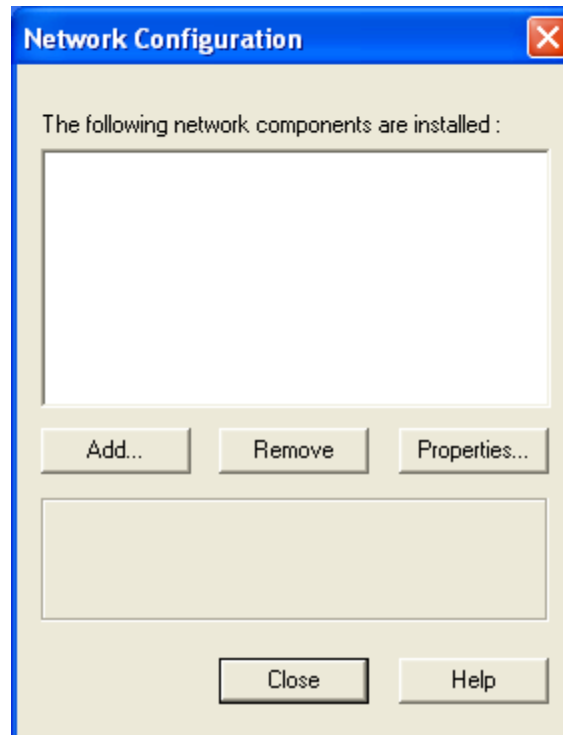
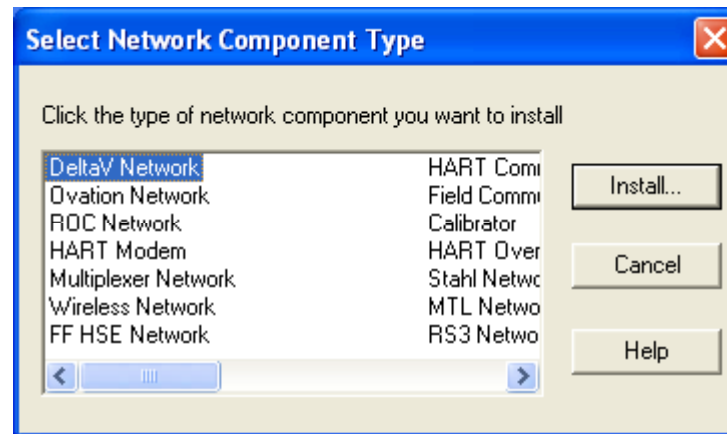


How to configure and Identify Profibus DP devices

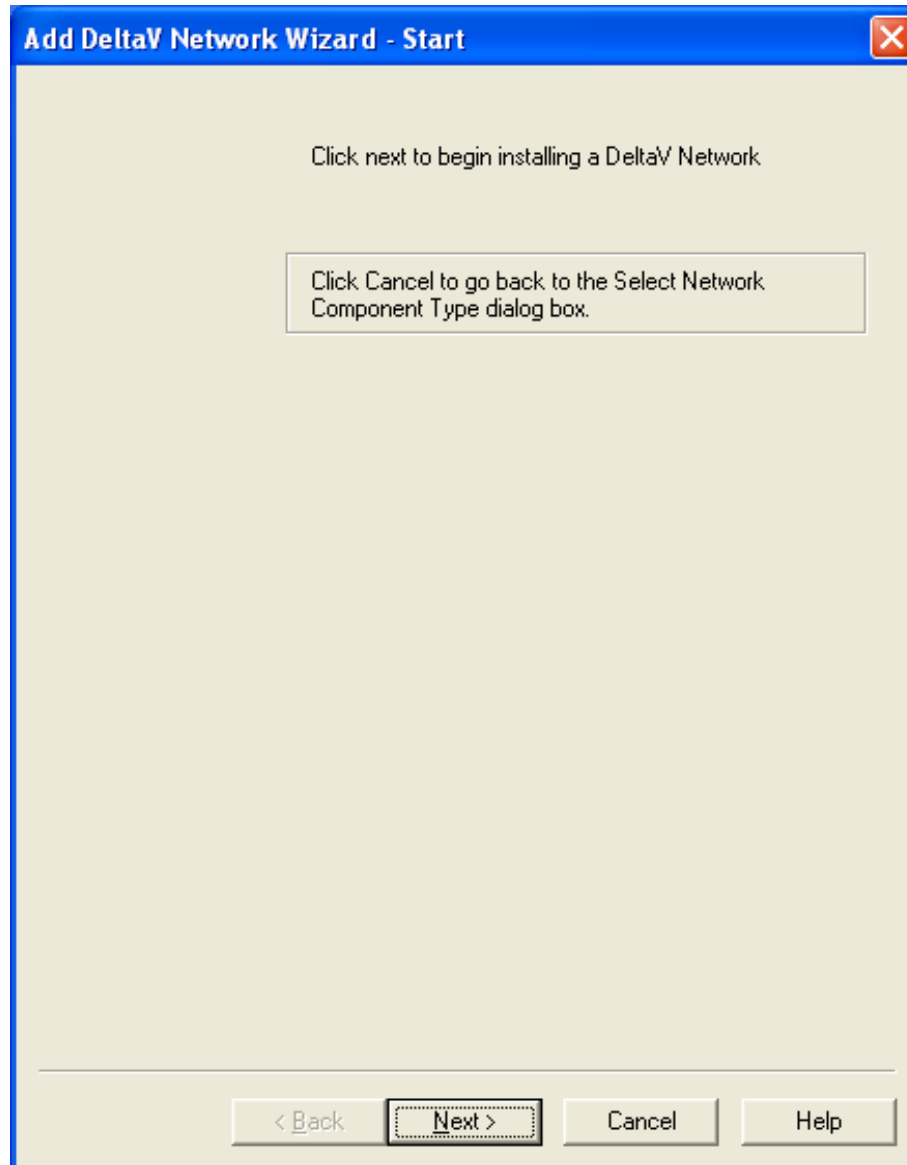
After Installing AMS Device Manager you need to configure a network



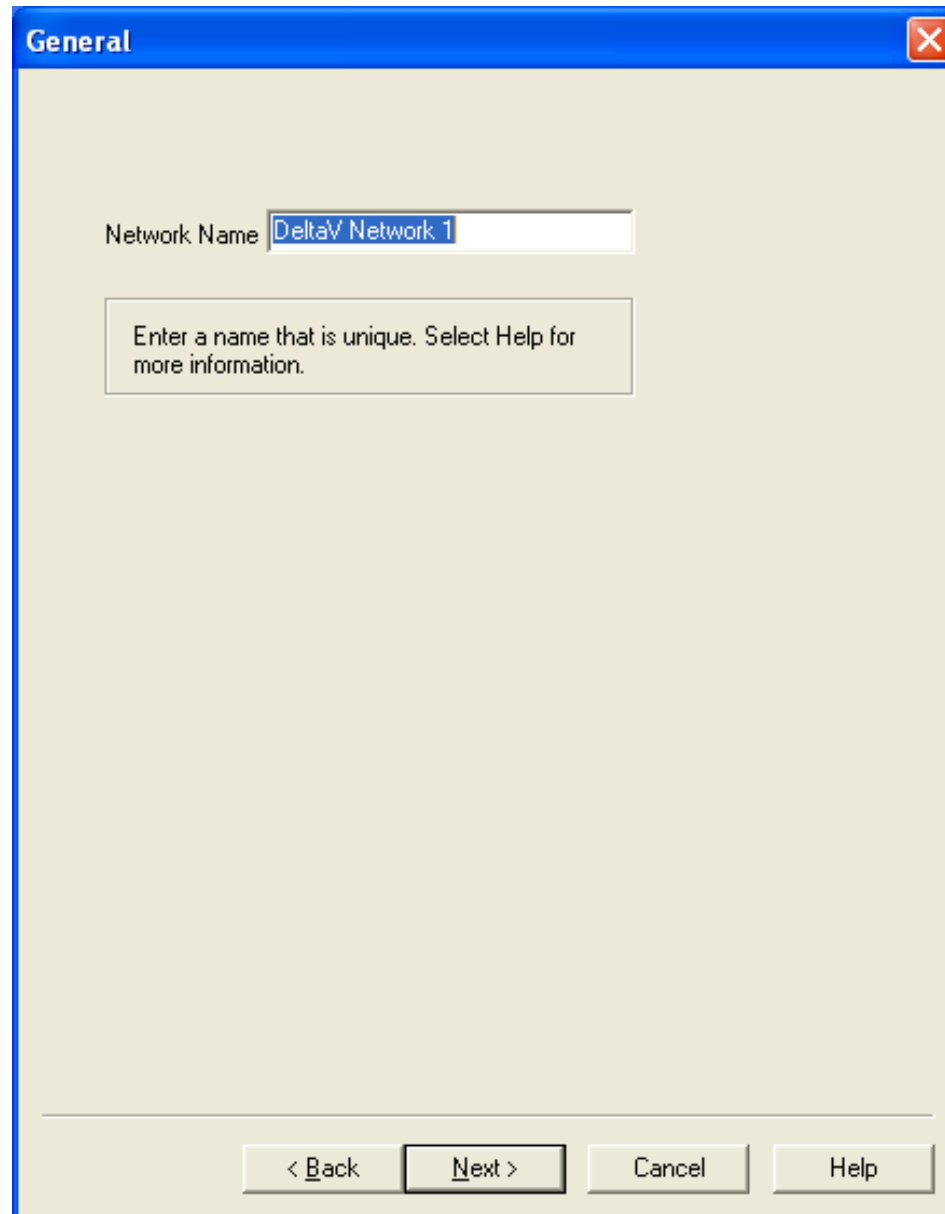
Currently only DeltaV supports ProfibusDP



First Step of the wizard



Enter a Network Name



The image shows a Windows-style dialog box titled "General" with a blue title bar and a red close button in the top right corner. The main area has a light beige background. A label "Network Name" is positioned to the left of a text input field. The input field contains the text "DeltaV Network 1". Below the input field is a rectangular box containing the instruction: "Enter a name that is unique. Select Help for more information." At the bottom of the dialog, there is a horizontal line above four buttons: "< Back", "Next >", "Cancel", and "Help". The "Next >" button is highlighted with a black border.

General

Network Name

Enter a name that is unique. Select Help for more information.

< Back Next > Cancel Help

The password is “Emerson1”

Connection

☒ Connect to a DeltaV System.

DeltaV System Parameters

DeltaV ProPlus: usrtc-fredmid2

DeltaV Password: xxxxxxx

Confirm Password: xxxxxxx

The DeltaV password is an administrative password given to each DeltaV system. The same password must be used to access all DeltaV networks configured on this station.

If no password is entered, a connection will be attempted using the default DeltaV password.

Supported Devices

Enable at least one of the following:

- ☒ HART
- ☒ FOUNDATION Fieldbus
- ☒ Wireless HART
- ☒ PROFIBUS DP

☐ Connect to Simulated DeltaV System.

Simulated DeltaV System Parameters

Select the ID of the simulation file to use: 5

< Back Next > Cancel Help

Click Finish

Advanced

Provox I/O on DeltaV

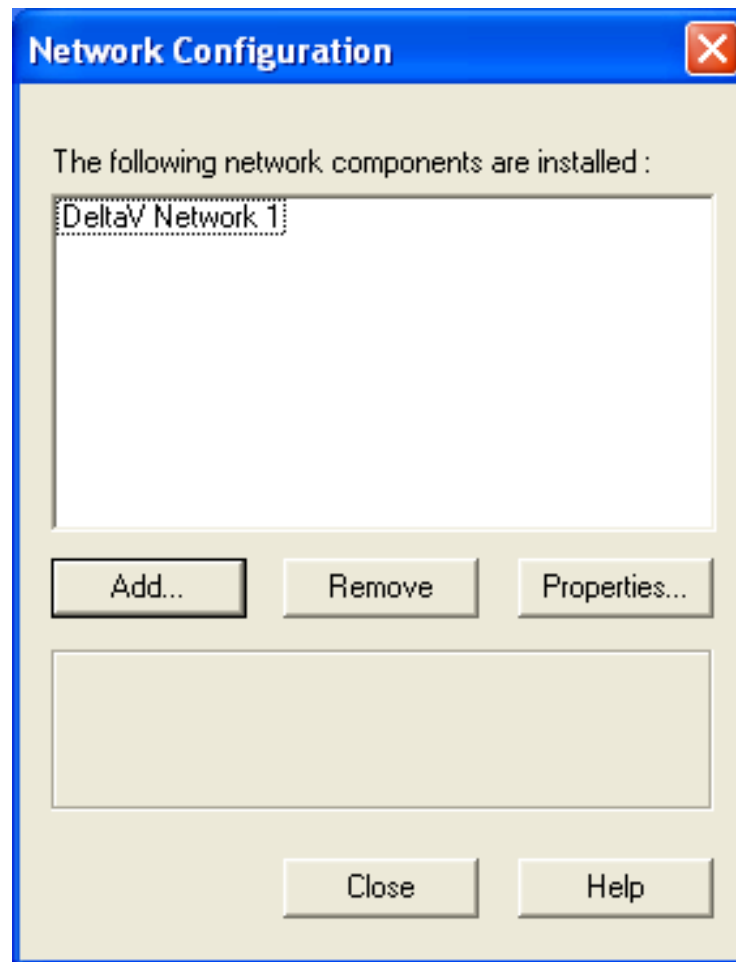
Poll Address Range

If you have Provox I/O on your DeltaV, you can adjust the HART Poll Address Range that AMS Device Manager will use to locate and communicate with HART devices connected to that I/O. If no Provox I/O is available, leave the High and Low Addresses at 0.

