Firmware Update

Update instructions for

a. SINEAX AM1000, AM2000, AM3000, DM5000
b. CENTRAX CU3000, CU5000
c. LINAX PQ1000, PQ3000, PQ5000, PQ5000E, PQ5000-RACK, PQ5000-MOBILE
d. Option IEC 61850 of the devices a, b and c
e. LINAX PQ5000CL, PQ5000MOBCL, PQ5000MOBCLM (base unit)
f. Option CL for LINAX PQ5000CL, PQ5000MOBCL, PQ5000MOBCLM

Content

1 Requirements 3
2 Update via device website 5
2.1 Performing the update 5
2.2 Starting the update process 5
3 Update via EasyUpdater software (recommended) 7
4 Final steps 8
5 Known problems 8

GMC INSTRUMENTS

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Legal information

Warning notices

In this document warning notices are used, which you have to observe to ensure personal safety and to prevent damage to property. Depending on the degree of danger the following symbols are used:

If the warning notice is not followed death or severe personal injury **will** result.

If the warning notice is not followed damage to property or severe personal injury **may** result.

If the warning notice is not followed the device **may** be damaged or **may** not fulfill the expected functionality.

Qualified personnel

The product described in this document may be handled by personnel only, which is qualified for the respective task. Qualified personnel have the training and experience to identify risks and potential hazards when working with the product. Qualified personnel are also able to understand and follow the given safety and warning notices.

Intended use

The product described in this document may be used only for the application specified. The maximum electrical supply data and ambient conditions specified in the technical data section must be adhered. For the perfect and safe operation of the device proper transport and storage as well as professional assembly, installation, handling and maintenance are required.

Disclaimer of liability

The content of this document has been reviewed to ensure correctness. Nevertheless it may contain errors or inconsistencies and we cannot guarantee completeness and correctness. This is especially true for different language versions of this document. This document is regularly reviewed and updated. Necessary corrections will be included in subsequent version and are available via our webpage https://www.camillebauer.com.

Feedback

If you detect errors in this document or if there is necessary information missing, please inform us via e-mail to:

customer-support@camillebauer.com

1 Requirements

Ethernet interface

A firmware update is possible for devices with Ethernet interface only. The update can be performed either via the website of the device or by using the EasyUpdater software. However, the EasyUpdater is no longer supported from firmware version 3.20.

***HINT**: Currently an update of the CL option of PQ5000CL, PQ5000MOBCL and PQ5000MOBCLM can be done via website only.*

Special procedure for devices with firmware version below 2.04

If the device currently runs a firmware version below 2.04, the update must be performed in two steps.
For these devices it is strongly recommended to use the EasyUpdater procedure described in Chapter 3, rather than the Web GUI procedure.

Step 1 – Intermediate update
Update the device from the current firmware version to version 2.04.

Download the required update files here:
www.camillebauer.com.
Download the archive with the firmware files and unpack them into a new folder.
Follow the instructions in Chapter 3. When EasyUpdater requests an update file, provide the path to the update file for version 2.04 for the corresponding device.

Important: Once a device has been updated to firmware version 2.04 or higher, it is not possible to revert to a firmware version older than 2.04.

Step 2 – Update to the latest firmware
After successfully updating to version 2.04, perform the second update to the latest available firmware version using the same EasyUpdater procedure described in Chapter 3.

Network ports
For the firmware update the following ports must be accessible:
Port 22 – used by EasyUpdater
Port 80 – used by the device web interface
These ports need to be open in a possibly existing firewall.

