." Below the settings view, the "I/O" section shows an "UNDO CHANGES" button. The "Events" section has a "Filter & search" section with "SHOW ADVANCED" and "SHOW ONLY CHANGED" checkboxes, and a "CLEAR FILTERS" button. The "VCM, Master" section is expanded, showing a table of parameters.

NAME	VALUE	CHANGED FR	RANGE	DEFAULT	ALIAS
Acquire, Lever, Attachment 2 maximum voltage,	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 minimum voltage, I	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 neutral position vol	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Lift maximum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Lift minimum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Lift neutral position voltage, MC v	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Sideshift maximum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M
Acquire, Lever, Sideshift minimum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M

9.2 Settings view

With the 'Reset to defaults' action, you can reset the truck or individual controllers to the manufacturer's default values.

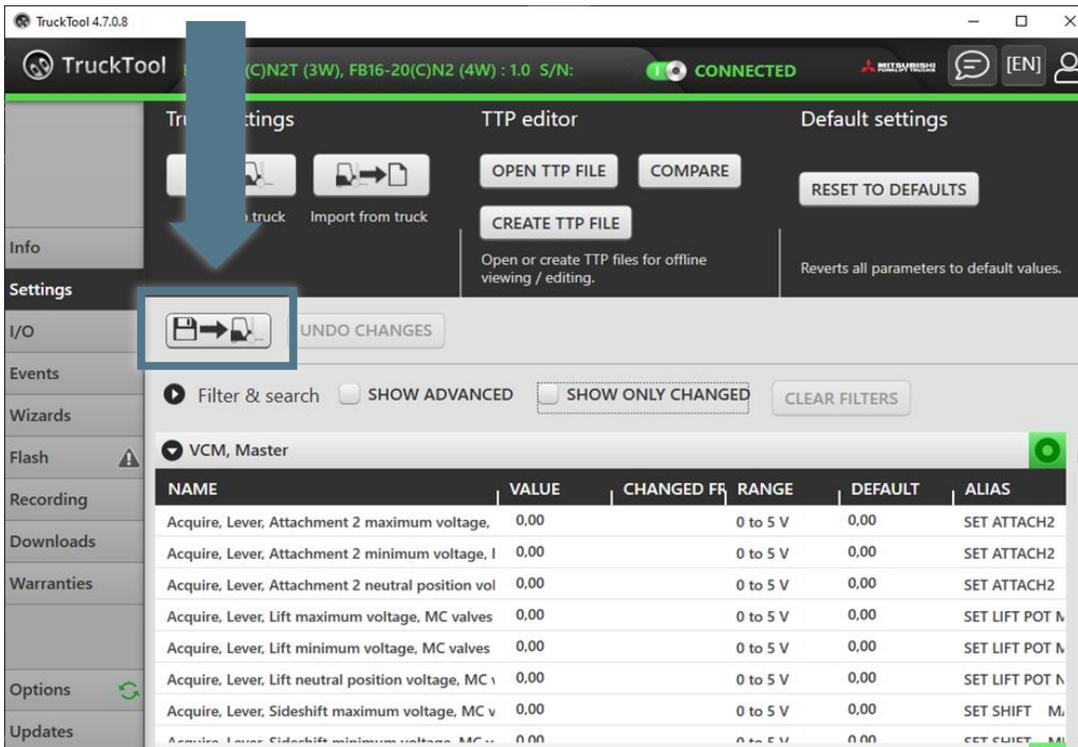
The screenshot shows the TruckTool 4.7.0.8 interface. The main window has a sidebar on the left with menu items: Info, Settings, I/O, Events, Wizards, Flash, Recording, Downloads, Warranties, Options, and Updates. The main area is divided into 'Truck settings', 'TTP editor', and 'Default settings'. The 'Default settings' panel contains a 'RESET TO DEFAULTS' button, which is highlighted by a blue arrow. A dialog box titled 'Reset To Defaults' is open in the foreground, showing a progress bar and options to select a default parameter set (currently 'Europe defaults') and to select/unselect all controllers or logics. A note at the bottom of the dialog states: 'NOTE: Reset cannot be undone afterwards. It is possible that calibration and/or option wizards must be run for the truck to function normally.'

NAME	VALUE	CHANGED FR
Acquire, Lever, Attachment 2 maximum voltage,	0,00	
Acquire, Lever, Attachment 2 minimum voltage, I	0,00	
Acquire, Lever, Attachment 2 neutral position vol	0,00	
Acquire, Lever, Lift maximum voltage, MC valves	0,00	
Acquire, Lever, Lift minimum voltage, MC valves	0,00	
Acquire, Lever, Lift neutral position voltage, MC v	0,00	
Acquire, Lever, Sideshift maximum voltage, MC v	0,00	
Acquire, Lever, Sideshift minimum voltage, MC v	0,00	

9.2 Settings view

Parameter changes are not permanent unless saved to the truck's memory. Unsaved changes are cleared when the truck is restarted.

Clicking "Undo Changes" sets all values on the truck as they were before editing.



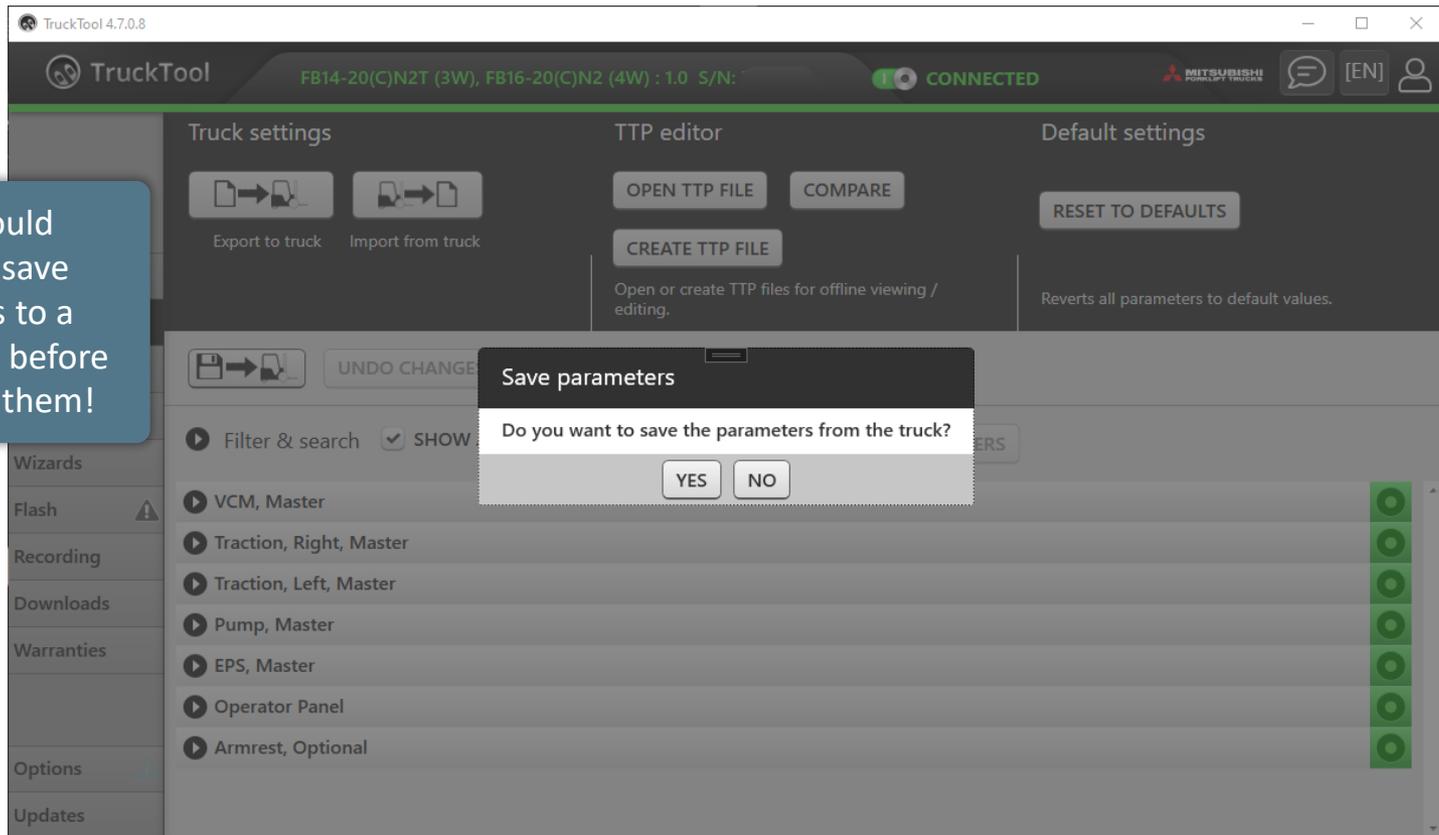
The screenshot shows the TruckTool 4.7.0.8 interface. The top bar displays 'TruckTool' and 'CONNECTED' status. The left sidebar contains navigation options: Info, Settings, I/O, Events, Wizards, Flash, Recording, Downloads, Warranties, Options, and Updates. The main area is divided into sections: 'Truck settings' (Export to truck, Import from truck), 'TTP editor' (OPEN TTP FILE, COMPARE, CREATE TTP FILE), and 'Default settings' (RESET TO DEFAULTS). A blue arrow points to the 'Undo Changes' button, which is highlighted with a blue box. Below this, there are filter options: Filter & search, SHOW ADVANCED, SHOW ONLY CHANGED, and CLEAR FILTERS. The main content area shows a table of settings for 'VCM, Master'.

NAME	VALUE	CHANGED FR	RANGE	DEFAULT	ALIAS
Acquire, Lever, Attachment 2 maximum voltage,	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 minimum voltage, I	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 neutral position vol	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Lift maximum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Lift minimum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Lift neutral position voltage, MC v	0,00		0 to 5 V	0,00	SET LIFT POT N
Acquire, Lever, Sideshift maximum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M
Acquire, Lever, Sideshift minimum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M

9.2 Settings view

By default, TruckTool automatically prompts you to save parameters. 'Save parameters' prompt can be disabled from the Options view.

You should **always** save settings to a TTP file before editing them!



9.2 Settings view

To view the parameters of each controller, expand the controller by clicking the expander button .

You can open the settings editor of a parameter by double-clicking it.

The screenshot shows the TruckTool 4.7.0.8 interface. The top bar displays the truck model: FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N: and a 'CONNECTED' status. The main interface is divided into three sections: 'Truck settings' with 'Export to truck' and 'Import from truck' buttons; 'TTP editor' with 'OPEN TTP FILE', 'COMPARE', and 'CREATE TTP FILE' buttons; and 'Default settings' with a 'RESET TO DEFAULTS' button. Below these is an 'UNDO CHANGES' button and filter options: 'Filter & search', 'SHOW ADVANCED', 'SHOW ONLY CHANGED', and 'CLEAR FILTERS'. A list of controllers is shown, with 'VCM, Master' expanded. A table of parameters is visible below the expanded controller:

NAME	VALUE	CHANGED FR	RANGE	DEFAULT	ALIAS
Acquire, Lever, Attachment 2 maximum voltage,	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 minimum voltage, I	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Attachment 2 neutral position vol	0,00		0 to 5 V	0,00	SET ATTACH2
Acquire, Lever, Lift maximum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Lift minimum voltage, MC valves	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Lift neutral position voltage, MC v	0,00		0 to 5 V	0,00	SET LIFT POT M
Acquire, Lever, Sideshift maximum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M
Acquire, Lever, Sideshift minimum voltage, MC v	0,00		0 to 5 V	0,00	SET SHIFT M

9.2 Settings view

TruckTool has different types of editors, depending on parameter types.

Numeric editor with slider, single selection, multiple-choice with checkboxes, etc.

Parameter descriptions and pictures are visible in editors.

Aux power reduction rate 1 [%]
✕

[EN]: Aux power reduction rate 1 [%]
ALIAS: Group 2: #013 (Page 02)

VALUE	CHANGED FROM	RANGE	DEFAULT
<div style="display: flex; align-items: center;"> <div style="flex-grow: 1;"> <input style="width: 100%; height: 20px; border: 1px solid gray;" type="text" value="42"/> </div> </div>		0 to 100	70

DESCRIPTION

Setting the traveling motor torque limit [%] at auxiliary input 1 active.

SET
CANCEL

Battery Type
✕

[EN]: Battery Type
ALIAS: Group 3: #042 (Page 05)

VALUE	CHANGED FROM	RANGE
<div style="display: flex; align-items: center;"> <div style="border: 1px solid gray; padding: 2px; margin-right: 5px;">Tubular</div> <div style="font-size: 0.8em;">▼</div> </div> <div style="margin-top: 5px;"> <div style="background-color: #333; color: white; padding: 2px; margin-bottom: 2px;">Normal</div> <div style="background-color: #ccc; color: #333; padding: 2px; margin-bottom: 2px;">Gel</div> <div style="background-color: #333; color: white; padding: 2px; margin-bottom: 2px;">Tubular ✓</div> </div>		Normal ... Gel

tery type.

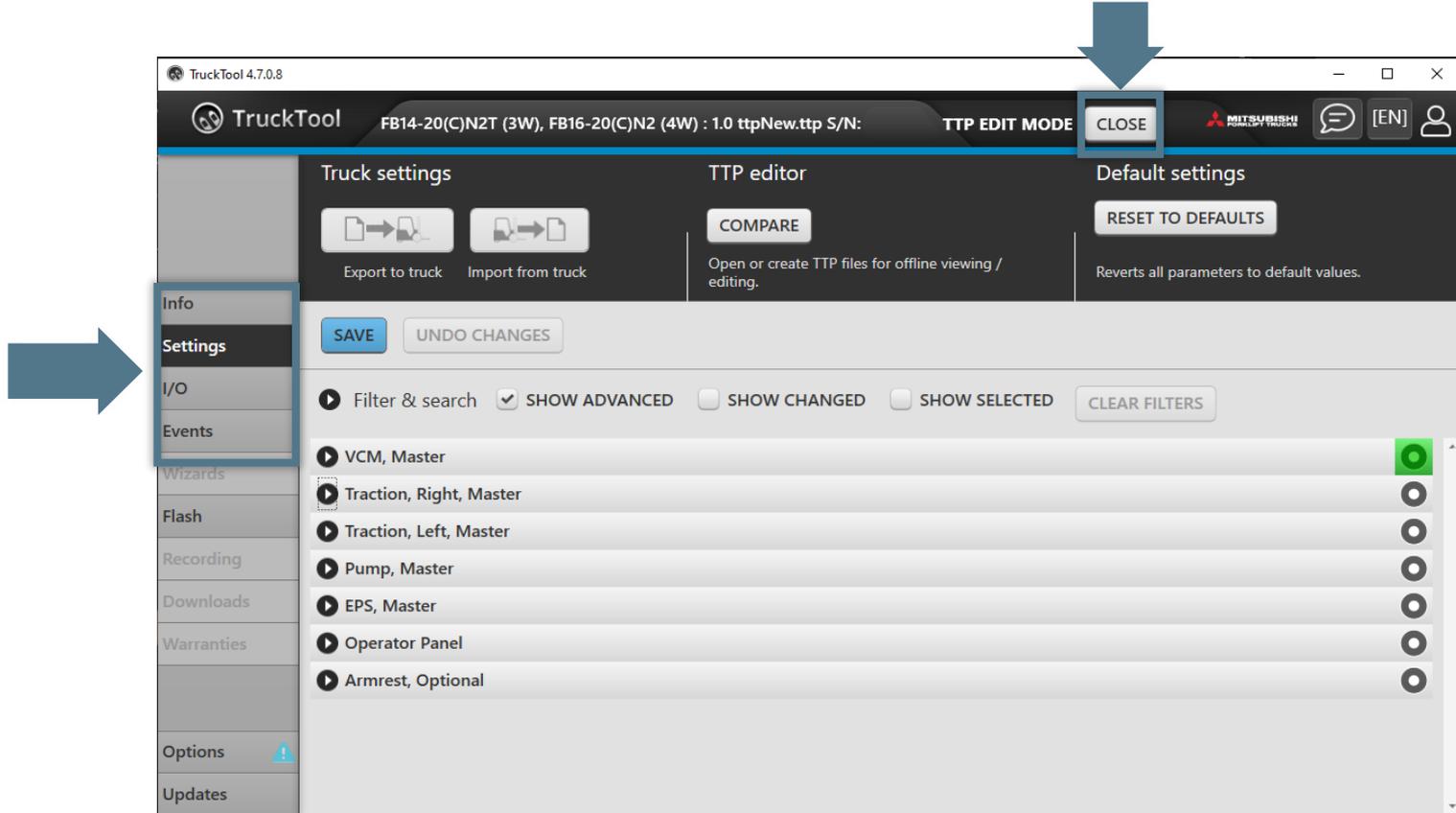
Normal
Tubular
Gel

SET
CANCEL

9.2 Settings view

In the TTP editor, you can view Info, Settings, I/O, and Events views, just like you would do when connected to a truck.

When you close the TTP editor, you will be prompted to save your changes to a new TTP file.

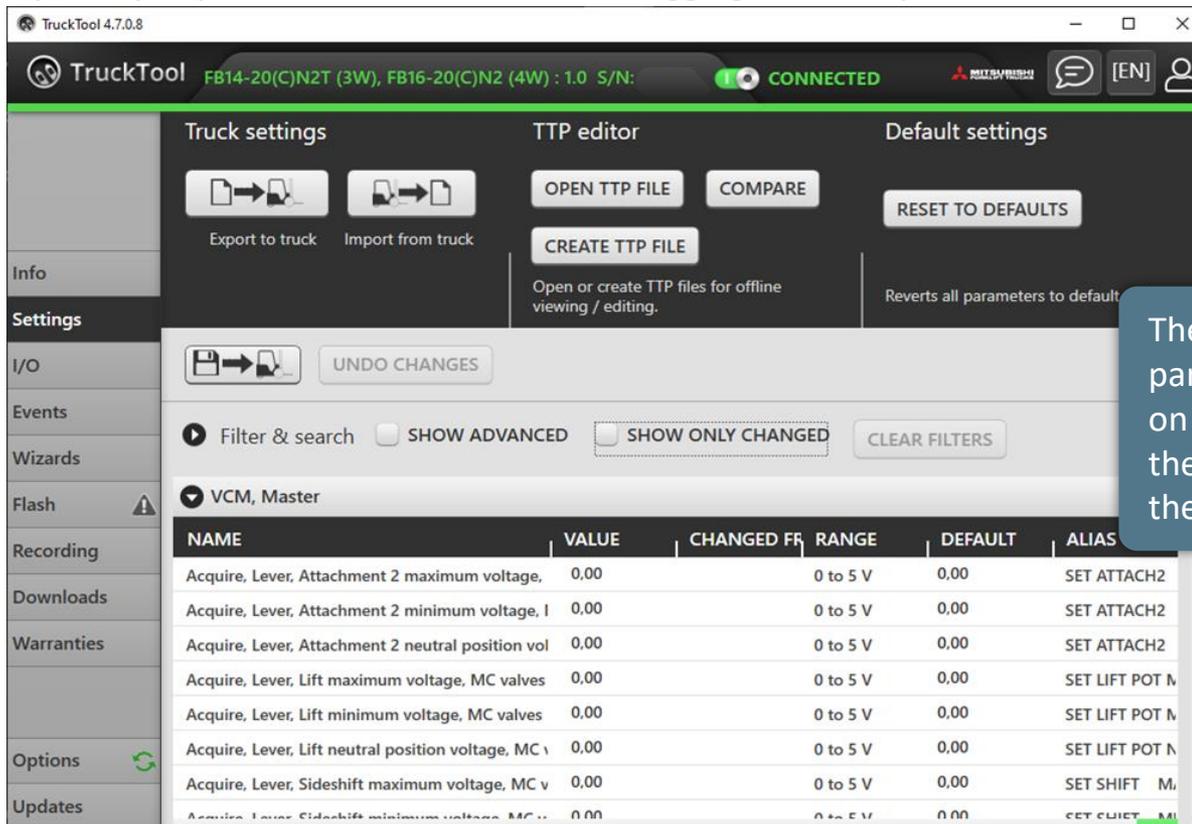


9.2 Settings view – Filter & Search functionality

Filter & Search **affects the update speed** of displayed objects:

TruckTool polls from truck only the parameters visible to the user, which directly correlates with update speed.

Especially important in I/O view when debugging some output state etc.



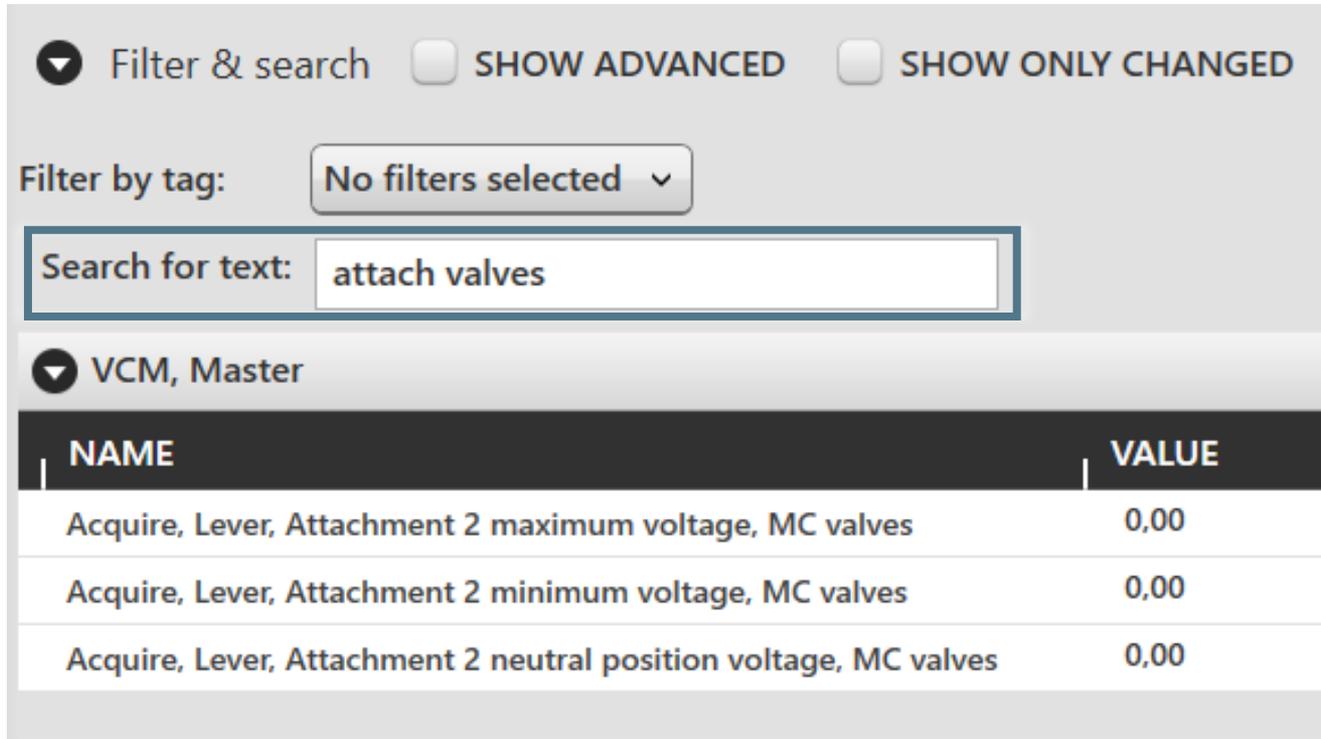
The fewer parameters on display, the faster they update.

9.2 Settings view – Filter & Search functionality

'Search for text' should be your first choice for searching.

Simple text search.

Results all parameters containing text matching to your given search words.



The screenshot shows the 'Filter & search' section of the settings view. It includes a dropdown menu for 'Filter by tag' set to 'No filters selected', a search input field containing 'attach valves', and a table of results under the 'VCM, Master' category.

Filter & search SHOW ADVANCED SHOW ONLY CHANGED

Filter by tag:

Search for text:

▼ VCM, Master

NAME	VALUE
Acquire, Lever, Attachment 2 maximum voltage, MC valves	0,00
Acquire, Lever, Attachment 2 minimum voltage, MC valves	0,00
Acquire, Lever, Attachment 2 neutral position voltage, MC valves	0,00

9.2 Settings view – Filter & Search functionality

Checking the 'Show Advanced' checkbox displays parameters that you do not usually need to edit.

▼ Filter & search

SHOW ADVANCED

SHOW ONLY CHANGED

Filter by tag: No filters selected ▼

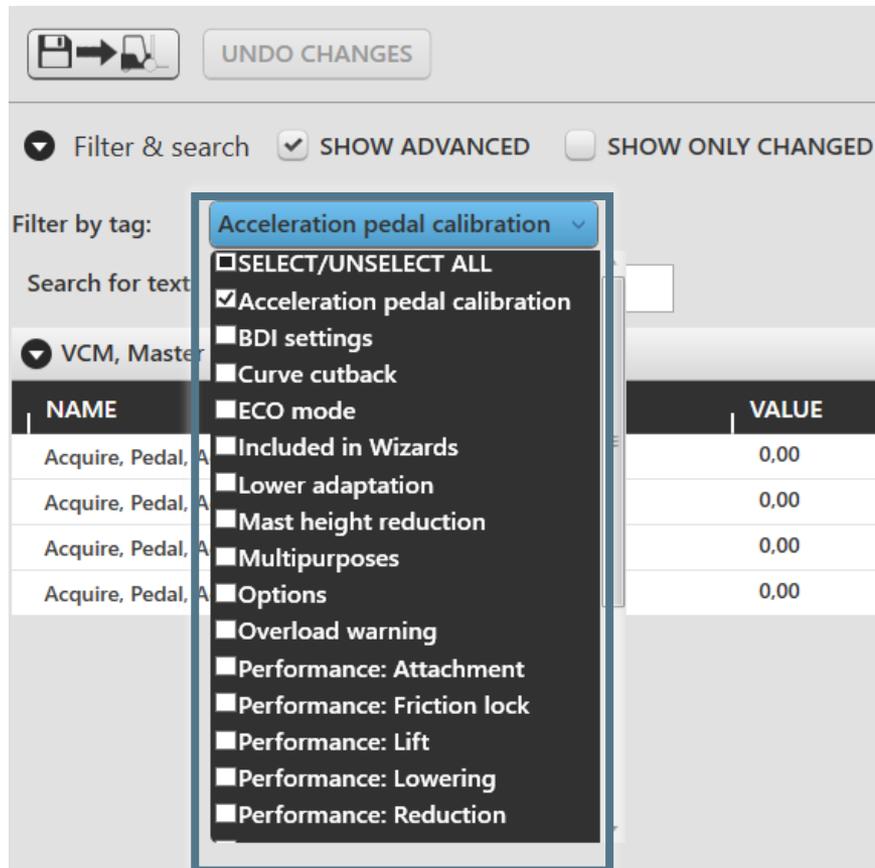
Search for text:

▼ VCM, Master

NAME	VALUE
Acquire, Lever, Attachment 2 maximum voltage, MC valves	0,00
Acquire, Lever, Attachment 2 minimum voltage, MC valves	0,00
Acquire, Lever, Attachment 2 neutral position voltage, MC valves	0,00
Acquire, Lever, Lift deadband, MC valves	0,0

9.2 Settings view – Filter & Search functionality

Some predefined object groups have been defined and can be selected from the 'Filter by tag' dropdown menu.



