



Product: MGC R-series

Version: MGC JB7x sw version 1.01.07

Date: 2024-04-12

Release Note

This software is an upgrade of previous software with following changes:

Changed functionality.

- *Introduced additional functionality on the MGC JB7 Multi-Function Display (MFD).* It is now possible to perform the most common configuration changes on the MGC JB7 directly from the display.

Corrected errors.

- *Replica 3 and COM 3 ports not working properly.* This has now been corrected, but require that MAX 10 FW version 5 is installed.
- *Replica ports switching improved.* For the SOU functionality this is important and has now been improved.
- *1PPS output.* The 1PPS output has been improved in stability and accuracy.
- *Analog channels availability.* The analog channels now can be turn off as part of the SOU functionality.
- *FW corrected.* The FW has been corrected with improved 1PPS, replica port and analog output performance.

Know limitations.

- *MGC JB7 display.* The first-time new configuration parameters in entered in the menu, the new selections are not updated on the screen before the menu is entered twice.
- *Simulation of output data.* The selection to simulate output data (Start/Stop simulation) in the configuration menu is not working properly.

Note: *MGC JB7x sw version 1.01.07 requires that the MGC operates on MRU sw version 5.06.10 or later and MGC JB7 MAX 10 FW version 5 or later. Used the MGC JB7 web configuration browser to check that JB7 SW and JB7 FW version is correct, see figure below.*

(none) Configuration x +

Ikke sikker 172.21.35.220/jb7/upload.php

KSX Intranett MRUugle - MRU Online.no INSIDE Berg-Hansen Gulesider Workday MyHR Teamcenter ARIS

JB7 Configuration - (none)

- Configuration
 - Help
 - Status
 - Log files
 - Vessel
 - MGC
 - GNSS
 - Operation
 - Time synchronization
 - Monitoring points
 - Communication Interface
 - Network setup
 - Update SW**
 - MRC plus
 - Reboot
 - Change password
 - Review changes

JB7 HW info

Unit SN: 54596
JBX SN: 20-866759
JBX Bver: B
JBX Bass: B

Boot control

```
sh: /usr/bin/bootctrl: No such file or directory
```

Linux version

```
Linux (none) 4.9.120-ELin05-1730-rt93 #6 SMP Wed Feb 24 11:15:32 CET 2021 armv7l GNU/Linux
```