Firmware update package

You have to download the firmware update package before starting the update process via the respective product page on our website https://camillebauer.com. The package contains:

- Firmware image (.fit), for updating the firmware version
- For PQ5000CL, PQ5000MOBCL and PQ5000MOBCLM only: Additional firmware image (.fit) for the CL option
- Firmware updater upgrade image (.fit), for updating the upgrader firmware if necessary
- Update instructions D/E

Update of PQ5000CL, PQ5000MOBCL and PQ5000MOBCLM

The update package of these devices contains two firmware images, one for the base unit and the other one for the CL option, which enables communication with the current modules via the Current Link. The firmware update should be performed in the following way:

1. Possible upgrade of the updater if you are not working with the EasyUpdater
2. Update of the firmware of the base unit
3. Update of the firmware of the CL option

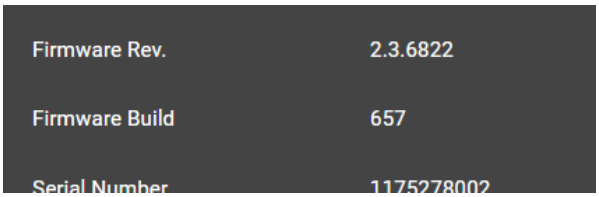
Update of IEC 61850 interface

The firmware of the IEC 61850 interface must match the firmware of the base device. The update should be carried out after updating the firmware of the basic device.

***HINT**: For the PQ5000CL the IEC61850 interface is part of the firmware of the base unit, therefore no separate update is required*

2 Update via device website

The device firmware may be updated via its website as well. Dependent on the firmware currently installed in the device, this procedure may require two subsequent steps. The present firmware version can be read via the function Device information ¦ Device version in the service menu:



If the new firmware version has a higher basic version, e.g. from version 2.x to 3.x, an upgrade of the updater is required as a first step.

> **Update to firmware version ≥ V2.04**
>
> In any case, the updater must be upgraded first. After the update, it is not possible to return to a version older than V2.04.

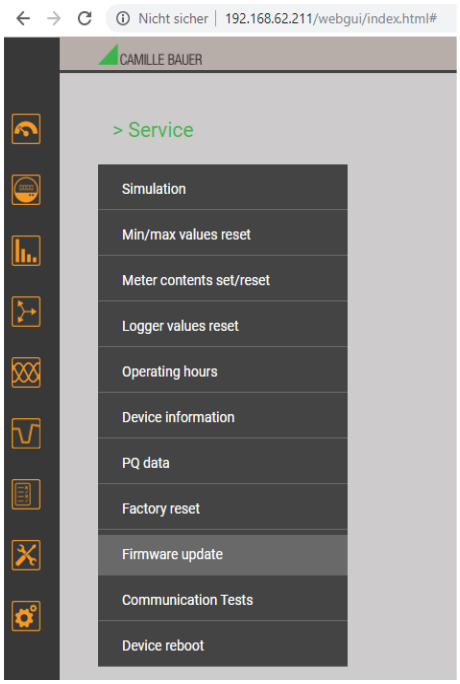
Hint: If the EasyUpdater software is used a required upgrade of the updater is performed automatically.