Filter & search SHOW ADVANCED SHOW ONLY CHANGED

Filter by tag: Acceleration pedal calibration

Search for text

VCM, Master

NAME	VALUE
Acquire, Pedal, A	0,00

Dropdown menu items:

- SELECT/UNSELECT ALL
- Acceleration pedal calibration
- BDI settings
- Curve cutback
- ECO mode
- Included in Wizards
- Lower adaptation
- Mast height reduction
- Multipurposes
- Options
- Overload warning
- Performance: Attachment
- Performance: Friction lock
- Performance: Lift
- Performance: Lowering
- Performance: Reduction

9.2 Settings view – Filter & Search functionality

‘Show only changed’ displays changed values and the value they were changed from.

▼ Filter & search
 SHOW ADVANCED
 SHOW ONLY CHANGED
CLEAR FILTERS
FILTERS ACTIVE

Filter by tag: No filters selected ▼

Search for text:

▼ VCM, Master

NAME	VALUE	CHANGED FROM	RANGE
Adjustment, Automated working lights timeout	2	0	1 to 100 min
Adjustment, Truck display speed calibration	23	0	1 to 255

9.2.1 Settings view – TTP creator

A TTP file can be created by selecting ‘Create TTP file’.

Select the objects that you want to include in the TTP, change values of objects to desired value and click create. Selected values will be written to the TTP file with the values shown in the VALUE column.

TruckTool 4.7.0.8

FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N: TTP EDIT MODE CLOSE

CREATE TTP file
Select wanted parameters to be included in the TTP file.

CREATE UNDO CHANGES 3 PARAMETERS HAVE CHANGED (FILTERED INCLUDED) 360 PARAMETERS ARE SELECTED (FILTERED INCLUDED)

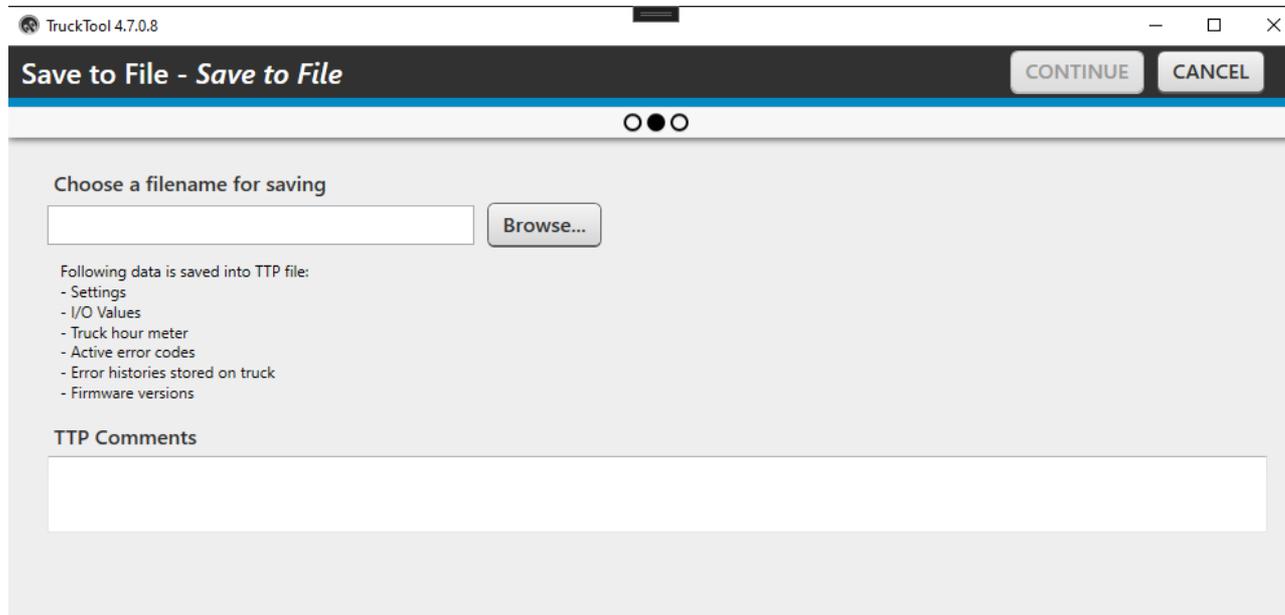
Filter & search SHOW ADVANCED SHOW CHANGED SHOW SELECTED CLEAR FILTERS

VCM, Master 360 selected, 3 changed

NAME	VALUE	CHANGED FROM	RANGE	DEFAULT	ALIAS
Acquire, Lever, Tilt neutral position voltage, MC valves	0,00		0 to 5 V	0,00	SET TILT POT NEU
Acquire, Load, Max load for fast lowering acceleration	500		200 to 2000 kg	500	LOWER MIN LOAI
Acquire, Load, Min load for slow lowering acceleration	1500		200 to 2000 kg	1500	LOWER MAX LOA
Acquire, Load, Overload warning 1	500	1900	0 to 2500 kg	1900	MAX LOAD WARN
Acquire, Load, Overload warning 2	900	1700	0 to 2500 kg	1700	MAX LOAD WARN
Acquire, Load, Overload warning 3	2050	1600	0 to 2500 kg	1600	MAX LOAD WARN
Acquire, Load, Sensor 0 kg Adjustment Above Free Lift Ar	0,75		0 to 10 V	0,75	LOAD POT MIN. 2
Acquire, Load, Sensor 0 kg adjustment at free lift area	0,75		0 to 10 V	0,75	LOAD POT MIN. 1
Acquire, Load, Sensor known weight	2000		0 to 2500 kg	2000	MAX LOAD
Acquire, Load, Sensor known weight adjustment above fr	3,14		0 to 10 V	3,14	LOAD POT MAX. 2
Acquire, Load, Sensor known weight adjustment at free li	3,14		0 to 10 V	3,14	LOAD POT MAX. 1
Acquire, Pedal, Acceleration deadband	18,0		18 to 20 %	18,0	TRAC ACCEL DEAI

9.2.1 Settings view – TTP creator

Choose a filename for saving and add an optional comment to the TTP file.



9.3 I/O view

I/O view contains the values of inputs and outputs.

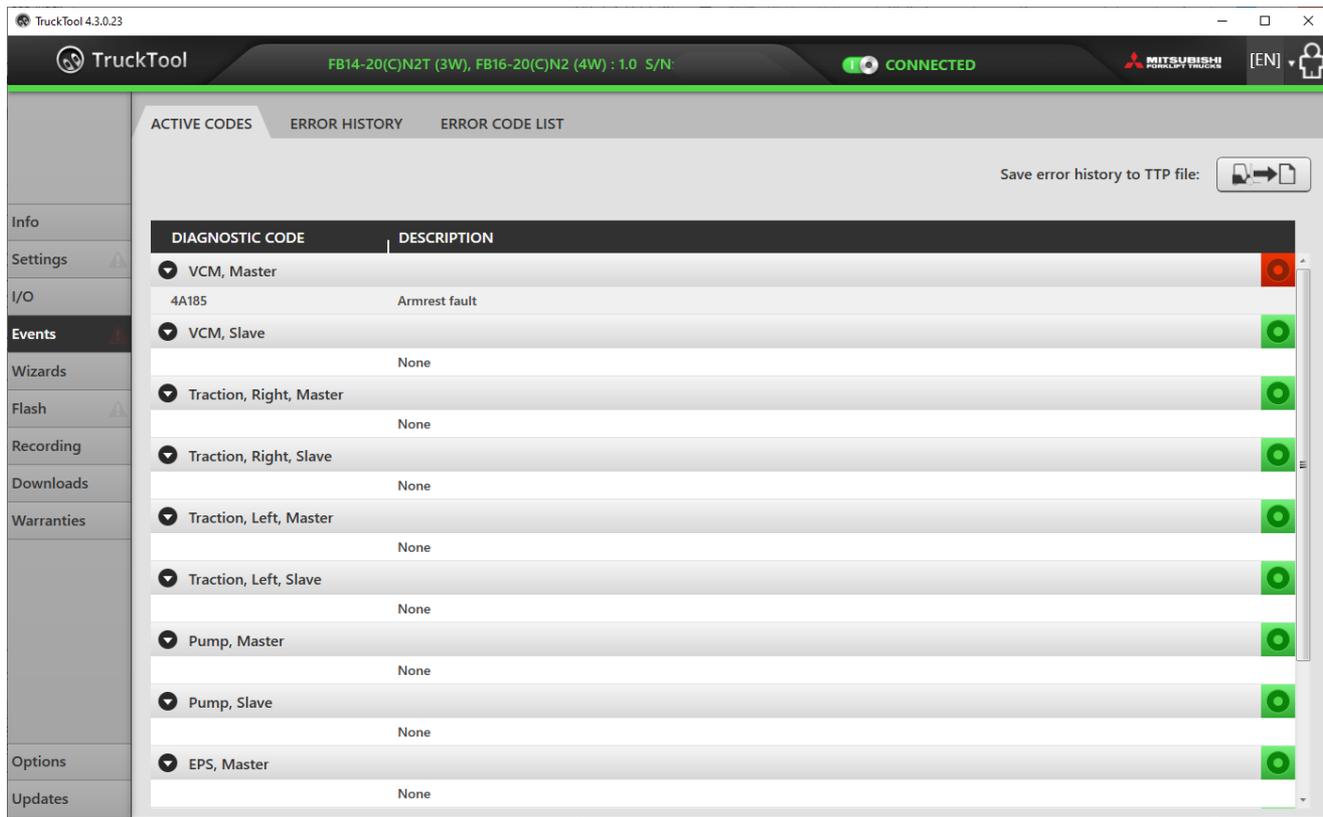
Values that are not inputs nor outputs, but hold some informational value, are listed under the 'Numeric' tab.

The screenshot shows the TruckTool interface with the 'I/O' section selected. The 'Numeric' tab is active, displaying a table of sensor data. The table has columns for NAME, VALUE, RANGE, HIGH, and LOW. The data is as follows:

NAME	VALUE	RANGE	HIGH	LOW
Al: Acceleration pedal value	0 %	0 to 100 %	0,00	0,00
Al: Automated working lights sensor (XA4B/4)	0 V	0 to 5 V	0,00	0,00
Al: Battery voltage	0 V	0 to 60 V	0,00	0,00
Al: Brake pedal value	0 %	0 to 100 %	0,00	0,00
Al: Load weight	0 kg	0 to 5000 kg	0,00	0,00
Al: Main contactor status (XA4B/1)	0 V	0 to 53 V	0,00	0,00
Al: MC attachment 2 lever (XA4B/12)	0 V	0 to 5 V	0,00	0,00
Al: MC lift/lower lever (XA4A/35)	0 V	0 to 5 V	0,00	0,00
Al: MC sideshift lever (XA4B/11)	0 V	0 to 5 V	0,00	0,00
Al: MC tilt lever (XA4B/2)	0 V	0 to 5 V	0,00	0,00
Al: Multipurpose input 4 (XA4A/23)	0 V	0 to 5 V	0,00	0,00
Al: Pressure sensor voltage (XA4B/6)	0 V	0 to 12 V	0,00	0,00
Al: Steering angle	-180 deg	-180 to 180 deg	0,00	0,00
Al: Steering angle sensor value	-5 V	-5 to 5 V	0,00	0,00

9.4 Events view

'Active Codes' tab contains error codes currently active on each controller of the truck.



TruckTool 4.3.0.23

TruckTool FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N

CONNECTED

MITSUBISHI FORKLIFT TRUCKS [EN]

ACTIVE CODES ERROR HISTORY ERROR CODE LIST

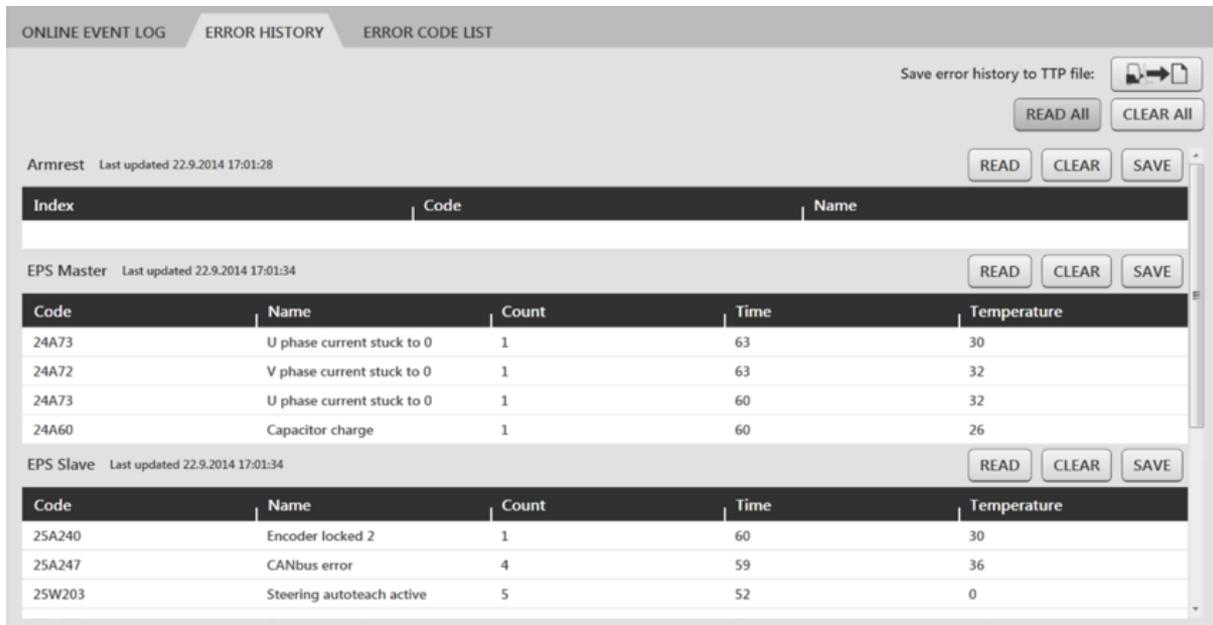
Save error history to TTP file: 

DIAGNOSTIC CODE	DESCRIPTION	Status
VCM, Master		
4A185	Armrest fault	
VCM, Slave	None	
Traction, Right, Master	None	
Traction, Right, Slave	None	
Traction, Left, Master	None	
Traction, Left, Slave	None	
Pump, Master	None	
Pump, Slave	None	
EPS, Master	None	

9.4 Events view

'Error History' tab displays error histories that are stored in controllers.

Error histories hold a limited amount of information due to a limited amount of memory available in the controllers.



ONLINE EVENT LOG ERROR HISTORY ERROR CODE LIST

Save error history to TTP file: 

READ ALL CLEAR ALL

Armrest Last updated 22.9.2014 17:01:28 READ CLEAR SAVE

Index	Code	Name

EPS Master Last updated 22.9.2014 17:01:34 READ CLEAR SAVE

Code	Name	Count	Time	Temperature
24A73	U phase current stuck to 0	1	63	30
24A72	V phase current stuck to 0	1	63	32
24A73	U phase current stuck to 0	1	60	32
24A60	Capacitor charge	1	60	26

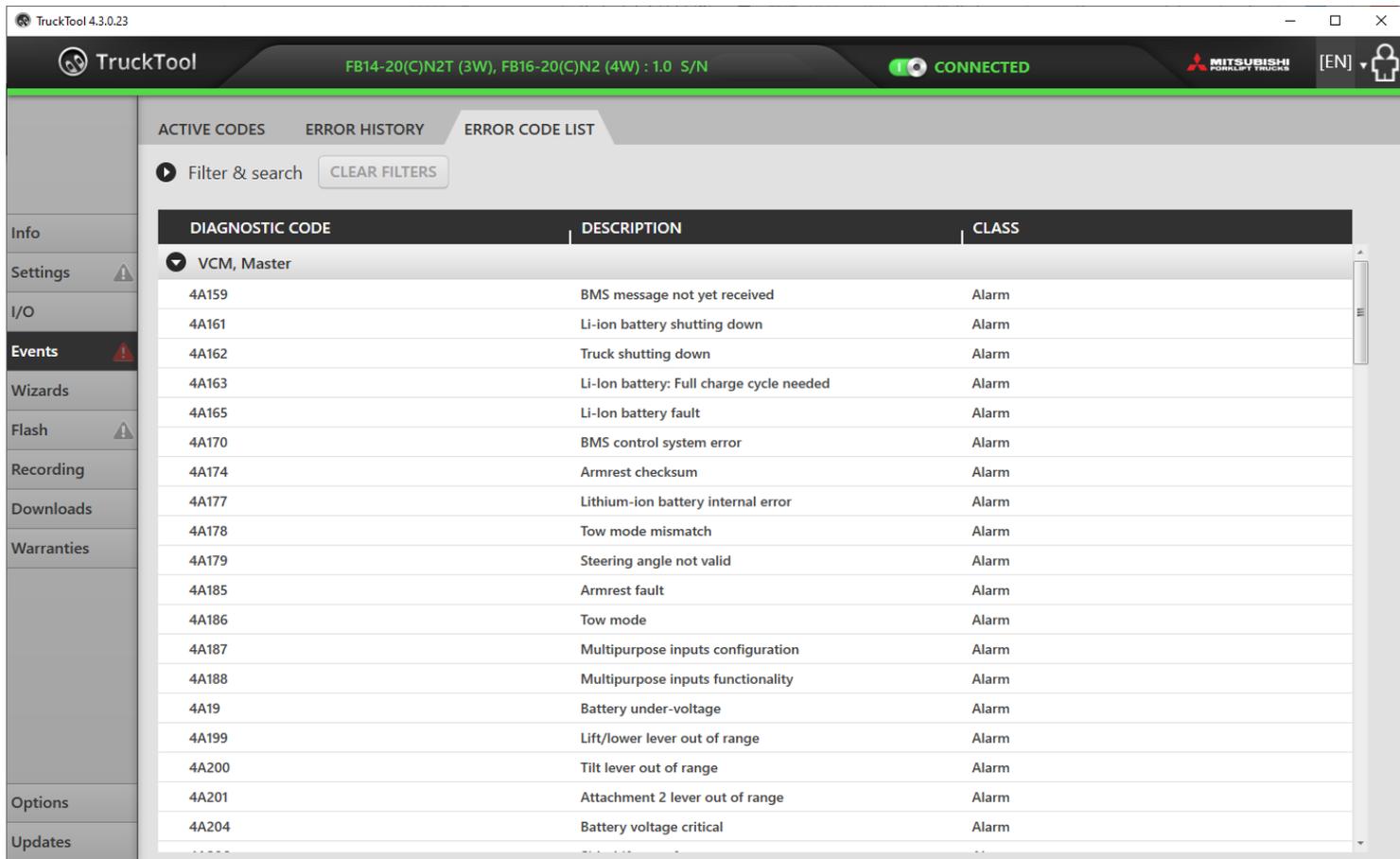
EPS Slave Last updated 22.9.2014 17:01:34 READ CLEAR SAVE

Code	Name	Count	Time	Temperature
25A240	Encoder locked 2	1	60	30
25A247	CANbus error	4	59	36
25W203	Steering autoteach active	5	52	0

9.4 Events view

‘Error Code List’ tab shows all known error codes of every controller.

You can view the complete description of an error code by double-clicking it.



TruckTool 4.3.0.23

FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N

CONNECTED

MITSUBISHI FORKHOIST TRUCKS [EN]

ACTIVE CODES ERROR HISTORY **ERROR CODE LIST**

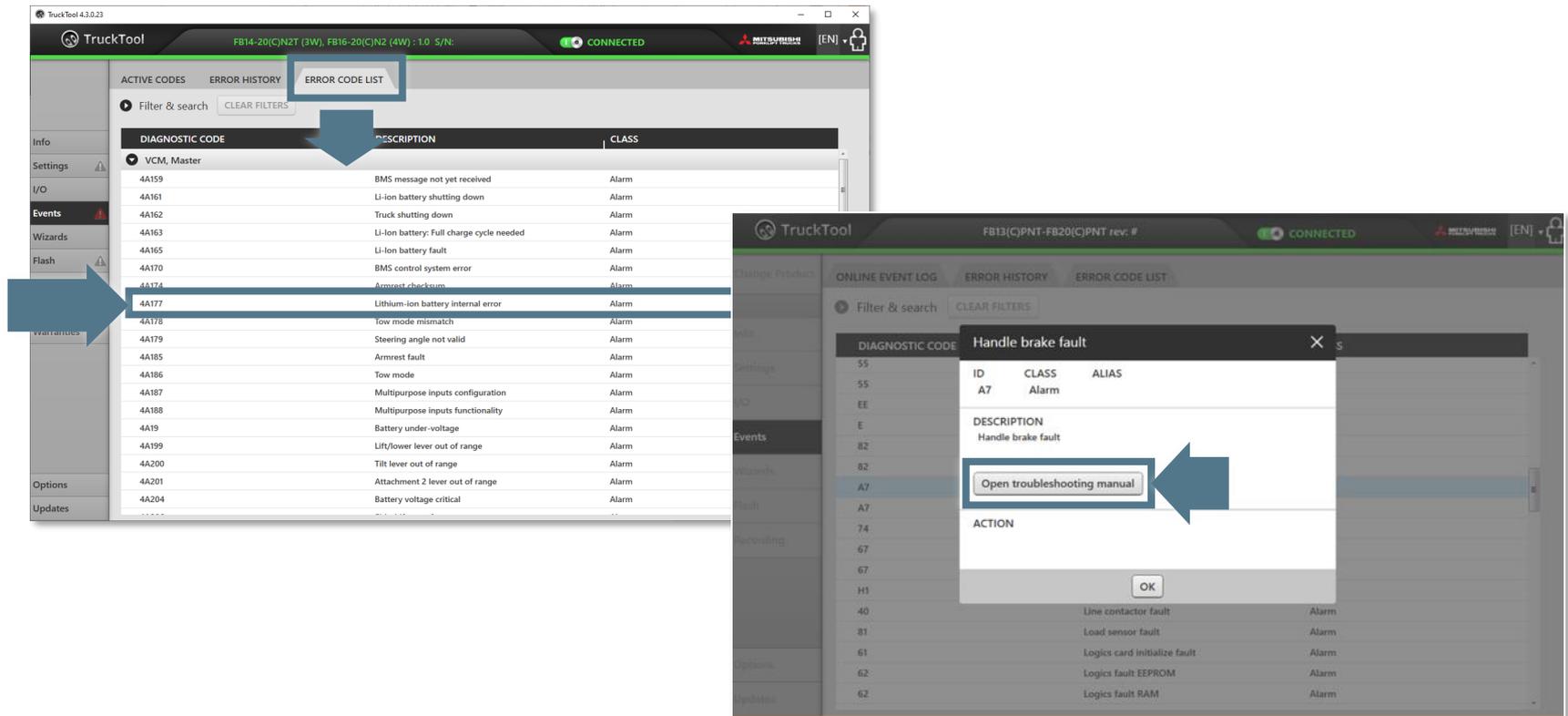
Filter & search CLEAR FILTERS

DIAGNOSTIC CODE	DESCRIPTION	CLASS
▼ VCM, Master		
4A159	BMS message not yet received	Alarm
4A161	Li-ion battery shutting down	Alarm
4A162	Truck shutting down	Alarm
4A163	Li-ion battery: Full charge cycle needed	Alarm
4A165	Li-ion battery fault	Alarm
4A170	BMS control system error	Alarm
4A174	Armrest checksum	Alarm
4A177	Lithium-ion battery internal error	Alarm
4A178	Tow mode mismatch	Alarm
4A179	Steering angle not valid	Alarm
4A185	Armrest fault	Alarm
4A186	Tow mode	Alarm
4A187	Multipurpose inputs configuration	Alarm
4A188	Multipurpose inputs functionality	Alarm
4A19	Battery under-voltage	Alarm
4A199	Lift/lower lever out of range	Alarm
4A200	Tilt lever out of range	Alarm
4A201	Attachment 2 lever out of range	Alarm
4A204	Battery voltage critical	Alarm

9.4 Events view – Troubleshooting

You can investigate the meaning of an error code on the Error Code List tab in the Events view. Scroll down or search the error code.

Double-clicking an error code opens a details dialog, and clicking 'Open troubleshooting manual' opens the manual page (not possible on all truck models).



The screenshot shows the TruckTool interface with the 'ERROR CODE LIST' tab selected. A table of diagnostic codes is displayed, with error code 4A177 highlighted. A details dialog for error code A7 is open, showing the description 'Handle brake fault' and an 'Open troubleshooting manual' button.

DIAGNOSTIC CODE	DESCRIPTION	CLASS
VCM, Master		
4A159	BMS message not yet received	Alarm
4A161	Li-Ion battery shutting down	Alarm
4A162	Truck shutting down	Alarm
4A163	Li-Ion battery: Full charge cycle needed	Alarm
4A165	Li-Ion battery fault	Alarm
4A170	BMS control system error	Alarm
4A174	Armrest check-sum	Alarm
4A177	Lithium-Ion battery internal error	Alarm
4A178	low mode mismatch	Alarm
4A179	Steering angle not valid	Alarm
4A185	Armrest fault	Alarm
4A186	Tow mode	Alarm
4A187	Multipurpose inputs configuration	Alarm
4A188	Multipurpose inputs functionality	Alarm
4A19	Battery under-voltage	Alarm
4A199	Lift/lower lever out of range	Alarm
4A200	Tilt lever out of range	Alarm
4A201	Attachment 2 lever out of range	Alarm
4A204	Battery voltage critical	Alarm

ID	CLASS	ALIAS
A7	Alarm	

DESCRIPTION
Handle brake fault

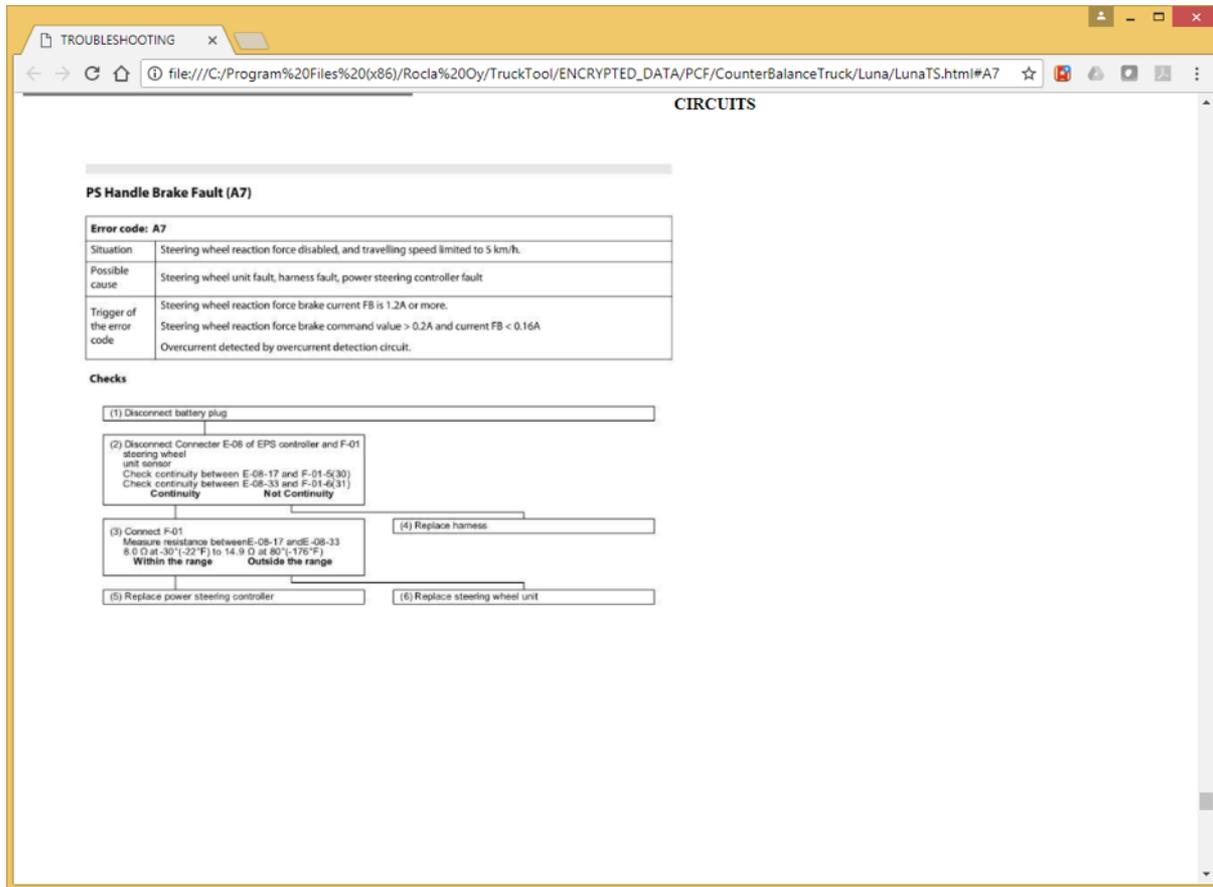
Open troubleshooting manual

ACTION

OK

9.4 Events view – Troubleshooting

The opened page shows you a brief description of the error.



