



Product: MRU 5th Generation

Version: MRC+ software version 5.05.00

Date: 2015-12-01

Release Note

This MRC+ version 5.05.05 is an upgrade of previous software with following changes from earlier version:

Changed functionality:

- *NMEA outputs for MGC.* The number of NMEA output formats is extended for the MGC models.
- *Time synchronization functionality extended.* In the configuration it is now possible to setup the MRU and MGC to be time synchronized through input of ZDA message, NTP server or the TSC command in addition to 1PPS input.
- *Integrated heave output.* For the integrated heave output it is now possible to configure the heave output with zero mean value or with heave offset depending on static roll/pitch angle.
- *Identification of MRU junction box.* The MRC+ will now identify whether a junction box is connected to the MRU or not and change the Input/Output list accordingly. However, it is possible to select this manually.

Corrected errors:

- *Redraw of 16bits integer.* The MRC+ now keeps the characters input in the MRU configuration file for output of 16bits integer (W), double (D) and long (L).

Known errors:

- *Range on heading presentation.* The heading (variable 68) is output on screen and logged on file in the range $\pm 180^\circ$. It should have been 0 to 360° . However, the MRU and MGC is outputting the heading on serial lines and Ethernet ports in the range 0 to 2π .

The MRC+ installation software supports any Windows operation system.

Limitations:

This MRC+ software has following limitations:

- It works together with MRU software version from 5.03.XX.

Installation

Follow the procedure below to install the MRC+ software on the local PC (standard Windows procedure):

- 1 Insert the MRU memory stick with the MRC+ software in the USB port on the local PC. If the new MRC+ version is received by Email, open the attachment *MRCp550.zip* and click on the file "MRC+setup.exe" and jump to the procedure point 3) below.
- 2 Start up the Explorer program if not already done. Then enter the FlashDisk drive into which the MRU memory stick is connected. In the MRC+ folder open the file "MRC+setup.exe".
- 3 Follow the instructions on the screen in order to complete the installation of the MRC+ program.
- 4 When the installation of files is finished, the window shown in Figure 1 appears. Choose **Run MRC+ now** is recommended. Click **Finish** and the setup is completed.
- 5 Terminate the Explorer program and remove the MRU USB memory stick from the local PC.

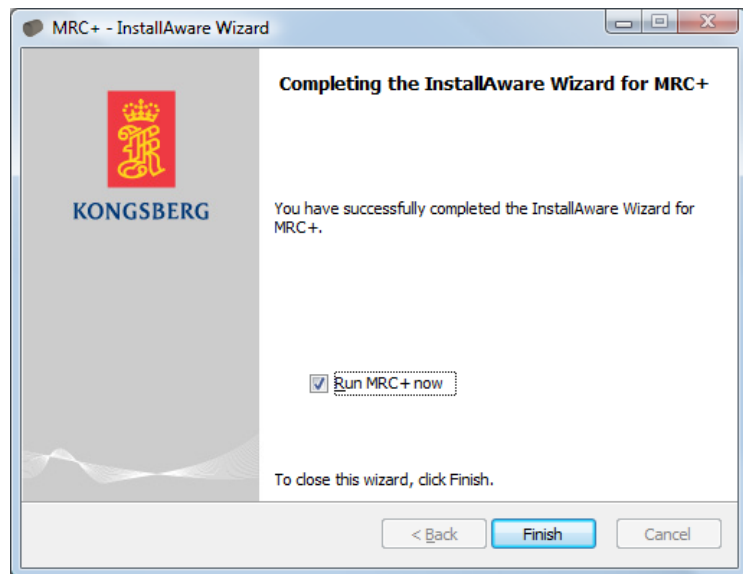


Figure 1 Installation complete

Note: The attached *MRCp550.zip* file do not include .NET runtime version. MRC+ require that this is installed. The .NET runtime can be downloaded from Microsoft web page. Proceed as follows to download the .NET runtime version:

- 1) Go to www.microsoft.com
- 2) In their search field (top of page) write: **Microsoft .NET Framework 4 Service pack 1 (Full Package)**
- 3) Click on the first search hit
- 4) Download the file **dotnetfx4.exe**