

QUICK START

DevCom2000 uses Device Descriptions (DDs) to access data stored in the memory of the smart field device. These DDs are developed by the manufacturer for their products and, in turn, distributed by the HART[®] Communication Foundation (HCF) worldwide. The latest DDs are included as part of the DevCom2000 installation. Visit the HCF website (www.hartcomm.org) or the ProComSol website (www.procomsol.com) for update information.

The following steps will allow you to install and quickly begin using DevCom2000:

Step 1: Install the DevCom2000 application

Insert the DevCom2000 installation CD into the CD drive on your computer. The DevCom2000 installation will automatically start and guide you through the installation process. Install DevCom2000 in its default location. If the installation program does not begin automatically, please go to Start→Run→ and enter “CDRom drive letter”:setup.exe. This will begin the installation program.

Step 2: Connect the communication interface

Connecting to a HART device requires special interface hardware to be attached to your computer. These interfaces ("HART Modems") are available from ProComSol, Ltd and other sources. The interface should be connected and configured (COM4 default). Note: Many USB to RS232 converters will not work with the HART protocol. Due to concerns about port replicators it may be necessary for you use a USB to HART modem (ProComSol, Ltd model HM-USB-ISO) if you do not have an RS232 port.

Step 3: Connect to the field device

Find a connection point for the device's 2-wire 4-20mA loop you wish to communicate with. For communications you must have a suitable load resistance or a 250Ω resistor must be placed in series with the device. Using the clips from the HART interface, connect to the HART device. While the HART Communication signal is available anywhere along the 4-20mA wiring, it is often easiest to connect across the field device's terminals (caution should be observed when working in a hazardous area, many PC's are not rated for intrinsic safety and should only be connected in a safe area).

Step 4: Activate DevCom2000

Launch DevCom2000 by selecting the DevCom2000 icon on your desktop. You can also start the application by going to your computer's Start Menu and selecting **Start → Programs → ProComSol → DevCom2000 → DevCom2000** to launch the program.

You will now be asked to Activate DevCom2000. If you have Activation Codes (located on the CD case), select the Activation method of your choice (Manual or Online). If you do not have Activation Codes, it is because you have the Demo version of DevCom2000. You can use it for 10 days before you need to Activate it. Select the Evaluate option and then press the “Continue” button.

If you are Activating DevCom2000 by the online method, select online activation. You will be asked to enter the Activation Codes on the next screen. Once entered, DevCom2000 will connect to the Internet to verify the Activation Codes. If you do not have an internet connection, you can activate it by email or phone using the Manual Activation method. Activation details are fully explained later in this manual.

Activation only needs to occur once.


Operating DevCom2000 is similar to working with Windows® Explorer. DevCom2000 communicates to the field device, establishes a connection and learns its identity. Once DevCom2000 knows its identity, DevCom2000 locates the device's DD and loads it. From this point forward operation of DevCom2000 is determined by the DD provided by the product's manufacturer. If a DD for the device is not present, a generic DD will be used.

Step 5: Browse the Device

By default, DevCom2000 will open the Browser window. The organization of the data in this explorer-style window is dictated by the device DD. The left hand tree-pane of this window shows the logical groups of field device data. These are called "Menus". The right hand data-pane shows the data, any sub-groups and any standard operating procedures found on a given menu.

You can browse through the field device data by expanding (click "+" symbol) or collapsing (click the "-" symbol) the menus in the tree-pane. You can also double-click the folder symbol when seen on the data-pane.

Step 6: Modify the Device's Configuration

The Browser allows access to all of the data exactly as described by the product's manufacturer's DD. When you find elements of the field device's configuration you want to change, simply double-click and edit the data. Once you have changed the configuration to suit your needs, press the Send icon  to commit the data and transfer it to the field device.

Step 7: Performing Maintenance and Testing the Field Device

Many devices perform Methods or Standard Operating Procedures (SOPs) that may need to be performed to ensure the device is in peak condition. These Methods may include calibrating the loop current, trimming the transducer values or performing some diagnostic test on the field device. Methods appear in the data-pane just like data does. Double-click on the Method and it will start running in a separate window. The Method will guide you through the process ensuring the procedure is completely and consistently performed. When the Method is complete the window will disappear.

Step 8: Exit

When you are through working on the field device simply exit DevCom2000. Once the program exits, you can then disconnect the HART interface hardware.

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1 INTRODUCTION

The Smart Device Communicator (DevCom2000) allows access to and management of a HART compatible field device's configuration and calibration. This manual provides the information about the Hardware setup, Communication with Smart devices, and functions of DevCom2000.

DevCom2000 is unique in that it uses the DD of the connected device to determine what information to display, what variables are available for edit, and what procedures to follow for calibration, setup, and maintenance.

1.1 Acronyms and Definitions

Acronym	Definition
COTS	Commercial-off-the-Shelf
DD	Device Description File. This contains the device information.
DDL	Device Description Language
HCF	HART Communication Foundation
DevCom2000	Smart Device Communicator Software

1.2 Conventions Used in This Manual

Following formatting conventions are used in this guide:

Convention	Description
Words in bold type	Field names including buttons in the display, or important phrases.
→ Arrow	Windows pull down menus and their options are separated by →. For example, click Device → New Device to connect to a new device.
Courier font	Information that you type, parts of the code quoted for explanations or as examples.
UPPERCASE	Acronyms
UPPERCASE within angle brackets	Command keys For example, press <ENTER>.

1.3 Document Organization

DevCom2000 user manual is organized into the following sections:

-
- Section 1** Describes the scope and objective of DevCom2000 user manual along with the organization of the remaining part of the manual.
- Section 2** Provides an overview of the DevCom2000 application and its architecture.
- Section 3** Provides the information pertaining to hardware and software requirements for the DevCom2000 application.
- Section 4** Provides the steps to install, activate, and uninstall the DevCom2000 application.
- Section 5** Provides the steps to start the DevCom2000 application and connecting to field devices.
- Section 6** This section explains different aspects of the DevCom2000 application and its functionalities.
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1.4 Getting Help

If you need help or encounter problems when using DevCom2000 or this guide, please contact ProComSol, Ltd. See Appendix B for contact information. Please provide the following information.

Create a text description of the problem. If possible, provide the text in event sequence, which will enable the duplication of the problem. Provide information about the system. This information must include:

- DevCom2000 version and License ID
- Computer information: make, model, CPU type, clock speed, attached peripherals and operating environment (Windows version)
- Device information: make, model, and device revision
- Point of contact: complete mailing address, telephone number, and e-mail address,
- The date and time of the problem occurrence.

2 OVERVIEW OF DEVCOM2000

Field devices such as flow, pressure, level, temperature transmitters, and valve positioners provide the physical connection to the process. These devices allow the control system to monitor and manipulate process conditions. HART devices maintain a real-time database of process, configuration, identification, and diagnostic information. This information can be accessed using the HART Field Communications Protocol.

HART devices are capable of providing functions and features far beyond the basic task of providing a process input or accepting a control output to manipulate process conditions. Many HART compatible device manufacturers create a DD (Device Description) describing all of these functions and features specific to that device. The DD also provides information essential to the successful configuration and calibration of the device.

DevCom2000 uses these DD's to access the data stored in a device, providing full configuration and setup support for all registered HART DD's.

DevCom2000 accesses and presents field device data based solely on its DD. No other files, information or custom drivers are required. DevCom2000 is intended to monitor and configure a single device at a time, it is directly connected to the current loop of the particular device and:

- Provides user interface to configure the HART field device,
- Provides a means to configure and view all the parameters related to HART field device, and
- Provides an option to view the detailed status and diagnostic capability of the device.

DevCom2000 allows viewing and modifying of field device parameters based on the DD. Using the device's DD, DevCom2000 performs various tests to verify the proper operation of the HART device. DevCom2000 runs as a standalone software package and must have a HART compatible modem attached to the system to interrogate the HART base devices.

3 SYSTEM REQUIREMENTS

The following minimum system requirements are recommended for operation of DevCom2000.

PC	Processor Speed: Pentium, 600 Mhz Memory: 256 MB Hard Disk Space: 500 MB Monitor: 256-color VGA
HART Modem	USB to HART modem, or Bluetooth to HART modem, or RS-232 to HART modem. ProComSol, Ltd supplies HART modems
Communication Port	USB, Bluetooth, or RS-232
Operating System	Windows NT, Windows 2000, Windows XP, Windows Vista, Windows 7

4 DEVCOM2000 INSTALLATION

4.1 Prerequisites

You need to be familiar with the basic functions of the following when installing the DevCom2000 tool:

- Microsoft Windows
- HART communication interface
- HART field device

4.2 Installing the DevCom2000 Application

To install the DevCom2000 application in a standalone system, perform the following steps:

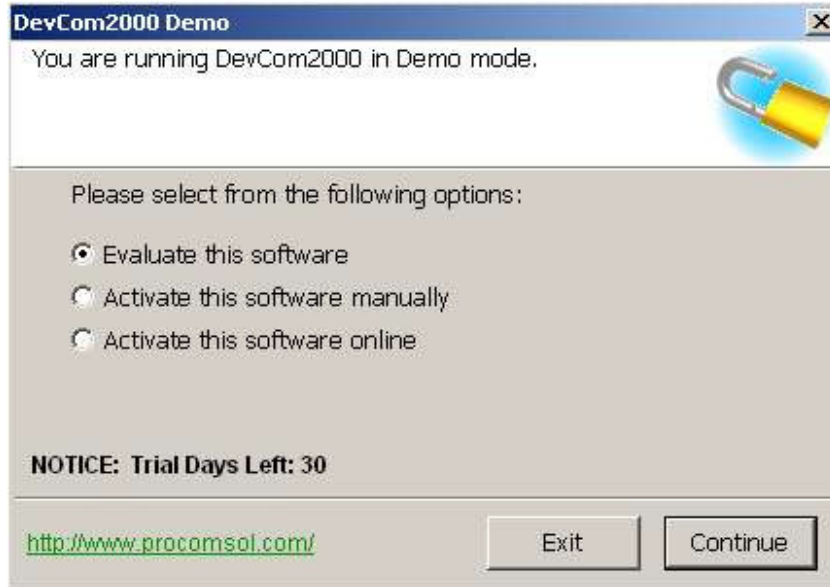
Step	Action
1	Insert the DevCom2000 CD into the CD-ROM drive. Auto run should begin installation, if not:
2	Click Start and choose Run . From the Run window, click Browse .
3	In the Look In box, browse to your CD drive.
4	Double-click the drive to access the CD content.
5	Look for the setup.exe file and double-click the same. This process will take you through a sequence of installation wizard steps.
6	Follow the instructions on the upcoming screens to complete the Installation.