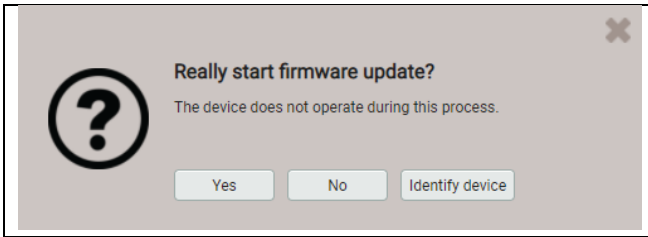
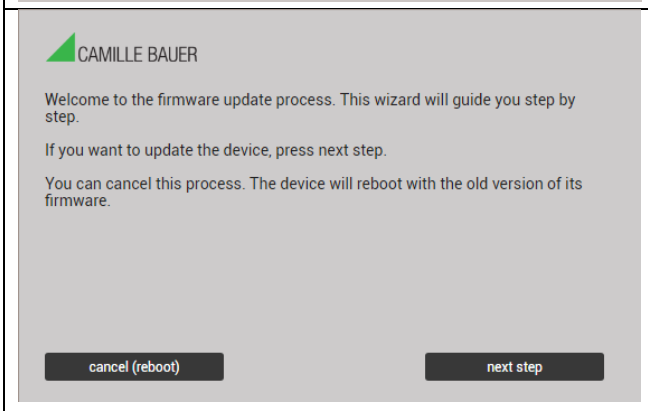
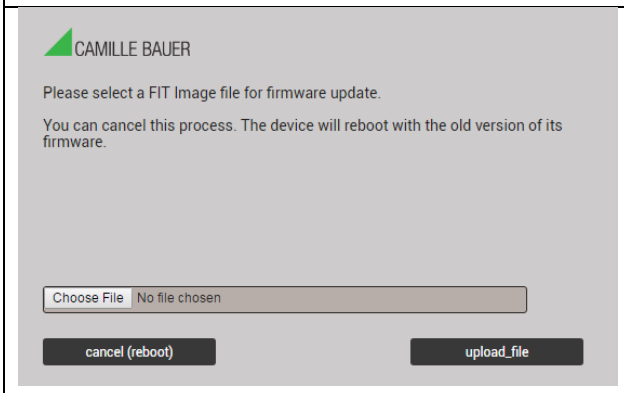
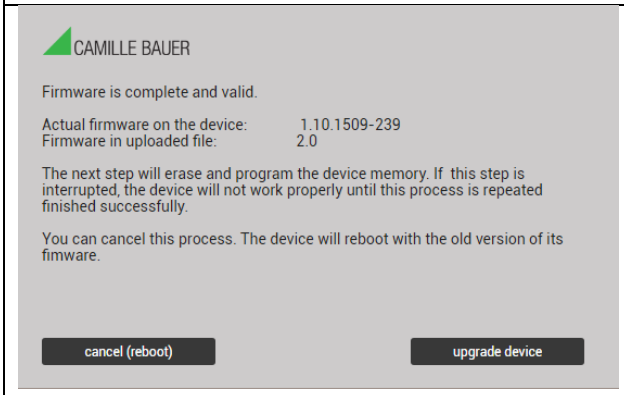
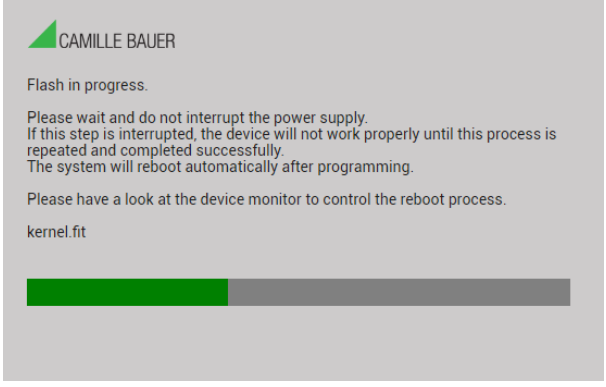
2.1 Performing the update

> **Known Problems:**
> If problems occur during the update, please refer to chapter 5.

2.2 Starting the update process

- Open the web page of your device in a web browser.
- Start the firmware update process using the menu <Service> <Firmware update>



