

Instruction for FW Update via AIO

General description

Due to different internal processor units, a distinction is made between AT and ST servos. Both versions offer identical technical performance specifications and are identical in appearance, so it is recommended to check all servos. The update is only necessary for the AT versions.

The distinction is made either by the serial number or by the installed FW version. For identification by serial number, please contact Tech.support@multiplex-cs.de.

As an alternative, the FW version can be updated by reading the corresponding registers. For further information, please refer to:

http://support.hitecrd.net:7700/index.php/CanServo/FW_Version_Value/en

The readout can also be performed by the HiTEC CAN Config & Test UI or the AIO UI.

The following FW versions should be updated:

- 1.10
- 1.11
- 1.12
- 2.0

Versions 1.7, 2.1, and 2.2 are not affected according to current knowledge, but an update is recommended during the review process.

FW versions 1.4(X), 1.5(X), and 1.6(X) are not affected and refer to the above-mentioned ST versions. These servos must not be updated with FW version 1.7 or higher.

Required Software/Hardware

The HiTEC CAN Config & Test UI can also be used to read the FW version, but it is not possible to update the FW with this UI.

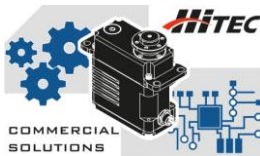
The recommended FW Version is 2.3(2)

The required Software is:

- 1) CAN AIO UI
 - http://support.hitecrd.net:7700/files/UI/CAN-AIO-UI-2025_05_14_02-exe.zip
- 2) FW Version 2.3(2)
 - [http://support.hitecrd.net:7700/files/FW/App_ATcanServo_20_24_07_03_01_V4.3\(2\)-0.zip](http://support.hitecrd.net:7700/files/FW/App_ATcanServo_20_24_07_03_01_V4.3(2)-0.zip)

The required Hardware is:

- DPC CAN or
- DPC 20



An Update by using the DPC-11 is not possible.

Installing the software

At first, install the CP2102 driver from Silicon Labs, if not already installed:

<https://www.silabs.com/software-and-tools/usb-to-uart-bridge-vcp-drivers?tab=downloads>

The driver is required for both the DPC Can and the DPC 20.

Then unzip both folders (right-click 'Extract All') and run CAN-AIO-UI-2025_05_14_02.exe.

Process flow

Important Information regarding Node ID


Preconfigured Servos with a Node ID (CAN message identifier) greater than 255 (decimal) must be configured to ID between 0 and 255.

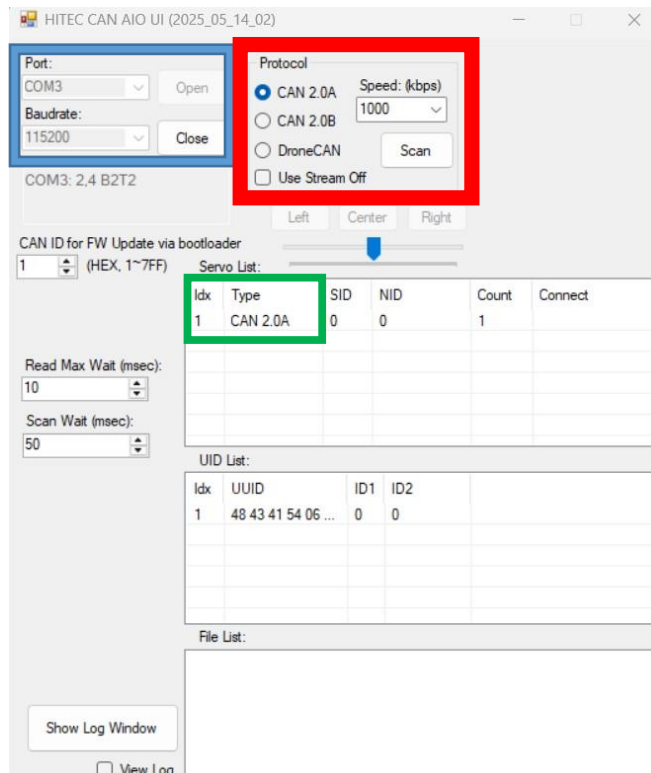
Read/Update


Use the above-mentioned [CAN AIO UI](#).

Select the correct COM port, set the baud rate to '115200' and press 'Open'.

The PC is now connected to the DPC.

Under 'Protocol', set the baud rate of the servo, select the protocol used and press 'Scan' . If one or both the information is not available, the servo is automatically determined using the scan function.



A servo will appear below 'Servo List'. Double-click on it  to open the parameter view.

If only a few parameters appear followed by question marks, please press 'Refresh'. A list of all parameters should be displayed now.



The currently installed FW version can be found under Idx 3 'FW Version' ☐.

Idx	Name	Value	Min	Max	D..
1	Product	MD89 (4089)			
2	Bootloader	B3 (30000011)			
3	FW Version	2.3(2) / A			
4	FW Date	2024-07-03-01 04-03-02			
5	Param Version	2021-09-09-01			
6	RUN/MODE	SERVO	0	3	
7	CAN/BAUDRATE	1000	0	8	
8	CAN/PROTOCOL	CAN 2.0A	0	2	
9	SERVO_ID	0	0	255	
10	NODE_ID	0	0	255	
11	Enable SETUP_EX Regs	OFF	0	1	
12	SETUP_EX/Enable TURN_MULTIPLIER	OFF	0	1	
13	STREAM/MODE	OFF	0	1	
14	STREAM/TIME	1000	0	65535	
15	STREAM/ADDR/1	READ ERROR	0	255	
16	STREAM/ADDR/2	0	0	255	
17	STREAM/ADDR/3	0	0	255	
18	STREAM/ADDR/4	0	0	255	
19	STREAM/ADDR/5	0	0	255	
20	STREAM/ADDR/6	0	0	255	

To update the firmware, press the 'Firmware Update via Bootloader' button ☐ and select the file you downloaded earlier. The file format is .xhy. During the update process, a log window will open, providing information about the progress of the update. After finishing the Update, you can close the log window and by pressing the 'Refresh' button again, the new FW should appear.

Read the FW Version using the CAN Config & Test UI

The above-mentioned CP2102 [driver](#) is also required for the CAN Config & Test UI. Connect the DPC CAN/20 to your PC. Open the CAN Config & Test UI.

Select the correct COM port, set the baud rate to '115200' and click 'Open' ☐. The PC is now connected to the DPC.



Now select the previously set baud rate and protocol for your servo and click on 'Read Servo Version'. If any of the information is not available, an automatic search function can be started by clicking on the 'Scan' button.

The 'Read Servo Version' button now contains the currently installed FW version .

Additional information

After completing the update, the servo will send a message with the ID 0x7FF. This is used for identification in multi-servo environments and can be changed by setting the node ID and servo ID to a value greater than 0. Servos with preconfigured IDs won't send this message.