4.3 Activating DevCom2000

DevCom2000 must be activated before use. If the program is not activated, it will not run after 10 days. The following procedure will Activate the software.

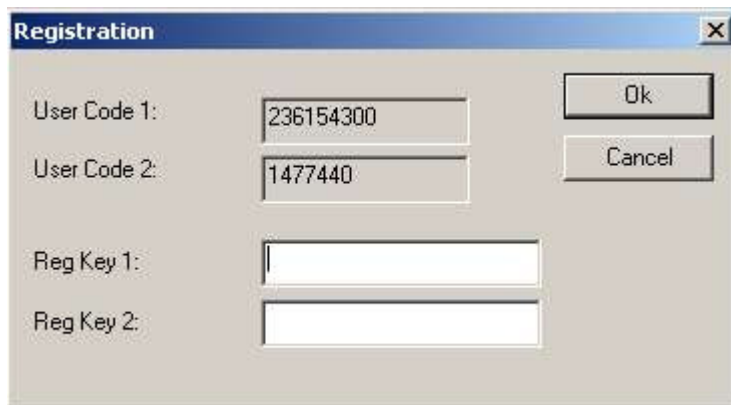
Step Action

- 1 Start the DevCom2000 Application. The following Activation window is displayed:



If you want to evaluate DevCom2000 before purchasing, select the “Evaluate this software” option, then press “Continue”. You will have 10 days of unlimited program use before you will need to purchase a license.

- 4 If the “Activate this software manually” option is selected, the following window appears:



You will then need to contact ProComSol, Ltd to obtain the registration keys. You must supply the User Codes to ProComSol, Ltd support personnel. You can register manually in any of the following ways:

1. Call ProComSol, Ltd at 216.221.1550. Have the program License ID and User Codes ready.
2. Or, send an email to support@procomsol.com containing your

company name, License ID, and User Codes.

3. Or, send a fax to ProComSol, Ltd (216.221.1554) containing your company name, License ID, and User Codes.

The above information will be processed at ProComSol, Ltd and an appropriate response will contain the required Reg Key information that the user will need to enter.

If successful, the program continues as normal. You will not need to perform the activation process again.

- 5 If the “Activate this software online” option is selected, the following window appears.



Enter the information from the Activation label on the CD case. Select Ok to process the information.

If the codes were successfully entered, the program will continue as normal. You will not need to perform the activation process again.

- 6 We have tried to make the Activation process as easy as possible. Contact ProComSol, Ltd if you have any difficulties.

4.4 Connecting to the HART Network

The DevCom2000 application communicates with the HART Field Devices through a HART compatible communication interface (e.g., a "HART Modem"). Using this communication interface you will transmit real-time HART data between DevCom2000 and the connected HART compatible field device.

There are a wide variety of HART compatible interfaces. Please follow the manufacturer’s instruction for connecting your interface to the PC. This manual uses the HART modem manufactured by ProComSol, Ltd, called the HM-USB-ISO. It uses the USB interface.

Insert the USB connector on the HM-USB-ISO into your computer’s USB port. Using the clips on the wires from the HART interface, connect to the device across the 4-20ma signal. If a suitable load resistance is not available, a 250Ω resistor must be placed in series with the device power supply.

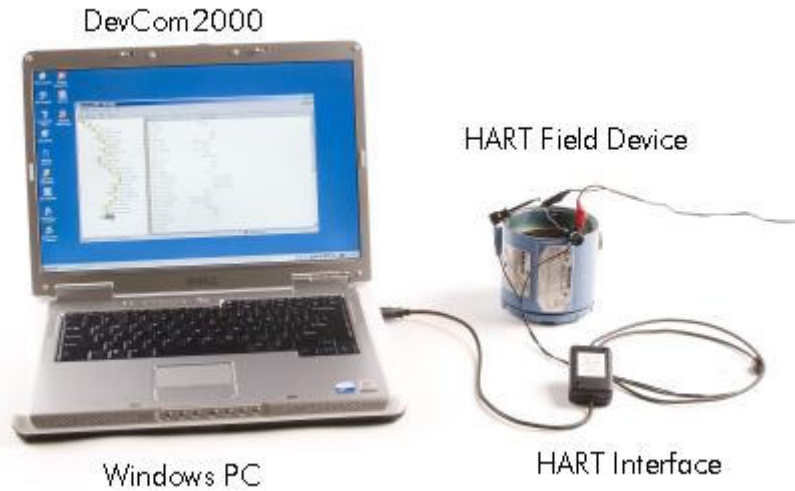


Figure 1 Typical DevCom2000 Hardware Setup

4.5 Uninstalling the DevCom2000 Application

To uninstall the DevCom2000 application, perform the following steps:

Step	Action
1	Click Start → Programs → ProComSol → DevCom2000 → Uninstall DevCom2000
2	Or, Click Start → Settings → Control Panel → Add/Remove Programs
3	In the <i>Add/Remove Programs</i> dialog window, select the DevCom2000 program that you want to uninstall.
4	Click Remove .
5	Click OK to confirm the removing of the selected application.

5 USING DEVCOM2000

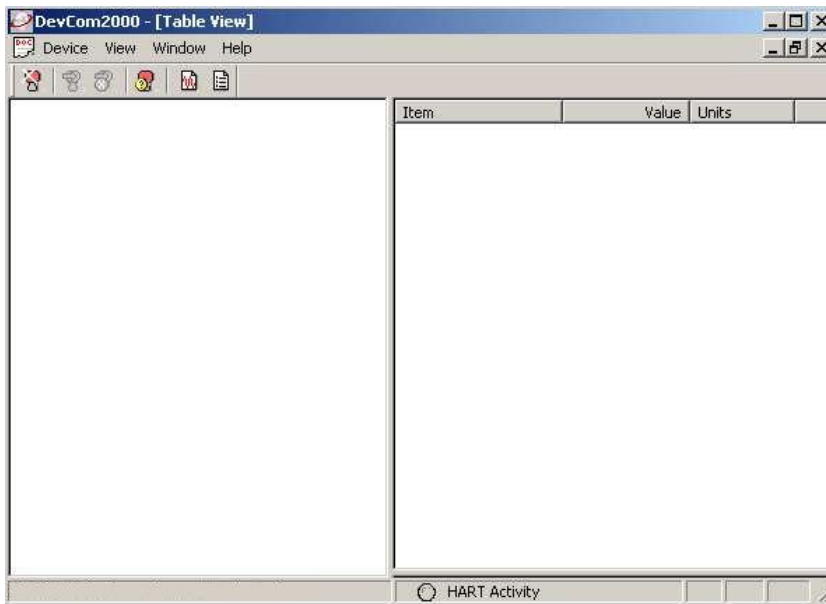
5.1 Starting DevCom2000

The HART compatible field device must be connected to a PC running DevCom2000 to configure or calibrate the field device, or to view the field device's data. Make sure to establish the physical connection between the field device and the DevCom2000 computer. With the physical connection established, launch DevCom2000 by clicking the DevCom2000 icon on your desktop. You can also start the application by going to your computer's Start Menu and selecting **Start → Programs → ProComSol → DevCom2000 → DevCom2000**.

If your computer is running an anti-virus program such as McAfee, you may get a message about a program wanting to access the internet. This is normal. DevCom2000 uses TCP/IP to communicate with the Communication Log program.

Step Action

- 1 Start the DevCom2000 Application. The following application window is displayed:

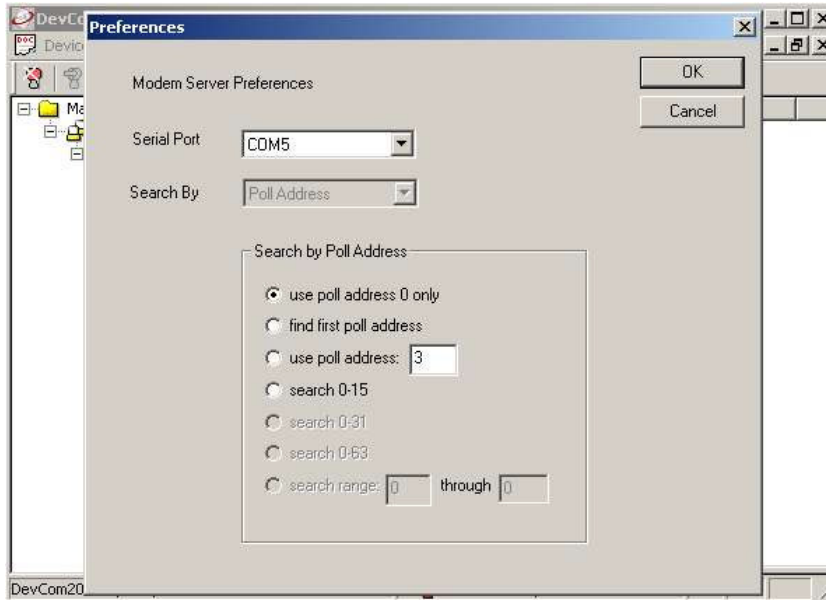


DevCom2000 will then automatically identify the field device and open a communication channel to (i.e., a connection with) the field device.

