ABB MEASUREMENT & ANALYTICS | RELEASE NOTES

Embedded software 2105808 and 2105880

Flow computer (XSeries G5)

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1 Purpose

These release notes detail new features and modifications, functional changes, and bug fixes made to the μFLO^{G5} flow computer embedded software distributed in customer package number 2105409.

IMPORTANT NOTE: This document includes release information on the most current version as well as several previous versions. The release details for the latest version is always first in the list.

2 Withdrawn software notice

The following customer package versions have been withdrawn and will not be supported. Plan to replace the software with a known working version or upgrade to the latest version as indicated in this document.

Table 2-1: Withdrawn packages G5XFC

Component	Part number	Internal version
Customer package	2105808-003 or earlier	
Operating System (OS)	2105897-007 or earlier	3.1.0-3 or earlier
Flash	2105805-007 or earlier	3.1-0.4 or earlier

Table 2-2: Withdrawn packages G5XRC

Component	Part number	Internal version
Customer package	2105880-003	
Operating System (OS)	2105897-007	3.1.0-3
Flash	2105864-007	3.1.0-4

3 Latest release

The latest software is available in customer package number 2105808-004 and 2105880-004. Table 3-1 details the part numbers for the included components.

Table 3-1: Software included in customer package G5XFC 2105808-004

Component	Part number	Internal version
Operating System (OS)	2105897-007	3.1.0-3
Flash	2105805-008	3.2.0-4

Table 3-2: Software included in customer package G5XRC 2105880-004

Component	Part number	Internal version
Operating System (OS)	2105897-007	3.1.0-3
Flash	2105864-008	3.2.0-4

4 Determine software part and version numbers

To determine the software part or version numbers currently installed in your device:

1. Connect to the device on PCCU entry mode.
2. On the navigation tree select the top node on the tree, or the station name.
3. Select the Registry tab.
4. Locate and take note of the following:
   a. Flash software part #.
   b. OS software part #.
5. If the part numbers of either the flash or OS matches those listed in section 2, plan to update the software to the latest versions.

5 Software download instructions

Software is available for download from ABB sites. Review the following sections to determine how to locate and download software.

5.1 Software package components

Embedded software for the ABB Totalflow devices is distributed in packages. Packages may contain all or some of the components required for the device operation. Depending on the changes performed on each release, all or some components may have been modified. Packages may include:

- Operating system and boot software (OS, Boot)
- Main application (Flash)
- Default base device configuration file (Config)

For more detailed description, see the Device Loader help topics available by clicking Help from PCCU.

5.2 Locating the software

Each customer package is identified by the software component included in the package and the part number and revision. For example:

A package containing the flash for the μFLO^{G5}, will be identified as FLASH package (2105298-NNN), where NNN is the revision of the package.

A package containing the operating system and flash software for the μFLO^{G5} (also referred to as customer package, will be identified as Customer package (2105409-NNN), where NNN is the revision of the package.

5.3 Download packages from the ABB website

1. Go to www.abb.com/totalflow.
2. Select the product name.
3. Select Downloads tab.
4. On the navigation pane, select Software.
5. Select the required software package.
6. Save the package in your local drive when prompted.