CIRCUITS

PS Handle Brake Fault (A7)

Error code: A7	
Situation	Steering wheel reaction force disabled, and travelling speed limited to 5 km/h.
Possible cause	Steering wheel unit fault, harness fault, power steering controller fault
Trigger of the error code	Steering wheel reaction force brake current FB is 1.2A or more. Steering wheel reaction force brake command value > 0.2A and current FB < 0.16A Overcurrent detected by overcurrent detection circuit.

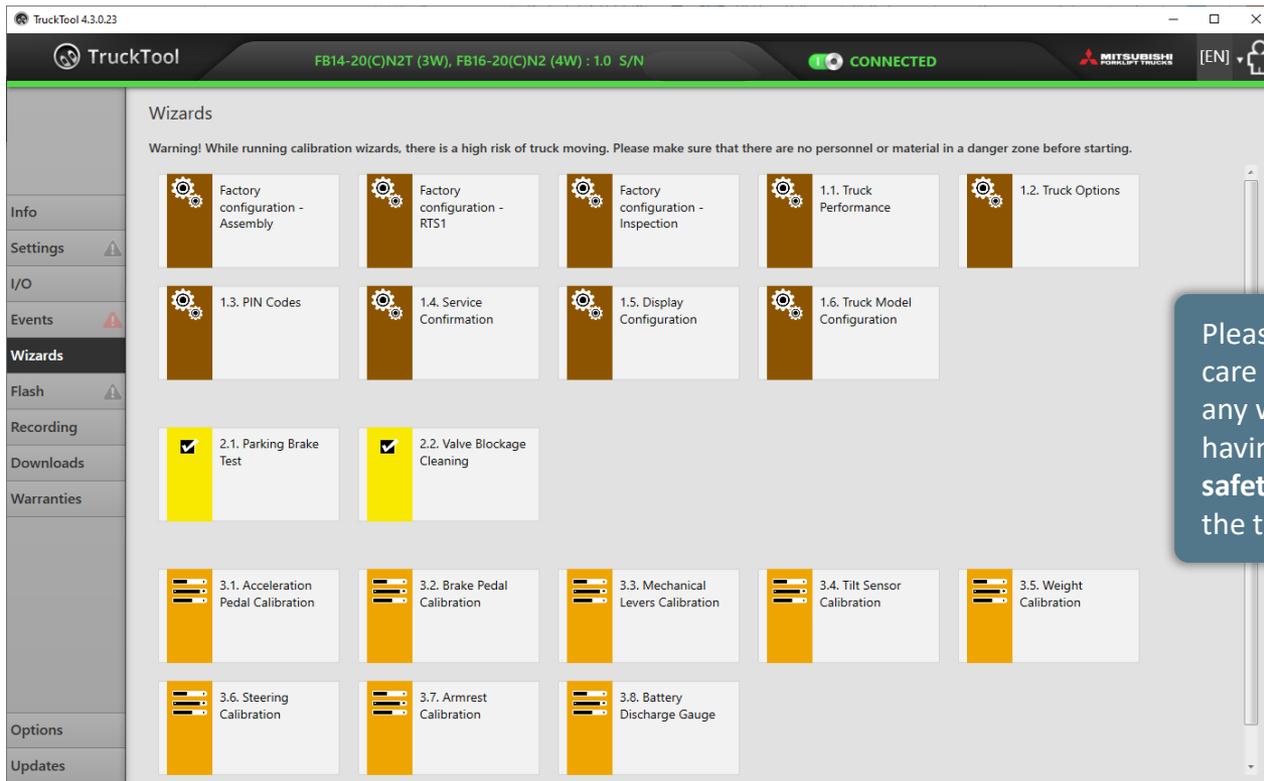
Checks

```

graph TD
    C1["(1) Disconnect battery plug"] --> C2["(2) Disconnect Connector E-08 of EPS controller and F-01 steering wheel unit sensor  
Check continuity between E-08-17 and F-01-5(30)  
Check continuity between E-08-33 and F-01-4(31)  
Continuity: Not Continuity"]
    C2 --> C3["(3) Connect F-01  
Measure resistance between E-08-17 and E-08-33  
8.0 Ω at -30° (-22°F) to 14.9 Ω at 80° (-176°F)  
Within the range: Outside the range"]
    C2 --> C4["(4) Replace harness"]
    C3 --> C5["(5) Replace power steering controller"]
    C3 --> C6["(6) Replace steering wheel unit"]
  
```

9.5 Wizards view

Wizards view contains step-by-step wizards for calibrating, testing, and configuring the truck.



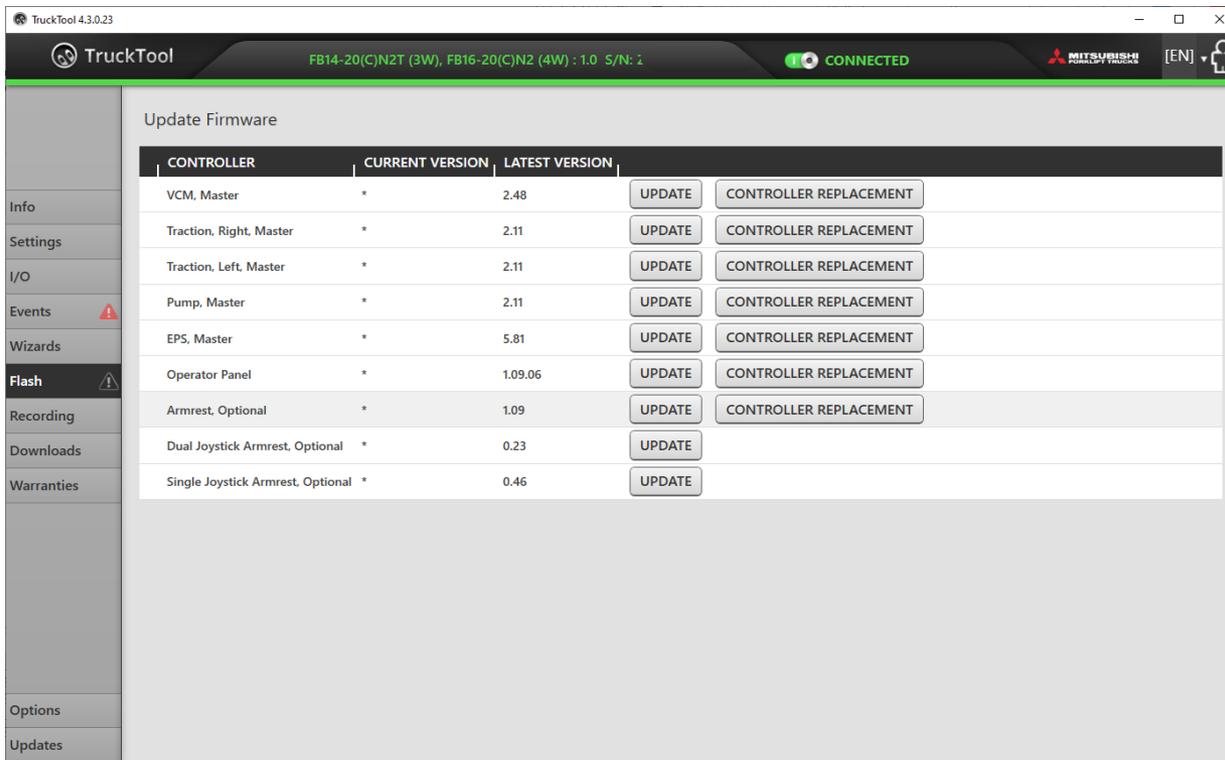
Please take extra care when running any wizard by having a **reasonable safety zone** around the truck.

9.6 Flash view

Flash view contains actions for updating new software to controllers.

Use the 'Update' button if you are only updating the software.

Use the 'Controller Replacement' button if you are installing a new controller or replacing a broken one.



TruckTool 4.3.0.23

TruckTool FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N: 1 CONNECTED

Update Firmware

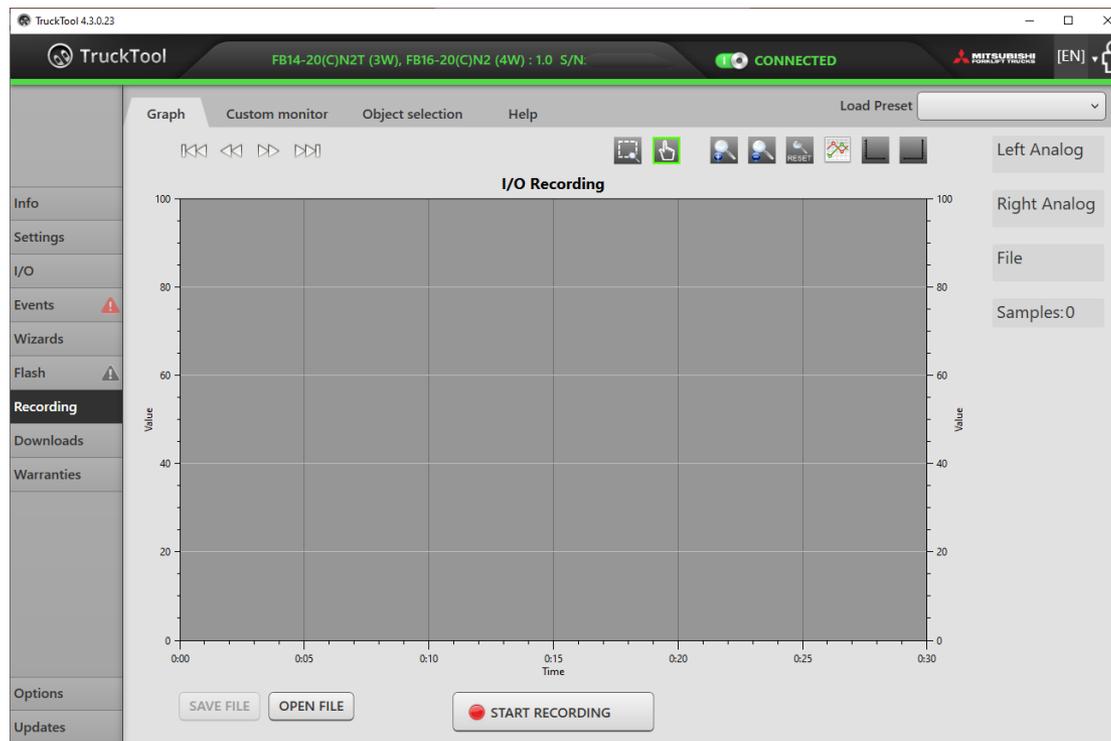
CONTROLLER	CURRENT VERSION	LATEST VERSION	UPDATE	CONTROLLER REPLACEMENT
VCM, Master	*	2.48	UPDATE	CONTROLLER REPLACEMENT
Traction, Right, Master	*	2.11	UPDATE	CONTROLLER REPLACEMENT
Traction, Left, Master	*	2.11	UPDATE	CONTROLLER REPLACEMENT
Pump, Master	*	2.11	UPDATE	CONTROLLER REPLACEMENT
EPS, Master	*	5.81	UPDATE	CONTROLLER REPLACEMENT
Operator Panel	*	1.09.06	UPDATE	CONTROLLER REPLACEMENT
Armrest, Optional	*	1.09	UPDATE	CONTROLLER REPLACEMENT
Dual Joystick Armrest, Optional	*	0.23	UPDATE	
Single Joystick Armrest, Optional	*	0.46	UPDATE	

9.7 Recording view

'Graph' tab is a software oscilloscope in which you can:

1. Record object values to file.
2. Show a graph of object values.

Both can be done at the same time.



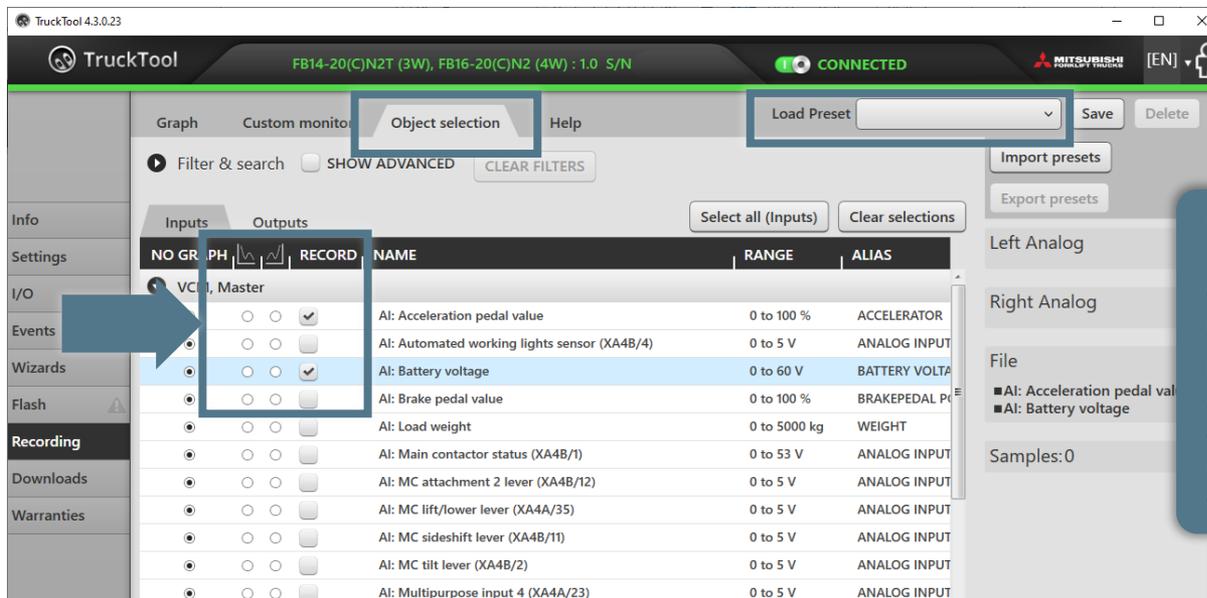
9.7 Recording view

Before starting the recording, you need to select recorded objects from the 'Object selection' tab.

Only a limited number of objects can be shown at once.

By checking the 'Record' checkboxes you select data that is logged for file saving. This is automatically selected if the graphical display of an object is active.

Selected objects can be saved and then those are available in the 'Load Preset' dropdown menu.



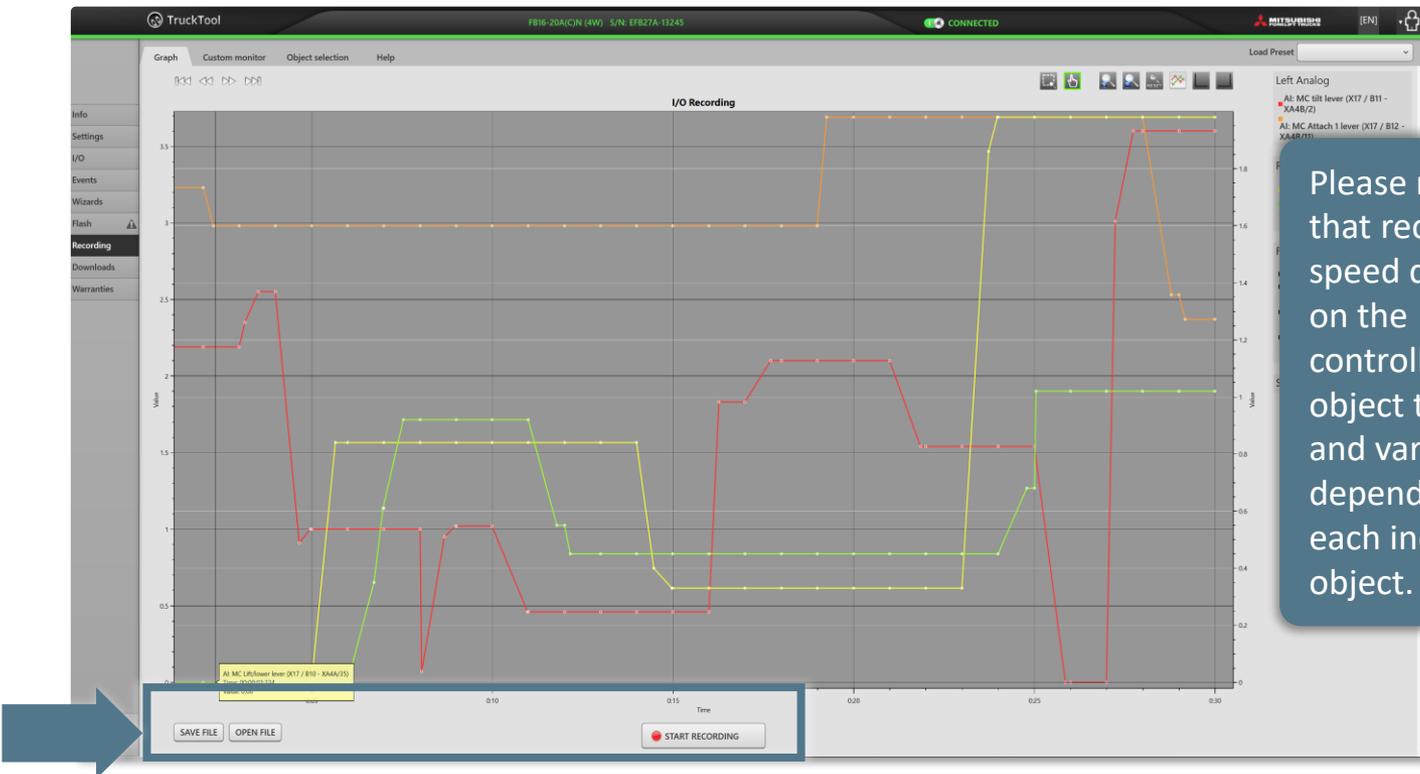
You can select either **left edge, right edge** or **digital** recording method.

Not all of them are always available for each object type (shown by graying out the selection).

9.7 Recording view

After selecting objects, you can start recording by clicking the 'Start Recording' button on the 'Graph' tab.

After recording, you can save the results to a CSV file by stopping the recording by clicking 'Stop recording' and then the 'Save File' button.

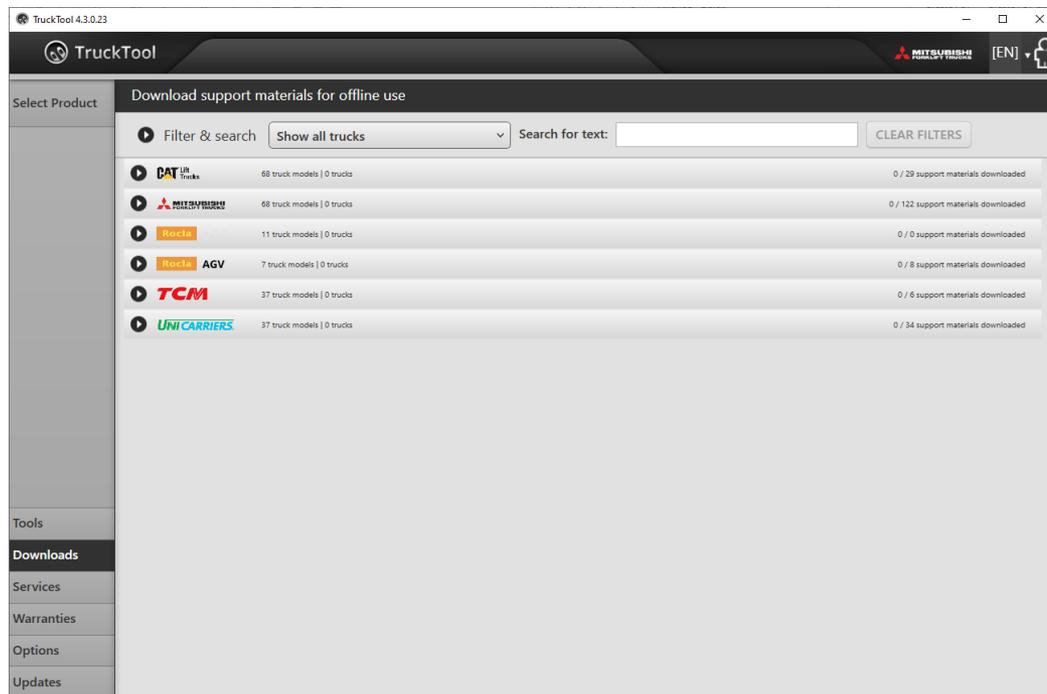


Please note that recording speed depends on the controller and object types and varies a lot depending on each individual object.

9.8 Downloads view

Downloads view contains model and truck-specific content that can be downloaded from TruckTool to use also when an internet connection is not available.

In this view, you can download documents and files from the TruckTool cloud to your computer's hard drive, view them, and remove them if necessary. This allows you to download documents and files in advance before you travel to the site to perform a repair or a service.



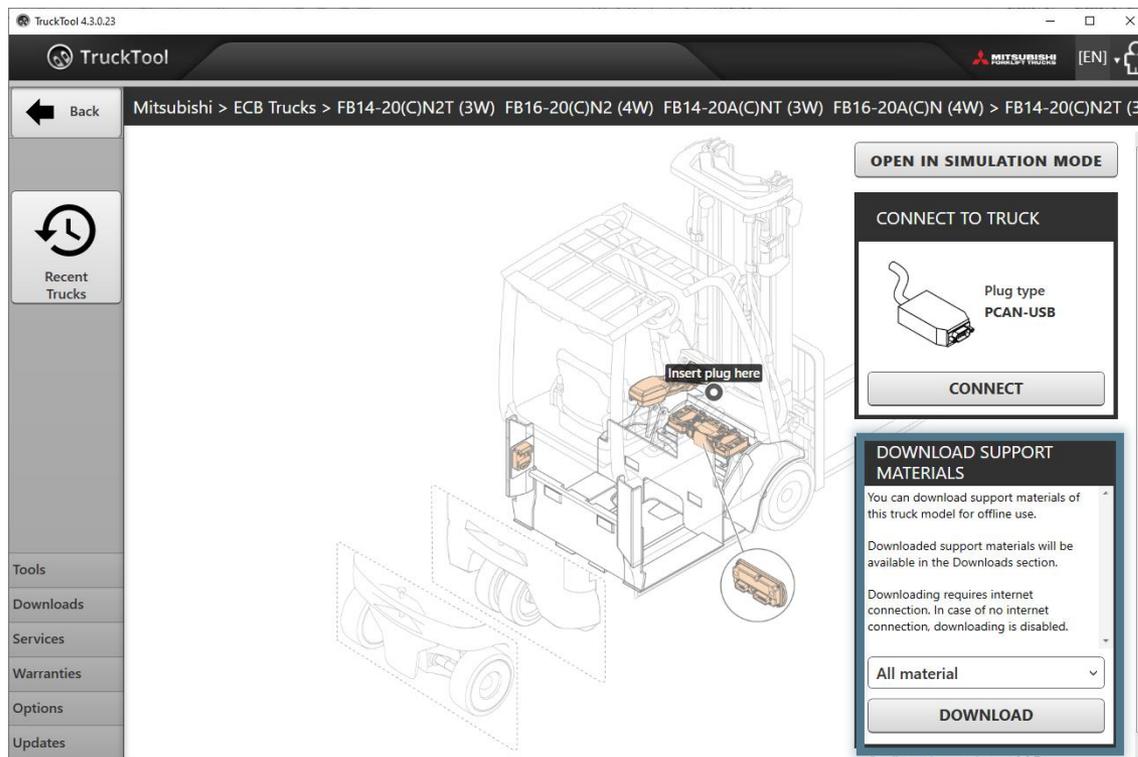
9.8 Downloads view

- Downloads view allows content sharing and version updating independently from TruckTool releases. It enables us to provide targeted content based on a truck model or truck serial number.
- Downloads view provides easy access to all relevant documents and files needed to perform services. This includes e.g. user manuals, electrical diagrams, spare part images, and mechanical drawings.
- Notice that when you have no internet connection, you cannot download or view content that you have not yet downloaded when you were online.

