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ABB MEASUREMENT & ANALYTICS | APPLICATION INSTRUCTIONS

# **Communication application reset**

## **XSeries<sup>G4</sup>, XSeries<sup>G5</sup> devices**

# 1 Description

This guide describes how to reset a communication application instance that has ceased to operate properly. Communications may have worked correctly previously, but the instance may have become corrupted and require a reset if any of the following issues occur:

- Failure to collect data from PCCU or WinCCU. WinCCU displays this message after a data collection attempt: "Error validating collection."
- The antenna icon stops displaying on the meter's LCD display.

The following procedures describe how to:

- Record the current configuration and the number of the failed communication instance
- Remove or delete that instance
- Add a new instance with factory default configuration
- Restore the required configuration to resume successful communication



**IMPORTANT NOTE:** Rule out hardware failure before performing the procedures included in this guide. This guide addresses issues caused by software malfunction, not hardware failure.



**IMPORTANT NOTE:** The procedures in this document reset the affected port communication configuration to factory defaults. Make sure you record the configuration before reset.

# 2 Reset communication on affected port

The procedures in this guide show, as an example, a communication instance that is assigned to one of the device's serial ports (COM2) and this port is used for remote communication with the device. Adapt the steps to your specific configuration.

## 2.1 Delete failed communication instance

To reset communication on the affected port, delete the communication instance assigned to that port. Make sure you record the current configuration. You will need this information to rebuild the interface after the reset.

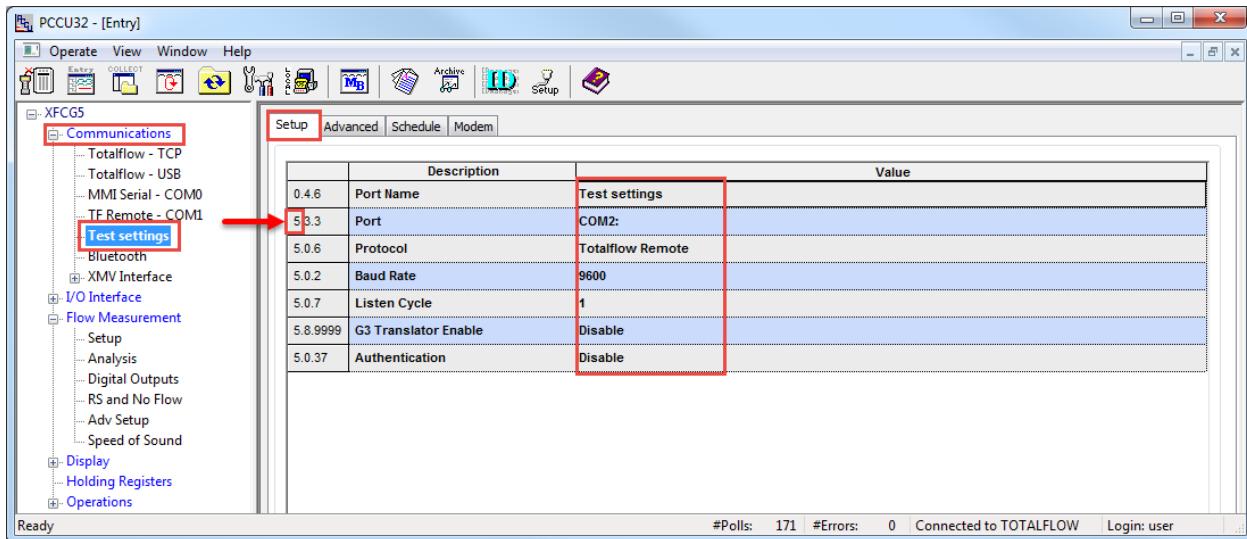
To record configuration (see [Figure 2-1](#)):



**IMPORTANT NOTE:** To record all configuration make sure to use Expert view. On the main PCCU menu, select **View>Expert**.