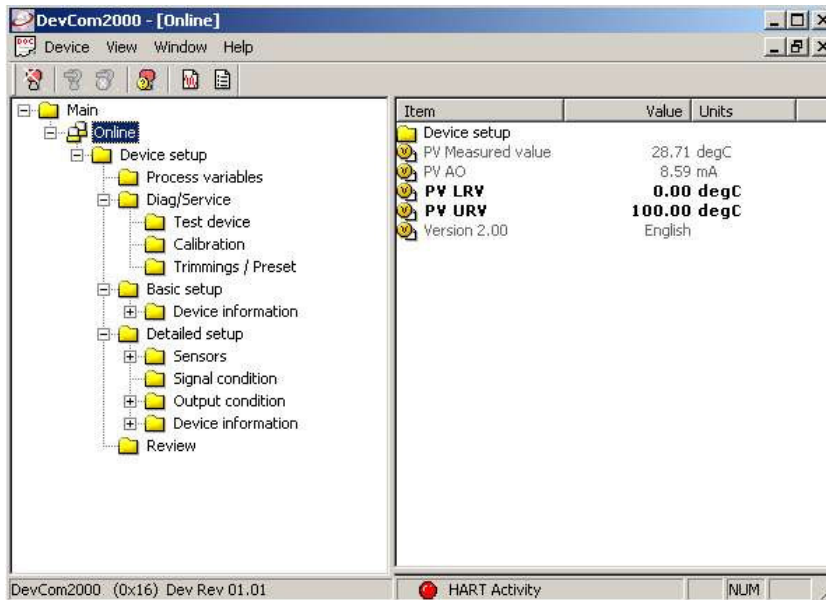
- 2 Setting Preferences **Device → Preferences**

If communications cannot be established, you may need to change the communication settings using the Preferences dialog box.

The serial port box will show the available com ports. Select the one your HART modem is using. You may also change the polling options for the computer. If you do not know the poll address of the device you are trying to communicate with, use the default address 0 setting.



- When the device is connected to DevCom2000, the browser window appears with online (i.e. root menu) selected.



The left pane of the window shows the menu structure and the right pane of the window displays corresponding parameters of the menu selected.


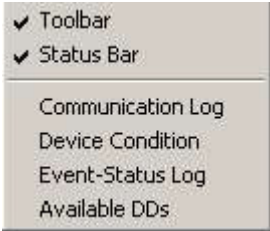


The DevCom2000 screens shown in this document are only an example of what you may see when connected to your field device. What you see is actually controlled by the DD and the device. The menus, data, status and configurations displayed are specified by the field device's manufacturer in the DD itself.

- Select the required menu to configure or review the field device's data.

5.2 Getting Familiarized with DevCom2000 Explorer

5.2.1 Using the Menus

DevCom2000 Explorer provides visual representation and structure of the application window.

Menu	Explanation
 <p>New Device Ctrl+N Preferences Document Device Download Exit</p>	<p>The Device Menu offers the following sub-menu options:</p> <p>New Device - Connect to a new device or reconnect to the same device.</p> <p>Preferences – Brings up the Preferences dialog box.</p> <p>Document Device – Brings up the Document Device dialog box.</p> <p>Download – Brings up the Download dialog box which provides Configuration File features.</p> <p>Exit - Exit DevCom2000.</p>
 <p>✓ Toolbar ✓ Status Bar</p> <hr/> <p>Communication Log Device Condition Event-Status Log Available DDs</p>	<p>The View Menu offers the following sub-menu options:</p> <p>Toolbar - Hide or show the Tool Bar.</p> <p>Status Bar - Hide or show the Status Bar.</p> <p>Communication Log – Open the Communication Log window.</p> <p>Device Condition – View detailed device status.</p> <p>Event-Status Log – View log of events and status changes</p> <p>Available DDs – Shows what DDs are available to DevCom2000</p>
 <p>Activate Check-In Status</p>	<p>The License Menu offers the following sub-menu options:</p> <p>Activate – Perform License Activation.</p> <p>Check-In – Send the license to the License Server.</p> <p>Status – License status and information.</p>
 <p>DevCom2000 Help Device Help About DevCom2000</p>	<p>The Help menu offers the following sub-menu options:</p> <p>DevCom2000 Help – Brings up Help</p>

information for the DevCom2000 application.







Device Help – Brings up help information for the connected device (if available).

About DevCom2000 – Shows copyright information, support information, and application Version Number.

5.2.2 Using the Toolbar






When you start the application, by default, the toolbar buttons appears on the main window. If it fails to display, click **View → Toolbar** option from the menu bar to bring up the toolbar.

Following are the buttons available in the DevCom2000 application toolbar to perform the necessary tasks:

Button	Description	Corresponding Menu Option
	Connect to a new device	Device → New Device
	Send parameter changes to the device	
	Cancel parameter changes	
	View more status on Device and Communication (Command 48 status)	View → Device Condition
	View Communication log	View → Communication log
	View Event log	View → Event-Status log

5.2.3 Familiarizing with Icons

DevCom2000 application uses different icons to represent different elements of the application. Following table lists the icons and their meanings:

Icon	Meaning
	Indicates a menu or submenu in the navigation tree
	Indicates a currently selected menu or submenu in the navigation tree
	Online menu icon. The actual DD menu comes under this.
	Indicates a “Variable” item
	Indicates a “Method” (Standard Operating Procedure) item



Indicates an “Edit Display” item

6 FUNCTIONS AND BASIC OPERATIONS

6.1 Overview

DevCom2000 allows the user to monitor and configure a single device at a time in the field. Each device is associated with the DD when the device information is present. A DD may contain any of the following parameters/elements:

Variable

A variable is defined as the data contained in the device (e.g. Device Firmware Version). There are two types of variables:

Editable Variable – It allows the operator to modify the value and download it to the device.

Non-Editable Variable – It is a read-only data from the device.

Edit Display

This option is used to view a group of parameters. You can also modify a single parameter from this group, based on which other parameters of the device get altered.

For example, if the Engineering Unit of the device is modified, the corresponding Low Limits and High Limits change as per the Engineering Unit set.

Method / Standard Operating Procedure (SOP)

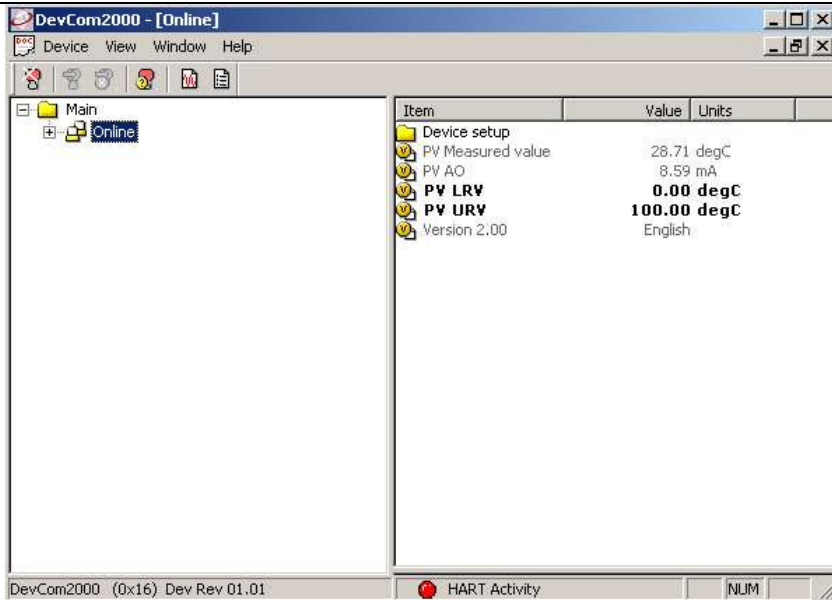
This option helps to perform various tests on the device for instance, Self Test and Loop Test. A Method or SOP is a series of steps that are executed in a sequence results in the completion of some device related tasks. When a method gets invoked, it gives various warning messages and options to the user, by which the user can thoroughly test the device. If a test is aborted by operator command at any stage of the sequence, the method invokes additional steps to bring the device back to its original state before the test.

6.2 Viewing Device Configuration (typical, actual view may change based on DD)

To view the configuration of the device that is connected to DevCom2000, perform the following steps:

Step	Action
1	Ensure that the application is running and communications have been established:

Step Action



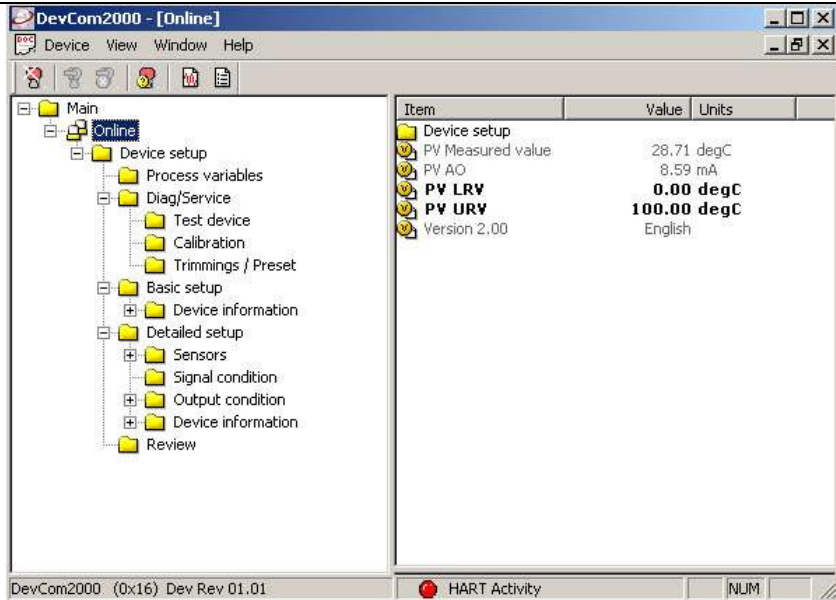
The left pane of the window shows the menu structure and the right pane of the window displays corresponding parameters of the menu selected.

The menus are displayed depending on the type of device that is being connected. These menus are displayed based on the DD file of the particular device.

