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MVI56E-AFC

Firmware Upgrade Procedure

July 7, 2025

TECHNICAL NOTE

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ProSoft Technology, Inc.
+1 (661) 716-5100
+1 (661) 716-5101 (Fax)
www.prosoft-technology.com
ps.support@belden.com

MVI56E-AFC Firmware Upgrade Procedure Technical Note
For Public Use.

July 7, 2025

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Table of Contents

1 Introduction

This document assists the user with the upgrade process of the MVI56E-AFC firmware v4.01.00 to v4.06.01.

1.1 Support

Technical support will be provided via the Web (in the form of user manuals, FAQ, datasheets etc.) to assist with installation, operation, and diagnostics.

For additional support the user can use either of the following:

Resource	Link
Contact Us web link	www.prosoft-technology.com
Support email	www.prosoft-technology.com

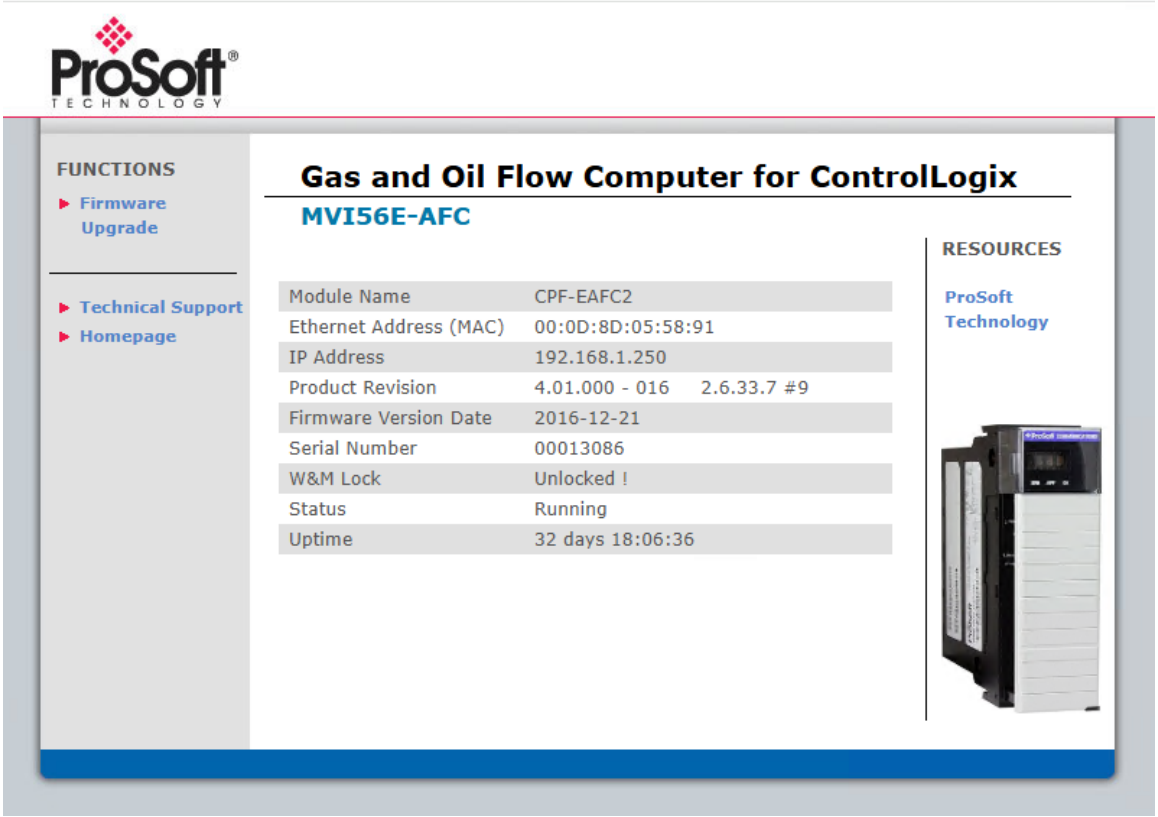
2 Installation

To upgrade the MVI56E-AFC firmware from v4.01.00 to v4.06.01, there are a series of firmware upgrades to perform. The procedures are outlined in the following sections and must be completed in sequential order.

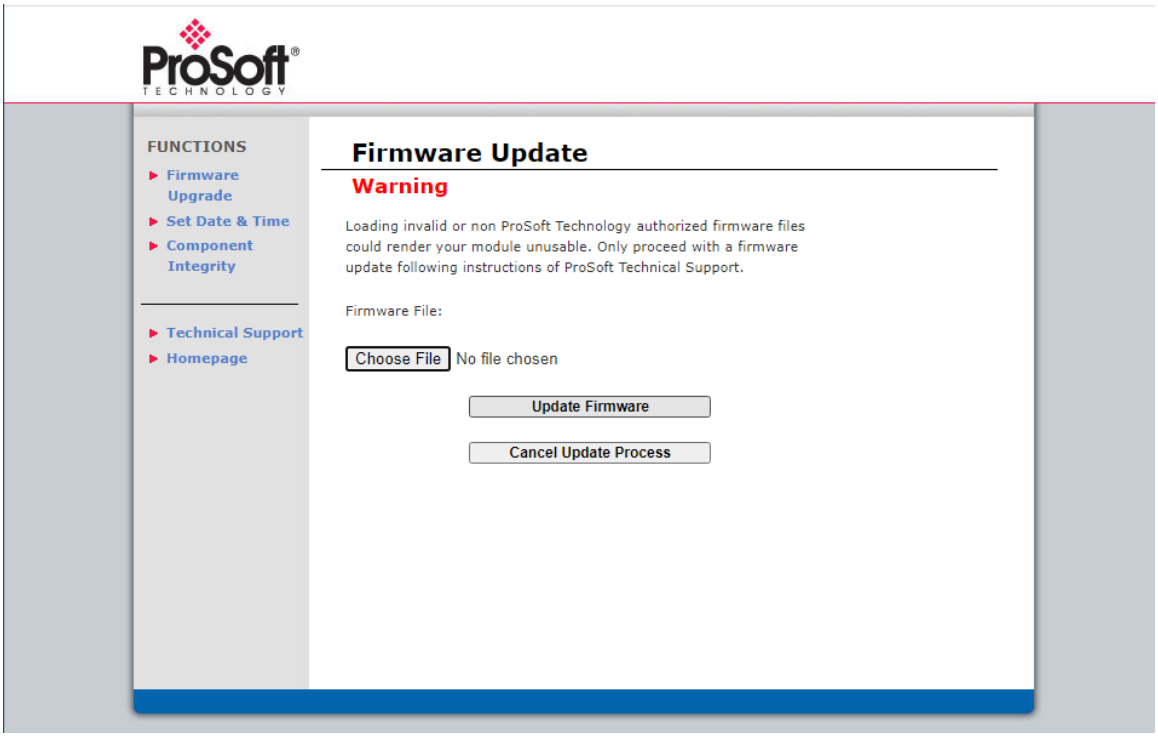
2.1 Upgrading to Base Image v1.01 #10

1. Connect to the MVI56E-AFC local user interface. For more information about connecting to the local user interface, please see the *MVIxxE-AFC Setup and Configuration Guide* at www.prosoft-technology.com

2. In the local user interface, click on the **FIRMWARE UPGRADE** option.



3 In the *Firmware Update* dialog, click the **CHOOSE FILE** button.



Note: If the Kernel is **v2.6.33.7 #6** and the Base Image is **v1.00 #003**, the Base Image will need to be upgraded to **v1.01 #010**. Please review the following table:

Application Firmware Image		Base Firmware Image		OS Kernel Version
4.06.001 #057	19-Aug-2022	1.03 #012	07-Oct-2022	2.6.33.7 #9
4.06.001 #056	30-Jun-2022	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.06.000 #044	07-Mar-2022	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.002 #023	31-Mar-2021	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.001 #022	25-Feb-2020	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.000 #021	24-Sep-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.002 #017	30-May-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.001 #014	12-Feb-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.000 #012	12-Sep-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.03.000 #020	01-Mar-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.02.000 #010	04-Oct-2017	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.01.000 #016	21-Dec-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.00.000 #034	19-Apr-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6

Compatibility

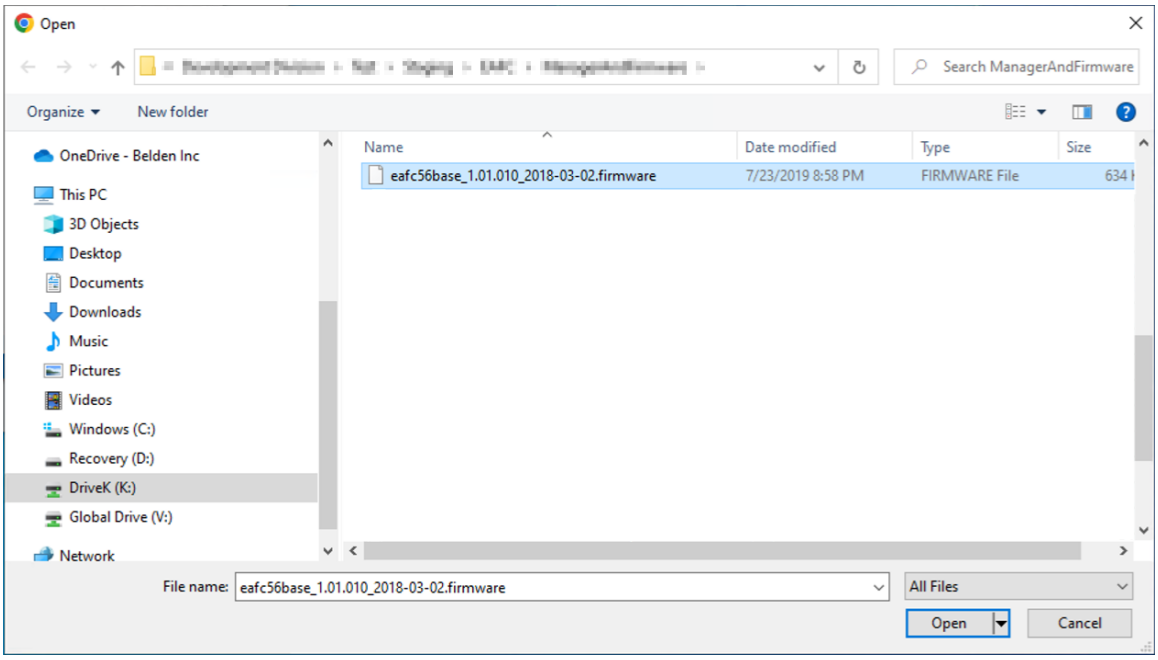
The following table shows the base firmware and operating system kernel versions that are compatible with each application firmware version.