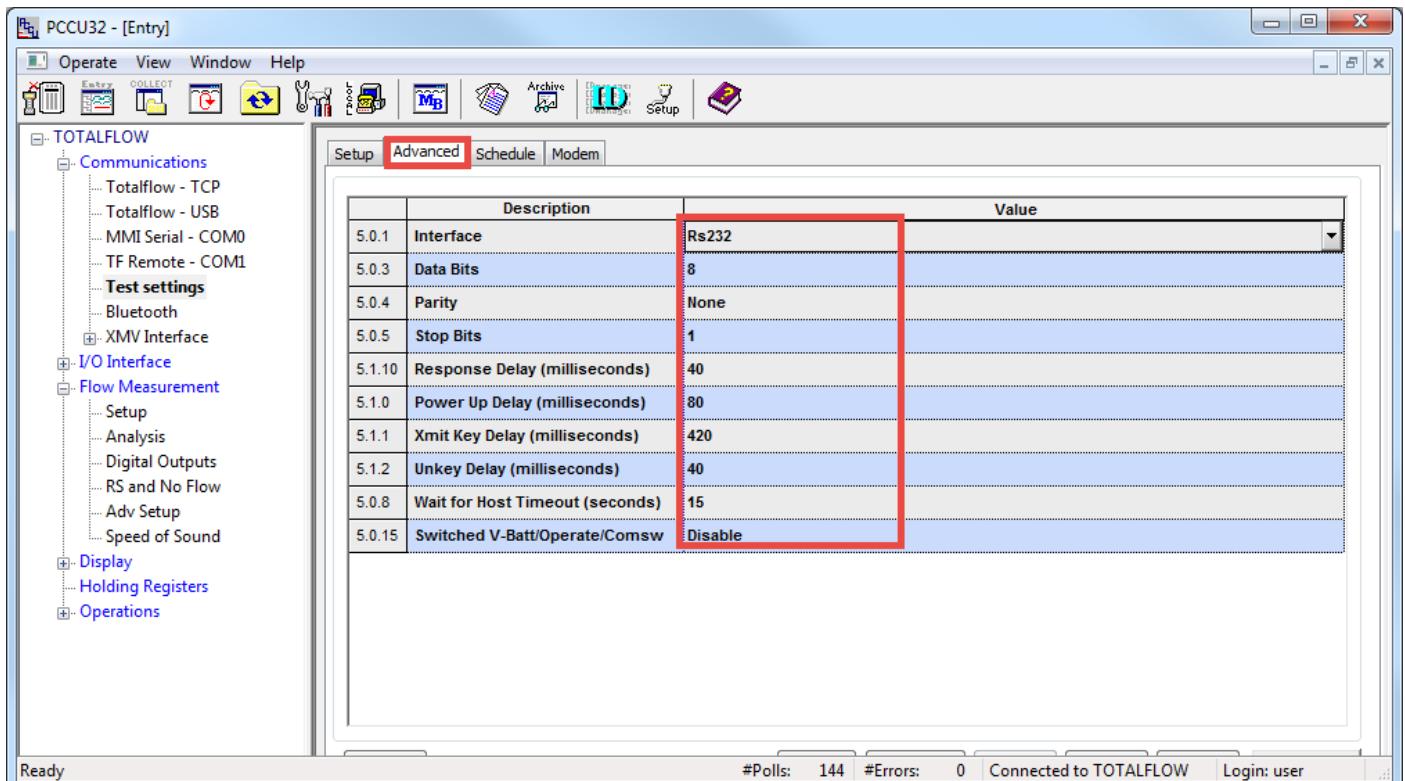
1. Locate **Communications** on the navigation tree. Expand to list all communication application instances if necessary.
2. Locate and select the failed communication instance. The Setup tab displays by default.
3. Take note of the configuration:
  - a. Identify the communication application number (the number the device uses to uniquely identify the instance). Note that, in this example, the instance is assigned to application number 5 (the first number in the registers associated with this instance).
  - b. Identify additional configuration parameters. In the example below, the communication instance has a user-defined port name and is assigned to the onboard COM2: port. The protocol is Totalflow Remote and the baud rate is at 9600. The other parameters are set to the factory default values.

**Figure 2-1: Locate failed configuration instance and record configuration**



4. Select the **Advanced** tab to take note of additional communication settings and the interface type (RS-232 or RS-485).

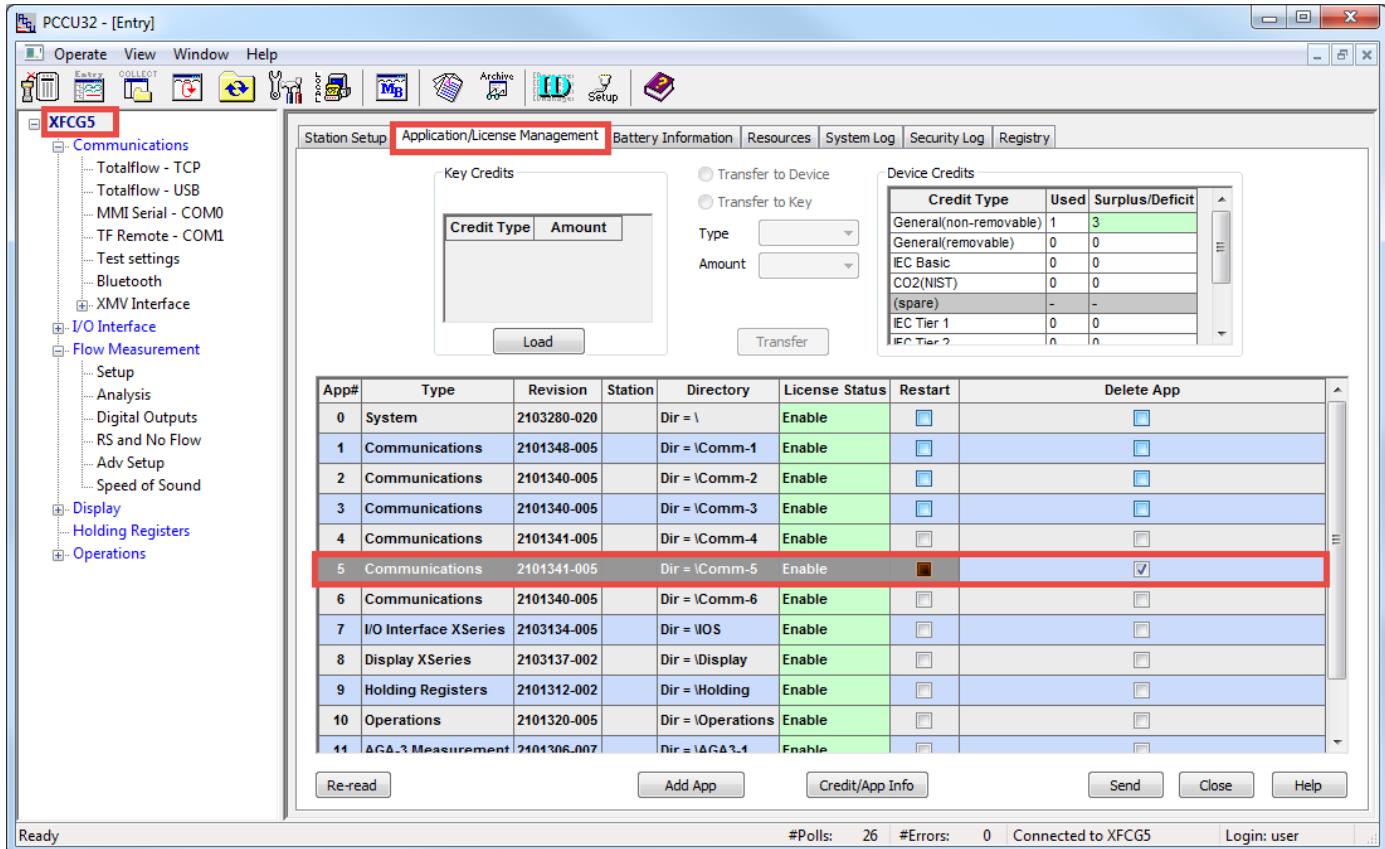
**Figure 2-2: Record the advanced configuration of failed communication instance**



