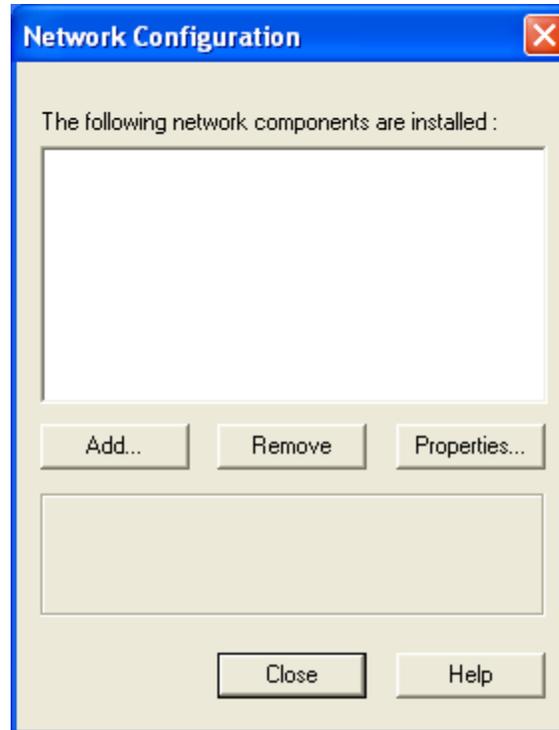
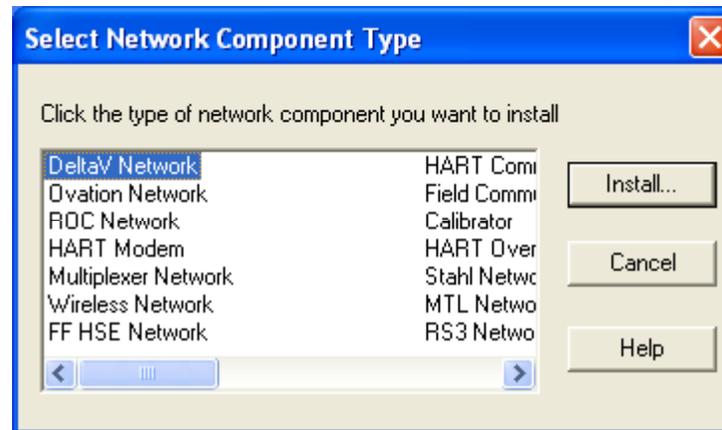


How to configure and Identify Profibus DP devices

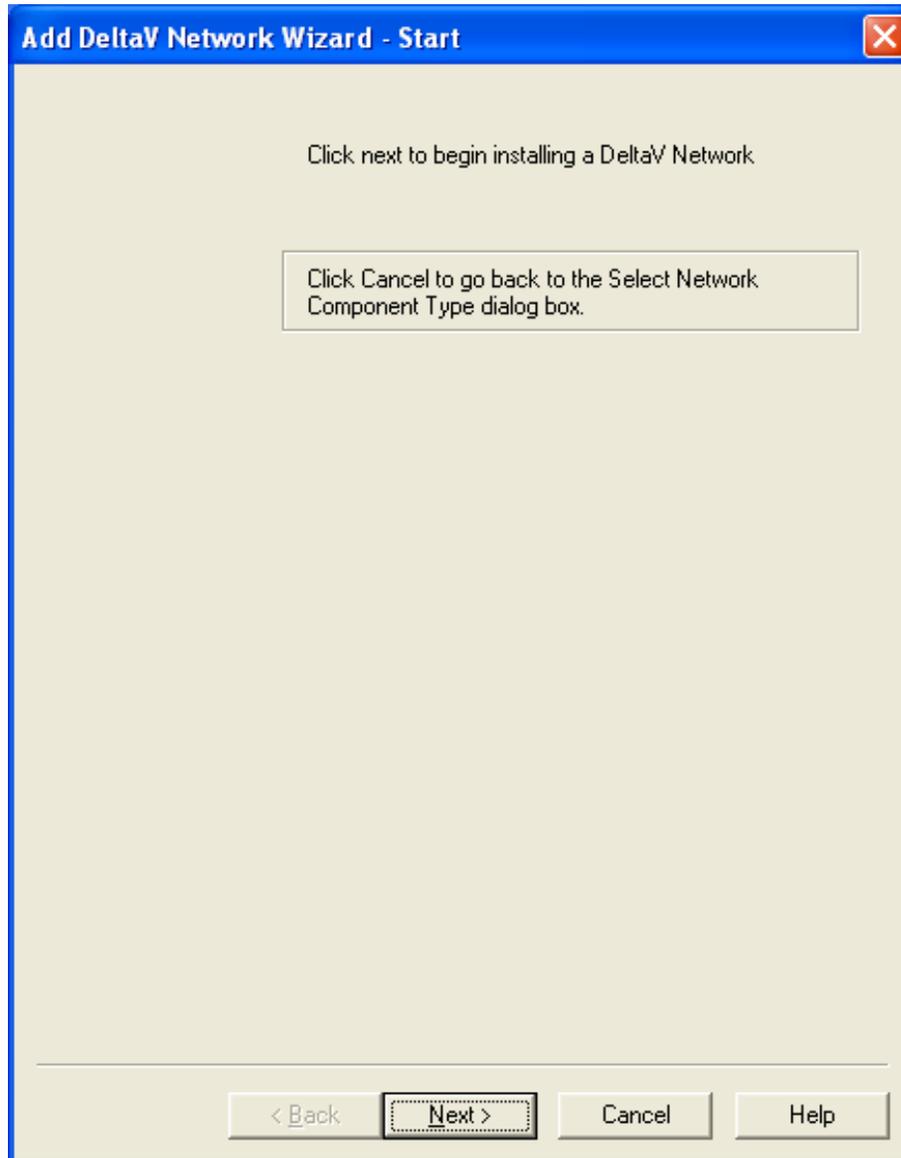
After Installing AMS Device Manager you need to configure a network



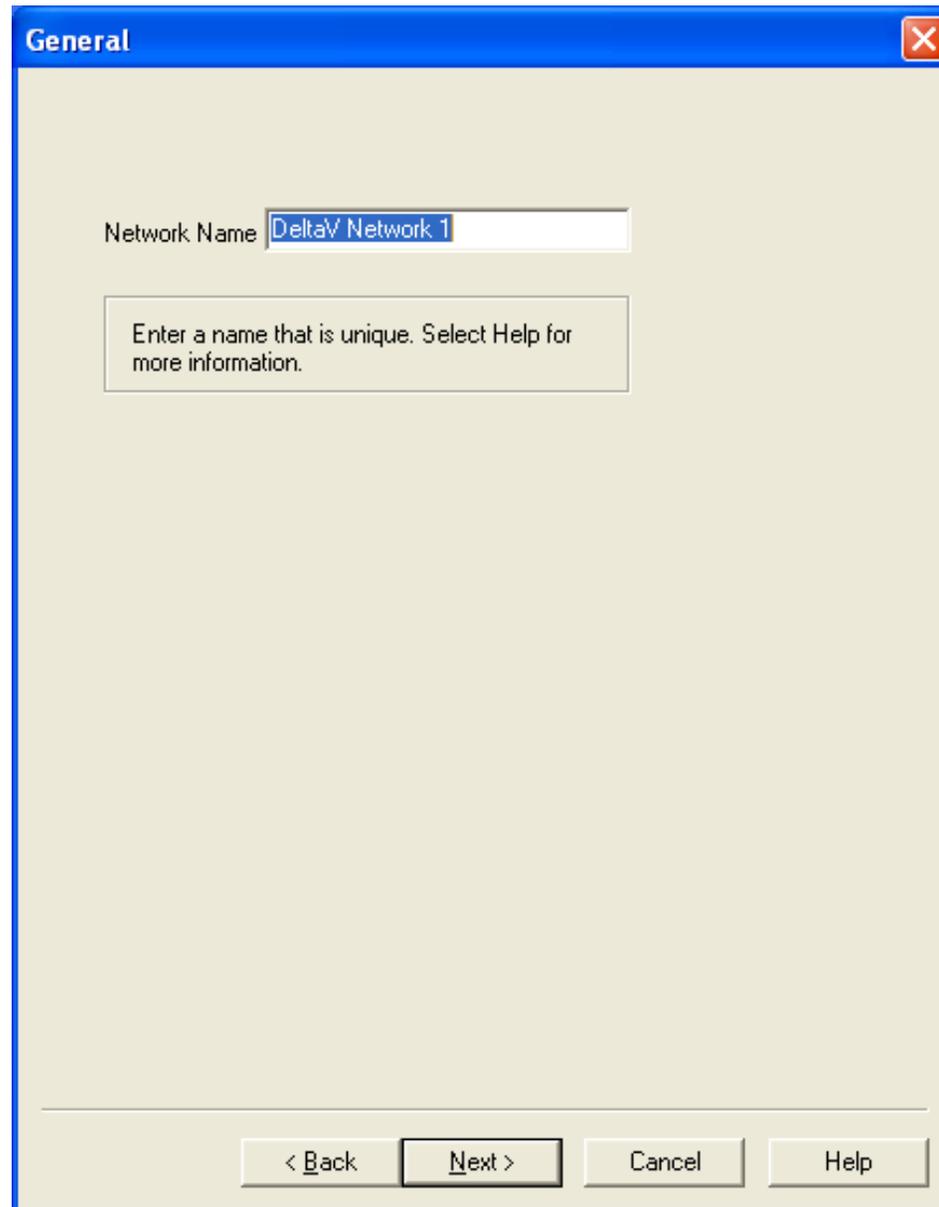
Currently only DeltaV supports ProfibusDP



First Step of the wizard



Enter a Network Name



The image shows a standard Windows-style dialog box with a blue title bar labeled "General" and a close button (X) in the top right corner. The main area is light beige. A text label "Network Name" is positioned to the left of a text input field containing "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 are four buttons: "< Back", "Next >", "Cancel", and "Help".

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

DeltaV Password

Confirm Password

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

< Back Next > Cancel Help

Click Finish

Advanced

Provox I/O on DeltaV

Poll Address Range

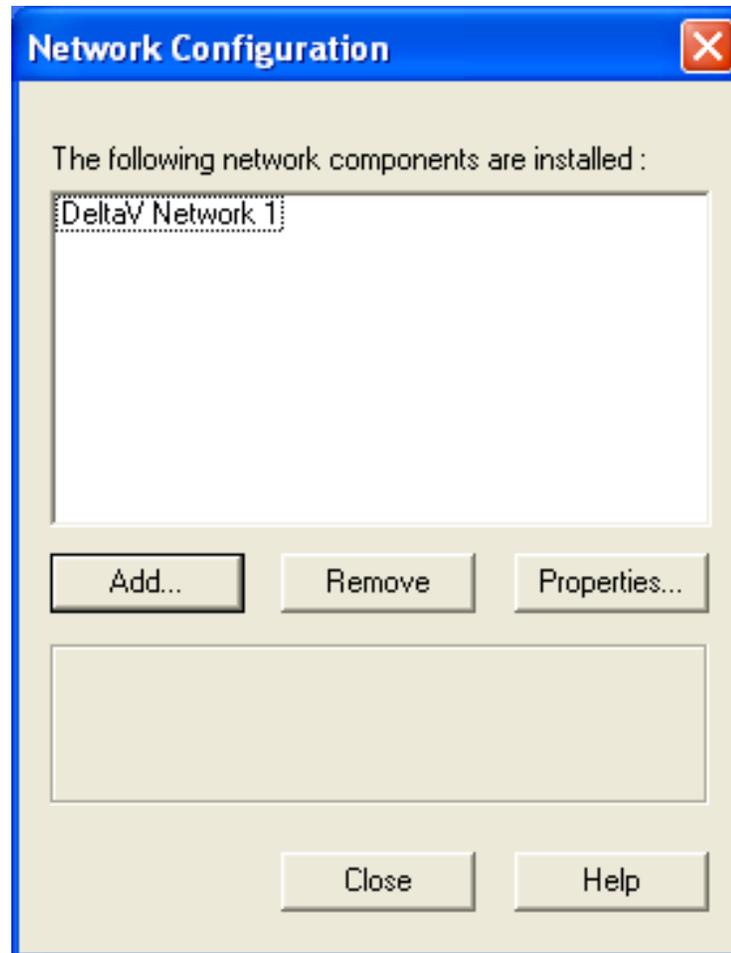
If you have Provox I/O on your DeltaV, you can adjust the HART Poll Address Range that AMS Device Manager will use to locate and communicate with HART devices connected to that I/O. If no Provox I/O is available, leave the High and Low Addresses at 0.