9.8 Downloading content from Info view

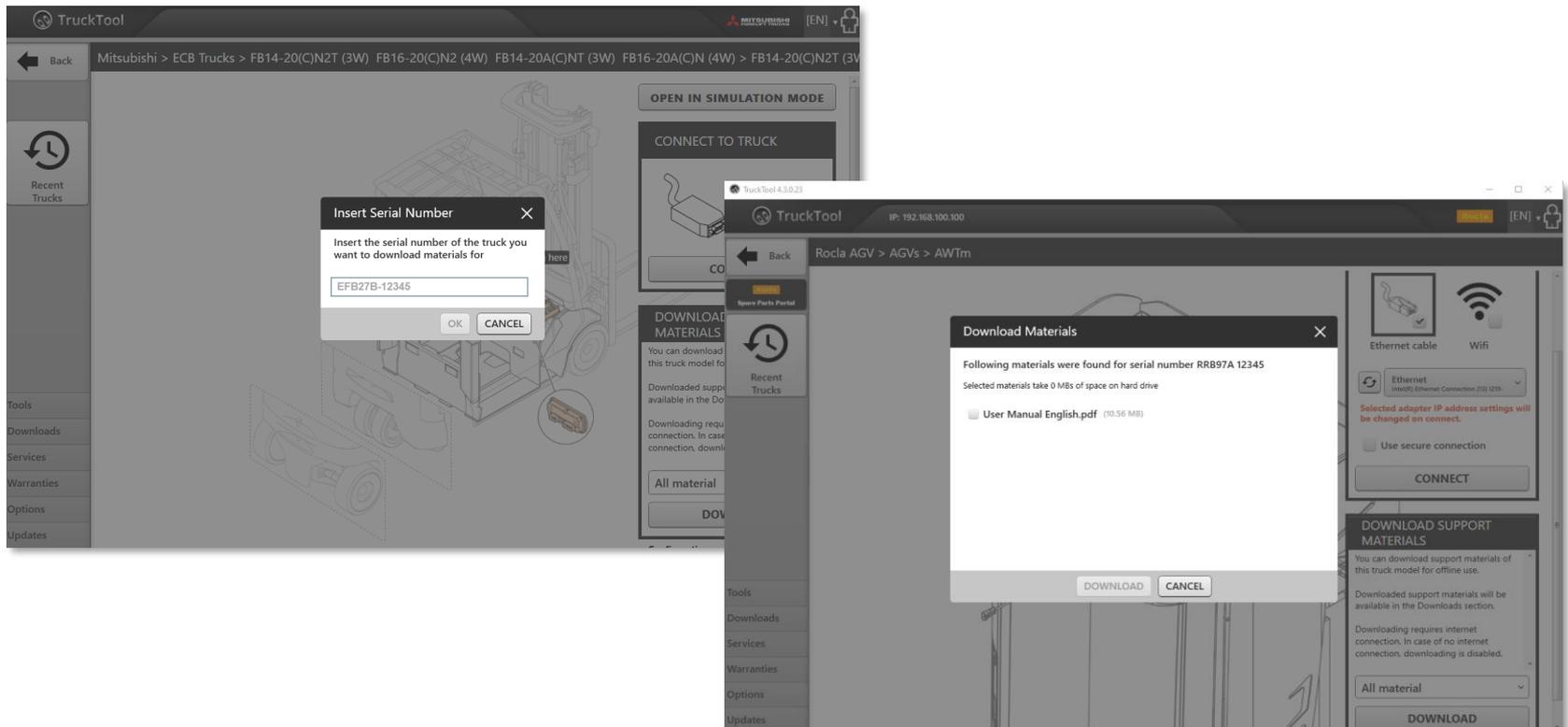
You can download model and/or truck specific documents and files from Info view without creating a connection to the actual truck.

This allows you to download documents and files in advance before you travel to the site to perform a repair or a service.



9.8 Downloading content from Info view

TruckTool asks you the serial number of the truck, after which it fetches the content information from the cloud. Then you can select one, several, or all documents and files to download.

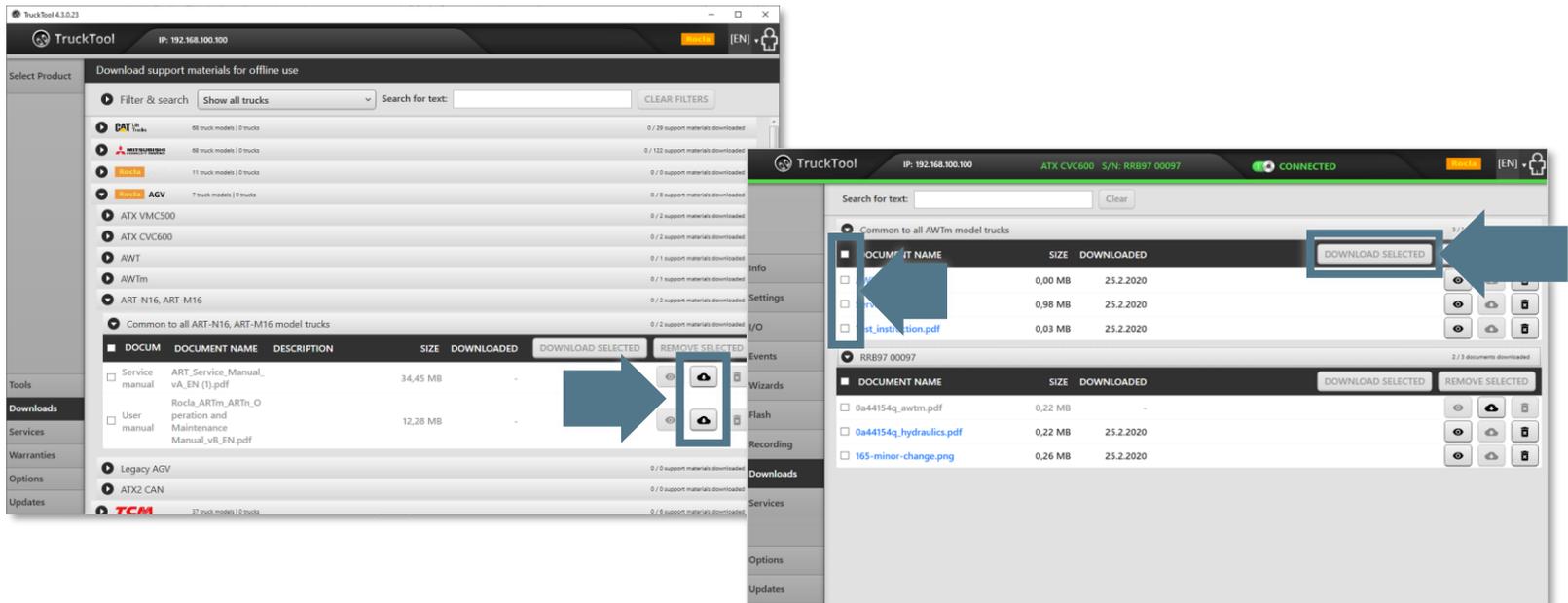


9.8 Downloads view - Downloading content

You can select one or more documents/files to be downloaded from Downloads view. For downloading, select one or more documents/files and click the cloud icon or “Download selected”.

When you are **not connected** to any truck, Downloads view shows you **all downloadable content** of models and trucks to which you have access rights.

When you are **connected** to a specific truck, Downloads view shows you **only the truck-specific content** based on the serial number.



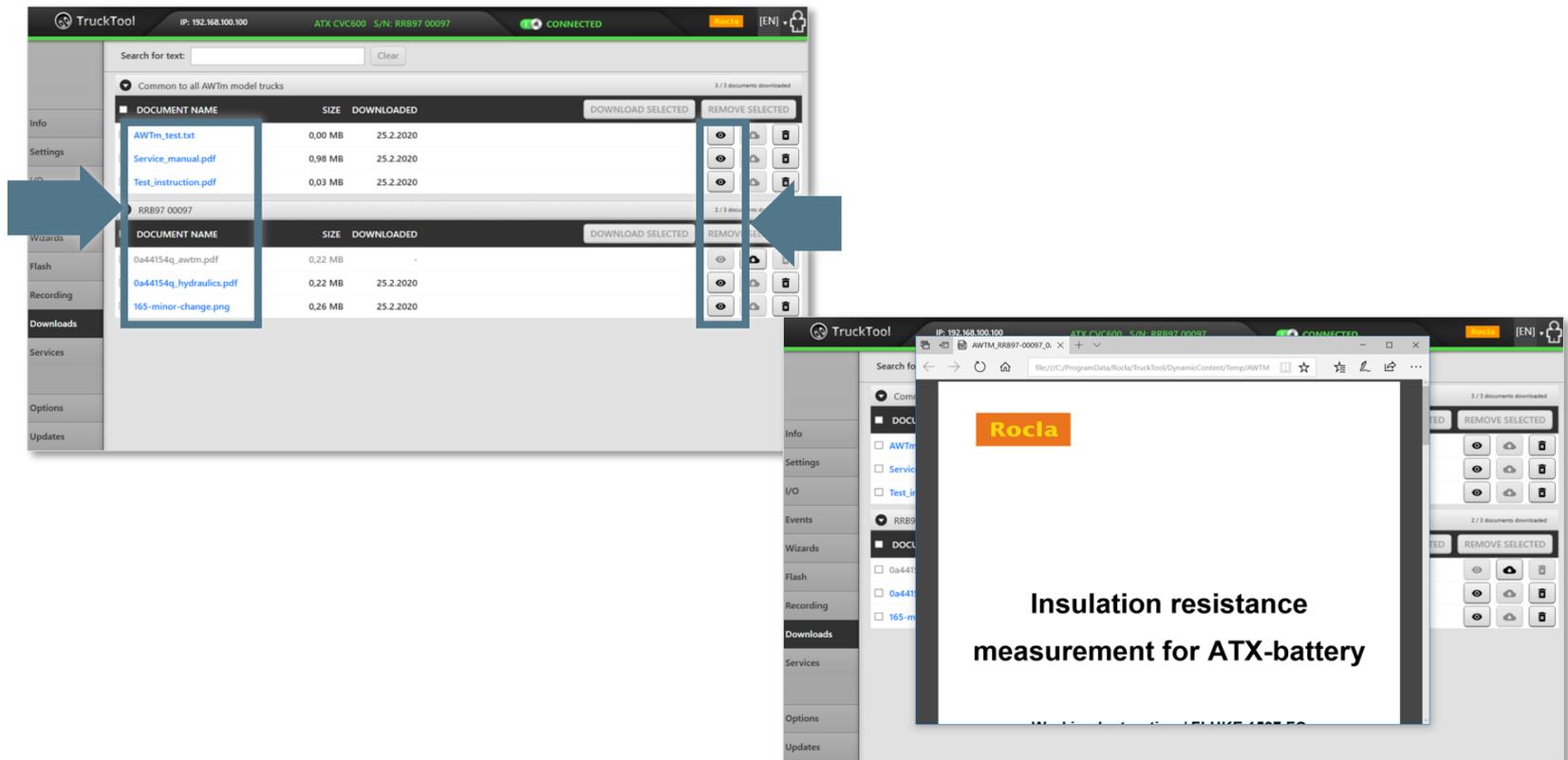
The image displays two screenshots of the TruckTool interface, illustrating the Downloads view in different states.

Left Screenshot (Not Connected): The interface shows the "Download support materials for offline use" view. The top bar indicates the user is not connected. The main content area displays a list of documents with columns for "DOCUM", "DOCUMENT NAME", "DESCRIPTION", "SIZE", and "DOWNLOADED". A "DOWNLOAD SELECTED" button is visible at the bottom right of the list. A blue arrow points to this button.

Right Screenshot (Connected): The interface shows the "Downloads" view for a specific truck (RRB97 00097). The top bar indicates the user is connected. The main content area displays a list of documents with columns for "DOCUMENT NAME", "SIZE", and "DOWNLOADED". A "DOWNLOAD SELECTED" button is visible at the top right of the list. A blue arrow points to this button.

9.8 Downloads view – Viewing downloaded content

After downloading, you can view content by clicking the document/file name or the watching icon.



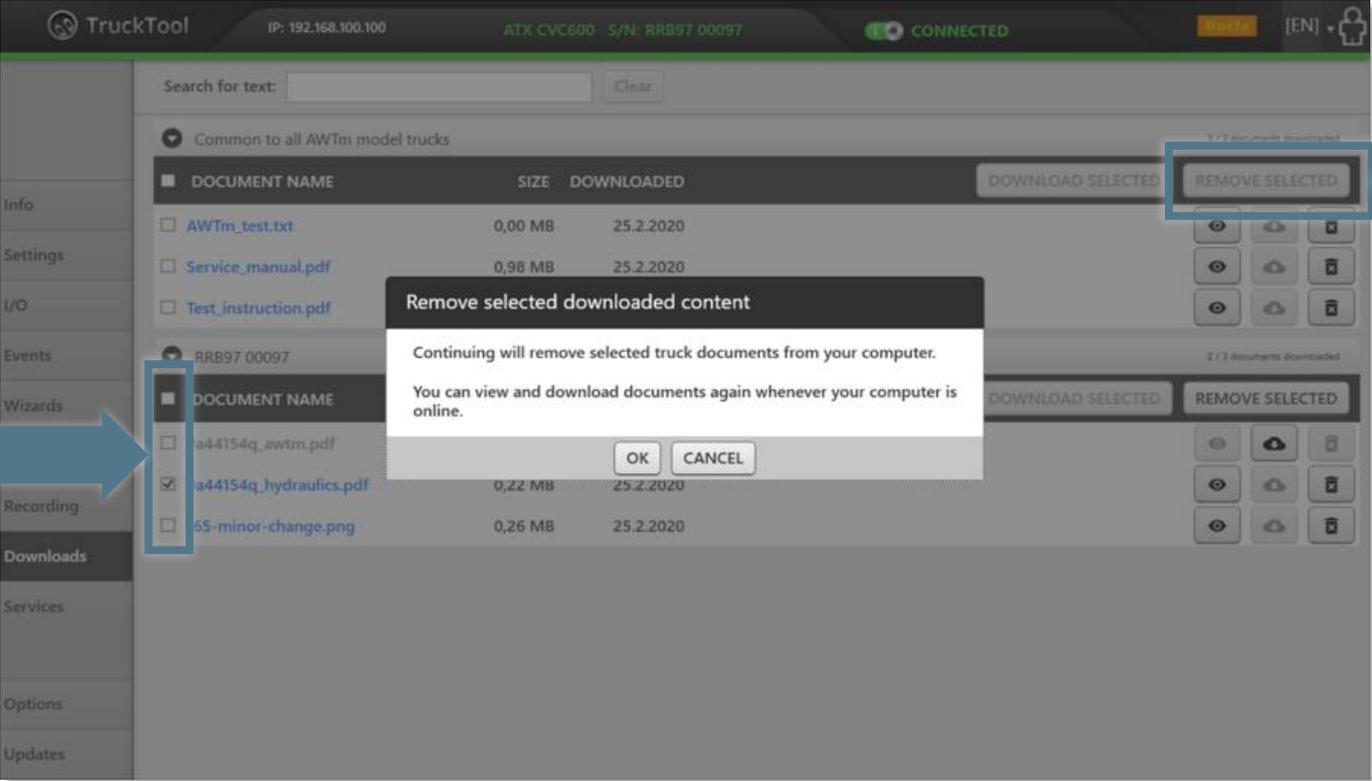
The screenshot shows the TruckTool interface with the Downloads view. A table lists downloaded documents for two trucks. The first truck, RRB97 00097, has three files: AWtm_test.txt (0.00 MB, 25.2.2020), Service_manual.pdf (0.98 MB, 25.2.2020), and Test_instruction.pdf (0.03 MB, 25.2.2020). The second truck, 0a44154q, has three files: 0a44154q_awtm.pdf (0.22 MB, -), 0a44154q_hydraulics.pdf (0.22 MB, 25.2.2020), and 165-minor-change.png (0.26 MB, 25.2.2020). A blue box highlights the first three files of the first truck, and another blue box highlights the watching icons for the same files. A blue arrow points from the first file name to a preview window on the right. The preview window shows a PDF document with the Rocla logo and the title 'Insulation resistance measurement for ATX-battery'.

TRUCK	DOCUMENT NAME	SIZE	DOWNLOADED
RRB97 00097	AWtm_test.txt	0,00 MB	25.2.2020
	Service_manual.pdf	0,98 MB	25.2.2020
	Test_instruction.pdf	0,03 MB	25.2.2020
0a44154q	0a44154q_awtm.pdf	0,22 MB	-
	0a44154q_hydraulics.pdf	0,22 MB	25.2.2020
	165-minor-change.png	0,26 MB	25.2.2020

9.8 Downloads view – Removing downloaded content

All downloaded content is stored on your computer's hard disk. To free up hard disk space, you can remove selected or all downloaded content.

You can download any removed content again if needed when you have an internet connection.



The screenshot shows the TruckTool interface with the 'Downloads' section selected in the left sidebar. A modal dialog box is displayed in the center, titled 'Remove selected downloaded content'. The dialog contains the following text:

Remove selected downloaded content

Continuing will remove selected truck documents from your computer.

You can view and download documents again whenever your computer is online.

At the bottom of the dialog are 'OK' and 'CANCEL' buttons. In the background, a table lists downloaded documents. A blue arrow points to the 'REMOVE SELECTED' button in the top right of the table, and another blue arrow points to the 'a44154q_hydraulics.pdf' row in the table.

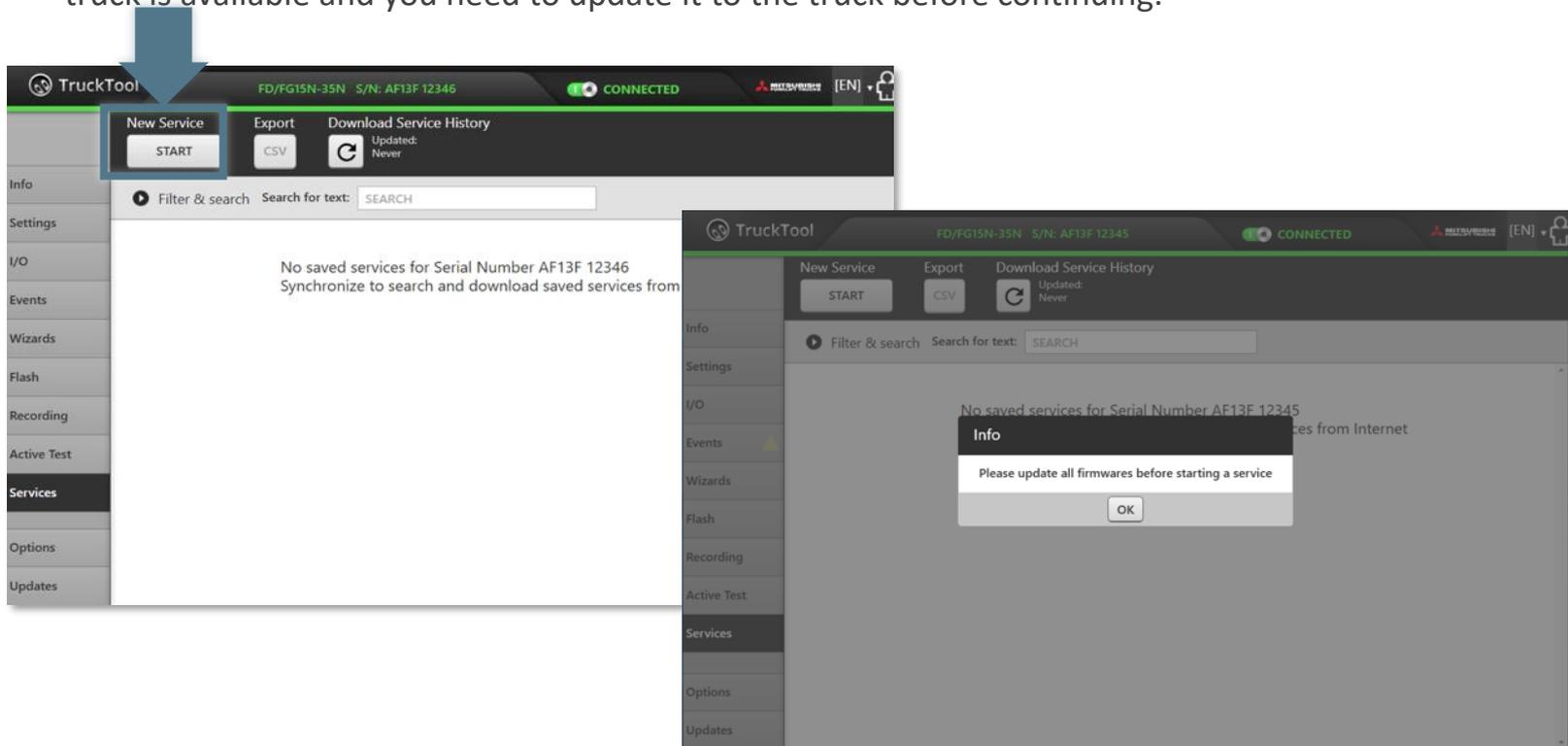
DOCUMENT NAME	SIZE	DOWNLOADED
<input type="checkbox"/> AWTm_test.txt	0,00 MB	25.2.2020
<input type="checkbox"/> Service_manual.pdf	0,98 MB	25.2.2020
<input type="checkbox"/> Test_instruction.pdf		
RRB97 00097		
DOCUMENT NAME	SIZE	DOWNLOADED
<input type="checkbox"/> a44154q_awtm.pdf		
<input checked="" type="checkbox"/> a44154q_hydraulics.pdf	0,22 MB	25.2.2020
<input type="checkbox"/> 65-minor-change.png	0,26 MB	25.2.2020

9.9 Services view

Services view is used for creating new services and viewing existing service records. Click the 'Start' button to create a new service.

Please note that this view is only available for select models.

If you see an info dialog 'Please update all firmwares before starting a service', new software for the truck is available and you need to update it to the truck before continuing.



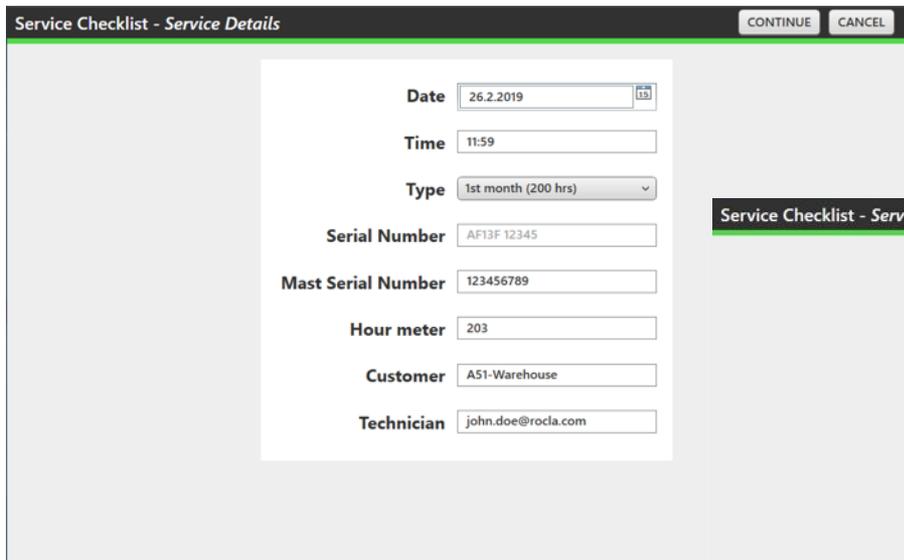
9.9 Services view

Update details for the service checklist record.

Fill in 'Hour meter value' and 'Customer' name.

Your username from logging in is automatically filled into the 'Technician' field.

Select service type from the 'Type' dropdown menu.



Service Checklist - Service Details

CONTINUE CANCEL

Date 26.2.2019

Time 11:59

Type 1st month (200 hrs)

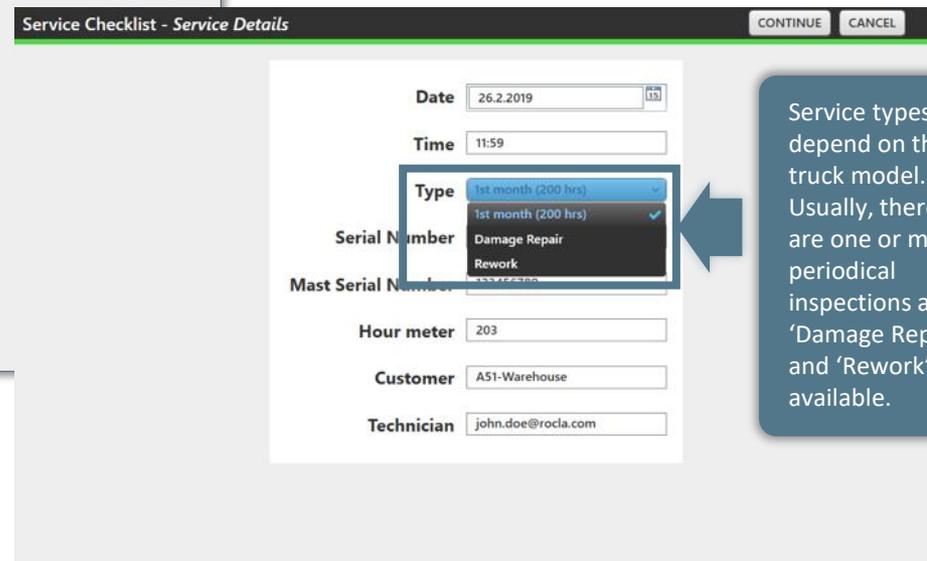
Serial Number AF13F 12345

Mast Serial Number 123456789

Hour meter 203

Customer AS1-Warehouse

Technician john.doe@rocla.com



Service Checklist - Service Details

CONTINUE CANCEL

Date 26.2.2019

Time 11:59

Type 1st month (200 hrs)

Serial Number

Mast Serial Number

Hour meter 203

Customer AS1-Warehouse

Technician john.doe@rocla.com

1st month (200 hrs)

1st month (200 hrs) ✓

Damage Repair

Rework

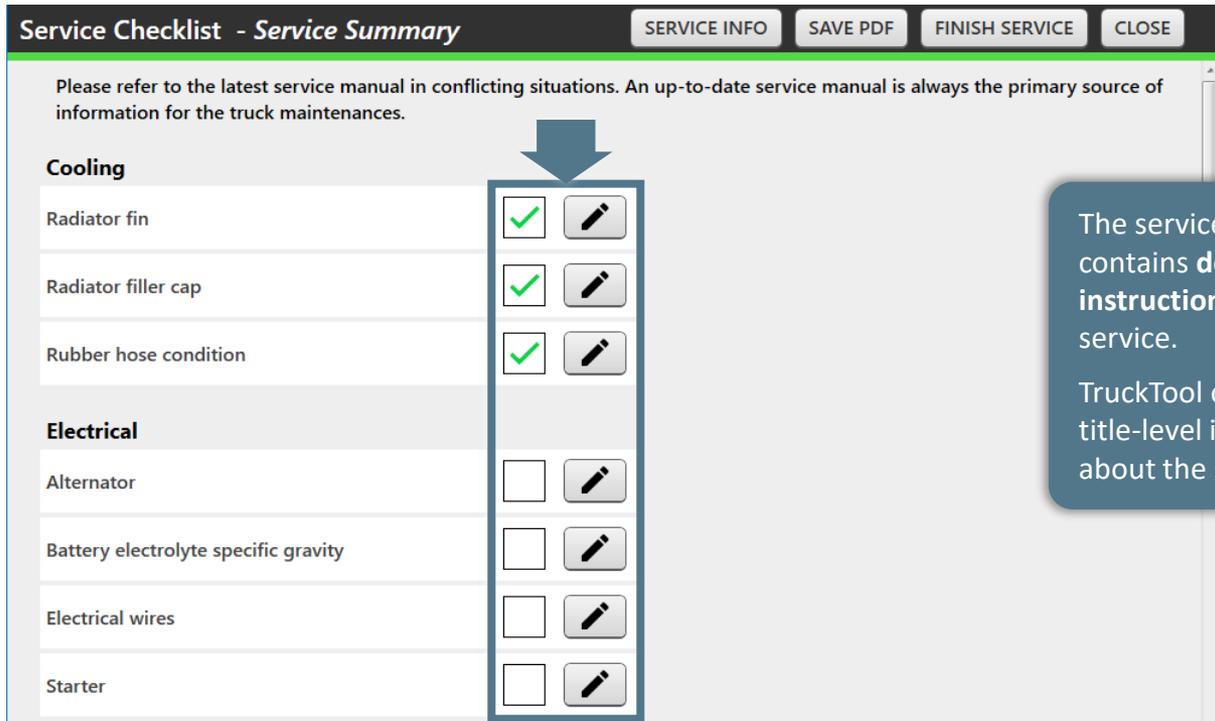
Service types depend on the truck model. Usually, there are one or more periodical inspections and 'Damage Repair' and 'Rework' available.