To delete instance (see [Figure 2-3](#)):

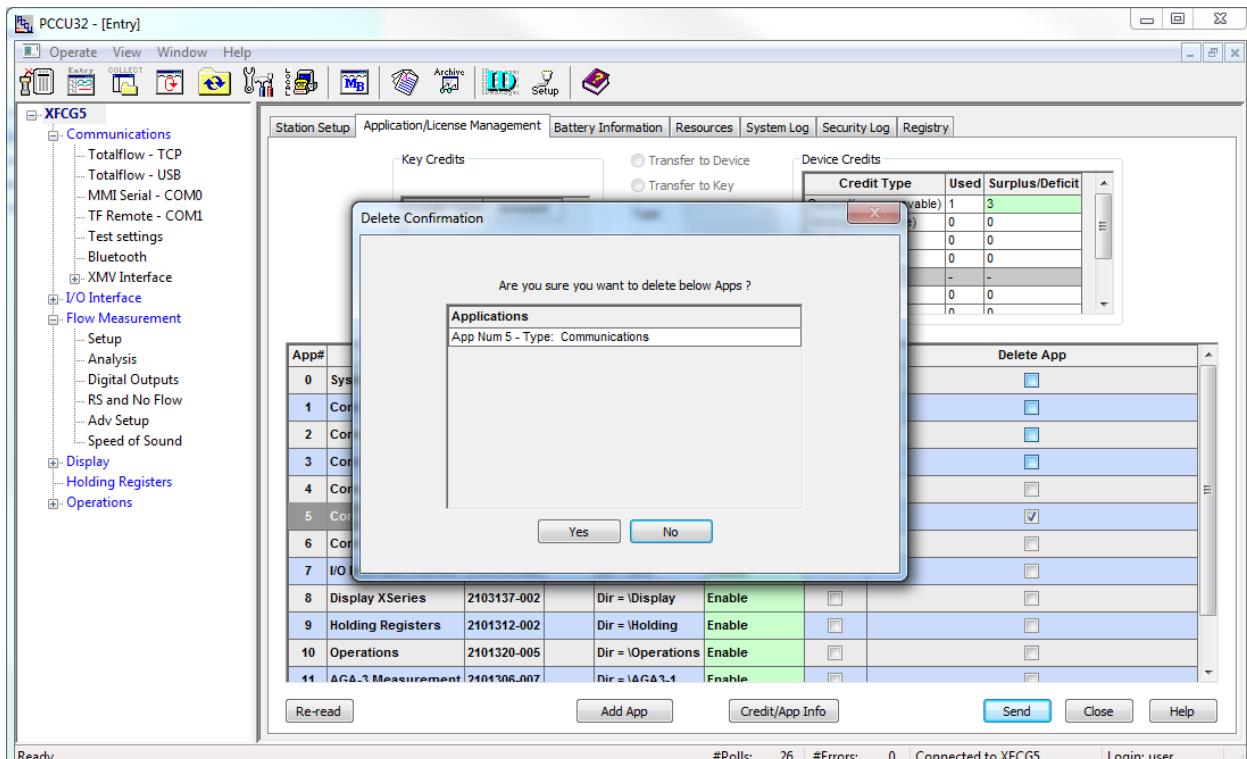
1. Select the Station ID on the navigation tree and then select the **Application/License Management** tab.
2. Locate the application number in the application list and select it.
3. To delete the instance, select the **Delete App** checkbox.

