

# PV101-C Configuration Software V3.2

## Installation and Operations Manual

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08-18-11  
Section 78

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time. The latest version of this manual can be found at [www.fwmurphy.com](http://www.fwmurphy.com).

**Warranty** - A limited warranty on materials and workmanship is given with this FW Murphy product.  
A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>

Please read the following information before installing.

**BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT:**

- Read and follow all installation instructions.
- Please contact FW MURPHY if you have any questions.

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## Introduction

PV101-C V3.2 Configuration Software is a PC-based configuration software for the PV101-C display. The easy-to-use interface enables you to modify features of the PV101-C including:

- Engine configuration
- Parameters
- Modbus gauges
- DTC
- Reminders
- DPF

File transfer utilities for configuration upgrades are provided so that once the configuration is established; it may be downloaded from your PC to the PV101-C via a serial or USB connection.

## Installing V3.2 Software Configurator

### System Requirements

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A USB 1.1 connection is required for transferring the configuration from PC to the PV101-C.

While the configuration software will function on any PC or laptop running Windows, it will not perform transfers using the USB driver unless the operating system supports USB. USB supported operating systems include Win98SE, NT, XP, and Windows 7.

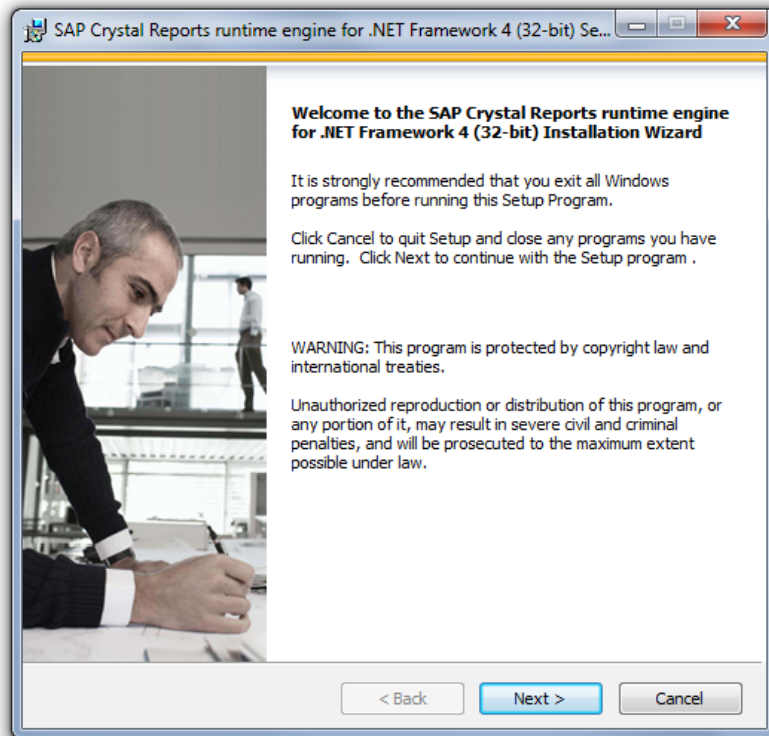
Serial transfers using standard communication ports (COM1, COM2) should be possible on all Windows platforms.

### Installation of SAP Crystal Reports

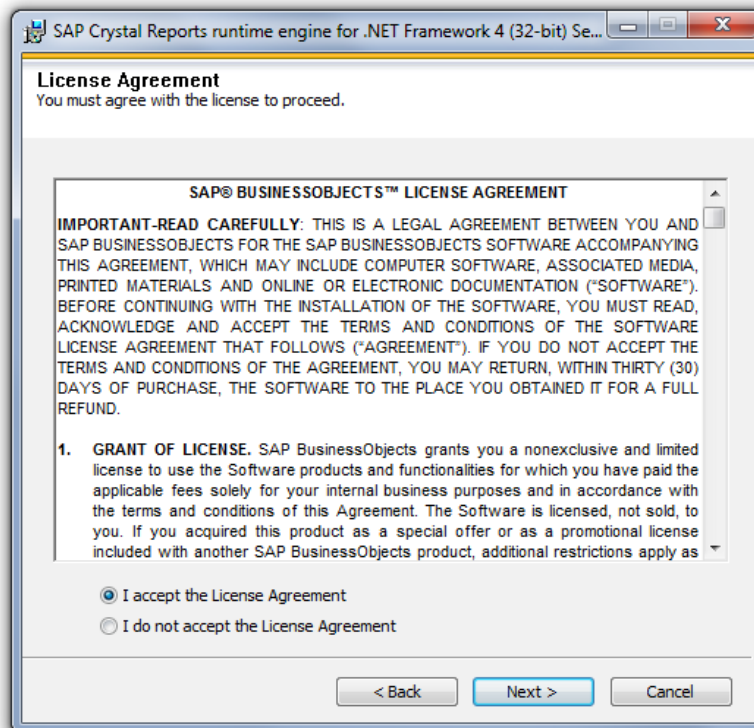
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PV101-C V3.2 uses SAP Crystal Reports to provide you customizable reports that will export to other formats. If SAP Crystal Reports runtime for .NET Framework 4 (32-bit) is not installed on your PC, start the CRRuntime\_32bit\_13\_Setup program.

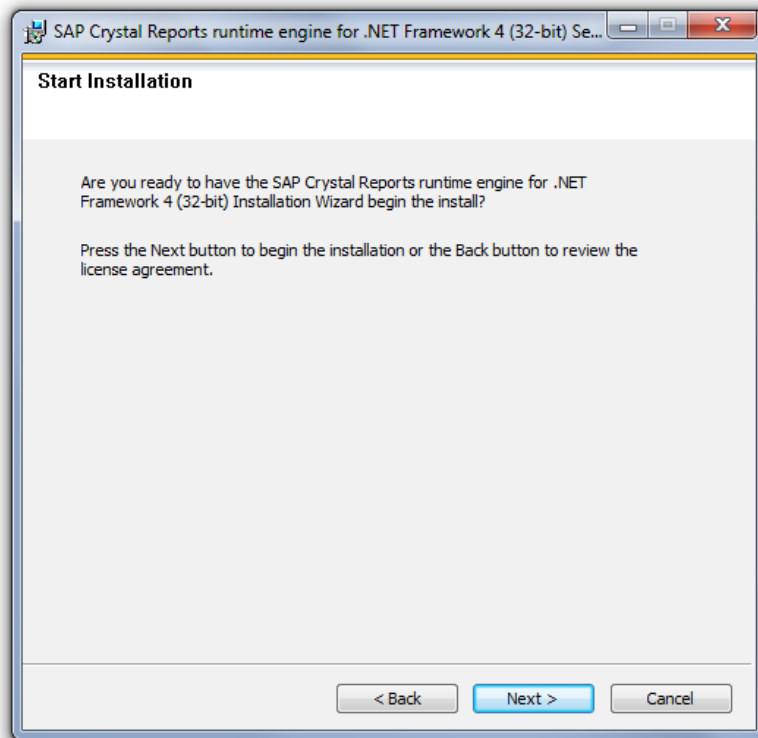
1. In preparation for installing Crystal Reports, exit all other programs. When the install starts, you will see the following screen:



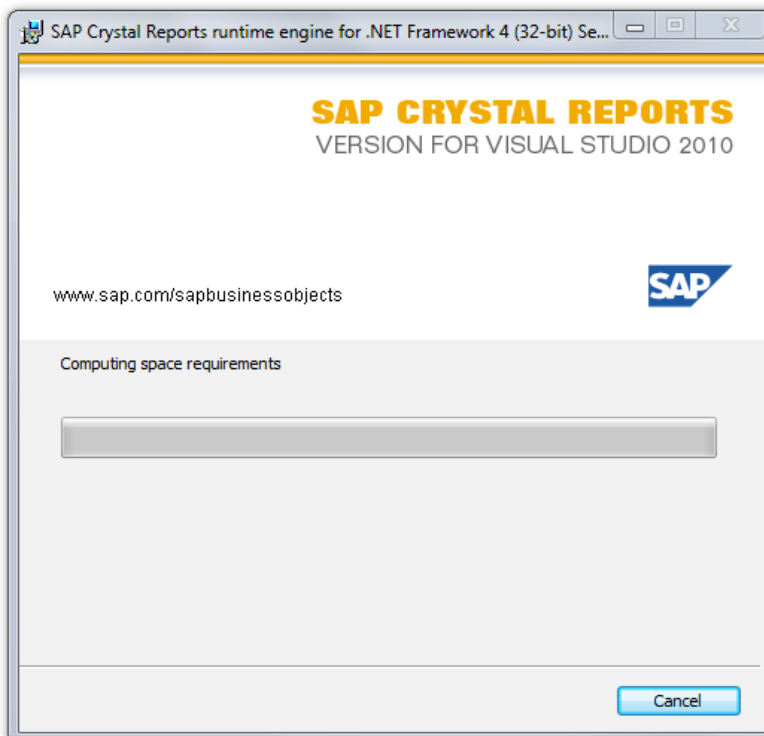
2. Click **Next**.



