Consat Telematics Solution

Vehice System: Administrative Operations

Version 23.5.(X)

Contents

1 Operations for Vehicle Depot Workers

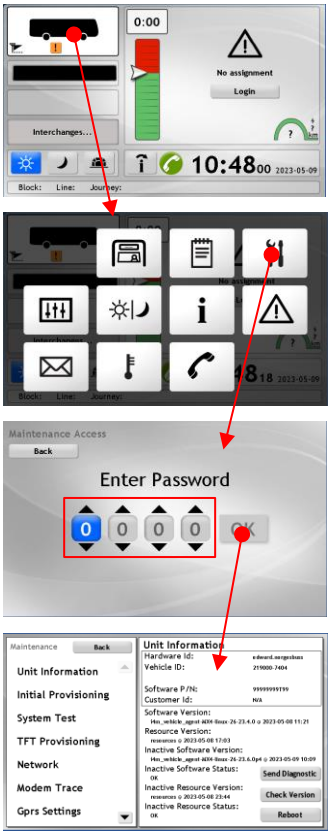
The purpose of this manual is to guide you through the basic operations in the Consat Vehicle System maintenance menu, used for handling vehicles with Consat Systems.

- Additional information about troubleshooting vehicle systems and onboard equipment can be found in the "Troubleshooting_Guide_Vehicle_System" document.

- Related information about the Configuration Manager (software depot) can be found in the Configuration Manager reference manual.

1.1 Access The Maintenance Menu

Most operations described below use the Maintenance menu in the driver interface. To access it you need the access pin code for your company (/the companies whose vehicles you need to access):

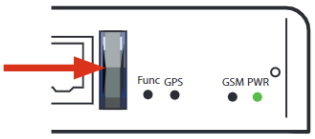


2 Install Consat Software

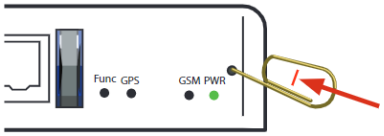
2.1 MX4 Vehicle Computer

On rare occasions, when the vehicle system cannot be remotely accessed and no Consat software is installed, you will have to perform the installation on site, using a usb stick:

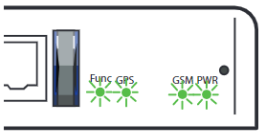
1. Insert a USB stick with the correct ITS4mobility software in any free USB port.



2. Use a paper clip, or comparable narrow but non-sharp object, to press the recessed button next to the PWR indicator. Do not use too much force.

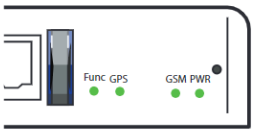


3. The installation process will start. The LED indicators will flash, the driver display will show various installation logs.



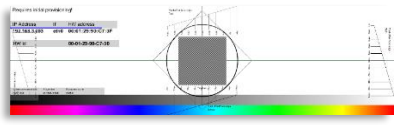
4. When the LED indicators are constantly lit, the installation process is completed.

5. Remove the USB stick. The Computer will reboot. Proceed with the next step.



2.2 On-Board Display

If an on-board display does *not* show the configured basic screen (top bar w. clock etc.), travel layout, or the "not yet provisioned" test image, you may need to install/reinstall the Consat software on the display computer on site:



Consat display test image: The display already has Consat software – proceed with TFT provisioning, see following chapter.

Needed equipment:

- **Tools needed to access display USB ports (and maybe display power).**
- **A USB stick with the correct Consat software (provided by Consat).**
- **A USB computer keyboard**

1. Connect the USB stick and the USB keyboard to the display USB ports (placement is hw/model dependent).

2. Re-boot the display computer

Either turn off the power and, after a few seconds, turn it on again to start the boot process.