Application Firmware Image		Base Firmware Image		OS Kernel Version
4.06.001 #057	19-Aug-2022	1.03 #012	07-Oct-2022	2.6.33.7 #9
4.06.001 #056	30-Jun-2022	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.06.000 #044	07-Mar-2022	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.002 #023	31-Mar-2021	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.001 #022	25-Feb-2020	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.05.000 #021	24-Sep-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.002 #017	30-May-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.001 #014	12-Feb-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.000 #012	12-Sep-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.03.000 #020	01-Mar-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.02.000 #010	04-Oct-2017	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.01.000 #016	21-Dec-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.00.000 #034	19-Apr-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6

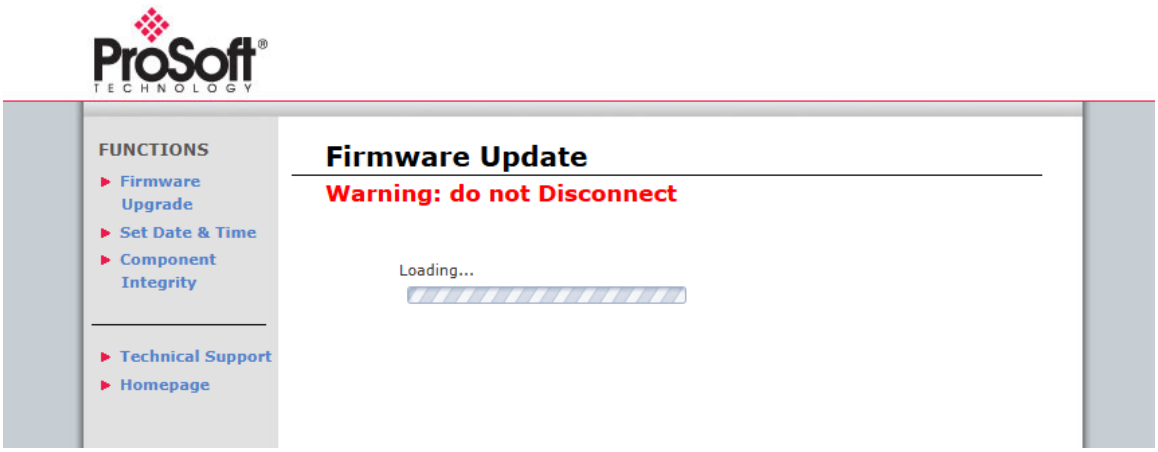
Kernel v2.6.33.7 #9 is installed along with **Base Image v1.01 #10** as a package, but the **Application Firmware Image** can still be downgraded to **v4.00, v4.01 or v4.02**. However, **Application Images** from **v4.03** and above require **Base Image v1.01 #10** that installs **Kernel v2.6.33.7 #9** automatically.

4.04.001 #014	12-Feb-2019	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.04.000 #012	12-Sep-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.03.000 #020	01-Mar-2018	1.01 #010	02-Mar-2018	2.6.33.7 #9
4.02.000 #010	04-Oct-2017	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.01.000 #016	21-Dec-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6
4.00.000 #034	19-Apr-2016	1.00 #003	15-Feb-2015	2.6.33.7 #6

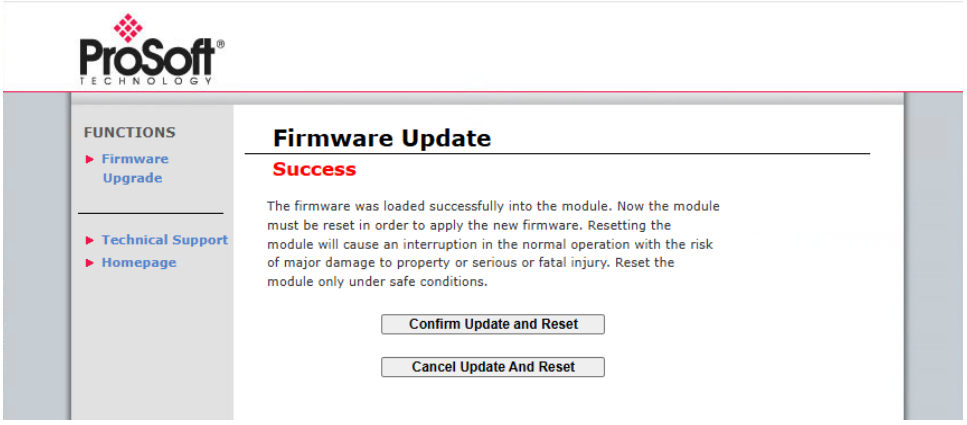
4 Select the **Base Image v1.01.010 firmware** file and then click the **OPEN** button.



5 The "*Loading…*" dialog displays and successfully completes.



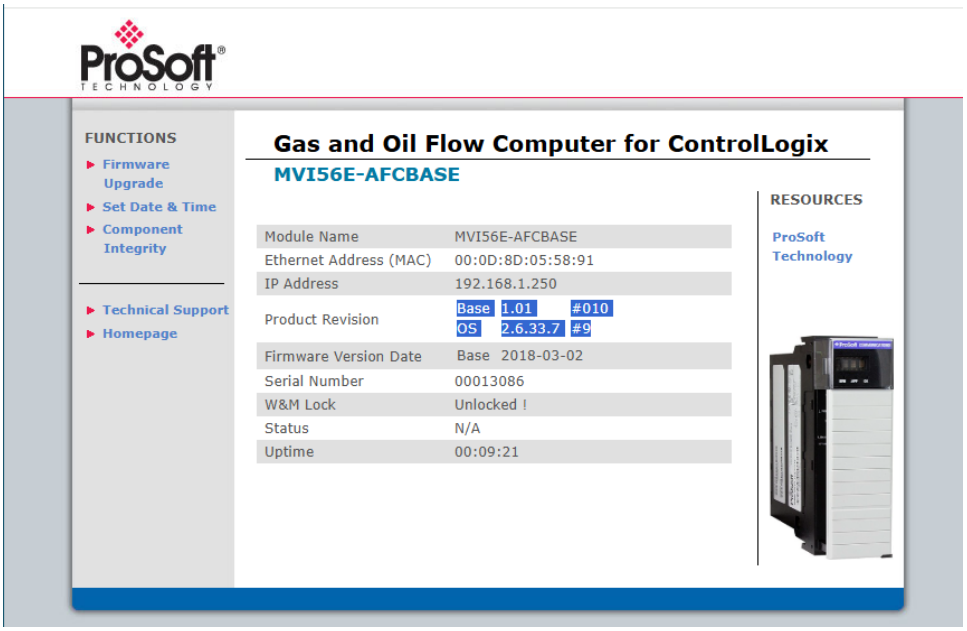
6 After the firmware file has been successfully uploaded, click on the **CONFIRM UPDATE AND RESET** button.