Low Address High Address

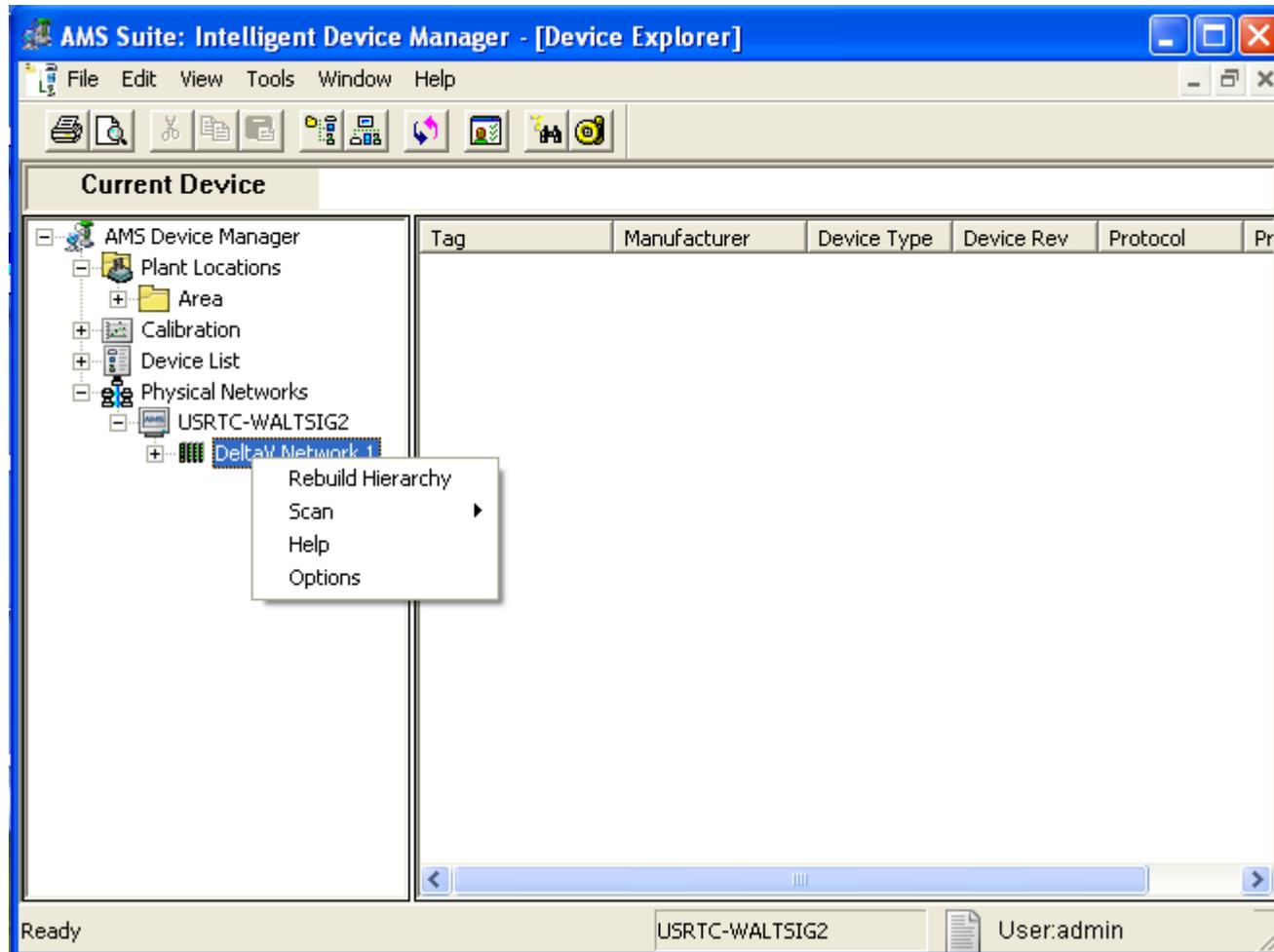
0 0

< Back Finish Cancel Help

We now have DeltaV configured



Start AMS Device Manager



Rebuild Hierarchy to find un-identified Profibus devices

The screenshot shows the 'AMS Suite: Intelligent Device Manager - [Device Explorer]' window. The interface includes a menu bar (File, Edit, View, Tools, Window, Help), a toolbar with various icons, and a main workspace divided into two panes. The left pane displays a tree view of the device hierarchy, and the right pane displays a table of device information.

Current Device

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
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.

AMS Suite: Intelligent Device Manager - [Device Explorer]

File Edit View Tools Window Help

Current Device Unknown Device

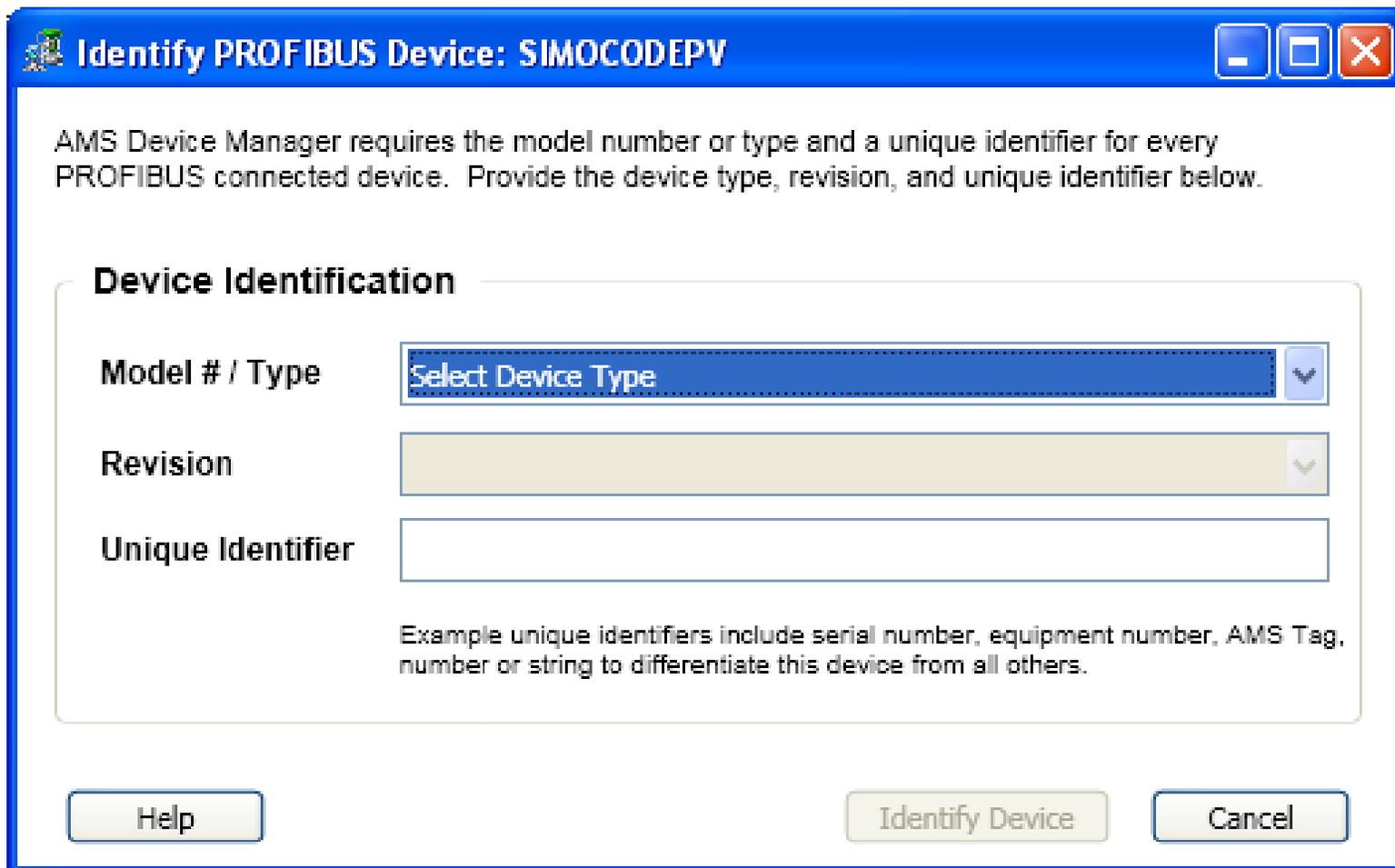
AMS Device Manager

- 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
Unknown Device	Micro Motion Inc(0x0A60)	2400S-Profibus DP	V1.01	PROFIBUS...
Unknown Device	SIEMENS(0x005D)	SIMOCODE pro V (GSD...	V1.2	PROFIBUS...
Unknown Device	...ues(0x0672)	Commander SK (DP-V1)	1.0	PROFIBUS...
Unknown Device	...D(0x80B5)	MICROMASTER 4	A04	PROFIBUS...

USRTC-WALTSIG2 User:admin

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.

Help Identify Device Cancel

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.