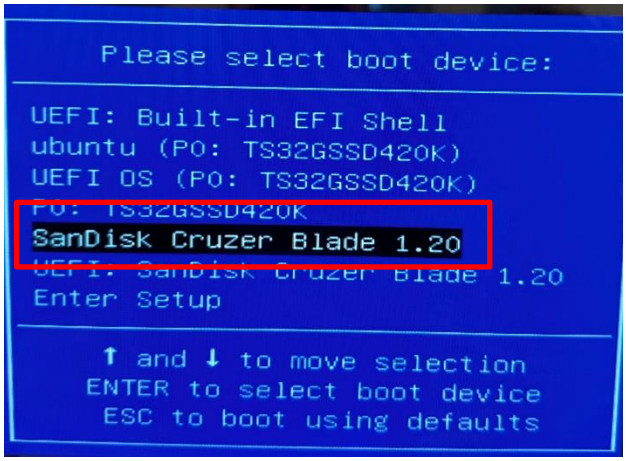
Or: If the display shows an image (but the wrong one), press the Ctrl-Alt-F3 buttons simultaneously on the keyboard to switch to the operating system prompt view and then press the Ctrl-Alt-Del buttons to force a reboot.

3. Open the Bios menu during the booting process

During the boot process (*before it finishes*) you need to press F7 on the keyboard to open the display bios menu, see below (this may vary with the display model).

4. In the Bios Menu: Select your USB Stick as the Boot Source

Use the keyboard up/down arrows to select.



5. Press **Enter** on your keyboard to Boot from USB Stick and automatically install Consat Software.

6. When the process is completed you can proceed with the TFT Provisioning, see the chapter below.

3 Provisioning

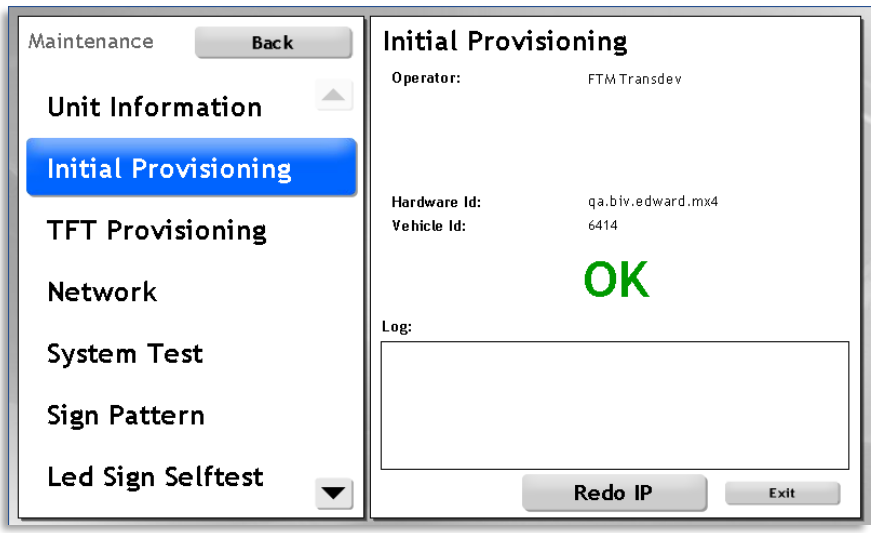
Provisioning means setting up/registering a unit as a part of the Consat System. A vehicle (computer) will be registered in the CM (software depot) and receive the corresponding, software, resources and configurations.

On-board displays are provisioned through (the already provisioned) vehicle computer. With a few simple steps each display in the vehicle is configured for placement, orientation, identification etc and set up in the CM as an individual node grouped with the vehicle it is installed in.

3.1 MX4 Vehicle Computer

When you perform an "Initial Provisioning" during vehicle computer installation/re-installation, you only have to select the correct Company and enter the Vehicle ID. The rest of the process is automatic. (The vehicle must of course have communication access to the CM.)