7 Ping the IP address to confirm the MVI56E-AFC is accessible.

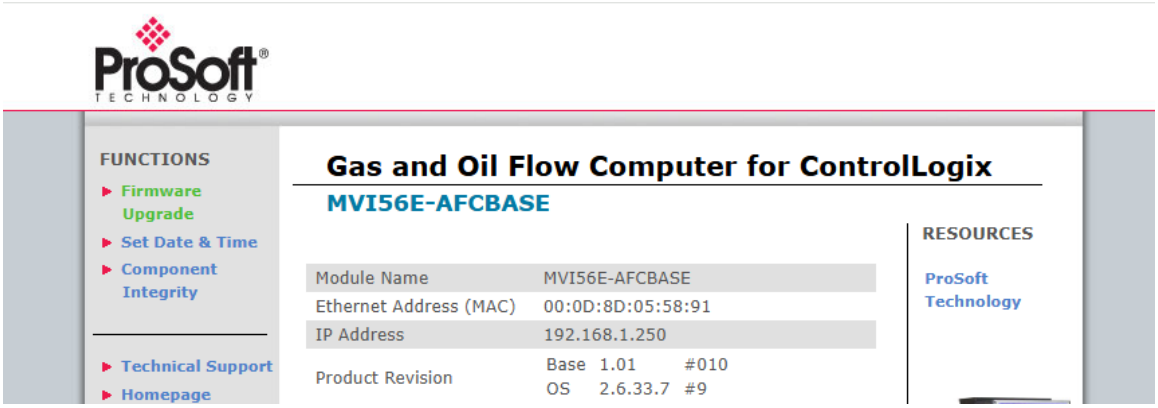
```
Pinging 192.168.1.250 with 32 bytes of data:
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time=1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.250:
    Packets: Sent = 8, Received = 8, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

8 Access the local user interface and confirm the Base Image and Kernel are correctly displayed.

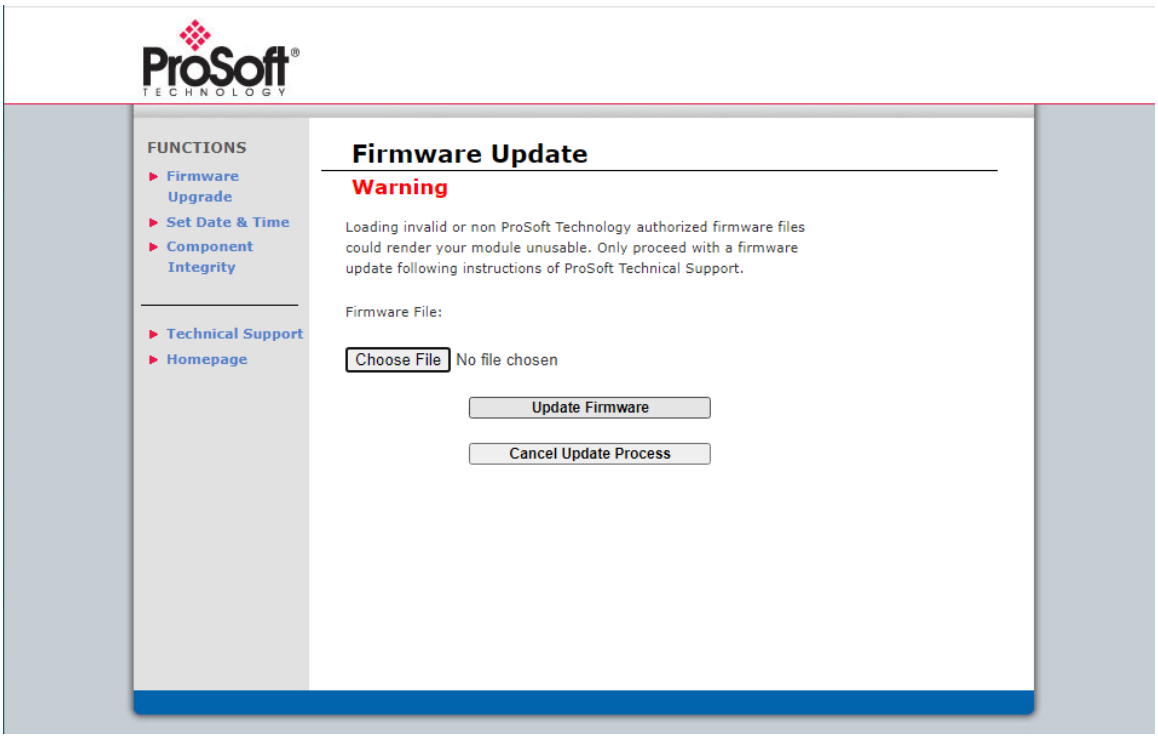


2.2 Upgrading to Application Image v4.05.002 #23

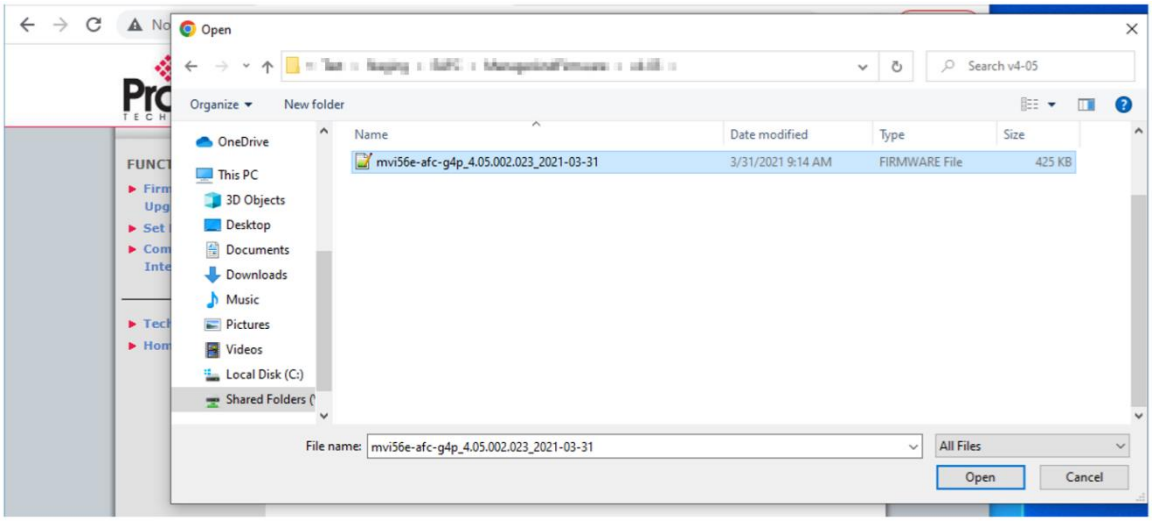
1 In the local user interface, click on the **FIRMWARE UPGRADE** option.



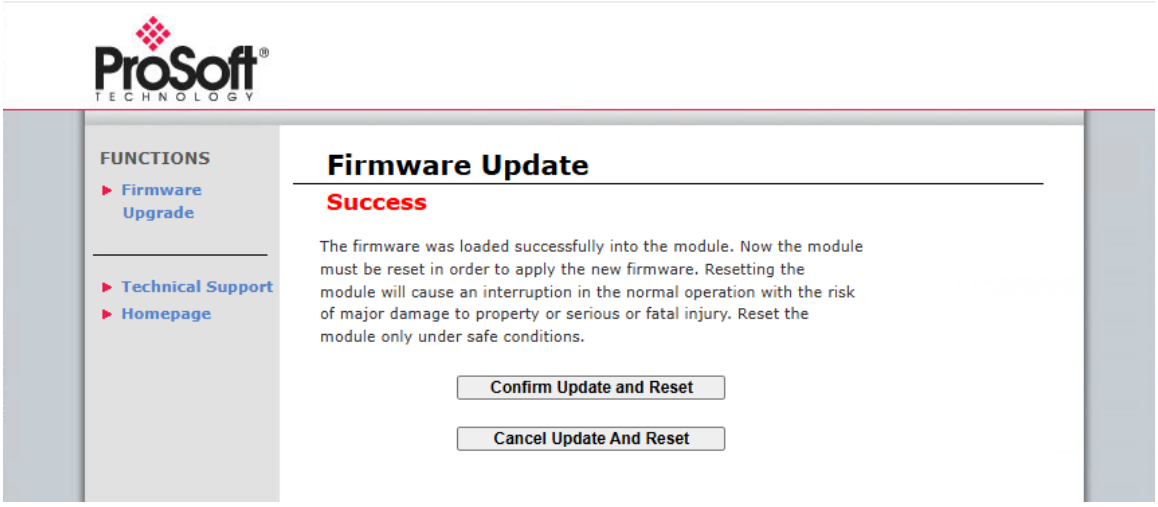
2 In the *Firmware Update* dialog, click the **CHOOSE FILE** button.



3 Select the **Application Image 4.05.02** firmware file and then click the **OPEN** button.



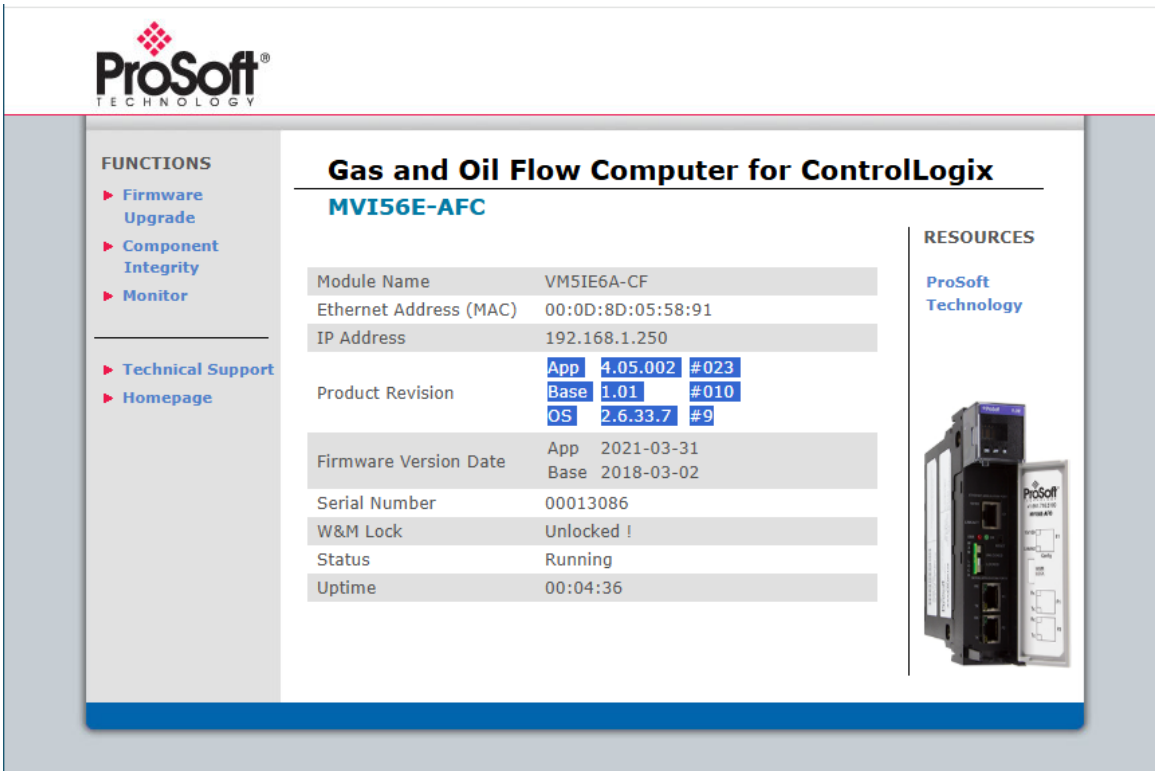
4 After the firmware file has been successfully uploaded, click on the **CONFIRM UPDATE AND RESET** button.



5 Ping the IP address to confirm the MVI56E-AFC is accessible.