Uptime

```
00:02:17 up 2 min, 0 users, load average: 0.00, 0.00, 0.00
```

JB7 SW version

```
JB7SW_VERSION 1.01.07
```

JB7 FW version

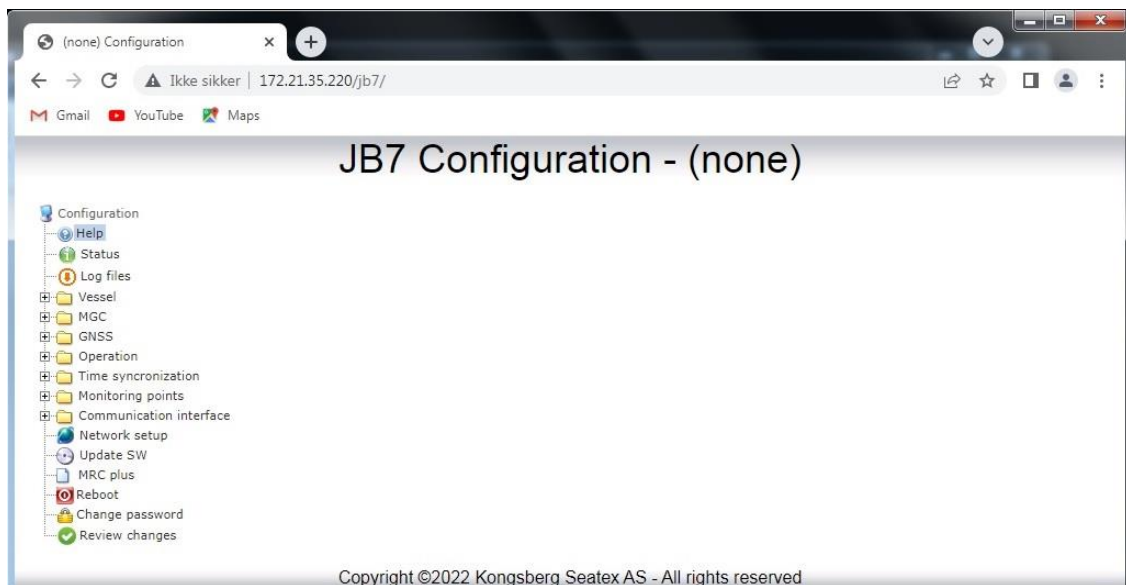
```
JB7FW_VERSION 2
```

Installation

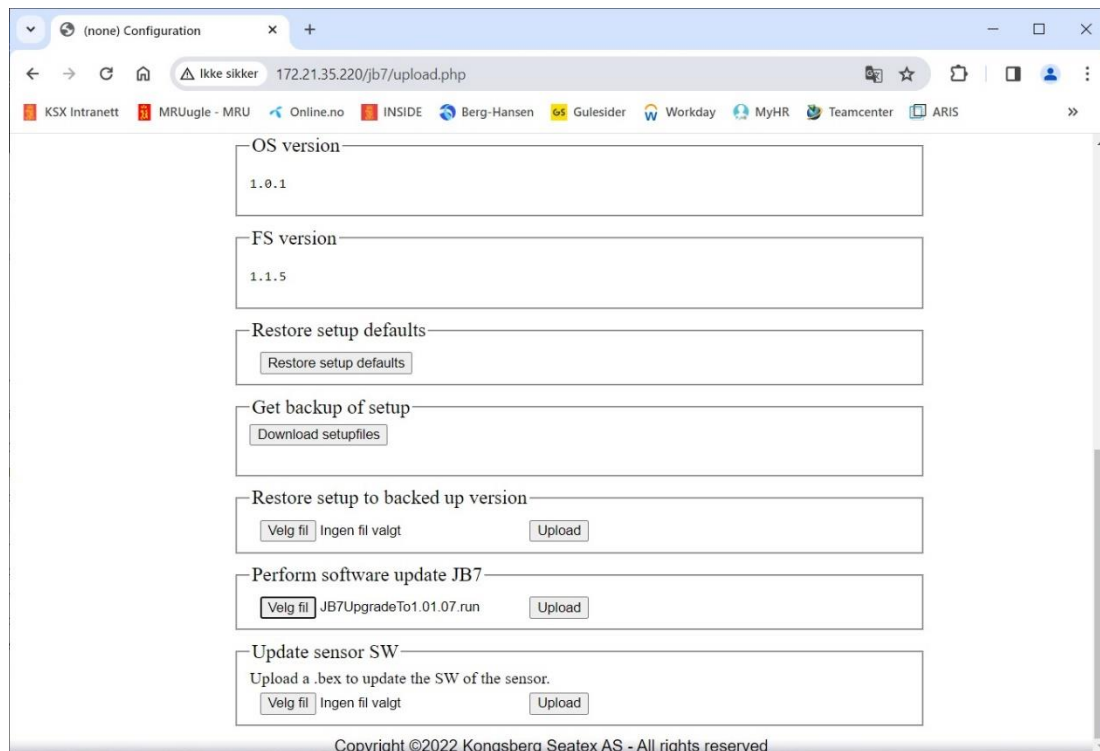
Note: This procedure is only valid for MGC JB7 that already has software version 1.00.04 installed. If not, the software version 1.00.04 must be installed according to installation procedure for 1.00.04 installation.

Proceed as follows to install the new 1.01.07 sw version on MGC JB7:

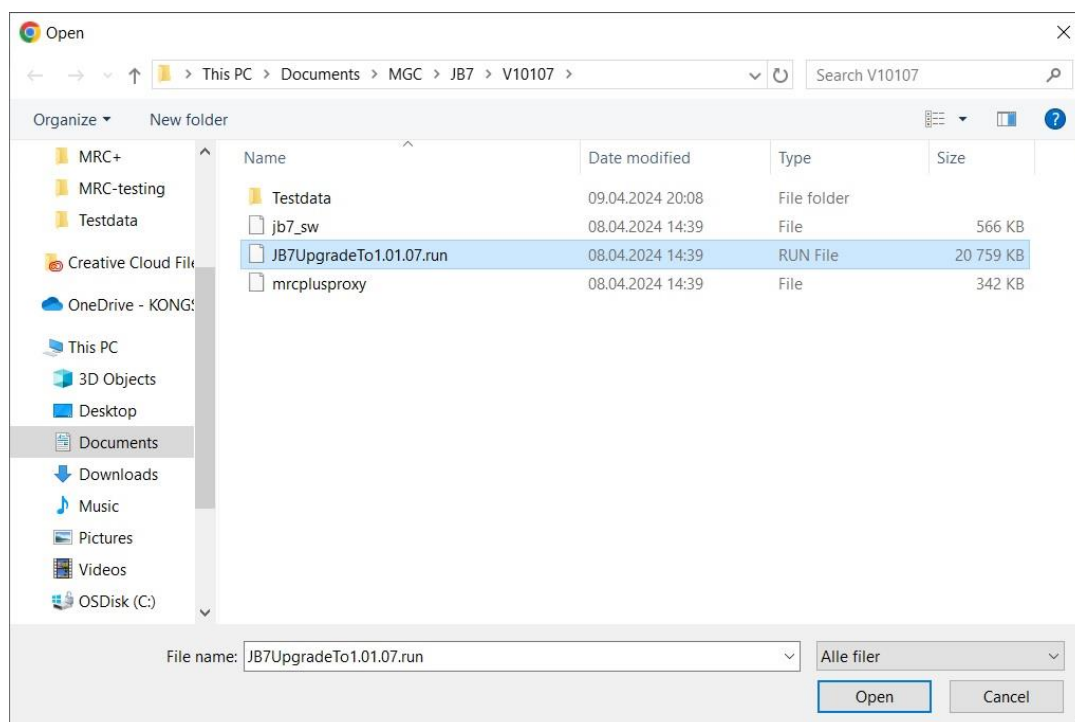
1. Connect a PC to LAN1 on the MGC JB7 by use of an Ethernet cable. The MGC JB7 has factor set IP address 172.21.35.220 (can have been changed by the customer and the that address must be used). The PC must be set up with the address in the range 172.21.35.xxx, except for the same address as the MGC JB7. For instance, the address on the PC could be set to 172.21.35.100. The network mask is 255.255.255.0. To configure the PC to use local area connection, enter **Settings** and **NetworkConnections** on the PC.
2. Enter the IP address 172.21.35.220 in a browser on the PC. Enter username “jb7” and password “1234” (default). The configuration program will then appear in the browser as shown below.