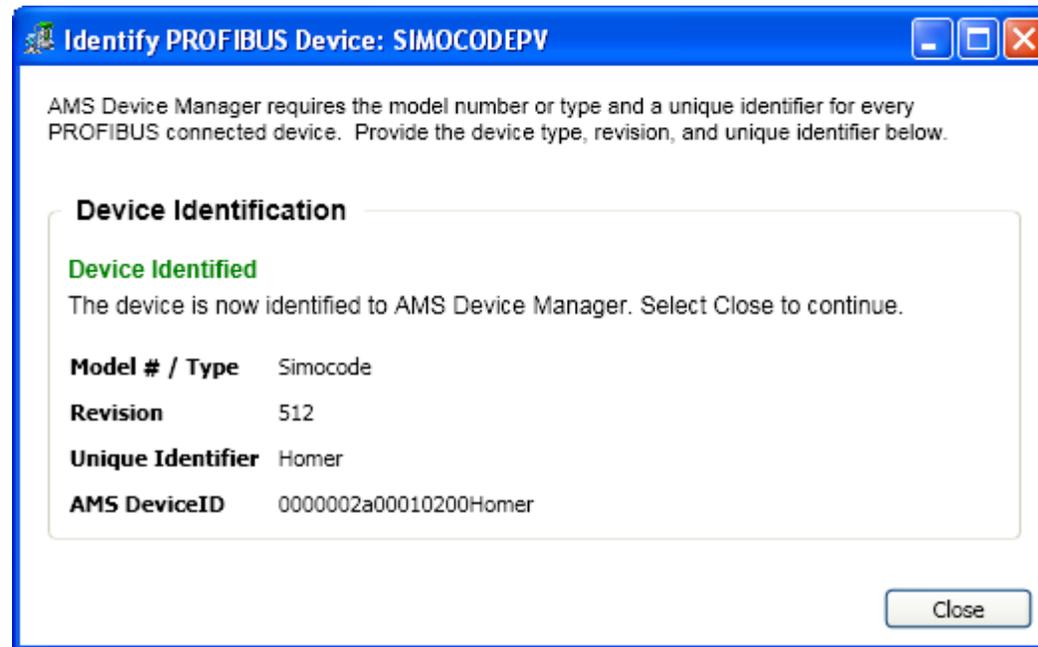
Device Identification

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

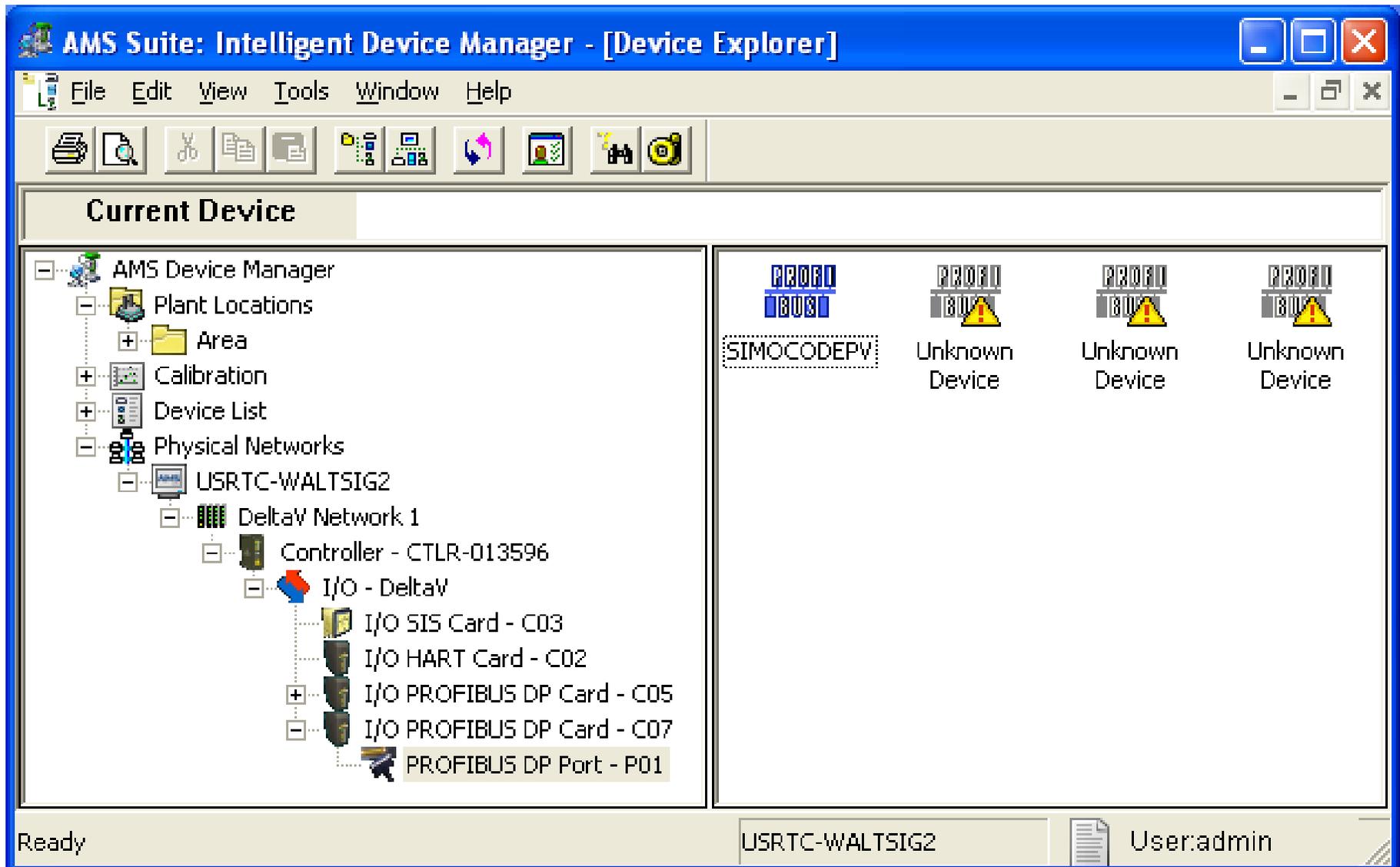
AMS Device Manager

- Plant Locations
 - Area
- Calibration
- Device List
- Physical Networks
 - USRTC-WALTSIG2
 - DeltaV Network 1
 - Controller - 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

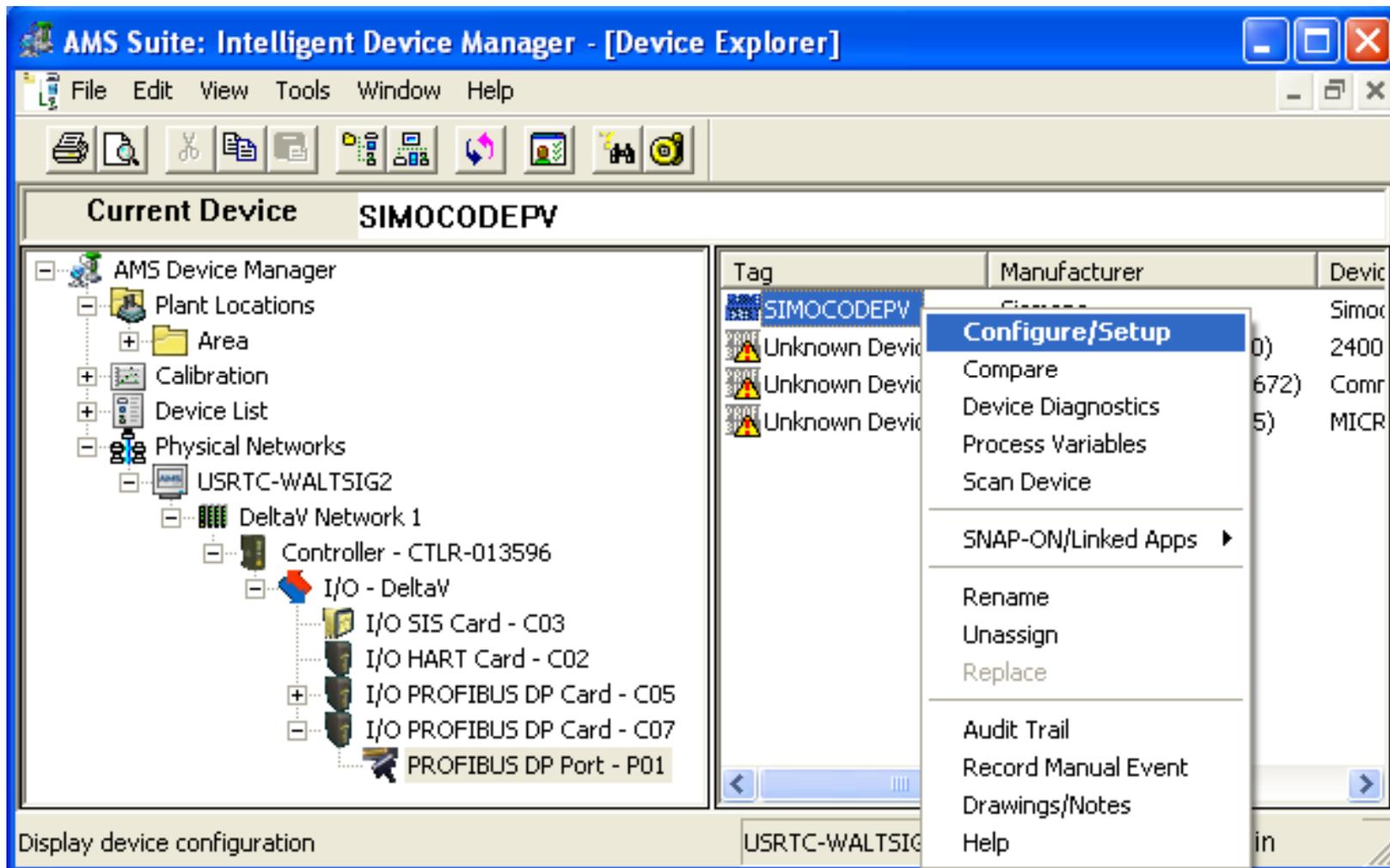
Tag	Manufacturer	Device Type	Device Rev	Protocol
SIMOCODEPV	Siemens	Simocode	512	PROFIBUS...
Unknown Device	Micro Motion Inc(0x0A60)	2400S-Profibus DP	V1.01	PROFIBUS...
Unknown Device	Control Techniques(0x0672)	Commander SK (DP-V1)	1.0	PROFIBUS...
Unknown Device	Siemens AG A&D(0x80B5)	MICROMASTER 4	A04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

Ready USRTC-WALTSIG2 User:admin

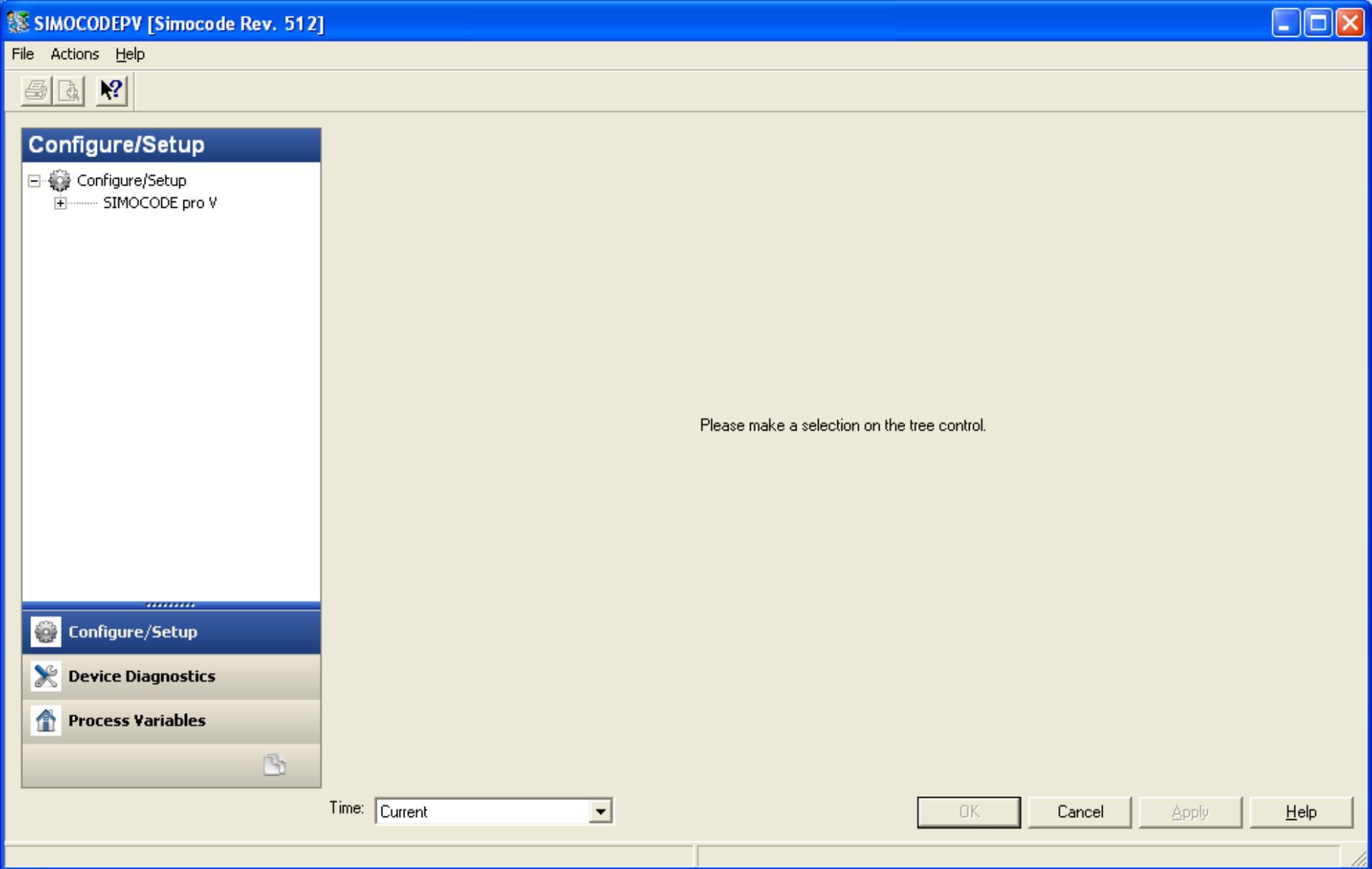
This looks better as large icon.