3. Read the license agreement and accept or decline. If you decline, Crystal Reports does not install. If you accept, click **Next**.



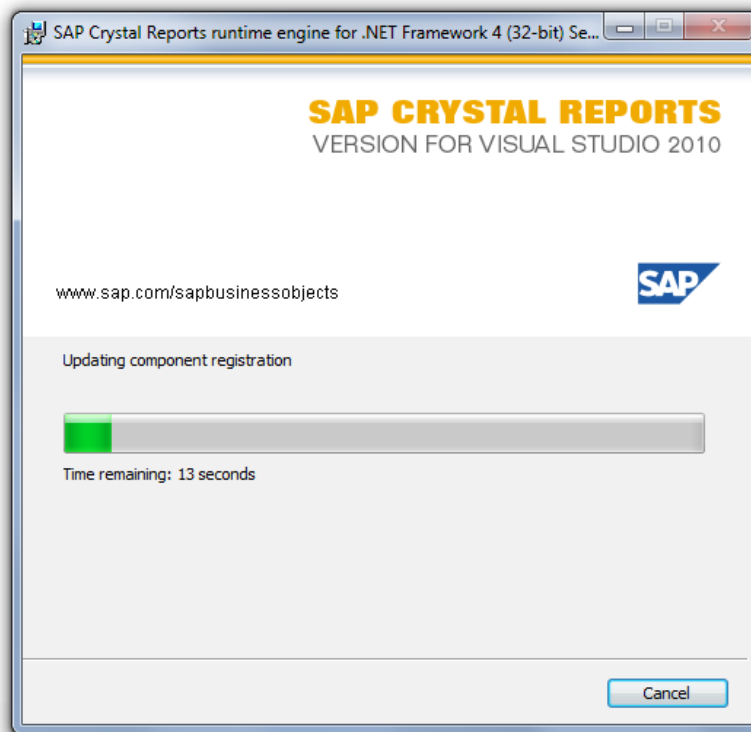
4. Click **Next** for the actual install to begin.



5. Several screens display while the install is occurring. If you do not have Administrator rights/permissions, you may see the following message. **Cancel** the install and check with your Systems Administrator or IT department.

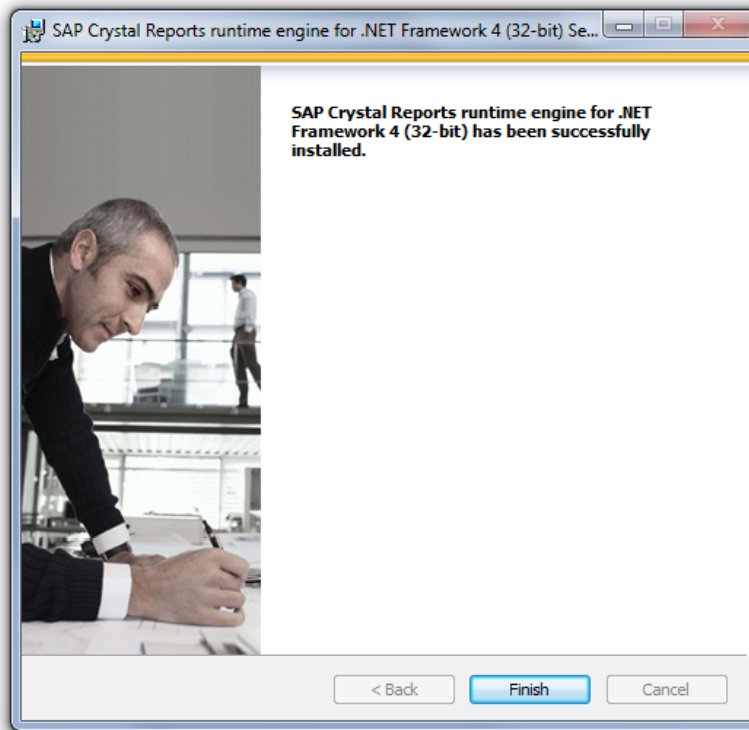


6. If you do have admin rights/permissions, the install continues.



7. When the SAP Crystal Reports installation is complete, you see the following screen. Click **Finish**.





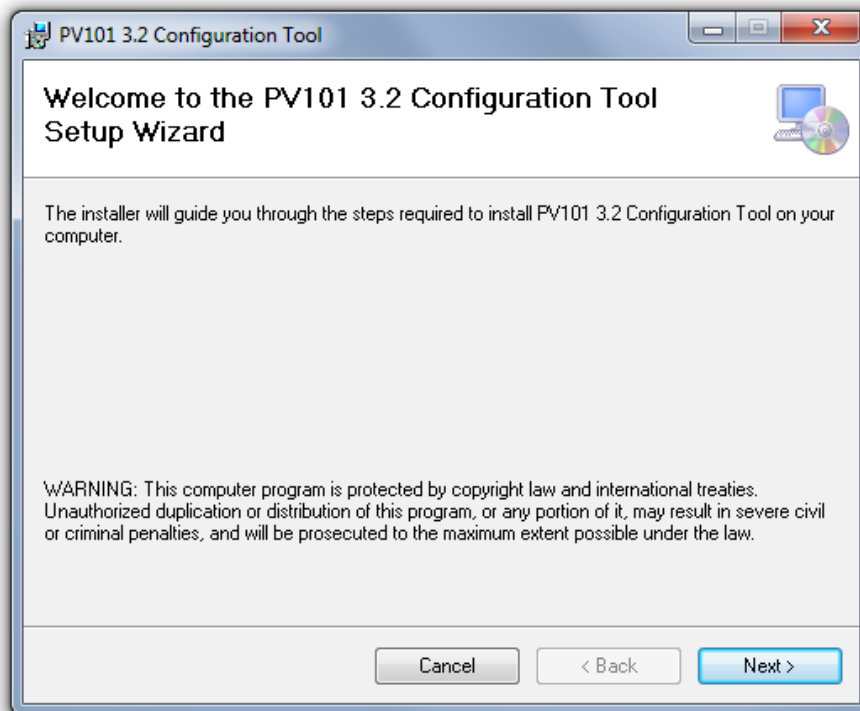
8. After the SAP Crystal Reports is installed, run the PV101ConfigTool\_Setup program.