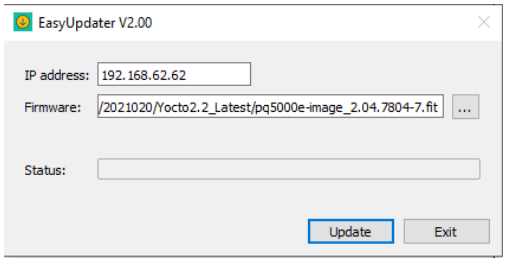
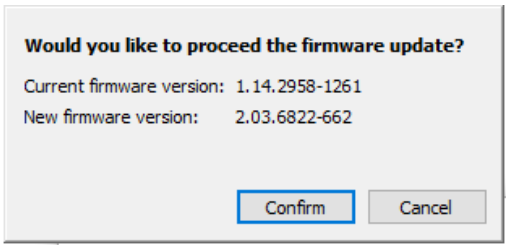
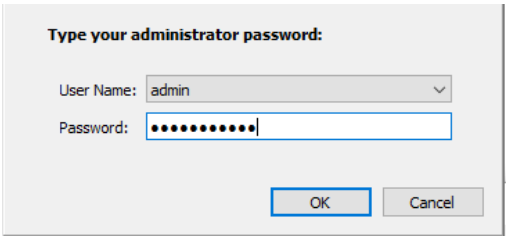
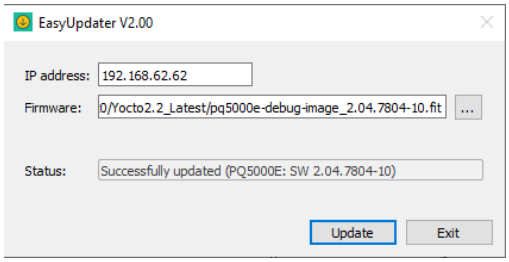
	Confirm the start of the firmware update via Yes
	In rare cases, the browser does not automatically change to the updater site. If this happens, call the site manually. Enter the following address in the address bar of your browser: *[DEVICE IP]*/index.html You can cancel the update via <cancel (reboot)>. Via <next step> you procede to the selection of the firmware file.
	**Upgrader Update** Select the updater upgrade file: [DEVICE TYPE]-updater-upgrade_[VERSION].a.fit **Firmware Update** Select firmware update file auswählen: *[GERÄTETYP]- image_[VERSION].fit* Use <upload_file> for uploaing the file to the device. Datei ins Gerät laden. This process may take longer depending on network traffic.
	After the file has been uploaded to the device, the updater will show you the versions of the firmware: • Firmware version of the device • Version of uploaded firmware The firmware is programmed into the device by clicking the <upgrade device> button.
	During the programming the updater shows the progress and information about the restart of the device. When the device is restarted, the web page returns to the normal display. If you have updated the upgrader as a first step repeat the same procedure for the firmware image.

3 Update via EasyUpdater software (recommended)

By means of the EasyUpdater software the firmware of a device can be updated in one step only. However, the EasyUpdater is no longer supported from firmware version 3.20, because port 22 (SSH) is disabled for security reasons.

⚠	For the firmware update via Easy Updater ports 22 is used. This port needs to be open in a possibly existing firewall.
⚠	**Update to firmware version ≥ V2.04** After the update it is not possible to return to a version older than V2.04.

EasyUpdater.exe	The **EasyUpdater V2.00** software can be executed directly, no installation is required. The software can be started multiple times for updating more than one device at a time.

A		a) Enter the IP address of the device or the IEC 61850 interface b) Select the firmware image c) Update
B		The current and the new firmware version is displayed. Confirm
C		If the user and permissions management is active you have to login as a user with the required rights. OK
D		The update procedure then runs automatically, no further inputs are required. As soon as the procedure completes the status „Successfully updated“ is displayed.

4 Final steps

It is recommended to restart the device after updating (disconnect the power supply).

The website of the device needs to be updated using <CTRL> <F5>. This ensures that no cached page information from the previous firmware version is used.

5 Known problems

Following are some typical problems that may occur during an update.

Problem	Solution
After starting the updater (v1.0), the browser does not change to the updating mode.	Manually enter the updater site: *[DEVICE IP]*/index.html
After starting the updater (v2.x), the browser does not change to the updating mode. Possibly a message is displayed, such as connection refused or timeout.	Possible steps: • Wait at least 1 minute if the updater modus may be started anyway • Try to navigate one page back and then forth using the browser navigation • If the device is in updater mode, restart the device. It will be start in the updater mode again. Refresh the webpage via <CTRL><F5>.
EasyUpdater software shows an error message such as “Failure establishing session”.	Check if there is a firewall blocking port 22 (SSH).
The browser does not return to the WebGUI.	• Press <CTRL> and <F5>: Site will be refreshed and buffered site information deleted. • Delete the browser history • Use private mode (also called incognito, stealth, private mode, depending on the browser)
Despite previous upgrade of the updater, the start image shows a lower updater version.	• Press <CTRL> and <F5>: Site will be refreshed and buffered site information deleted. • Delete the browser history • Use private mode (also called incognito, stealth, private mode, depending on the browser)
Problems not listed	Use Chrome as a web browser Chrome was used to create this guide. Get Chrome for free here: https://www.google.com/chrome/browser/desktop/