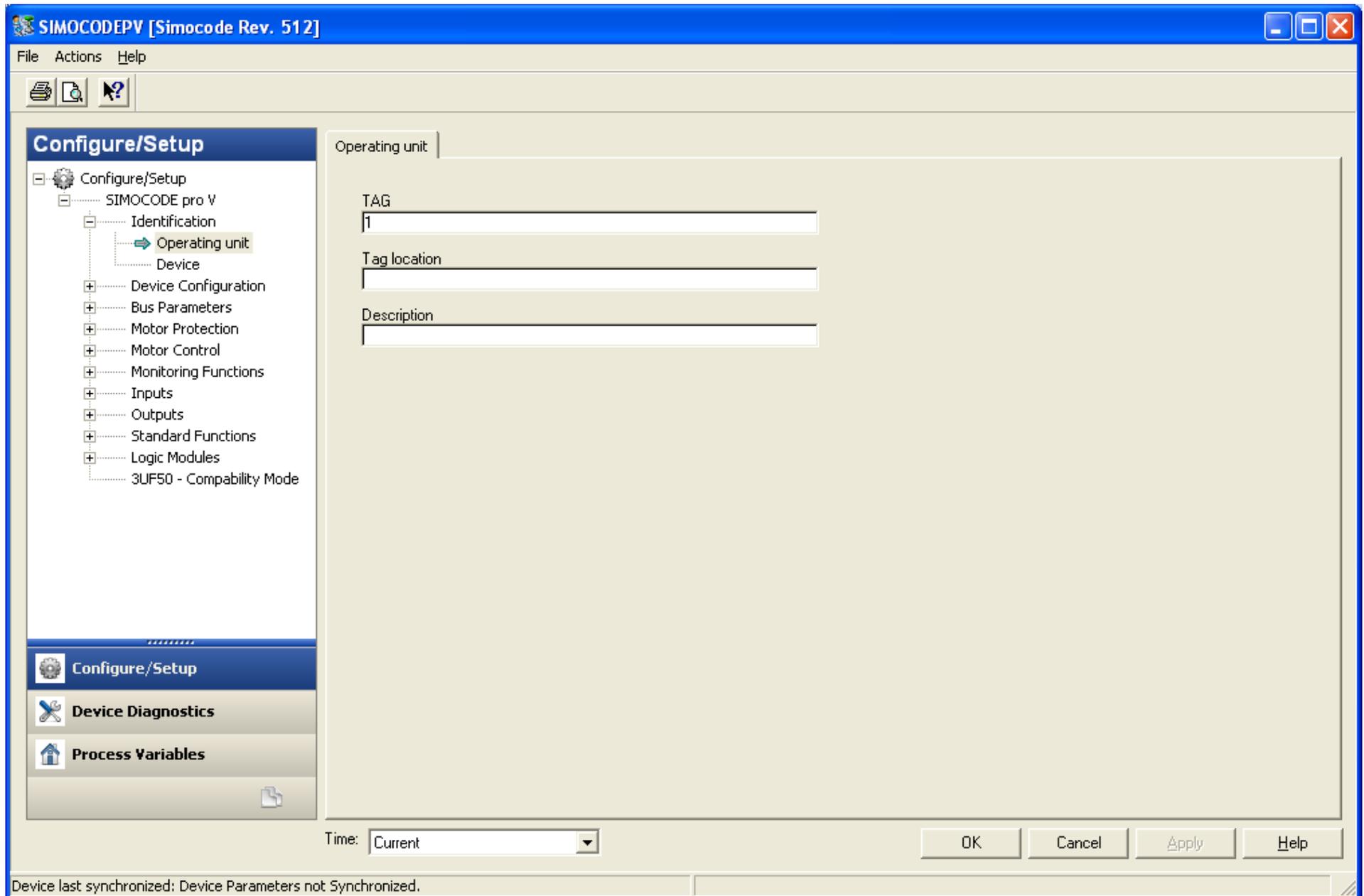
Select Configure:



Simocode configure screen looks like this



Simocode configure screen



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 - Compability Mode

Configure/Setup

Device Diagnostics

Process Variables

Operating unit

TAG: 1

Tag location

Description

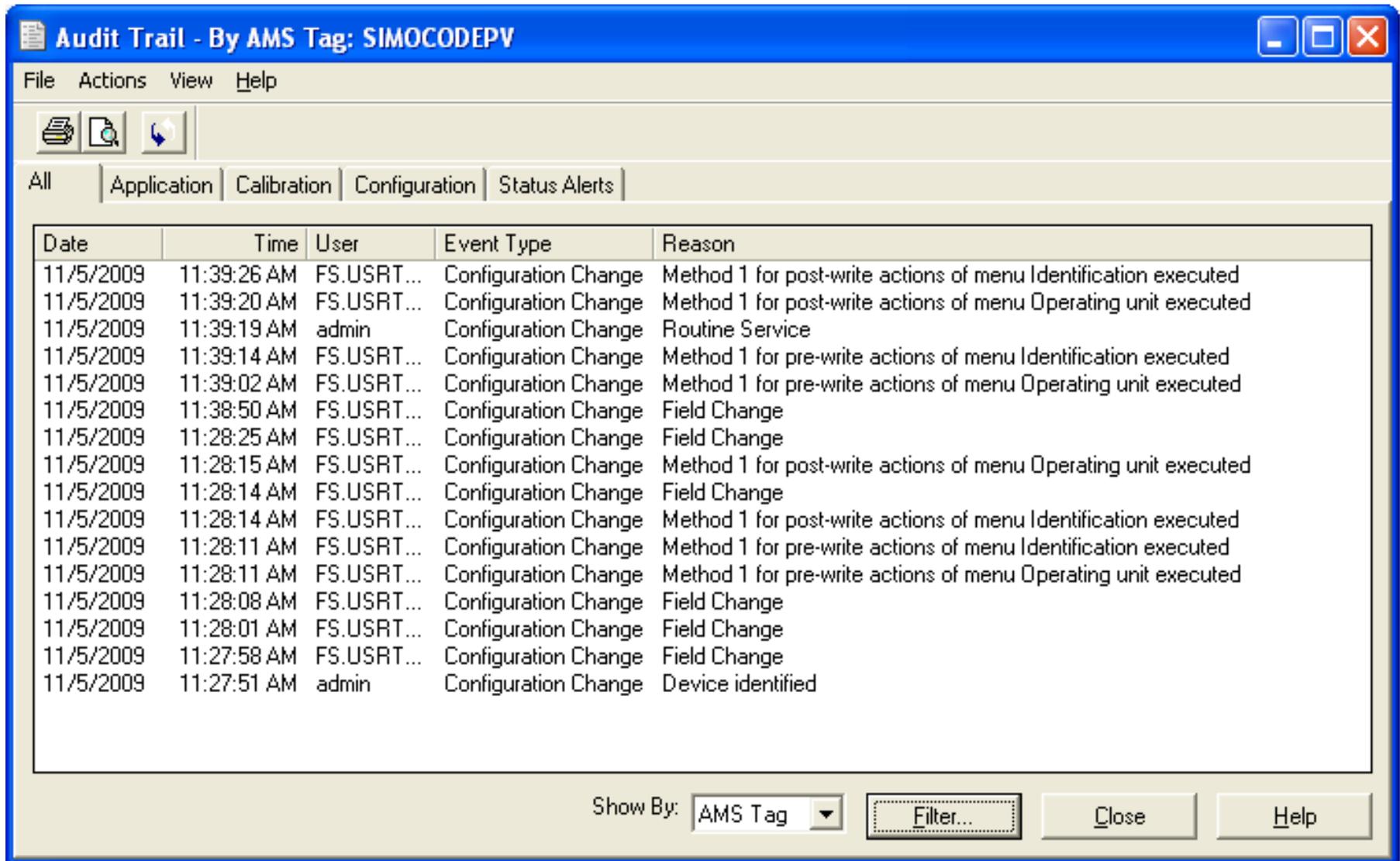
This screen does NOT have PreRead or PreEdit MenuActions, but it does have PostEdit, PreWrite and PostWrite MenuActions.... These method do NOT have UI, but they do log events to audit trail.

Time: Current

OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

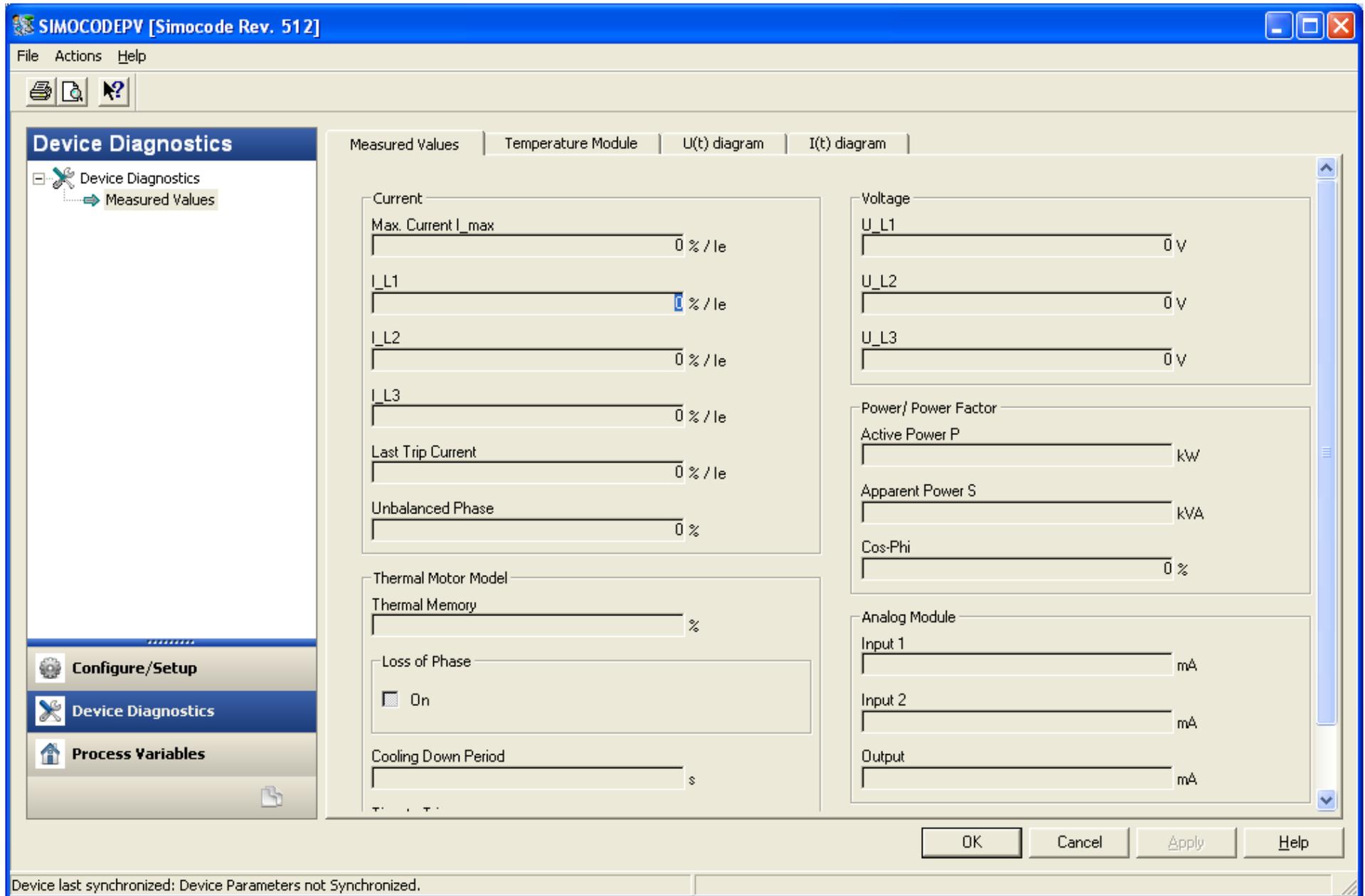
Changing a parameter on the “Operating” menu causes the pre and post MenuActions for all parent menus of the parameter to be executed



The screenshot shows a software window titled "Audit Trail - By AMS Tag: SIMOCODEPV". The window has a menu bar with "File", "Actions", "View", and "Help". Below the menu bar is a toolbar with three icons: a printer, a magnifying glass, and a refresh button. A tabbed interface shows "All", "Application", "Calibration", "Configuration", and "Status Alerts", with "Configuration" selected. The main area contains a table with the following columns: Date, Time, User, Event Type, and Reason. The table lists 18 events, all of which are "Configuration Change" events. The reasons for these events include "Method 1 for post-write actions of menu Identification executed", "Method 1 for post-write actions of menu Operating unit executed", "Routine Service", "Method 1 for pre-write actions of menu Identification executed", "Method 1 for pre-write actions of menu Operating unit executed", "Field Change", and "Device identified". The window also features a "Show By:" dropdown menu set to "AMS Tag", a "Filter..." button, and "Close" and "Help" buttons at the bottom right.