## **PV101-C Installation Instructions**

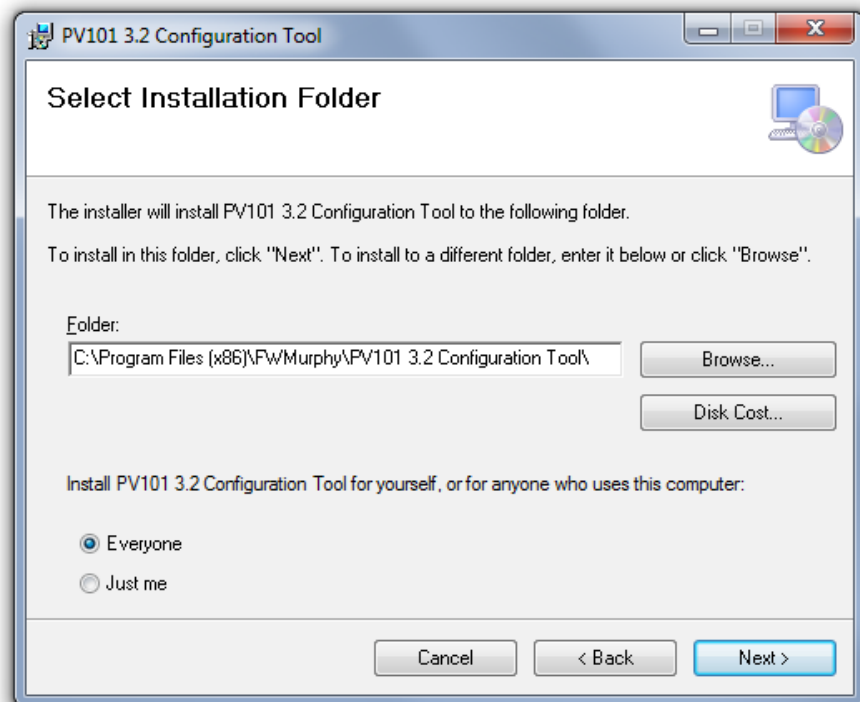
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Follow the steps below to install the configuration software on a PC or laptop.

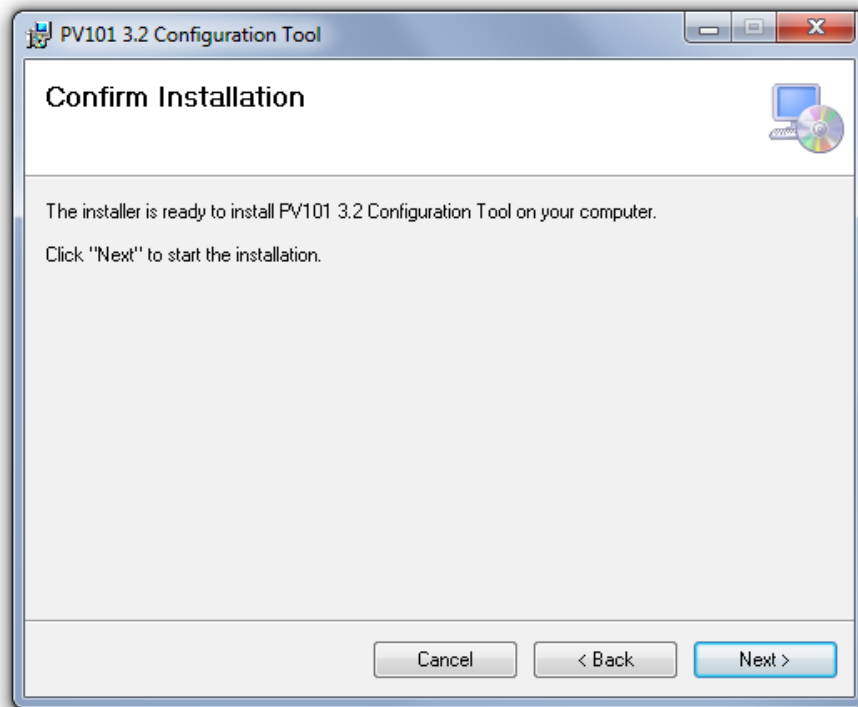
1. Insert the PV101-C V3.2 CD into the CD drive of your computer. When the installation menu displays, select “Install V3.2 Configuration Tool” from the menu. An Installation Wizard launches. Click **Next** to continue.



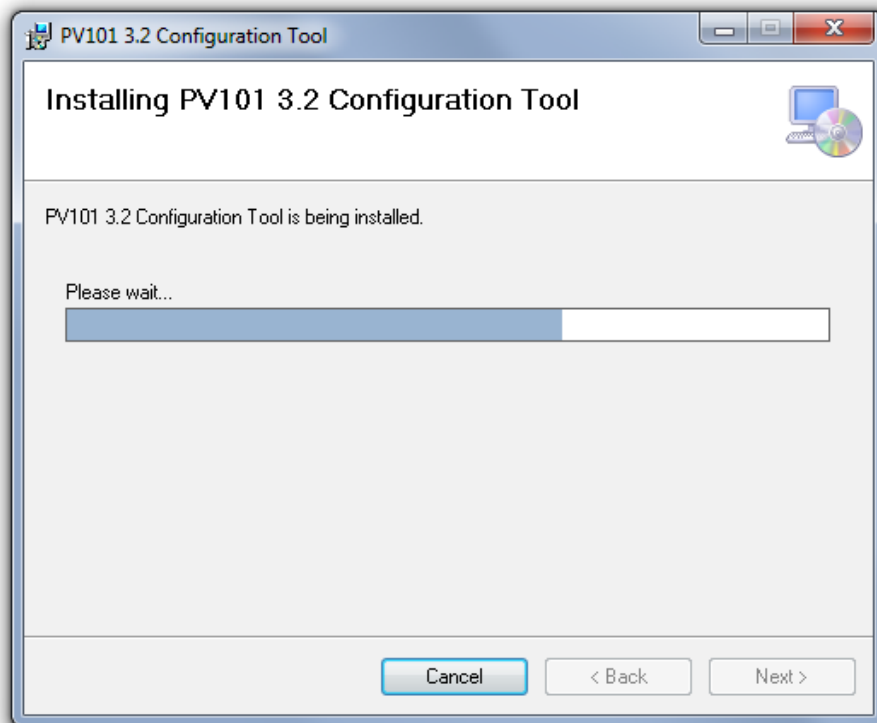
2. The installation asks for a destination folder for the program. You can accept the suggested directory or select a different directory by clicking the **Change** button and then browsing to the destination folder. Once the destination folder is determined, click **Next** to continue.



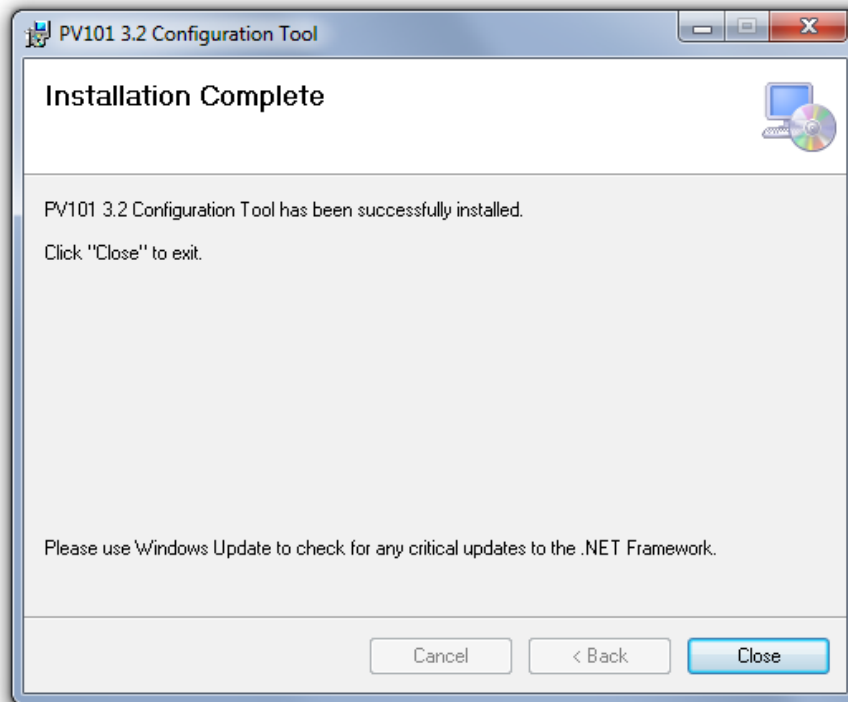
3. The Wizard is ready to install the program. Click **Next** to begin. Installation may take several minutes.