**Figure 2-3: Delete failed communication instance**



4. Click **Send**. A confirmation message displays ([Figure 2-4](#)). Make sure the application number is correct.

**Figure 2-4: Delete confirmation**



5. Click **Yes**. After the device completes removal, the communication instance is no longer visible in the application list or the navigation tree.

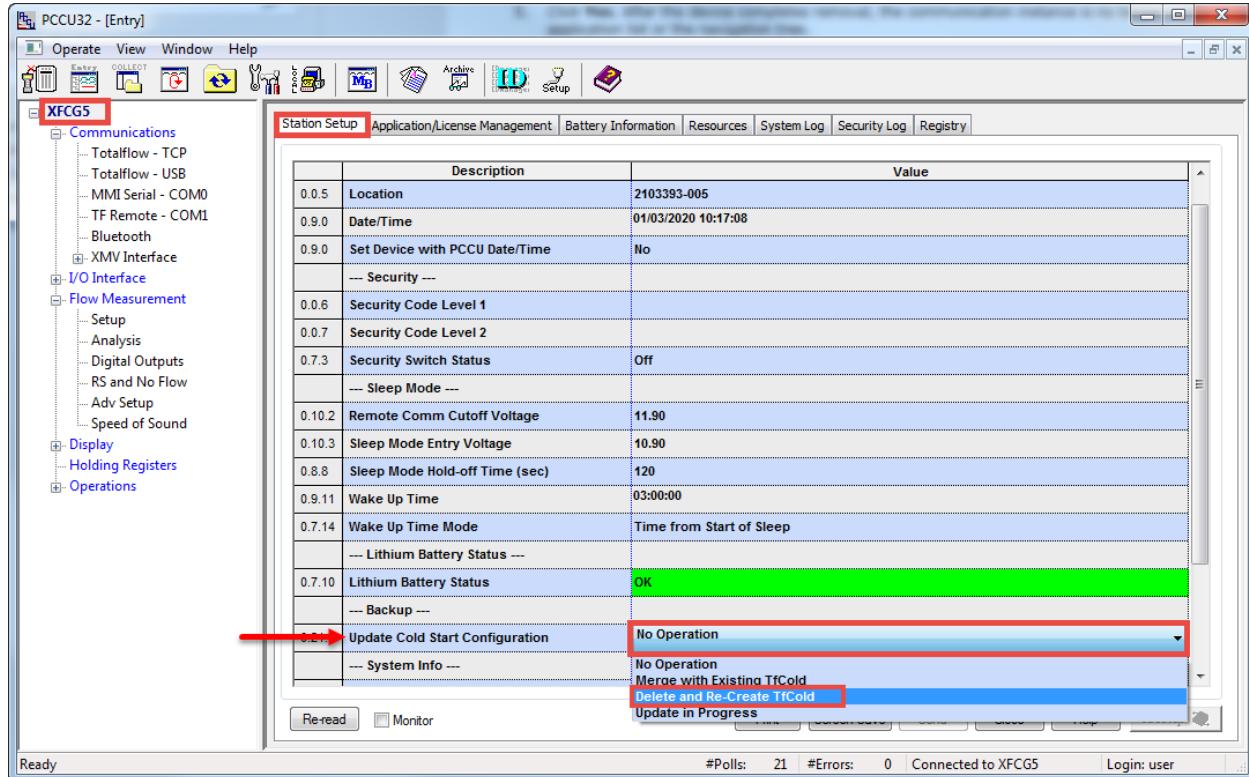
## 2.2 Update startup (cold) configuration

Update the startup (cold) configuration (see [Figure 2-5](#)):

1. Select the Station ID on the navigation tree. The Station Setup tab displays by default.
2. Locate **Update Cold Start Configuration** and select the value field to display options.