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 %

Thermal Motor Model

Thermal Memory %

Loss of Phase On

Cooling Down Period s

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 %

Analog Module

Input 1 mA

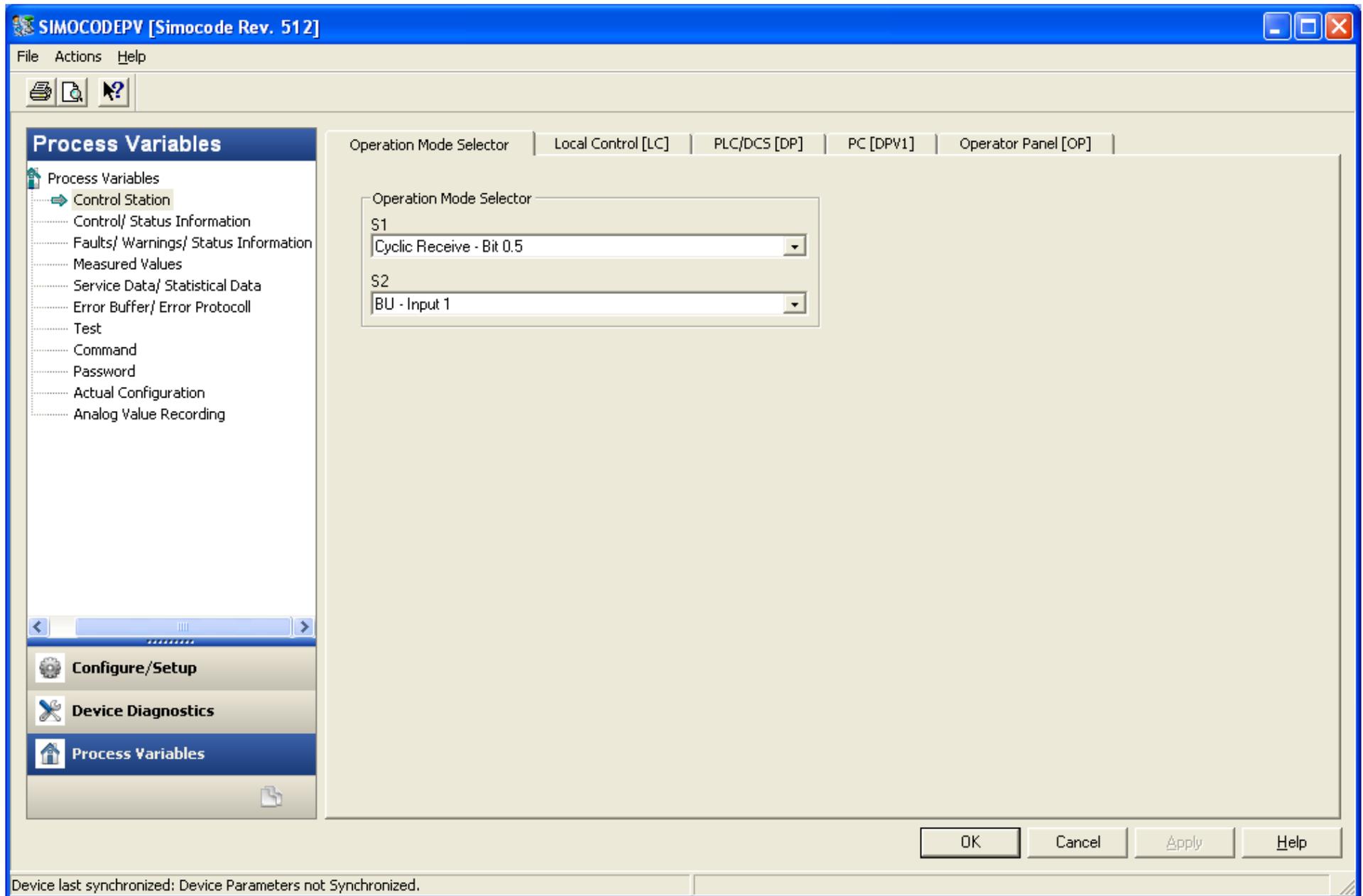
Input 2 mA

Output mA

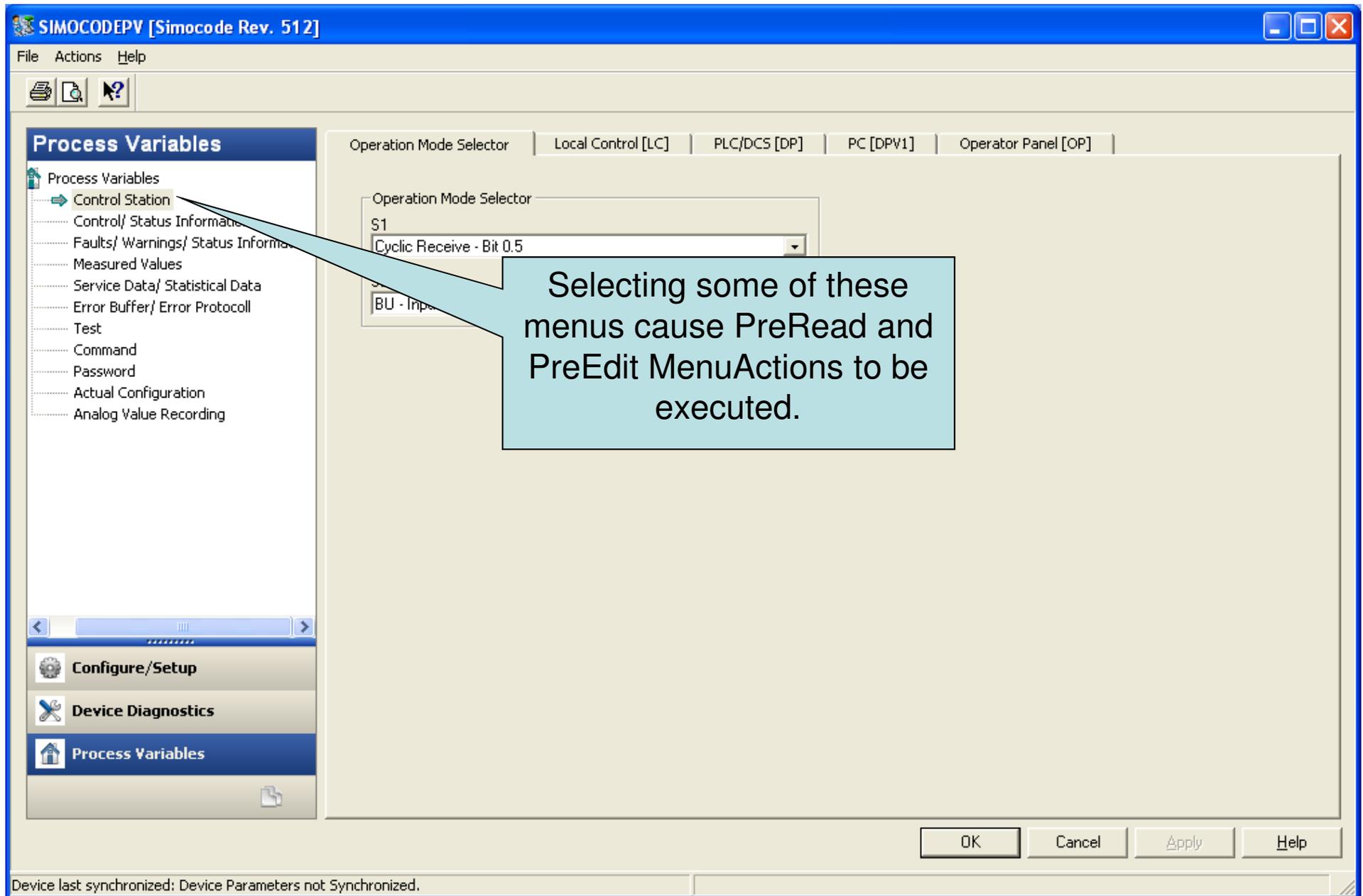
OK Cancel Apply Help

Device last synchronized: Device Parameters not Synchronized.

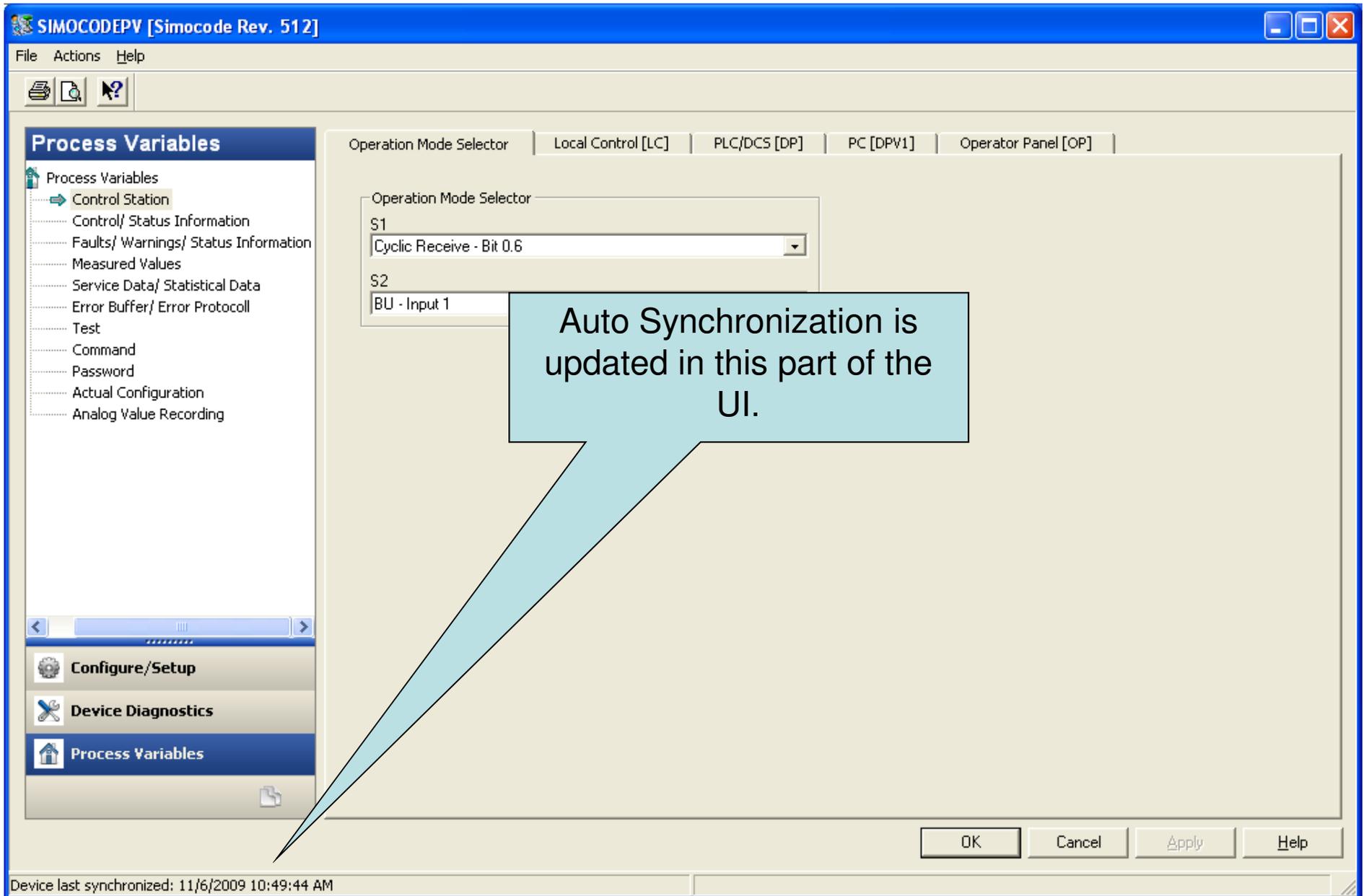
Simocode Process Variables screen looks like this



