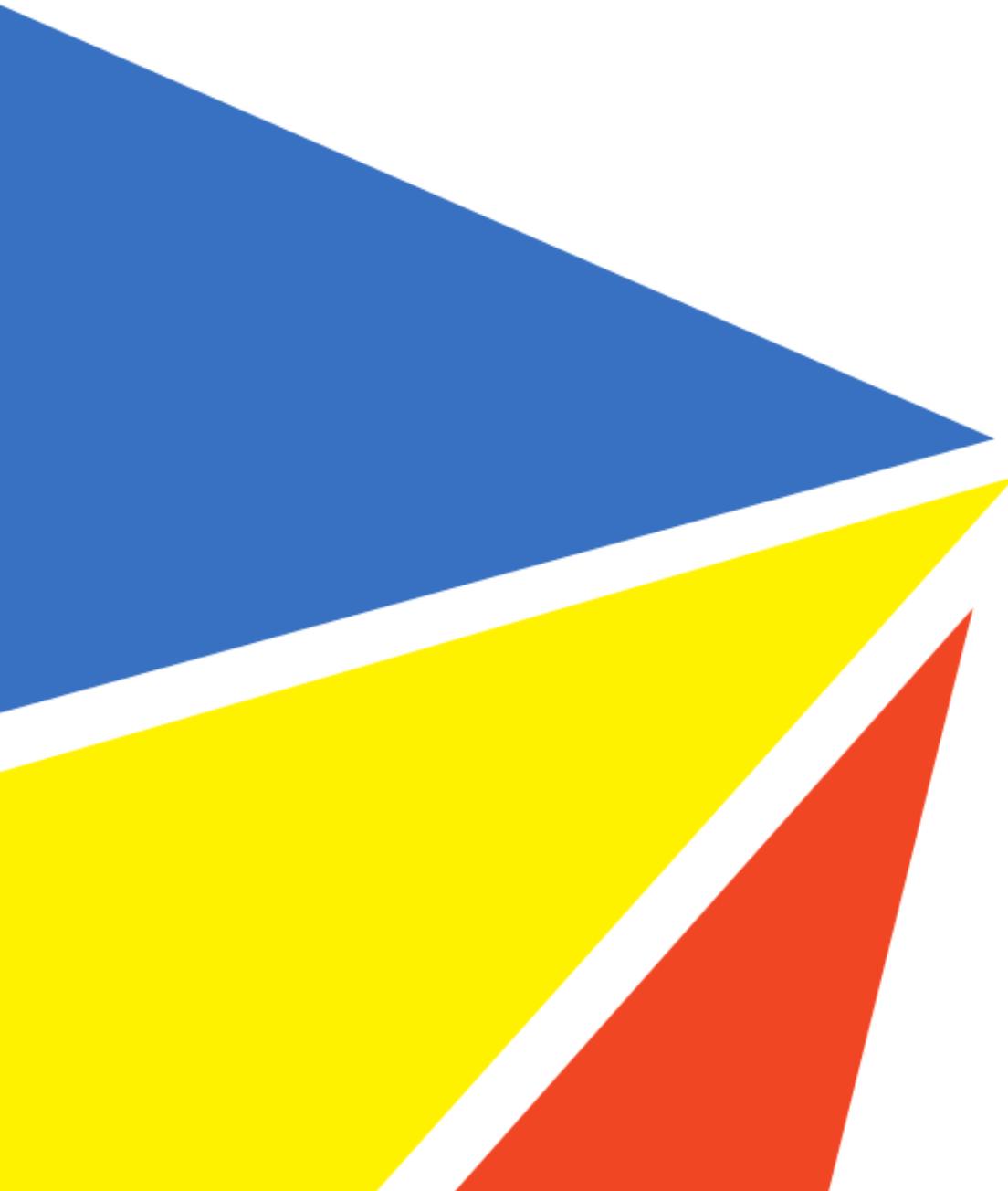


Trojan Control Service Menu Guide for TrojanTwo

Version 1.1



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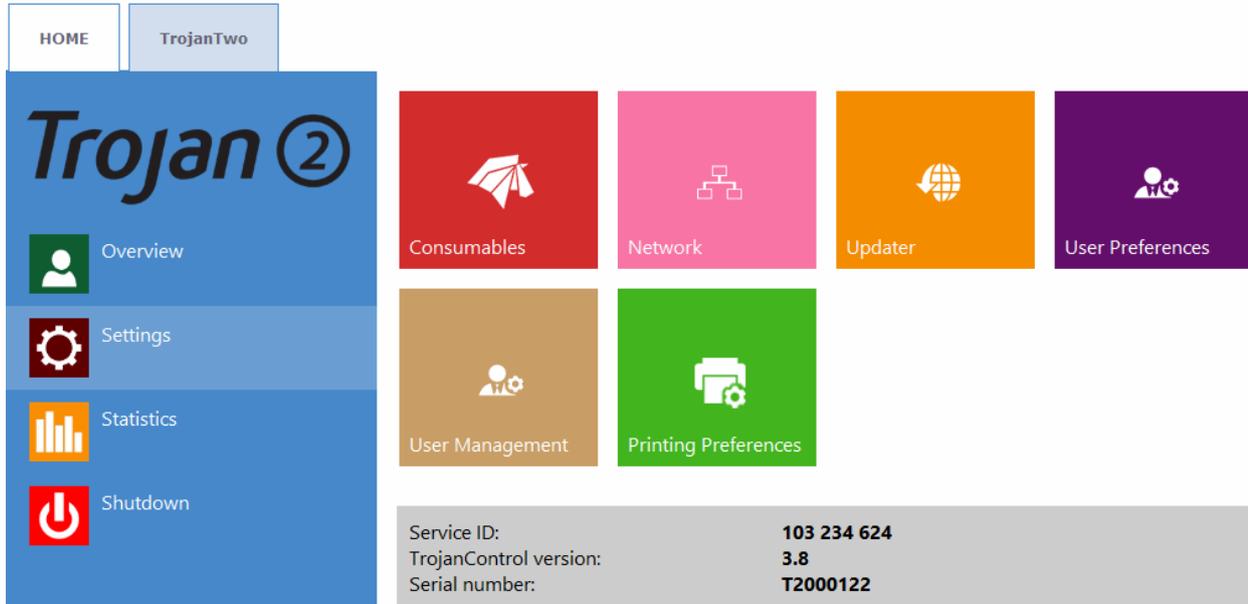
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1 Prerequisites

1.1 Service menu is introduced from 3.8 version Trojan Control software

In order to be able to use the service menu, the system has to be updated to version 3.8 or later. The actual version number can be seen at HOME -> Settings menu at TrojanControl version field.