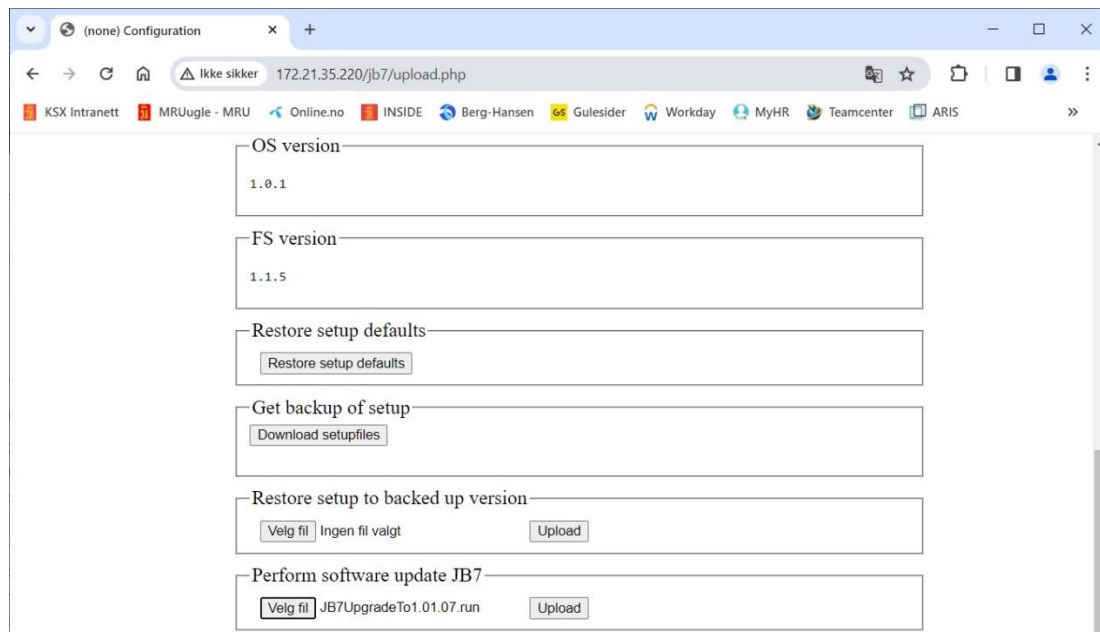
3. Enter the **Update SW** folder and scroll down to **Perform software upgrade JB7** as shown below.