4. The following screen displays while the configuration tool is installing.



5. When the installation is complete, click [Close].



## Getting Started

This section provides instructions for launching the application, identifies application features and defines general navigation.

### Launching the Application

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To access the application, select “PV101-C 3.2 Configuration Tool” from the list of programs under your “Start” menu or from the shortcut placed on the desktop during installation. The first time you launch the application, you are asked for a product key.



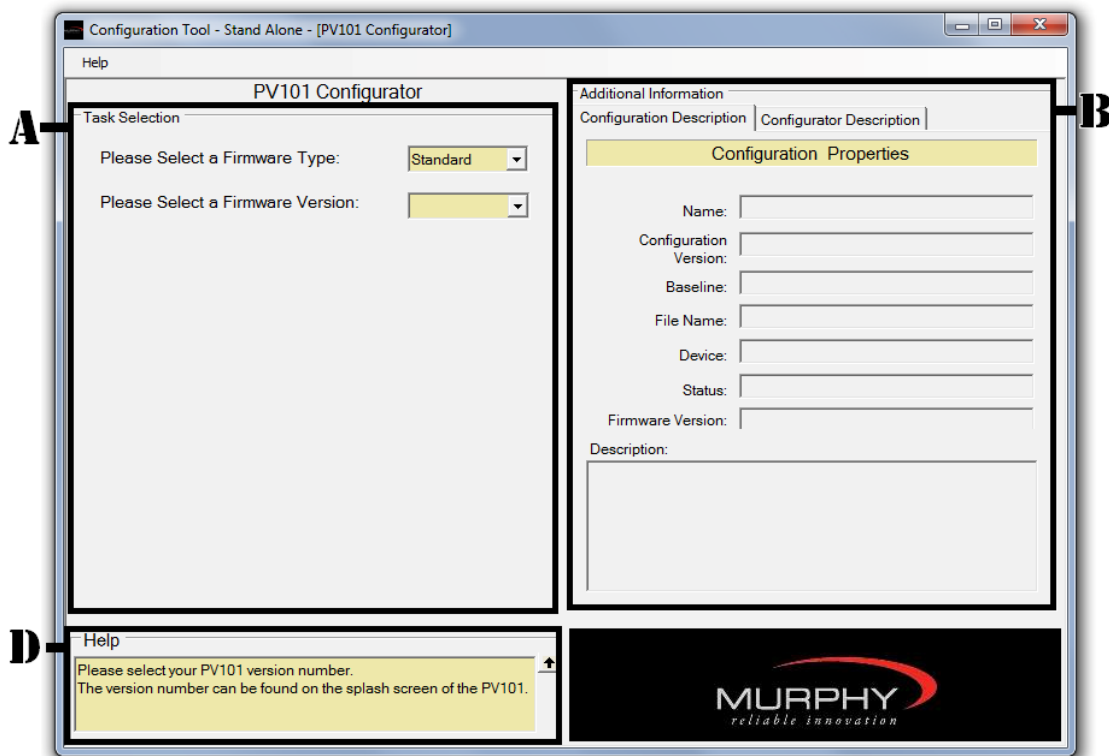
Contact Sales at FW Murphy, at 918-317-4100 (press 1 for inside sales), or email [sales@fwmurphy.com](mailto:sales@fwmurphy.com) to obtain the product key. Be prepared to provide the following information:

- Company Name
- Main Contact Name
- Phone Number
- Email Address

Enter the key provided and click **OK** to continue.

## PV101-C Configurator Screen

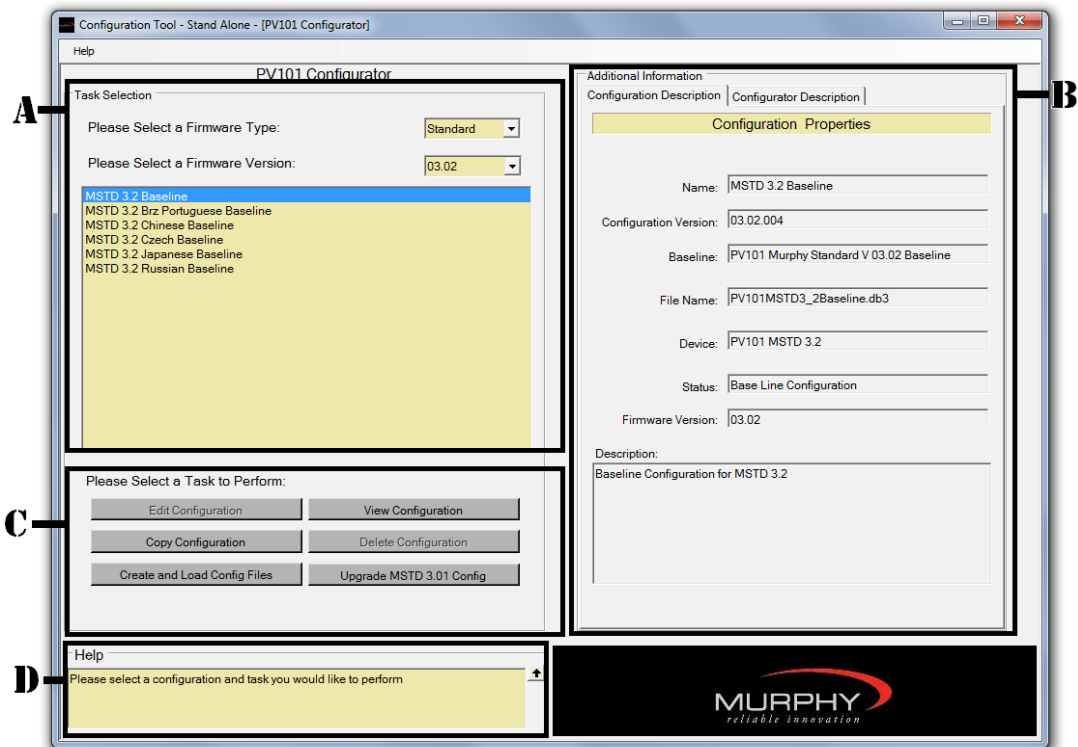
Once you have entered the product key ID as shown in the previous section, the following screen displays. You are now ready to use the software.



### Navigating the Configurator Screen

**Section A - Task Selection** at the top left of the screen assists with configuration file management. In this section, you will find a list of your configurations. Open the *Please Select a Firmware Version drop-down list* and two configurations show 03.01 and 03.02. To choose a configuration baseline, highlight and right-click.