9.9 Services view

Before starting a new service, please refer to the latest service manual as it is the primary source of information for the truck service.

After a service step is completed you can check the passed checkbox.

You can edit any service step by clicking the edit button  .



Service Checklist - Service Summary SERVICE INFO SAVE PDF FINISH SERVICE CLOSE

Please refer to the latest service manual in conflicting situations. An up-to-date service manual is always the primary source of information for the truck maintenances.

Cooling

Radiator fin	<input checked="" type="checkbox"/>	
Radiator filler cap	<input checked="" type="checkbox"/>	
Rubber hose condition	<input checked="" type="checkbox"/>	

Electrical

Alternator	<input type="checkbox"/>	
Battery electrolyte specific gravity	<input type="checkbox"/>	
Electrical wires	<input type="checkbox"/>	
Starter	<input type="checkbox"/>	

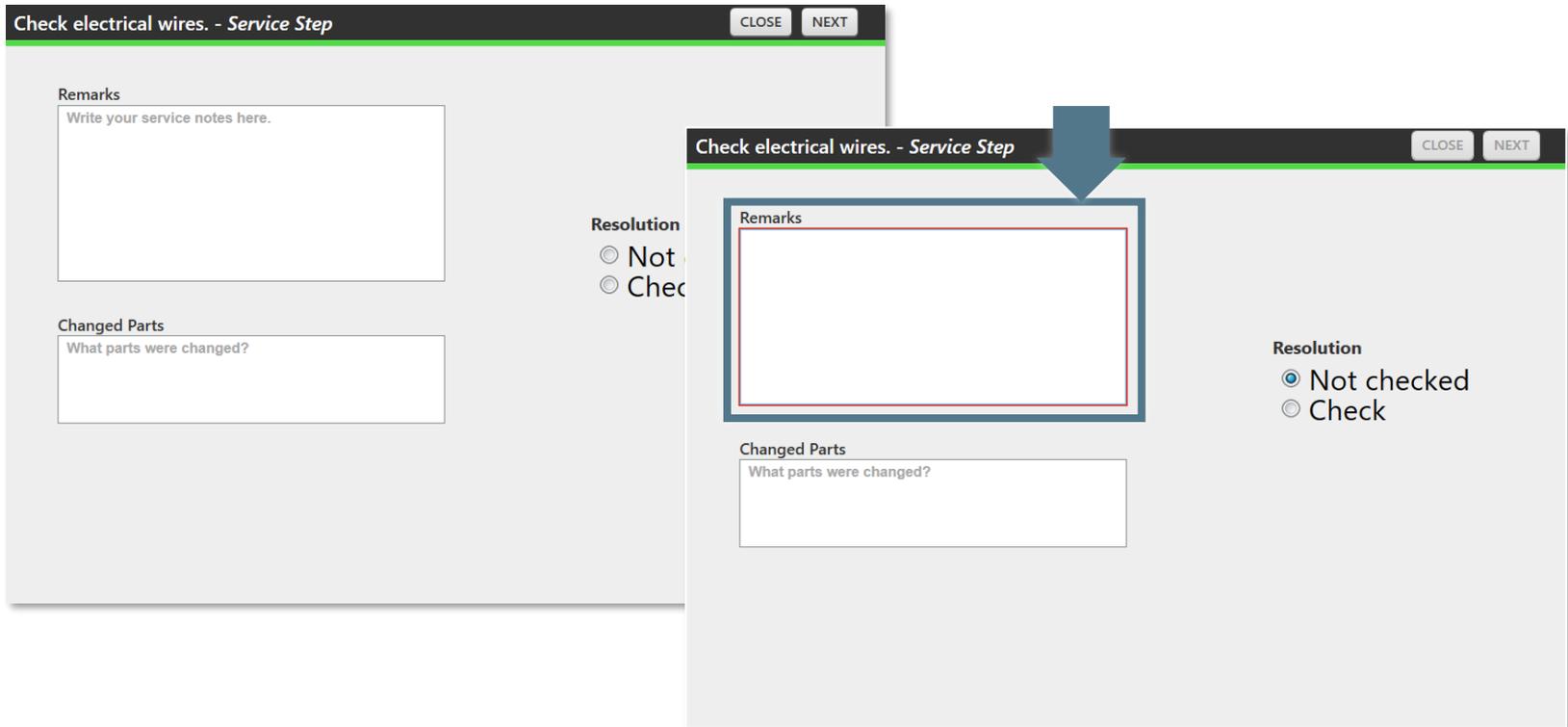
The service manual contains **detailed instructions** for the service.

TruckTool only has title-level information about the service.

9.9 Services view

If you have issues with a service step or cannot perform service, you can add a description of the issues in the 'Remarks' field.

Note! If the service step resolution is 'Not checked', you *must* add the description of problems into the 'Remarks' field before moving to the next step.



The image shows two overlapping screenshots of the 'Check electrical wires. - Service Step' form. The top screenshot shows the form with the 'Remarks' field empty and the 'Resolution' options set to 'Not checked' and 'Check'. The bottom screenshot shows the same form, but with the 'Remarks' field highlighted by a blue border, indicating that it must be filled out before moving to the next step. A blue arrow points from the top screenshot to the bottom screenshot, highlighting the 'Remarks' field.

Check electrical wires. - Service Step [CLOSE] [NEXT]

Remarks
Write your service notes here.

Resolution
 Not checked
 Check

Changed Parts
What parts were changed?

Check electrical wires. - Service Step [CLOSE] [NEXT]

Remarks

Resolution
 Not checked
 Check

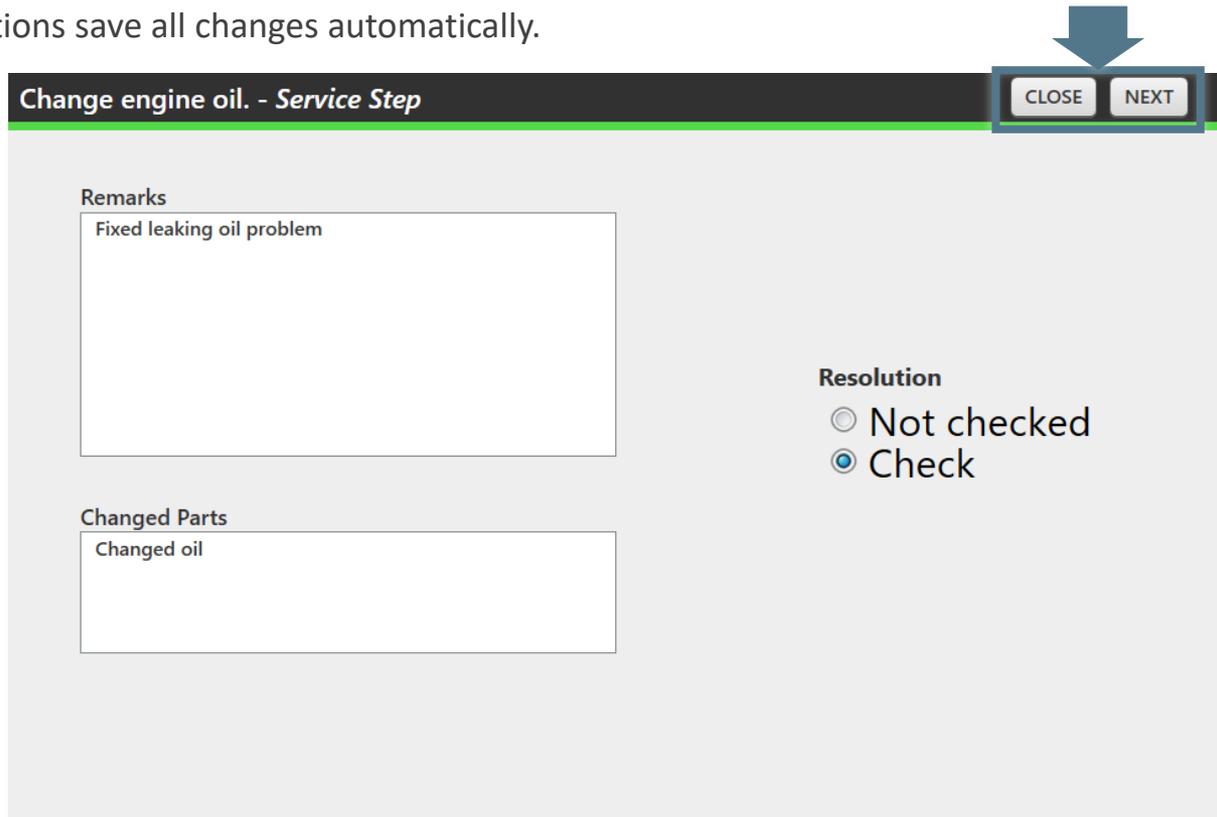
Changed Parts
What parts were changed?

9.9 Services view

You can add a description of replaced parts to the 'Changed Parts' field.

You can move to the next step by clicking the 'Next' button or close the current service step dialog by clicking the 'Close' button.

Both actions save all changes automatically.



Change engine oil. - Service Step

Remarks
Fixed leaking oil problem

Changed Parts
Changed oil

Resolution

Not checked

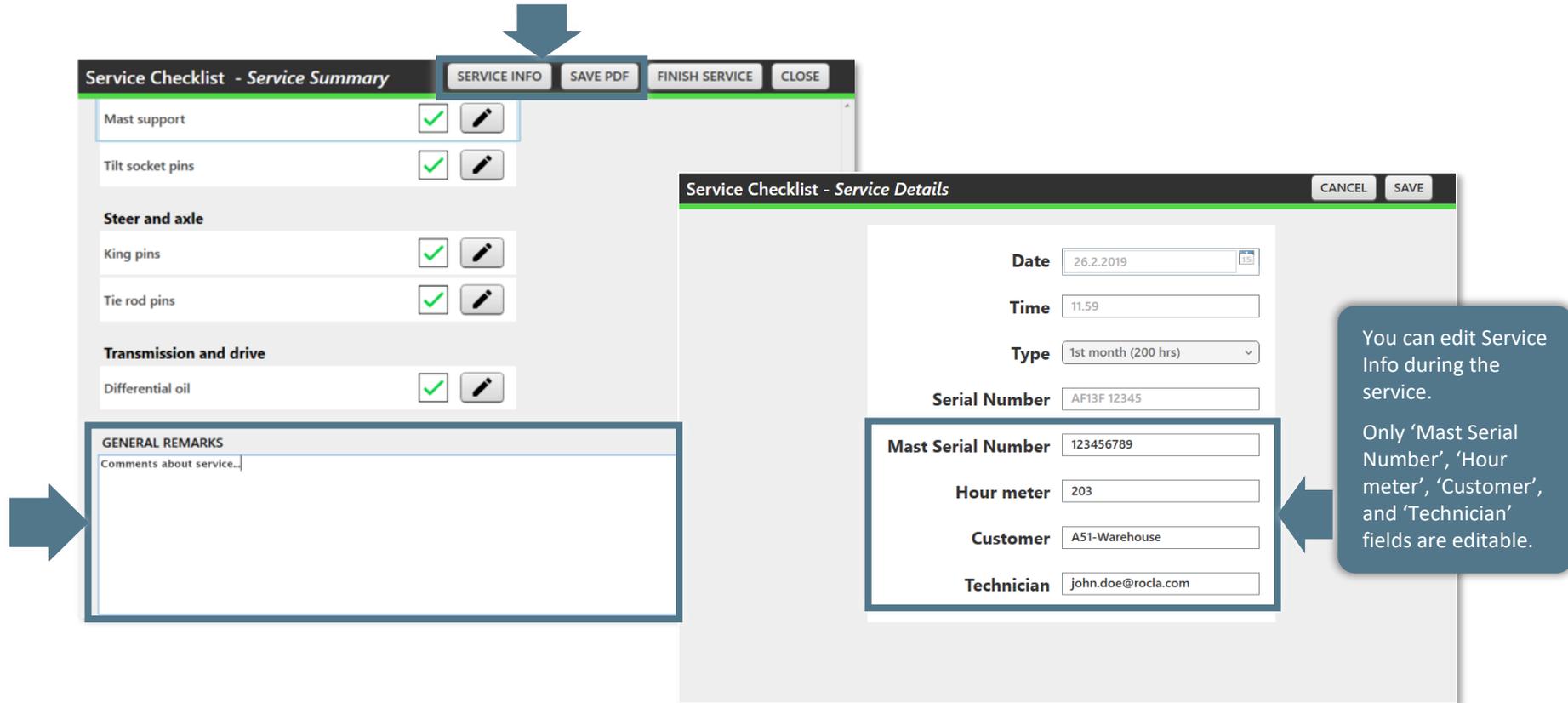
Check

CLOSE **NEXT**

9.9 Services view

You can add general comments about the service in the 'General Remarks' field of the service summary.

You can save the service info as a PDF report.



The screenshot displays two overlapping windows from the TruckTool application. The top window, titled "Service Checklist - Service Summary", features a header with buttons for "SERVICE INFO", "SAVE PDF", "FINISH SERVICE", and "CLOSE". Below the header, a list of service items is shown, each with a green checkmark and an edit icon. The items include "Mast support", "Tilt socket pins", "Steer and axle" (with sub-items "King pins" and "Tie rod pins"), and "Transmission and drive" (with sub-item "Differential oil"). At the bottom of this window is a "GENERAL REMARKS" section with a text input field containing the placeholder "Comments about service...". A blue arrow points from the text above to the "SERVICE INFO" button. Another blue arrow points from the text above to the "GENERAL REMARKS" field.

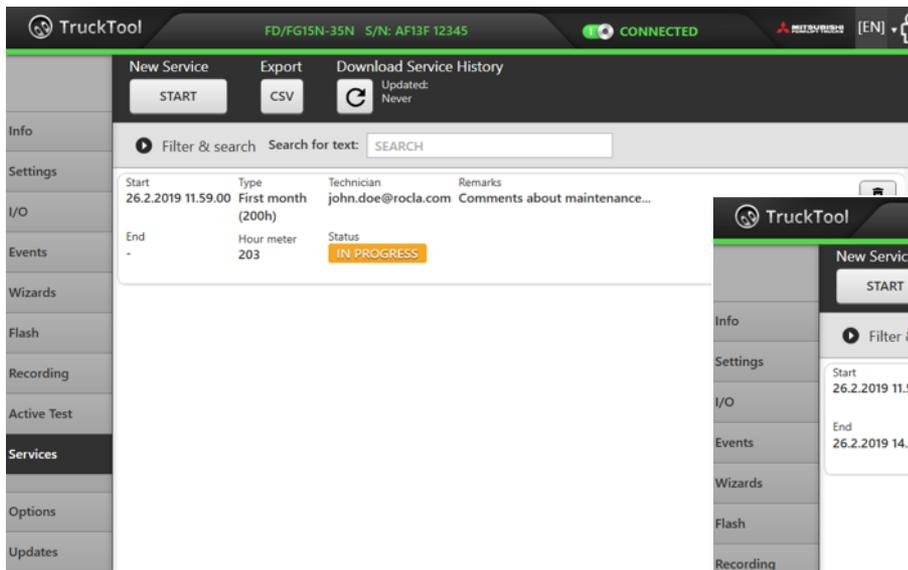
The bottom window, titled "Service Checklist - Service Details", has "CANCEL" and "SAVE" buttons in its header. It contains several form fields for service information: "Date" (26.2.2019), "Time" (11.59), "Type" (1st month (200 hrs)), "Serial Number" (AF13F 12345), "Mast Serial Number" (123456789), "Hour meter" (203), "Customer" (A51-Warehouse), and "Technician" (john.doe@rocla.com). A blue callout box on the right side of this window contains the text: "You can edit Service Info during the service. Only 'Mast Serial Number', 'Hour meter', 'Customer', and 'Technician' fields are editable." A blue arrow points from this callout box to the "Mast Serial Number" field.

9.9 Services view

After completing the service, you can close or finish the Service Checklist.

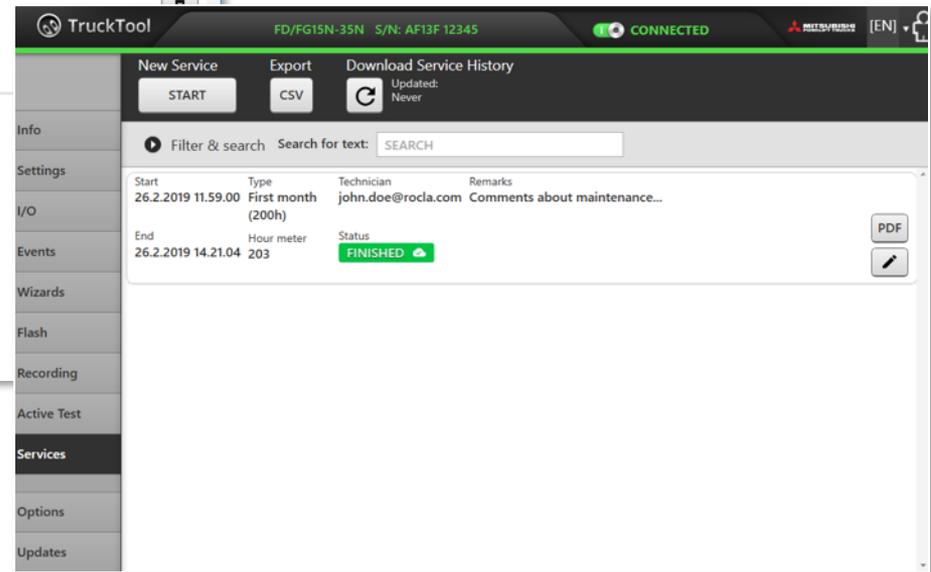
If you click 'Close' the Service Checklist remains in an 'In Progress' state and you can continue editing it by clicking the edit button  .

If you click 'Finish Service', the service record is finalized and uploaded to TruckTool data storage. The service record status is updated to 'Finished'.



The screenshot shows the TruckTool interface for a service record. The status is 'IN PROGRESS'.

Start	Type	Technician	Remarks
26.2.2019 11.59.00	First month (200h)	john.doe@rocla.com	Comments about maintenance...
End	Hour meter	Status	
-	203	IN PROGRESS	



The screenshot shows the TruckTool interface for the same service record, but the status is now 'FINISHED'.

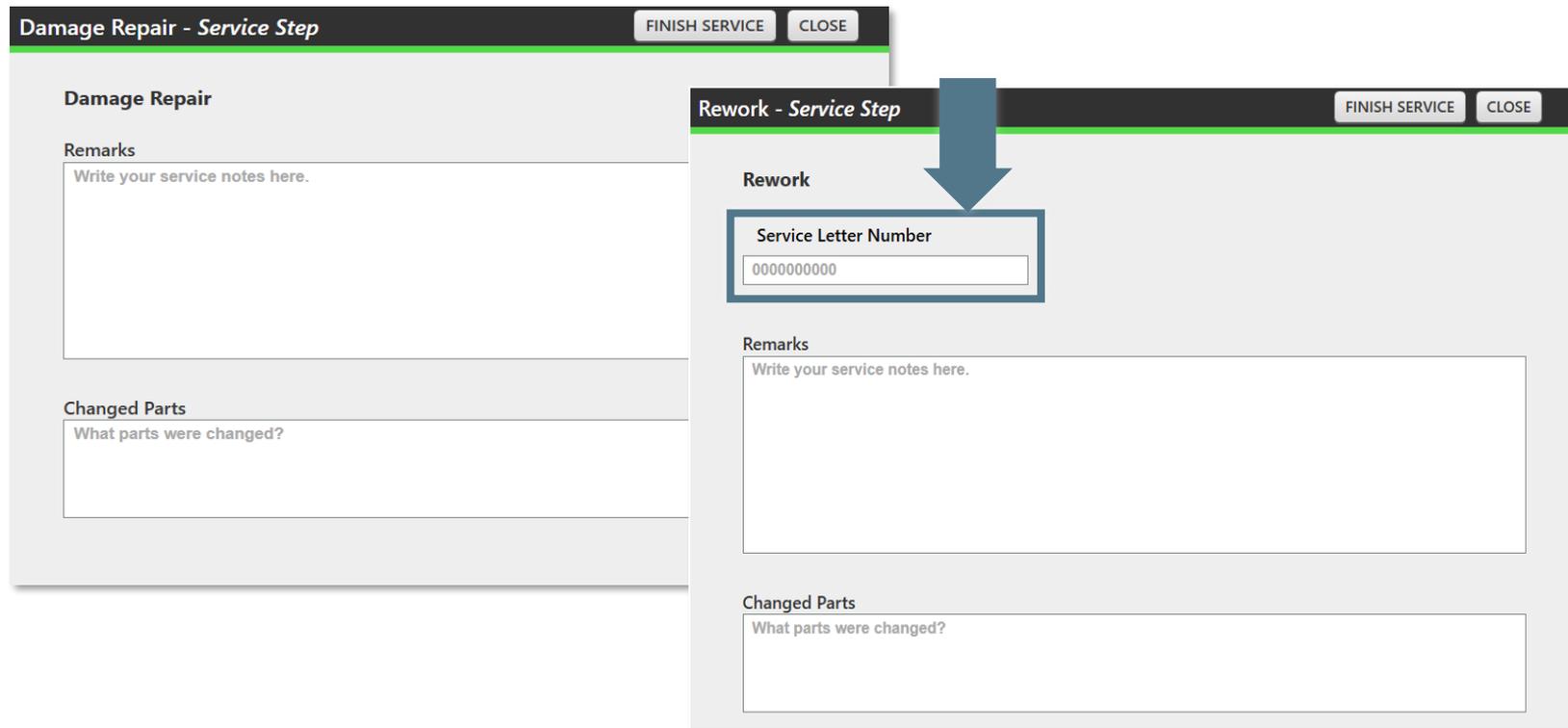
Start	Type	Technician	Remarks
26.2.2019 11.59.00	First month (200h)	john.doe@rocla.com	Comments about maintenance...
End	Hour meter	Status	
26.2.2019 14.21.04	203	FINISHED	

9.9 Services view

Other service step types are Damage Repair and Rework.

Damage Repair is for general fixing work. You can add comments to the 'Remarks' and 'Changed Parts' fields.

Rework is for service based on a certain Service Letter. You must add the Service Letter Number to the Rework service step.



The image displays two overlapping screenshots of the TruckTool interface. The top-left screenshot shows the 'Damage Repair - Service Step' form, which includes a 'Remarks' field with the placeholder text 'Write your service notes here.' and a 'Changed Parts' field with the placeholder text 'What parts were changed?'. The top-right screenshot shows the 'Rework - Service Step' form, which includes a 'Service Letter Number' field with the placeholder text '0000000000', a 'Remarks' field with the placeholder text 'Write your service notes here.', and a 'Changed Parts' field with the placeholder text 'What parts were changed?'. A blue arrow points to the 'Service Letter Number' field in the 'Rework' form. Both forms have 'FINISH SERVICE' and 'CLOSE' buttons in the top right corner.

9.9 Services view

Without a connection to a truck, you can see all services done to any truck with the current computer or downloaded from TruckTool data storage.

Services are grouped by truck serial number.

Click a row to display all services for a specific truck.

The image shows two screenshots of the TruckTool web interface. The left screenshot shows a list of trucks under the 'Select Product' section. A blue arrow points to the second row, which is highlighted. The right screenshot shows the detailed service record for the selected truck (Serial Number AF13F-12345). A blue arrow points from the selected row in the first screenshot to the detailed view in the second screenshot.

Truck List (Left Screenshot):

Serial Number	Mast Serial Number	Truck	Hour meter
AT14G-00123	12341234	DP/GP15N-35N	600
AF13F-12345	123456789	FD/FG15N-35N	600
AT14G-12345		DP/GP15N-35N	3.0

Service Record (Right Screenshot):

Start	Type	Technician	Remarks
28.2.2019 9.59.00	First month (200h)	john.doe@sample.com	No more details.
28.2.2019 10.00.24	Hour meter	Status	
	600	DOWNLOADED	
28.2.2019 9.58.00	First month (200h)	john.doe@sample.com	This is a 400 hours service. Some parts were changed, and general checks were done. Everything is fine, next time some parts would be good to change.
28.2.2019 9.59.41	Hour meter	Status	
	400	FINISHED 100%	
28.2.2019 9.57.00	First month (200h)	john.doe@sample.com	This is a sample service record. Oil was changed and some parts were checked. Chains were ok, and air filter had to be changed. Next time some parts would need replacement.
28.2.2019 9.58.26	Hour meter	Status	
	200	FINISHED 100%	

9.9 Services view

Use search to filter service records.

The screenshot shows the TruckTool interface with a search filter applied. A blue arrow points to the search input field containing the text 'parts'. Below the search bar, there are filter options for status, type, truck model, and date range, all currently set to 'No filters selected'. A 'CLEAR FILTERS' button and 'FILTERS ACTIVE' indicator are also present.

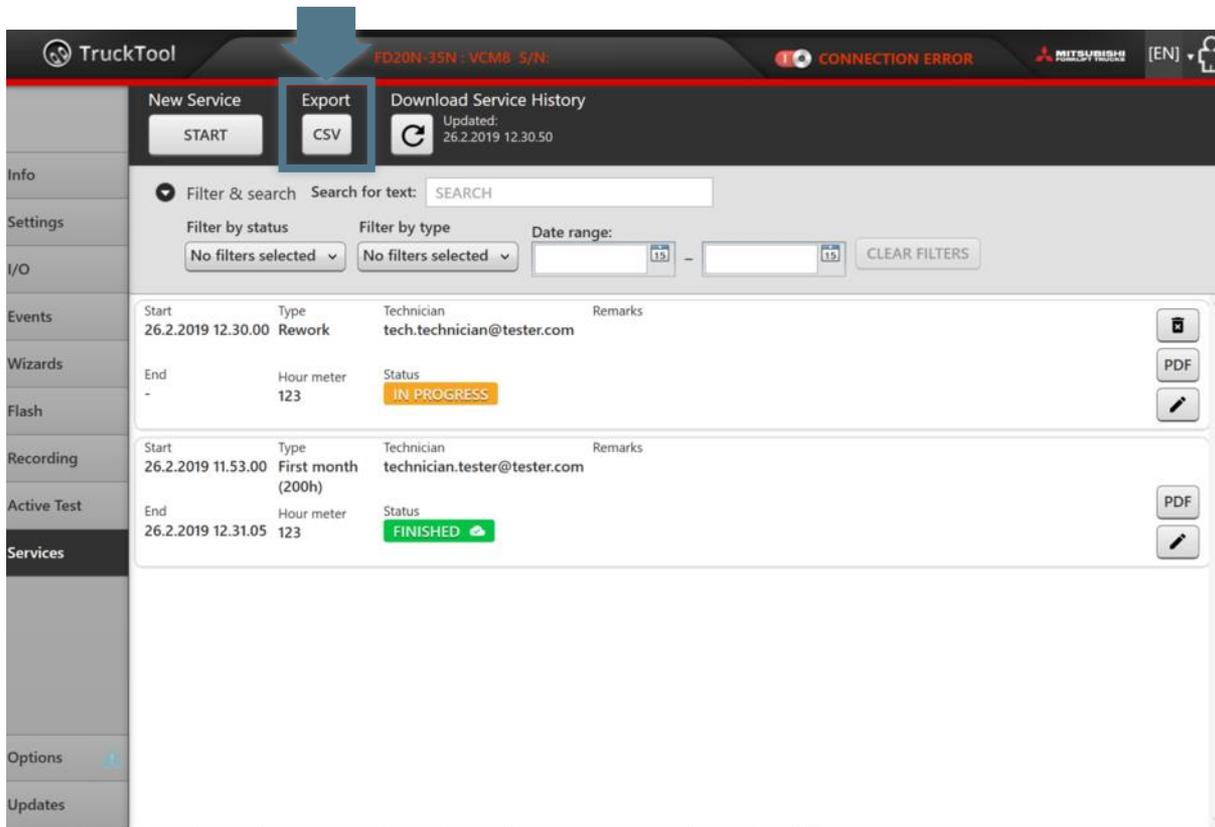
Serial Number	Mast Serial Number	Truck	Hour meter
AF13F-12345	123456789	FD/FG15N-35N	400

Start	Type	Technician	Remarks
28.2.2019 9.58.00	First month (200h)	john.doe@sample.com	This is a 400 hours service. Some parts were changed, and general checks were done.
28.2.2019 9.59.41	Hour meter 400	Status FINISHED	Everything is fine, next time some parts would be good to change.