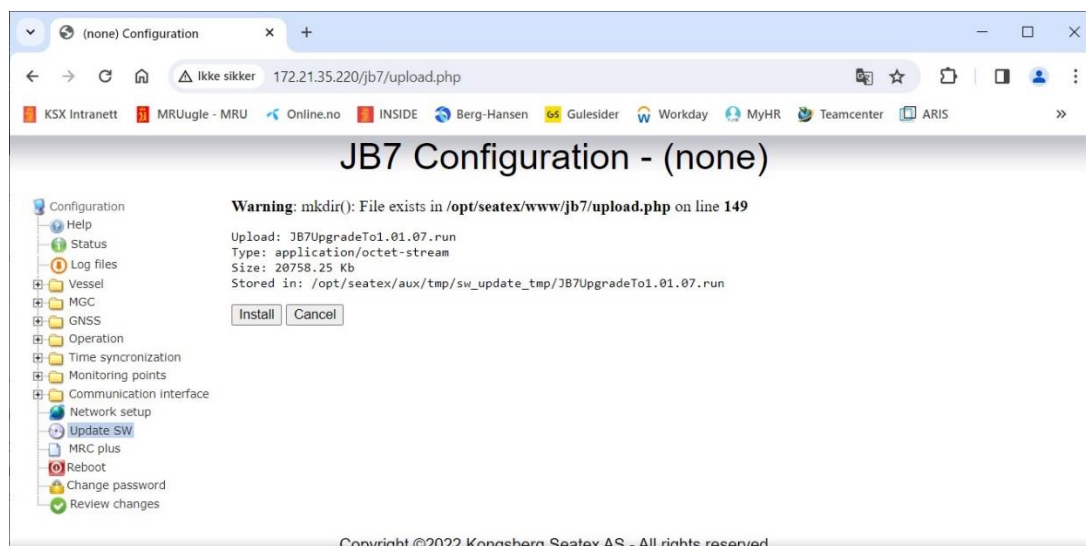
4. Select **Velg file/Select file** and browse to the folder where the JB7UpgradeTo1.01.07.run file is stored and press **Open**. Below is shown an example of where this file is stored.



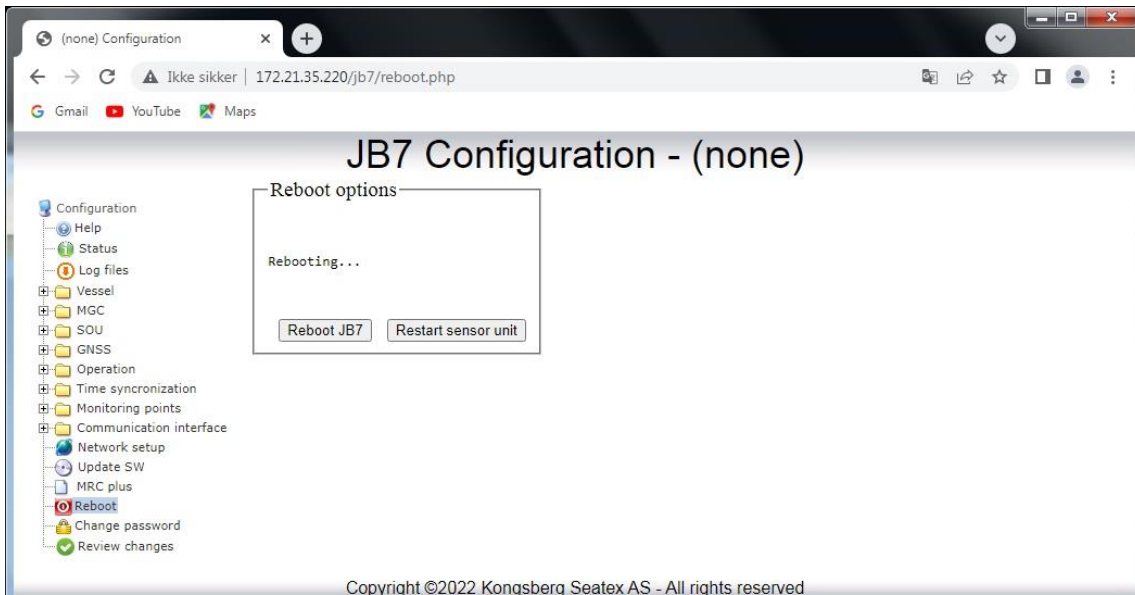
5. Click the **Upload** button.