If no DD is available for the device the DevCom2000 will select the standard DD. This should provide limited functionality for the device. NOTE: If a parameter is updated that is not supported by the device you will receive an error.

- 2 Expand the menu by clicking the “+” sign and double-click to view the device parameters. Below is an example of an expanded menu:

Step Action



- 3 Select the menu and view the associated parameters to view the device information.

6.3 Configuring Device Information

6.3.1 Overview

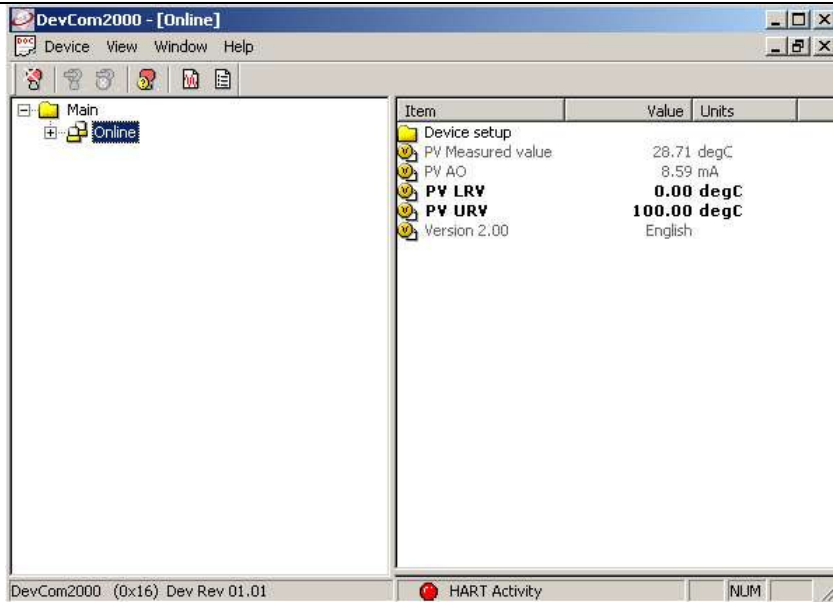
DevCom2000 allows you to view and configure the field device parameters based on the device description. However, the device vendor defines most of the parameters at the factory. These parameters become read only for the users and the user cannot modify the values. The related variables are grouped under various menus of different levels as defined in the DD file. Expand or collapse the tree view using the “+” or “-“sign to access the device configuration parameters.

Following table describes the details about the device configuration:

Step Action

- 1 Ensure that the application is running and communications have been established:

Step Action



The left pane of the window shows the menu structure and the right pane of the window displays corresponding parameters of the menu selected.

- 2 Expand the menu by clicking the “+” sign and double-click to view the device parameters.
- 3 There are three types of variables: dynamic, read/write and read only. The parameters that are grayed out indicate that these are dynamic variables (variables that get updated online by the device) or read only variables.

Following points describe how the device parameters represents their status when connected to DevCom2000:

Bold Font: Modifiable Values

Normal Font: Menu Item

Gray Font: Dynamic or Read Only Variables

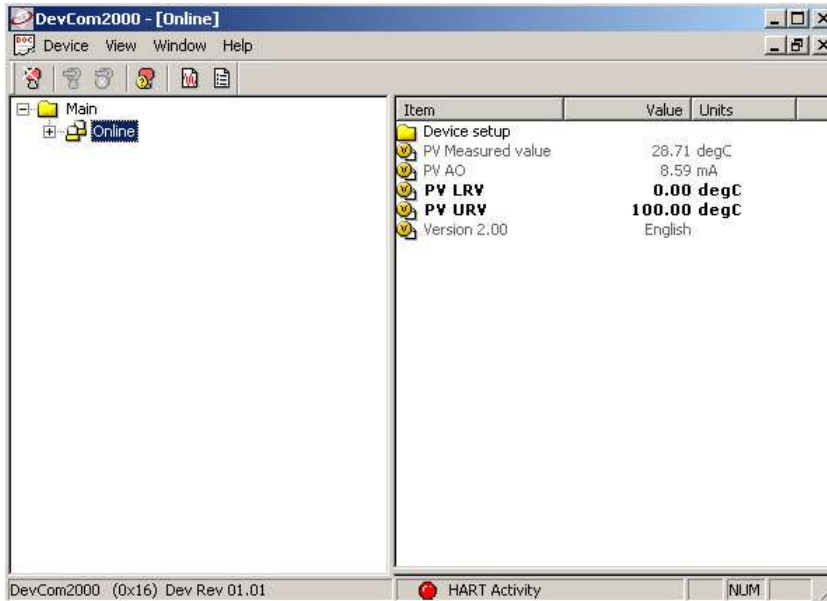
- 4 Select the parameter and configure the values, as required.
- 5 The subsequent topics explain how to configure device parameters.

6.3.2 Variable

To edit the parameter variables of the connected device, perform the following steps:

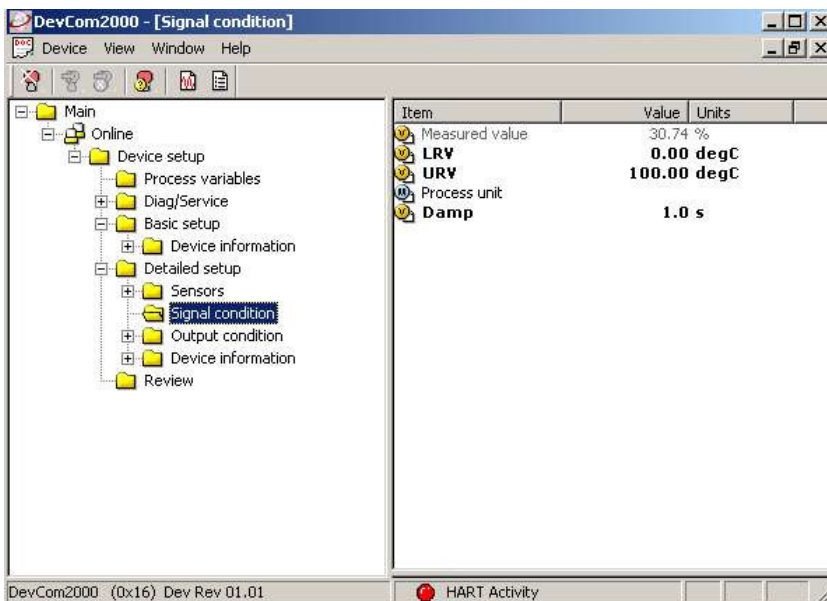
Step	Action
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- 1 Ensure that the application is running and communications have been established:



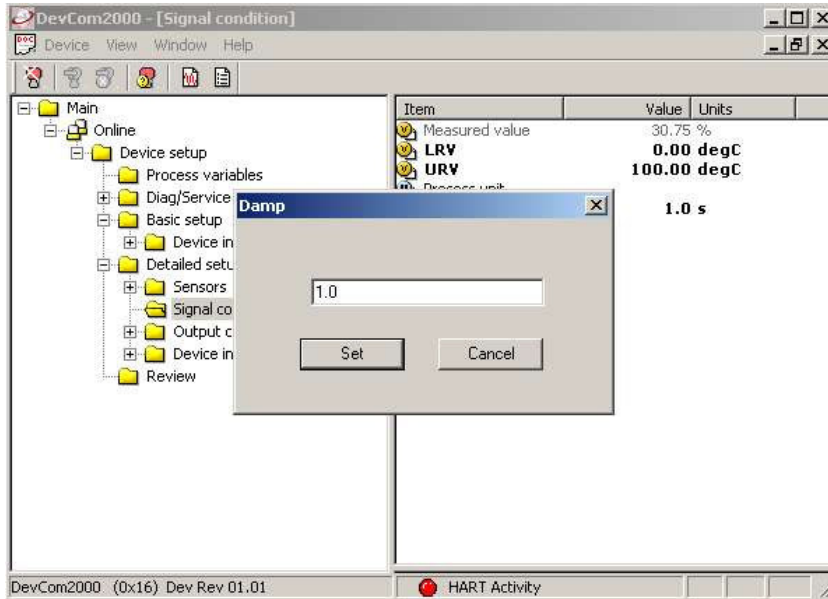
Expand the menu by clicking the “+” sign and double-click to view the device parameters.

- 2 Select the menu where the editable parameter is present as shown below:

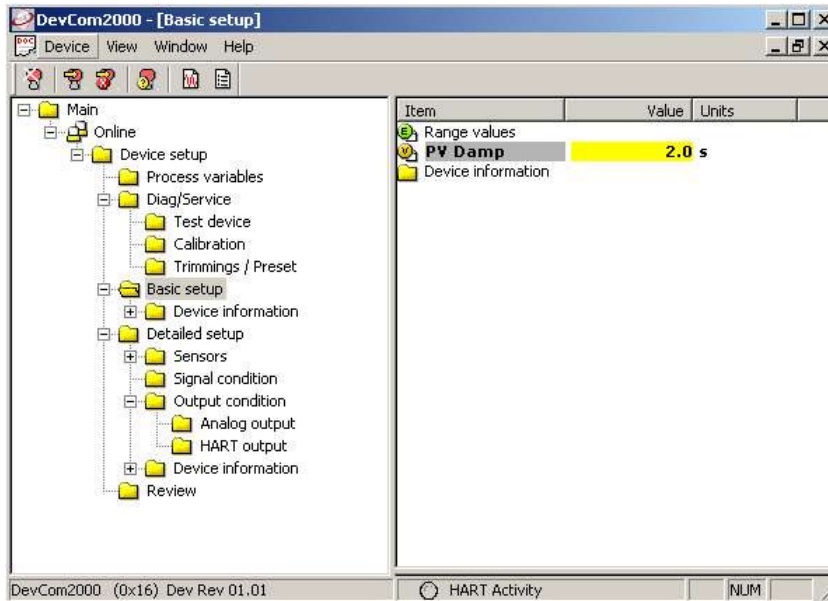


Step Action

- 3 Double-click the variable to edit it. The following dialog box appears on the screen:



- 4 Make the changes to the parameter value, as required.
- 5 Click **Set** to accept the changed value. The change gets reflected as shown:



- 6 Click on the **Send** icon  to commit the changes to the device.