1. Open the Initial Provisioning view in the Maintenance menu.

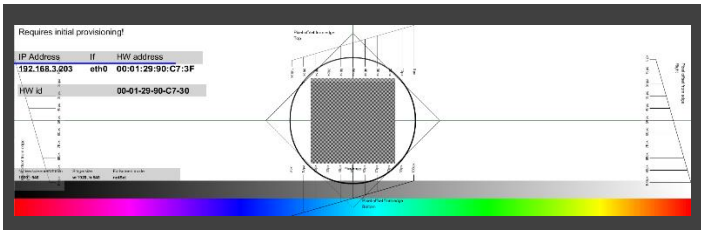


2. Select the Operator the vehicle is to belong to.
3. Enter the Vehicle ID in the numerical menu, use the menu buttons.
4. Press Register

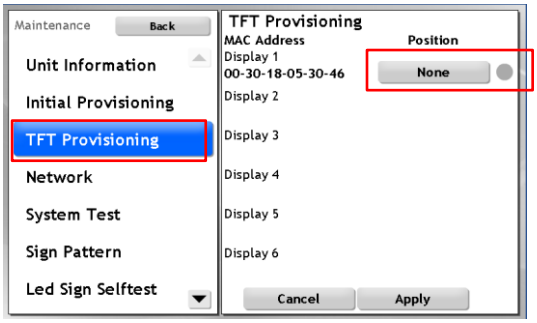
3.2 [TFT] On-board Display

Setting up onboard displays (with correct Consat software) in a vehicle is a simple process performed in the Maintenance menu.

Note: If a test image is displayed on an on-board display, the Consat Software is installed but the display is not yet provisioned (installed in the system and grouped with the other onboard units in the CM).



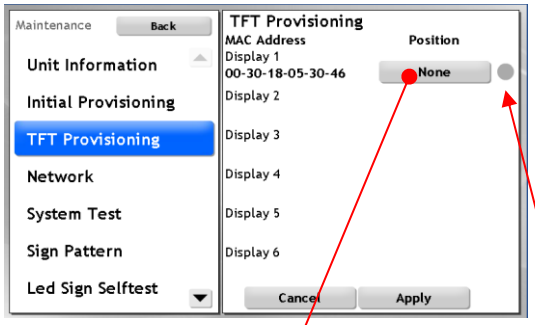
1. Select **TFT Provisioning** in the **Maintenance** menu.



Position: "None" + gray status indicator shows that the display is not yet provisioned.

In this view, all communicating Consat displays are listed with their Mac adresses, current position and configuration (if any). Touch a "position button" to open the configuration menu for that display.

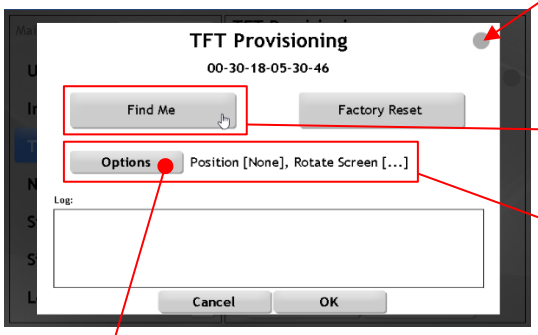
2. Touch the Position button for the display to open the Display Configuration Menu. Here, you configure the placement and orientation of the particular display in the vehicle.
(See the image and function descriptions below).



Touch the Position Button to open the corresponding menu, see below.

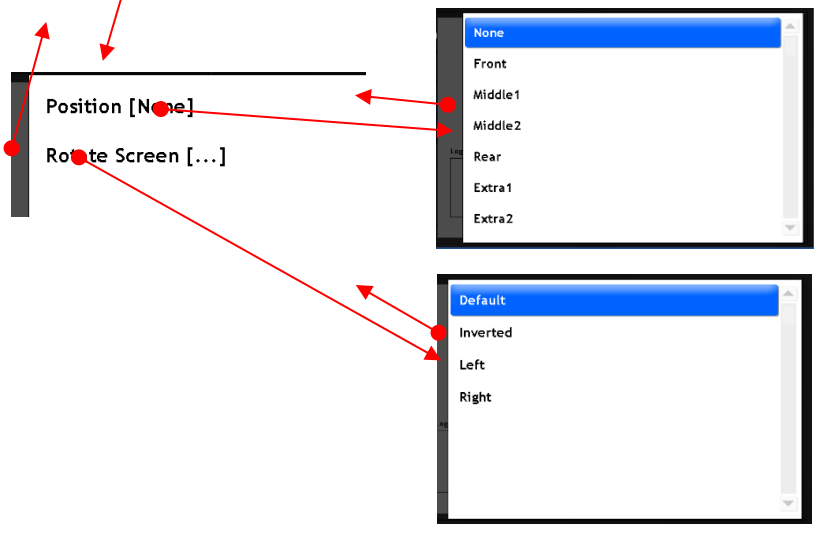
Status Indicator:

Grey= Not Configured [yet]
Blue=Configuration in progress
Green = OK
Red = Not OK



Touch "Find Me" to display the Mac Adress of the display you are configuring on the display, for positive identification

Touch "Options" to set up the display placement in the vehicle and its orientation in the sub-menus below.



Touch "Position" to open the position menu where you select the correct position of the display in the vehicle. Touch outside the menu to return to the above menu level.

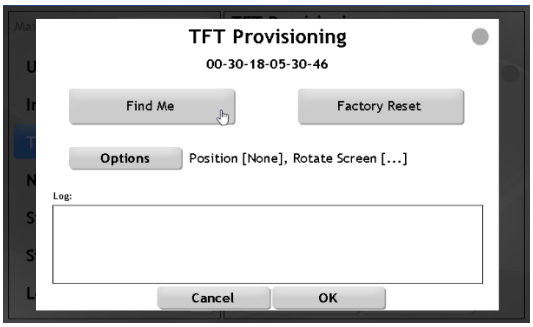
Touch "Position" to open the position menu where you select the correct position of the display in the vehicle. Touch outside the menu to return to the above menu level.

3. Touch outside the Options menu to return to the **TFT Provisioning** menu.

4. Touch the **OK** button in the **TFT Provisioning Menu**.

5. ...And when all displays in the list have been configured, touch **Apply** in the TFT Provisioning view, to save/start the provisioning.

The TFT Provision Menu, Overview

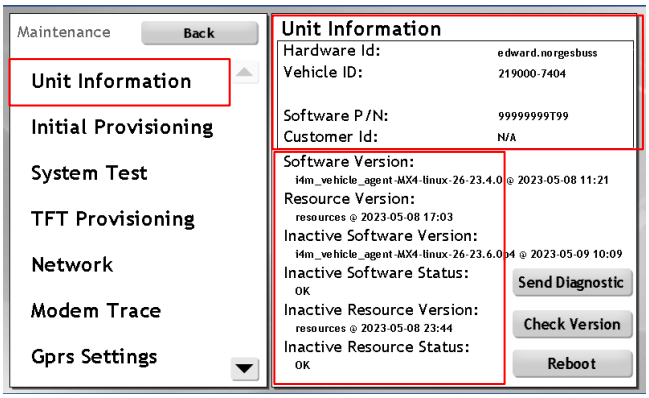


Find Me:	Activates visual feedback on the selected display for sure identification.
Factory Reset	Perform a factory reset on the display system.
Options	Sub-menus for selecting placement in the vehicle and orientation. (Displays can be mounted in portrait/landscape orientation and even upside down for easier cable routing.)
Log:	Display System log. Indicating problems, etc.

4 Administrative Operations

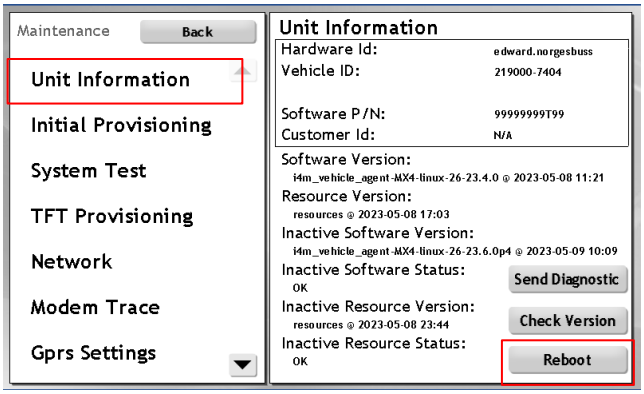
4.1 Node Information

All essential node information is available in the Unit Information view accessed through the Maintenance menu.