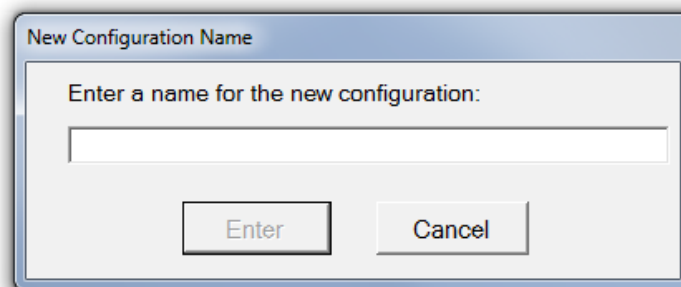
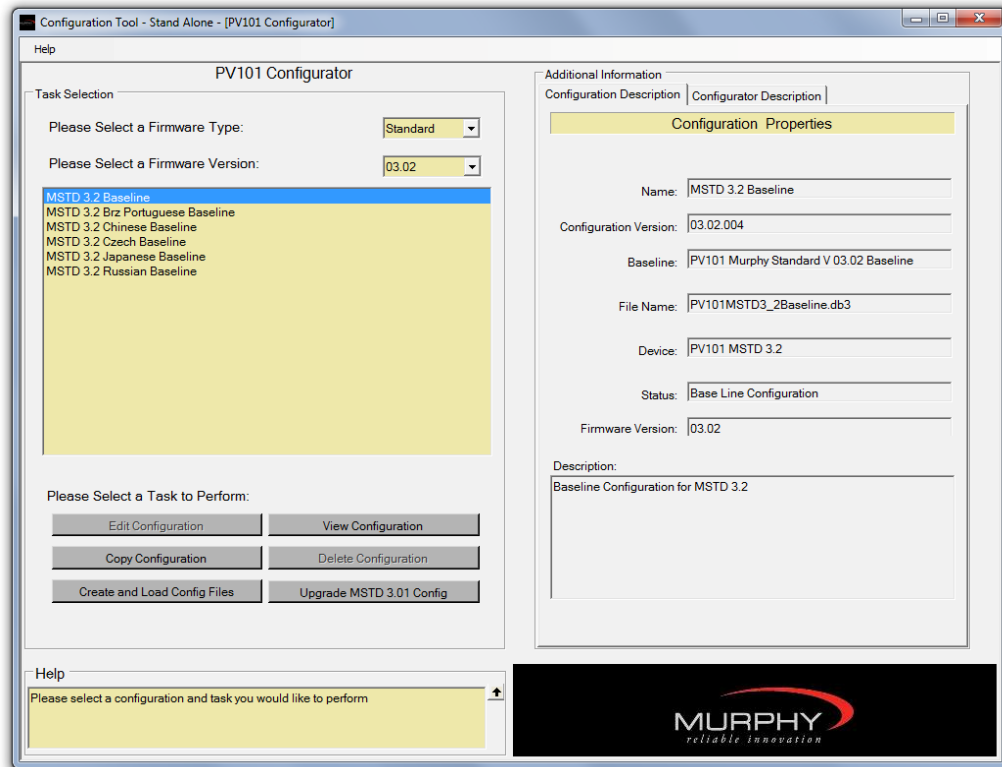
**Section B - Additional Information** on the right side of the screen consists of two tabs (Configuration Description and Configurator Description) Both tabs contain specific properties of the configuration file and display device hardware. You cannot edit this area.

**Section C - Select a Task to Perform** provides **Edit**, **View**, **Copy**, and **Delete** buttons for file management. Once you have a completed the configuration file, use the **Create and Load Config Files** button to download the new configuration to the PV101-C display unit. If you created configurations with version 3.1 of the configuration tool, the **Upgrade MSTD 3.01 Config** button allows you to upgrade a copy of that configuration to version 3.2. The 3.1 configuration can still be edited as a 3.1 configuration (select **03.01** in the **Firmware Version** drop-down list of the Task Selection area if upgrading is not desired).

**Section D:** The **Help** at the bottom left provides instructions for the current screen or occupied field. This context sensitive help box is located in the lower left corner of all screens where field help is available.

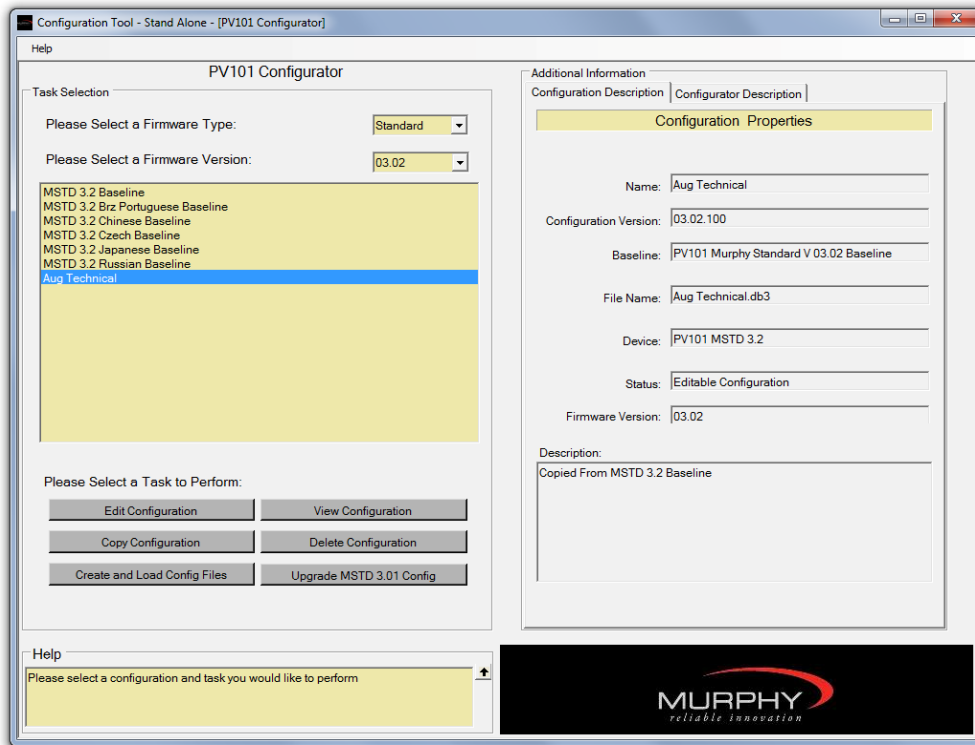
## Entering a New Configuration File

To enter or modify (change a baseline) a configuration file, click and highlight **MSTD 3.2**. You can select the default configuration or another configuration if there are others available. Then click **[Copy Configuration]**. Enter a file name and click **[Enter]**. You will be asked to enter a name for the new configuration.



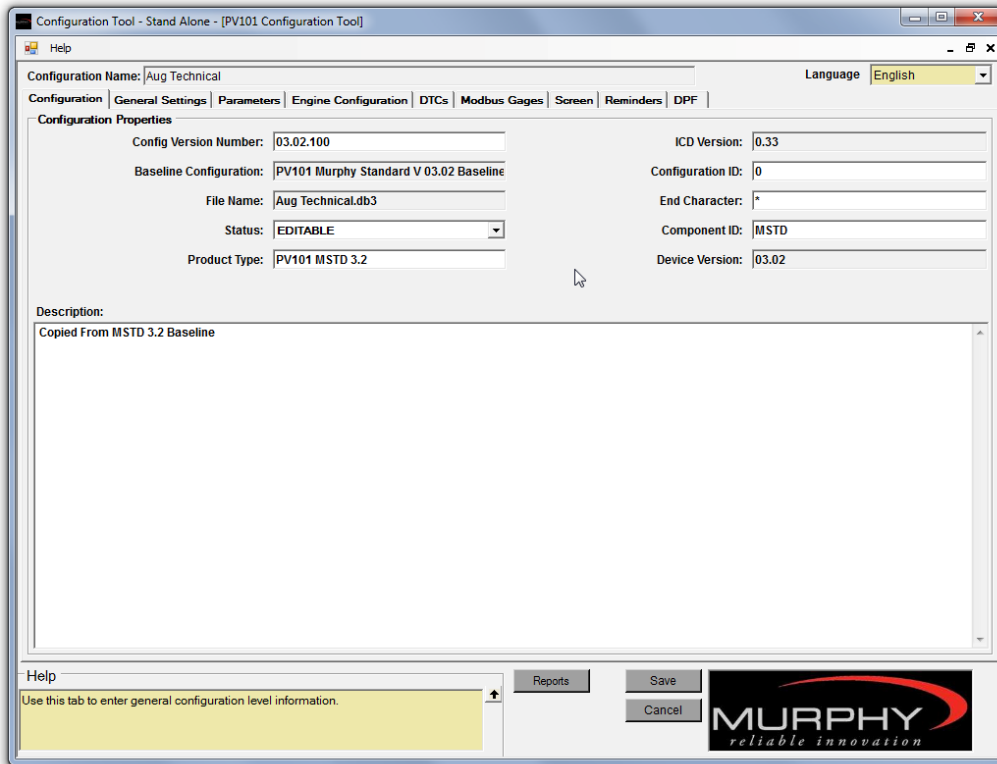
The new configuration file is now listed under MSTD 3.2. Baseline files cannot be edited.





Click and highlight the new configuration name, then click **[Edit Configuration]**.