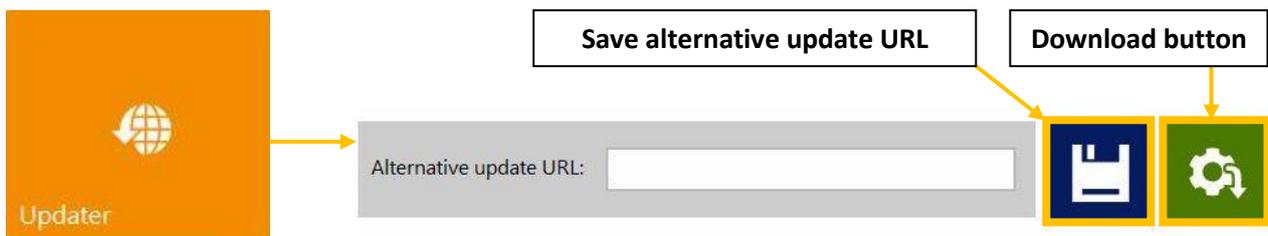


HOME -> Settings menu with the actual TrojanControl version number.

In case the system is not yet updated to version 3.8 or later, then the system can be updated via the online or offline updater. Online update requires direct internet access with the machine, the offline update only requires local network connection with a user PC.

1.1.1 Updating system to version 3.8 or later using the online updater

The online updater can be found at HOME -> Settings -> Updater menu



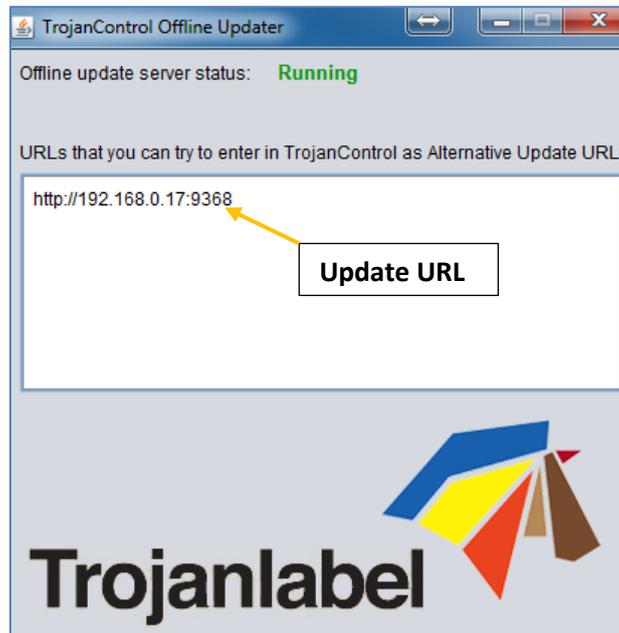
- Make sure the TrojanTwo press is connected to the internet.
- Make sure that 'Alternative update URL' field is empty.
- Press green download button.
- Installation starts automatically.
- Press '**NEXT**' button when asked during the installation.
- Check and verify actual Trojan Control version after installation.

1.1.2 Updating system to version 3.8 or later using the offline updater

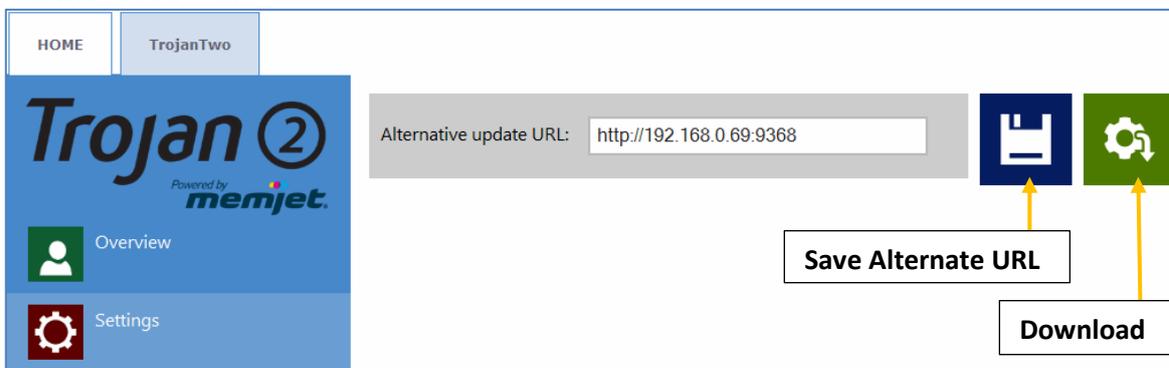
- In case it is not possible to connect the TrojanTwo to the internet.
- The actual offline updater is always available for downloading at Trojanlabel extranet site.
- Copy and unzip the updater package on a user PC which is connected to the same network as the TrojanTwo press.
- Double click on 'OfflineUpdaterGUI.jar' to start the update server.

[.]	<DIR>	2015.01.28
[lib]	<DIR>	2015.01.28
[TrojanControl Offline Updater.app]	<DIR>	2015.01.28
[updates]	<DIR>	2015.01.28
OfflineUpdaterGUI	jar	116 963 2014.11.18
README	TXT	1 332 2014.11.17
start	sh	43 2013.04.04
start	vbs	110 2013.04.04

- The update server window will open up. The window should be left open as long as the update is going on.



- The update server will provide an update URL (usually with the IP address of the certain user PC).
- Type the update URL into HOME-> Settings -> Updater -> 'Alternate update URL' field, then press download button:



- After pressing the download button, the update process goes the same way as online updating.

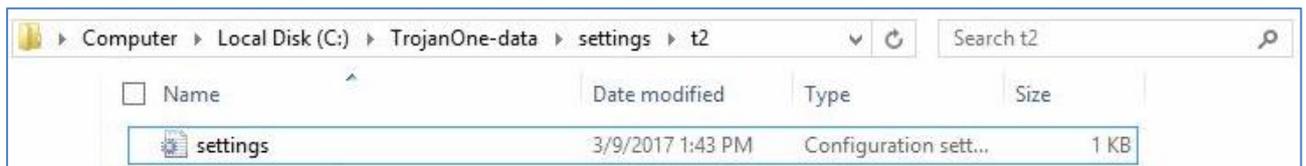
1.2 Enabling Service Menu and accessing to the service menu

The service menu is for service technicians and not for end users, therefore by default it is disabled on every machine and has to be activated to be able to gain access to this menu.

1.2.1 Activating Service Menu

For activating the service menu, a password should be set in settings.ini file.