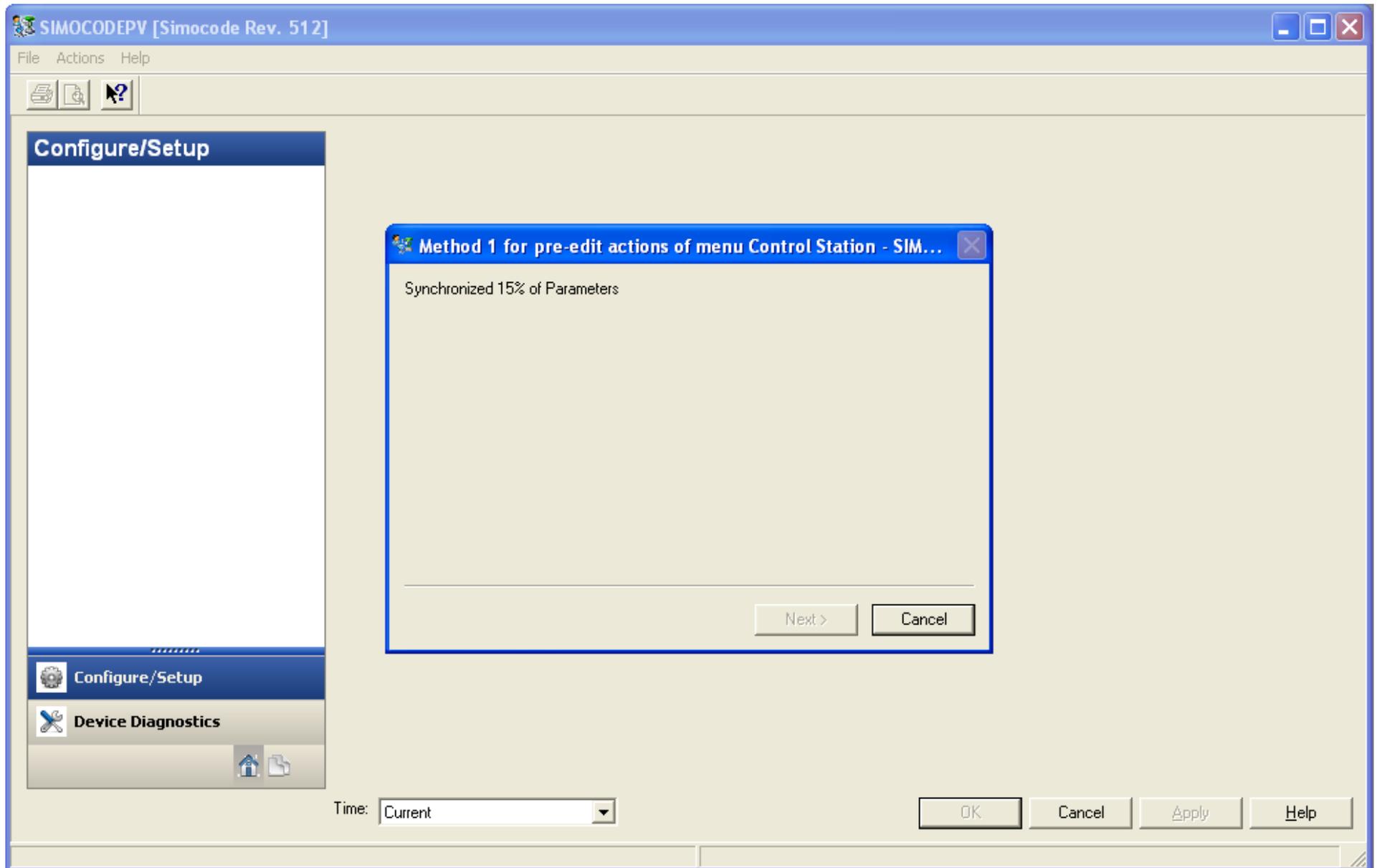
Simocode Process Variables screen looks like this



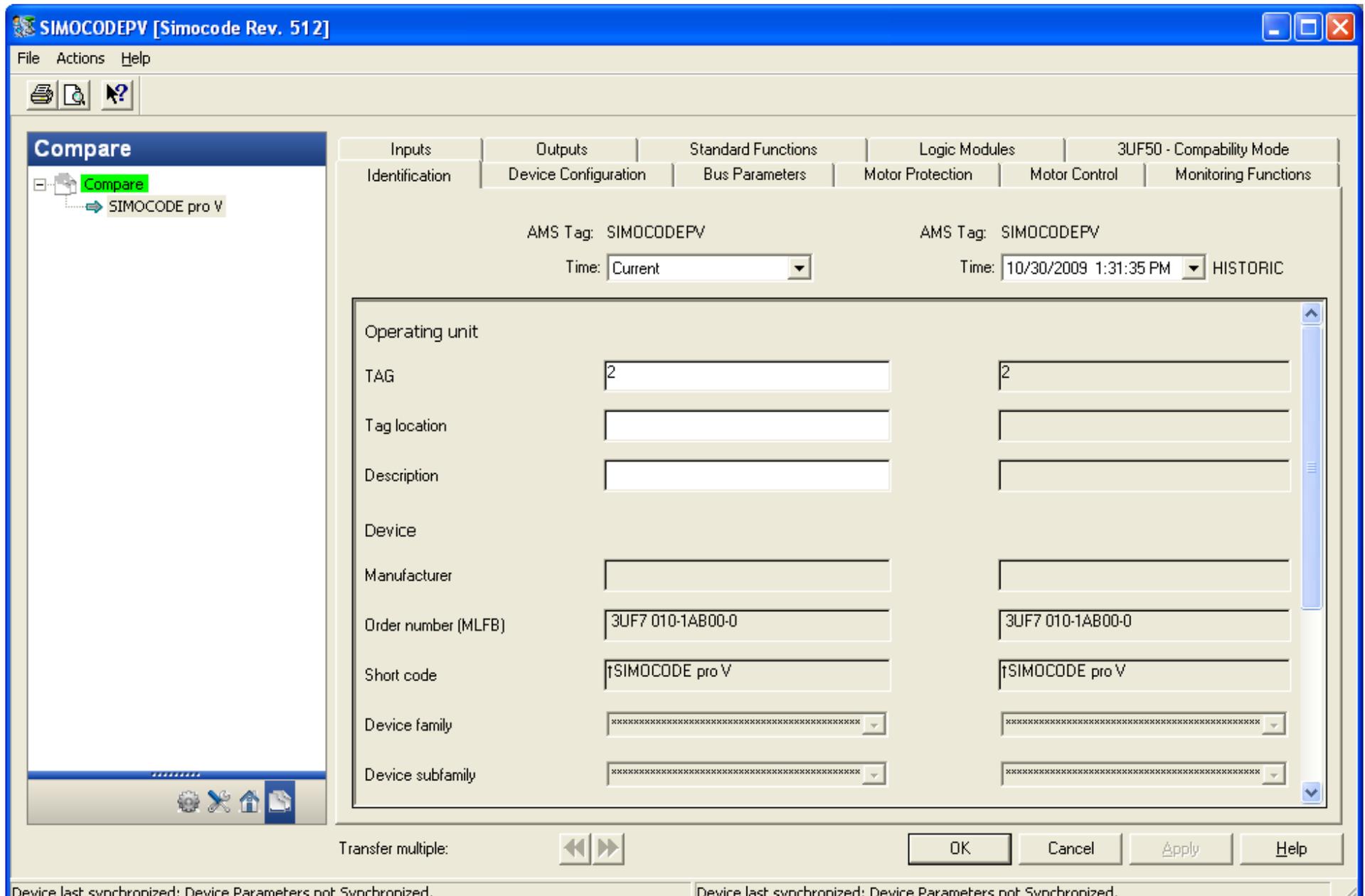
If AutoSynchronization is enabled, then scan will occur each time any Device Window is launched.



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



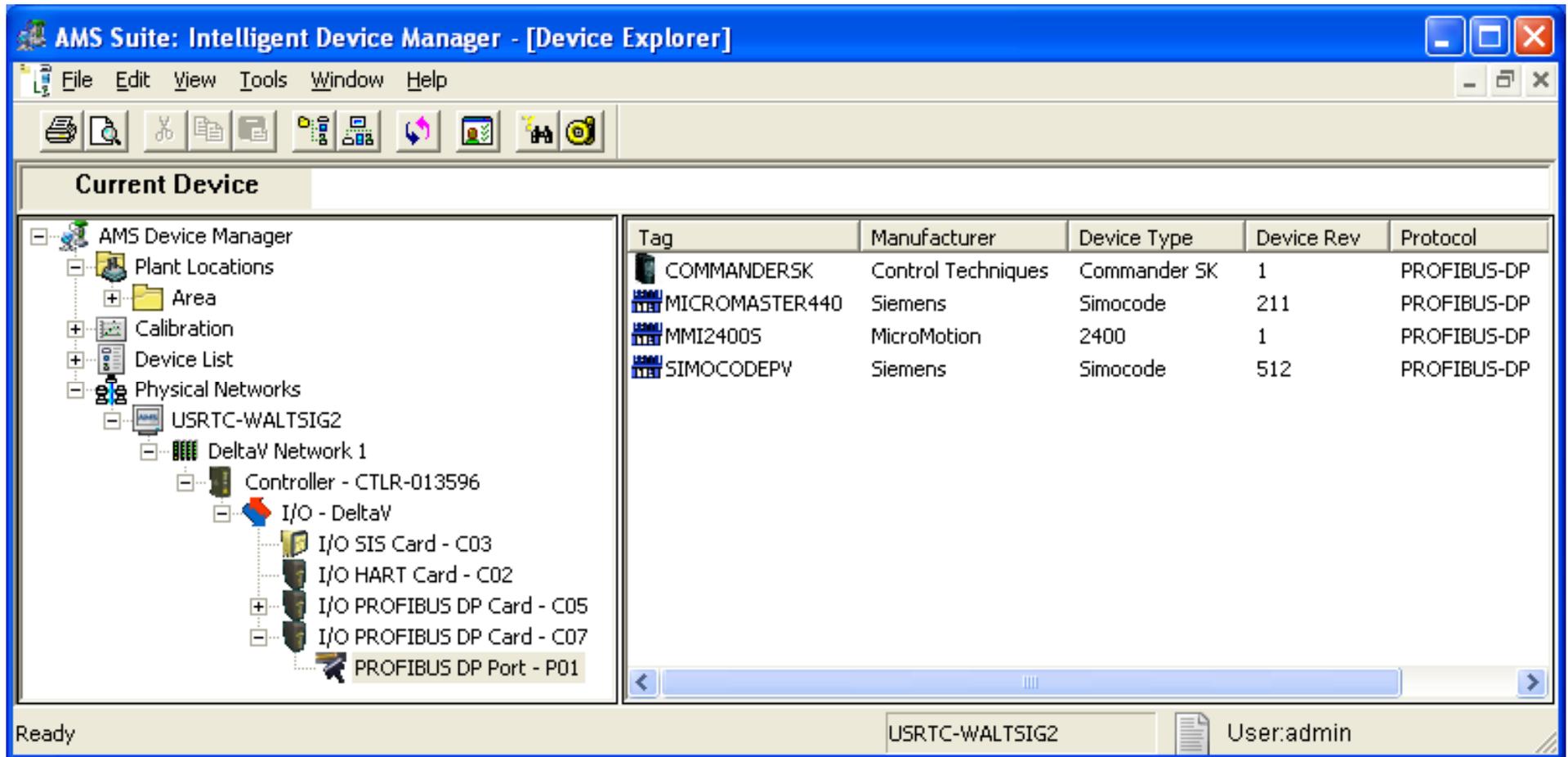
Simocode Compare screen looks like this



Other Devices besides Simocode

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

All Available on fredmid2



The screenshot shows the 'AMS Suite: Intelligent Device Manager - [Device Explorer]' window. The left pane displays a tree view of the device hierarchy, including 'Plant Locations', 'Area', 'Calibration', 'Device List', 'Physical Networks', 'USRTC-WALTSIG2', 'DeltaV Network 1', 'Controller - CTRL-013596', 'I/O - DeltaV', and various I/O cards and ports. The right pane displays a table of device information.