4.2 Reboot

You can manually trigger a vehicle computer reboot in the Unit Information view:



4.3 Diagnostics

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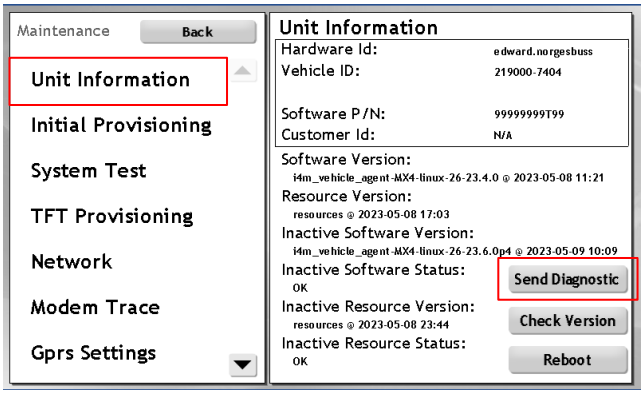

4.4 Network Settings

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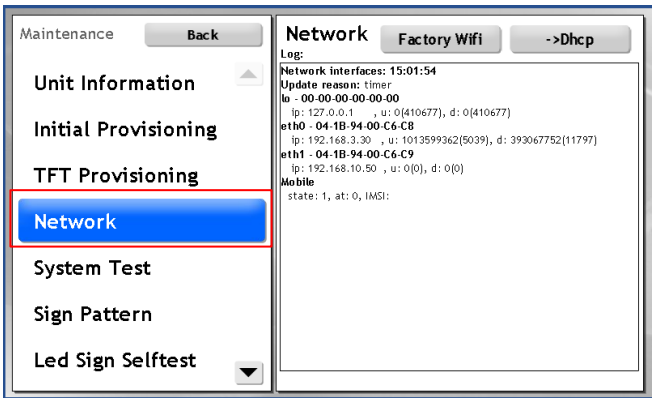
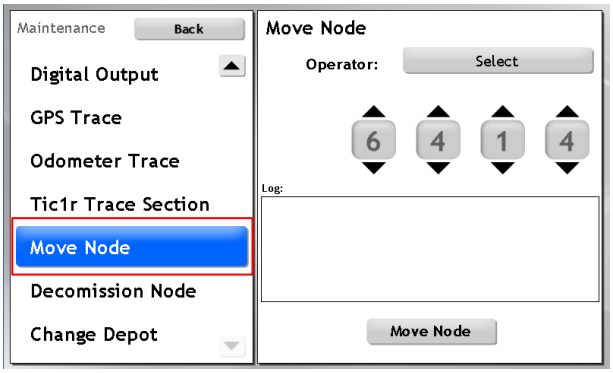


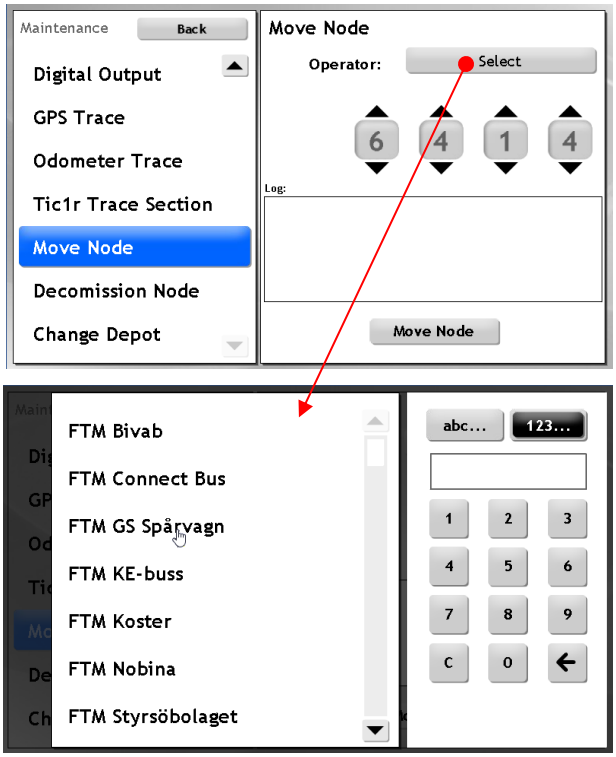
4.5 Move Node/Vehicle (System) to Another Operator

This operation allows you to "move" a vehicle, including all grouped nodes (displays), registered onboard equipment, configurations, etc, from its current operator to another operator in your system.