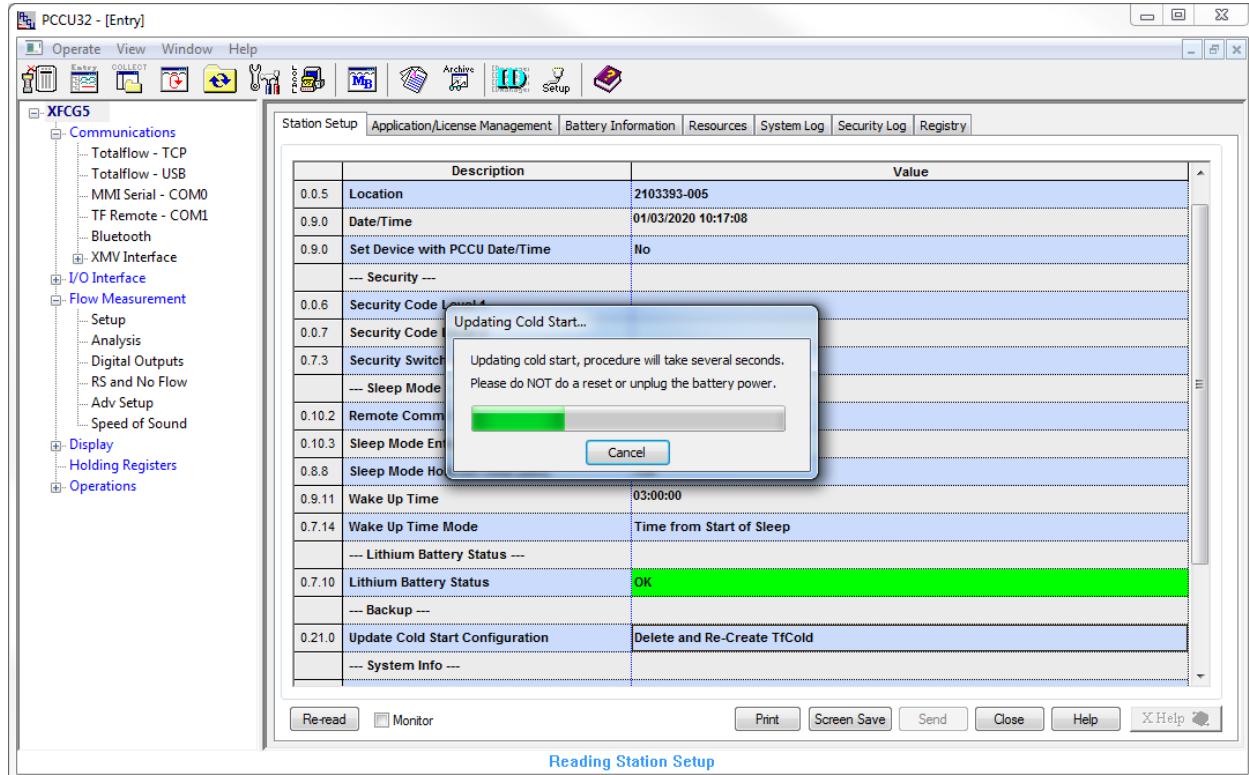
3. Select **Delete and Re-Create TfCold**.

**Figure 2-5: Cold Start Configuration Update**



4. Click **Send**. Wait until the device completes the update ([Figure 2-6](#)). After the update, the cold start configuration does not have the failed instance and is in sync with the warm configuration.

**Figure 2-6: Cold Start Configuration update in progress**



### 3 Add new communication application instance

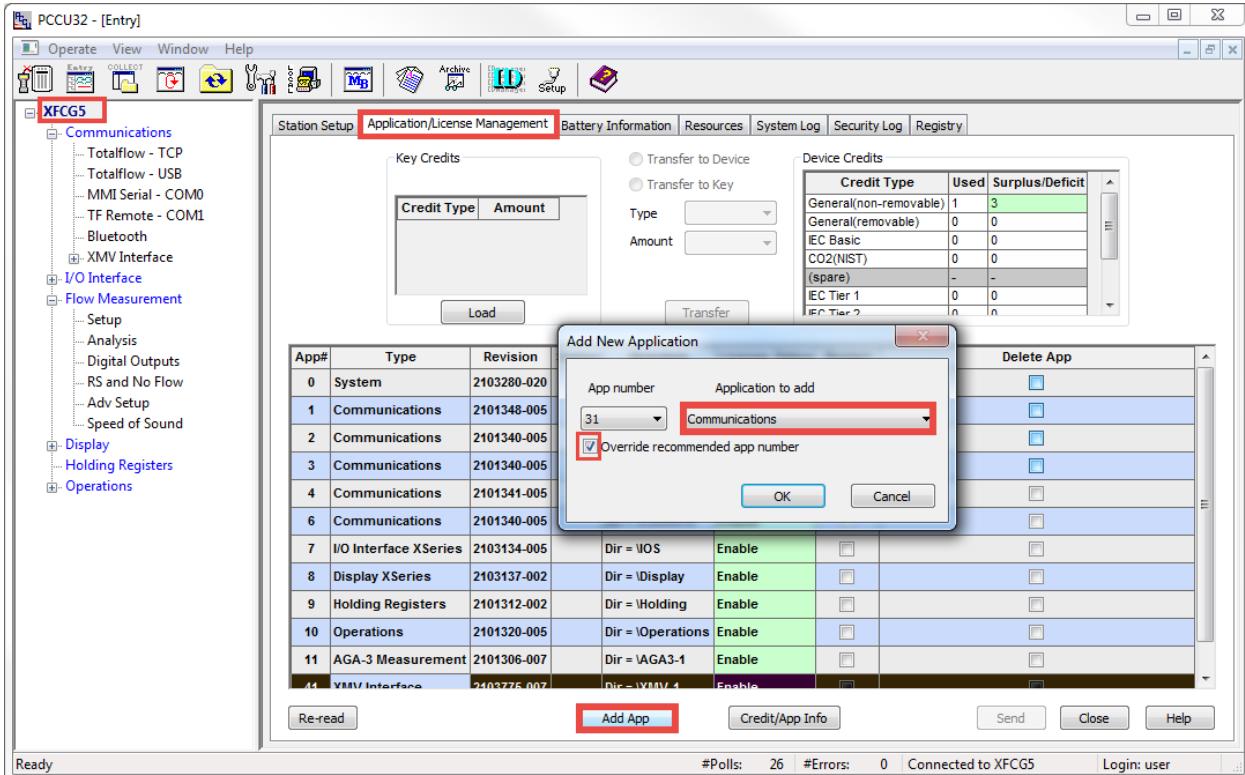
Add a new communication instance to replace the failed instance. Assign the same application number as the failed instance obtained in section [2.1 Delete failed communication instance](#).