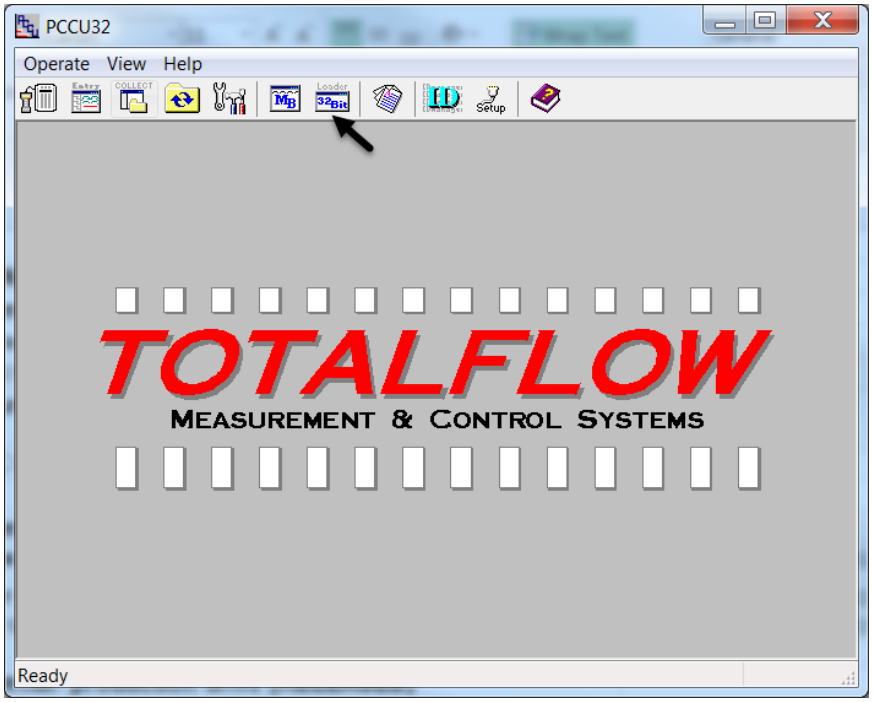
IMPORTANT NOTE: For assistance to download software contact technical support.

6 Software update instructions

IMPORTANT NOTE: Ensure device and measurement data are saved or backed up before any software update. For details see the μFLOG5 user manual or select Help from the PCCU top tool menu.

1. Start PCCU and select the loader icon from the top menu (see image below).

Figure 6-1: Starting the device loader



2. Establish a connection with the device.
3. Click Help for detailed update instructions.

IMPORTANT NOTE: The Flash and OS should be updated when a new release is available. Please contact ABB technical support regarding questions of backwards compatibility between previous versions of flashes and OS.

7 Release features

Features or enhancements for each version can be reviewed in this section.

7.1 Package number 2105808-004 and 2105880-004

No new features or enhancements for customer packages 2105808-004 and 2105880-004.

7.2 Package number 2105808-003 and 2105880-003

The following enhancements are included in the customer package version 2105808-003 and 2105880-003:

7.2.1 API Liquid tube application.

- Shrinkage Factor/Stock Tank Volume
  If user chooses to enable Shrinkage Factor/Stock Tank Volume, the Stock Tank Volume will then be calculated from Net Standard Volume and either a user entered or live measured Shrinkage Percentage; average Shrinkage Factor and total Stock Tank Volume will be logged in Log Period and Daily QTRs.
- Drive Gain Monitor/Log in QTRs
  If user chooses to enable Drive Gain Monitor/Log in QTRs, the Coriolis Drive Gain will then be updated every second from a user provided Drive Gain Source Register, also a flow weighted or linear average value (user selectable) of Drive Gain will be logged in Log Period and Daily QTRs.
- User Selectable Input Units
  Users can now choose to assign various volume or mass K factor units to their pulse inputs and various volume or mass flow rate units to the input flow rate if they are getting volume or mass flow rate inputs from the primary meter. If they are using pulse inputs, they can also specify a volume or mass flow rate unit to be used for Multi Meter Factor reference flow

rates (for flow rate inputs, the unit for the input flow rate is also used for Multi Meter Factor reference flow rates).

- Light Hydrocarbons EVP Calculation
  Added “Test EVP Calc Per TP-15” tab to API Liquid tube applications’ entry mode screens which allows users to calculate Equilibrium Vapor Pressure under various density and temperature conditions.

7.3 Package number 2105808-001 and 2105880-001

The following enhancement is included in the customer package version 2105808-001 and 2105880-001:

The G5 XFC / XRC has the same capabilities as the G4 product line and has additional new features/enhancements that include: Wi-Fi and Bluetooth (Onboard and USB)

- Wi-Fi capability that allows wireless communication between Totalflow devices and Wi-Fi clients (mobile devices or laptops with Wi-Fi capability). With Wi-Fi enabled, the Totalflow device performs the role of a wireless network (WLAN) access point. Access points advertise a wireless network ID or Service Set Identifier (SSID) which the Wi-Fi clients detect and join. Operators can establish TCP/IP based communication with the Totalflow device over this wireless link. A single Totalflow supports up to 10 simultaneous connections from Wi-Fi client
- A new on-board Bluetooth chip allows for users to connect to the device without having to plug in a Bluetooth adapter into the USB port. The USB Bluetooth adapter is still supported on the devices, so the users now have two Bluetooth connection options.