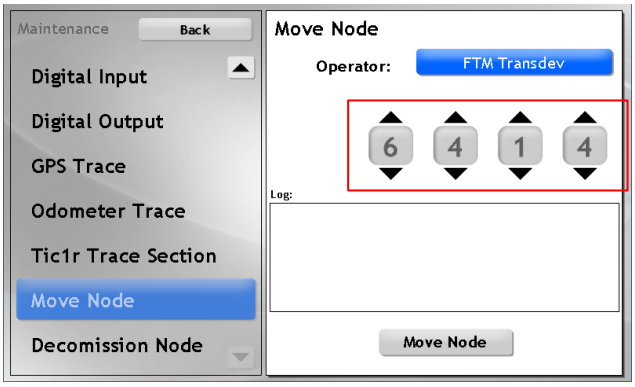
1. Select **Move Node** in the **Maintenance** menu.



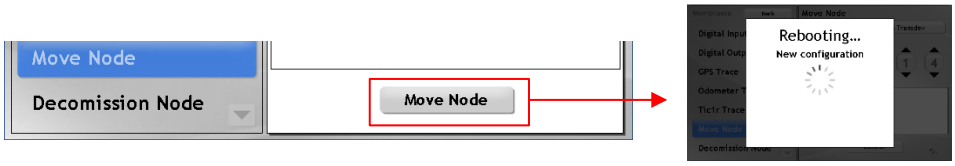
2. In the Move Node menu, touch the Operator menu button, the Operator menu will open. Now, select the operator the vehicle is to be moved to.



3. If needed, change the vehicle ID in the numbers menu with the arrow buttons.

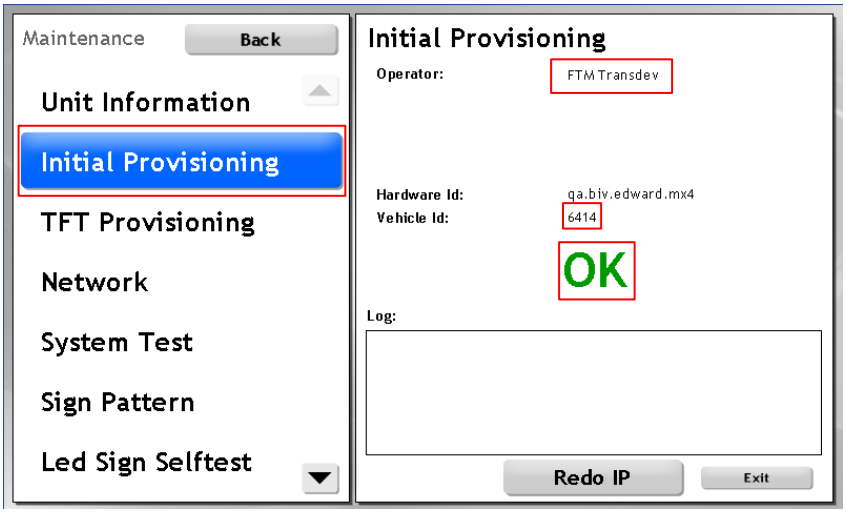


4. Touch the **Move Node** button to start the move process. The **Log** window shows performed steps and any problems encountered. The vehicle computer
will reboot (twice), etc.



Note: When provisioned for the target Operator Maintenance Menu, the access codes etc will be those of that company – make sure you can access the menu again.