```
Pinging 192.168.1.250 with 32 bytes of data:
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time=1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.250:
    Packets: Sent = 8, Received = 8, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

6 Connect to the local user interface with the set IP address **192.168.1.250** to confirm the Application (*App*) v4.05.02 and Base (*Base*) v1.01 versions are correct.

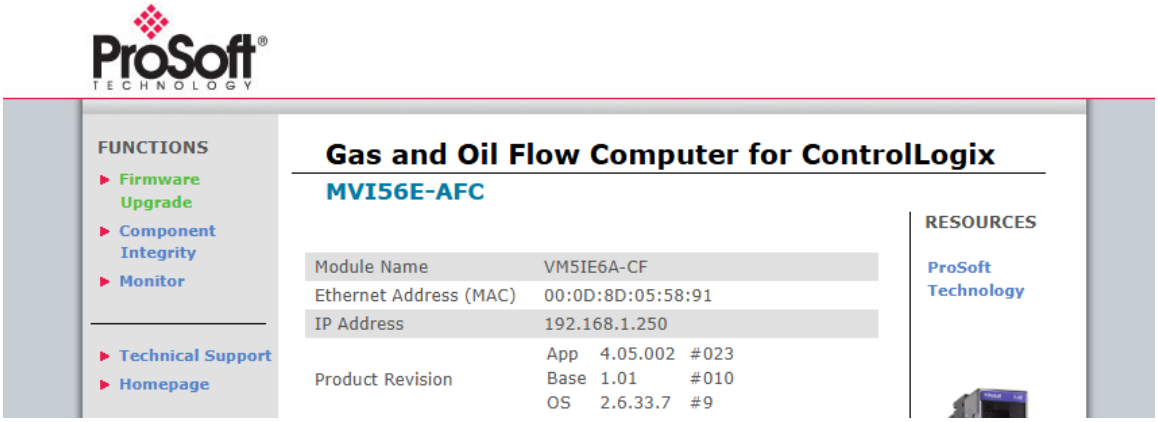


2.3 Upgrading to Base Image v1.03

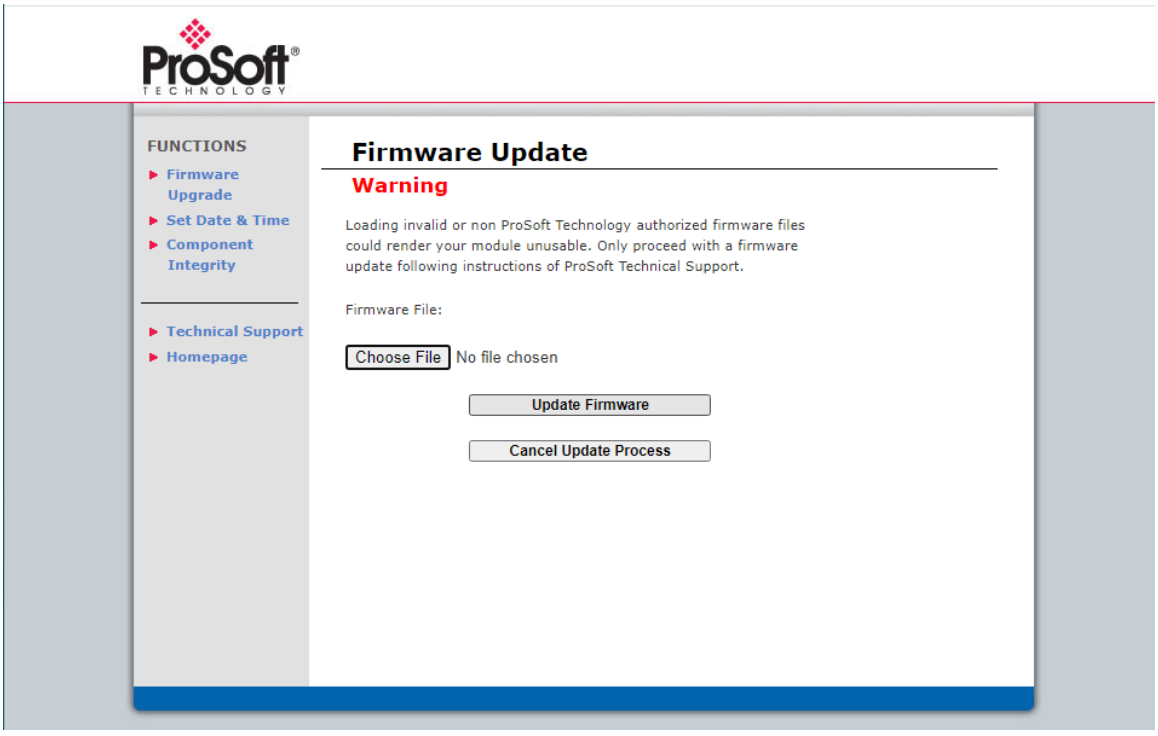
This section covers a second base image upgrade to v1.03.

Warning: There is a possibility of rendering the MVI56E-AFC non-functional at the end of this procedure. This is dependent on the age of the module. Find out if the module is still under warranty. If it is not under warranty, conduct this step at your own risk. Please consult with Technical Support for additional details.

1 In the local user interface, click on the **FIRMWARE UPGRADE** option.

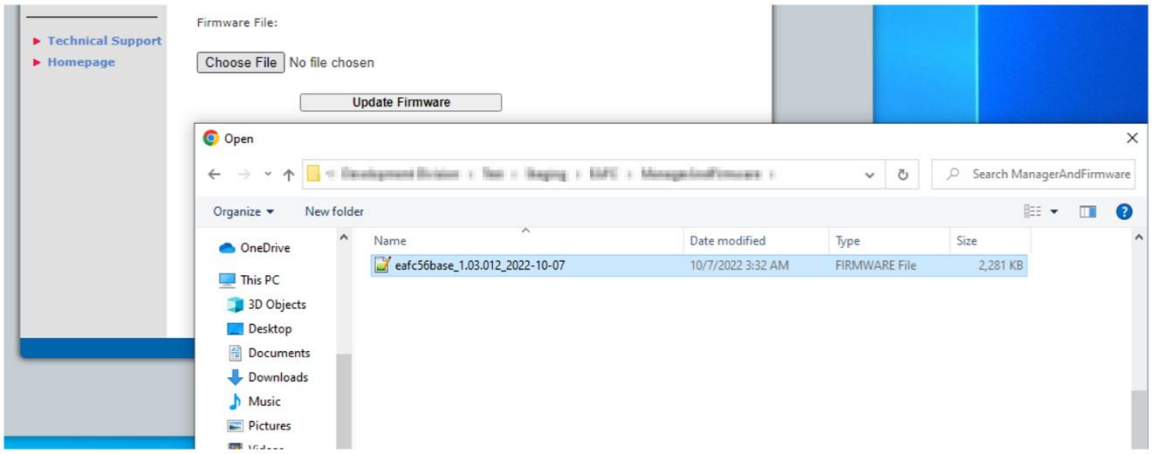


2 In the *Firmware Update* dialog, click the **CHOOSE FILE** button.

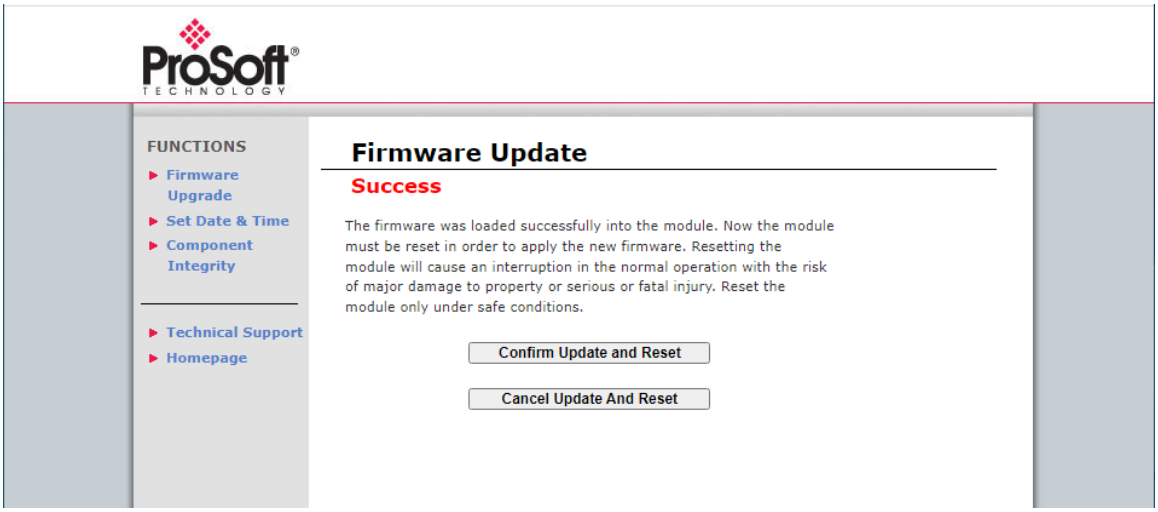


3 Select the **Base Image v1.03** firmware file and then click the **OPEN** button.

> **Warning:** There is a possibility of rendering the MVI56E-AFC non-functional at the end of this step. This is dependent on the age of the module. Find out if the module is still under warranty. If it is not under warranty, conduct this step at your own risk. Please consult with Technical Support for additional details.