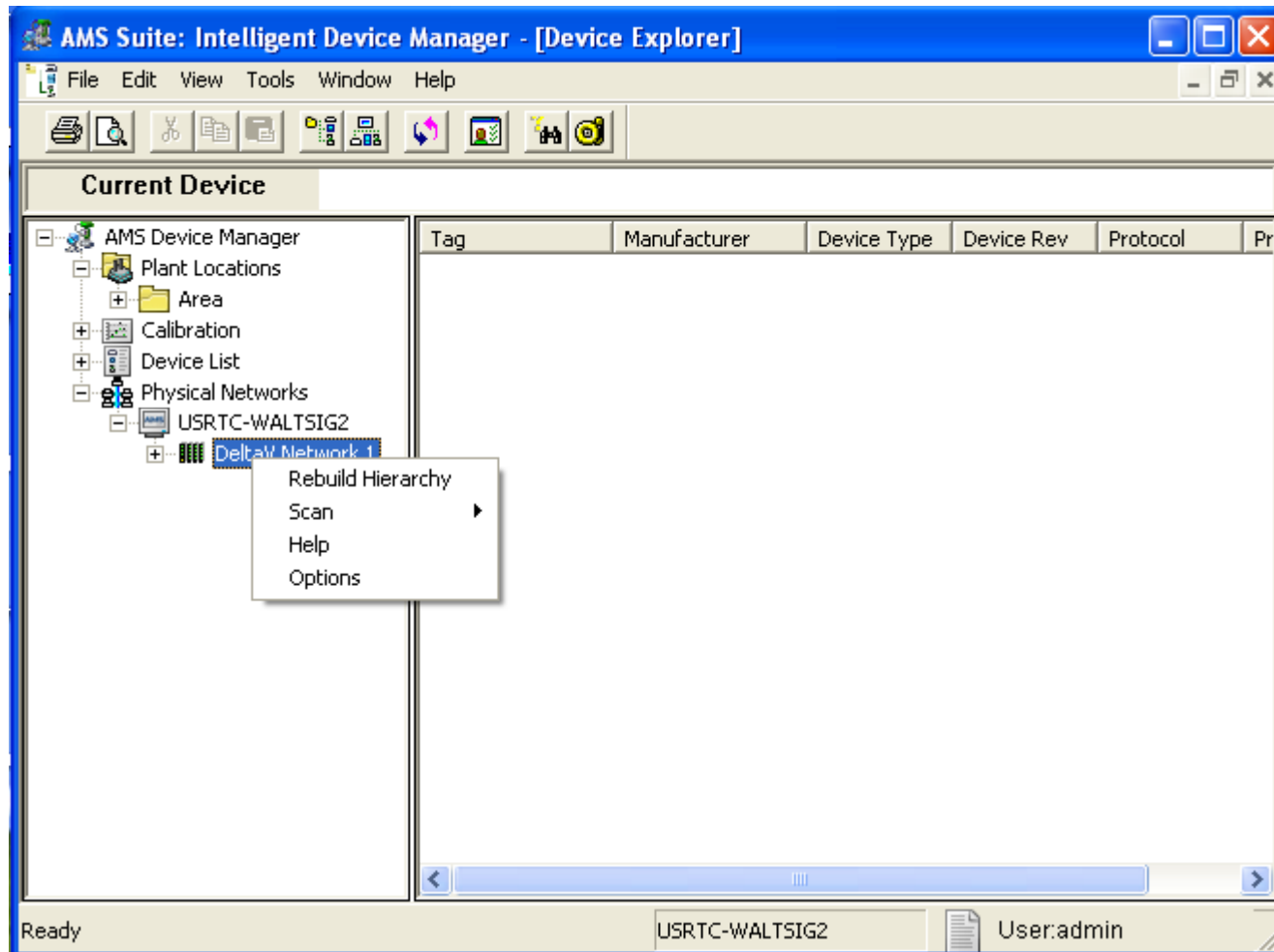
Low Address	High Address
<input type="text" value="0"/>	<input type="text" value="0"/>

< Back **Finish** Cancel Help

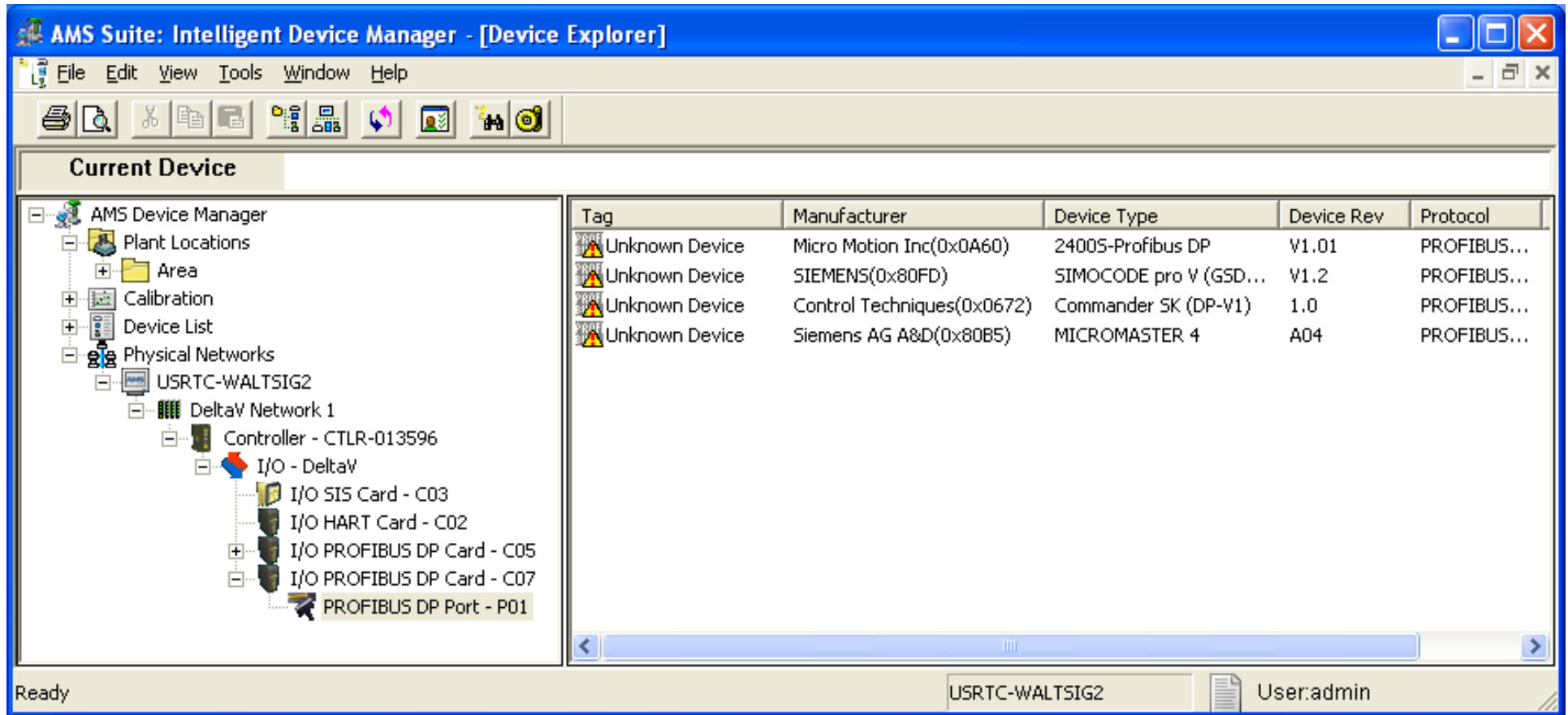
We now have DeltaV configured



Start AMS Device Manager



Rebuild Hierarchy to find un-identified Profibus devices



AMS Suite: Intelligent Device Manager - [Device Explorer]

File Edit View Tools Window Help

Current Device

AMS Device Manager

- Plant Locations
 - Area
- Calibration
- Device List
- Physical Networks
 - USRTC-WALTSIG2
 - DeltaV Network 1
 - Controller - CTRLR-013596
 - I/O - DeltaV
 - I/O SIS Card - C03
 - I/O HART Card - C02
 - I/O PROFIBUS DP Card - C05
 - I/O PROFIBUS DP Card - C07
 - PROFIBUS DP Port - P01

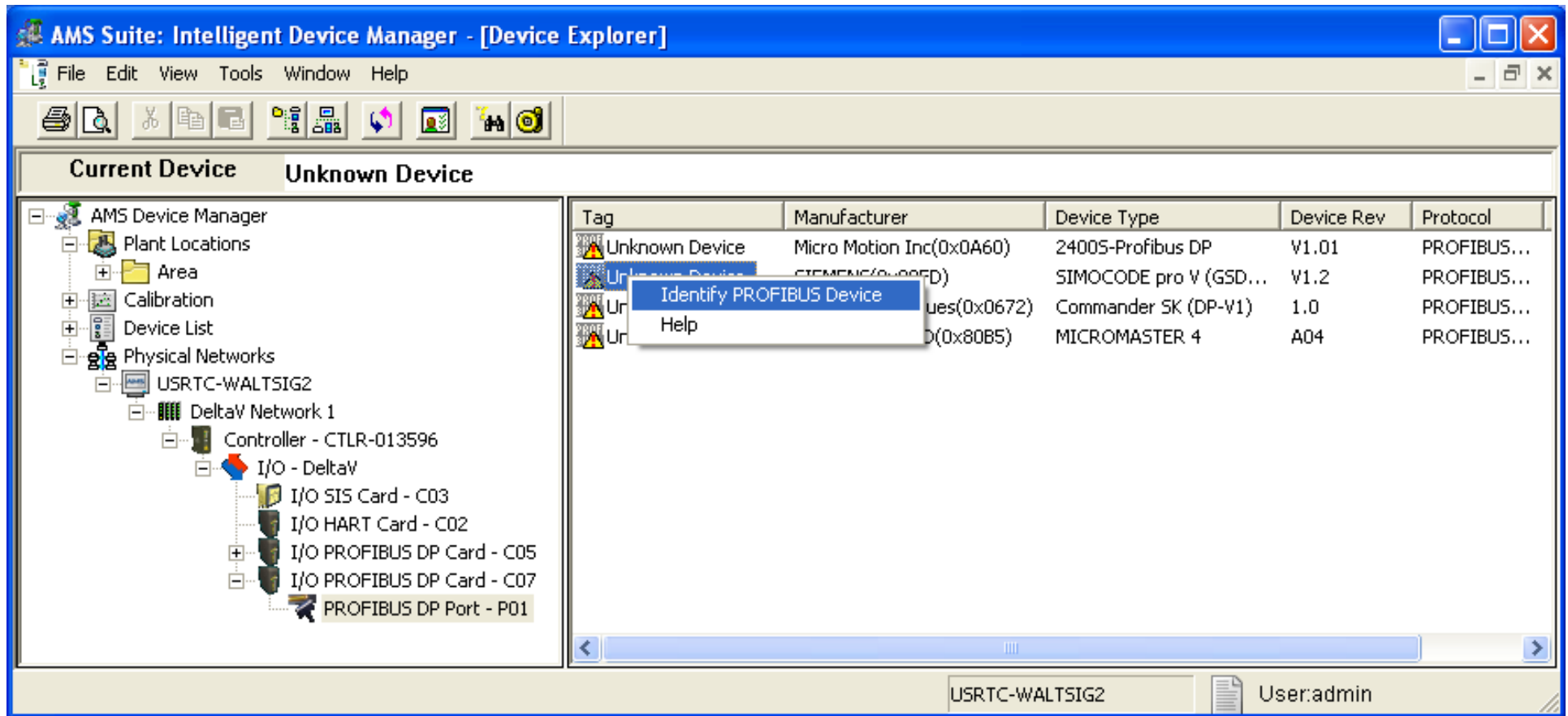
Tag	Manufacturer	Device Type	Device Rev	Protocol
Unknown Device	Micro Motion Inc(0x0A60)	2400S-Profibus DP	V1.01	PROFIBUS...
Unknown Device	SIEMENS(0x80FD)	SIMOCODE pro V (GSD...	V1.2	PROFIBUS...
Unknown Device	Control Techniques(0x0672)	Commander SK (DP-V1)	1.0	PROFIBUS...
Unknown Device	Siemens AG A&D(0x80B5)	MICROMASTER 4	A04	PROFIBUS...

Ready

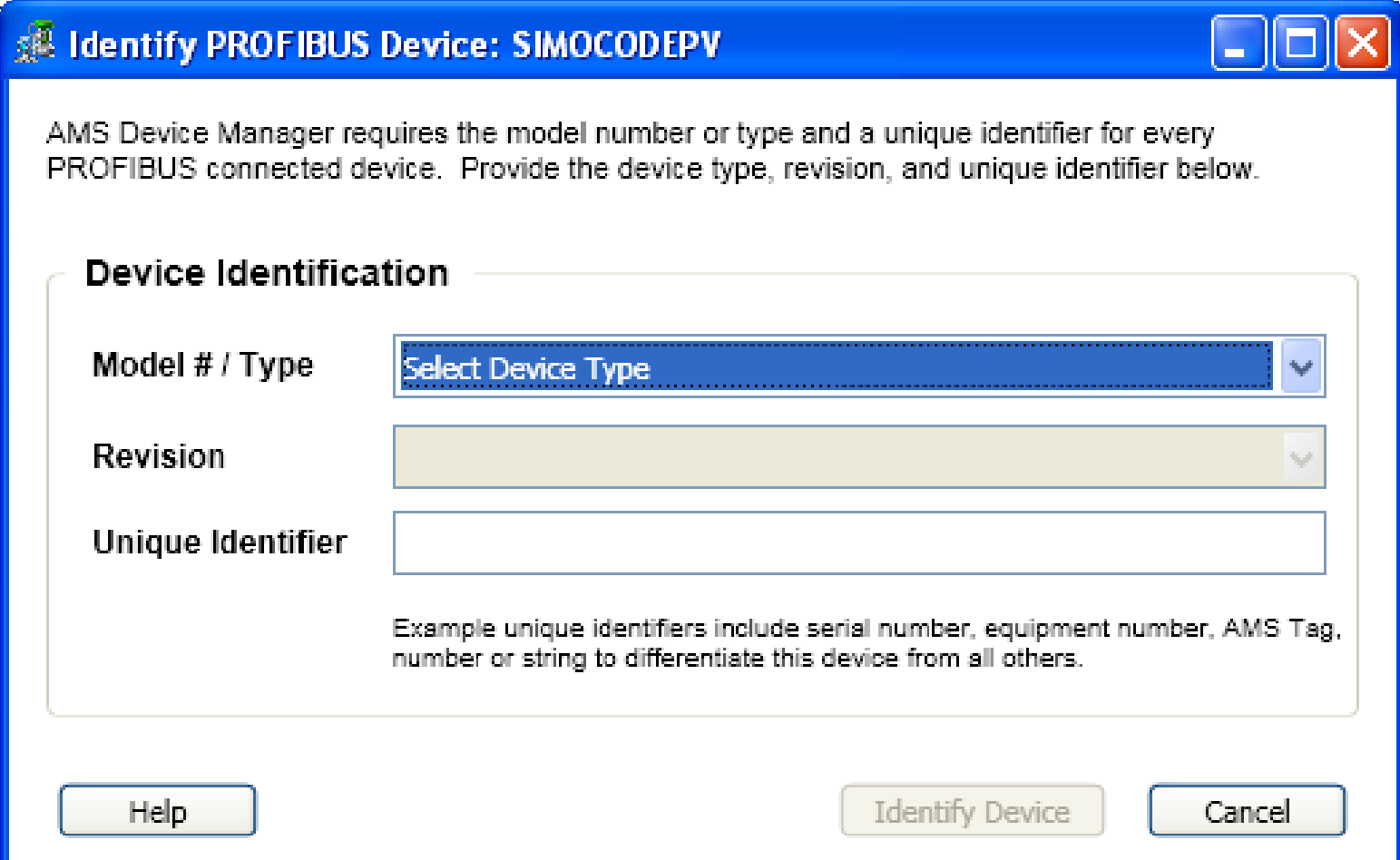
USRTC-WALTSIG2

User:admin

Select “Identify PROFIBUS Device” from the device context menu.



This launches the Identify Device Screen



Identify PROFIBUS Device: SIMOCODEPV

AMS Device Manager requires the model number or type and a unique identifier for every PROFIBUS connected device. Provide the device type, revision, and unique identifier below.

