



Introduction

This document describes the changes introduced with the new software version.

- **Product:** CS90
- **Software version:** 3.1.8

This software controls all functionality in the CS90 system. This includes transmission and reception, interfaces with external peripherals and sensors, and all user interface.

A firmware update for the Transceiver Unit is not included with this release.

Software changes

This software update solves a number of software bugs that have been reported by our users, or detected during our own product testing. New functionality is *not* introduced with this release.

The following specific changes have been made.

- The functional relationship between the TVG and AGC functions have been modified to increase the echo quality.
- The AGC function has been improved.
- The Plane view has been updated for improved transmission quality.
- The **Noise Filter** default setting has been changed from *Medium* to *Weak Medium*.
- The beamformer has been updated to improve the acoustic performance.
- A new firmware version for the Operating Panel (Mk2) is provided (filename "sopupdate.zip").
- A new version of Operating Panel (Mk2) HIDS interface application is provided (filename "hids.msi").

Related topics

- [Software installation, page 1](#)
- [Updating the firmware on the Operating Panel \(Mk2\), page 3](#)
- [Updating the Operating Panel support applications \(Mk2\), page 4](#)

Do I need to upgrade?

This release does not offer any new functionality to your CS90 system. However, several changes have been made to improve the performance.

We recommend that all users update their software.

Software licenses

The Simrad CS90 is not a licensed product.

Software installation

When a new software version is released for the CS90 system it must be installed on your Processor Unit. Contact your local dealer, or a Simrad distributor, to have the new software version installed.

Note _____
You must remove the old version of the software before you install the new version.

A dedicated wizard is used to install the CS90 software. Installation of additional operating system components may be required. These are installed automatically. Observe the information offered in the wizard.

Registered dealers and distributors can download the new software version from the "Simrad Dealer Club". To access the "Simrad Dealer Club", visit our website.

- <https://www.kongsberg.com/sdc>

Related topics

[Removing the operating software, page 2](#)

[Installing the operating software, page 2](#)

Removing the operating software

Before you can install the new software version, you must remove the old version.


Prerequisites

This procedure is made for the Microsoft® Windows® 10 operating system. It is assumed that you are familiar with this operating system.

Context

Removal of the CS90 software is done using functionality provided by the operating system.

Procedure

- 1 Turn on the Processor Unit.
- 2 Select **Power off** to turn off the system.
- 3 In the **Power Off** dialog box, select **Exit to Operating System** to close the CS90 program. 
- 4 Uninstall the application.
 - a From the **Start** button in the lower left corner, open the Control Panel.
 - b In the Control Panel, select **App**.
 - c Select **Programs and features**.
 - d On the list provided, locate the software you shall uninstall.
 - e Select it, then select **Uninstall**.
 - f Observe the **Remove existing settings** dialog box.
 - g Do not select any check boxes!

- h Select **Uninstall** in the dialog box to remove the software.
 - i Follow the instructions provided by the wizard.
- 5 Click the [X] in the top right corner to close the Control Panel.

Installing the operating software

A dedicated wizard is used to install the CS90 software. The operating software for the CS90 system must be downloaded on a separate computer.

Prerequisites

The following specific items are required for this task.

- Personal computer
- USB flash drive
- Computer mouse (Optional)
- Computer keyboard (Optional)

Neither tools nor instruments are required. This procedure is made for the Microsoft® Windows® 10 operating system. It is assumed that you are familiar with this operating system.

Procedure

- 1 On the personal computer:
 - a Download the new software version.
 - b Unpack the ZIP file to access the executable application file.
 - c Copy the application file to a USB flash drive.
- 2 Turn on the Processor Unit.
- 3 Make the following preparations.
 - a If applicable: Connect the keyboard and the mouse to USB sockets on the front panel of the Processor Unit.
 - b Insert the USB flash drive.
- 4 Install the new version of the application.

- a From the Windows® **Start** button, right-click to open File Explorer.
 - b Locate the application file.
 - c Copy the file to a temporary folder on the "C" drive.
 - d Double-click the setup executable file to start the installation.
 - e Select the check box to accept the license terms and conditions.
 - f Select **Install**.
 - g Follow the instructions provided by the wizard.
We recommend that you install the software in the default folder suggested by the wizard.
 - h Close File Explorer.
 - i Remove the USB flash drive.
- 5 On the Processor Unit desktop, double-click the CS90 icon to start the program.
 - 6 If applicable: Disconnect the keyboard and the mouse from the Processor Unit.

Updating the firmware on the Operating Panel (Mk2)

Whenever required the firmware in the Operating Panel can be updated to include new functionality or to correct software errors.