Start	Type	Technician	Remarks
28.2.2019 9.57.00	First month (200h)	john.doe@sample.com	This is a sample service record. Oil was changed and some parts were checked.
28.2.2019 9.58.26	Hour meter 200	Status FINISHED	Chains were ok, and air filter had to be changed. Next time some parts would need replacement.

9.9 Services view – Export CSV

Export CSV action saves a file that contains all data from services visible on the Services view.



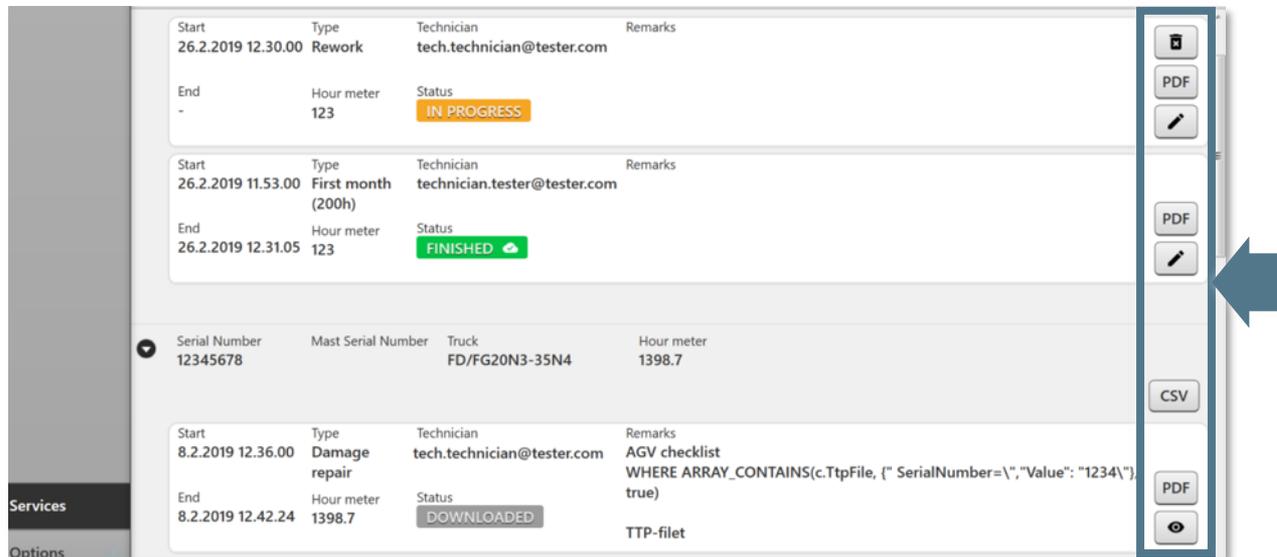
The screenshot shows the TruckTool interface with the 'Services' view selected in the left sidebar. The top navigation bar contains 'New Service', 'Export', and 'Download Service History'. The 'Export' button has a 'CSV' sub-button highlighted by a blue box and a blue arrow pointing to it. Below the navigation bar, there are filter options for status, type, and date range. The main table displays the following service records:

Start	Type	Technician	Remarks
26.2.2019 12.30.00	Rework	tech.technician@tester.com	
End -	Hour meter 123	Status IN PROGRESS	
Start 26.2.2019 11.53.00	First month (200h)	technician.test@tester.com	
End 26.2.2019 12.31.05	Hour meter 123	Status FINISHED	

9.9 Services view - Actions

Service row contains different actions depending on the service status:

-  Delete – Enabled when service status is 'In progress'.
-  PDF – Always available.
-  CSV – Always available.
-  Edit service record – Enabled for services created on the current computer.
-  View – For downloaded service records.



The screenshot shows a table of service records with a vertical toolbar on the right side. The toolbar contains icons for Delete, PDF, Edit, CSV, and View. A blue arrow points to the Edit icon in the toolbar.

Start	Type	Technician	Remarks
26.2.2019 12.30.00	Rework	tech.technician@tester.com	
End -	Hour meter 123	Status IN PROGRESS	
Start 26.2.2019 11.53.00	First month (200h)	technician.test@tester.com	
End 26.2.2019 12.31.05	Hour meter 123	Status FINISHED	
Serial Number 12345678	Mast Serial Number	Truck FD/FG20N3-35N4	Hour meter 1398.7
Start 8.2.2019 12.36.00	Damage repair	tech.technician@tester.com	AGV checklist
End 8.2.2019 12.42.24	Hour meter 1398.7	Status DOWNLOADED	WHERE ARRAY_CONTAINS(c.TtpFile, (" SerialNumber=\","Value": "1234\"). true) TTP-file

9.9 Services view – Synchronization status

Click the download button  to get all service records of the current truck, identified by the serial number.

FINISHED



Data is synced and available for other users in TruckTool data storage.

FINISHED



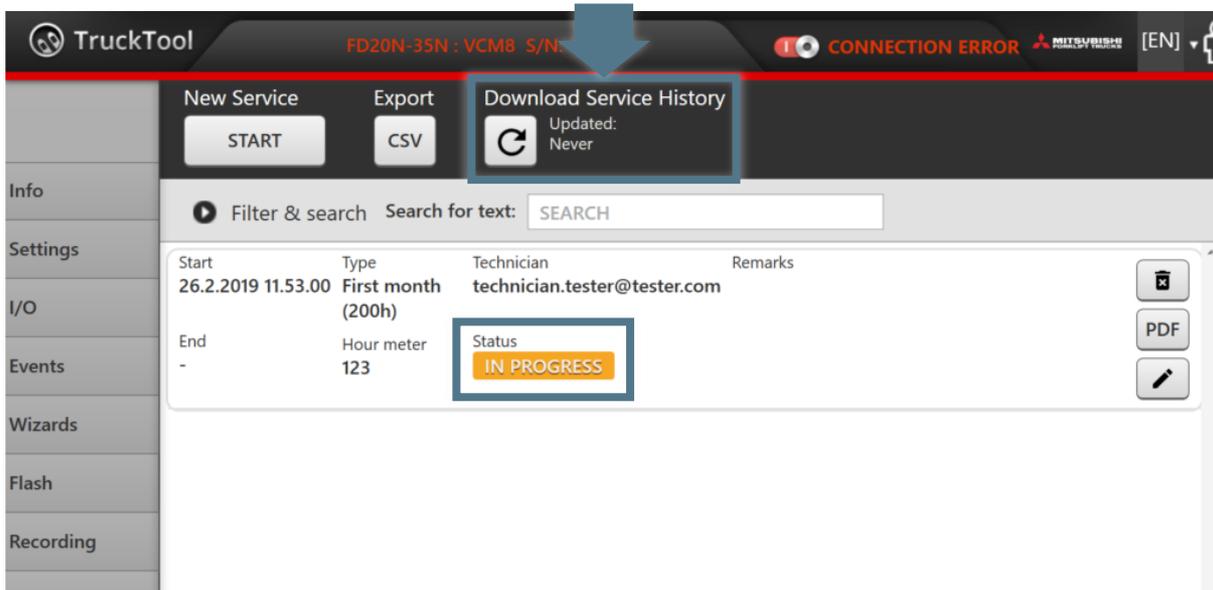
Auto-sync is not completed or not enabled. Enable auto-sync to upload.

IN PROGRESS

The service is not finished.

DOWNLOADED

Service record created on another computer downloaded from TruckTool data storage.



The screenshot shows the TruckTool interface for a specific truck (FD20N-35N : VCM8 S/N). The top navigation bar includes the TruckTool logo, the truck identification, a 'CONNECTION ERROR' status, and the Mitsubishi logo. Below the navigation bar, there are three buttons: 'New Service' (START), 'Export' (CSV), and 'Download Service History' (refresh icon). The 'Download Service History' button is highlighted with a blue box and a blue arrow pointing to it. Below the buttons, there is a search bar and a table of service records. The table has columns for Start, Type, Technician, and Remarks. The first record shows a start date of 26.2.2019 11.53.00, a type of 'First month (200h)', and a technician named 'technician.test@tester.com'. The second record shows an end date of '-' and an hour meter of 123. The status of the second record is 'IN PROGRESS', which is highlighted with a blue box. On the right side of the table, there are icons for deleting, PDF export, and editing records.

9.10 Warranties view

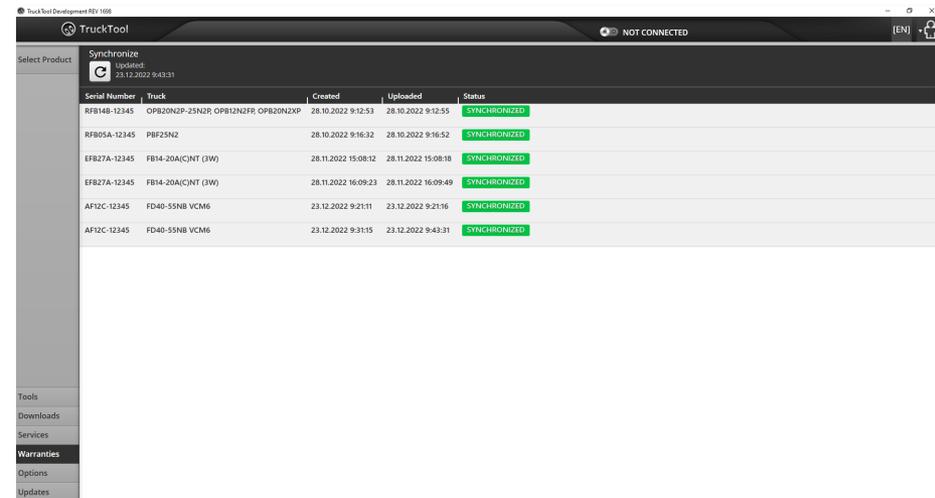
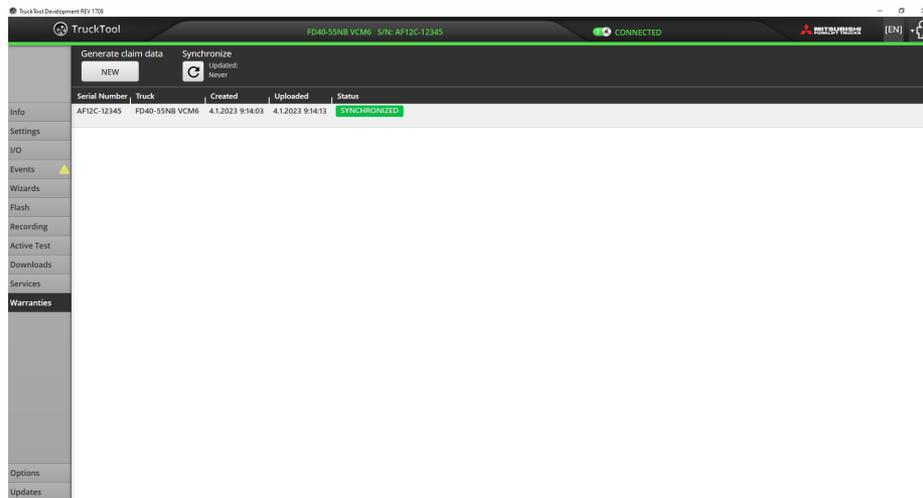
- The Warranties view is intended for producing and listing TruckTool parameter (TTP) file entries for warranty related operations.
- TTPs are a snapshot of the truck state, which help in solving warranty cases.
- TruckTool takes a snapshot of the truck state, then produces a TTP based on it and sends it via internet for further analysis.
- The entries of TTPs can be viewed locally from TruckTool from the warranties view.
- The TTPs themselves are available with [Truck Data Analyzer](#) web service.

9.10 Warranties view – viewing entries

- Generated Warranty related material "Claim data" is shown in the Warranties view.
- There are 2 types of warranty views:
 1. **Connected.** In this view, only serial number and truck model specific entries are shown based on current truck selection.
 2. **Unconnected.** In this view, all the user created claim data entries are shown for all the truck models and serial numbers.

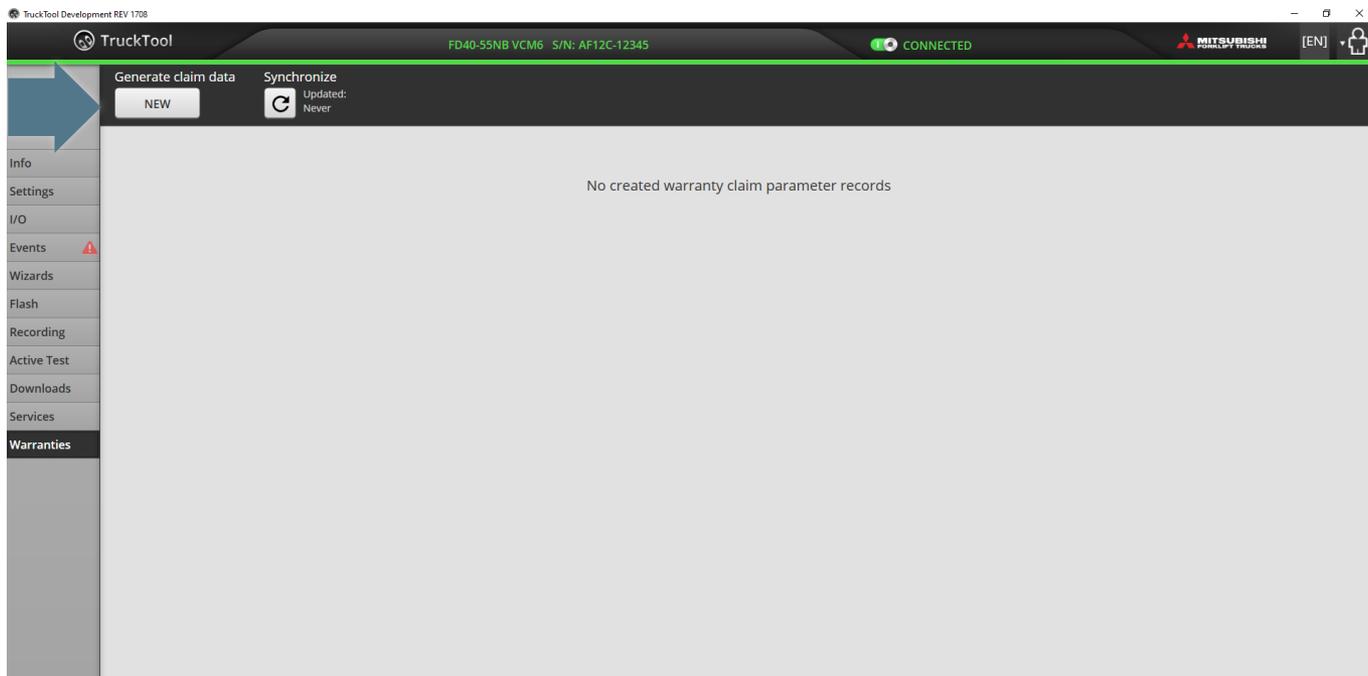
1.

2.



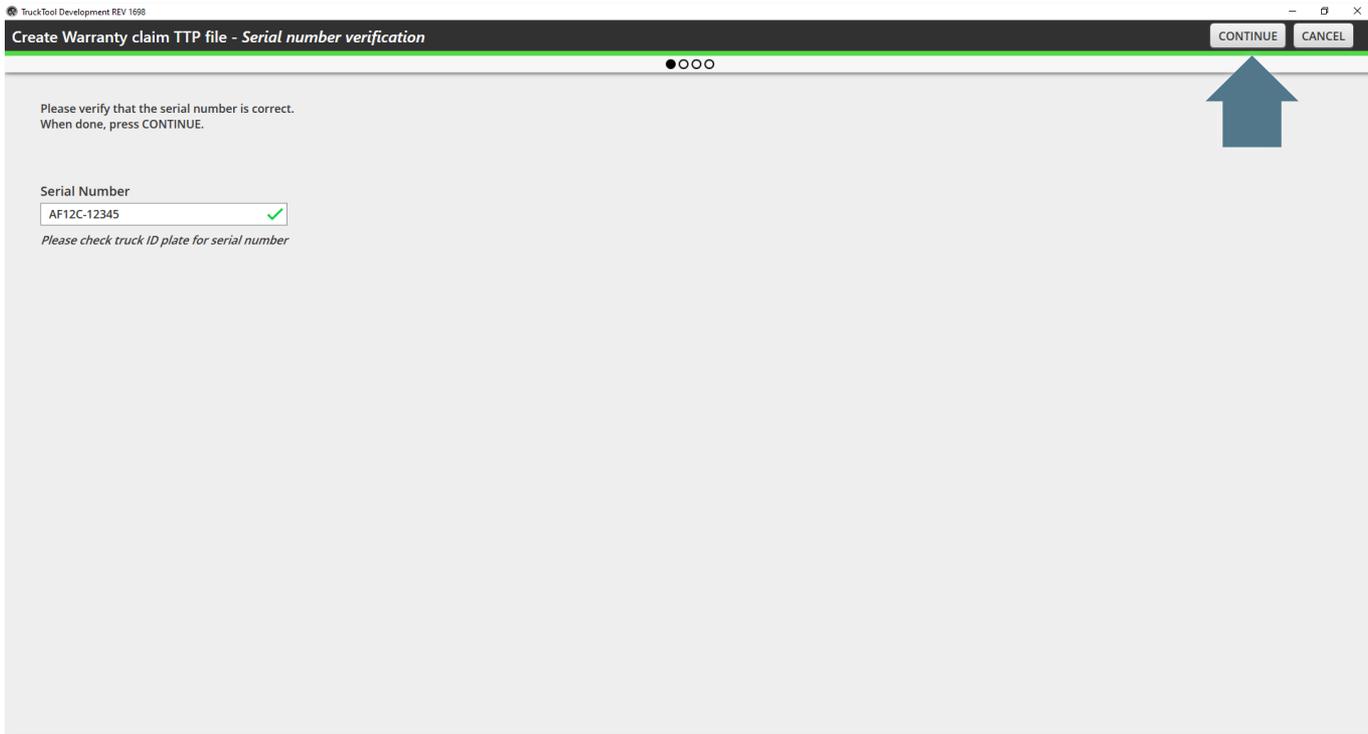
9.10 Warranties view – Generating claim data

- Claim data (TTPs) can be generated for almost all models in TruckTool.
- For generating claim data, user has to connect to a specific truck model. The functionality is not available when unconnected.
- Select the “**Warranties**” view from the left navigation panel. Click the “**NEW**” button in upper left corner of the view to start the Warranty TTP generation wizard.



9.10 Warranties view – Generating claim data

- Confirm the serial number or revise it if it is incorrect. The serial number is tagged to the generated TTP.
- Afterward, press “**CONTINUE**” on the upper right section of the view to move onto the import phase.



TruckTool Development REV 1698

Create Warranty claim TTP file - Serial number verification

CONTINUE CANCEL

Please verify that the serial number is correct.
When done, press CONTINUE.

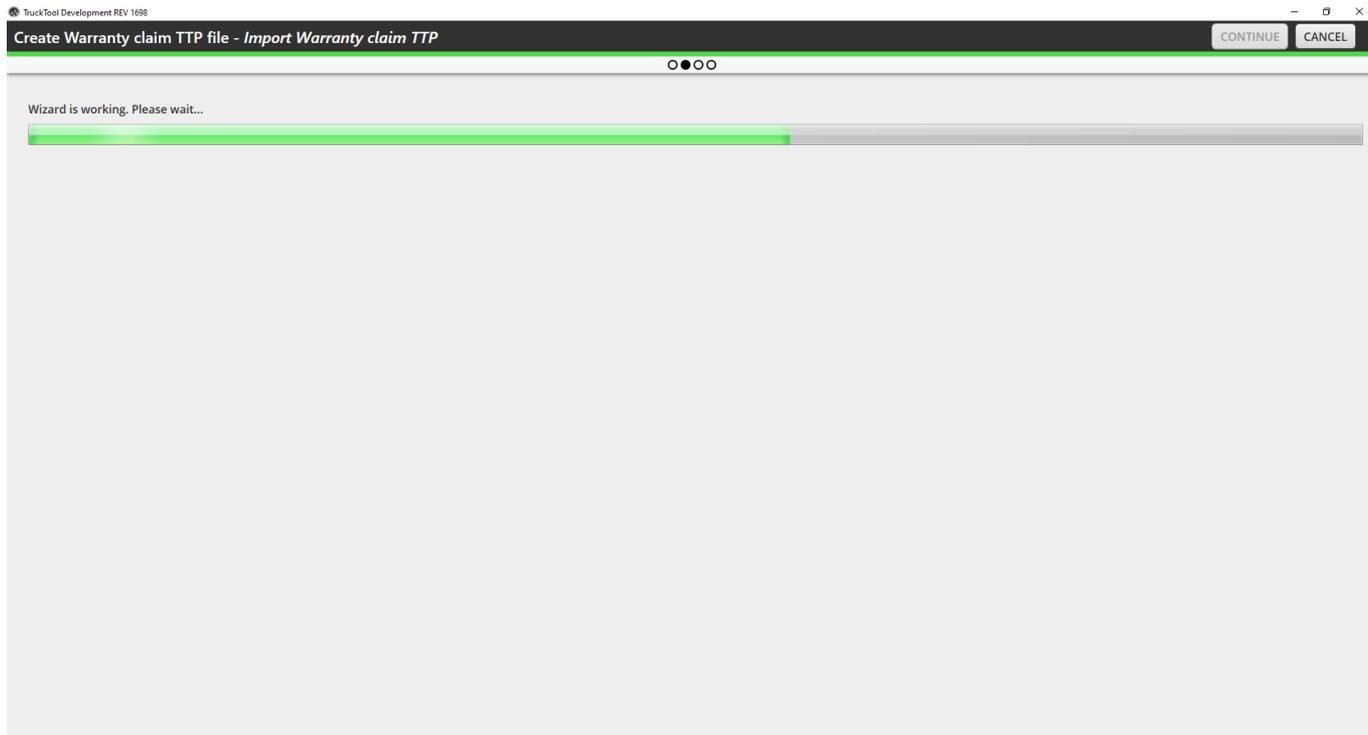
Serial Number

AF12C-12345 ✓

Please check truck ID plate for serial number

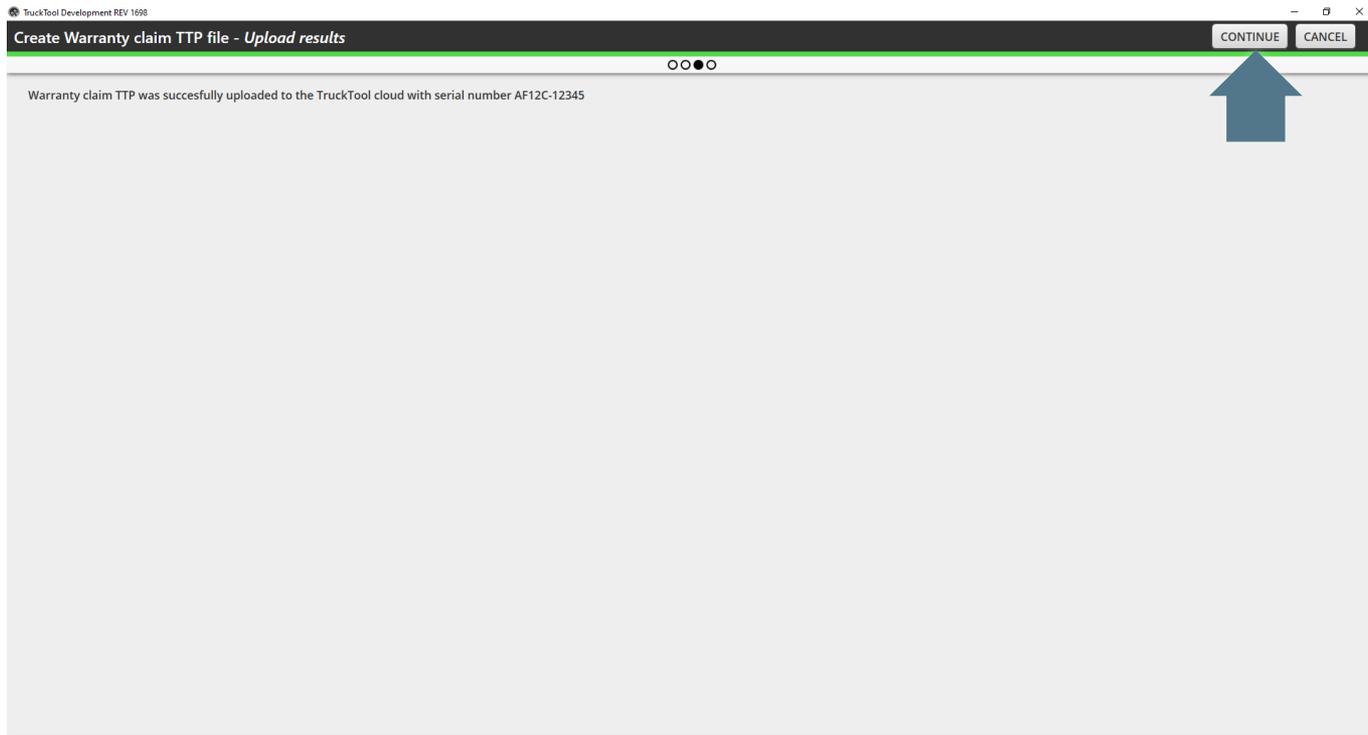
9.10 Warranties view – Generating claim data

- The importing of the parameters is started. Wait here until it is finished.