Device Identification

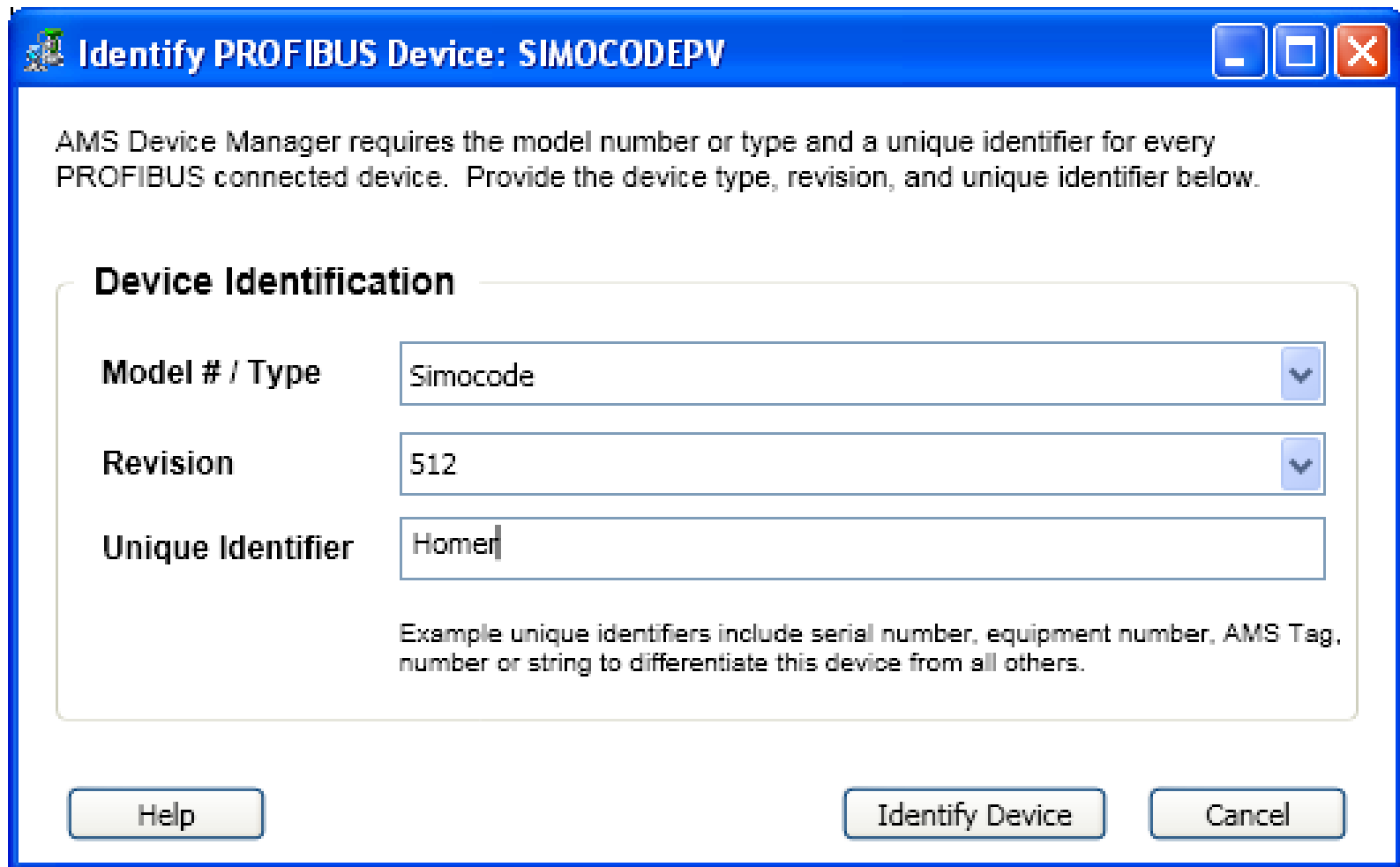
Model # / Type

Revision

Unique Identifier

Example unique identifiers include serial number, equipment number, AMS Tag, number or string to differentiate this device from all others.

Enter a Unique Identifier – this is your choice.



Identify PROFIBUS Device: SIMOCODEPV

AMS Device Manager requires the model number or type and a unique identifier for every PROFIBUS connected device. Provide the device type, revision, and unique identifier below.

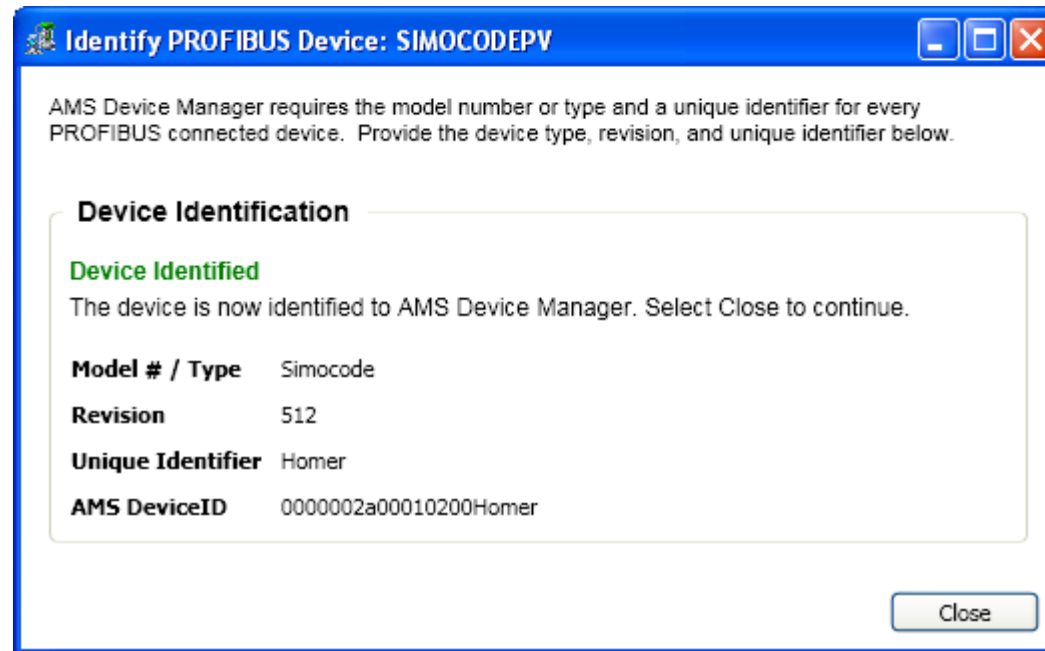
Device Identification

Model # / Type	Simocode
Revision	512
Unique Identifier	Homer

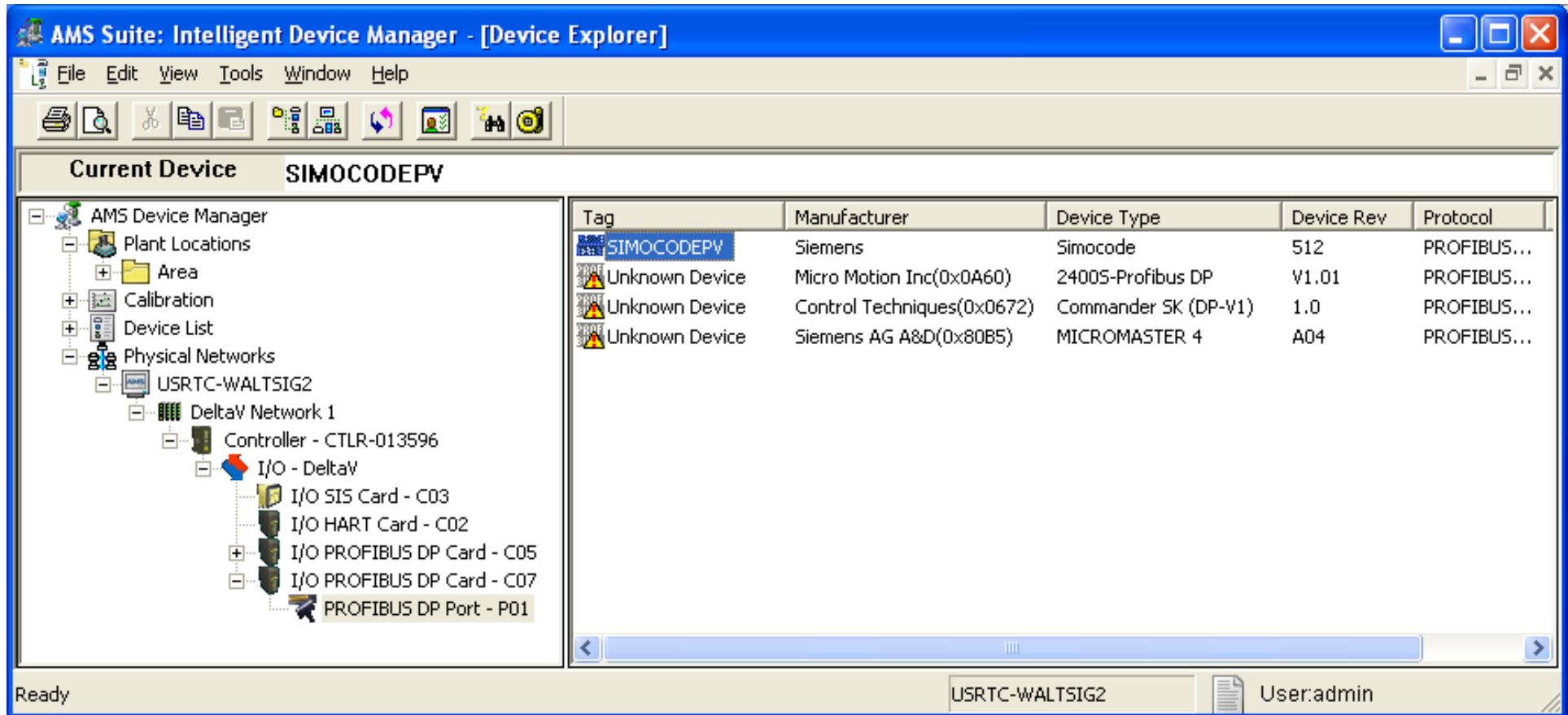
Example unique identifiers include serial number, equipment number, AMS Tag, number or string to differentiate this device from all others.

Help Identify Device Cancel

Success looks like this:



After this you should get the blue Profibus icon.



AMS Suite: Intelligent Device Manager - [Device Explorer]

File Edit View Tools Window Help

Current Device: SIMOCODEPV

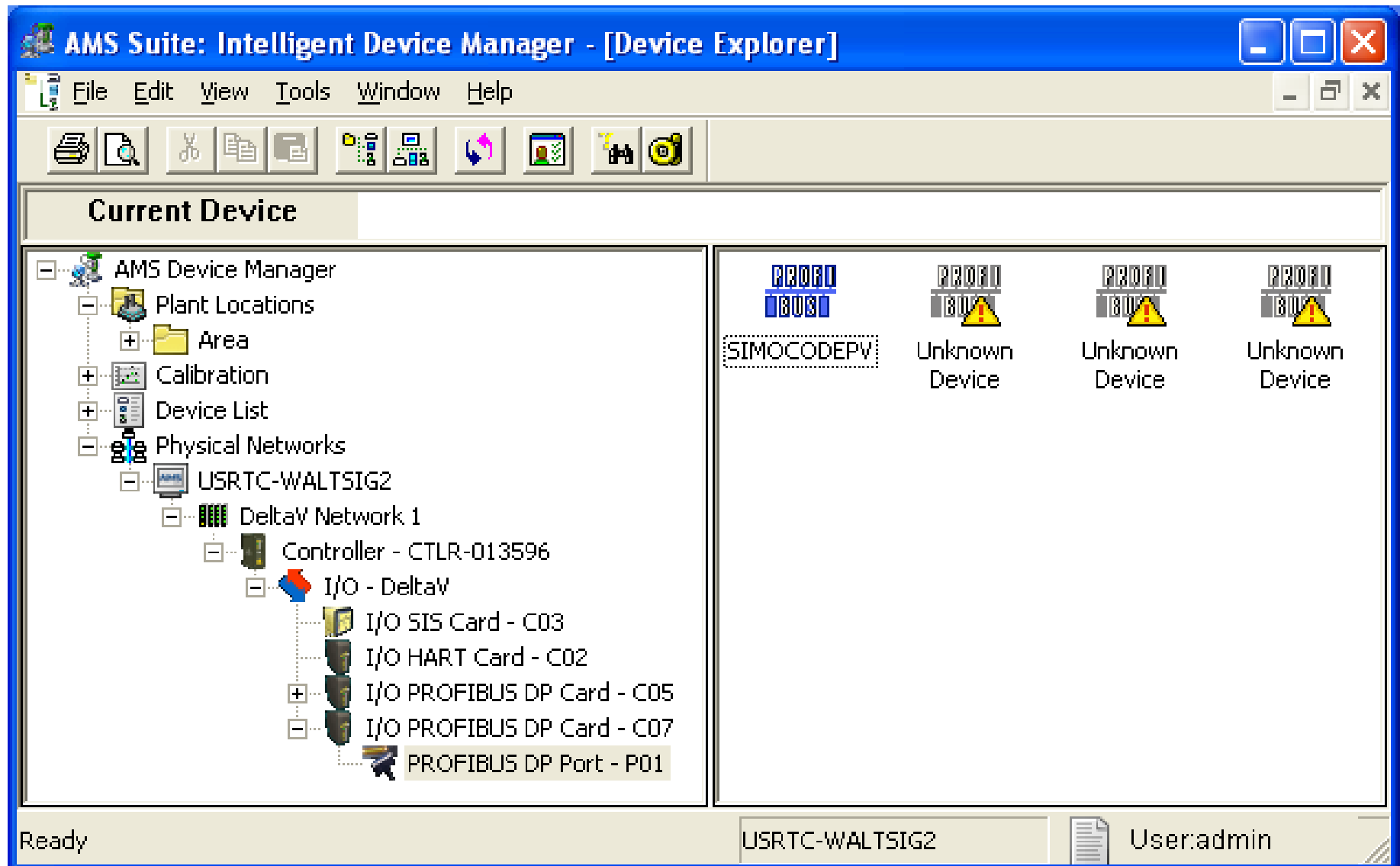
AMS Device Manager

- Plant Locations
 - Area
- Calibration
- Device List
- Physical Networks
 - USRTC-WALTSIG2
 - DeltaV Network 1
 - Controller - CTRL-013596
 - I/O - DeltaV
 - I/O SIS Card - C03
 - I/O HART Card - C02
 - I/O PROFIBUS DP Card - C05
 - I/O PROFIBUS DP Card - C07
 - PROFIBUS DP Port - P01

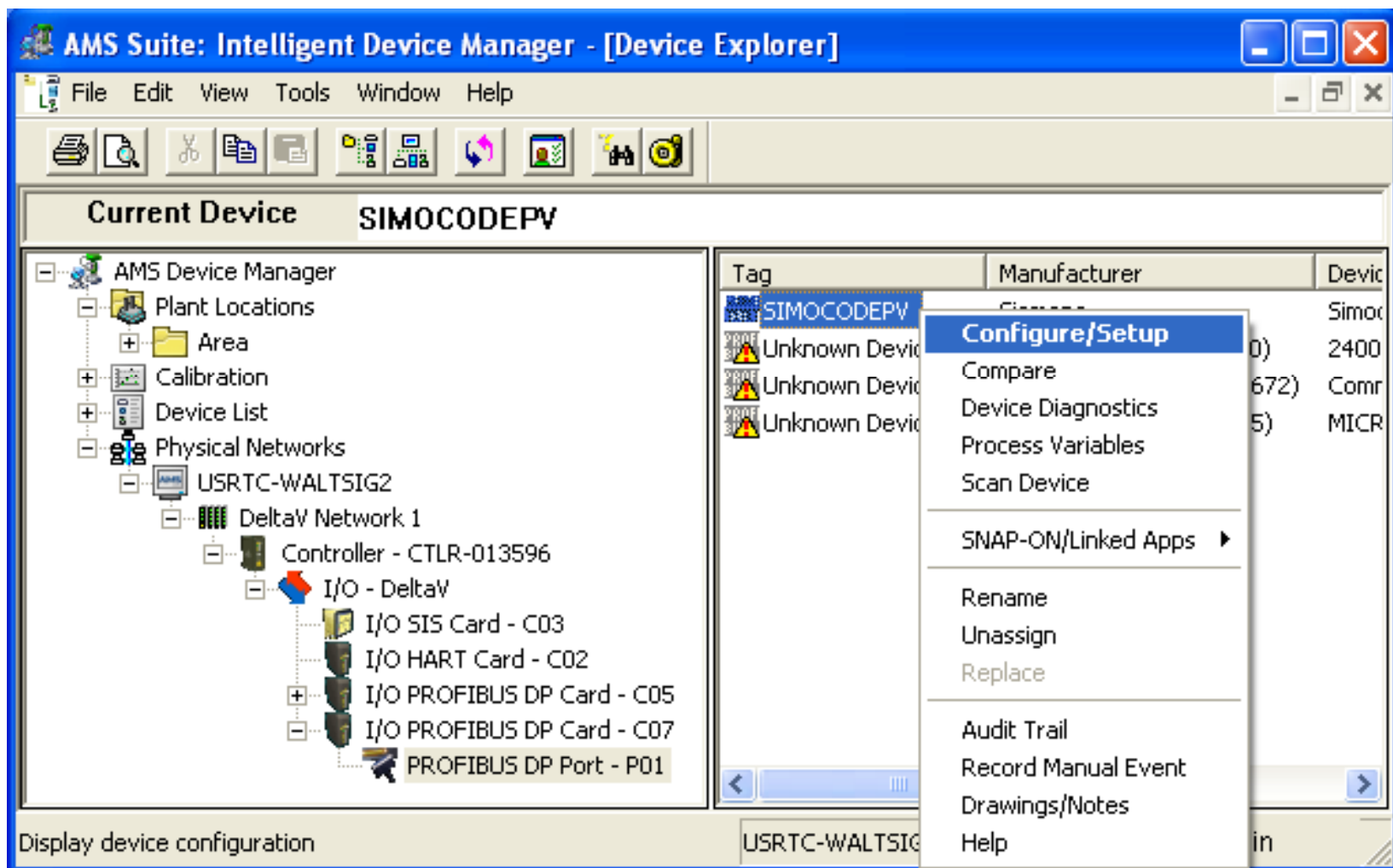
Tag	Manufacturer	Device Type	Device Rev	Protocol
SIMOCODEPV	Siemens	Simocode	512	PROFIBUS...
Unknown Device	Micro Motion Inc(0x0A60)	2400S-Profibus DP	V1.01	PROFIBUS...
Unknown Device	Control Techniques(0x0672)	Commander SK (DP-V1)	1.0	PROFIBUS...
Unknown Device	Siemens AG A&D(0x80B5)	MICROMASTER 4	A04	PROFIBUS...