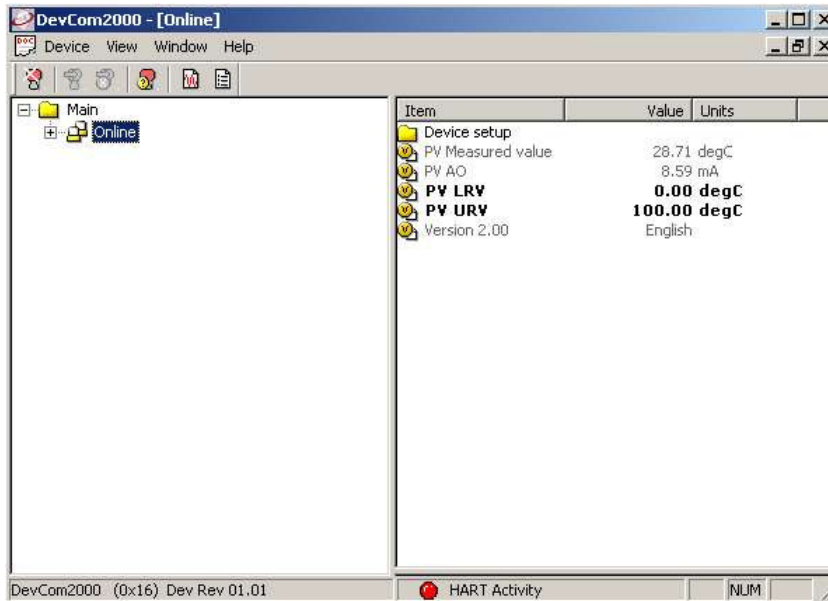
6.3.3 Edit Display

The Edit Display is a variation on the Variable edit. An additional window helps the user view a group of parameters based on the DD. You can also modify a single parameter from this group. Parameters linked to the edited field will be updated automatically

To view and configure these variables, perform the following steps:

Step	Action
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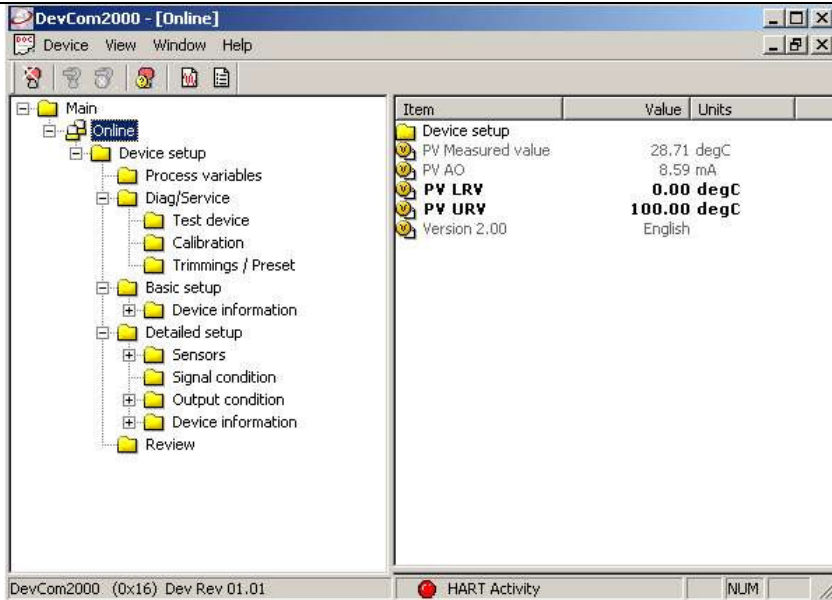
- 1 Ensure that the application is running and communications have been established



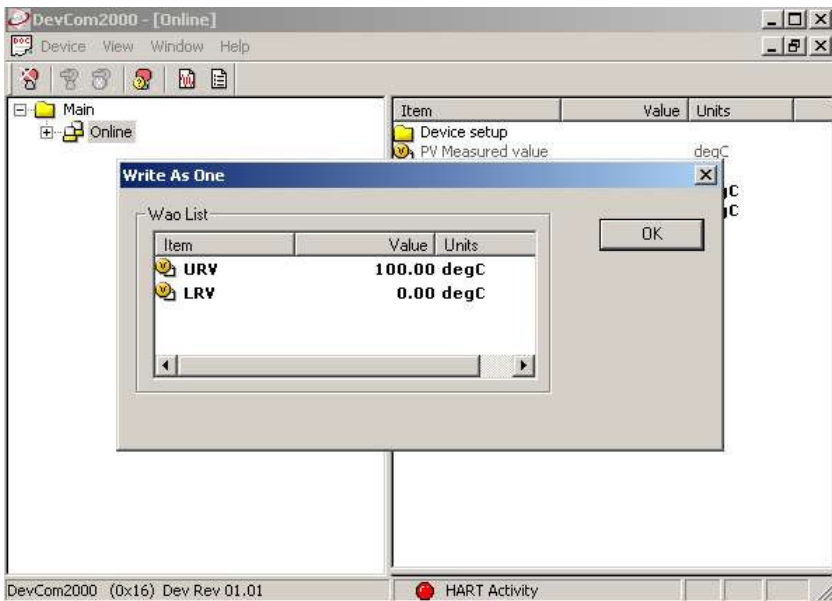
Expand the menu by clicking the “+” sign and double-click to view the device parameters.

- 2 Select the menu where the required variable is present as shown below:

Step Action

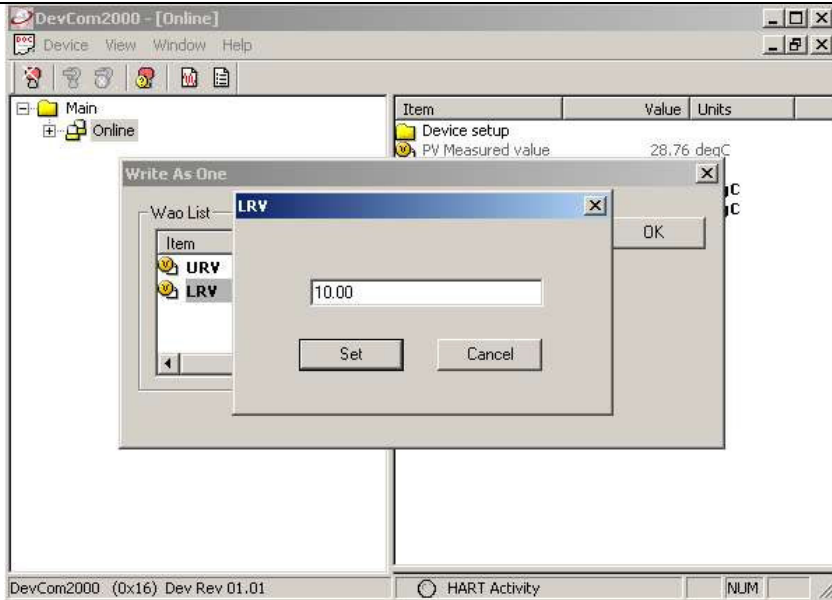



- 3 Double click the parameter you wish to edit. The following dialog box appears on the screen:



- 4 Double click the parameter you wish to edit. The following dialog box appears on the screen:

Step Action



- 5 Make the change to the value, as required.
- 6 Click **Set** to accept the changes. Or press **Cancel** to cancel the changes.
- 7 Click **OK** to close the dialog.
- 8 Click on the **Send** icon  to commit the changes to the device.

6.3.4 Executing Methods or Standard Operating Procedures

Methods are defined in the DD file for the device that DevCom2000 is connected to. You can select the Method and execute it for calibrating the device, trouble shooting, etc. Method execution leads you through a number of steps, like in a wizard.

A Few examples of methods include,

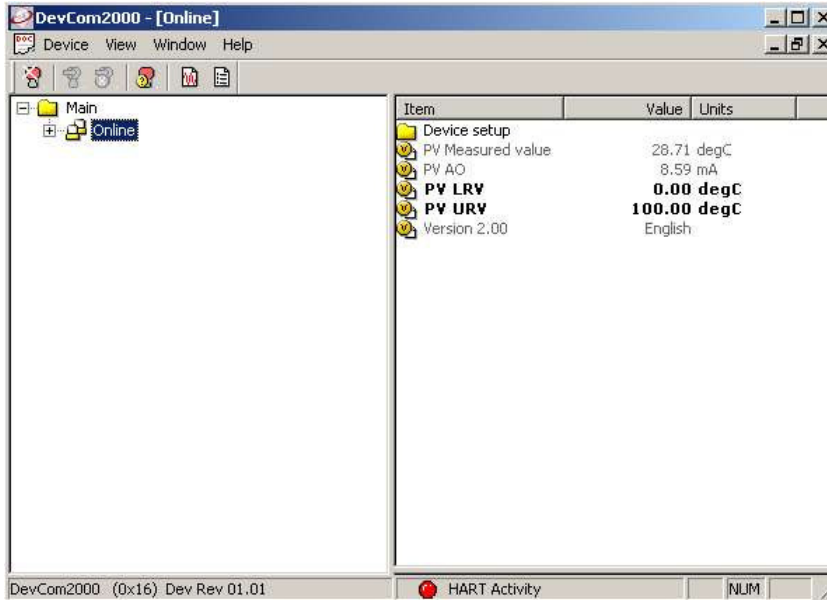
- Setting high and low range calibration points
- Calibration of the device
- Run the advanced diagnostic test procedure
- Execute tests to gather information on device operation.