7.4 Package number 2105808-001 and 2105880-001

The following enhancement is included in the customer package version 2105808-001 and 2105880-001:
Ethernet Stat Changes

- Users can now choose the bandwidth of the ethernet interface. Users can set the ethernet bandwidth and the duplex mode depending upon the other devices (switches etc.) in the network.. Several different bandwidths are now selectable in the Communications - Ethernet tab.
- Users can now set ethernet data rate limiting on incoming and outgoing ethernet traffic.
- New ethernet usage statistics are now available to allow the user to monitor traffic for bandwidth utilization, dropped packets or error packets etc. at any point of time. Users can trend these parameters to get a historical view of the activity on the ethernet. These new statistics are in the Communications – Ethernet tab.

7.5 Package number 2105808-001 and 2105880-001

The following new feature/enhancement is included in the customer package version 2105808-001 and 2105880-001: IEC Phase 2

- All the available programming options can now be used in the IEC resource (customer logic development environment) as recommended on the IEC 61131.
- There are now 5 different application credits available in the application table. There is a now an IEC Base application along with four different application package levels (Tiers).
- Each application credit allows for only one IEC resource to run.
- Users can have only one resource running on the device at any time.
- Users can select, create, and delete their own custom IEC resource in a common folder.
- Please refer to the IEC User Guide for further information on using the new enhancements.

8 Fixes

Bug or defect fixes for each version are described in this section.

8.1 Package number 2105808-004 and 2105880-004

The following bugs are fixed:

- 11581 – I/O Subsystem communication improvements for SYNC CAN.

8.2 Package number 2105808-003 and 2105880-003

The following bugs are fixed:

- 10469 – IEC app overwrites station app register.
- 10518 – CFX Output showing Gauge instead of Absolute for some G3 devices.
- 10533 – PID app will not retain Station name.
- 10570 – Shutdown app forgets configuration settings on DIs and AIs tabs.
- 10751 – AGA7 Enhanced reports show Ultrasonic as "Sonic".
- 11042 – Product management wants to limit the number of applications on G5-Uflo to 24.
- 11043 – G4 Simulator should be updated to include fix for Light Hydro's (refer to bug 10978).
- 11085 – Liquid tube app "Pulses Min" column in PCCU Laptop Daily View always shows zero when primary meter type is Coriolis, PD or Other.
- 11156 – Comm app port name is not saved to cold configurations.
- 11157 – Operations app holding register array size not saved for value 0.
- 11159 – G5 RMC reset (same fix made on X Series). (The Issue was discovered to occur with IEC applications instantiated. It was found that when ISaGRAF started, it would get a copy of its file descriptors from Totalflow. Both Totalflow and ISaGRAF would get a copy of the USB file descriptors during start up. When 32-bit loader connection is established through USB, totalflow would close its handle to hand it over to device loader. But ISaGRAF process would still have its copy of the handle. When USB was unplugged and plugged back in would cause the TTY driver to generate a hang-up signal to device loader process group causing the device reset.).
- 11161 – Corrupt operations app configurations on the periodic tab (G5 RMC).
- 11163 – Analysis Trend Application not creating analysis files (G5 RMC)
- 11165 – SU Liquid tube with primary meter type of Coriolis is missing the Indicated Standard Volume column in the View Daily Flow Data and Log Period Data tabs.
- 11177 – API LIQUID SU embedded app does not correctly average PF, TF, Meter Factor, Ctl, Cpl of Log Period Data after a Warm Start.

8.3 Package number 2105808-001 and 2105880-001

None

9 Known issues and workarounds

9.1 Issues

No known issues.

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