Ready USRTC-WALTSIG2 User:admin

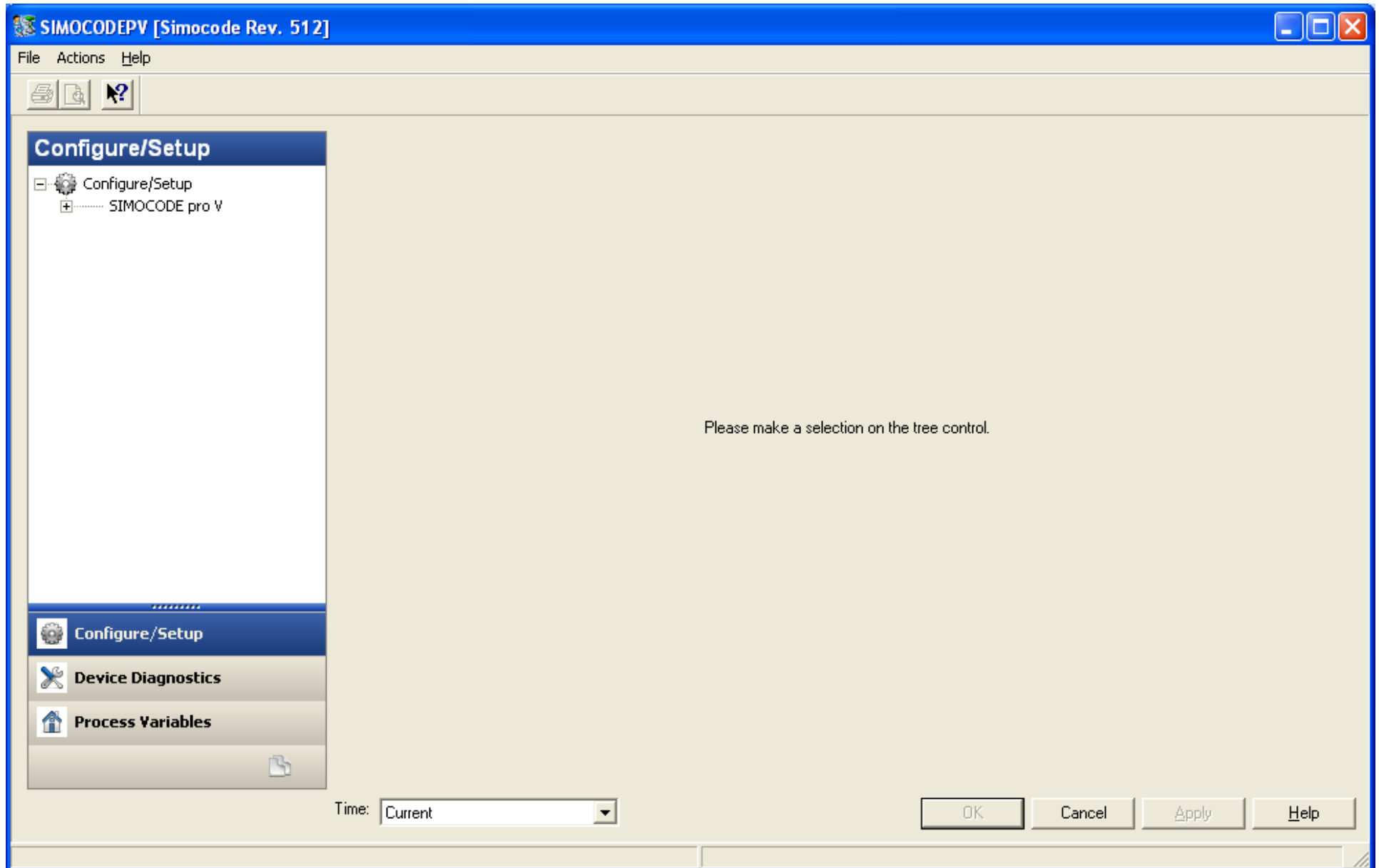
This looks better as large icon.



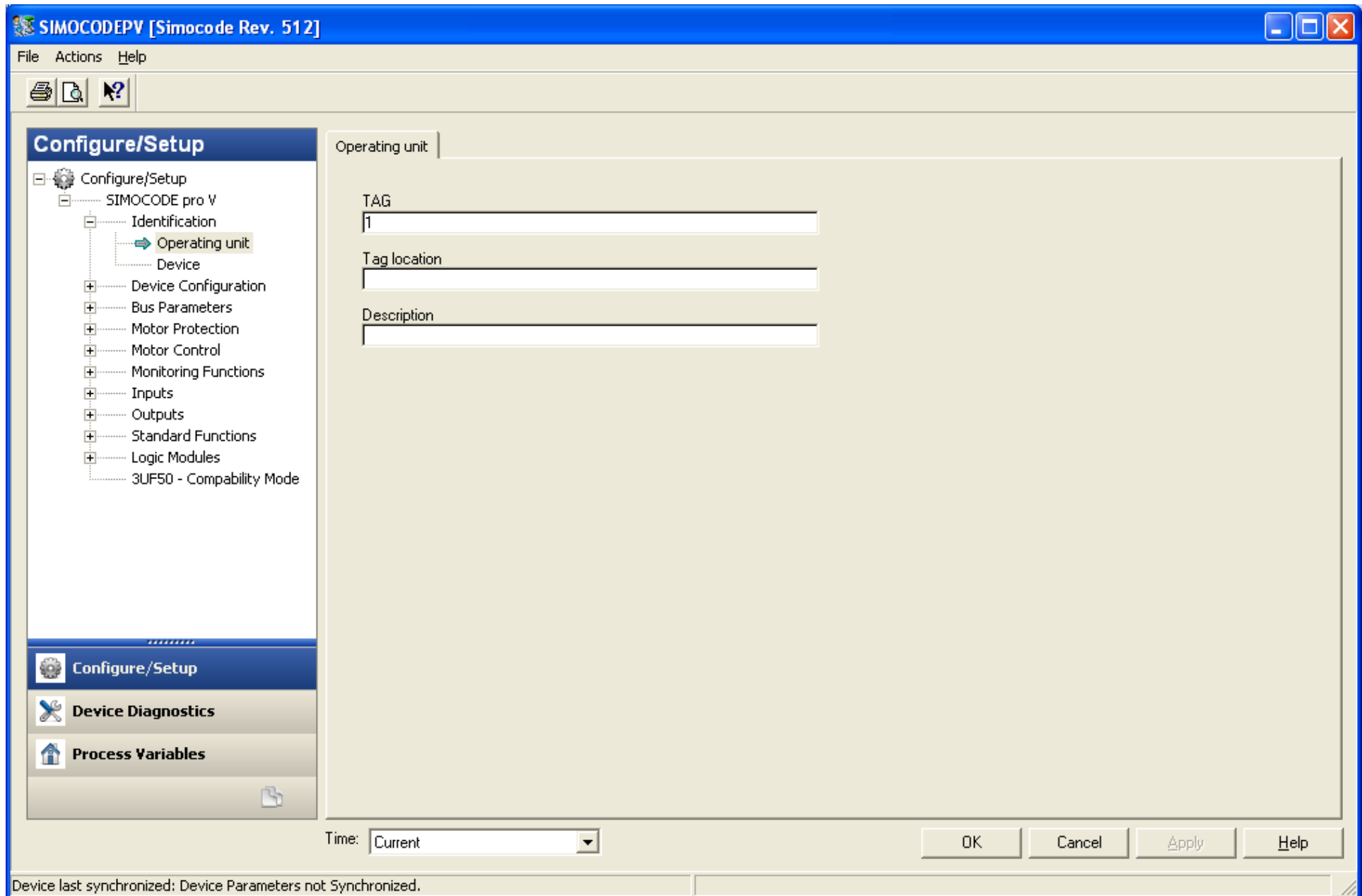
Select Configure:



Simocode configure screen looks like this



Simocode configure screen



SIMOCODEPV [Simocode Rev. 512]

File Actions Help

Configure/Setup

- Configure/Setup
 - SIMOCODE pro V
 - Identification
 - Operating unit**
 - Device
 - Device Configuration
 - Bus Parameters
 - Motor Protection
 - Motor Control
 - Monitoring Functions
 - Inputs
 - Outputs
 - Standard Functions
 - Logic Modules
 - 3UF50 - Compatibility Mode