1. Log in via teamviewer to the machine.
 - From remote use the service ID of the machine (9 digit number and can be found at HOME-> Settings menu) as Teamviewer ID.
 - From the local network use the IP address of the machine (actual IP can be checked at HOME -> Settings -> Network menu) as Teamviewer ID.
 - Password for the connection is: 5GK3fj27
2. Press ctrl + shift + esc on the machine to open task manager.
3. In task manager go to File -> New Task... and type explorer to open a windows explorer window.
4. Locate the settings.ini file at c:\TrojanOne-data\settings\T2 folder, then press right click on it and select edit:



5. Insert the following lines into the settings.ini file:

```
[UI]
serviceMenu.Code=<type password here>
```



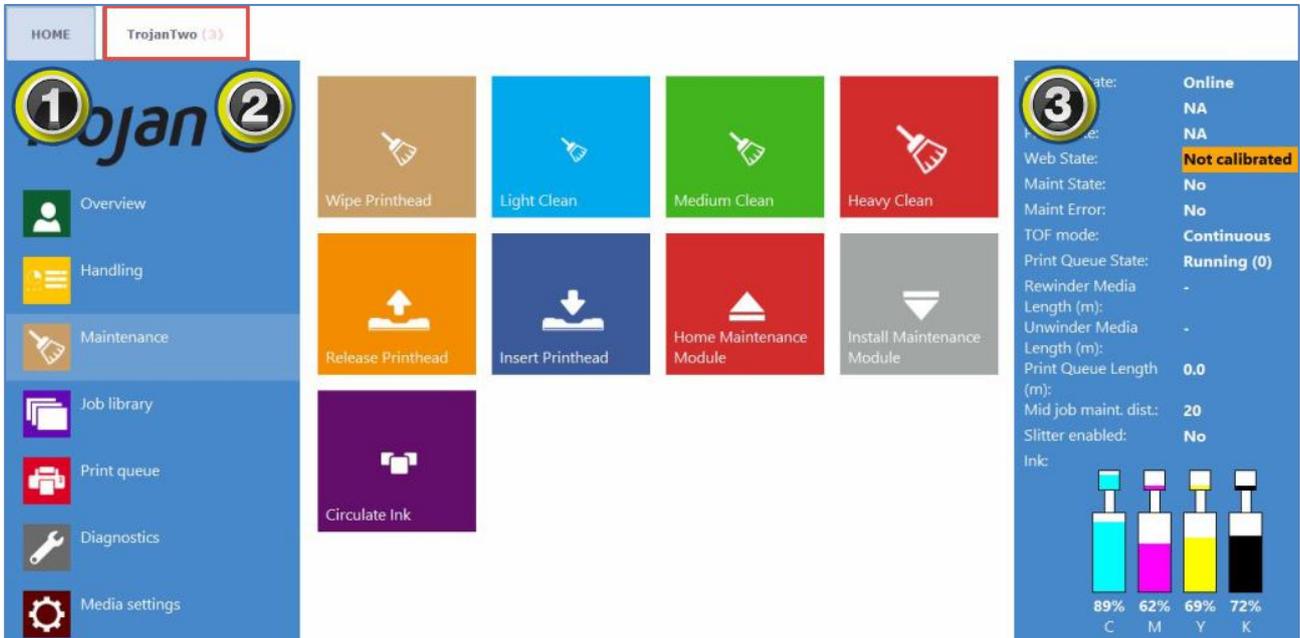
Example: service menu password is set to 321

CAUTION: Service menu password can only include numbers! Do not change other entries in the settings.ini file like wipe_pos or print_height.

6. When password is set press ctrl + S or go to File -> Save to save the changes to the settings.ini file.

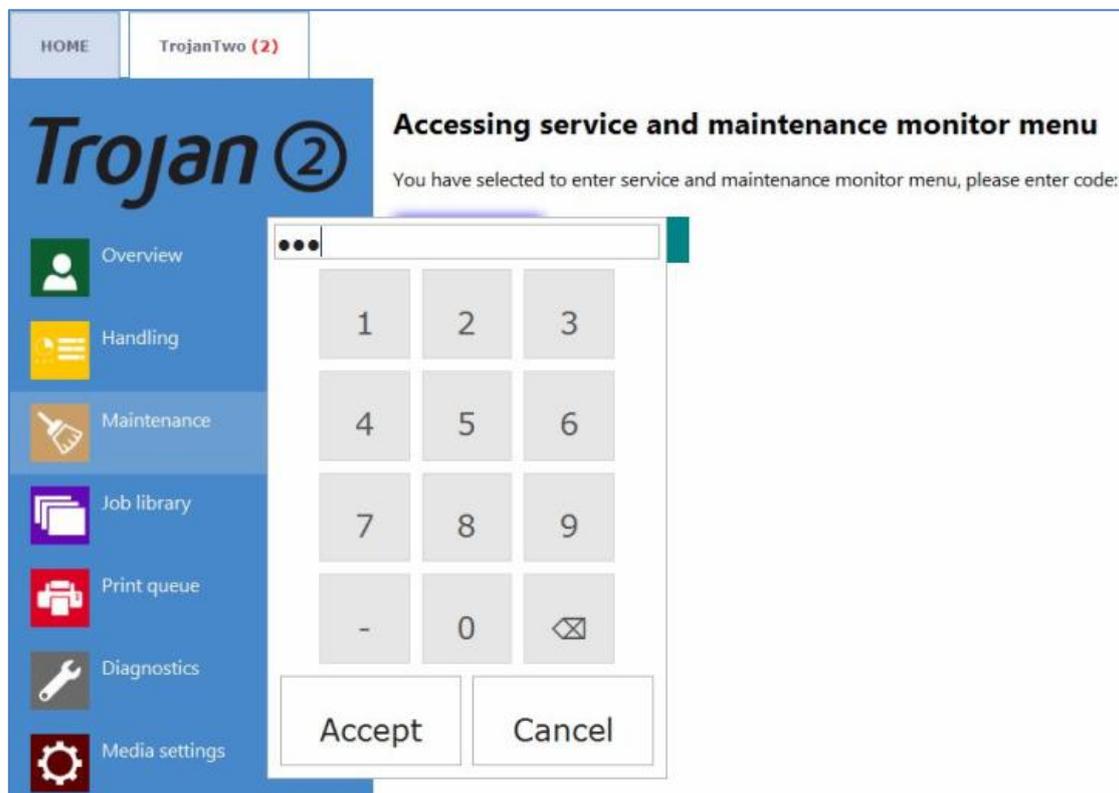
1.2.2 Accessing to the service menu

1. For accessing the Service Menu the active tab has to be the TrojanTwo tab and 3 points have to be pressed on the screen in sequential order from left to right. These 3 points are the following:



Pressing the screen on 3 points to access to Service Menu

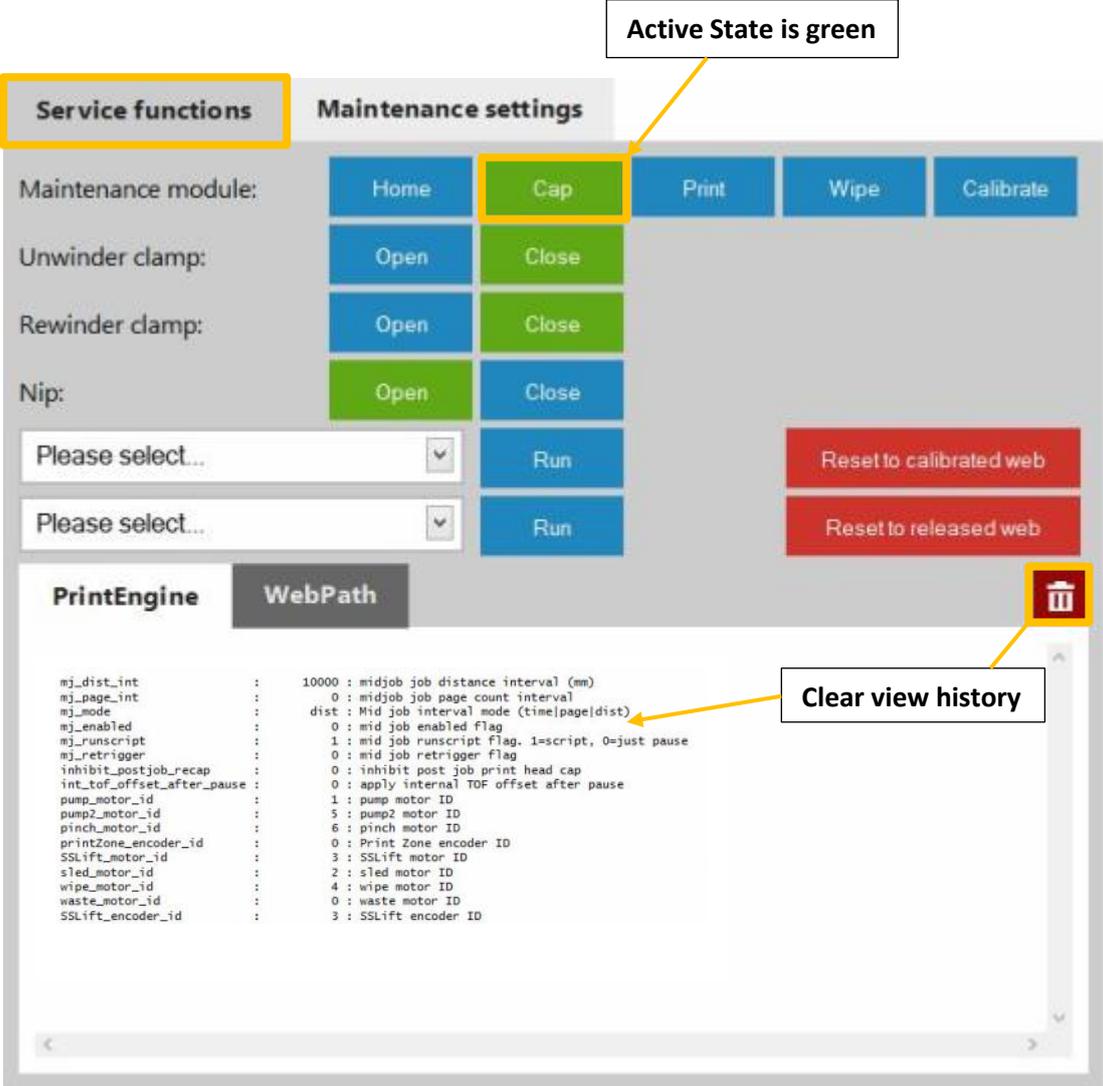
2. Type in the password which was set at the settings.ini file (see section 1.2.1 for setting the password).



2 Service Menu functions

2.1 Service Functions tab

Service functions tab includes all the operations and diagnostics that can be run on the print engine and web path system.



Service functions Maintenance settings

Maintenance module: Home **Cap** Print Wipe Calibrate

Unwinder clamp: Open Close

Rewinder clamp: Open Close

Nip: Open Close

Please select... Run

Please select... Run

Reset to calibrated web

Reset to released web

PrintEngine WebPath

```

mj_dist_int      : 10000 : midjob job distance interval (mm)
mj_page_int     : 0 : midjob job page count interval
mj_mode         : dist : Mid job interval mode (time|page|dist)
mj_enabled      : 0 : mid job enabled flag
mj_runscript    : 1 : mid job runscript flag. 1=script, 0=just pause
mj_retrigger    : 0 : mid job retrigger flag
inhibit_postjob_recap : 0 : inhibit post job print head cap
int_tof_offset_after_pause : 0 : apply internal TOF offset after pause
pump_motor_id   : 1 : pump motor ID
pump2_motor_id  : 5 : pump2 motor ID
pinch_motor_id  : 6 : pinch motor ID
printZone_encoder_id : 0 : Print Zone encoder ID
SSLift_motor_id : 3 : SSLift motor ID
sled_motor_id   : 2 : sled motor ID
wipe_motor_id   : 4 : wipe motor ID
waste_motor_id  : 0 : waste motor ID
SSLift_encoder_id : 3 : SSLift encoder ID
  
```

Clear view history

2.1.1 Print Engine options

☛ Moving maintenance module using the buttons:

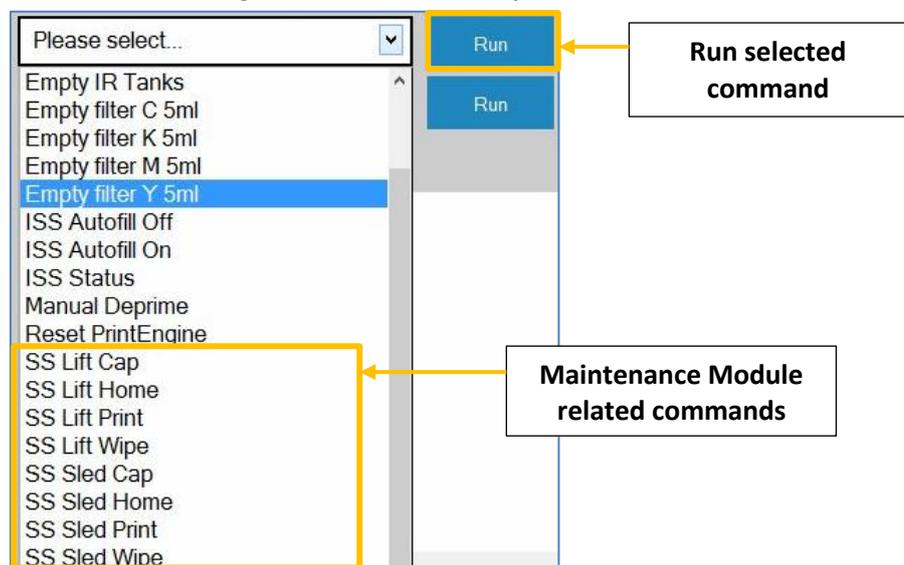


The maintenance module (MM) is responsible for cleaning and protecting the printhead. By pressing one of the above buttons, the MM moves to the desired position so physical movement and also position values can be checked.

NOTE: The active state of the MM is indicated with green button.

- **Home:** MM tray moves out from under the printhead so it can be inspected/cleaned or wiper roller can be replaced. Pressing this button is equal to press Home Maintenance Module button at TrojanTwo -> Maintenance menu.
- **Cap:** The MM tray moves under the printhead and capping station is under the printhead nozzle area.
- **Print:** The MM tray moves out from under the printhead to simulate print position.
- **Wipe:** The MM tray moves under the printhead and wiper station is under the printhead.
- **Calibrate:** The MM tray is doing an initial calibration. Similar to the automatic calibration that is done at each startup. With this calibration the system sets the MM tray to the proper position. Every time that the MM tray is out of position, then MAINTENANCE JAM message appears at status bar on the screen.