Your new configuration file is displayed.



You are now ready to update your configuration. Navigating and making selections is easily accomplished through the use of tabs and drop down menus.

**NOTE:** The **Help** box located at the bottom left. It will provide field definitions and help guide you through what is needed, depending upon what screen or field you are on.

Click **[Save]** once you have made changes or click **[Cancel]** to return to the 'PV101-C Configurator' screen without saving changes.

Refer to '**Screen and Field Definitions**' for detailed information on field definitions for each tab in the configuration file. This can be a useful reference when setting up your configuration.

## Create and Load Config Files

When you are ready to download a configuration, click and highlight one of the configuration files in the list, then click **[Create and Load Config Files]**. The PV101-C Loader screen displays. In order to download a Configuration File, you must have your device connected to the PV101-C and the computer you are working on.

## Connecting Your PV101-C to Your Computer

What you will need to connect your device to a computer:

|   |  |          |          |         |          |        |        |           |          |
|---|--|----------|----------|---------|----------|--------|--------|-----------|----------|
| <p>USB to RS485 Converter</p>  | <p>USB Cable</p>   |          |          |         |          |        |        |           |          |
| <p>Programming Cable</p>     | <p>PV101-C</p>  <table border="1"><tr><td>1537 RPM</td><td>38.8 PSI</td></tr><tr><td>ENG RPM</td><td>OIL PRES</td></tr><tr><td>131 °F</td><td>12 VDC</td></tr><tr><td>COOL TEMP</td><td>SYS VOLT</td></tr></table> | 1537 RPM | 38.8 PSI | ENG RPM | OIL PRES | 131 °F | 12 VDC | COOL TEMP | SYS VOLT |
| 1537 RPM  | 38.8 PSI   |          |          |         |          |        |        |           |          |
| ENG RPM   | OIL PRES   |          |          |         |          |        |        |           |          |
| 131 °F  | 12 VDC   |          |          |         |          |        |        |           |          |
| COOL TEMP   | SYS VOLT   |          |          |         |          |        |        |           |          |
| <p>PC</p>                    | <p>Power Supply</p>    |          |          |         |          |        |        |           |          |

## Installation

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If you will be using a USB connection device to download the configuration into the PowerView 101 (PV101-C), you will need to install the USB driver. Follow the instructions listed below to install the USB Driver.

- Connect the USB cable to the USB to RS485 converter.

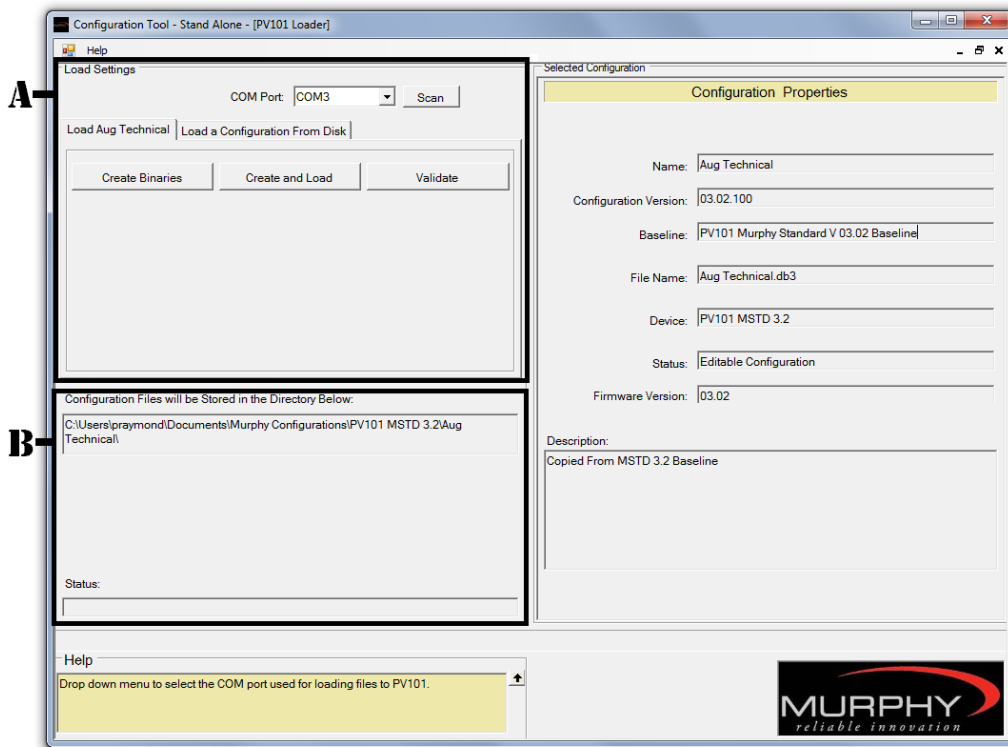


- . Connect the opposite end of the USB cable to the PC and continue as shown below.



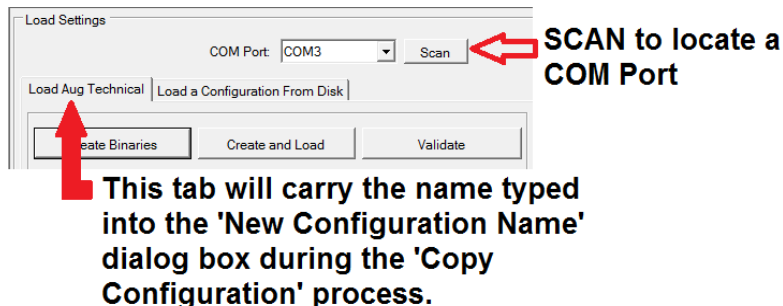
1. Insert the 6-PIN connector into Port B in the back of the PV101-C.
2. Connect the programming cable to the RS485 converter.
3. Connect the power source cable to the programming cable.

You are now ready to load data onto the PV101-C.

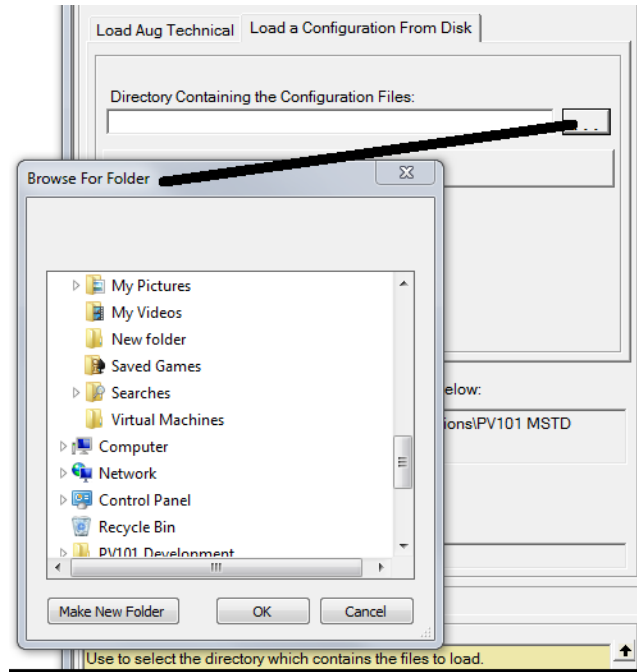


**Section A:** This section contains the information needed to create and load a binary configuration into the PV101-C.

If you have successfully installed the USB to RS485 Converter, it automatically detects the correct COM Port. If the converter was not installed when the Load Settings screen was opened, you can attempt to locate the correct port after installing the converter. Click **[Scan]** (next to the COM Port field). If the port cannot be detected automatically, you can select the correct port from COM Port field drop-down list.



Under the **Load Settings** tab, you can create binary files that are stored on your PC and **Create and Load** the binary files to the connected PV101-C device. Click **Validate** and the program validates that the current configuration is valid. You can also load configuration files previously stored on your computer by selecting the “**Load a Configuration from Disk**” tab. The following tab displays, allowing you to browse to the file location. Once the file is located, click **[Load]**.