5. After the move, you can verify that the vehicle is now registered to the new operator in the Initial Provisioning menu, accessed through the Maintenance menu:

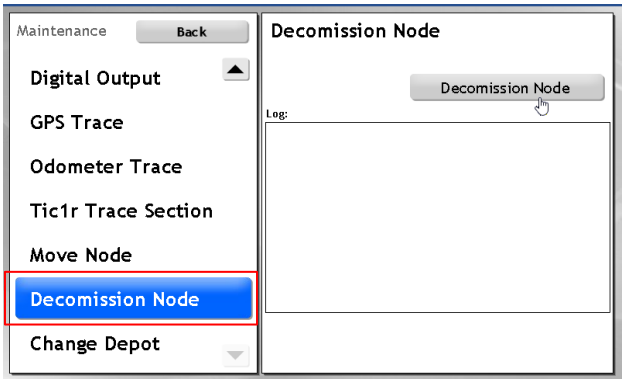


4.6 Decommission Node (System)

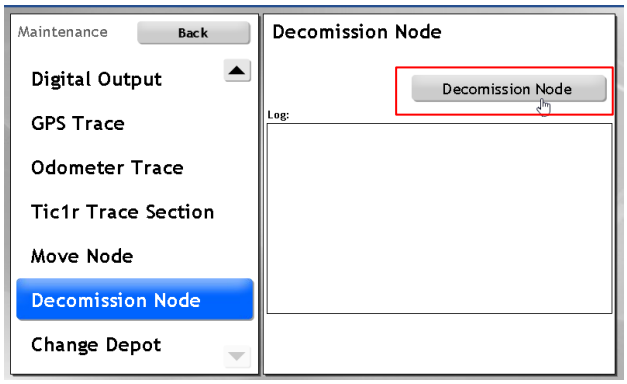
If you want to de-register a vehicle computer, for instance, if it is to be reset and used as a reserve unit, you can Decommission it through the Maintenance menu. The unit will then be flagged as Decommissioned in the CM.

Note: all grouped nodes in the vehicles (TFT displays) will also be decommissioned ("factory reset"). If you install a new vehicle computer you will have to re-provision these displays when that computer has been provisioned. See the above chapters.

1. In the Maintenace menu, select Decommission Node



2. Touch the **Decommission Node** button to immediately start the decommissioning process (no confirmation dialogue). When finished, the computer will be "factory reset" and ready for installation in another vehicle, etc.
   The Log window shows process progress, any problems etc.



5 Retrieve Diagnostic Files using a "Diagnostics Card"

When the communication with the Configuration Manager is down you can still retrieve needed diagnostics files from the vehicle computer using a physical "diagnostics card", with or without a working driver display.

A diagnostics card is a memory card (of the correct type and certified model/make) pre-loaded with files that initiate the copying of diagnostics files from the computer to the card as soon as you insert it into the vehicle's computer card reader. You can prepare a diagnostics card (create the needed files) in the Configuration Manager web interface – see the CM user manual for how to do this.

When the diagnostics files have been retrieved, mail them to the appropriate personnel at Consat Telematics for troubleshooting.

5.1 Retrieve Diagnostics files with Diagnostics Card, step-by-step

1. Make an appropriate diagnostics card software in the Configuration Manager on a USB stick (MX4) or a CF card (AIC 4).

2. Locate the vehicle computer in the vehicle and insert the card in the card reader slot. The diagnostic file transfer/copying should start immediately.

   On the MX4 the FUNC status light will flash as the files are transferred. When the light stops flashing the transfer is completed. Now you can remove the stick/card.

3. If you see no flashing light, the status LED:s may be broken, then wait at least one minute for the copying to be completed before you remove the card.

4. Insert the diagnostics card into a card reader connected to a computer and verify that a new folder with the vehicle hardware ID has been created. This folder contains the diagnostics files.

5. Note: If no new folder has been created, try inserting the card into the vehicle computer again and rebooting it (switch the power off and on again after a couple of minutes). If this does not result in a folder being created on the diagnostics card, the vehicle computer needs replacing. Send the faulty vehicle computer to Consat Telematics for troubleshooting.

6. If the diagnostic files folder was created correctly, zip and mail the content of the folder to Consat for troubleshooting, along with a description of the problem.