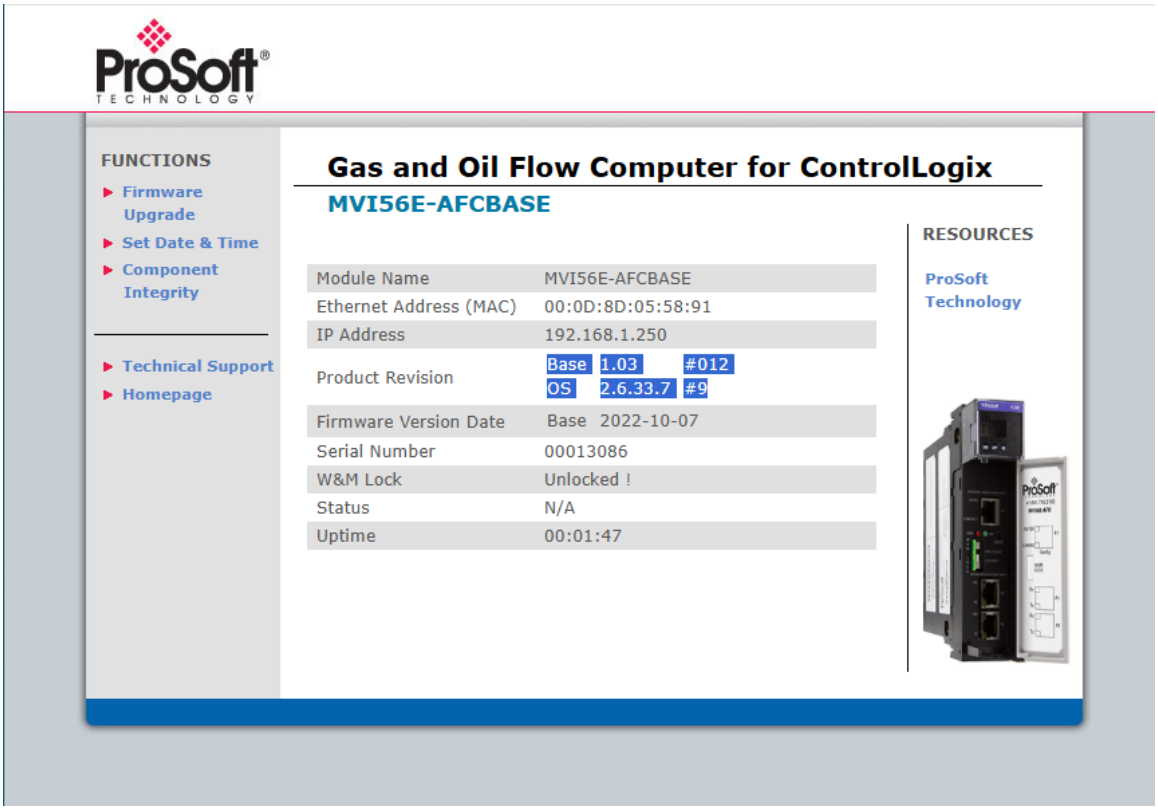
4 After the firmware file has been successfully uploaded, click on the **CONFIRM UPDATE AND RESET** button.