Operating unit

TAG
1

Tag location

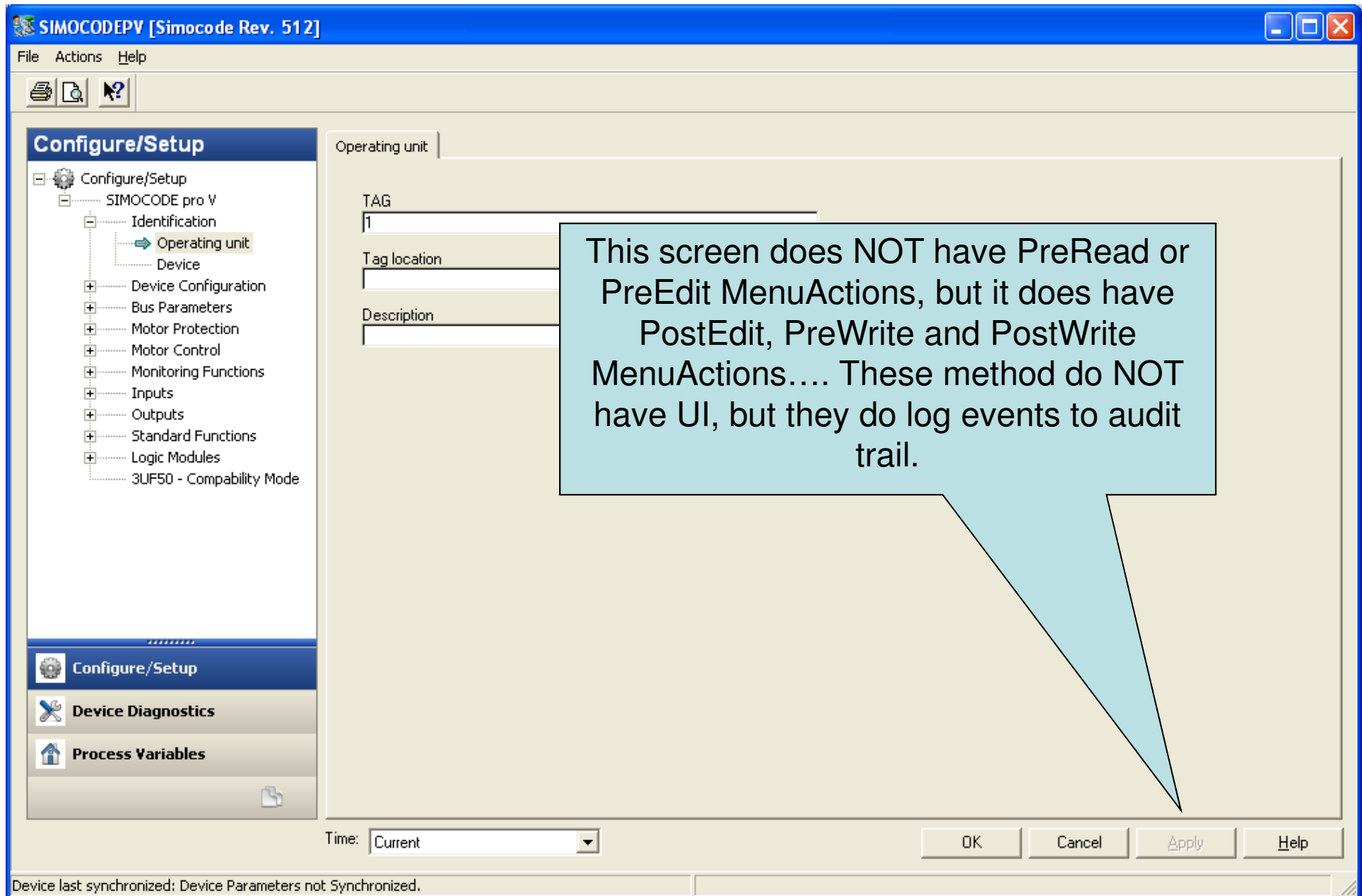
Description

Time: Current

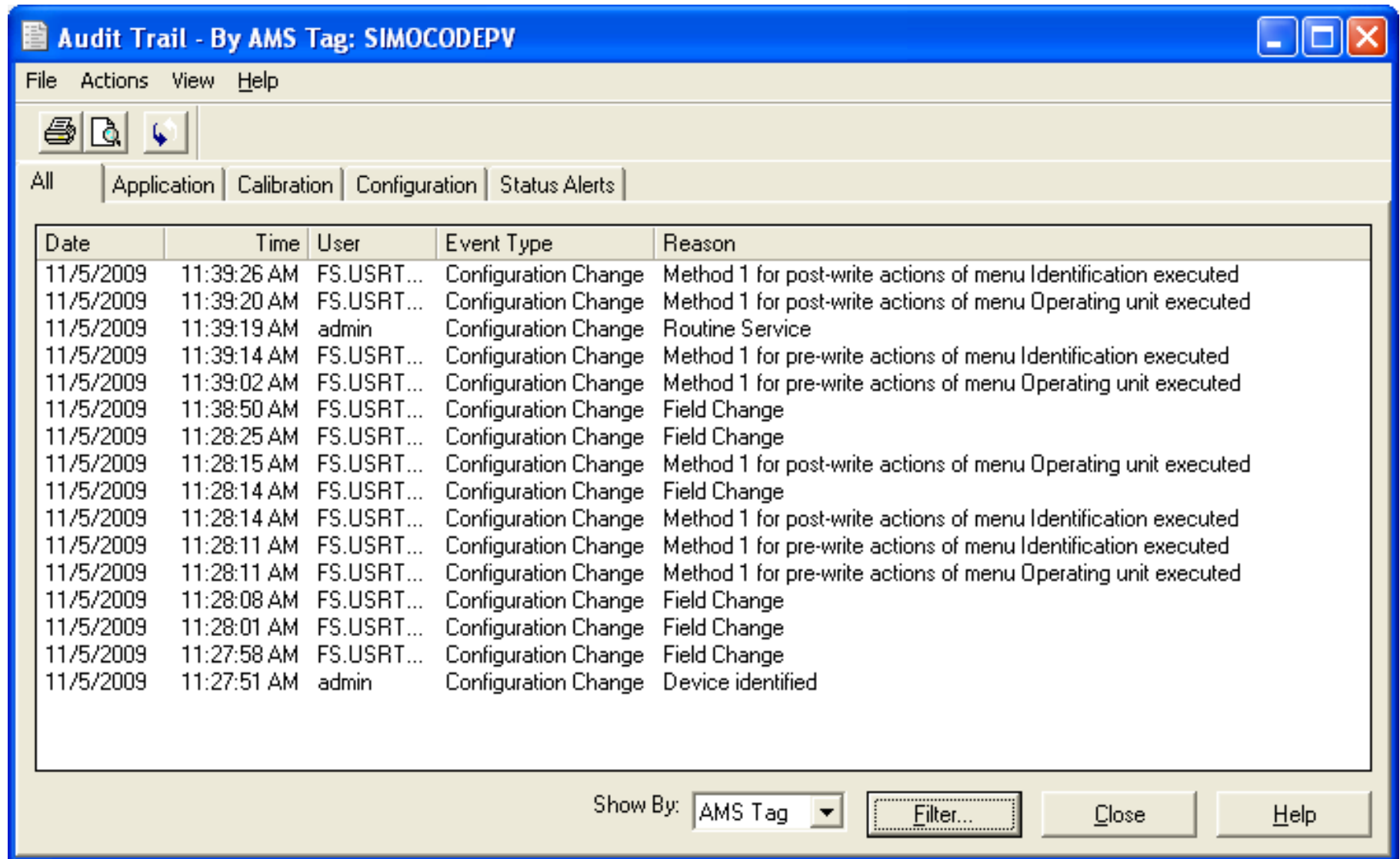
OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

Simocode configure screen



Changing a parameter on the “Operating” menu causes the pre and post MenuActions for all parent menus of the parameter to be executed



Date	Time	User	Event Type	Reason
11/5/2009	11:39:26 AM	FS.USRT...	Configuration Change	Method 1 for post-write actions of menu Identification executed
11/5/2009	11:39:20 AM	FS.USRT...	Configuration Change	Method 1 for post-write actions of menu Operating unit executed
11/5/2009	11:39:19 AM	admin	Configuration Change	Routine Service
11/5/2009	11:39:14 AM	FS.USRT...	Configuration Change	Method 1 for pre-write actions of menu Identification executed
11/5/2009	11:39:02 AM	FS.USRT...	Configuration Change	Method 1 for pre-write actions of menu Operating unit executed
11/5/2009	11:38:50 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:28:25 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:28:15 AM	FS.USRT...	Configuration Change	Method 1 for post-write actions of menu Operating unit executed
11/5/2009	11:28:14 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:28:14 AM	FS.USRT...	Configuration Change	Method 1 for post-write actions of menu Identification executed
11/5/2009	11:28:11 AM	FS.USRT...	Configuration Change	Method 1 for pre-write actions of menu Identification executed
11/5/2009	11:28:11 AM	FS.USRT...	Configuration Change	Method 1 for pre-write actions of menu Operating unit executed
11/5/2009	11:28:08 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:28:01 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:27:58 AM	FS.USRT...	Configuration Change	Field Change
11/5/2009	11:27:51 AM	admin	Configuration Change	Device identified

Simocode Device Diagnostics screen looks like this

SIMOCODEPV [Simocode Rev. 512]

File Actions Help

Device Diagnostics

- Device Diagnostics
- Measured Values

Measured Values | Temperature Module | U(t) diagram | I(t) diagram

Current

- Max. Current I_{max} : 0 % / I_e
- I_{L1} : 0 % / I_e
- I_{L2} : 0 % / I_e
- I_{L3} : 0 % / I_e
- Last Trip Current: 0 % / I_e
- Unbalanced Phase: 0 %

Voltage

- U_{L1} : 0 V
- U_{L2} : 0 V
- U_{L3} : 0 V

Power/ Power Factor

- Active Power P: kW
- Apparent Power S: kVA
- Cos-Phi: 0 %

Thermal Motor Model

- Thermal Memory: %

Loss of Phase

- ☐ On

Cooling Down Period: s

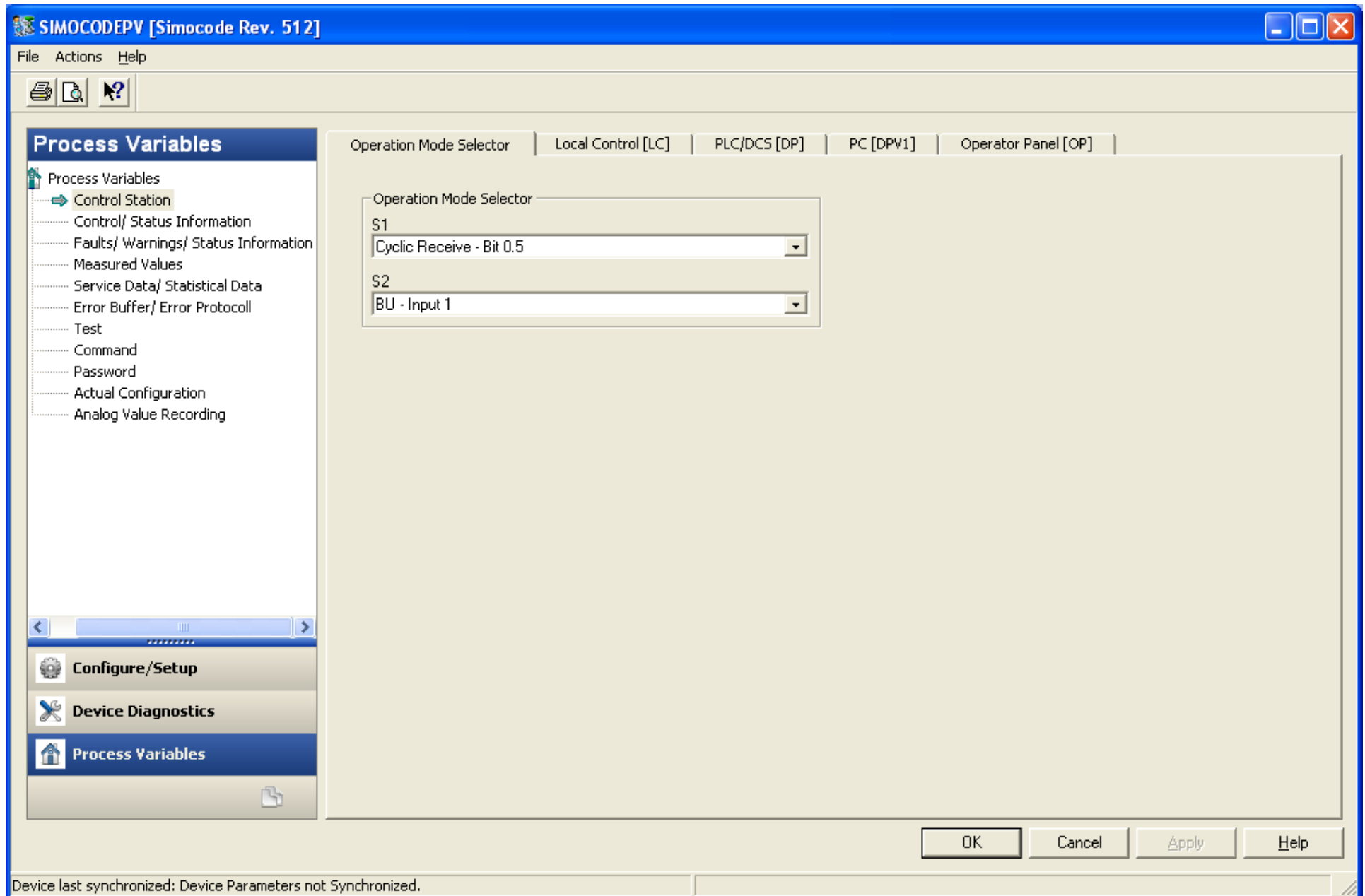
Analog Module

- Input 1: mA
- Input 2: mA
- Output: mA

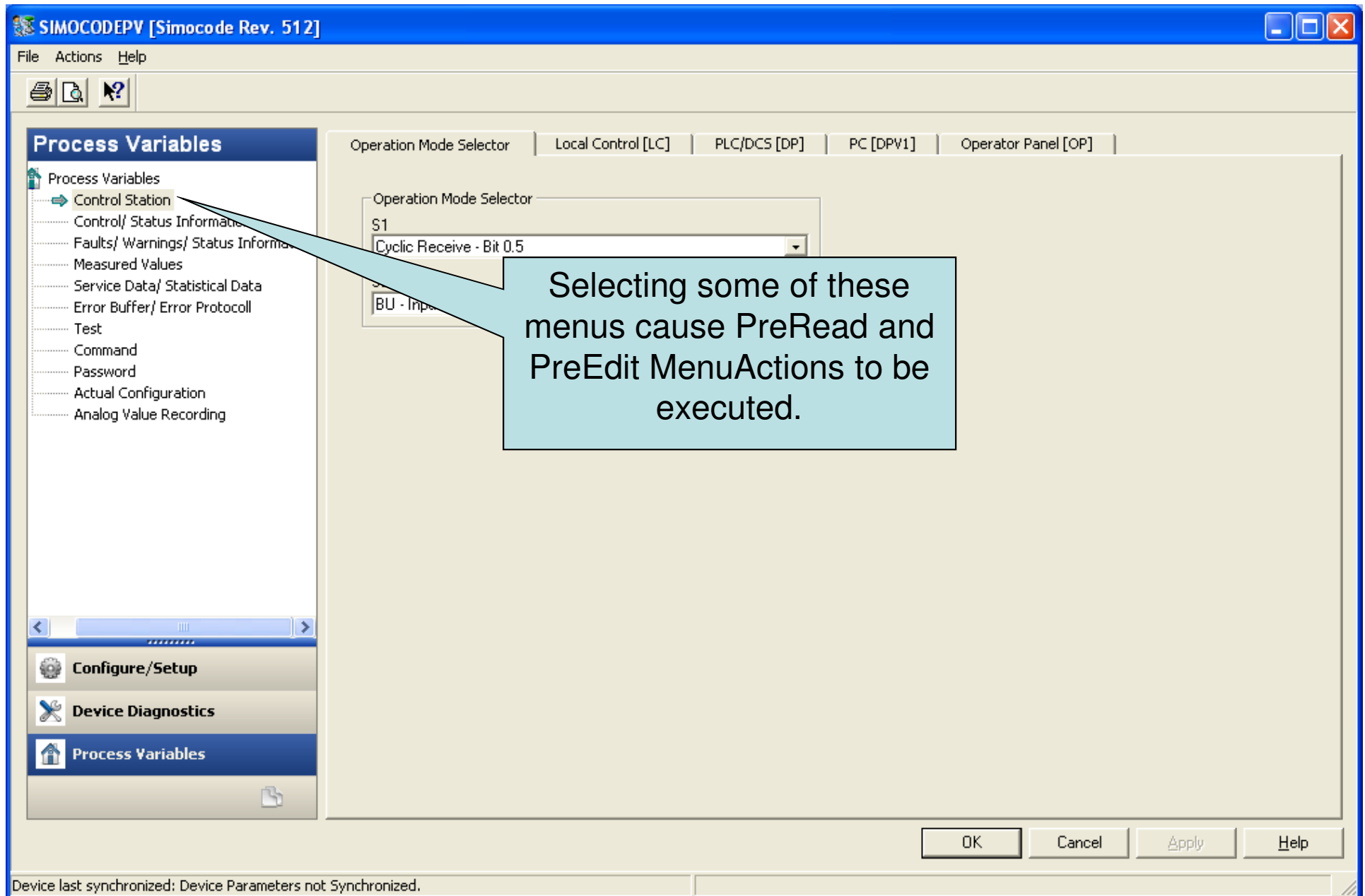
OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

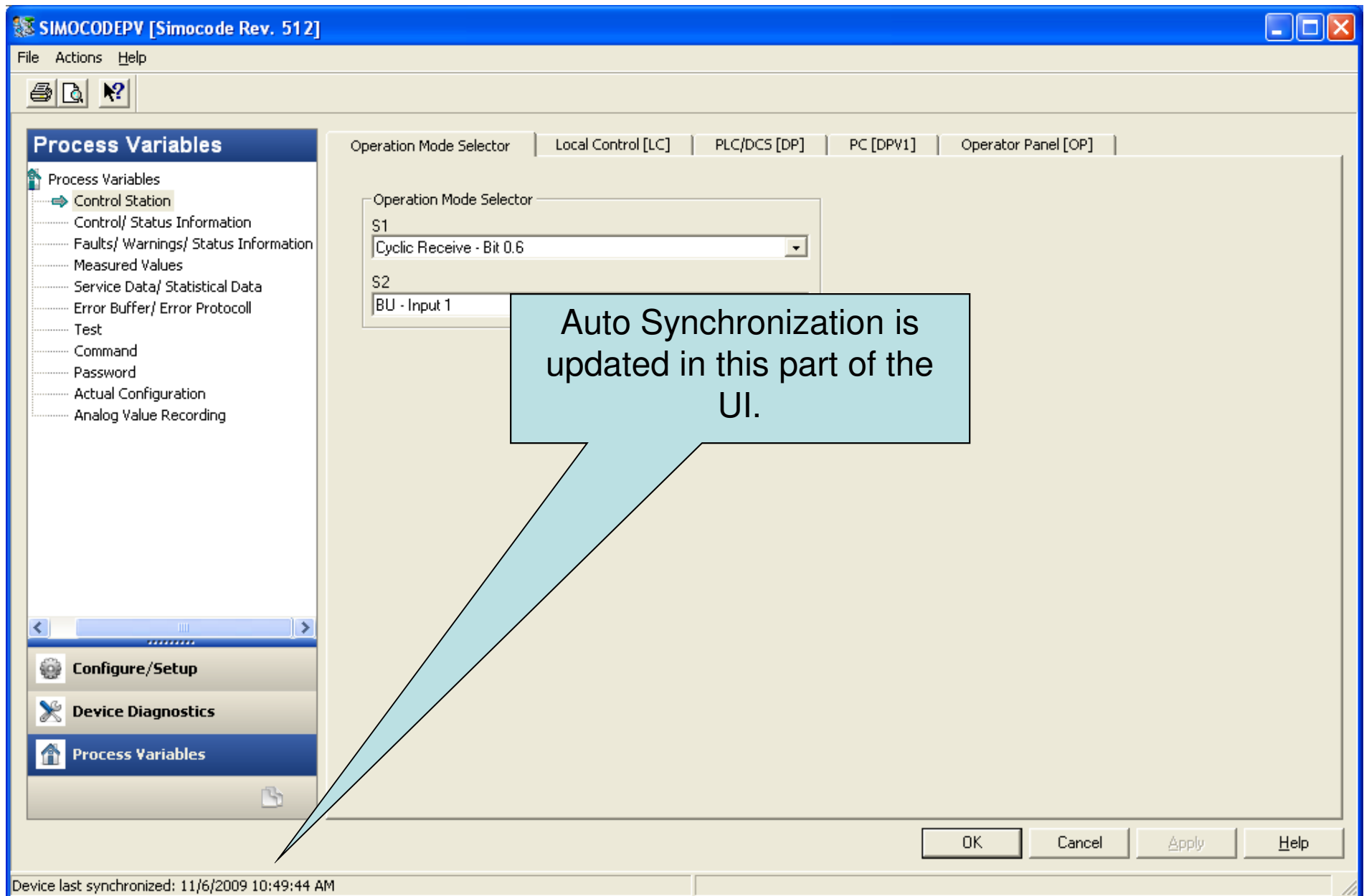
Simocode Process Variables screen looks like this