☛ Moving the maintenance module (MM) using the scroll down list options:



- **SS Lift Cap:** Moves the printhead platen to cap height vertically.
- **SS Lift Home:** Moves the printhead platen to home position vertically. This is the uppermost position for the printhead.
- **SS Lift Print:** Moves the printhead platen to print position vertically.
- **SS Lift Wipe:** Moves the printhead platen to wipe position vertically.

- **SS Sled Cap:** Moves maintenance module tray to cap position horizontally.
- **SS Sled Home:** Moves maintenance module tray to home position horizontally. This is the outmost position for the maintenance tray.
- **SS Sled Print:** Moves the maintenance tray to print position horizontally.
- **SS Sled Wipe:** Moves the maintenance tray to wipe position horizontally.

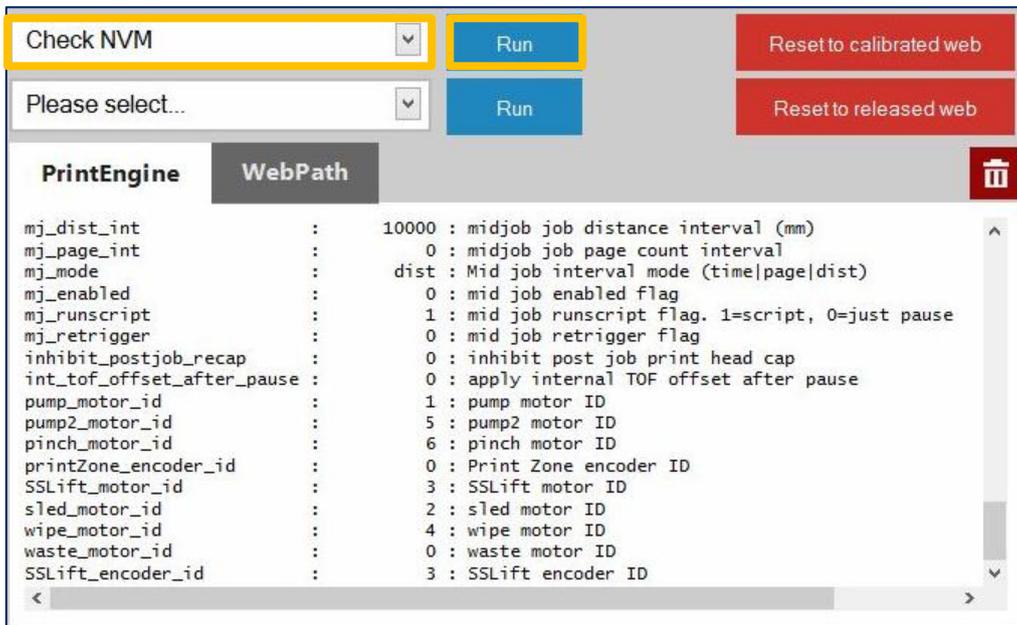
☛ Checking NVM settings:

NVM = Non Volatile Memory

The non-volatile memory settings are the permanent variables in the system.

These settings are persistently staying in the print engine's memory and do not reset after reboot.

To list the NVM memory content, select the Check NVM option from the scroll down menu and press run button:



PrintEngine	WebPath	
mj_dist_int	:	10000 : midjob job distance interval (mm)
mj_page_int	:	0 : midjob job page count interval
mj_mode	:	dist : Mid job interval mode (time page dist)
mj_enabled	:	0 : mid job enabled flag
mj_runscrip	:	1 : mid job runscrip flag. 1=scrip, 0=just pause
mj_retrigger	:	0 : mid job retrigger flag
inhibit_postjob_recap	:	0 : inhibit post job print head cap
int_tof_offset_after_pause	:	0 : apply internal TOF offset after pause
pump_motor_id	:	1 : pump motor ID
pump2_motor_id	:	5 : pump2 motor ID
pinch_motor_id	:	6 : pinch motor ID
printZone_encoder_id	:	0 : Print Zone encoder ID
SSLift_motor_id	:	3 : SSLift motor ID
sled_motor_id	:	2 : sled motor ID
wipe_motor_id	:	4 : wipe motor ID
waste_motor_id	:	0 : waste motor ID
SSLift_encoder_id	:	3 : SSLift encoder ID

NOTE: As it is a long list, to be able to easily spot the non-usual settings all the values which are not matching with the default values are displayed in red.

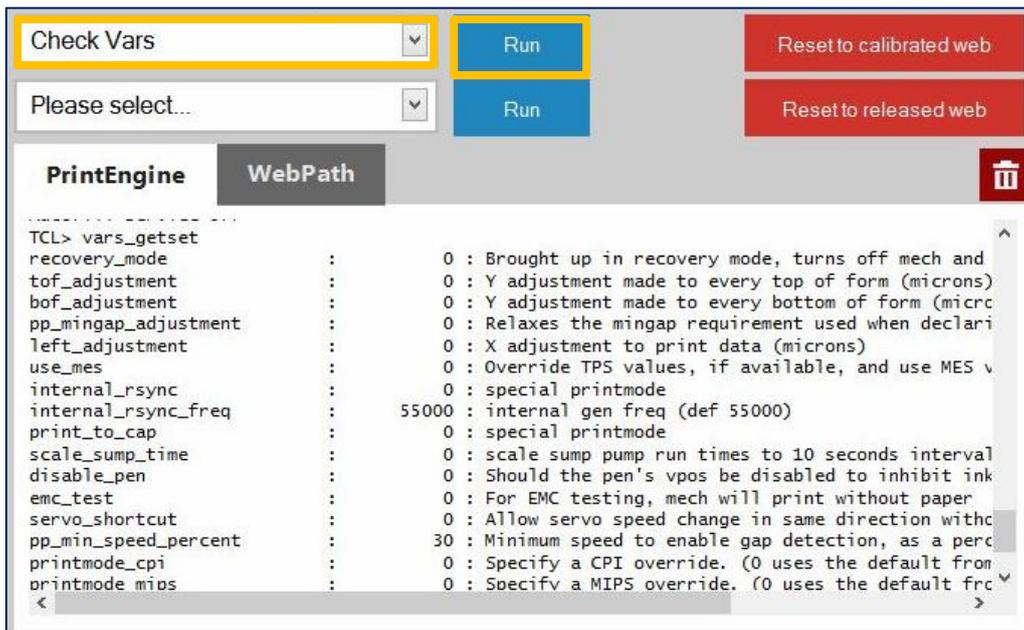
NOTE: Typical NVM settings are: print height, servo motor channels, shutdown method etc.

☛ Checking VARS settings:

VARS = System Variables

VARS settings are the system variables. If a VARS variable is changed, the change will not stay in the memory after reboot and default value will be reset after the restart. The most important variables are loaded by the Trojan Control software at every start up to stay amongst the VARS settings.