5 Ping the IP address to confirm the MVI56E-AFC is accessible.

```
Pinging 192.168.1.250 with 32 bytes of data:
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time=1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.250:
    Packets: Sent = 8, Received = 8, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

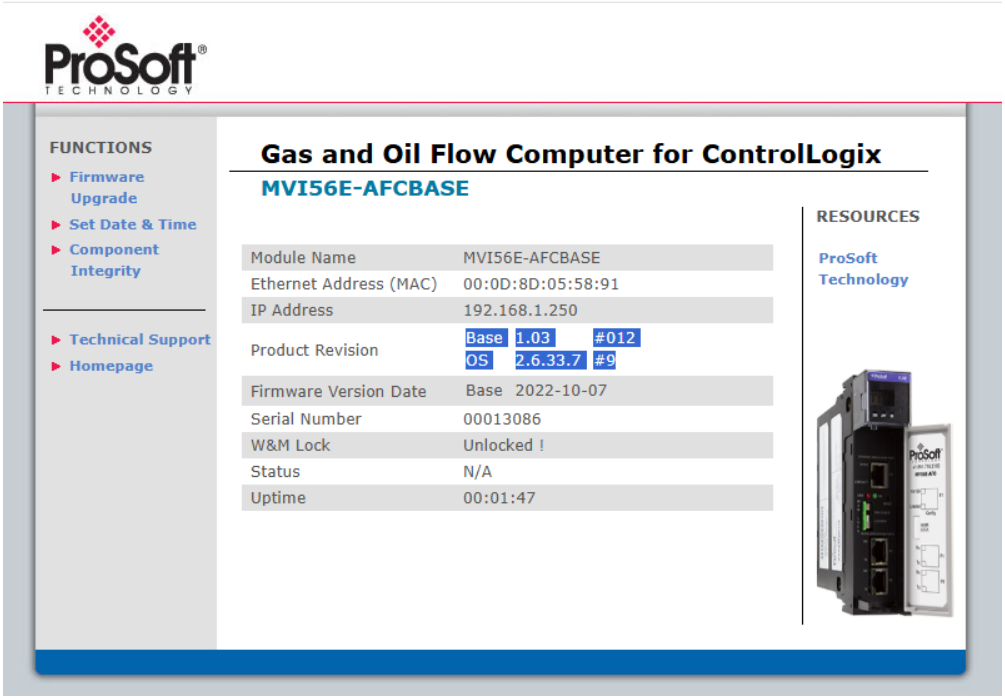
6 In the local user interface, confirm the *Base* Image v1.03 is installed.



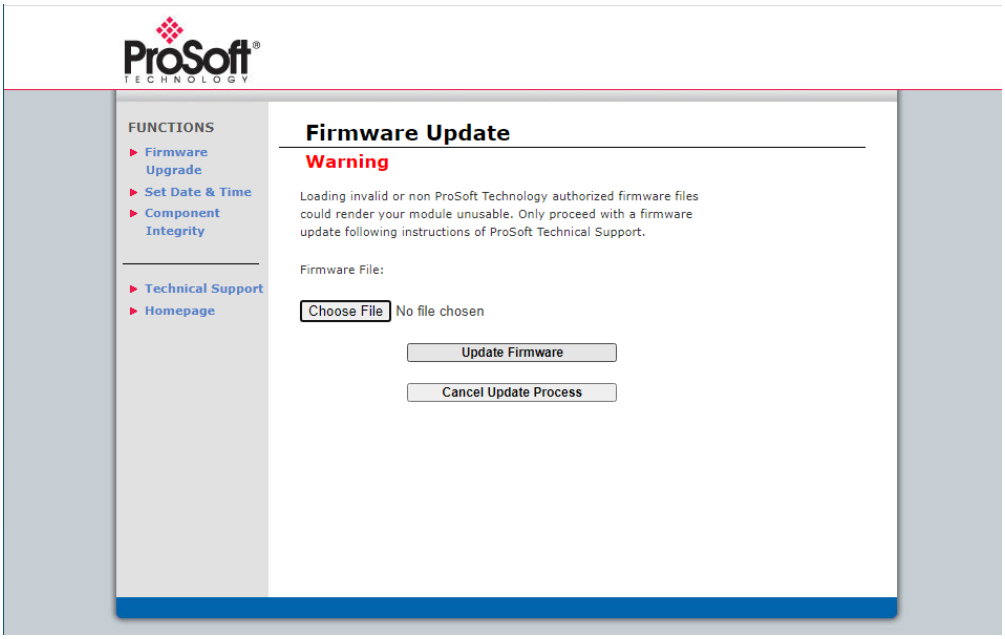
2.4 Upgrading to Application Image v4.06.001 #57

This section covers an application image upgrade to v4.06.001 #57.

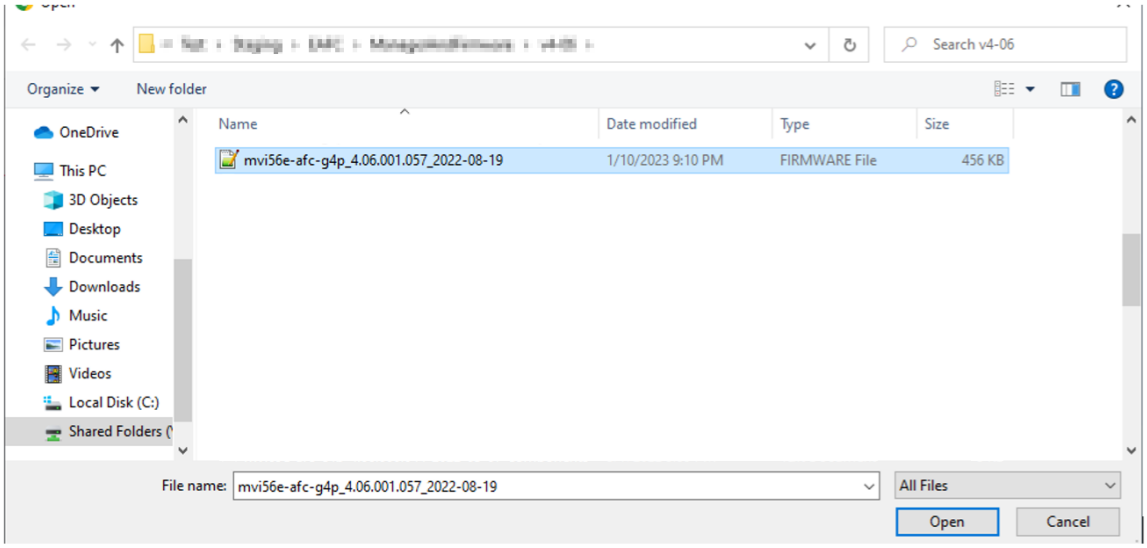
1 In the local user interface, click on the **FIRMWARE UPGRADE** option.



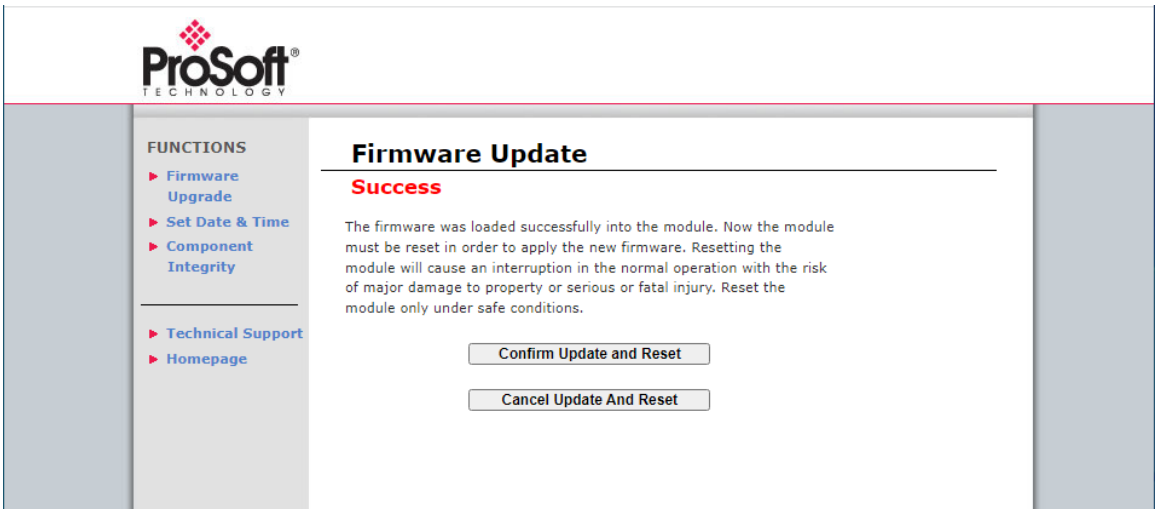
2 In the *Firmware Update* dialog, click the **CHOOSE FILE** button.



3 Select the **Application Image v4.06.001** firmware file and then click the **OPEN** button.



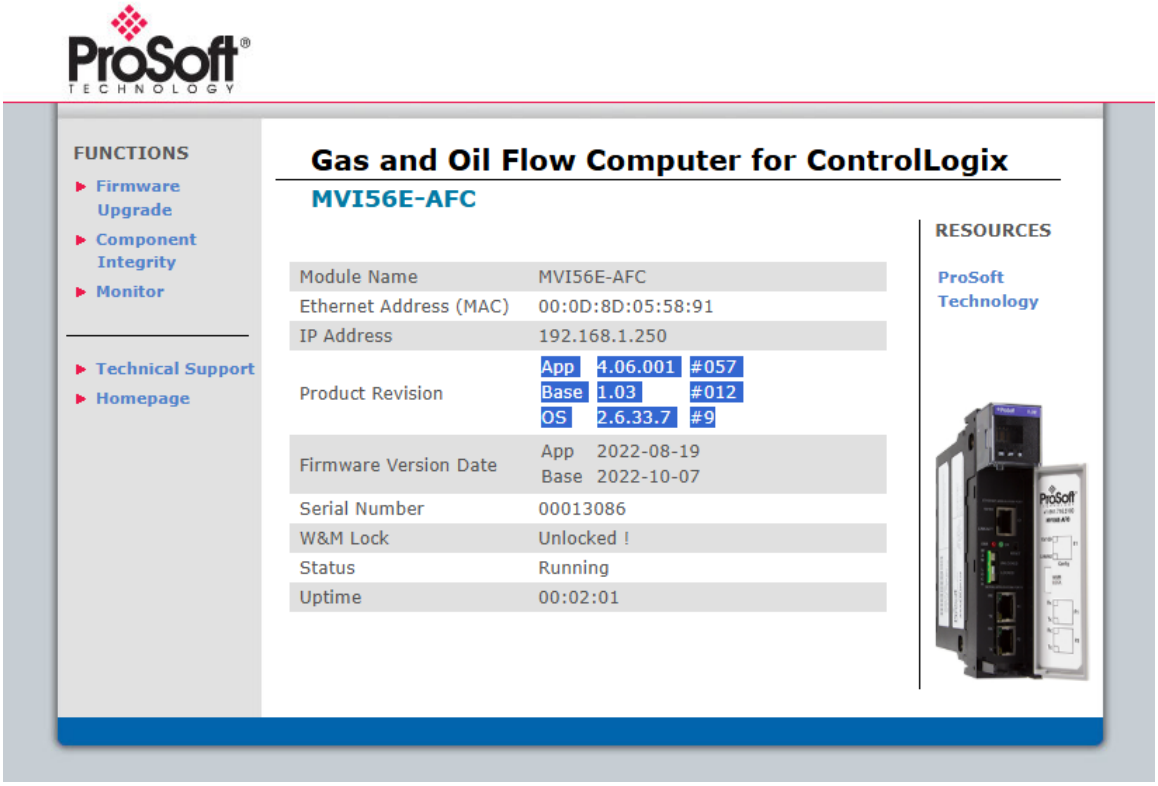
4 After the firmware file has been successfully uploaded, click on the **CONFIRM UPDATE AND RESET** button.



5 Ping the IP address to confirm the MVI56E-AFC is accessible.

```
Pinging 192.168.1.250 with 32 bytes of data:
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time=1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64
Reply from 192.168.1.250: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.250:
    Packets: Sent = 8, Received = 8, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

6 In the local user interface, confirm the Application *(App)* Image v4.06.001 is installed.



Note: Downgrading the application image performs an application cold start / reset to factory defaults. Changing the application image removes the application image. Remove if the module does not correctly operate, and downgrade to the last working application image.

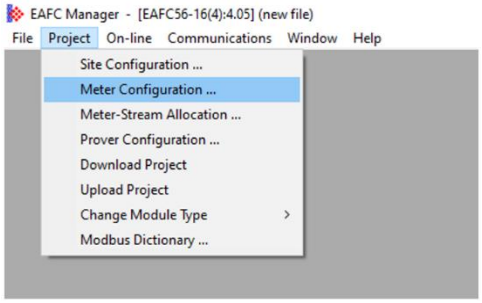
If the module is not reachable with the previously set IP address, the default factory IP address is **192.168.0.251** (Server), and **192.168.0.250** (WebApp).

```
C:\Users\Sysadmin>ping 192.168.0.250

Pinging 192.168.0.250 with 32 bytes of data:
Reply from 10.12.115.1: TTL expired in transit.
Reply from 192.168.0.250: bytes=32 time=1ms TTL=64
Reply from 192.168.0.250: bytes=32 time=1ms TTL=64
Reply from 192.168.0.250: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.0.250:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\Users\Sysadmin>
```