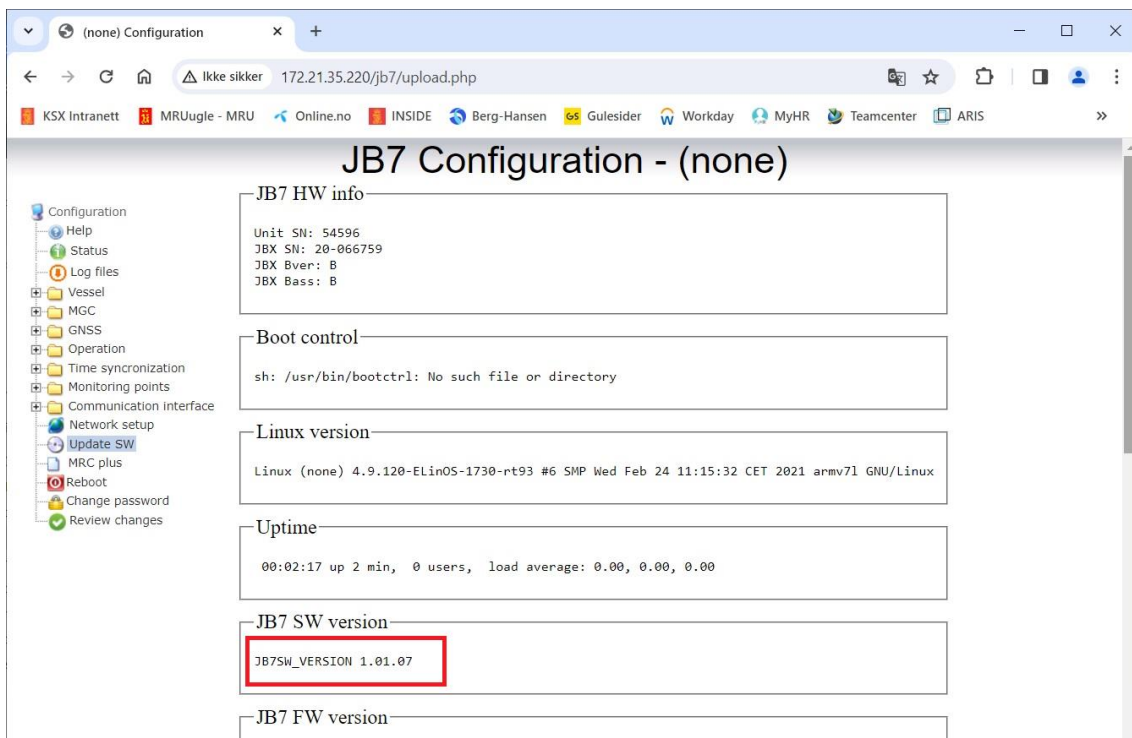
6. Then click on the **Install** button and the installation starts.



7. After the update information has scrolled over the screen, enter the IP address 172.21.35.220 again in the browser as described previously in step 2. Enter the **Reboot** folder and click the **Reboot JB7** button. Click the **OK** button when it is adequate to reboot the MGC JB7. The system will be available for up to 15 minutes after the reboot.



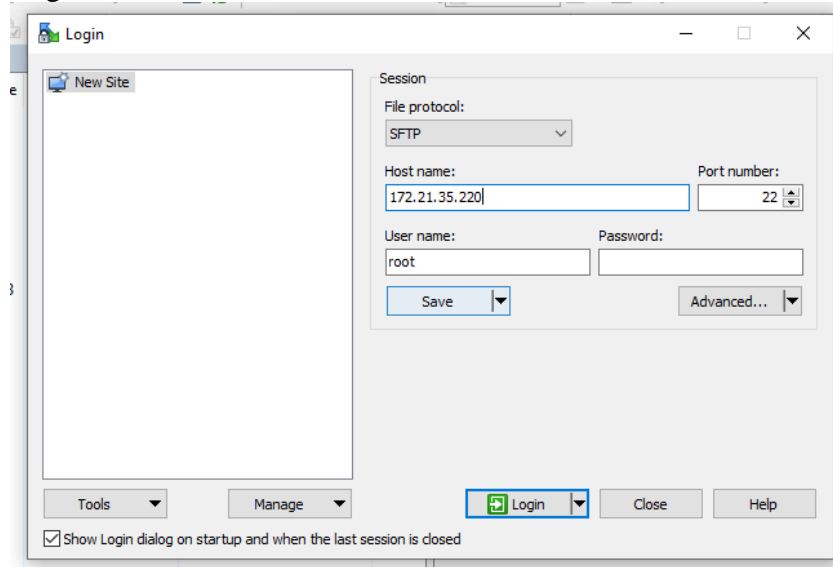
8. After 30 seconds after pressing the **Reboot JB7** button, enter the **Update SW** folder to check that the sw has been installed.