To add a communication instance:

- Select the Station ID on the navigation tree and then select the **Application/License Management** tab ([Figure 3-1](#)).

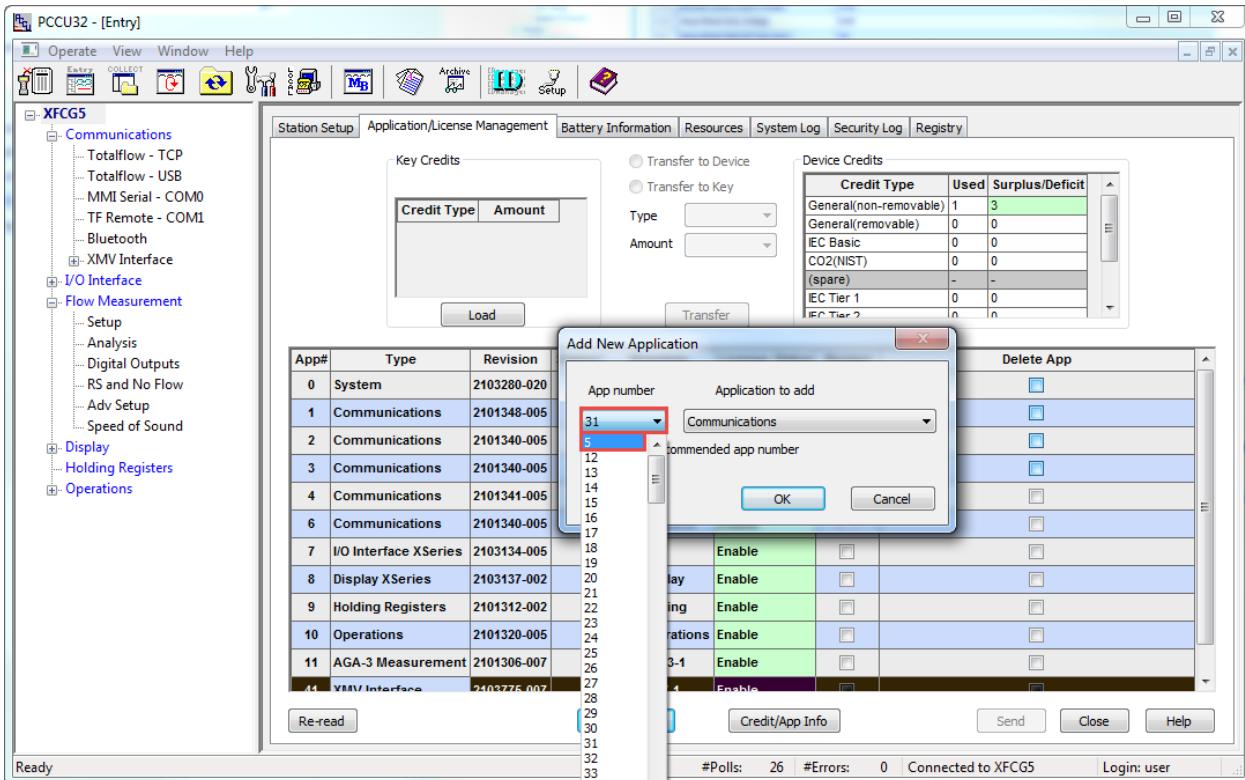
2. Select **Add App**.
3. Select **Communications** in the Application to add drop-down menu.
4. Select the **Override recommended app number** check box. The App number drop-down menu becomes available.

**Figure 3-1: Add new communication instance**

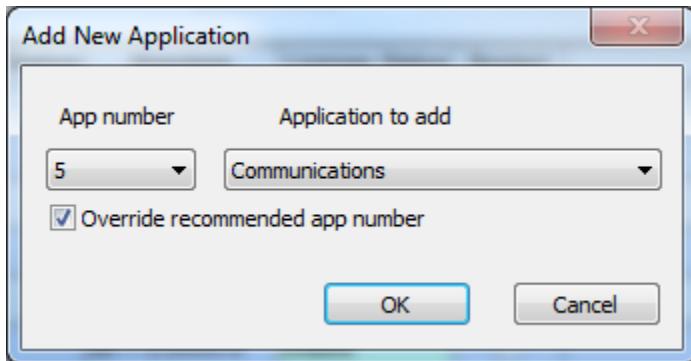


5. Select the **App number** drop-down menu and change the number to the deleted application instance number ([Figure 3-2](#)). In this example, the deleted application was 5 ([Figure 3-2](#)).