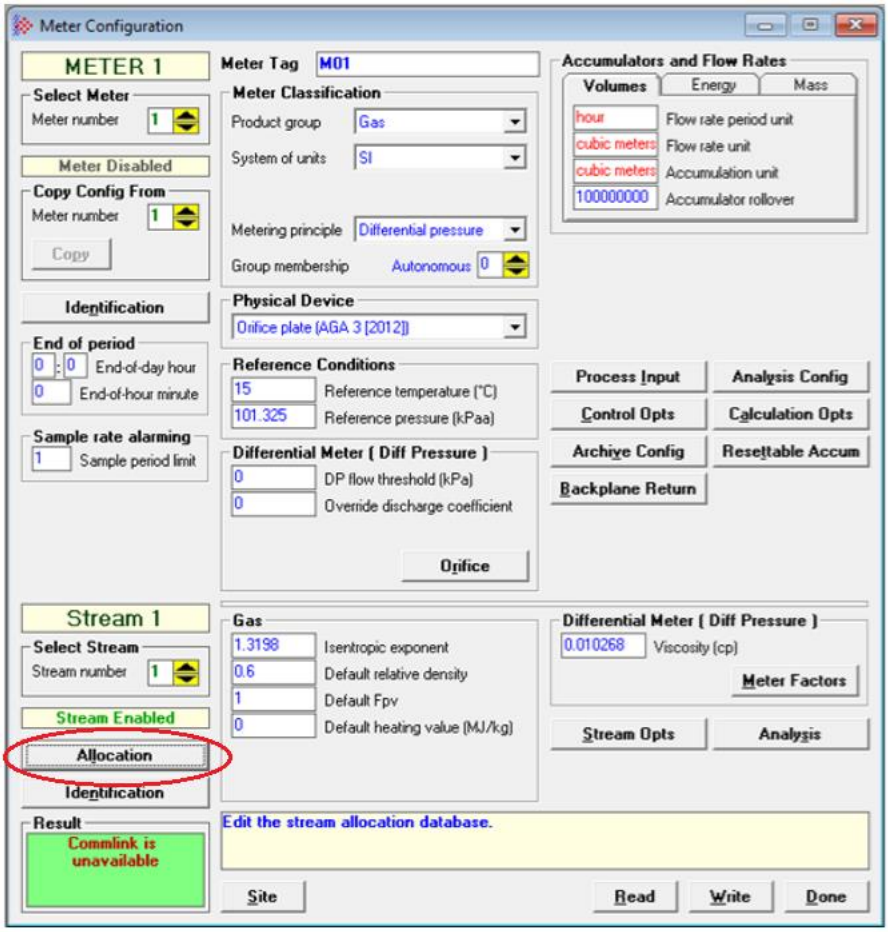
2.5 EAFC Manager

This section describes the *Meter Stream Allocation* changes for each meter in the EAFC Manager software.

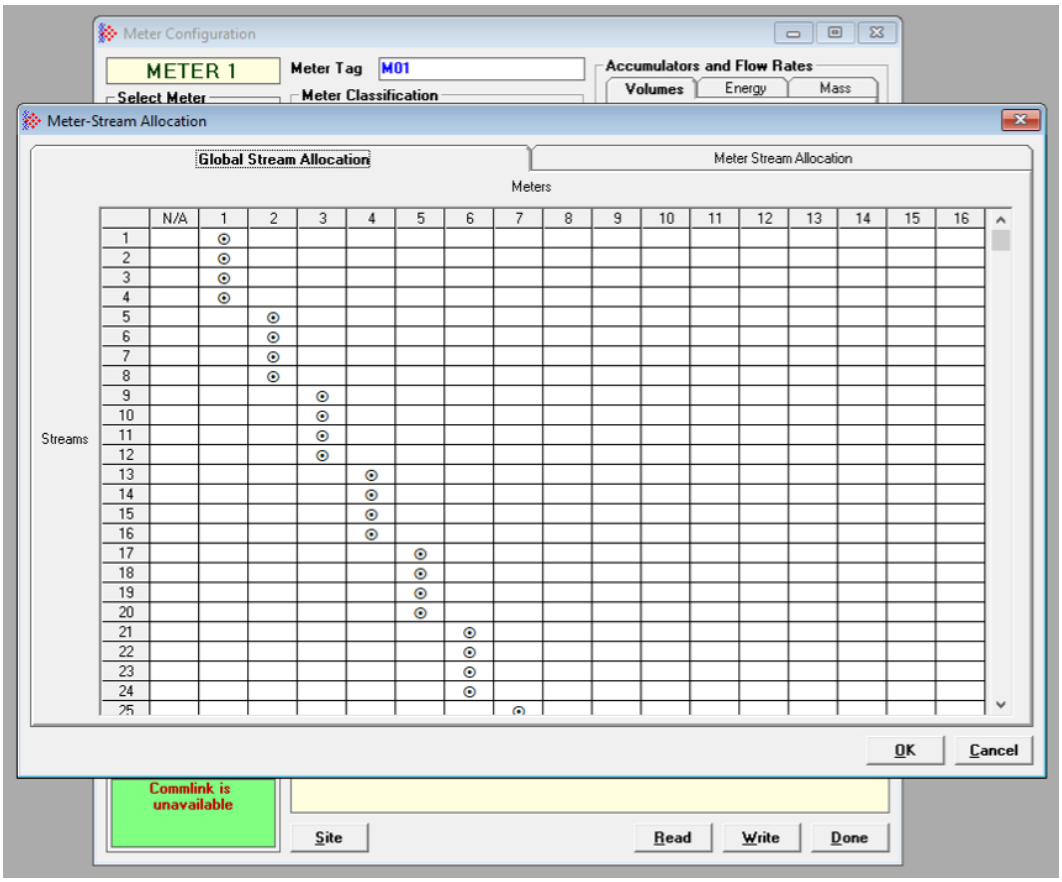
1 Click on **PROJECT** > **METER CONFIGURATION…**



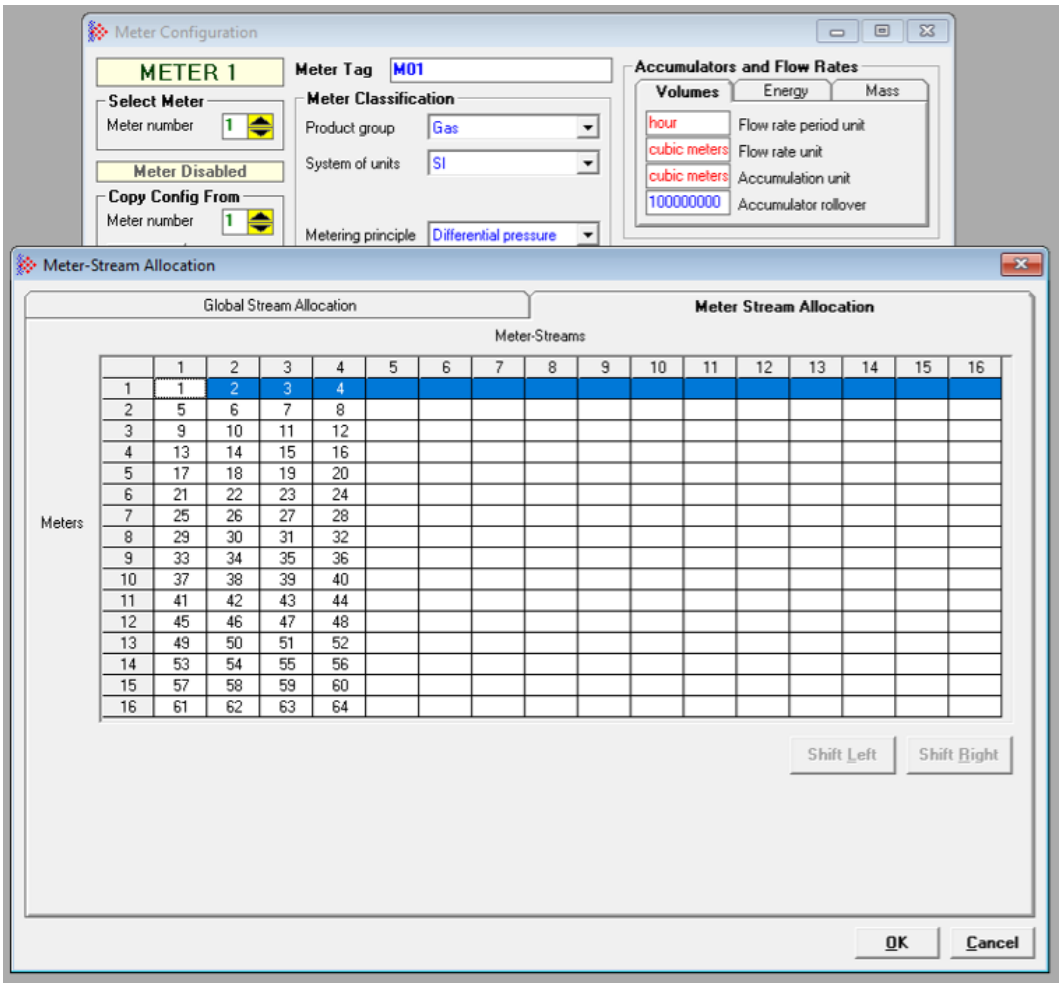
2 In the *Meter Configuration* dialog, click on the **ALLOCATION** button.



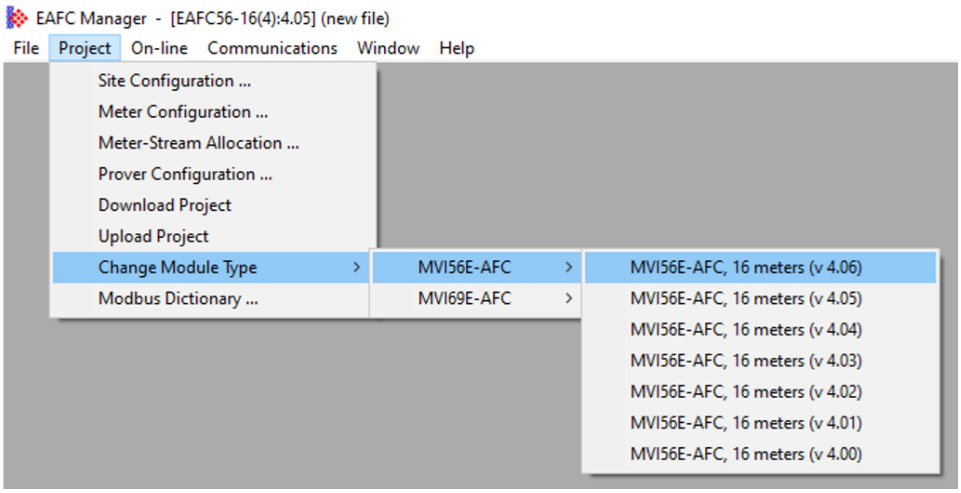
3 The *Meter-Stream Allocation* dialog contains the current allocation structure of the Global and Meter streams.