To execute a Method, perform the following steps:

Step Action

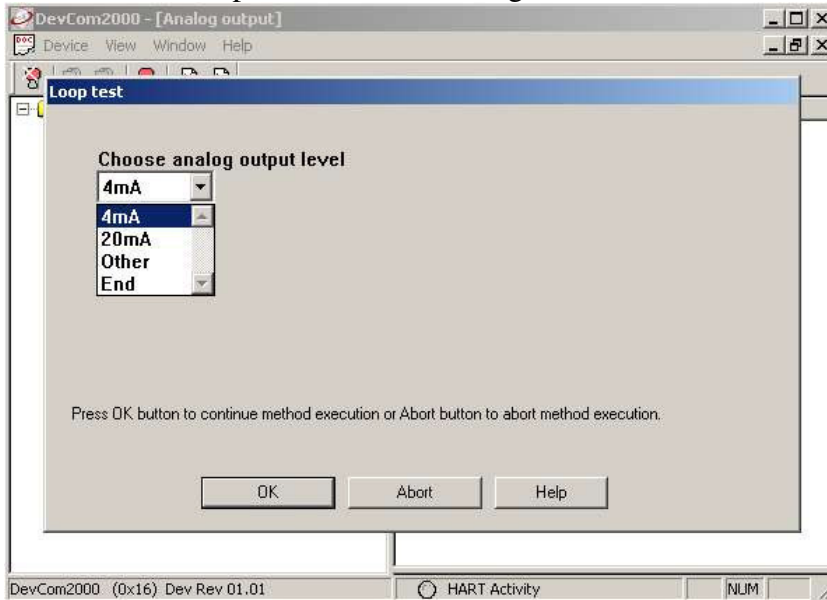
- 1 Ensure that the application is running and communications have been established:

Step Action



Expand the menu by clicking the “+” sign and double-click to view the device parameters.

- 2 Select the menu where the method is present and double-click to execute it.
- 3 Below is an example of a Method dialog box:



- 4 Click **OK** to move to the next dialog in the Method sequence.
- 5 Or, click **Abort** to cancel the Method execution.
- 6 Click **Help** to get specific help for that step of the Method. This

Step	Action
	Help information is provided by the device DD.

6.4 Calibrating HART Field Devices

Calibration of field devices and loop test are achieved by executing the Methods or Standard Operating Procedures that are specific to device. Methods are defined based on the test parameters specific to the device, providing information for the calibration of that device.

See the previous section for Method execution.

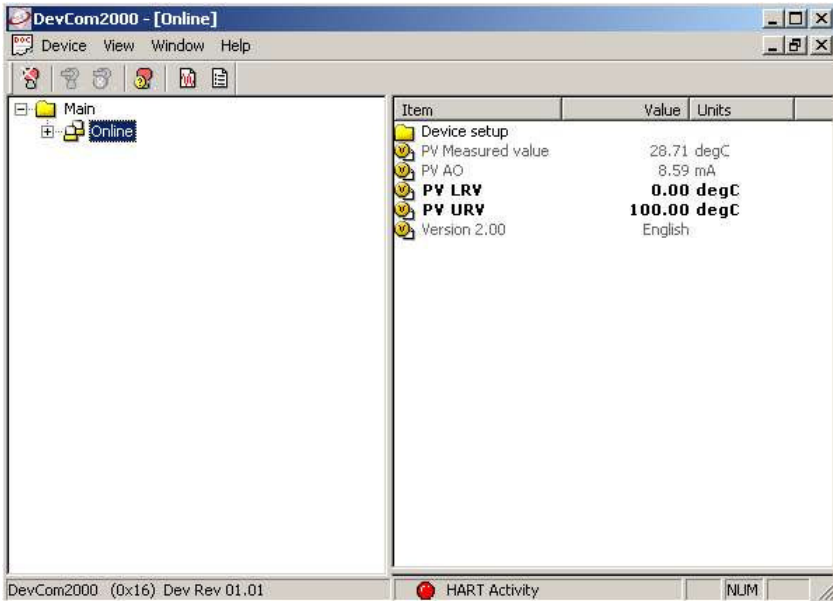
6.5 Viewing the Device and Communication Status

DevCom2000 provides the user with the ability to monitor the device specific status of the device and the communication network.

When there is error communicating with the device, it is recognized and indicated to the user. The user can view more details of such errors, using the **View → Device Condition** from the main window.

To view the device and communication status, perform the following steps:

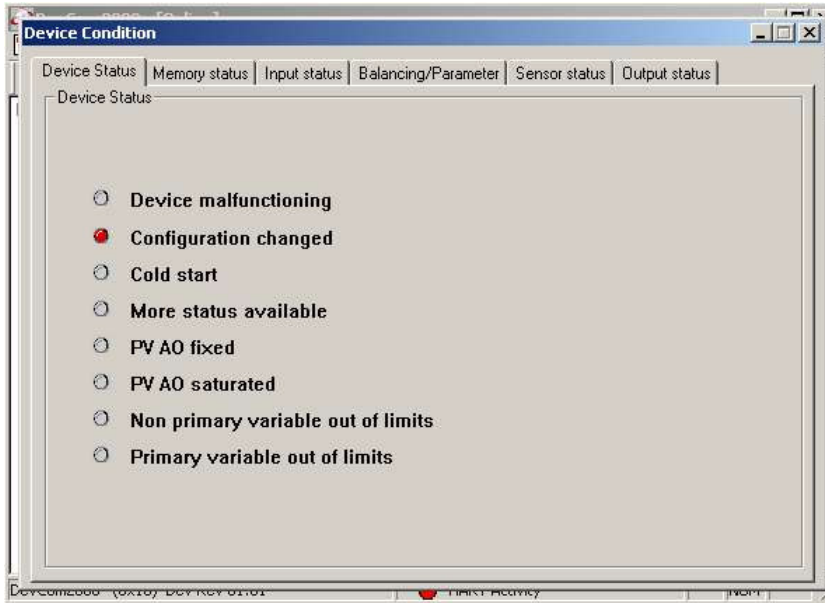
Step	Action
1	Ensure that the application is running and communications have been established:
2	
3	Select View → Device Condition from the main window or choose the status icon  from the toolbar. Following window is



Expand the menu by clicking the “+” sign and double-click to view the device parameters.

Step Action

displayed:



The *Device Status* tab option shows the status of the device and the communication network. The individual status is indicated by green and red LEDs.

- 4 Additional tabs may be available depending on the DD.
- 5 Click **X** to close the Status window.

6.6 Viewing the Communication Log

DevCom2000 allows the user to view the actual communications between DevCom2000 and the device. You can view send commands and received responses.

If your computer is running an anti-virus program such as McAfee, you may get a message about a program wanting to access the internet when you open the Communication Log. This is normal. DevCom2000 uses TCP/IP to communicate with the Communication Log program.

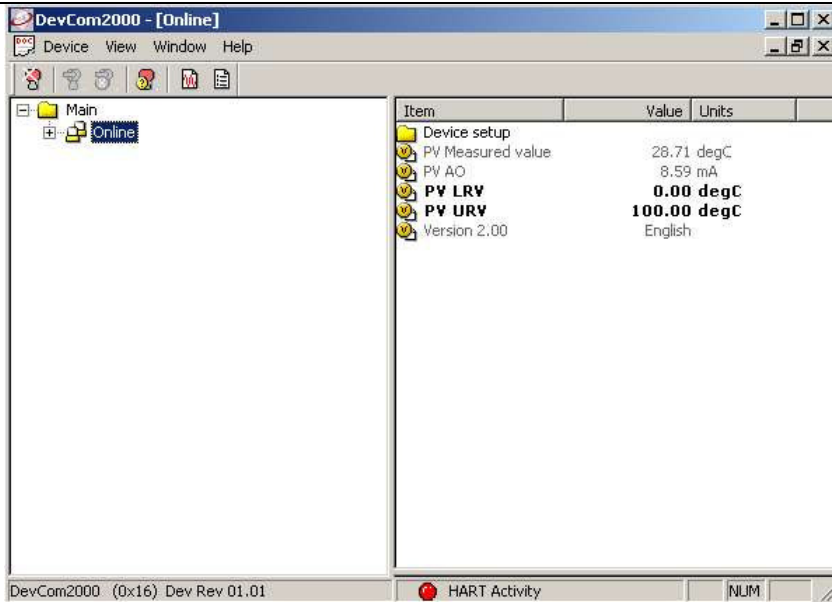
If no data appears in the Communication Log, this may be due to an anti-virus program. Close the Log window and relaunch.

To view the communication log, perform the following steps:


Step Action

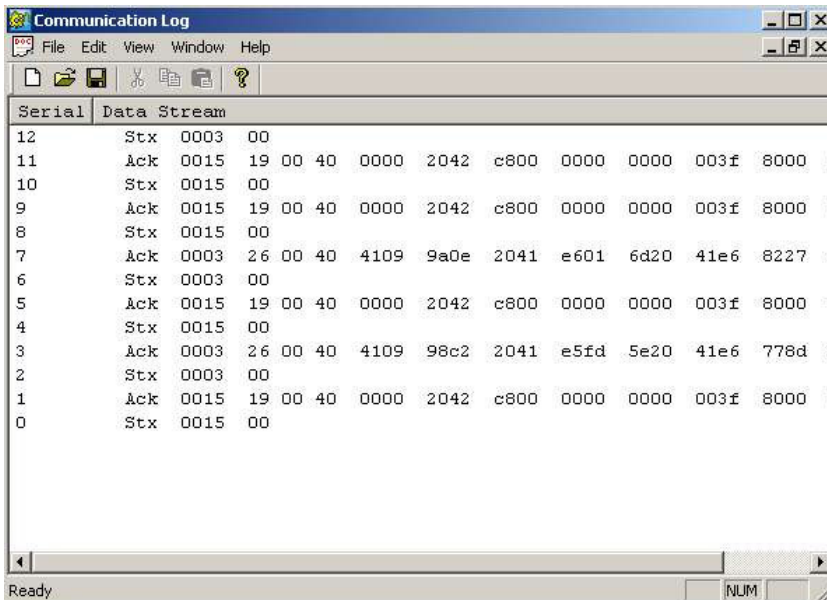
- 1 Ensure that the application is running and communications have been established

Step Action



Expand the menu by clicking the “+” sign and double-click to view the device parameters.