To list the VARS list content, select the Check VARS option from the scroll down menu and press Run button:

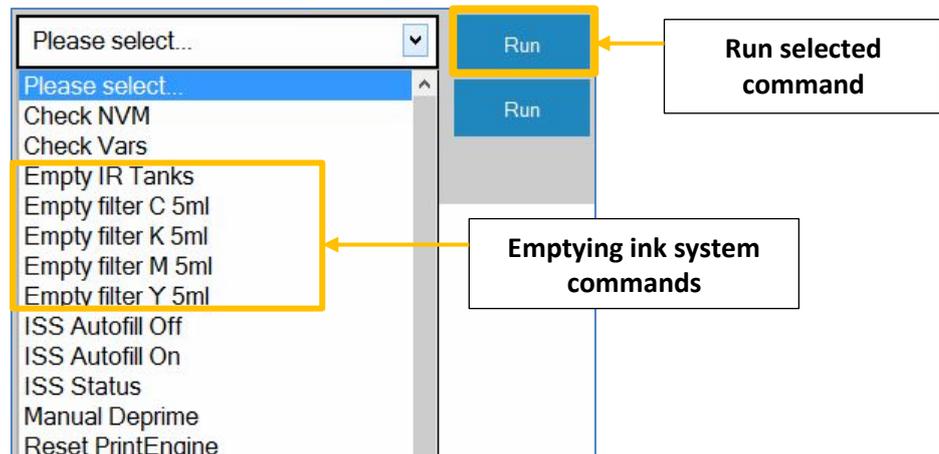


NOTE: Typical VARS variables are: TOF offset, BOF offset, Left offset etc.

🔧 Emptying ink system from Service Menu

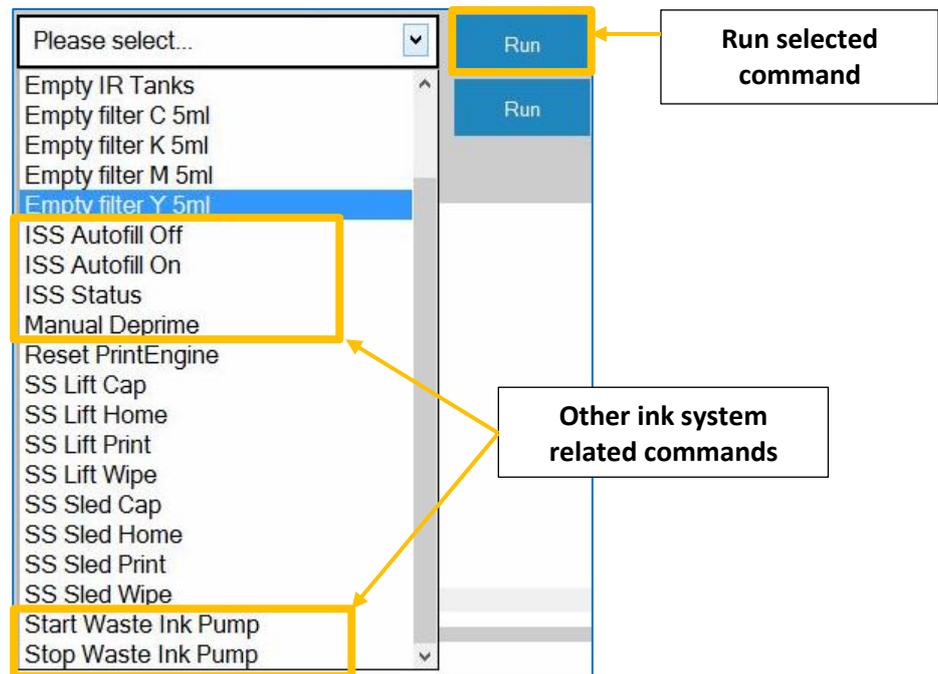
Emptying ink system deprime the reservoir ink tanks and ink filters. This is part of preparing the machine for transportation or can be useful when servicing is needed on the ink system parts.

CAUTION! The printhead has to be de-primed prior to emptying the ink system. Use the Manual Deprime option from the list first to remove the ink from the printhead.



- **Empty IR Tanks:** Emptying reservoir tanks one by one at CMYK order. Emptying the reservoir tanks takes about 15 minutes. Process is indicated at right side status bar where the ink levels are displayed. All the ink from the reservoirs are pumped back to the 2L ink tanks. No ink wasted with this process.
- **Empty filter C 5ml:** Emptying Cyan ink filter sucking out 5ml ink from the filter.
- **Empty filter K 5ml:** Emptying Black ink filter sucking out 5ml ink from the filter.
- **Empty filter M 5ml:** Emptying Magenta ink filter sucking out 5ml ink from the filter.
- **Empty filter Y 5ml:** Emptying Yellow ink filter sucking out 5ml ink from the filter.

☛ More ink system related commands



- **ISS Autofill Off:** Disabling autofill service for refilling the reservoir tanks automatically when ink level drops.
- **ISS Autofill On:** Enabling autofill service for refilling the reservoir tanks automatically when ink level drops. This is the default system setting.
- **ISS Status:** Shows current ink system related settings and status.

```
537498167 iss Autofill Service Off
537498167 iss Ink 1 Reservoir above Full, Pump Off
537498167 iss Ink 2 Reservoir above Refill below Full, Pump Off
537498167 iss Ink 3 Reservoir above Refill below Full, Pump Off
537498167 iss Ink 4 Reservoir above Refill below Full, Pump Off
537498168 iss Waste Ink Removal Service Off
537498168 iss Waste Reservoir Empty, Pump Off
Autofill Service Off
```

Example for ISS status

- **Manual Deprime:** Depriming printhead. Equal to Release Printhead button at TrojanTwo -> Maintenance menu.
- **Start Waste Ink Pump:** Start running waste ink pump to check operation and/or to suck waste ink out from the maintenance tray.
- **Stop Waste Ink Pump:** Stops running the waste ink pump.

☛ Restarting Print Engine

Reset PrintEngine

- **Reset PrintEngine:** Restarting the print engine.