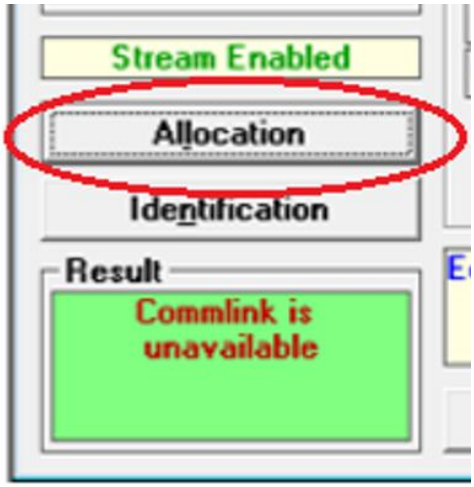
4 Conduct the same upgrade steps from section *2.2* through *2.4*, for the AFC file. The Stream Allocation structure changes after **v4.06.001** EAFC Manager.



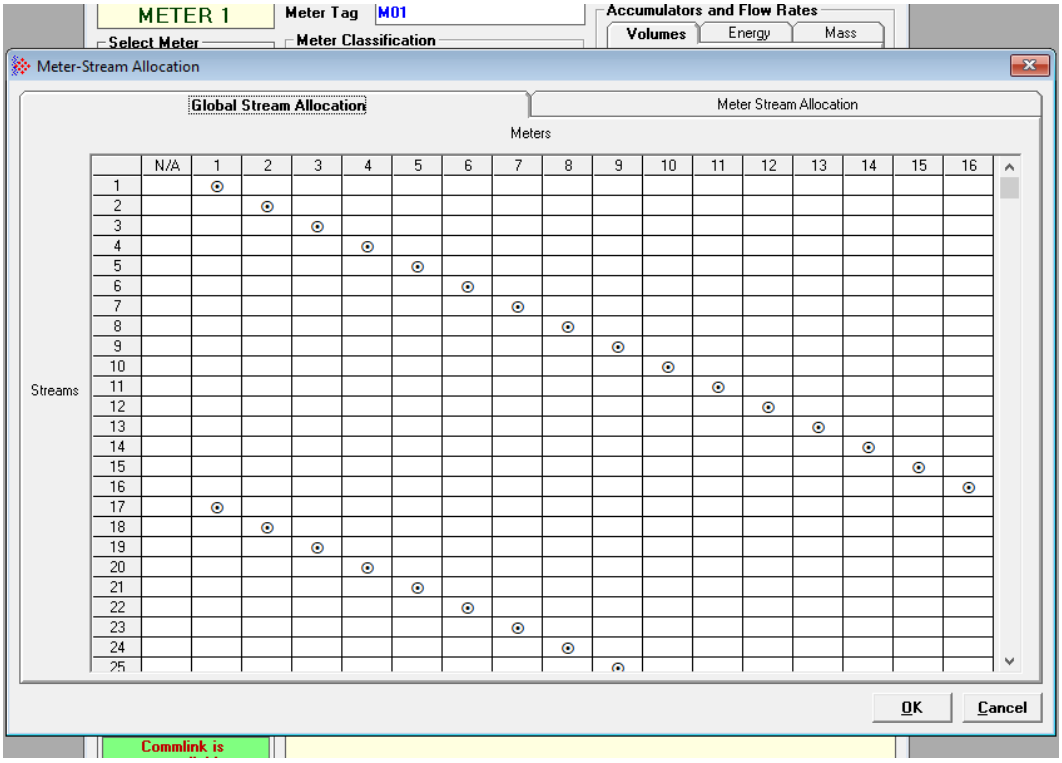
5 Upgrade Stream Allocation to v4.06 by clicking **PROJECT** > **CHANGE MODULE TYPE** > **MVIXX-AFC** > **MVIXXE-AFC, 16 METERS (V 4.06)**.



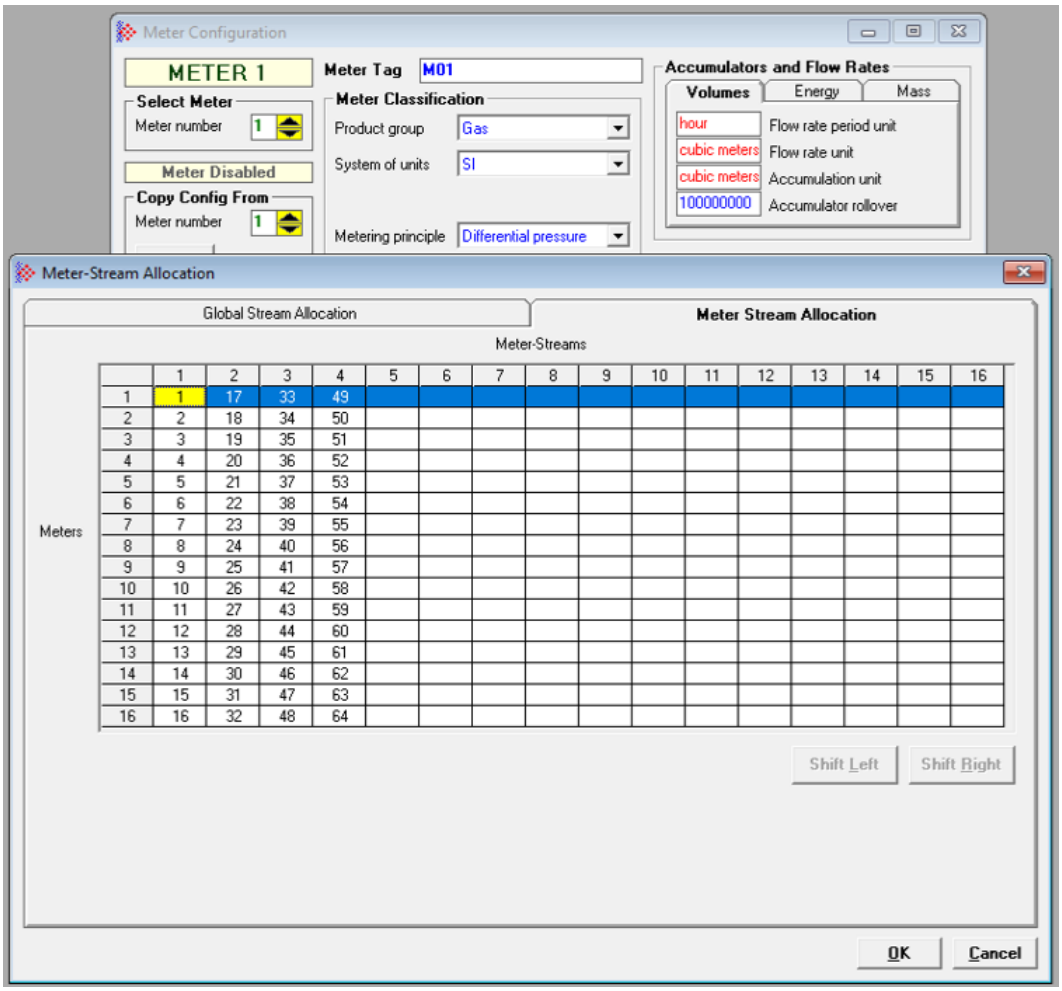
6 After the upgrade is complete, click on the **ALLOCATION** button in the Meter Configuration dialog.



7 The *Global Stream Allocation* tab has been updated.



8 Click on the *Meter Stream Allocation* tab to verify the updates.



3 Support, Service, and Warranty

3.1 Contacting Technical Support

ProSoft Technology, Inc. is committed to providing the most efficient and effective support possible. Before calling, please gather the following information to assist in expediting this process:

1. Product Version Number
2. System architecture
3. Network details

If the issue is hardware related, we will also need information regarding:

1. Module configuration and associated ladder files, if any
2. Module operation and any unusual behavior
3. Configuration/Debug status information
4. LED patterns
5. Details about the interfaced serial, Ethernet or Fieldbus devices

North America (Corporate Location)	Europe / Middle East / Africa Regional Office
Phone: +1 661-716-5100 ps.prosofttechnology@belden.com Languages spoken: English, Spanish REGIONAL TECH SUPPORT ps.support@belden.com	Phone: +33.(0)5.34.36.87.20 ps.europe@belden.com Languages spoken: English, French, Hindi, Italian REGIONAL TECH SUPPORT ps.support.emea@belden.com
Latin America Regional Office	**Asia Pacific Regional Office**
Phone: +52.222.264.1814 ps.latinam@belden.com Languages spoken: English, Spanish, Portuguese REGIONAL TECH SUPPORT ps.support.la@belden.com	Phone: +60.3.2247.1898 ps.asiapc@belden.com Languages spoken: Bahasa, Chinese, English, Hindi, Japanese, Korean, Malay REGIONAL TECH SUPPORT ps.support.ap@belden.com

For additional ProSoft Technology contacts in your area, please visit:
www.prosoft-technology.com/About-Us/Contact-Us

3.2 Warranty Information

For complete details regarding ProSoft Technology's legal terms and conditions, please see:
www.prosoft-technology.com/ProSoft-Technology-Legal-Terms-and-Conditions

For Return Material Authorization information, please see:
www.prosoft-technology.com/RMA