**Figure 3-2: Select application number**

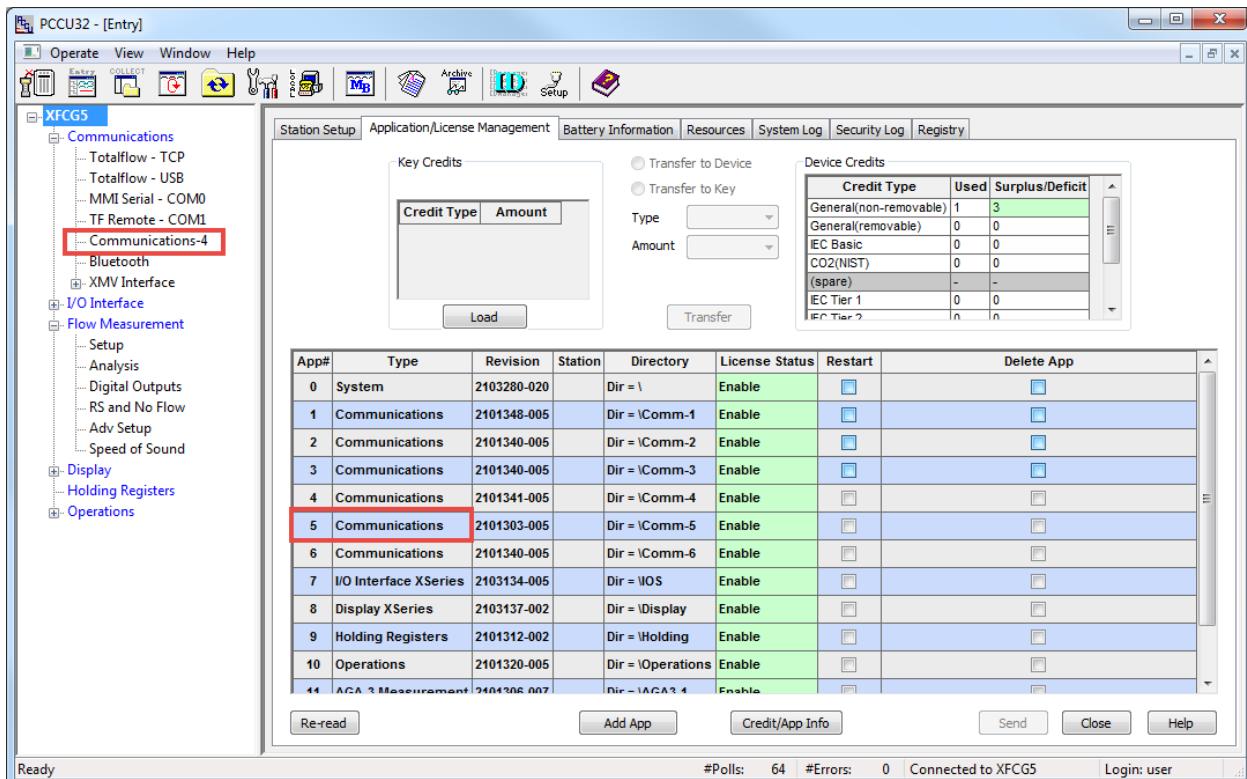


**Figure 3-3: Override recommended application number**



- Click **OK** and then click **Send**. The newly added application instance is visible on the application list and the navigation tree ([Figure 3-4](#)).

**Figure 3-4: Newly added communication application instance**



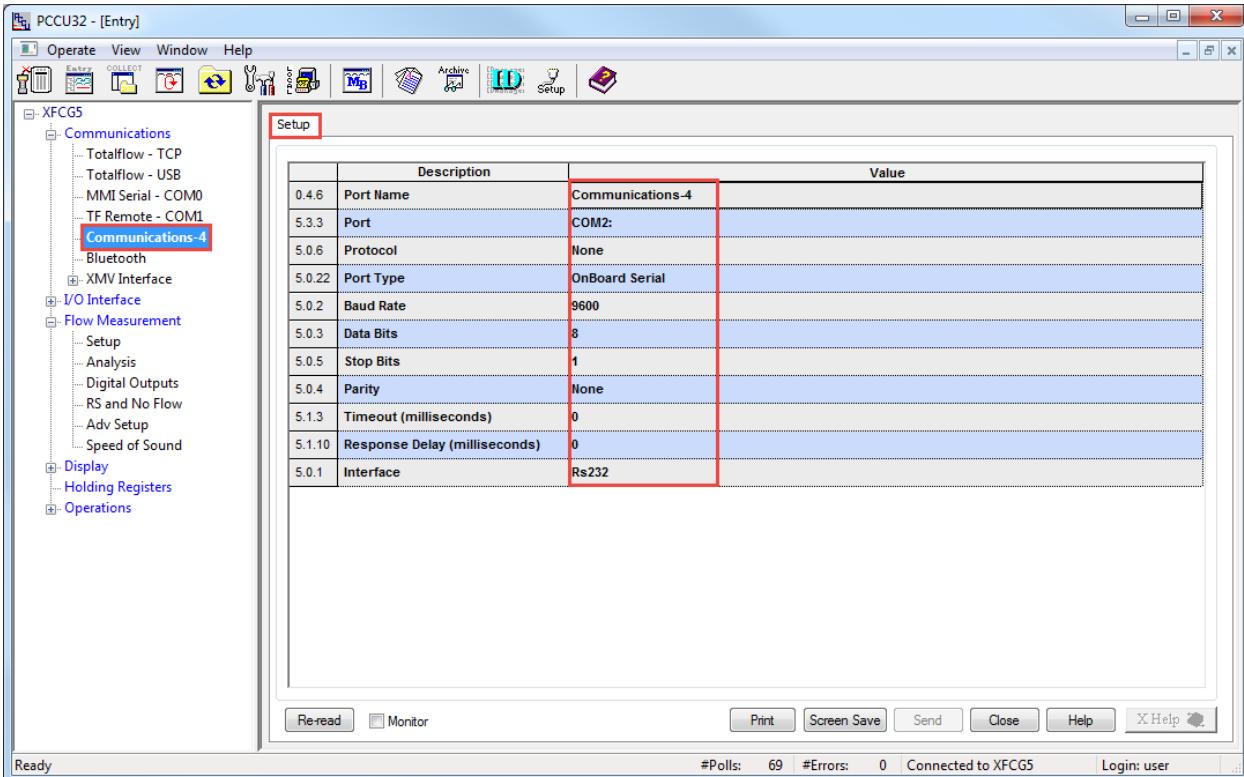
## 4 Restore configuration to required values