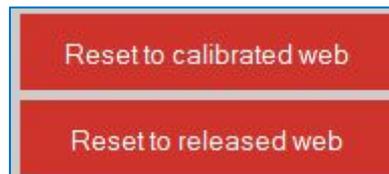
2.1.2 Web Path options

☛ Testing web path states using the buttons



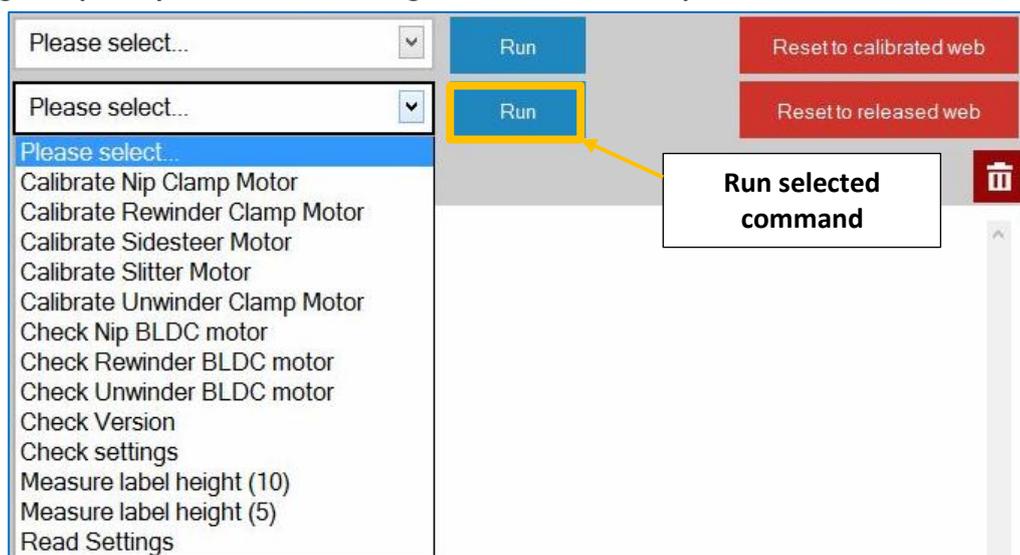
- **Unwinder clamp:** Opening or closing the Unwinder clamp.
- **Rewinder clamp:** Opening or closing the Rewinder clamp.
- **NIP:** Opening or closing the NIP clamp.

NOTE: The active state is indicated with green button.



- **Reset to calibrated web:** Initiates a tension calibration for the dancer arms. Equal to Calibrate Web button at TrojanTwo -> Handling menu. After calibration is done the web path state will be 'Ready' at right side status bar. When web is calibrated, the Unwinder clamp is open, the Rewinder clamp is open and NIP clamp is closed.
- **Reset to released web:** Releases any tension on dancer arms and sets web path to 'Not Calibrated' status. Equals to release web button at TrojanTwo -> Handling menu. After reset to released web, the Unwinder clamp is closed, the Rewinder clamp is closed and NIP clamp is open.

☛ Checking web path system functions using the scroll down list options:



- **Calibrate NIP Clamp Motor:** Doing an initial calibration on NIP clamp stepper motor. After a successful calibration the NIP clamp will be in closed state.

PrintEngine	WebPath
<pre>enableweb 0 0 >calstep 2 2 >Step Cal 2 ok</pre>	

- **Calibrate Rewinder Clamp Motor:** Doing an initial calibration on Rewinder clamp stepper motor. After a successful calibration the Rewinder clamp will be in closed state.

```
enableweb 0 0
>calstep 3 3
>Step Cal 3 ok
```

- **Calibrate Unwinder Clamp Motor:** Doing an initial calibration on Unwinder clamp stepper motor. After a successful calibration the Unwinder clamp will be in closed state.

```
enableweb 0 0
>calstep 4 4
>Step Cal 4 ok
```

- **Calibrate Sidesteer Motor:** Doing an initial calibration on the unwinder shaft sidesteer motor. This calibration is equal to pressing the 'Reset Sidesteer' button at Handling menu.

```
enableweb 0 0
>calstep 1 1
>Step Cal 1 ok
```

- **Calibrate Slitter Motor:** Doing an initial calibration on the slitter's stepper motor.

NOTE: this function is only available if the optional Slitter accessory is installed and enabled.

```
enableweb 0 0
>calstep 5 5
>Step Cal 5 ok
```

- **Check NIP BLDC motor:** Doing a calibration for the NIP brushless DC motor. This calibration is done every time when 'Calibrate Web' button is pressed at Handling menu.

```
>enableweb 0 0
>bchk 2
BLDC Check start driver 2
Cur1=6.593184, Cur2=6.388247, Cur3=6.669283
Max Offset=15
Min Offset=-14
Diff Offset=29 (Limit=60)
Offset=0
SingleDiff max=33 (Limit=80)
Diff=20 (Limit=60)
Check Success Diff = 0
1
```

Successful calibration

- **Check Rewinder BLDC motor:** Doing a calibration for the Rewinder shaft brushless DC motor. This calibration is done every time when 'Calibrate Web' button is pressed at Handling menu.

```
>enableweb 0 0
>bchk 3
BLDC Check start driver 3
Cur1=6.392579, Cur2=5.904768, Cur3=6.528561
Max Offset=11
Min Offset=-18
Diff Offset=29 (Limit=60)
Offset=-3
SingleDiff max=33 (Limit=80)
Diff=22 (Limit=60)
Check Success Diff = -3
1
```

Successful calibration

- **Check Unwinder BLDC motor:** Doing a calibration for the Unwinder shaft brushless DC motor. This calibration is done every time when 'Calibrate Web' button is pressed at Handling menu.

```
>enableweb 0 0
>bchk 1
BLDC Check start driver 1
Cur1=6.004816, Cur2=6.098800, Cur3=6.025526
Max Offset=11
Min Offset=-14
Diff Offset=25 (Limit=60)
Offset=-1
SingleDiff max=34 (Limit=80)
Diff=24 (Limit=60)
Check Success Diff = -1
1
```

Successful calibration

- **Check version:** Displays the current web path firmware version.
- **Check settings:** Displays a list of all the current settings of the web path system.
- **Measure Label Height (10) or (5):** This feature is to diagnose from the system perspective if there are variations in physical label gap size and/or physical label height for diecut labels. Running this command will run a certain amount labels through the label gap sensor and returns the recorded average length, average label gap size, minimum and maximum recorded label length and minimum and maximum recorded gap size. 5 and 10 is a variable which represents the number of diecut labels that the machine will run through the sensor to validate.
- **Read Settings:** Displays the Unwinder (**uap** = unwinder arm position) and Rewinder (**rap** = rewinder arm position) dancer arm positions and the recorded label roll diameter in millimetres on unwinder and rewinder shafts.

```
>uap 0
>rap 0
>unwdia 415.891602
>rewdia 180.398438
```

2.2 Maintenance Settings tab

2.2.1 Enabling maintenance notifications

Service functions		Maintenance settings	
Maintenance	Enabled	Printed length (m)	Elapsed time (day)
Check nip & other rollers	<input checked="" type="checkbox"/>	<input type="text" value="1"/> 259	<input type="text" value="7"/> 45
Check web cleaner	<input checked="" type="checkbox"/>	<input type="text" value="20000"/> 259	<input type="text" value="7"/> 45
Check wiper roller	<input checked="" type="checkbox"/>	<input type="text" value="1"/> 0	<input type="text" value="7"/> 0
Empty waste ink bottle	<input type="checkbox"/>	<input type="text" value="20000"/>	<input type="text" value="7"/>
Manual wipe of PH	<input type="checkbox"/>	<input type="text" value="20000"/>	<input type="text" value="7"/>

Apply changes

At maintenance settings tab, the maintenance notifications can be enabled. Once enabled, 2 criteria can be set. These are **Printed Length (in meters)** or **Elapsed time (in days)**. The notification will be triggered by the event that happens first from out of the two criteria.

