Kongsberg Discovery AS, Seatex



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.*

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	− Linux version Linux (none) 4.9.120-ELinOS-1730-rt93 #6 SMP Wed Feb 24 11:15:32 CET 2021 armv71 GNU/Linux					
Change password						
[- JB7 SW version					
	- JB7 FW version	1				

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:

- 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.

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4. Select **Velg file/Select file** and brown 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.

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MRC+	Name	Date modified	Туре	Size	
MRC-testing	Testdata	09.04.2024 20:08	File folder		
📕 Testdata	jb7_sw	08.04.2024 14:39	File	566 KB	
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5. Click the **Upload** button.

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Perform software update JB7 Velg fil JB7UpgradeTo1.01.07.run Upload					

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.

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Configuration Help Configuration Log files Configuration Conf	Reboot options Rebooting Reboot JB7 Restart sensor unit	
	Copyright ©2022 Kongsberg Seatex AS - All rights reserved	

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

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- 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" phane 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.

🔄 🌆 Login		-
e New Site	Session File protocol: SFTP Host name: 172.21.35.220 User name: Passw root Save	Port number: 22 💌 nord: Advanced 🔽
Tools 🔻	anage 🔻 🔁 Login 🔻 🔇	Close Help

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

Preferences		? ×
Environment Interface Window Commander Explorer Languages Panels File colors Remote Local	Common Show hidden files (Ctrl+Alt+H) Default directory is home directory Remember panels' state when switchin Select whole name when renaming file Full row select Use natural order numerical sorting	ig sessions
Editors Internal editor Transfer	Show file sizes in: Incremental search:	Kilobytes \checkmark Beginning of name only \checkmark
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····· Applications Commands Storage Updates	Use custom font Segoe UI, 9 The Quick Select font	9 pt Brown Fox Jumps Over The
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iii. Copy the file JB7_red.cfu from /opt/seatex/.defaultConfig to /opt/seatex/etc/

iv. Select "Duplicate via local memory copy" if prompted.

Duplicate		?	×
	Target session:		~
	Target remote path:		
	/opt/seatex/etc/JB7_red.cfu		~
	Duplicate via local temporary copy		
	OK Cancel	н	elp

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

📝 /opt/seates/etc/J87.cfu - root@10.65.91.11 - Editor - WinSCP - 🗆 🗙	📝 /opt/seatex/.defaultConfig/JB7.cfu - root@10.65.91.11 - Editor - WinSCP - 🗆 🗙
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T010203 # FILE MAGIC NUMBER # Configuration file for 387.	T010203 # FILE MAGIC NUMBER # Configuration file for J87.
VERSION 1	VERSION 1
MODIFIED Mon May 7 13:15:37 2018	MODIFIED Mon May 7 13:15:37 2018
# 80 characters user's annotation.	# 80 characters user's annotation.
ANNOTATION Default 387 configuration	ANNOTATION MGC COMPASS 3B7 default configuration
# Alert mode # 8 - Off # 1 - ALR # 2 - ALF Gef#ult) ALERTYDOE 2 SUUT 6	# Alert mode # 0 - Off # 1 - ALR # 2 - ALF (default) ALERT # 2 - ALF (default) XOUT 6
# Select LANI3 or COM4, remember to turn off other traffic on COM4. BAMINTERFACE LANI	# Select LAN13 or COM4, remember to turn off other traffic on COM4. BAMINTERFACE COM4
b When using BM4 on LMM multicast select one of the following multicast groups for TX and EX, # SAUT 259.152, 0.2 60003 # BAUT 259.152, 0.17 60017 # CAUT 259.152, 0.18 60018 # CAUT 259.152, 0.18 60018 # CAUT 259.152, 0.18 60018 # CAUT 259.152, 0.18 60018 MULTIPAK DAN BAUETHYK XAWI BAUETHYK XAWI	8 When using BMY on LMM wallicest select one of the following multicast groups for TX and FX. 8 WAD 239.192.0.2 (6001) 8 BAH 239.192.0.17 (6001) 8 MAH 239.192.0.18 (6001) 8 MAH 239.192.0.18 (6001) 8 (244 239.192.0.18 (6001) 8 MAH 249.192.0.18 (6001) 8 MAH 249.192.10.20 (6002) MAH 249.192.102 (6002) MAH 249.102 (600
# Select LAN13 fo send syslog messages to. OFF will turn off SYSLOG functionallity. SYSLOGINTERFACE LAN1	# Select LAM13 fo send syslog messages to. OFF will turn off SYSLOG functionallity. SYSLOGINTERFACE OFF
Comports Bit GPH baud par Z COPL 9640 Bit C COPL 9640 Bit C	# Comports Bit COV3 4800 8H1 COV6 4800 8H1 COV6 38400 8H1 COV6 38400 8H1 COV7 4800 8H1 COV7 4800 8H1 COV7 38400 8H1
Column: 1 Character: 84 (0x54) Encoding: 1252 (ANSI - La	C S Column: 1 Character: 84 (0x54) Encoding: 1252 (ANSI - La

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	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+#KH WebsocketPort WebSocketInterface 73+#KS_UDP1 0 LAN1 73+#KS_UDP2 0 LAN2 75+#KS_UDP3 0 LAN3 75+#KS_UDP5 0 LAN1 76+#KS_UDP5 0 LAN1 76+ 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+ 80+ 81+
70	82 # IP adress Net mask
71	83 JB7_IP 192.168.1.20 255.255.0
72	84 GATEWAY 192.168.1.1
73	85
74	86 # IP adress port
75	
	87+NTP_SERVER 10.65.90.101 123
	88+
	89+# Time source
	90+# 0 No time source.
	91+# 1 NTP
	21 T 2 TA recieved on multicast
	92+# 2 TOA recipied on LLBPT (Through MGC)
	a4+
	97+# TF TIME SOURCE = 2 Set these 3 values
	98-704 MC ADDRESS 239, 255, 0, 55
	99+ZDA MC PORT 2055
	109-70a MC TE LAN1
76	
77	102 # MGC / MRU / instrument cfu file path
78	103 INSTRUMENT CELLET / Ont/seatex/etc/meu.cfu
79	
80	105 BANITGHT DTM I EVEL DAY 99
81	196 BAMLIGHT DIM LEVEL DUSK 60
82	107 BAMLIGHT DIM LEVEL NIGHT 10
83	105
84	109 # Jb7 log level. 0: No log, 1: Log errors, 2: Log errors and info.
85	110 JB7 LOG LEVEL 1
86	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
	126+

(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.