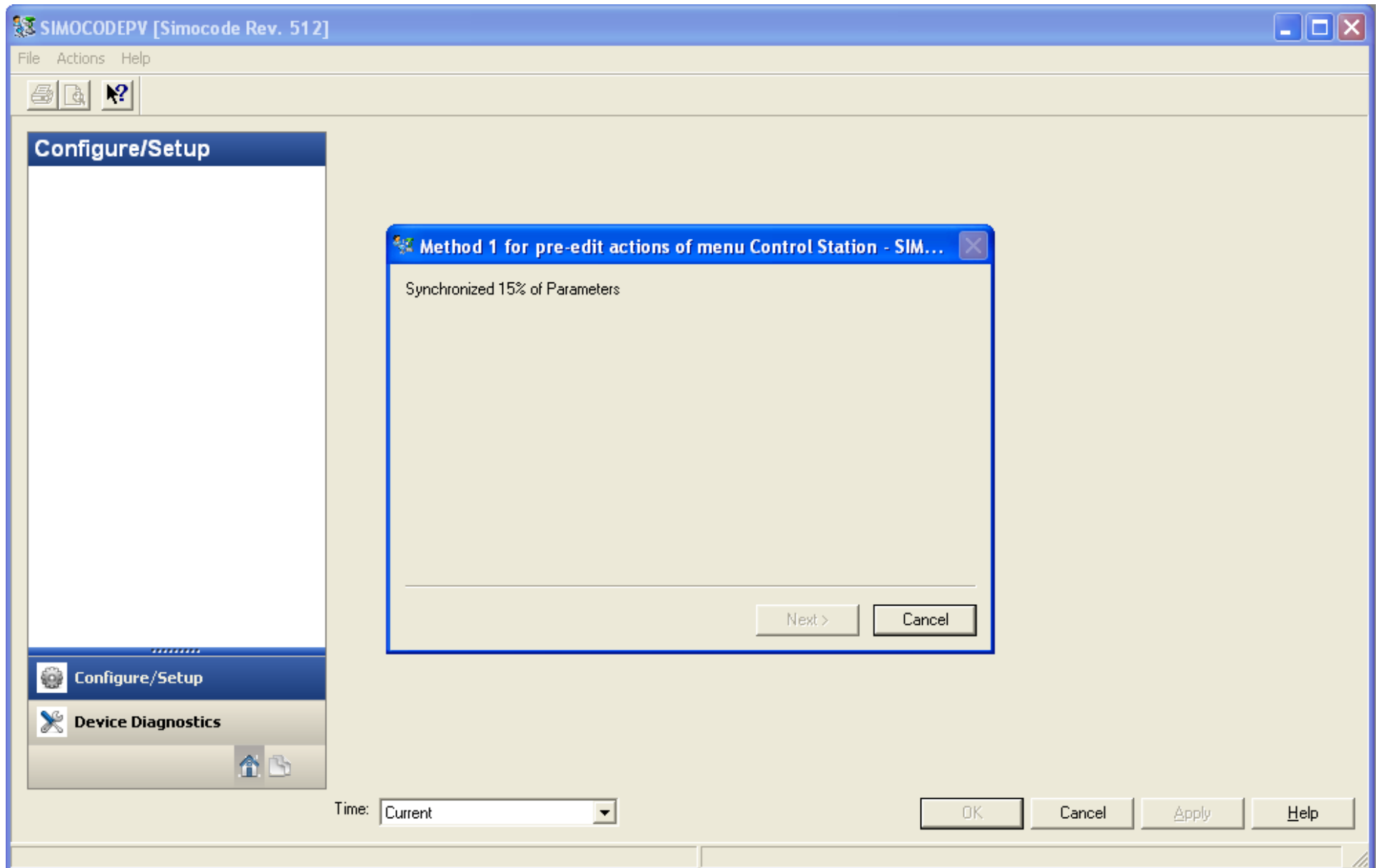
Simocode Process Variables screen looks like this



If AutoSynchronization is enabled, then scan will occur each time any Device Window is launched.



However, methods cannot execute while scan is occurring. The method interpreter will display the status while it is waiting for scan to complete



Simocode Compare screen looks like this

SIMOCODEPV [Simocode Rev. 512]

File Actions Help

Compare

Compare
SIMOCODE pro V

Inputs Outputs Standard Functions Logic Modules 3UF50 - Compability Mode

Identification Device Configuration Bus Parameters Motor Protection Motor Control Monitoring Functions

AMS Tag: SIMOCODEPV AMS Tag: SIMOCODEPV

Time: Current Time: 10/30/2009 1:31:35 PM HISTORIC

Field	Current	HISTORIC
Operating unit		
TAG	2	2
Tag location		
Description		
Device		
Manufacturer		
Order number (MLFB)	3UF7 010-1AB00-0	3UF7 010-1AB00-0
Short code	†SIMOCODE pro V	†SIMOCODE pro V
Device family	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Device subfamily	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Transfer multiple: << >>

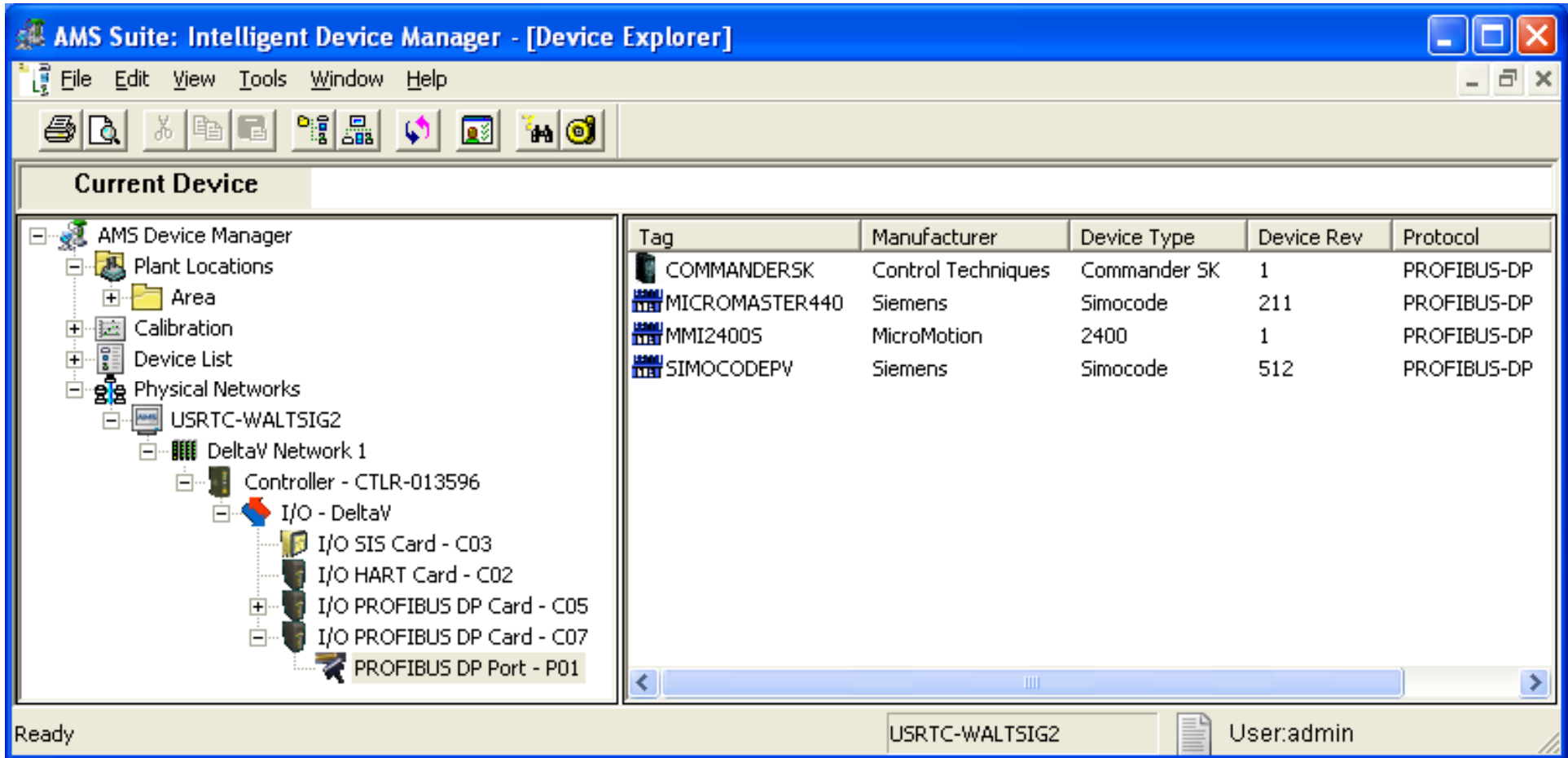
OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

Other Devices besides Simocode

- Siemens MicroMaster 440
- MicroMotion 2400S
- Control Techniques Commander SK

All Available on fredmid2



The screenshot displays the 'AMS Suite: Intelligent Device Manager - [Device Explorer]' window. The left pane shows a hierarchical tree view of the device manager structure. The right pane displays a table of devices connected to the selected network.

Tag	Manufacturer	Device Type	Device Rev	Protocol
COMMANDERSK	Control Techniques	Commander SK	1	PROFIBUS-DP
MICROMASTER440	Siemens	Simocode	211	PROFIBUS-DP
MMI2400S	MicroMotion	2400	1	PROFIBUS-DP
SIMOCODEPV	Siemens	Simocode	512	PROFIBUS-DP

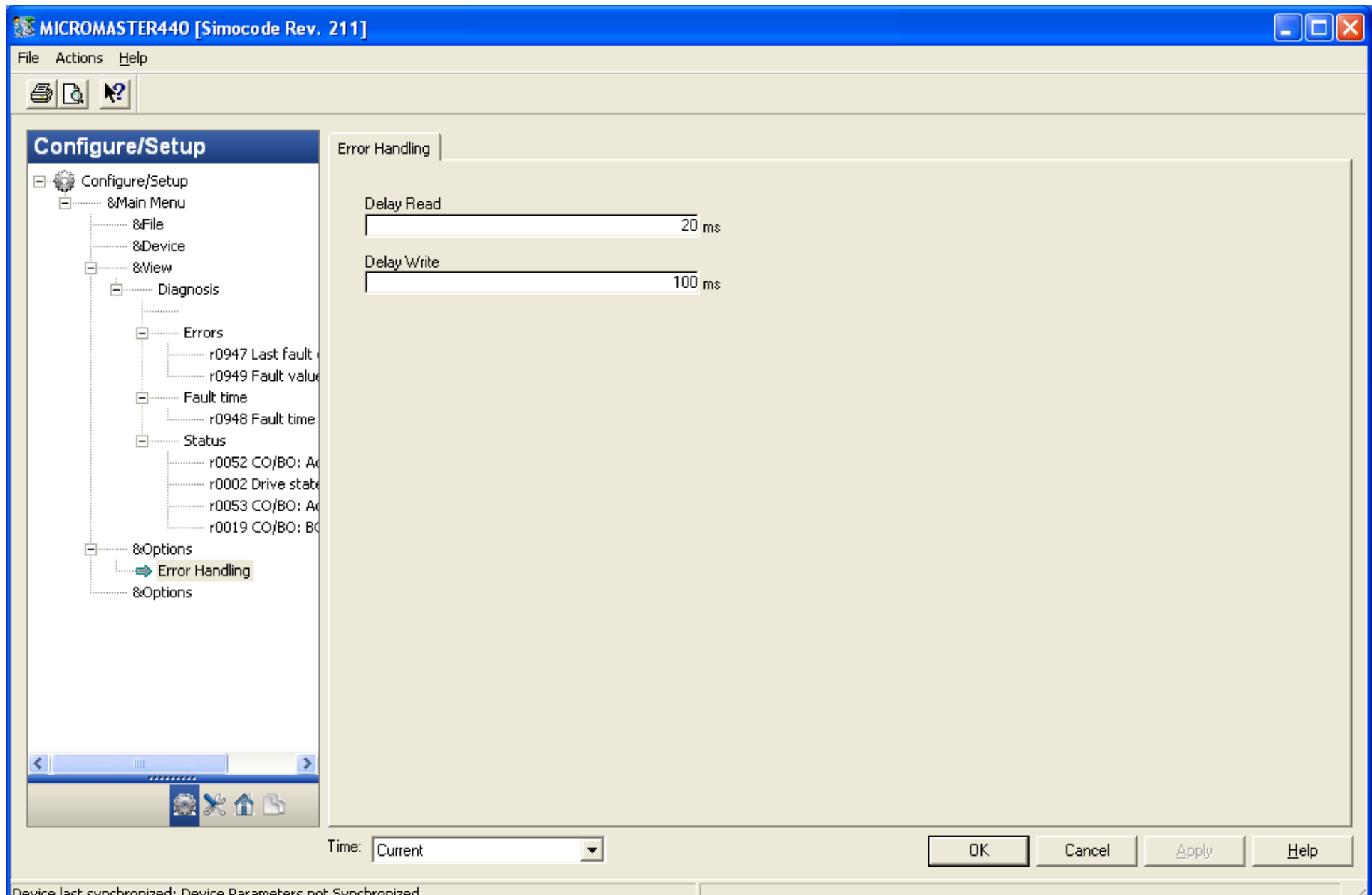
The status bar at the bottom indicates 'Ready' and shows the selected network 'USRTC-WALTSIG2' and the user 'User:admin'.

Note that both the MicroMaster and the Simocode have a “Device Type” of Simocode. This is because they have the same MfgID & DevType.