**Section B:** This section displays the file location for the binary files generated by the program and the status of the load to the device.

If you have previously generated a binary file, you can load that file directly from its file location on your PC. Click [...] to browse your computer and locate the file. Then click **[Load]**. This is a way to expedite loading the device with the desired configuration.

## Screen and Field Definitions

This section provides field definitions for each tab in the configuration file. Use this as reference information when setting up your configuration files. Examples of each tab are shown, followed by a table listing choices for any selectable fields with drop-down menus. For all other fields, place the cursor in the field and view the **Help** box in the bottom left corner of the window for additional information.

The following fields are available on every tab.

| Field                     | Description   |
|---------------------------|---|
| <b>Configuration Name</b> | The name assigned when you copied the new configuration file.   |
| <b>Language</b>           | Default choices*: <ul style="list-style-type: none"><li>• <b>English</b></li><li>• <b>French</b></li><li>• <b>German</b></li><li>• <b>Spanish</b></li><li>• <b>Italian</b></li></ul> *See the General Settings tab for more information about language setup. |
| <b>Help</b>               | Provides context help based on tab and field occupied.  |
| <b>Reports</b>            | Launches a window for selecting and running built-in reports.   |
| <b>Save</b>               | Saves any changes made to the current configuration file.   |
| <b>Cancel</b>             | Displays a dialog box asking if you want to save changes before exiting.  |

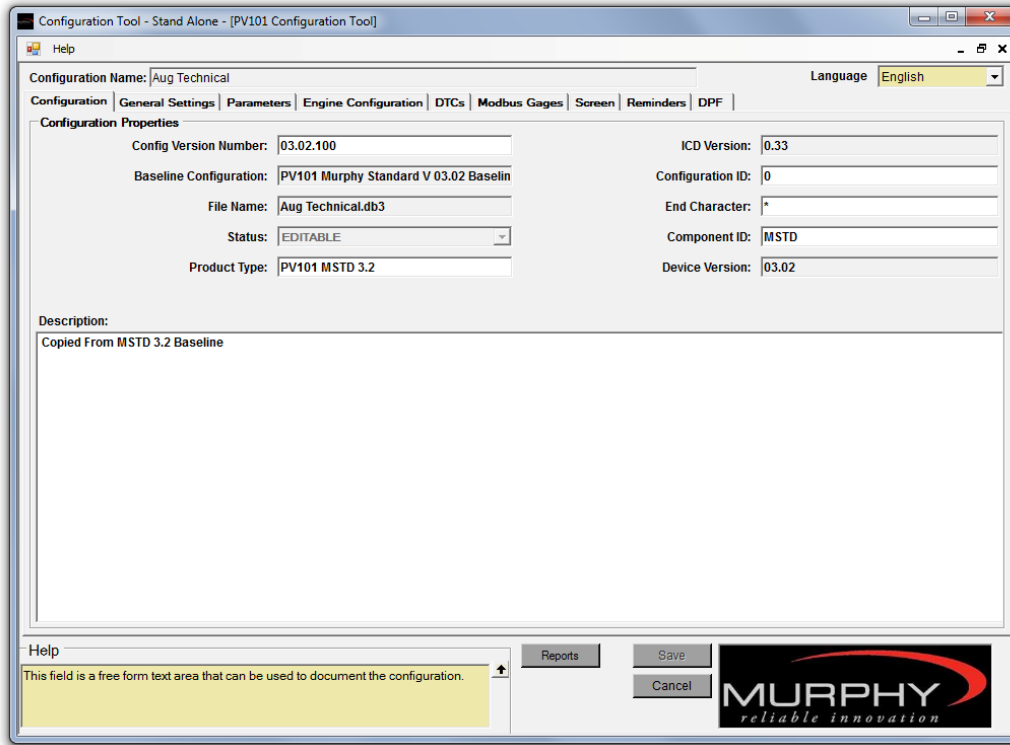
## Field Sorting

Tables containing data fields are provided on the following tabs:

- Parameters
- Engine Configuration
- DTCs
- Modbus Gages
- DPF

You can sort and view this data a number of ways by clicking the table headings. Each heading displays the data sorted by ascending or descending order, and may be grouped by configuration options.

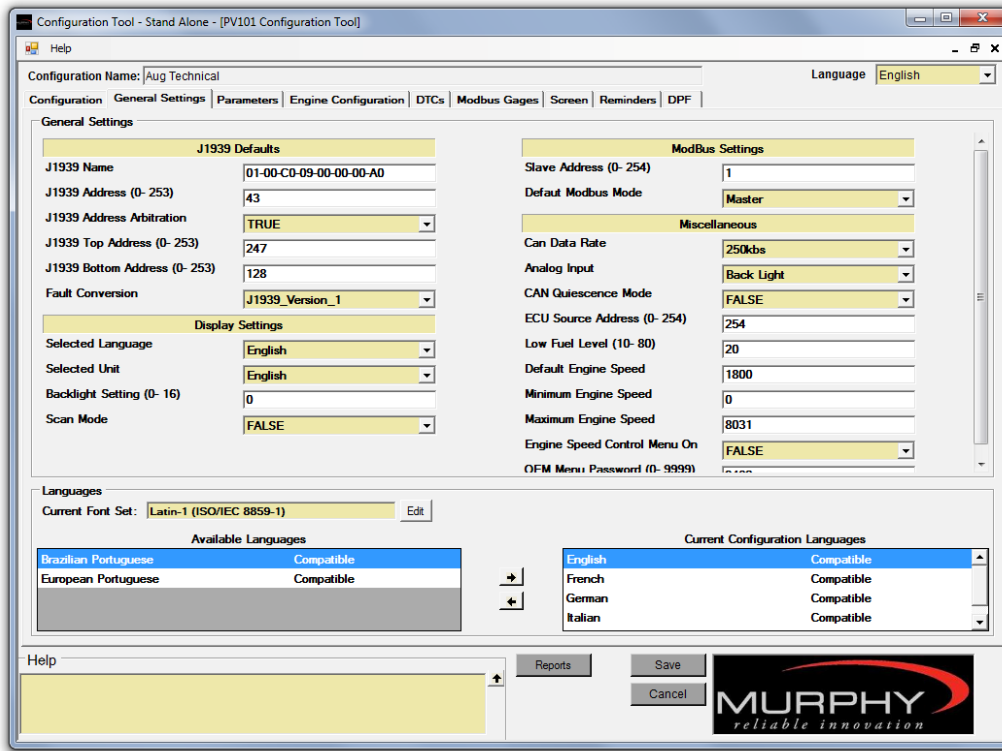
# Configuration



| Field                | Description  |
|----------------------|--|
| Status               | Available choices: <ul style="list-style-type: none"> <li>• <b>Editable</b> – able to edit</li> <li>• <b>Locked</b> – unable to edit</li> <li>• <b>INQA</b> – For Murphy Use only</li> </ul> |
| For all other fields | Place the cursor in the field you want information about and click, then view the <b>Help</b> box in the bottom left corner.   |



# General Settings



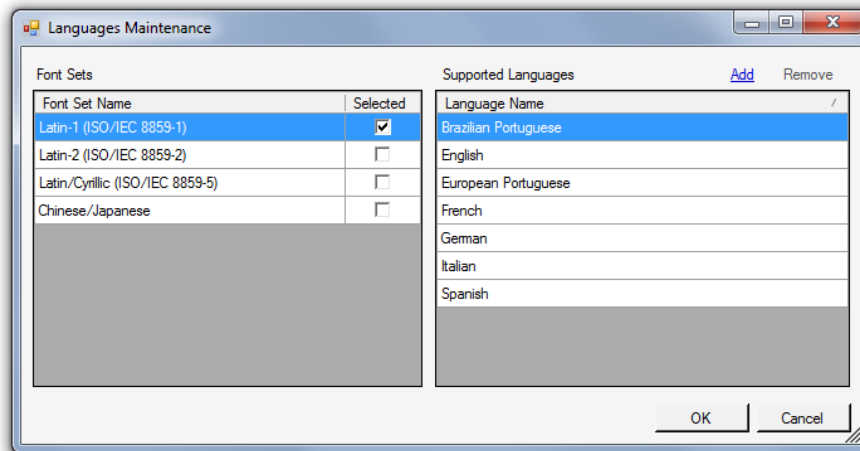
This tab allows you to configure the general settings of your device. All fields on this form are editable with the following exceptions:

- Configuration Name
- Help

The drop-down lists are shaded yellow while the fields that you can edit directly are white. If a range is provided, enter a value within that range. If you enter a value outside the range, you will get an error message.