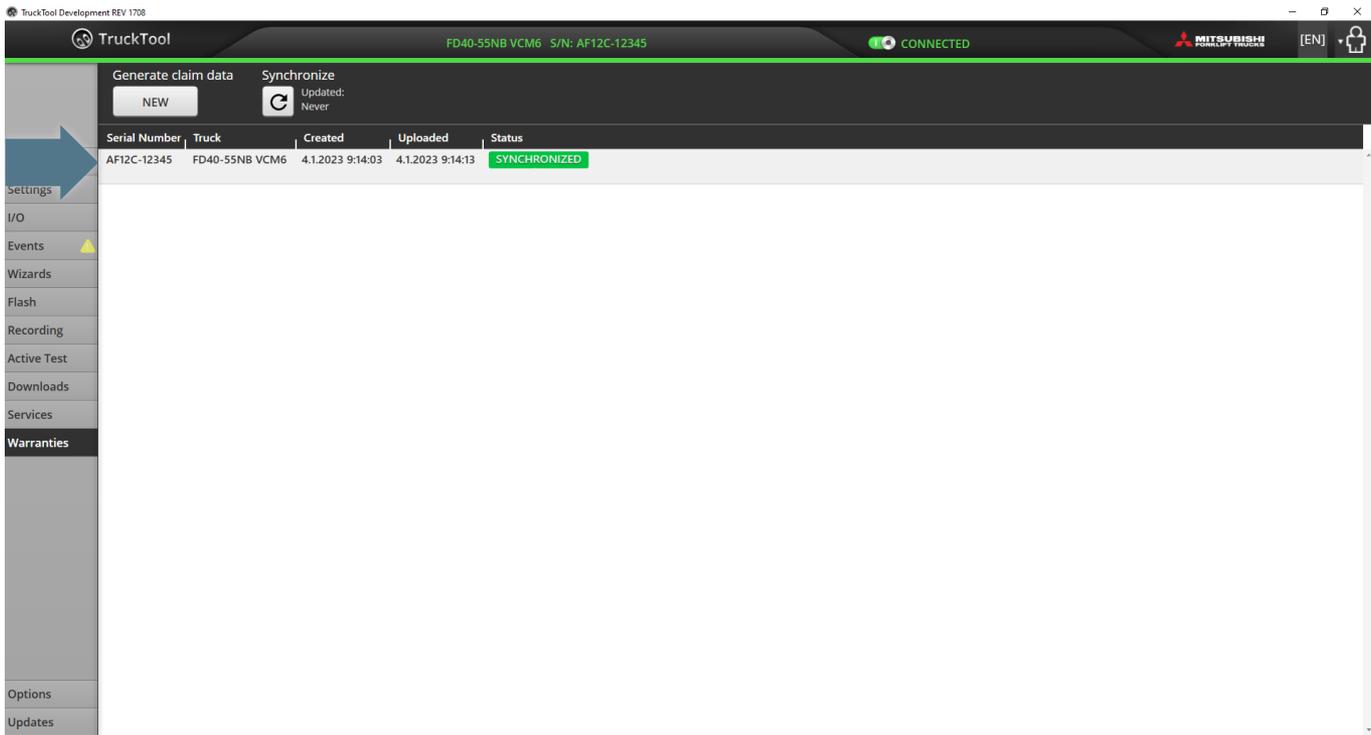
9.10 Warranties view – Generating claim data

- After the importing of the truck's parameters, the sending status of the generated TTP is shown. Press **CONTINUE** button, and **FINISH** button afterward to end the wizard.



9.10 Warranties view – Generating claim data

- After finishing the wizard, the user is taken back to the Warranties view. It has been updated with the information regarding the generated TTP.



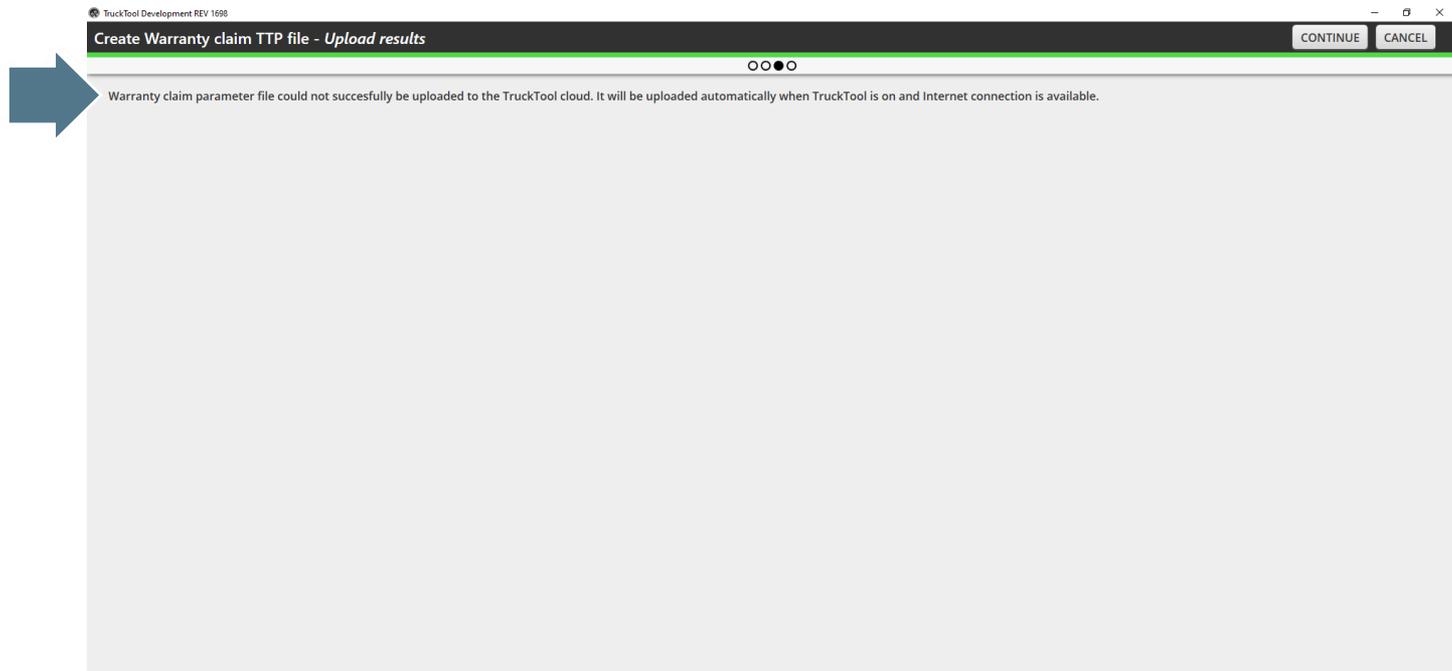
The screenshot shows the TruckTool interface with the Warranties view selected in the left sidebar. The main area displays a table with the following data:

Serial Number	Truck	Created	Uploaded	Status
AF12C-12345	FD40-55NB VCM6	4.1.2023 9:14:03	4.1.2023 9:14:13	SYNCHRONIZED

Additional interface elements include a 'Generate claim data' section with a 'NEW' button and a 'Synchronize' button with 'Updated: Never' text. The top status bar shows 'CONNECTED' and 'MITSUBISHI FUSO TRUCKS' branding.

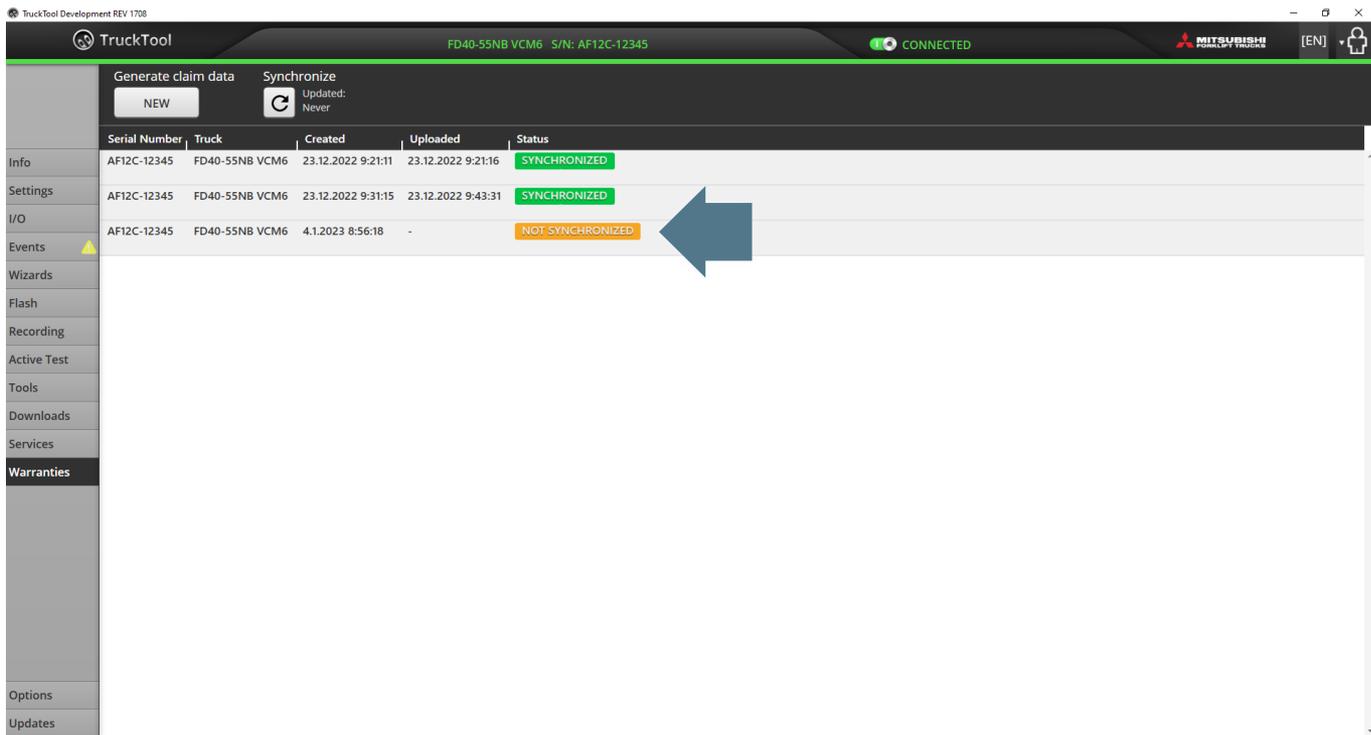
9.10 Warranties view – Generating claim data

- If the internet connection is not immediately available when the TTP is needed, the warranty TTP wizard can be run anyway, and the generated file will be stored into the PC's file system.
- In such a case, the user is shown a result indicating a missing internet connection after the Import step:



9.10 Warranties view – Generating claim data

- After finishing the wizard, user is taken back to the warranties view. The sending status is shown to the user.

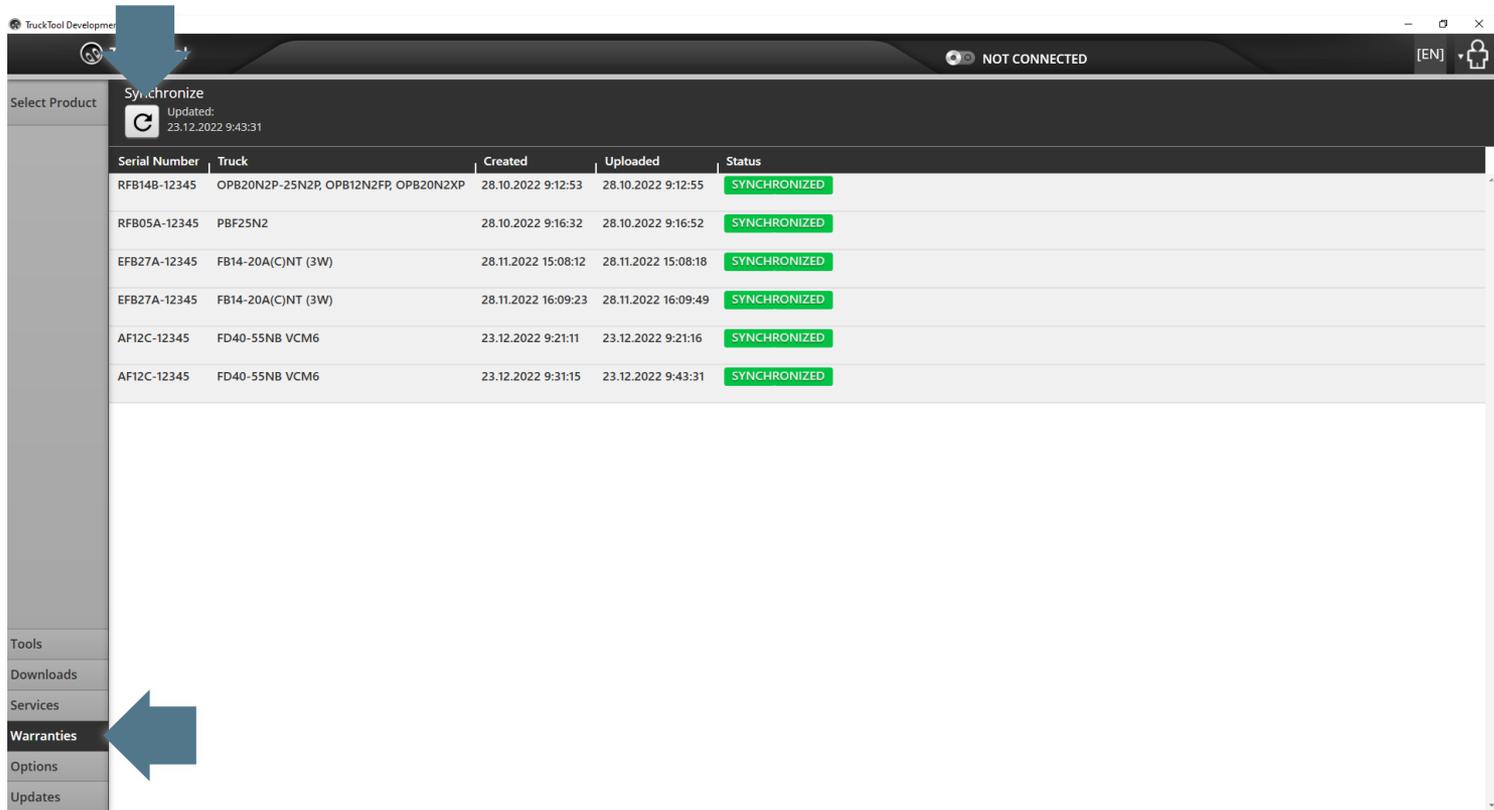


The screenshot shows the TruckTool interface for the Warranties view. The top bar displays 'TruckTool' and 'FD40-55NB VCM6 S/N: AF12C-12345'. Below the top bar, there are two main sections: 'Generate claim data' with a 'NEW' button, and 'Synchronize' with a refresh icon and 'Updated: Never'. A table below these sections lists warranty data with columns for Serial Number, Truck, Created, Uploaded, and Status. A blue arrow points to the 'NOT SYNCHRONIZED' status of the third row.

	Serial Number	Truck	Created	Uploaded	Status
Info	AF12C-12345	FD40-55NB VCM6	23.12.2022 9:21:11	23.12.2022 9:21:16	SYNCHRONIZED
Settings	AF12C-12345	FD40-55NB VCM6	23.12.2022 9:31:15	23.12.2022 9:43:31	SYNCHRONIZED
I/O	AF12C-12345	FD40-55NB VCM6	4.1.2023 8:56:18	-	NOT SYNCHRONIZED

9.10 Warranties view – General warranties view

- All the user generated warranty TTPs can be seen in the “General” Warranties view as well. This can be accessed when not connected to a truck model in TruckTool. The navigation button to the view is available in the lower left side of the navigation panel with the name “**Warranties**”.
- The view shows all the user generated warranty TTPs from different truck models. The “**Synchronize**” button can be used to manually trigger the sending of the data that is unsent.



The screenshot displays the TruckTool interface. At the top, there is a 'Synchronize' button with a refresh icon and the text 'Updated: 23.12.2022 9:43:31'. Below this is a table with the following data:

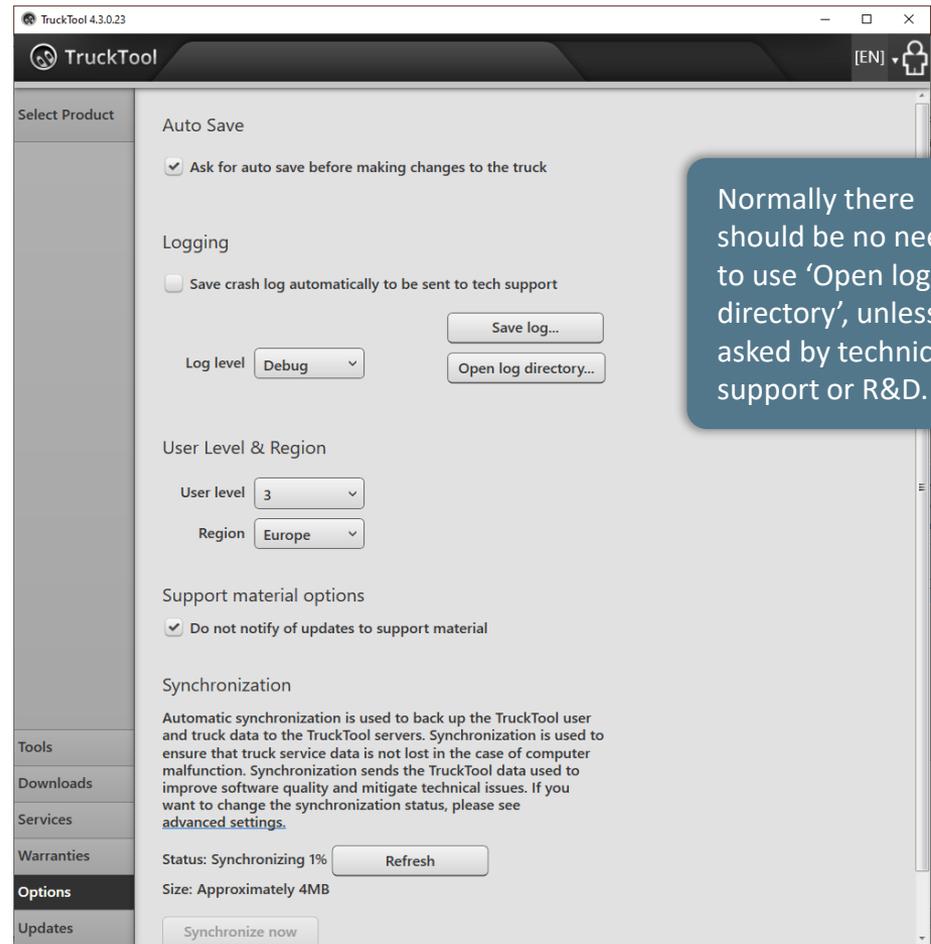
Serial Number	Truck	Created	Uploaded	Status
RFB14B-12345	OPB20N2P-25N2P, OPB12N2FP, OPB20N2XP	28.10.2022 9:12:53	28.10.2022 9:12:55	SYNCHRONIZED
RFB05A-12345	PBF25N2	28.10.2022 9:16:32	28.10.2022 9:16:52	SYNCHRONIZED
EFB27A-12345	FB14-20A(C)NT (3W)	28.11.2022 15:08:12	28.11.2022 15:08:18	SYNCHRONIZED
EFB27A-12345	FB14-20A(C)NT (3W)	28.11.2022 16:09:23	28.11.2022 16:09:49	SYNCHRONIZED
AF12C-12345	FD40-55NB VCM6	23.12.2022 9:21:11	23.12.2022 9:21:16	SYNCHRONIZED
AF12C-12345	FD40-55NB VCM6	23.12.2022 9:31:15	23.12.2022 9:43:31	SYNCHRONIZED

The left navigation panel includes the following items: Select Product, Tools, Downloads, Services, **Warranties**, Options, and Updates. The 'Warranties' item is highlighted with a blue arrow pointing to it from the left. Another blue arrow points to the 'Synchronize' button at the top left of the main content area.

9.11 Options view

In Options view, you can change TruckTool settings, such as:

- Enable or disable the Auto Save prompt
- Change logging level
- Save a log to a specific folder
- Open log directory
- See synchronization status and manually synchronize if needed



Normally there should be no need to use 'Open log directory', unless asked by technical support or R&D.

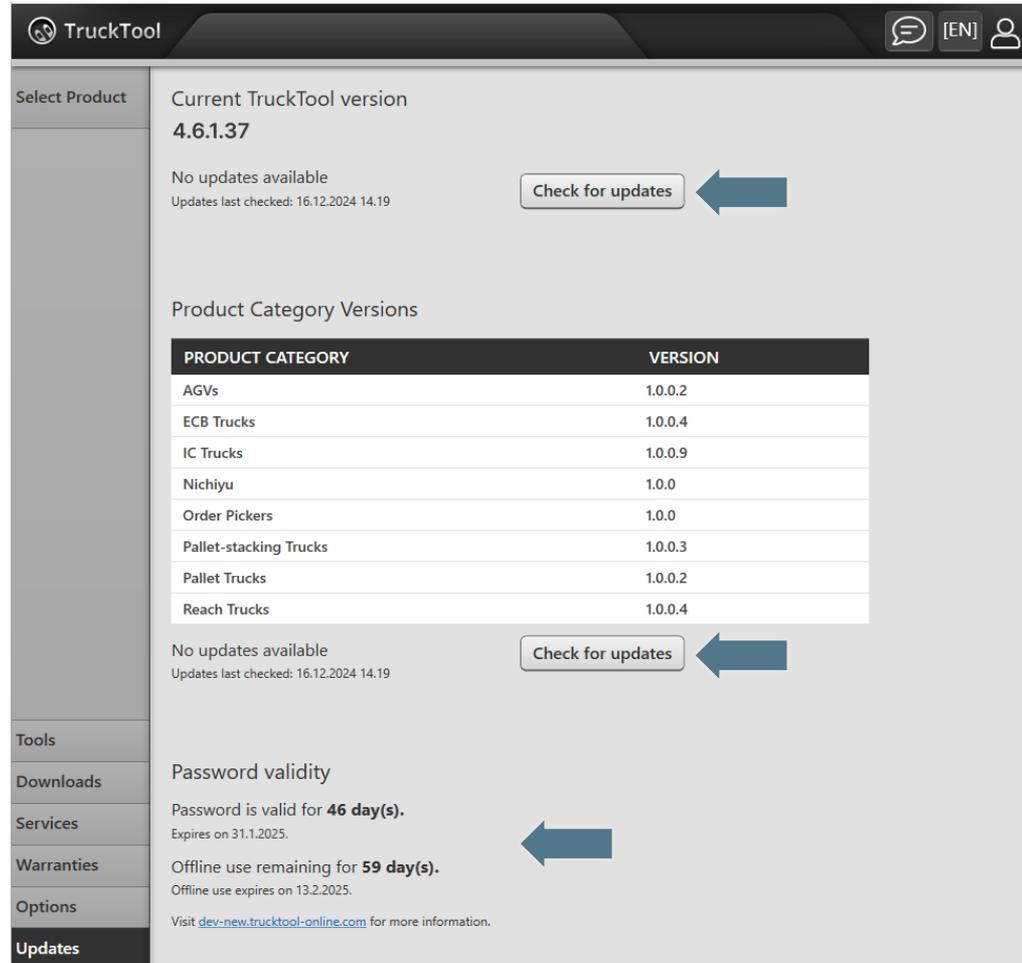
9.12 Updates view

In the Updates view, you can:

- Check for TruckTool updates manually
- Check for Product Category Versions and their updates manually
- View remaining password validity and offline usage periods

At startup TruckTool automatically checks for updates in the background whenever an internet connection is available.

Product category versions are automatically updated to the latest available version at TruckTool startup.



TruckTool

Select Product

Current TruckTool version
4.6.1.37

No updates available
Updates last checked: 16.12.2024 14.19

Product Category Versions

PRODUCT CATEGORY	VERSION
AGVs	1.0.0.2
ECB Trucks	1.0.0.4
IC Trucks	1.0.0.9
Nichiyu	1.0.0
Order Pickers	1.0.0
Pallet-stacking Trucks	1.0.0.3
Pallet Trucks	1.0.0.2
Reach Trucks	1.0.0.4

No updates available
Updates last checked: 16.12.2024 14.19

Tools

Downloads

Services

Warranties

Options

Updates

Password validity

Password is valid for **46 day(s)**.
Expires on 31.1.2025.

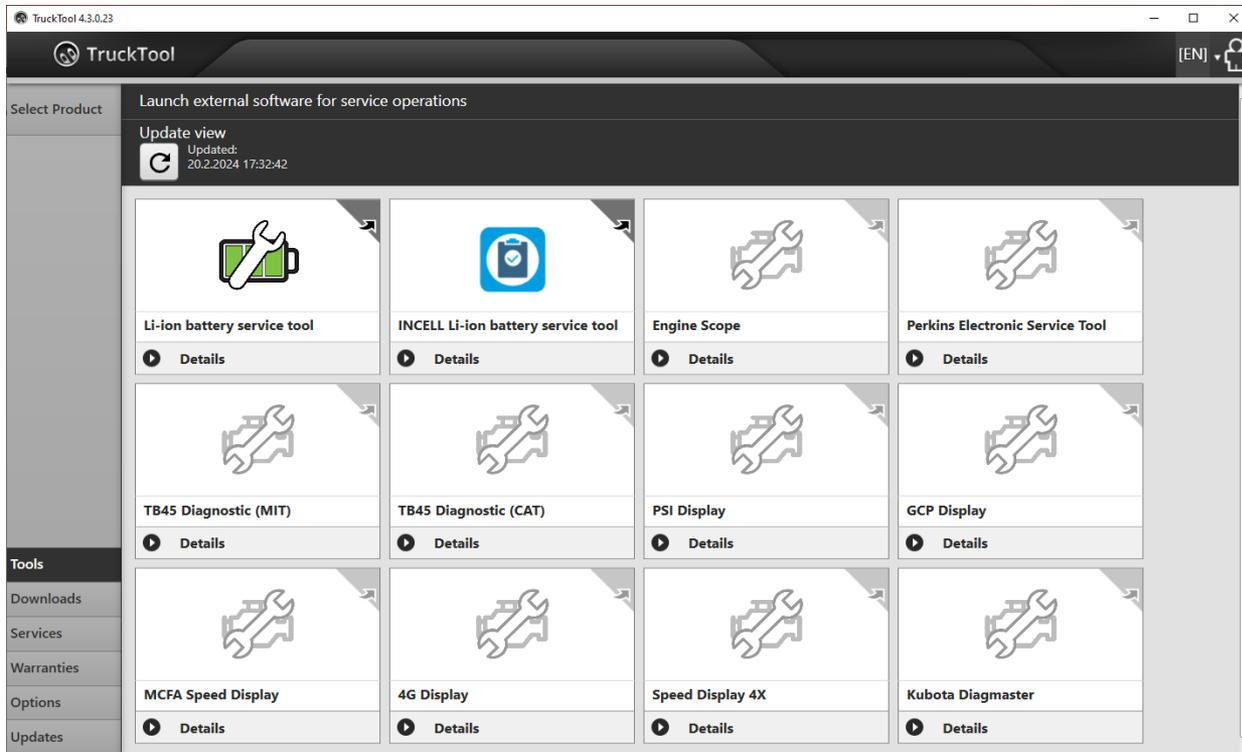
Offline use remaining for **59 day(s)**.
Offline use expires on 13.2.2025.

Visit dev-new.trucktool-online.com for more information.

9.13 Tools view

Tools view contains launchers for various external tools. These tools are programs that can be used to further service the truck.

In this view, you can download tool packages from the TruckTool cloud to your computer's hard drive, install them, and run them once installed.