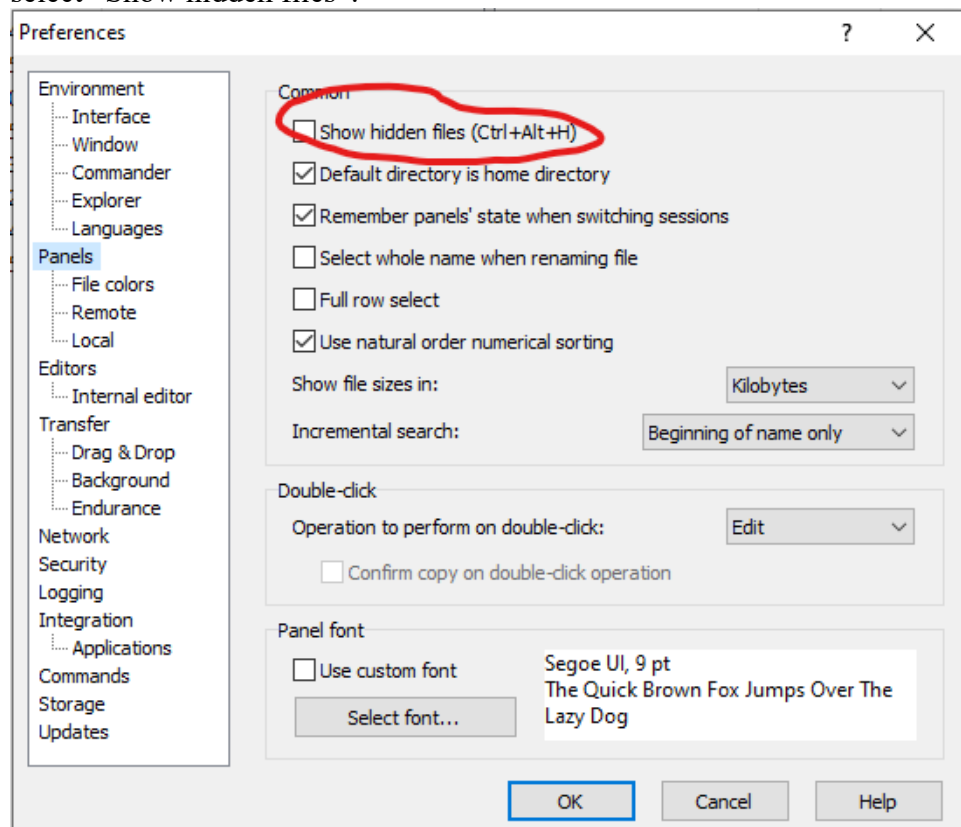
9. If JB7 SW version 1.01.07 appear on the screen as shown in the figure above in red rectangle, then the MGC JB7 is operation on sw version 1.01.07 from now.
10. **Note:** For users that need an MGC JB7 with Switch-over-Unit functionality the configuration file requires an upgrade and need to continue to the next step. For all other users the software upgrade stops here.
11. Configuration file upgrade: The upgrade package does not touch the configuration files, however, they also need to be upgraded. There are two ways of doing this:

- a. If there is no need to keep the current configuration of JB7 and MGC, or the configuration can be done from scratch, then pressing the button “Restore setup defaults” in the “Update SW” pane will overwrite the current config with new configuration files that are upgraded. NB! *Be aware that the IP address settings will be reset as well.*
- b. If you want to keep the current configuration you will need to manually edit the JB7.cfu file inserting new fields into it, and to add a new file named JB7_red.cfu. Use an sftp client like winscp.