- 2 Select **View → Communication Log** from the main window or choose the communications log icon  from the toolbar. Following window is displayed:



Note: The communications log lists actual HART commands and the responses from the unit. A good understanding of the HART protocol is required to interpret this data.

- 3 Select **File → Exit** to get back to the main window. Or, close

Step Action

the Communication Log window by clicking on the X.

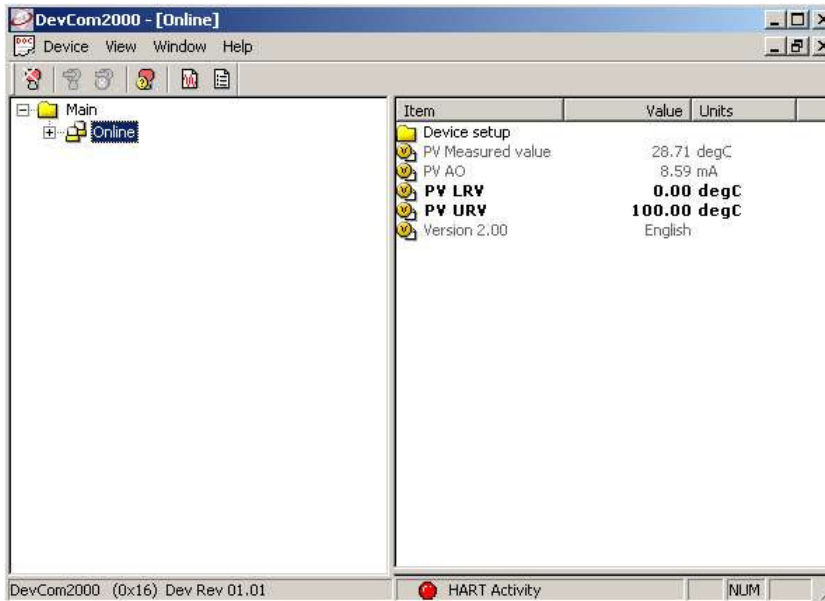
6.7 Viewing the Error Log

DevCom2000 allows the user to view the error conditions of the device and the communication network.


To view the Error Log, perform the following steps:

Step Action

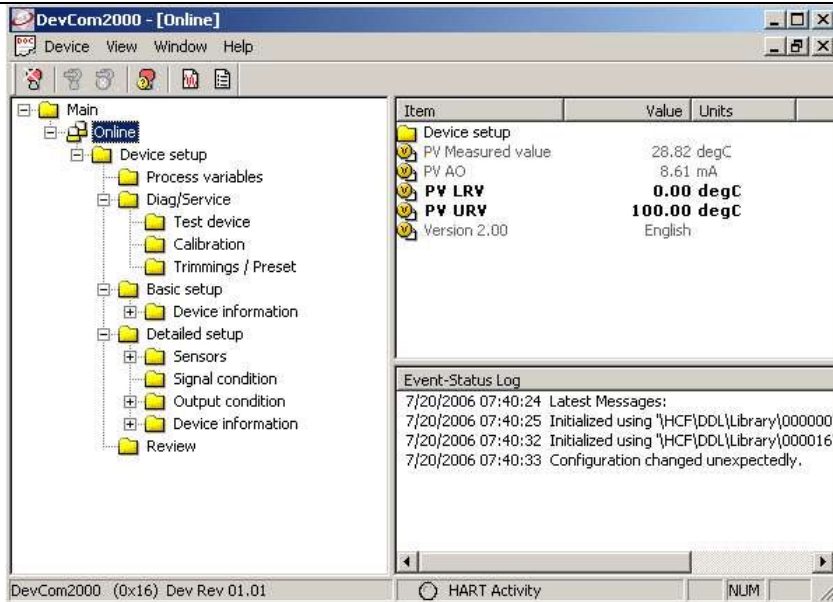
- 1 Ensure that the application is running and communications have been established:



Expand the menu by clicking the “+” sign and double-click to view the device parameters.

- 2 Select **View → Event-Status Log** from the main window or choose the Event-Status log icon  from the toolbar. An additional Event Status window is displayed:

Step Action



- 3 To close, go to **View → Event-Status Log** menu option or click on the icon to go back to the original window.

6.8 Saving Device Configuration To Disk

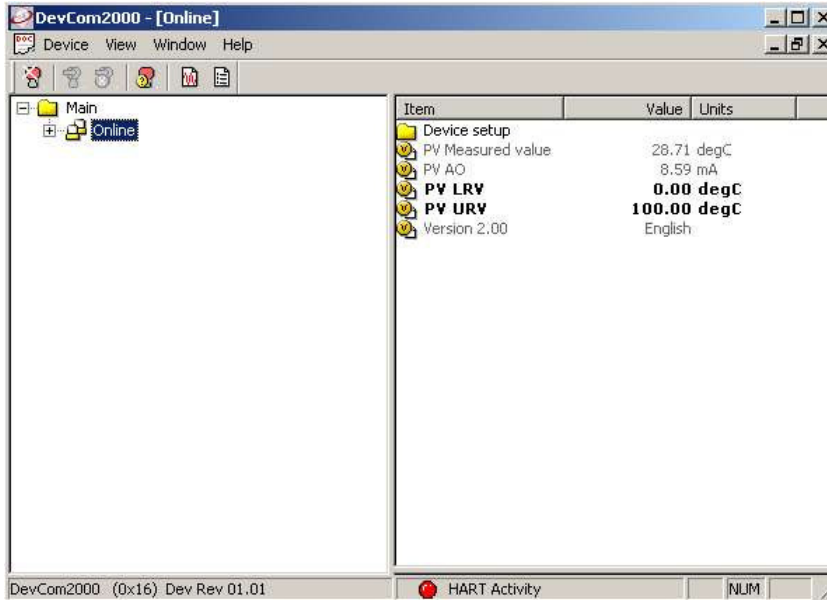
HART Device configurations can be saved to disk as a text file to document the device. Fields are delimited with a comma so that the data can be imported into configuration management software packages.

To save device configurations to disk, perform the following steps:

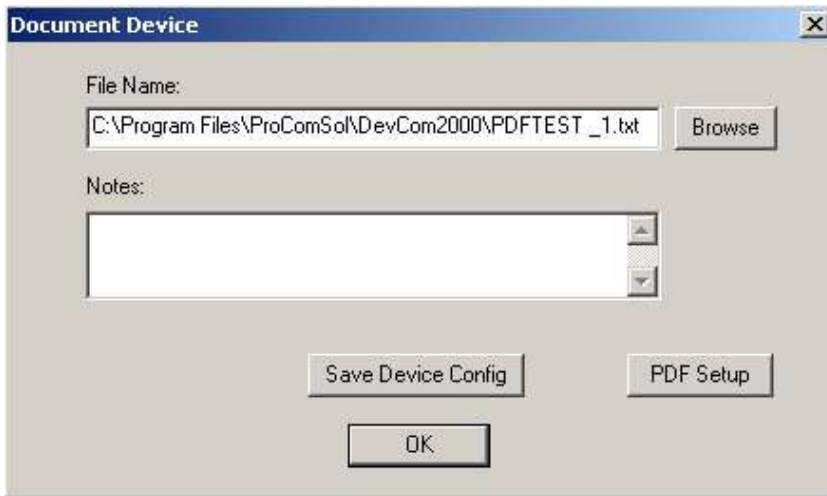
Step Action

- 1 Ensure that the application is running and communications have been established:

Step Action



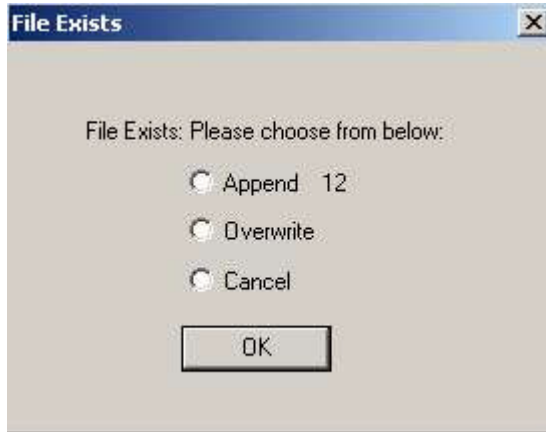
- 2 Select **Device** → **Document Device** from the main window. The Document Device Dialog Box is displayed:



- 3 The default directory is where DevCom2000 was installed. The default file name is Tag_Device ID. The filename can be changed by the user. Use the “Browse” button to change directories and/or filenames also.
- 4 Enter a Note in the Notes: field if desired. Maximum of 255 characters.
- 5 Press the “Save Device Config” button to save device configuration.

Step	Action
------	--------

- | | |
|---|--|
| 6 | If the filename has already been used, the following Dialog Box is displayed when Save Device Config is pressed: |
|---|--|



Append: Adds the number shown to the end of the file name

Overwrite: Deletes and writes over the existing file

Cancel: Returns to the previous menu

6.9 Download Configuration to Device

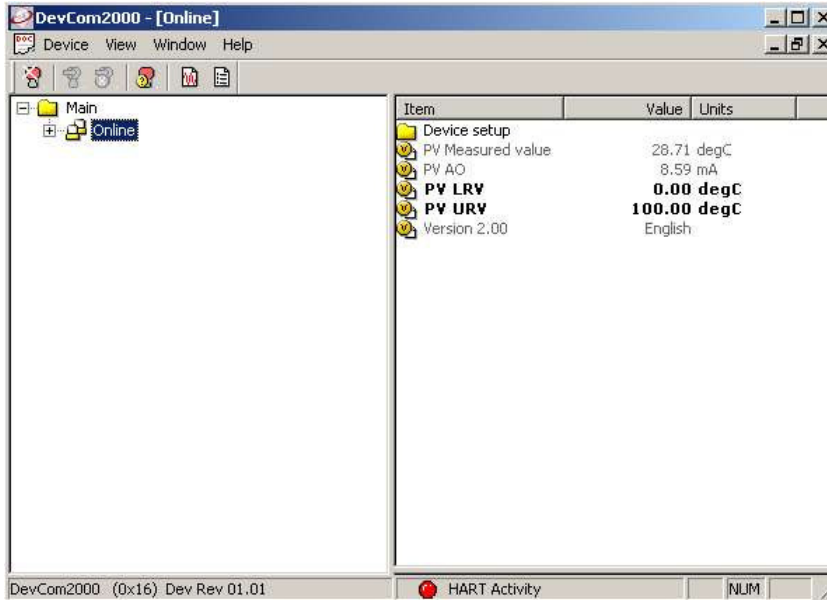
Saved configuration files can be downloaded back to devices. This is useful for “Cloning” a device, either for replacement or plant setup.