Change the new instance factory-default settings to the ones recorded in section [2.1 Delete failed communication instance](#).

To configure:

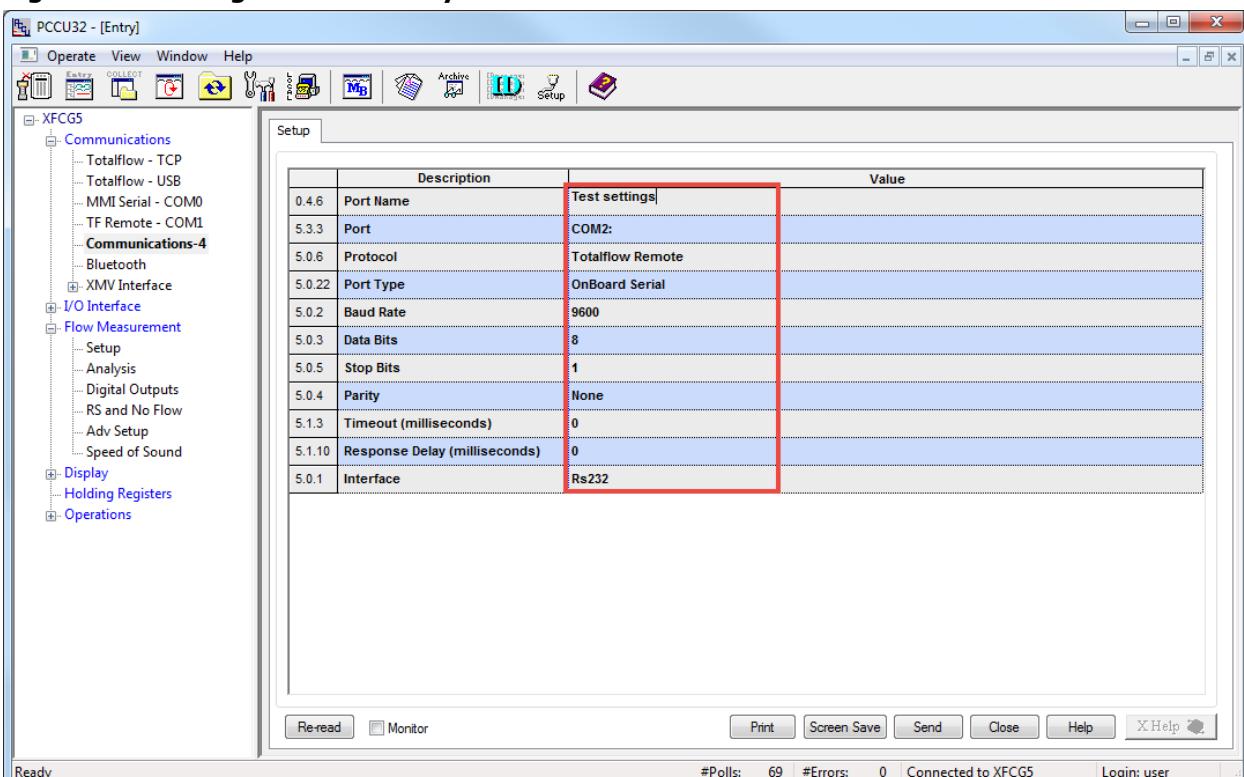
- Locate and select the new instance on the navigation tree. The Setup tab displays by default ([Figure 4-1](#)).

**Figure 4-1: Verify newly added communication instance displays.**



2. Configure the non-factory values as required ([Figure 4-2](#)):
  - a. Configure Port Name.
  - b. Assign port number. Remember to add the colon to the serial port numbers COM1: or COM2:.
  - c. Select the **Protocol** drop-down menu and choose the require protocol.
  - d. Configure communication parameters.
  - e. Configure the correct Interface type. The default value is RS-232. Change if using RS-485.

**Figure 4-2: Configure non-factory-default values**



3. Click **Send**.
4. Test communications on the reconfigured port:
  - a. Verify that you are able to complete device data collection without errors from PCCU or WinCCU.
  - b. Verify that the antenna icon displays again on the LCD.

5. If successful communication is restored, repeat the procedure in section [2.2 Update startup \(cold\) configuration](#) to ensure that the cold and warm configurations are in sync again.
6. Call Technical support if unable to restore communication.



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