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

Ready USRTC-WALTSIG2 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

The screenshot displays the MICROMASTER440 configuration software interface. The window title is "MICROMASTER440 [Simocode Rev. 211]". The menu bar includes "File", "Actions", and "Help". The main area is divided into two panes. The left pane, titled "Configure/Setup", shows a tree view with the following structure:

- Configure/Setup
 - &Main Menu
 - &File
 - &Device
 - &View
 - Diagnosis
 - Errors
 - r0947 Last fault
 - r0949 Fault value
 - Fault time
 - r0948 Fault time
 - Status
 - r0052 CO/BO: Ad
 - r0002 Drive state
 - r0053 CO/BO: Ad
 - r0019 CO/BO: BO
 - &Options
 - Error Handling**
 - &Options

The right pane, titled "Error Handling", contains two input fields:

- Delay Read: 20 ms
- Delay Write: 100 ms

At the bottom of the window, there is a "Time:" dropdown menu set to "Current", and four buttons: "OK", "Cancel", "Apply", and "Help". A status bar at the very bottom reads "Device last synchronized: Device Parameters not Synchronized."

Micromaster Device Diagnostics screen

MICROMASTER440 [Simocode Rev. 211]

File Actions Help

Device Diagnostics

- Device Diagnostics
 - Errors
 - Fault time
 - Status

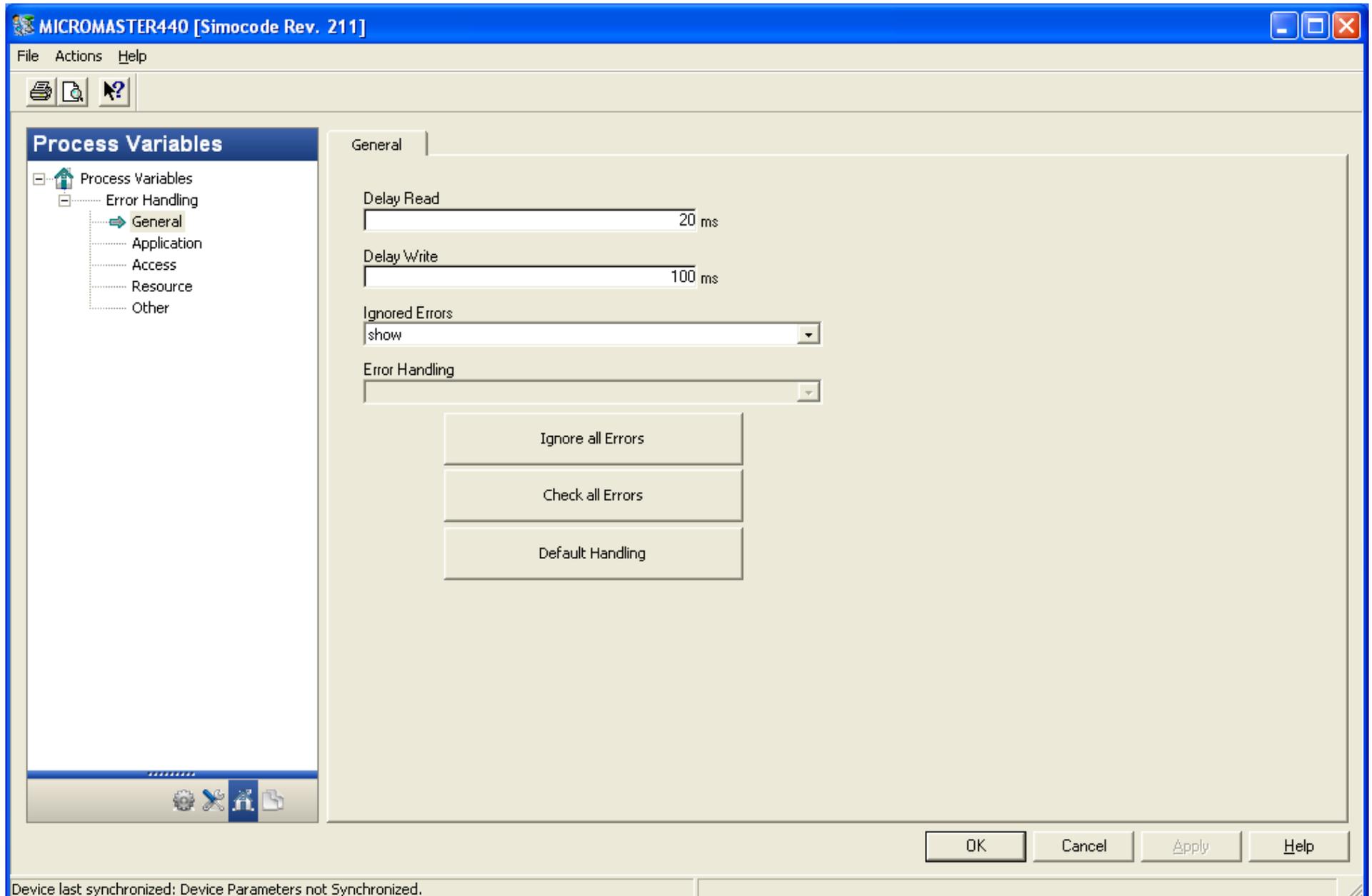
r0947 Last fault code | Errors | r0949 Fault value

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



Micromaster Compare screen

The screenshot displays the 'MICROMASTER440 [Simocode Rev. 211]' software interface. The main window is titled 'Compare' and contains a comparison table of parameters between two instances of the MICROMASTER440. The left instance is set to 'Current' time, and the right instance is set to '10/30/2009 1:24:48 PM' in 'HISTORIC' mode. The parameters listed include status words, drive state, BOP control words, and motor potentiometer settings. The 'OFF2: Electrical stop' parameter is checked in both instances. The interface includes a menu bar (File, Actions, Help), a toolbar, and a status bar at the bottom with the message 'Device last synchronized: Device Parameters not Synchronized.'.

File Actions Help

Compare

Compare
→ Main Menu

&File &Device &View &Options

AMS Tag: MICROMASTER440 Time: Current

AMS Tag: MICROMASTER440 Time: 10/30/2009 1:24:48 PM HISTORIC

r0052 CO/BO: Act. status word 1		
r0002 Drive state		
r0053 CO/BO: Act. status word 2		
r0019 CO/BO: BOP control word		
r0019 CO/BO: BOP control word	<input type="checkbox"/> ON/OFF1	<input type="checkbox"/> ON/OFF1
r0019 CO/BO: BOP control word	<input checked="" type="checkbox"/> OFF2: Electrical stop	<input checked="" type="checkbox"/> OFF2: Electrical stop
r0019 CO/BO: BOP control word	<input type="checkbox"/> JOG right	<input type="checkbox"/> JOG right
r0019 CO/BO: BOP control word	<input type="checkbox"/> Reverse (setpoint inversion)	<input type="checkbox"/> Reverse (setpoint inversion)
r0019 CO/BO: BOP control word	<input type="checkbox"/> Motor potentiometer MOP up	<input type="checkbox"/> Motor potentiometer MOP up
r0019 CO/BO: BOP control word	<input type="checkbox"/> Motor potentiometer MOP down	<input type="checkbox"/> Motor potentiometer MOP down

Transfer multiple: [Left Arrow] [Right Arrow]

OK Cancel Apply Help

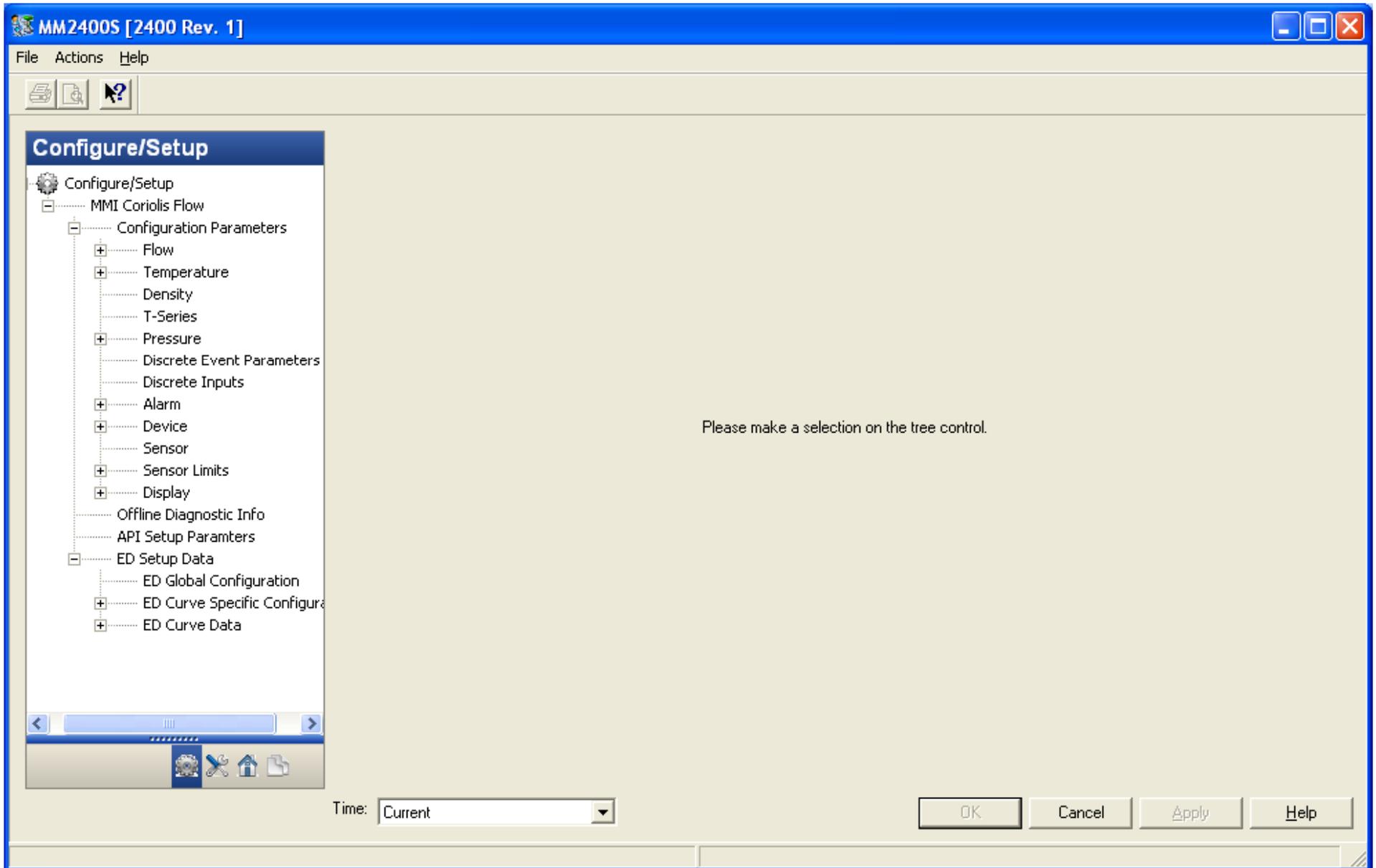
Device last synchronized: Device Parameters not Synchronized.

Device last synchronized: Device Parameters not Synchronized.