9.13 Tools view

- Tools view contains launchers for various tools.
- Tools are separate programs that are independent from TruckTool.
- Some of the tools are included in the TruckTool installer and can be used without a separate installation.
- Some of the tools are **downloadable tools**:
 - Downloadable tools are not included in the TruckTool installer but instead can be downloaded from TruckTool cloud.
 - This saves space on your hard drive, as you can only download and install tools that are needed.
 - Each available downloadable tool can easily be updated from the cloud without a new TruckTool installation required.
- When you are **not connected** to any truck, Tools view shows you **all tools** of models to which you have access rights.
- When you are **connected** to a specific truck, Tools view shows you **only the model-specific tools**.

9.13 Tools view – Downloading tools

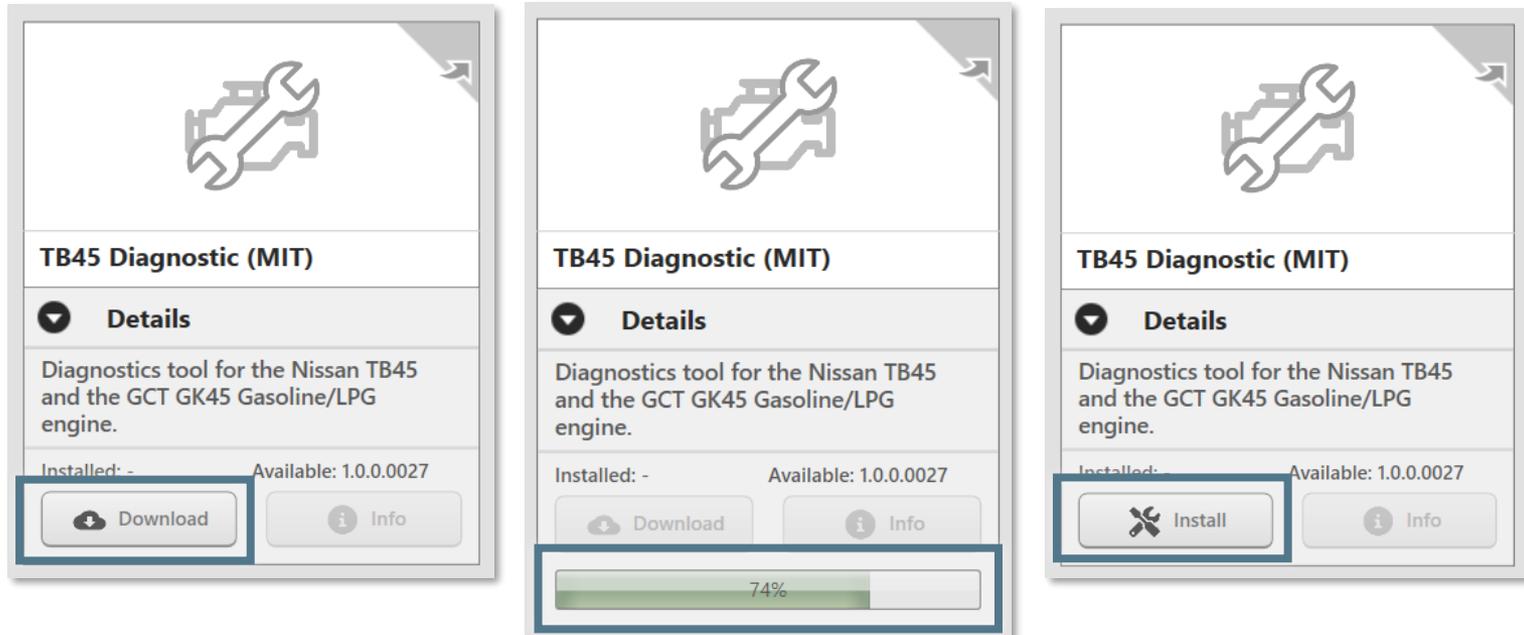
You can download a tool from the tool's tile using the Download button.

This button is only enabled when a tool package is available.

A progress bar is visible during the download.

Once the download is finished, the progress bar is hidden, and you will see an Install button instead of the Download button.

If multiple versions of the tool are available in the cloud, the latest one will be downloaded.

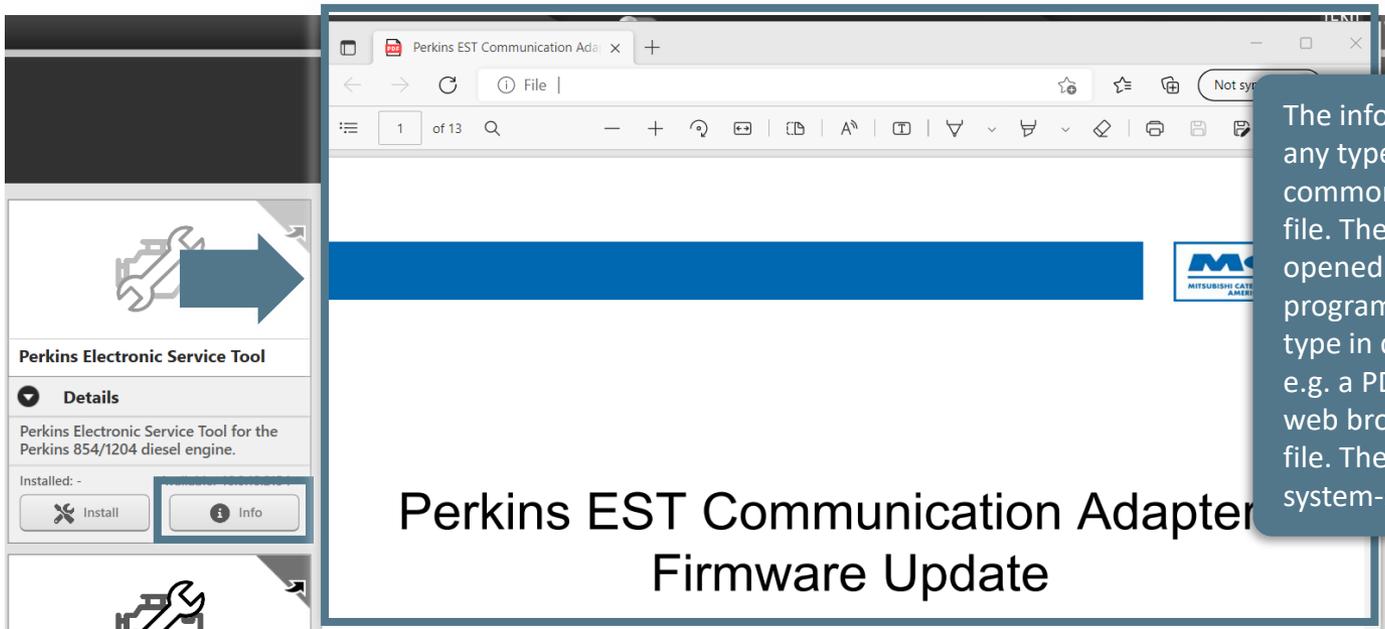


9.13 Tools view – Viewing info

You can view important information about a downloadable tool using the Info button.

This button will open either an info file or a folder inside the downloaded package. The button is enabled if the package has been downloaded and has an info file or a folder specified. Some tools may not have any info file/folder available.

Viewing an info file:



The screenshot shows the TruckTool interface on the left and a browser window on the right. In the TruckTool interface, the 'Perkins Electronic Service Tool' is selected, and the 'Info' button is highlighted with a blue box. A blue arrow points from the 'Info' button to the browser window. The browser window displays the 'Perkins EST Communication Adapter Firmware Update' page, which is a PDF document. A blue bar is visible at the top of the PDF content. A blue callout box on the right side of the browser window contains the following text:

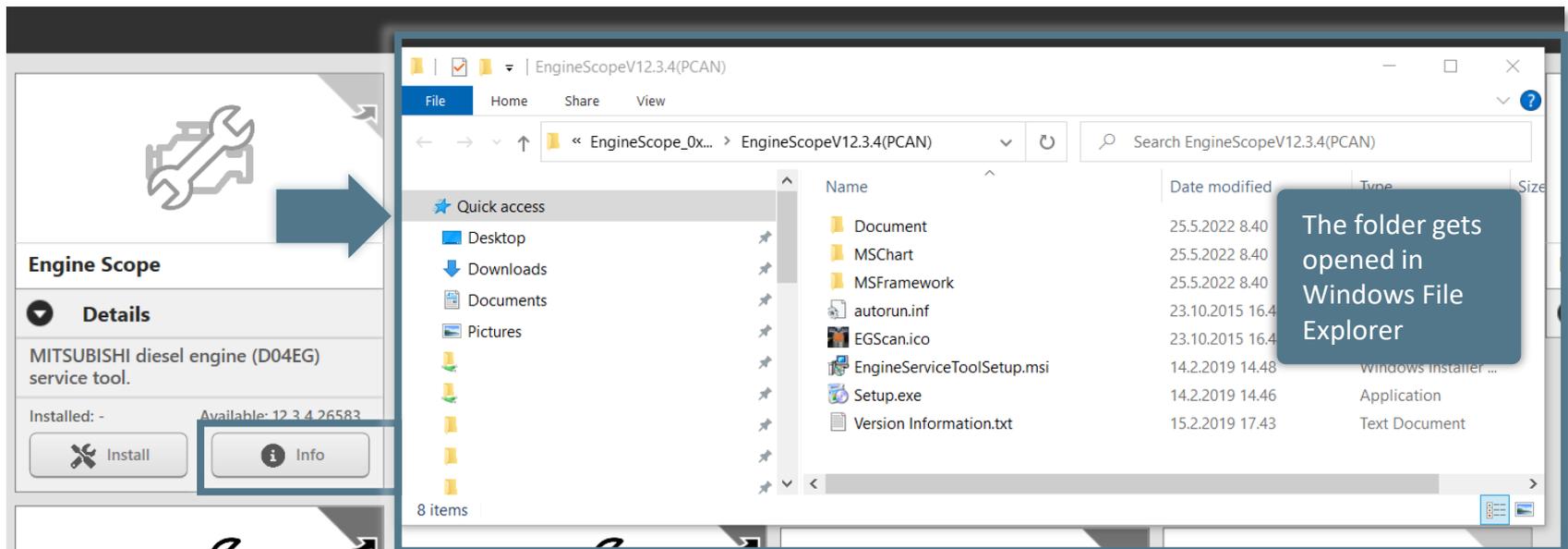
The info file can be of any type, most commonly a .pdf or .txt file. The file gets opened in the default program for the file type in question, e.g. a PDF viewer or web browser for a .pdf file. These settings are system-specific.

9.13 Tools view – Viewing info

Some tool packages may contain accompanying software such as drivers. Such tools will usually open an entire folder from the Info button.

This allows you to browse the entire folder structure of the downloaded package, read manuals and instruction files, and install necessary drivers. It is recommended to check these contents before running the installer from TruckTool.

Viewing an info folder:



9.13 Tools view – Installing tools

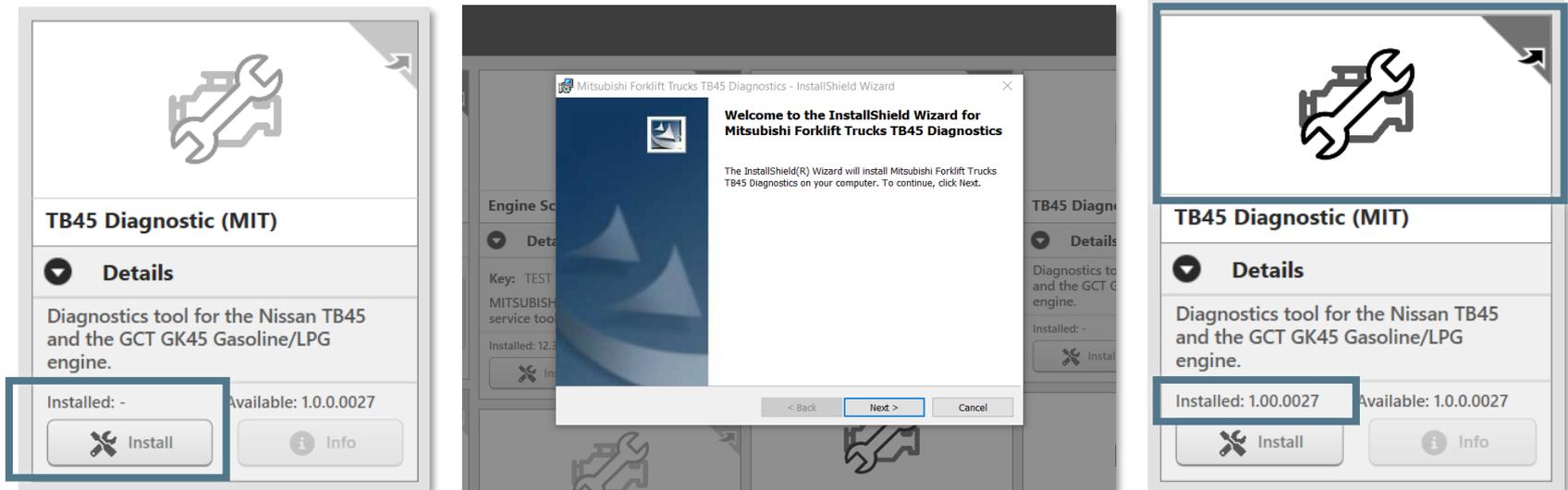
You can install a tool from the tool's tile using the Install button.

This button is only enabled when a tool package is already downloaded. The button will launch the installer from the downloaded package. Using TruckTool will be disabled during the installation.

Click 'Yes' if the system asks for permission to run the installer.

If an installer won't start, try running TruckTool as an administrator.

If an installation is successfully completed, the Installed version field should change to a non-empty value and the engine icon should become darker.

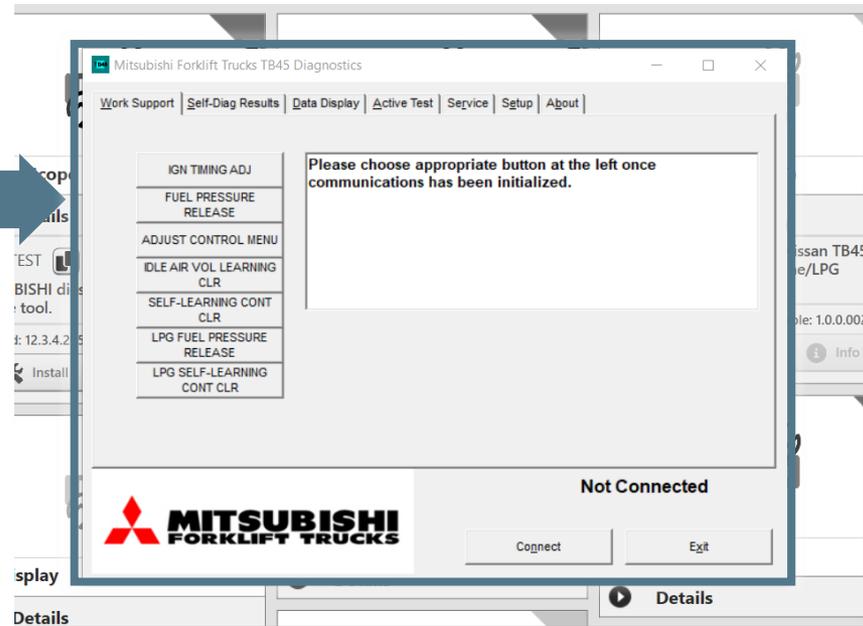
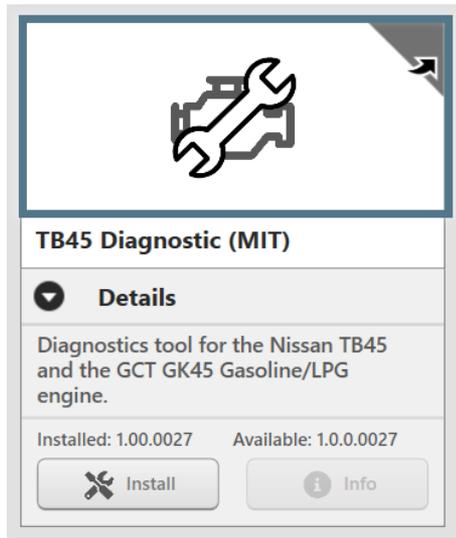


9.13 Tools view – Launching tools

You can run a tool by clicking the launcher area.

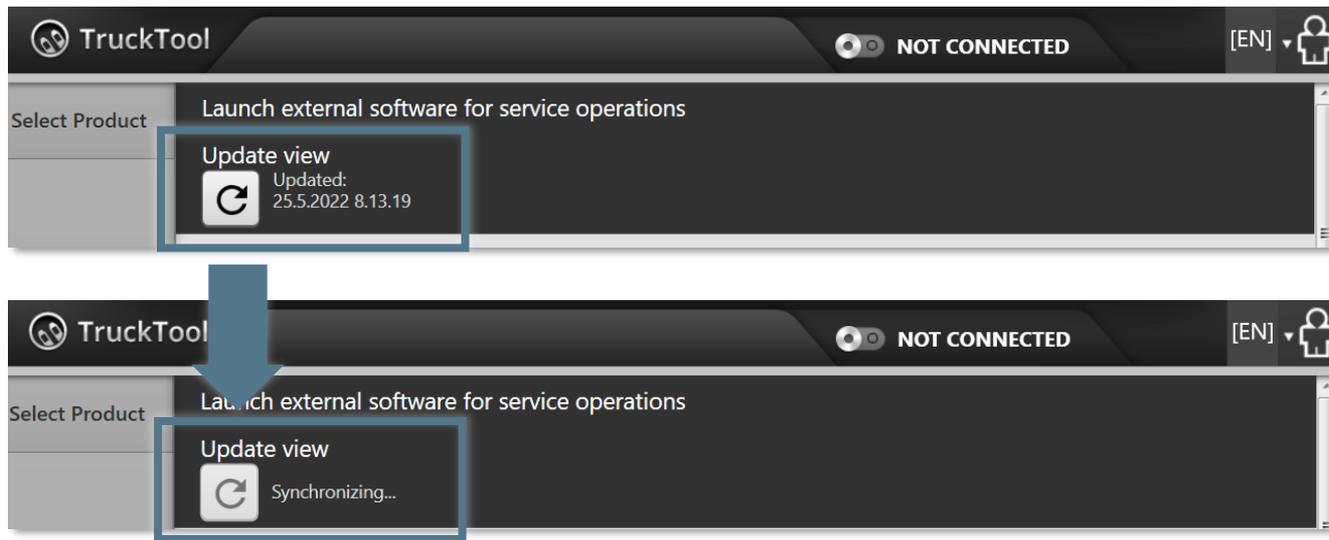
The launcher area for **downloadable tools** has an engine icon. The **non-downloadable tools** have different icons but can be launched from this area as well. The tool program is opened in a new window.

Only tools that are successfully installed can be launched. Installed downloadable tools can be identified from the non-empty Installed version field and the darker icon. If a tool doesn't need installation, it can be launched instantly after downloading. This also includes the non-downloadable tools that are included in the TruckTool installation.



9.13 Tools view – Synchronizing

The tools view gets updated with the latest available packages at each TruckTool startup. You can also synchronize the view manually from the top bar button  , which queries available tools from the cloud.

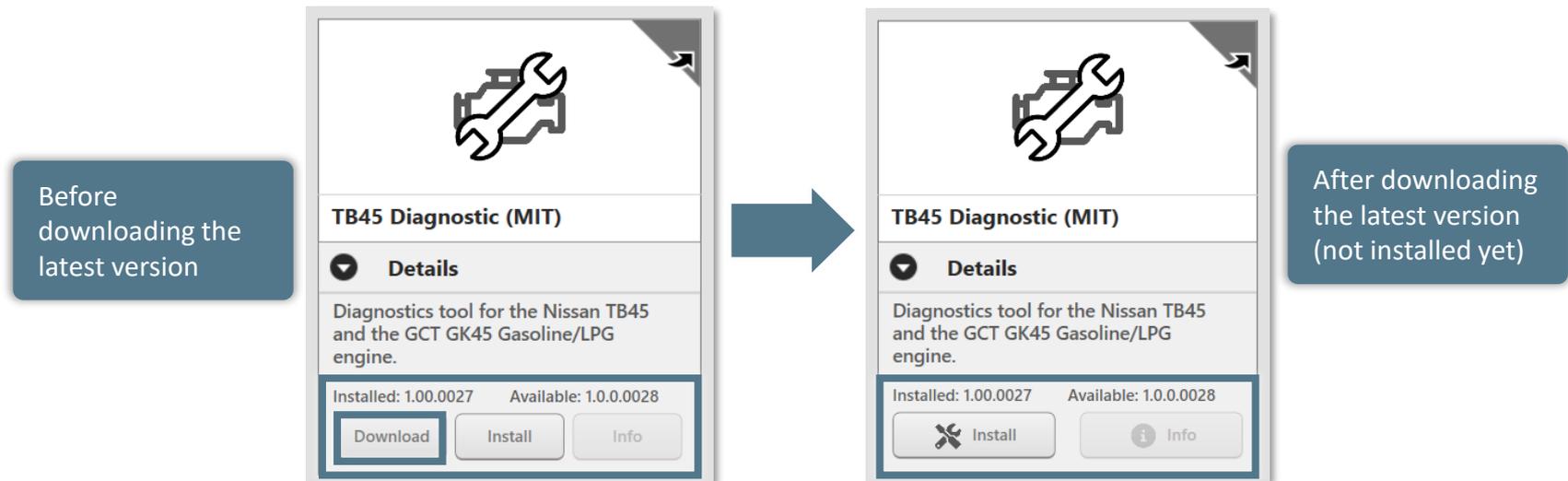


9.13 Tools view – Updating tools

If a tool has been downloaded and installed before, and a newer version is available in the cloud, this can be detected from the difference in the Available/Installed version fields.

The Download button always downloads **the latest available version**, so you can download and install the tool as instructed previously. This will update the tool.

Note: Before the new package has been downloaded, both the Install and Download buttons are visible. The Install button runs the installer for the **previously downloaded version**, while the Download button downloads the latest version. After downloading the newer package, only the Install button is visible and will run the installer for the **latest downloaded version**.



10. User interface notifications

Settings view – Parameter value is changed in TruckTool, but not yet saved to the truck.

Events view – Color indicates the status of the most critical active event.

Flash view – One or more controllers in the truck lack the latest software version.

Services view – One or more service records are not synced to the TruckTool data storage.

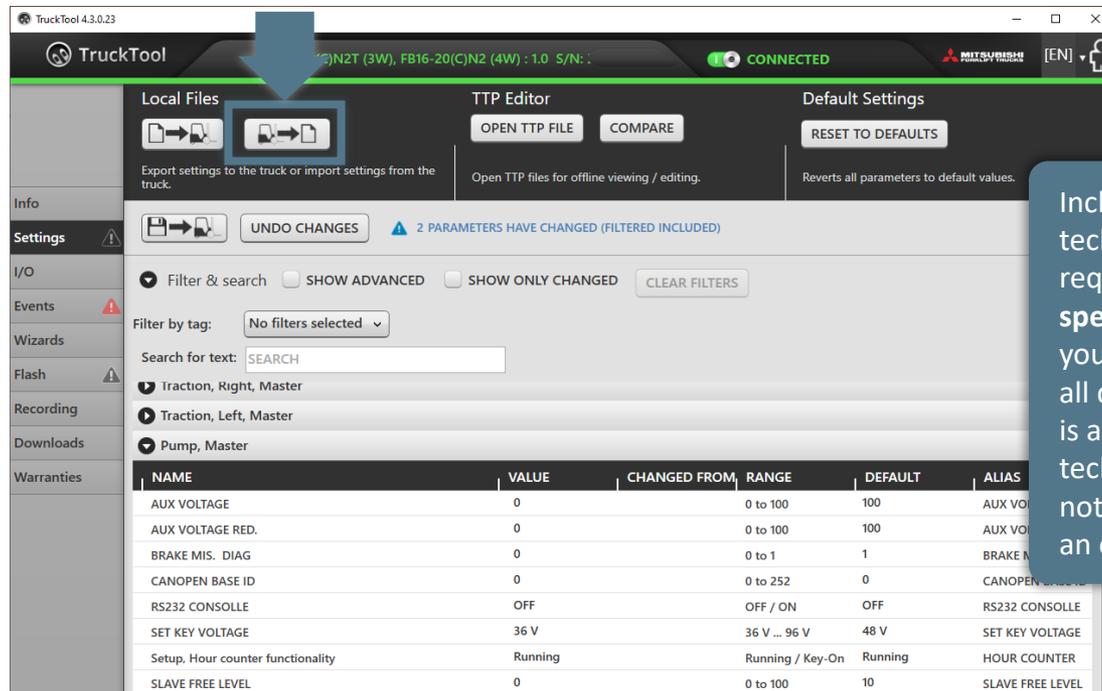
Options view – Data needs to be synced to the TruckTool data storage; auto-sync is off.

The screenshot shows the TruckTool 4.3.0.23 interface. At the top, it displays the truck model: FB14-20(C)N2T (3W), FB16-20(C)N2 (4W) : 1.0 S/N. Below this, it shows 'Truck Hours 0,00 h' and a battery level indicator at 0%. A left-hand navigation menu includes: Info, Settings, I/O, Events (with a red warning icon), Wizards, Flash (with a yellow warning icon), Recording, Downloads, Warranties, Options, and Updates. A blue arrow points from the 'Events' menu item to a diagram of a truck's operator compartment. The diagram labels various components with colored status indicators: Dual Joystick Armrest, Optional (Green); Single Joystick Armrest, Optional (Green); Operator Panel (Green); Armrest, Optional (Green); Traction, Left, Master (Green); Traction, Left, Slave (Green); Pump, Master (Green); EPS, Slave (Green); Pump, Slave (Green); Traction, Right, Master (Green); Traction, Right, Slave (Green); EPS, Master (Green); VCM, Master (Red); and VCM, Slave (Green). A legend at the bottom explains the color coding: Black: Offline, no connection; Green: Online and no errors present; Red: Online and active error code(s) present; Yellow: Online and active warning code(s) present; Blue: Online and active info code(s) present.

11. Including truck data in a technical support request

If you have a problem with a truck you cannot solve by yourself and you need to contact technical support, include a TTP file in the support request.

You can save the TTP file in the Settings view.



The screenshot shows the TruckTool 4.3.0.23 interface. The 'Settings' view is active, displaying a table of parameters. A blue arrow points to the 'Export settings to the truck or import settings from the truck' button in the 'Local Files' section. A blue callout box on the right contains the following text:

Including a TTP file in technical support request **significantly speeds up** the support you will receive, since all data about the truck is already included and technical support does not have to send you an email asking for it.

NAME	VALUE	CHANGED FROM	RANGE	DEFAULT	ALIAS
AUX VOLTAGE	0		0 to 100	100	AUX VO
AUX VOLTAGE RED.	0		0 to 100	100	AUX VO
BRAKE MIS. DIAG	0		0 to 1	1	BRAKE M
CANOPEN BASE ID	0		0 to 252	0	CANOPEN
RS232 CONSOLLE	OFF		OFF / ON	OFF	RS232 CONSOLLE
SET KEY VOLTAGE	36 V		36 V ... 96 V	48 V	SET KEY VOLTAGE
Setup, Hour counter functionality	Running		Running / Key-On	Running	HOUR COUNTER
SLAVE FREE LEVEL	0		0 to 100	10	SLAVE FREE LEVEL