Prerequisites

The Operating Panel is installed as specified in the *Installation manual*. The Processor Unit is turned on.

The following specific items are required for this task.

- Chrome web browser

Neither tools nor instruments are required.

Context

The Chrome browser is required for this task.

You can do this update on a separate computer, or you can use the Processor Unit. If you want to use the Processor Unit you must first connect it to the Internet, then download and install Chrome.

Procedure

- 1 Locate the firmware file `SOPupdate.zip`.
Copy the file to a folder on your laptop computer, but *do not* unpack it.
- 2 If you use a separate computer:
 - a Disconnect the Ethernet cable from Operating Panel to the Processor Unit.
 - b Connect the Operating Panel to the computer.
- 3 Start the Chrome web browser.
- 4 Go to URL: `http://157.237.60.20:5000`
If you use more than one Operating Panel for your sonar system, you may need to use these URLs:
 - `http://157.237.60.21:5000`
 - `http://157.237.60.22:5000`
- 5 In the browser window, select **Update**.
- 6 Select **Perform update**.
- 7 Locate the firmware file `SOPupdate.zip`, and select **Open**.
- 8 Select **OK** when prompted to update.
The firmware update will now take place. The browser will reload. You may need to refresh it after a few minutes.
- 9 Verify the versions as shown below.
 - SOP SW: v2.1-r2
 - CFGTool: v2.0-r6
 - FW: v2.3-r0

Updating the Operating Panel support applications (Mk2)

For the Operating Panel to communicate with the Processor Unit, certain interface applications are required.

Prerequisites

The Operating Panel is installed as specified in the *Installation manual*. The Processor Unit is turned on.

The following specific items are required for this task.

- Personal computer
- USB flash drive
- Computer mouse (Optional)
- Computer keyboard (Optional)

Neither tools nor instruments are required.

This procedure is made for the Microsoft® Windows® 10 operating system. It is assumed that you are familiar with this operating system.


Context

The following applications are used:

- HIDS
- MSS
- SPS
- vJoy Device Driver

Refer to *Software changes* to see which application that needs to be updated.

Procedure

- 1 On the personal computer:
 - a Download the new software version.
 - b Unpack the ZIP file to access the executable application file.
 - c Copy the application file to a USB flash drive.
- 2 Make the following preparations.
 - a If applicable: Connect the keyboard and the mouse to USB sockets on the front panel of the Processor Unit.
 - b Insert the USB flash drive.
- 3 Select **Power Off** on the top bar.
- 4 In the **Power Off** dialog box, select **Exit to Operating System** to close the CS90 program. 
- 5 Uninstall the application.
 - a From the **Start** button in the lower left corner, open the Control Panel.
 - b In the Control Panel, select **App**.
 - c Select **Programs and features**.
 - d On the list provided, locate the software you shall uninstall.
Refer to *Software changes* to see which application that needs to be updated.
 - e Select it, then select **Uninstall**.
 - f Click the [**X**] in the top right corner to close the Control Panel.
- 6 Install the new version of the application.
 - a From the Windows® **Start** button, right-click to open File Explorer.
 - b Locate the application file.
Refer to *Software changes* to see which application that needs to be updated.
 - c Copy the file to a temporary folder on the "C" drive.
 - d Double-click on the file to install the new version of the application.
 - e Close File Explorer.
 - f Remove the USB flash drive.
- 7 On the Processor Unit desktop, double-click the CS90 icon to start the program.
- 8 If applicable: Disconnect the keyboard and the mouse from the Processor Unit.

Minimum display requirements

Unless specifically ordered, the CS90 system is not provided with a display. The display must then be purchased locally.

You can use one or two displays on your Processor Unit depending on personal and/or operational preferences.

Note

Make sure that the chosen display meets the CS90 requirements. The design and construction must allow for marine use, and the display must be able to withstand the movements and vibrations normally experienced on a vessel. Verify that you have easy access to cables and connectors, and that the display can be installed in a safe and secure way.

The minimum technical requirements for the display are:

- **Resolution:** 1280 x 1024 pixels (Minimum)
The visual quality of the CS90 presentation depends on the quality of your graphic adapter and display. We recommend that you use a large display with resolution 1920 x 1080 or 1920 x 1200.
- **Video interface:** The video interface must match the output format(s) provided by the Processor Unit.

The Processor Unit may offer video output on several formats. Investigate your options before you purchase a display.

- **Physical screen size:** The screen size depends on personal and/or operational preferences. We recommend that you use 24 inch or bigger diagonal screen size.

The CS90 software supports 16:9 and 16:10 displays.