Other Devices besides Simocode

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

MicroMotion 2400 configure screen



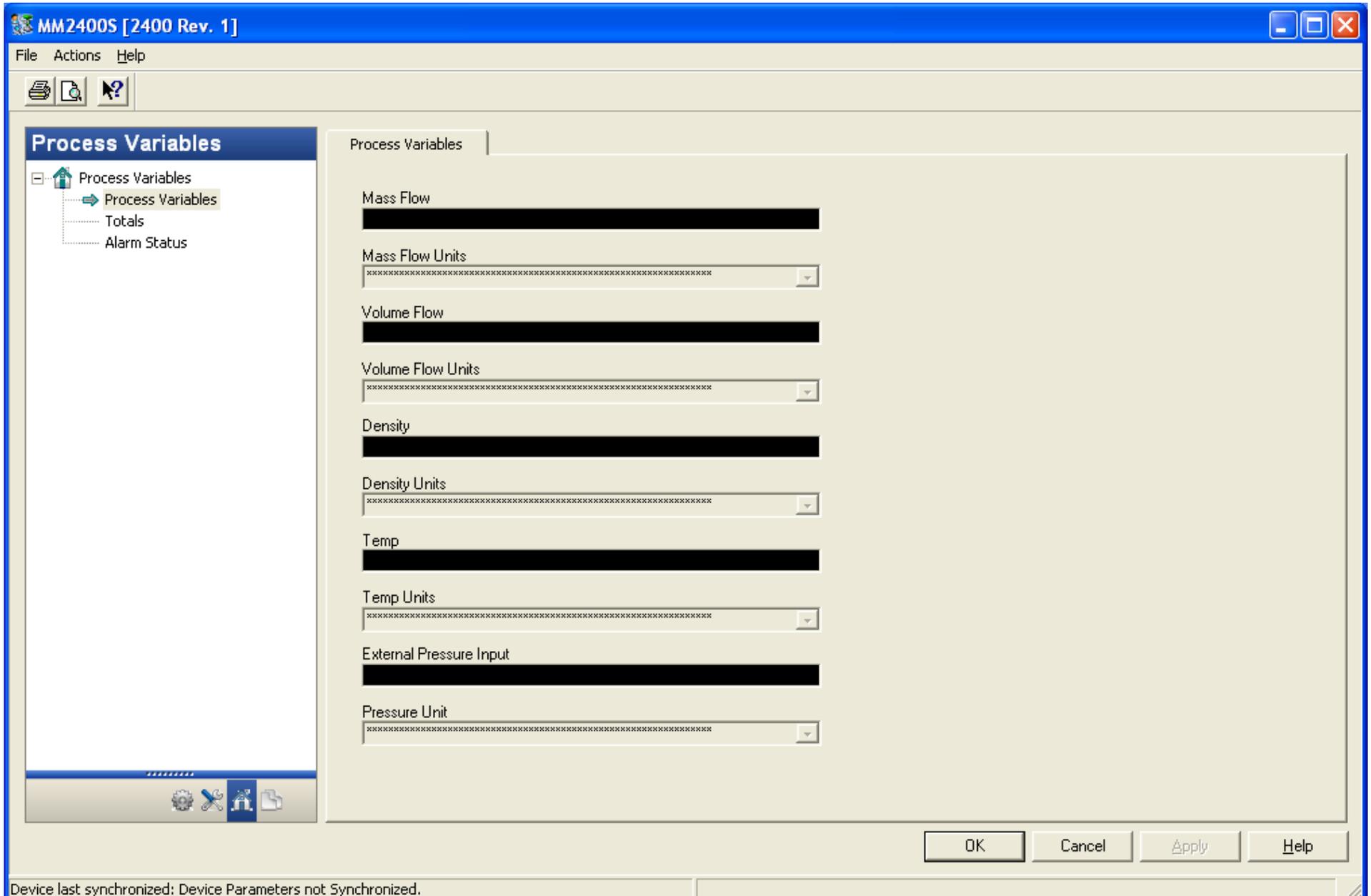
MicroMotion 2400 Device Diagnostics screen

The screenshot shows the 'MM2400S [2400 Rev. 1]' window with a menu bar (File, Actions, Help) and a toolbar. The 'Device Diagnostics' section is active, displaying a list of parameters under the 'Core Processor Diagnostics' tab. The parameters are:

- Temp Units
- Board Temperature
- Maximum Electronics Temperature
- Minimum Electronics Temperature
- Average Electronics Temperature
- Maximum Sensor Temperature
- Minimum Sensor Temperature
- Average Sensor Temperature
- Drive Current (mA)
- RTD Cable Resistance (ohms)
- Line RTD Resistance (ohms)

A callout box points to the 'Maximum Sensor Temperature' parameter, containing the text: "We still do not have communications with our 2400S. This may be a setup issue between DeltaV and MicroMotion. We need to know what data is sent on the cyclical data slots." The status bar at the bottom indicates "Device last synchronized: Device Parameters not Synchronized." and the bottom right has buttons for OK, Cancel, Apply, and Help.

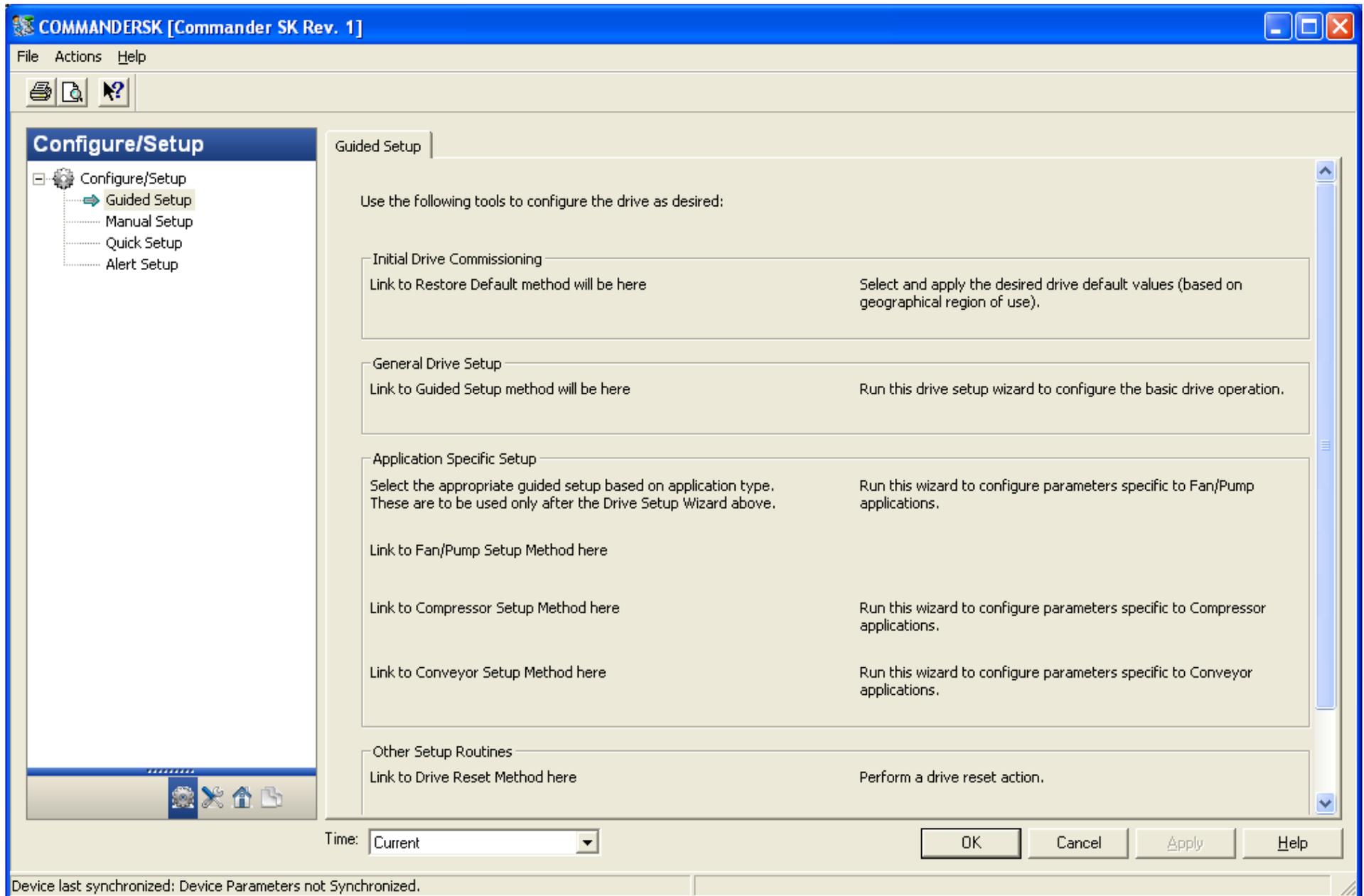
MicroMotion 2400 Process Variables screen



Other Devices besides Simocode

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

CT Commander configure screen



CT Commander Device Diagnostics screen

The screenshot displays the 'COMMANDERSK [Commander SK Rev. 1]' software interface. The main window is titled 'Device Diagnostics' and features a left-hand navigation tree with categories like Alerts, Variables, Trends, and Communications. The 'Variables' category is selected, showing a list of menus from Menu 1 to Menu 21. The main content area is divided into four tabs: 'Drive Variables 1', 'Drive Variables 2', 'Process Variables', and 'Digital and Analog I/O Status'. The 'Drive Variables 1' tab is active, displaying several data fields:

- 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

On the right side, the 'Digital and Analog I/O Status' section shows:

- Drive Status:** Drive healthy (checkbox), Drive active (checkbox)
- Overload:** Motor overload accumulator: 0.000000 %; Braking energy overload accumulator: 0.000000 %

At the bottom of the window, there are 'OK', 'Cancel', 'Apply', and 'Help' buttons. A status bar at the very bottom indicates 'Device last synchronized: Device Parameters not Synchronized.'

CT Commander Process Variables screen

The screenshot displays the 'Process Variables' screen in the COMMANDERSK [Commander SK Rev. 1] application. The interface includes a menu bar (File, Actions, Help), a toolbar, and a left-hand navigation pane. The main content area is titled 'Overview' and shows the following components:

- Status:** A red banner with a white 'X' icon and the text 'Failed'. Below it is a 'Troubleshoot' button.
- Primary Purpose Variables:** Two gauges are displayed:
 - Motor speed:** A semi-circular gauge with a scale from 0 to 1800 RPM. The needle is at 0.00 RPM.
 - Percentage load:** A semi-circular gauge with a scale from -150 to 150%. The needle is at 0.00%.
- Shortcuts:** Three buttons are located at the bottom: 'Device Information Window', 'Fault Log', and 'Run Time History'.

At the bottom of the window, there are 'OK', 'Cancel', 'Apply', and 'Help' buttons. A status bar at the very bottom indicates: 'Device last synchronized: Device Parameters not Synchronized.'

CT Commander Compare screen

The screenshot displays the 'Compare' window in the COMMANDERSK software. The window title is 'COMMANDERSK [Commander SK Rev. 1]'. The menu bar includes 'File', 'Actions', and 'Help'. A toolbar with icons for home, search, and help is located below the menu bar. On the left, a 'Compare' sidebar lists 'Compare', 'Guided Setup', 'Manual Setup', 'Quick Setup' (highlighted), and 'Alert Setup'. The main area is titled 'Quick Setup' and shows two columns of parameters for comparison, both with an 'AMS Tag' of 'COMMANDERSK'. The left column's 'Time' is set to 'Current', while the right column's 'Time' is '10/30/2009 1:13:37 PM' with a 'HISTORIC' label. The parameters are grouped into three sections: 'Accel/Decel Settings', 'Drive Switching Frequency Setting', and 'Speed Reference Settings'. The 'Accel/Decel Settings' section includes 'Acceleration rate 1' and 'Deceleration rate 1', both with values of 38.000000 and 33.000000 s/100Hz respectively. The 'Drive Switching Frequency Setting' section includes 'Maximum switching frequency' set to 3 kHz. The 'Speed Reference Settings' section includes 'Reference selector' set to 'PAd' and 'Preset speed selector' set to 0. At the bottom, there are 'Transfer multiple:' controls with left and right arrows, and buttons for 'OK', 'Cancel', 'Apply', and 'Help'. A status bar at the very bottom shows 'Device last synchronized: Device Parameters not Synchronized.' on both sides.

COMMANDERSK [Commander SK Rev. 1]

File Actions Help

Compare

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

Quick Setup

AMS Tag: COMMANDERSK AMS Tag: COMMANDERSK

Time: Current 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.