Other Devices besides Simocode

- Siemens MicroMaster 440
- MicroMotion 2400S
- Control Techniques Commander SK

Micromaster configure screen



Micromaster Device Diagnostics screen

MICROMASTER440 [Simocode Rev. 211]

File Actions Help

Device Diagnostics

- Device Diagnostics
 - Errors
 - Fault time
 - Status

r0947 Last fault code Errors r0949 Fault value

Recent fault trip --, fault 1 0

Recent fault trip --, fault 2 0

Recent fault trip -1, fault 3 0

Recent fault trip -1, fault 4 0

Recent fault trip -2, fault 5 0

Recent fault trip -2, fault 6 0

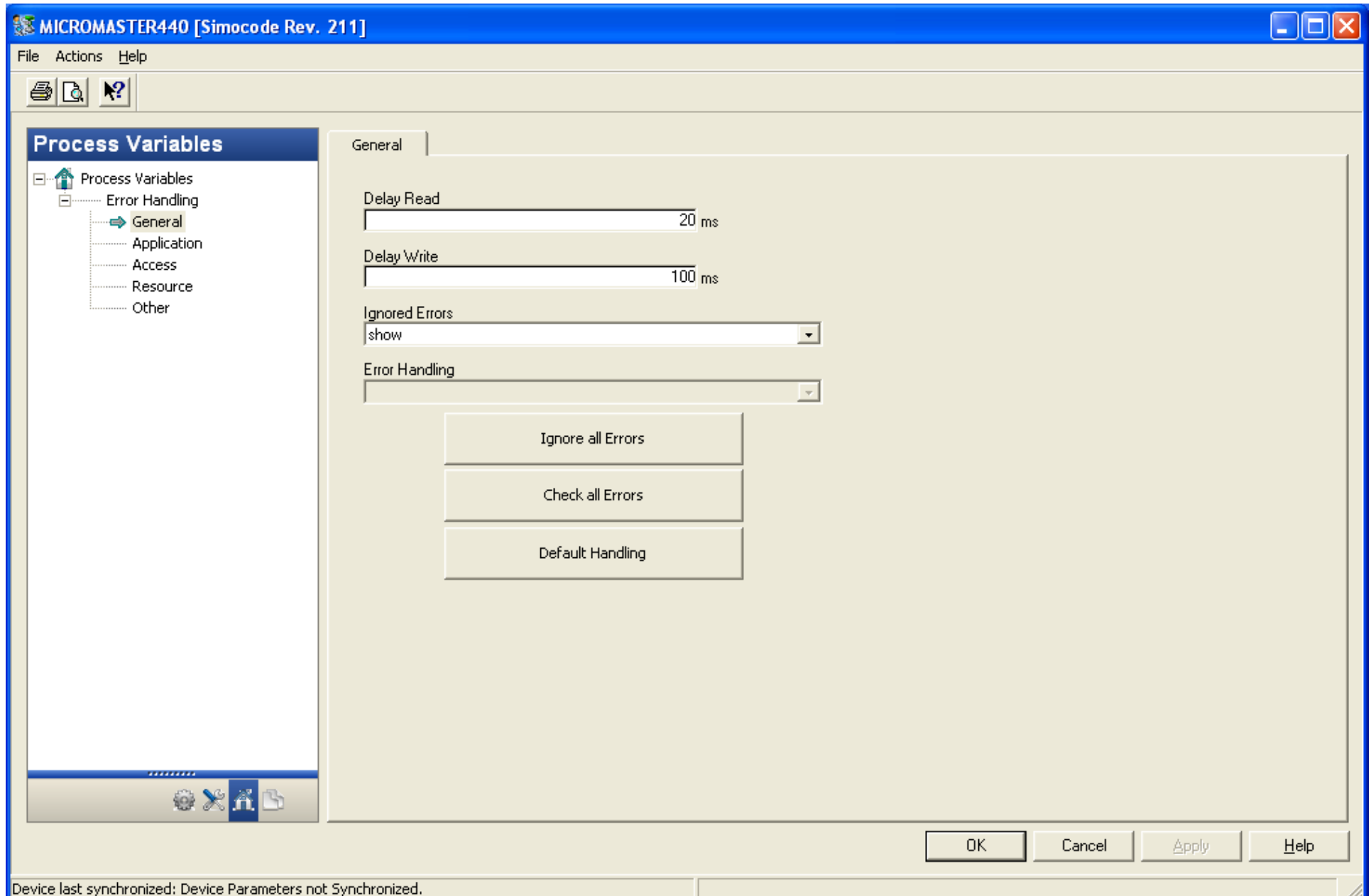
Recent fault trip -3, fault 7 0

Recent fault trip -3, fault 8 0

OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

Micromaster Process Variables screen



MICROMASTER440 [Simocode Rev. 211]

File Actions Help

Process Variables

- Process Variables
 - Error Handling
 - General**
 - Application
 - Access
 - Resource
 - Other

General

Delay Read: 20 ms

Delay Write: 100 ms

Ignored Errors: show

Error Handling:

Ignore all Errors

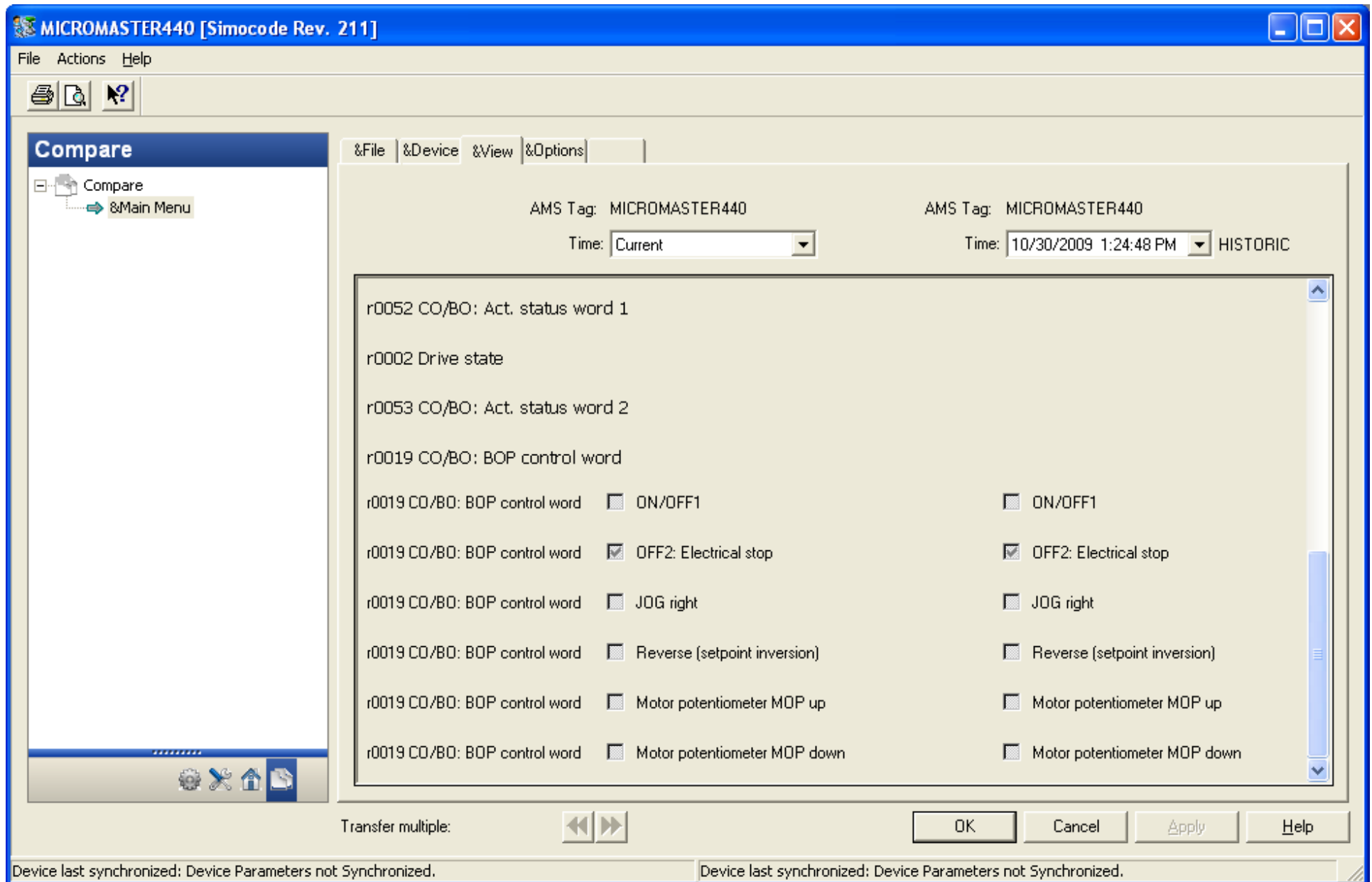
Check all Errors

Default Handling

OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

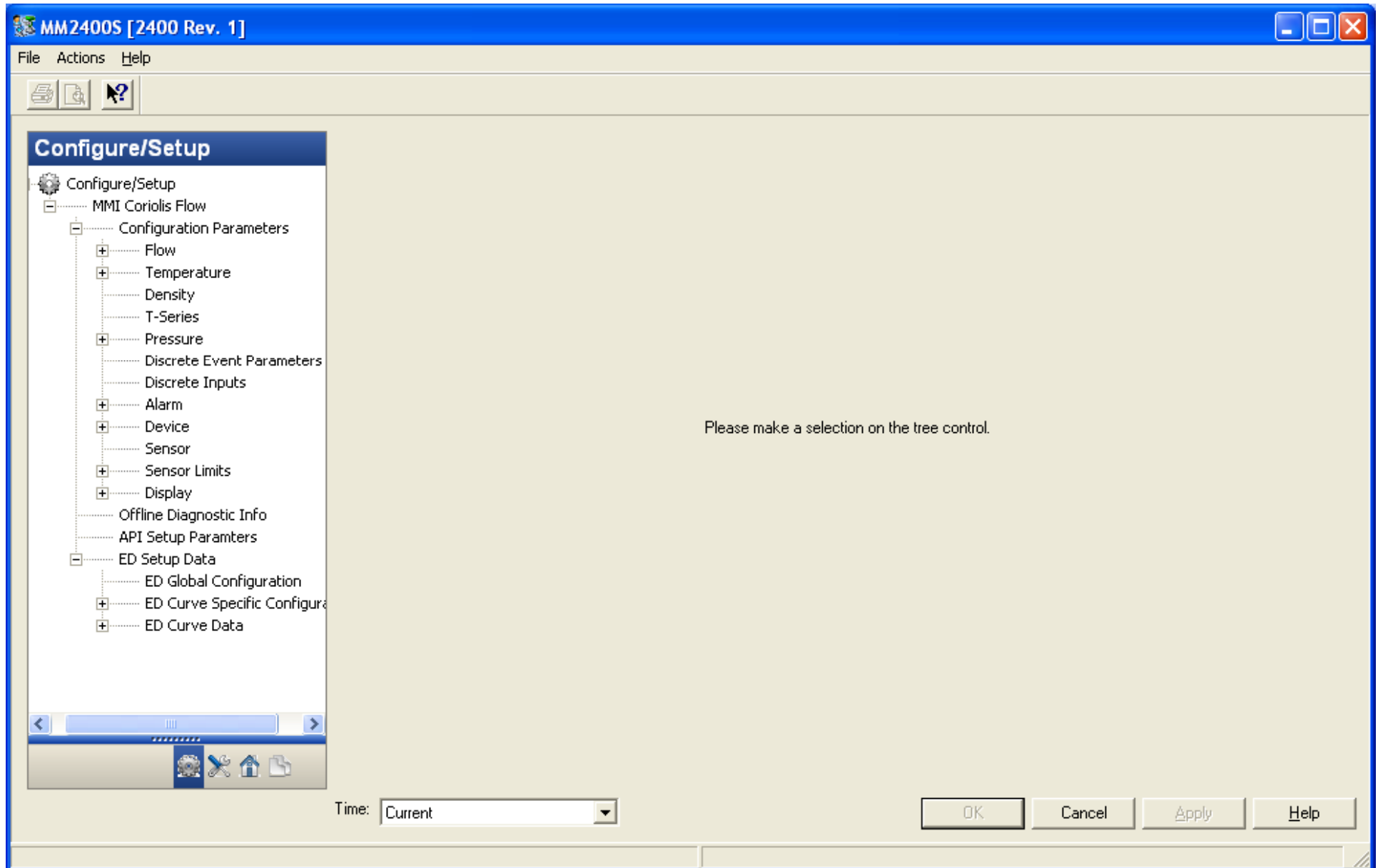
Micromaster Compare screen



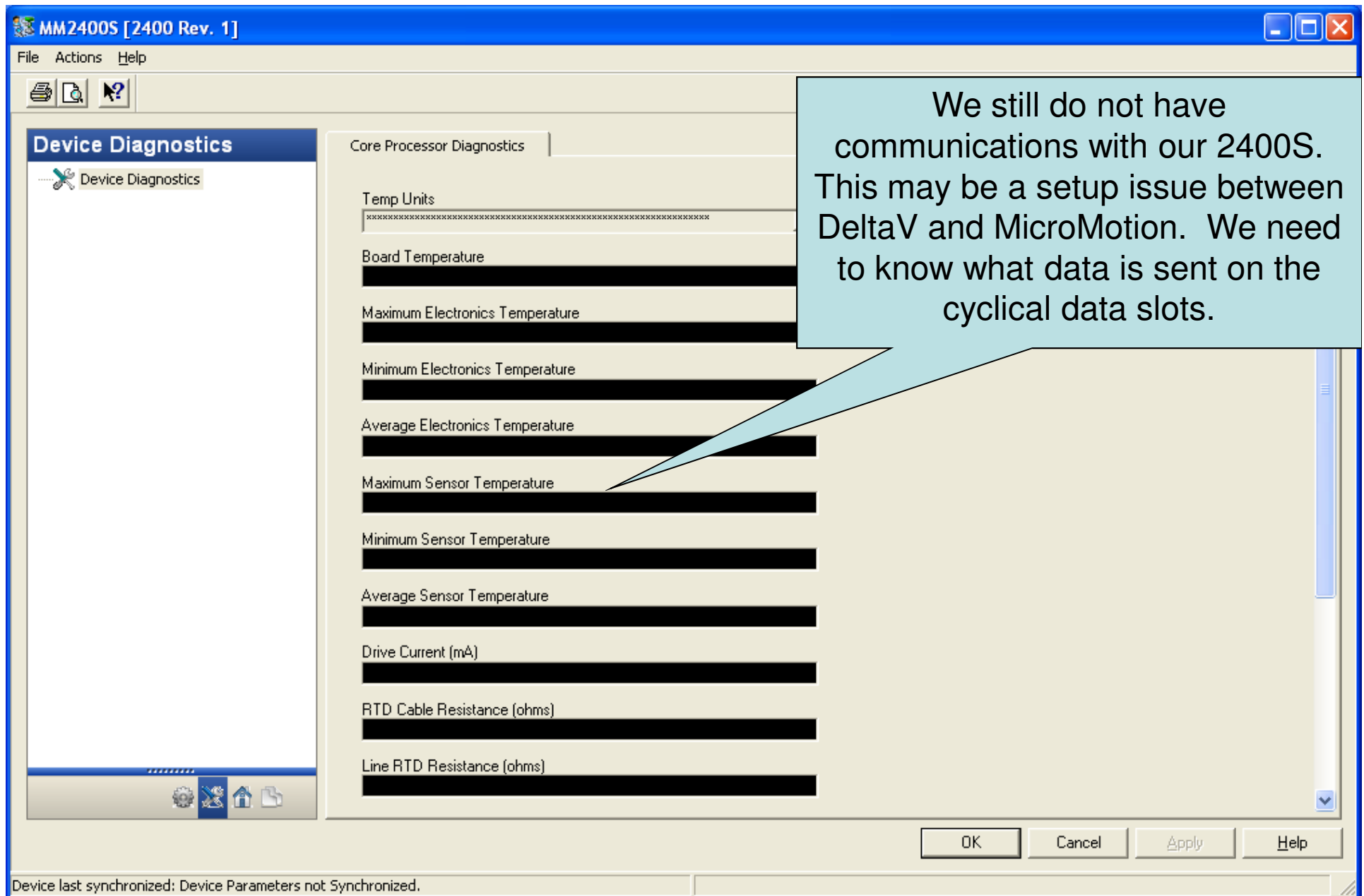
Other Devices besides Simocode

- Siemens MicroMaster 440
- MicroMotion 2400S
- Control Techniques Commander SK

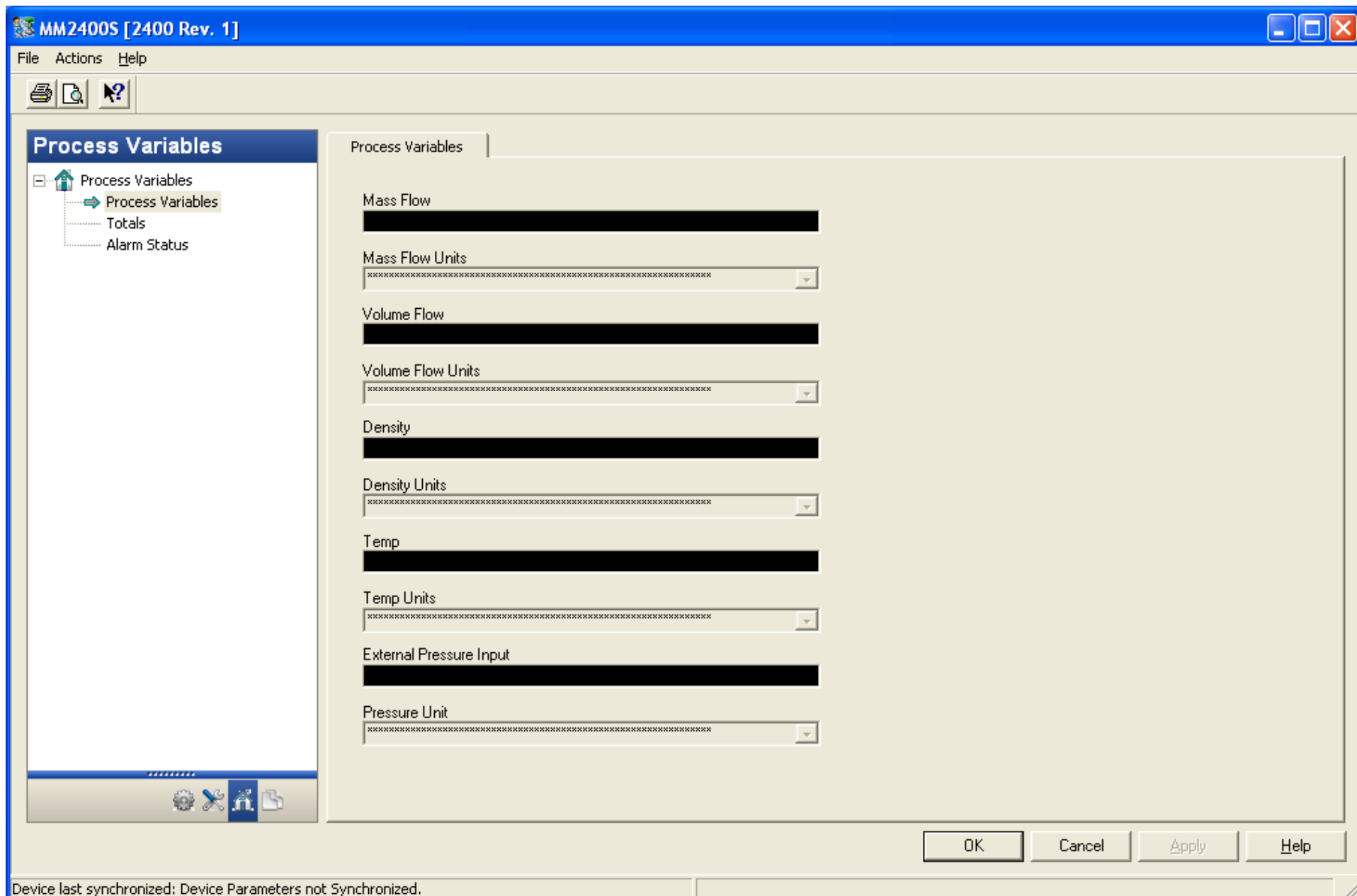
MicroMotion 2400 configure screen



MicroMotion 2400 Device Diagnostics screen



MicroMotion 2400 Process Variables screen



The screenshot shows the MicroMotion 2400 Process Variables screen. The window title is "MM2400S [2400 Rev. 1]". The menu bar includes "File", "Actions", and "Help". The toolbar contains icons for a printer, a magnifying glass, and a question mark. The left sidebar, titled "Process Variables", shows a tree view with "Process Variables" selected, and sub-items "Totals" and "Alarm Status". The main area, also titled "Process Variables", contains the following fields:

- Mass Flow: [Text Field]
- Mass Flow Units: [Dropdown Menu]
- Volume Flow: [Text Field]
- Volume Flow Units: [Dropdown Menu]
- Density: [Text Field]
- Density Units: [Dropdown Menu]
- Temp: [Text Field]
- Temp Units: [Dropdown Menu]
- External Pressure Input: [Text Field]
- Pressure Unit: [Dropdown Menu]

The bottom of the window features a status bar with the text "Device last synchronized: Device Parameters not Synchronized." and a row of buttons: "OK", "Cancel", "Apply", and "Help".

MicroMotion 2400 Compare screen

MM2400S [2400 Rev. 1]

File Actions Help

Compare

Compare
MMI Coriolis Flow

Configuration Parameters Offline Diagnostic Info API Setup Paramters ED Setup Data

AMS Tag: MM2400S AMS Tag: MM2400S

Time: Current Time: HISTORIC

Flow

Flow Direction

Flow Damping

Flow Cal

Mass Flow Units

Mass Flow Cutoff

Volume Flow Units

Volume Flow Cutoff

Mass Factor

Dens Factor

Transfer multiple: < >

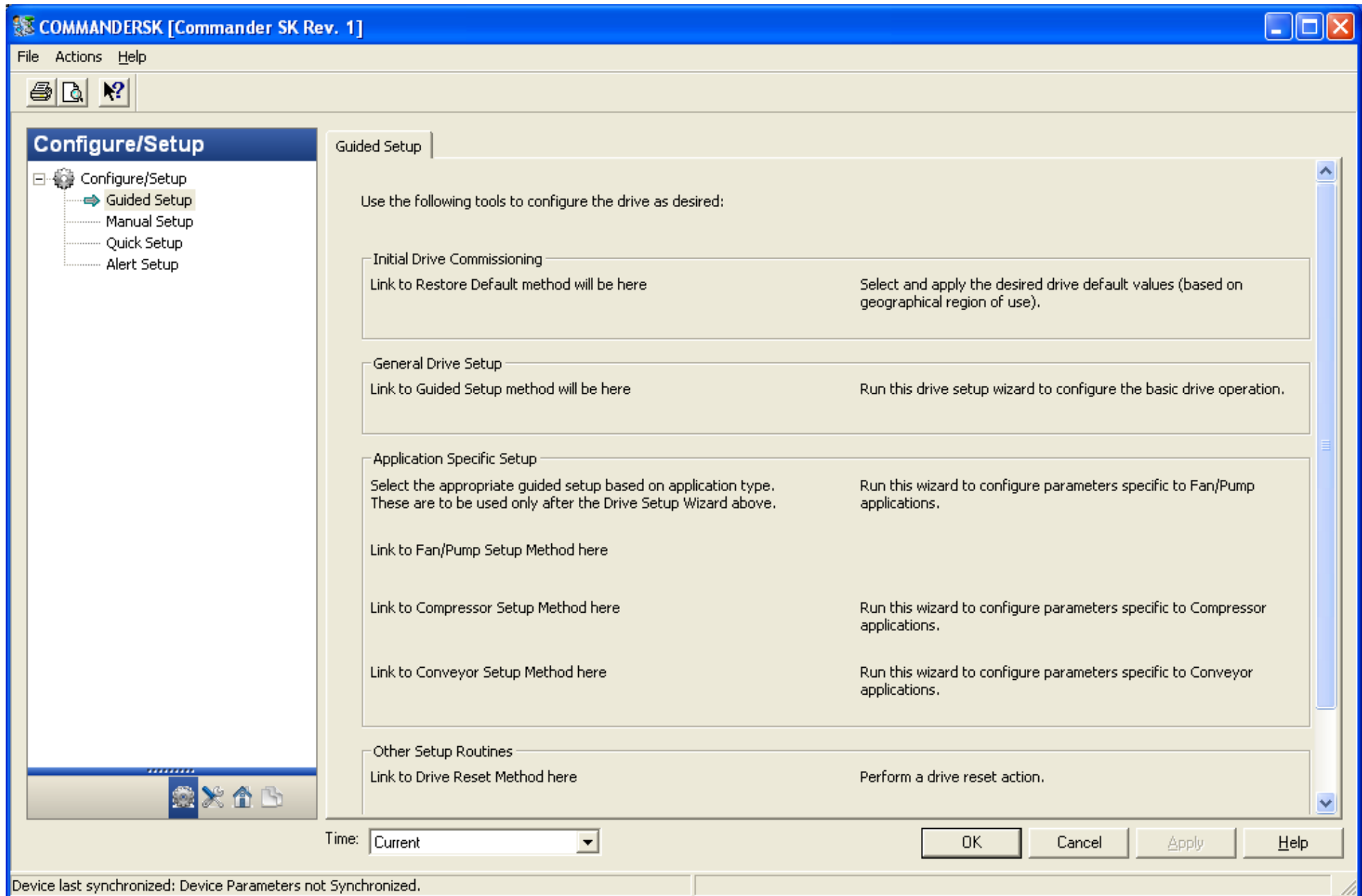
OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized. Device last synchronized: Device Parameters not Synchronized.

Other Devices besides Simocode

- Siemens MicroMaster 440
- MicroMotion 2400S
- Control Techniques Commander SK

CT Commander configure screen



CT Commander Device Diagnostics screen

COMMANDERSK [Commander SK Rev. 1]

File Actions Help

Device Diagnostics

- Device Diagnostics
 - Alerts
 - Variables
 - Trends
 - Communications
 - Routine Maintenance
- Access to All Parameters
 - Menu 1
 - Menu 2
 - Menu 3
 - Menu 4
 - Menu 5
 - Menu 6
 - Menu 7
 - Menu 8
 - Menu 9
 - Menu 10
 - Menu 11
 - Menu 12
 - Menu 14
 - Menu 18
 - Menu 20
 - Menu 21

Drive Variables 1 | Drive Variables 2 | Process Variables | Digital and Analog I/O Status

Current Control

Reactive current 0.000000 A

Motor Control

DC bus voltage 296 V

Drive Runtime

Run time log: years.days 0.000000 y.ddd

Run time log: hours.minutes 0.000000 hh.mm

Energy

Energy meter: MWh 0.000000 MWh

Energy meter: kWh 0.000000 kWh

Drive Status

Drive healthy

☐ Drive healthy

Drive active

☐ Drive active

Overload

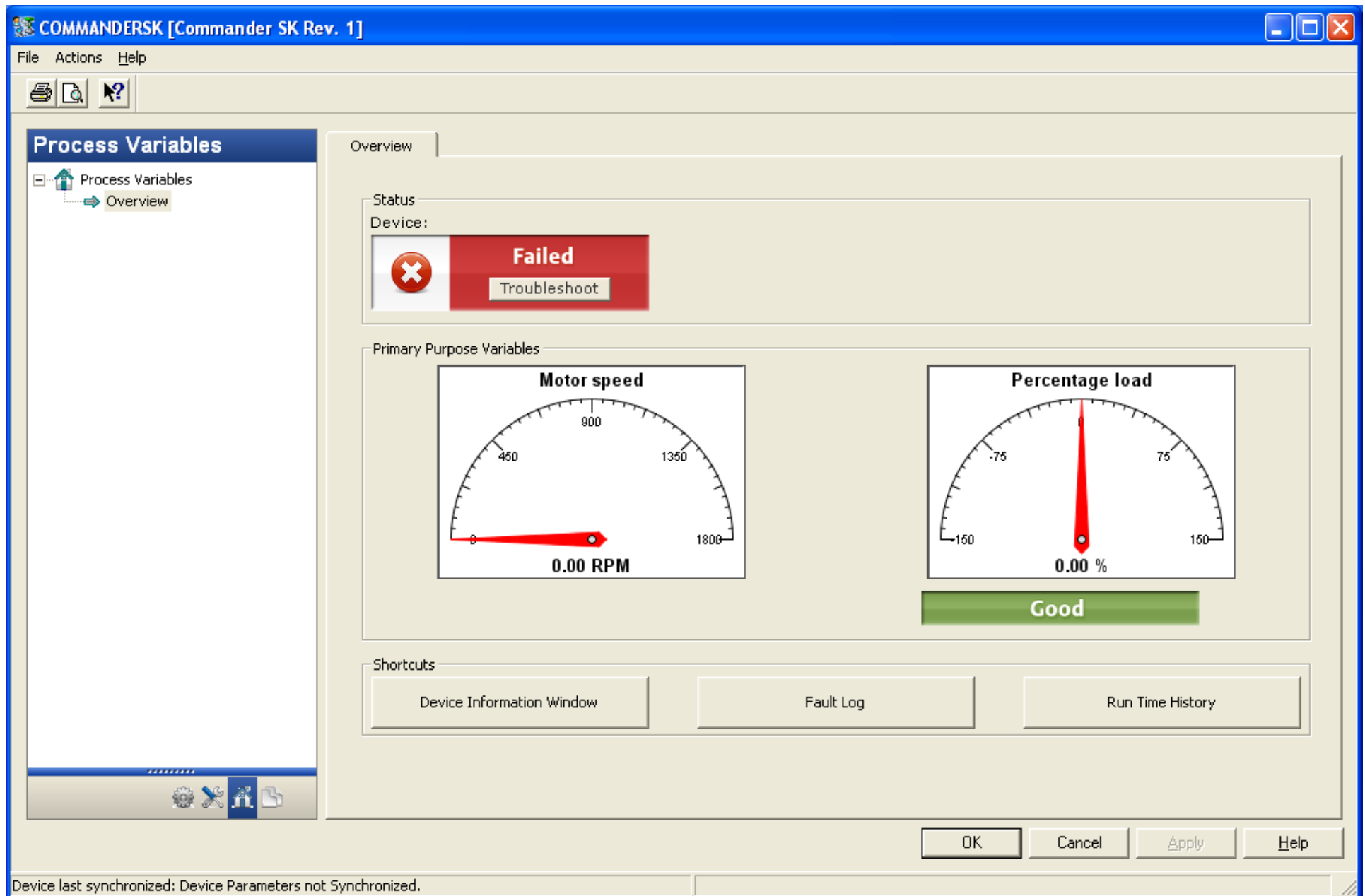
Motor overload accumulator 0.000000 %

Braking energy overload accumulator 0.000000 %

OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

CT Commander Process Variables screen



CT Commander Compare screen

COMMANDERSK [Commander SK Rev. 1]

File Actions Help

Compare

- Compare
- Guided Setup
- Manual Setup
- Quick Setup
- Alert Setup

Quick Setup

AMS Tag: COMMANDERSK Time: Current

AMS Tag: COMMANDERSK Time: 10/30/2009 1:13:37 PM HISTORIC

-----Accel/Decel Settings-----

Acceleration rate 1	38.000000 s/100Hz	38.000000 s/100Hz
Deceleration rate 1	33.000000 s/100Hz	33.000000 s/100Hz

-----Drive Switching Frequency Setting-----

Maximum switching frequency	3 kHz	3 kHz
-----------------------------	-------	-------

-----Speed Reference Settings-----

Reference selector	PAd	PAd
Preset speed selector	0	0

Transfer multiple: << >>

OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

Device last synchronized: Device Parameters not Synchronized.