To save device configurations to disk, perform the following steps:

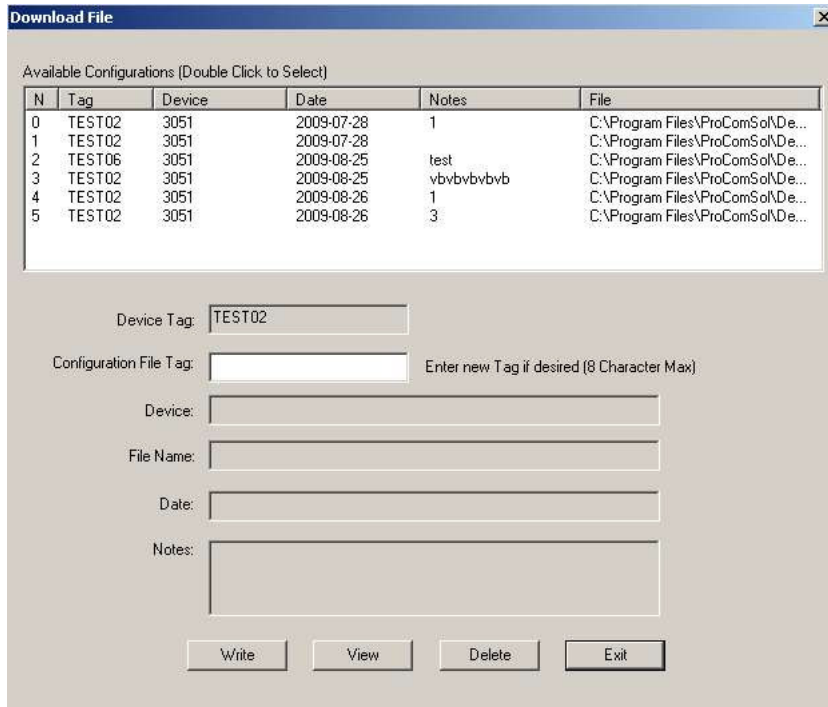
Step	Action
------	--------

- | | |
|---|--|
| 1 | Ensure that the application is running and communications have been established: |
|---|--|

Step Action



- 2 Select **Device** → **Download** from the main window. The Download Dialog Box is displayed:




- 3 The available configurations are displayed. You can sort on each column by clicking it.

Step	Action
	To get details about a configuration, select the desired configuration and double click it. The details will be displayed below.
4	You can change the desired Tag by editing the Configuration File Tag box.
5	Press the “Write” button to write device configuration. The device must be the same type as the configuration file. If they are different, the write operation will be aborted.
6	You can view the PDF file for the configuration file by double clicking on the desired configuration and pressing “View”.
7	You can delete configurations by double clicking on the desired configuration and pressing “Delete”.

6.10 Customizing PDF File Output

HART Device configurations can also be saved to disk as PDF Files to document the device. The header, footer, and technician name can be entered to customize the PDF file to make it into a configuration report.

To customize the PDF output, perform the following steps:

Step	Action
1	Press the “PDF Setup” button on Document Device Dialog Box:
	
2	The PDF Setup Dialog box is displayed:

Step	Action
------	--------



3	Enter data as needed and press OK. The data is saved for future configuration saves.
---	--

4	Below is a sample PDF file.
---	-----------------------------

Step Action

XYZ Calibration Service

DevCom2000, Rev 2.9, Device Configuration File

```

File: C:\Program Files\ProComSol\DevCom2000\P-101 _7350128.PDF
Tag: P-101
Device ID: 7350128
Date (yyyy-mm-dd): 2008-09-23
Time (hr-mn-sc): 11:17:27 AM
Tech: Guy Instrument
Notes: New device installed after hurricane
    
```

<u>Label</u>	<u>Value</u>	<u>Units</u>
Manufacturer	Rosemount	
Model	3051	
Num req preams	5	
Universal rev	5	
Fld dev rev	3	
Software rev	176	
Hardware rev	1	
Physicl signl code	Bell 202 current	
Dev flags	0x00	
Dev id	7350128	
Poll addr	0	
Tag	P-101	
Message	WRITE PROTECT	
Descriptor	ISA EXPO 2008	
Date	10/16/2003	
Write protect	No	
Distributor	Rosemount	
Final asmbly num	1343341	
Status group 1	0x00	
Status group 2	0x00	
Status group 3	0x00	
Burst option	PV	
Burst mode	Off	
Unit	psi	
Pres	0.03	psi
% mge	0.000	%
USL	799.99	psi
LSL	0.00	psi
Min span	8.00	psi
Transfer function	Linear	
URV	489.99	psi
LRV	0.00	psi
Damping	6.40	s

As Left
Page 1 of 2

6.11 License File Transfers

The license file can be transferred easily to other computers. The process is a “Check-In/Check-Out” process. When a license is on the computer, it is considered “Checked-Out”. When the license is on the license server, it is considered “Checked-In”. When “Checked-in”, it can be “Checked-Out” by other users. This enables the license to be shared by many users.

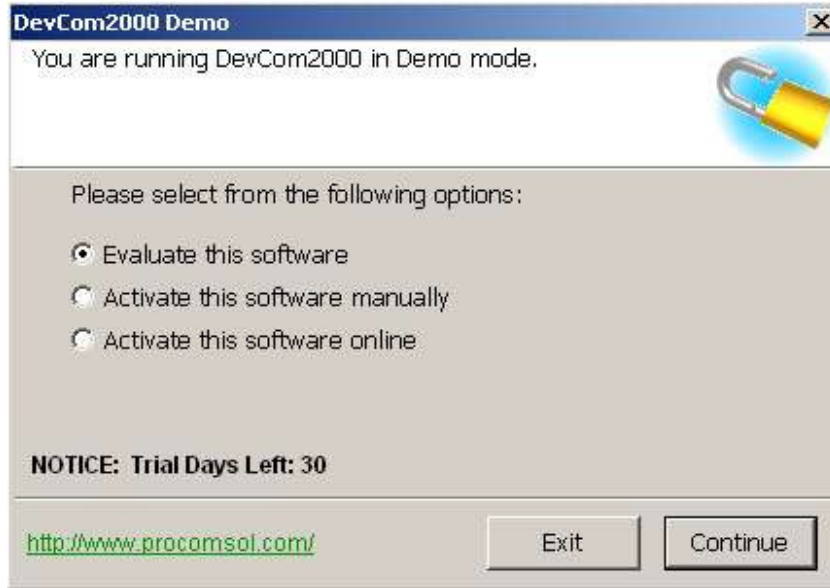
6.11.1 Activate/Check-Out

To Activate (Check-Out) the license to the current computer, perform the following steps:

Step Action

- 1 Select “Activate” from the “License” Menu.

- 2 If the license is already activated, nothing will happen. If not activated, the Activation dialog box will appear as in Section 4.3, Activation:



6.11.2 Check-In

To Check-In the license from the current computer to the License Server, perform the following steps:

Step Action

- 1 Verify your PC is connected to the Internet.

- 2 Select “Check-In” from the “License” Menu.
 If the current computer is not licensed, an error message will appear. If licensed, the program will contact the License Server via the internet. It will check-in the license using the License ID and Password used in Activation. The current computer will then become un-activated.

6.11.3 Status

The Activation status is available from this selection. To view the Activation status, perform the following steps:

Step Action

- 1 Select “Status” from the “License” Menu.

- 2 The Status Dialog box will be displayed:

Step Action



The License ID and Password are given when the software is purchased. If in demo mode, expired, or checked-in, it will show 0 (as above).

Appendix A

Troubleshooting Guide

For most error messages, there is a selection for “Com Troubleshooter”. This program will guide you through the steps to solve your communication problems. Below is a quick summary:

Problem:

Will not communicate

Hardware Check:

Verify the following:

1. Com port number on Preferences Dialog box matches HART interface hardware.
2. Loop power supply is on.
3. Loop resistance between 250 ohms and 1Kohms.
4. Loop current within HART limits.
5. If multi drop configuration, all transmitters in loop have unique addresses.
6. HART interface hardware connected across loop resistor or across transmitter terminals.

Software Check:

Sometimes the application does not end cleanly and the communication process is still running in an unknown state. When this happens, it must be closed out before restarting DevCom2000.

Perform the following:

1. Close DevCom2000.
2. Press **CTRL-ALT-DEL** to bring up the Windows Security Screen.
3. Click on Task Manager.
4. Select the Processes tab.
5. In the list of running tasks, select HModemSvr.exe.
6. Click on the End Process button on the dialog box.
7. Restart DevCom2000.

Problem:

Get the message “Error opening COMx”

Verify the following:

1. Com port number on Preferences Dialog box matches HART interface hardware.
2. HART interface hardware installed.

Problem:

No data in the Communication Log

Verify the following:

1. Communications are indeed occurring.
2. If anti-virus software is running on the same computer, close the Communication Log window and re-launch.

Problem:

The system cannot find the path specified error box

Try the following:

1. Verify that the device library (C:\HCF\DDL\Library) is on Drive C:
2. If not, copy to drive C.

Problem:

Activation by Internet blocked by Firewall

Try the following:

1. Allow one time access to internet via your computer's Firewall settings.
2. Disable Firewall.
3. Use manual activation method.

Appendix B

Contact Information

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