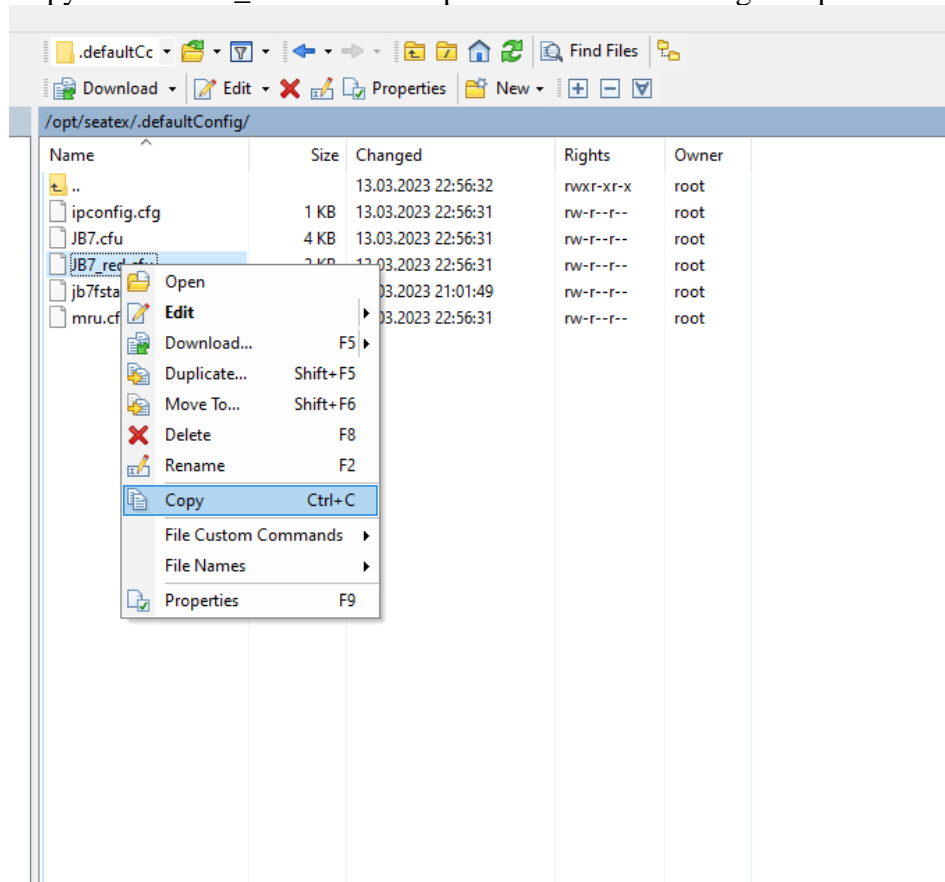
i. Log in to JB7



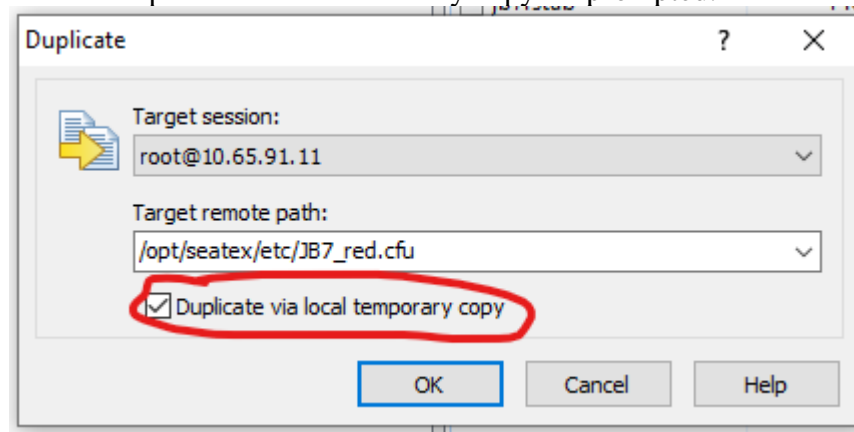
- ii. Set option to show hidden files, open Options->Preferences and Panels pane, select “Show hidden files”:



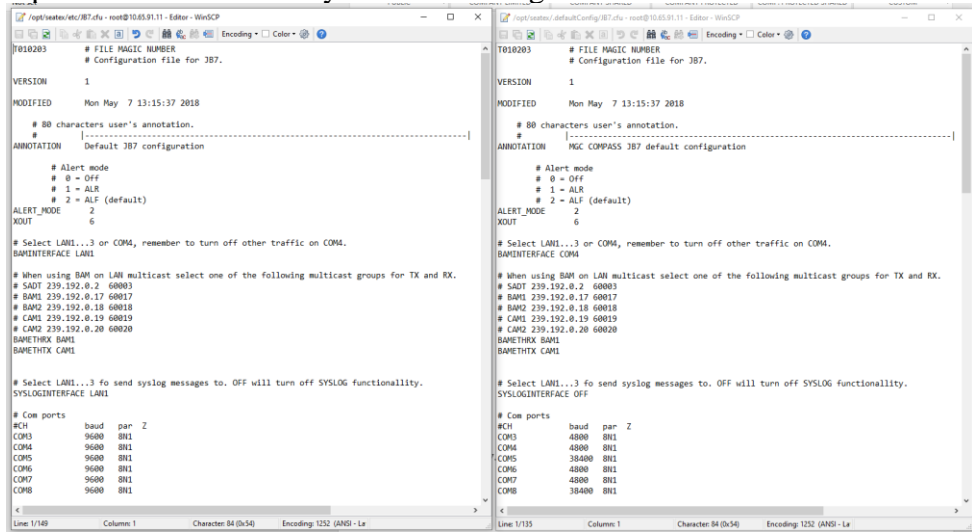
iii. Copy the file JB7_red.cfu from /opt/seatex/.defaultConfig to /opt/seatex/etc/



iv. Select “Duplicate via local memory copy” if prompted.



- v. Open the file /opt/seatex/.defaultConfig/JB7.cfu and the file /opt/seatex/etc/JB7.cfu by double clicking on them.



- vi. Copy the green parts from /opt/seatex/.defaultConfig/JB7.cfu to /opt/seatex/etc/JB7.cfu. (The parts in between the green bits are often identical, so the whole thing can be copied in one shot.)