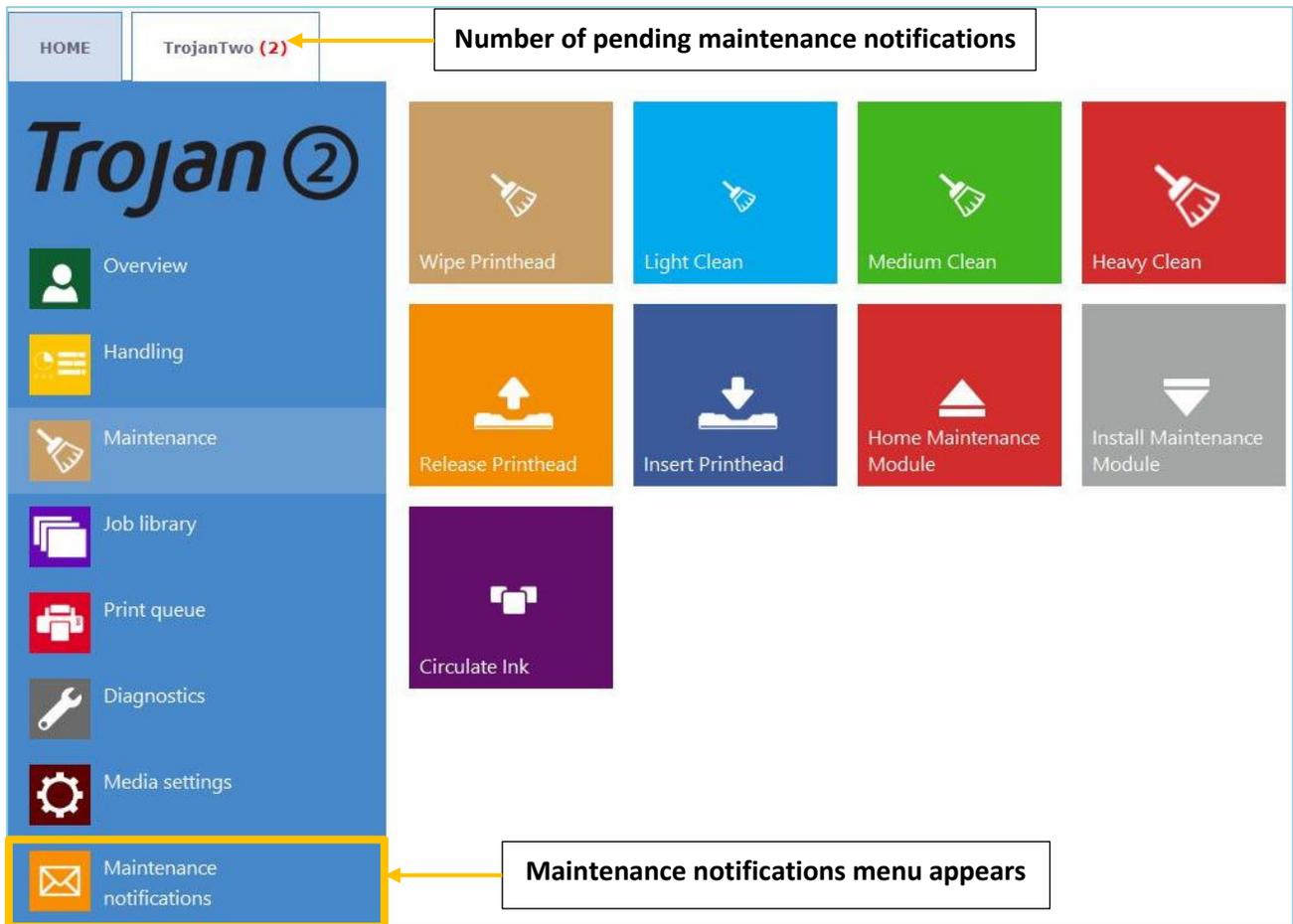
To enable a maintenance notification type, select the Enabled checkbox next to the name of the event and press 'Save' button to apply the changes and enable the maintenance notifications menu.

NOTE: Once enabled both criteria fields have to be filled (do not leave the fields empty). Setting 0 value is not recommended as that would trigger continuous notification messages. Maximum value for Printed Length is 999.999 meters and maximum value for Elapsed time is 999 days. Recommended way to use the maintenance settings menu is to set either one real criteria and set the other to the maximum, or set 2 real criteria and then they will both count. Example: set printed length to 10.000m and set Elapsed time to 999 days to only have the printer length count. Or both can be set to a real value, like Printed length 20.000m and Elapsed time 31 days and then both will count.

The small numbers next to the editable fields are showing the counter since the last check had been made.

Printed length (m)	Elapsed time (day)
<input type="text" value="1"/> 259	<input type="text" value="7"/> 45

2.2.2 Maintenance notifications in user interface



Once enabled and the time/length limit expires for a maintenance task, a new menu point appears on the bottom of the menu list called 'Maintenance notifications'.

Tapping on the maintenance notifications menu, all the pending maintenance notifications are listed (see next page).

A small number is also indicating the number of pending maintenance notifications at TrojanTwo tab on the top of the screen.

Reminder: Check nip & other rollers

The time of the regular check / clean of the rollers has come.
Please check the nip and other rollers and clean if necessary.

For details of this task please refer to Chapter 15.1.1 in user manual or [click here for online help](#)

Maintenance done

Reminder: Check web cleaner

The time of the regular check / clean of the web cleaner adhesive tape roller has come.
Please check the web cleaner adhesive tape roller and remove the top layer if necessary.

For details of this task please refer to Chapter 15.1.3 in user manual or [click here for online help](#)

Maintenance done

Reminder: Check wiper roller

The time of the regular check / replace of the wiper roller has come.
Please check the wiper roller and replace if necessary.

For details of this task please refer to Chapter 15.2 in user manual or [click here for online help](#)

Maintenance done

Reminder: Check nip & other rollers

The time of the regular check / clean of the rollers has come.
Please check the nip and other rollers and clean if necessary.

For details of this task please refer to Chapter 15.1.1 in user manual or [click here for online help](#)

Maintenance done

Reminder: Check web cleaner

The time of the regular check / clean of the web cleaner adhesive tape roller has come.
Please check the web cleaner adhesive tape roller and remove the top layer if necessary.

For details of this task please refer to Chapter 15.1.3 in user manual or [click here for online help](#)

Maintenance done

- **Maintenance done button:** When the particular maintenance task is done, then it can be closed by pressing the Maintenance done button.
- **Online help:** For each pending maintenance task an online help is available and can be viewed by pressing the 'click here for online help' button.

HOME
TrojanTwo (3)

Trojan ②

Checking/Replacing the wiper roller

The wiper roller (microfiber roller) is a wear and tear part and needs to be replaced as it wears down. It is advised to change the wiper roller in every 6 months.
Part number: 10003356, T2 Wiper Roller Gen 2 (Micro Fiber Roller)

Signs that the wiper roller might needs replacement:

- If surface of the wiper roller looks shiny and not 'fluffy' anymore, then wiper roller is worn down and needs replacement.
- If printhead wiping routines (like wipe printhead or light/medium/heavy clean) do not improve print quality and fine streak(s) remain on the printouts after the routines multiple times.
- If ink puddles remain on the printhead surface after the wiper roller wiped.

Required equipment:



Online help for checking/replacing the wiper roller.