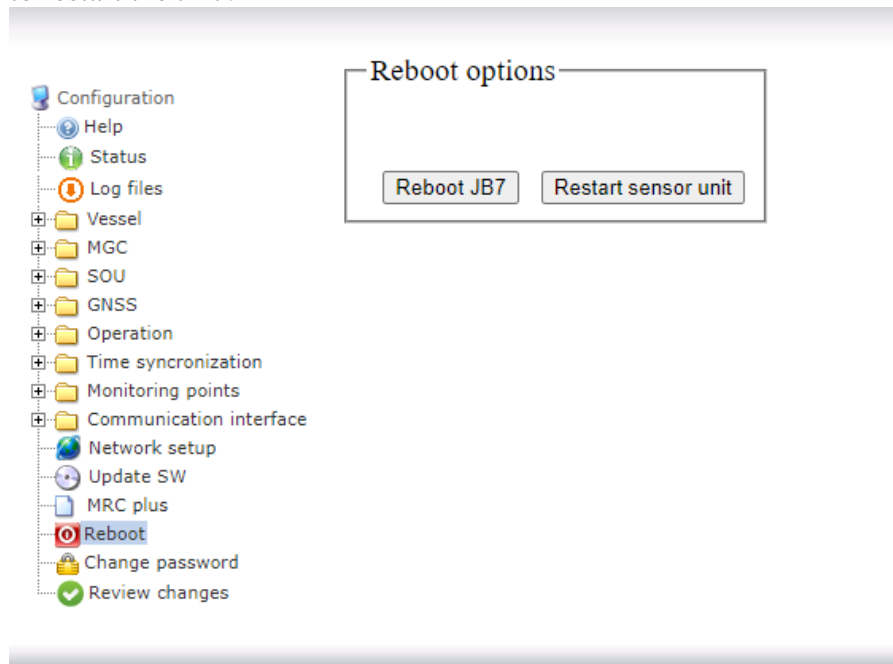
```

69
70+
71+# The data from UDP1-5 is also sent on websocket if port is something other than 0. WebSocketInterface can be LAN1, LAN2, LAN3 or LAN123
72+#CH      WebSocketPort      WebSocketInterface
73+WS_UDP1  0 LAN1
74+WS_UDP2  0 LAN2
75+WS_UDP3  0 LAN3
76+WS_UDP4  0 LAN123
77+WS_UDP5  0 LAN1
78+
79+# This shall be set to the UDPX that shall be sent to web client. The value can be 1-5 That UDP channel must be sending heading and ROT.
80+SOU_DISPLAY_UDP_INDEX 1
81+
82 # IP address      Net mask
83 JB7_IP           192.168.1.20  255.255.255.0
84 GATEWAY          192.168.1.1
85
86 # IP address      port
87 NTP_SERVER       10.0.60.211  123
88
89+# Time source
90+# 0 No time source.
91+# 1  NTP.
92+# 2 ZDA recieved on multicast.
93+# 3 ZDA recieved on UART. (Through MGC )
94+
95+TIME_SOURCE 1
96+
97+# If TIME_SOURCE = 2 Set these 3 values
98+ZDA_MC_ADDRESS 239.255.0.55
99+ZDA_MC_PORT 2055
100+ZDA_MC_IF LAN1
101
102 # MGC / HRU / instrument cfu file path
103 INSTRUMENT_CFU_FILE /opt/seatex/etc/mru.cfu
104
105 BAMLIGHT_DIM_LEVEL_DAY 99
106 BAMLIGHT_DIM_LEVEL_DUSK 60
107 BAMLIGHT_DIM_LEVEL_NIGHT 10
108
109 # Jb7 log level. 0: No log, 1: Log errors, 2: Log errors and info.
110 JB7_LOG_LEVEL 1
111
112+# Alarm mask
113+# MGC alerts that shall not be shown on sou display. Write the number of the MGC alarms to ignore, separated by a single space. Example:
114+#
115+# MGC_ALERT_IGNORE_MASK 13 14
116+#
117+# Will make the "heading realignment" and "heading integrity" faults never show on display.
118+#
119+# 1 "FATAL ERROR",
120+# 2 "Illegal sw",
121+# 3 "Initializing",
122+# 4 "Integrity error",
123+# 5 "No external velocity",
124+# 6 "No external latitude",
125+# 7 "Latitude integrity",
126+# 8 "Missing clock sync",
127+# 9 "Bad temperature",
128+# 10 "High CPU load",
129+# 11 "NMEA sentences rejected",
130+# 12 "Missing INS heartbeat",
131+# 13 "Heading realignment",
132+# 14 "Heading integrity",
133+# 15 "Heading alignment"
134+
135+# MGC_ALERT_IGNORE_MASK
136+

```

(Ignore the red line... that is: It shall only be on line NTP_SERVER)

- vii. Save the file /opt/seatex/etc/JB7.cfu.
- viii. Go to the “Reboot” phane on the JB7 web interface and select “Reboot JB7” to restart the JB7.



- ix. Done.