## Languages Overview

**Current Font Set:** The configuration tool supports four (4) font sets; each font set supports a specific group of languages. Only one font set can be selected for a given configuration. To change the font set for the current configuration, click **[Edit]** next to the **Current Font Set** field. This opens the **Languages Maintenance** window.



The Languages Maintenance window lists the languages that have been set up for each font set. Note that, while English is technically only supported by the Latin-1 font set, the PV101 includes the lower half of the character map for Latin-1 in all configurations, so it is capable of supporting English regardless of which font set is selected. You may add other languages to the list of supported languages for each font set, excluding the Chinese/Japanese font set.

You may remove languages from the list. However, no validation is done by the configuration tool when adding or removing languages. You are responsible for ensuring that the added language is truly supported by the associated Font Set (refer to ISO/IEC documentation).

To add a language:

1. select the font set on the left-hand side
2. click the Add link in the upper right corner of the window
3. enter the name of the language to add\*

\*this is free-form text used to identify the language and to use to switch between languages in the configuration tool and on the PV101 unit.

To remove a language, click the Remove link in the upper right corner of the window.

Note that since the lower half of the Latin-1 font set is always included in every configuration, languages that are supported by Latin-1 are partially compatible with some other font sets, as long as characters without diacriticals (accent marks) aren't used. For example, if the Latin-2 font set is selected, languages like French and German are listed as Mostly Compatible. But if characters with diacriticals are used, those characters will only be displayed properly if the native font set is used.

## Languages Selections

You can customize the Language drop-down list by selecting languages in the '**Available Languages**' box and clicking the **[Right Arrow]** to move them to the '**Current Configuration Languages**' box. You can select up to five languages to display in the list except as shown in the note below. There are currently five languages selected as a default. If you want a language other than those in the default list, you must remove one or more from the '**Current**

**Configuration Languages**' box by selecting it and clicking the **[Left Arrow]** before you can add a new language.

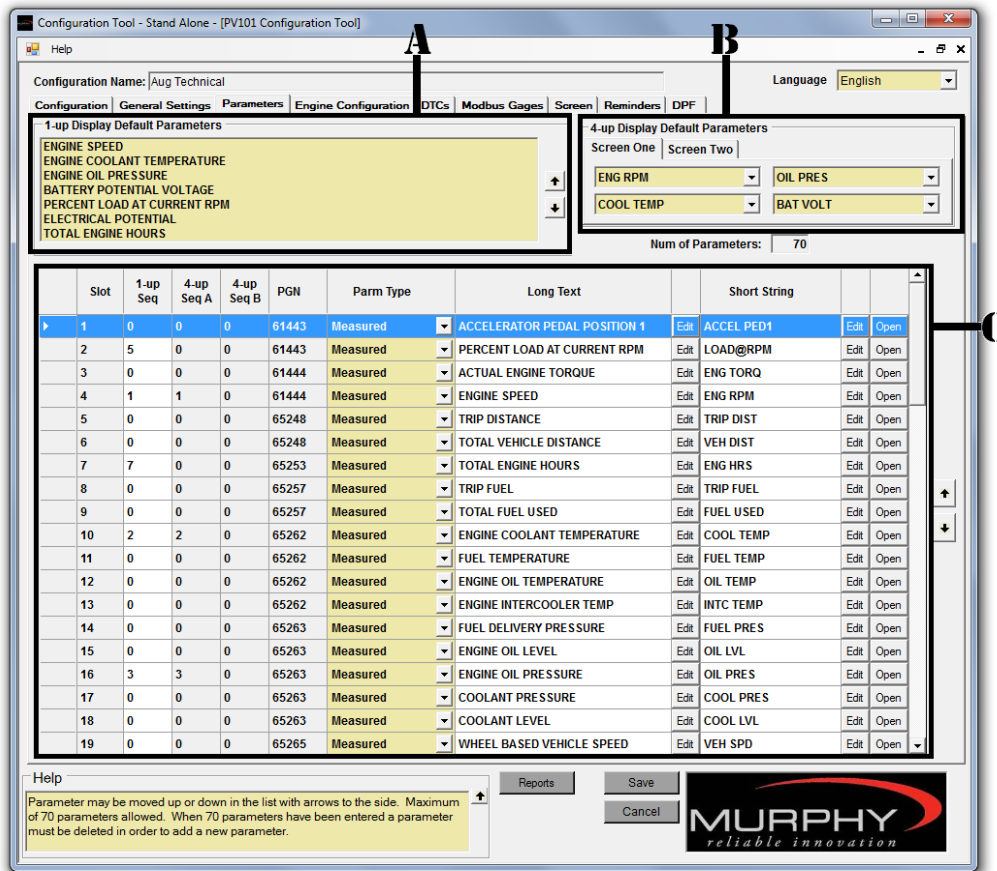
NOTE: When you select Chinese or Japanese, the only other language that can be selected is English. Before attempting to add Chinese or Japanese, remove all other languages except English from the '**Current Configuration Language**' box prior to selecting Chinese or Japanese.

NOTE: **Available Languages** and **Current Configuration Languages** have swapped positions in this release (PV101-C, V 3.2) as opposed to their position in previous releases.

| Field                            | Description  |
|----------------------------------|--|
| <b>J1939 Address Arbitration</b> | Available choices: <ul style="list-style-type: none"> <li>• <b>True</b></li> <li>• <b>False</b></li> </ul>   |
| <b>Fault Conversion</b>          | Available choices: <ul style="list-style-type: none"> <li>• <b>J1939_Verson_1</b></li> <li>• <b>J1939_Version_2</b></li> <li>• <b>J1939_Version_3</b></li> </ul>   |
| <b>Selected Language</b>         | Default choices - This is the language that the PV101 unit will start in after booting up: <ul style="list-style-type: none"> <li>• <b>English</b></li> <li>• <b>French</b></li> <li>• <b>German</b></li> <li>• <b>Italian</b></li> <li>• <b>Spanish</b></li> </ul> <p>See <b>Languages Selections</b> above for information on how to specify the languages contained in this list.</p> |
| <b>Selected Unit</b>             | Available choices - This is the unit of measure set that the PV101 unit will start with after booting up: <ul style="list-style-type: none"> <li>• <b>English</b></li> <li>• <b>Metric Bar</b></li> <li>• <b>Metric KPA</b></li> </ul>   |
| <b>Scan Mode</b>                 | Available choices: <ul style="list-style-type: none"> <li>• <b>True</b></li> <li>• <b>False</b></li> </ul>   |
| <b>Default Modbus Mode</b>       | Available choices: <ul style="list-style-type: none"> <li>• <b>Master</b></li> <li>• <b>Slave</b></li> </ul>   |
| <b>CAN Data Rate</b>             | Available choices: <ul style="list-style-type: none"> <li>• <b>100kbs</b></li> <li>• <b>125kbs</b></li> <li>• <b>1MBps</b></li> </ul>  |

| Field                               | Description  |
|-------------------------------------|--|
|                                     | <ul style="list-style-type: none"> <li>• <b>250kbs</b></li> <li>• <b>500kbs</b></li> <li>• <b>800kbs</b></li> </ul>  |
| <b>Analog Input</b>                 | Available choices: <ul style="list-style-type: none"> <li>• <b>Back Light</b></li> <li>• <b>Fuel Level</b></li> </ul>  |
| <b>CAN Quiescence Mode</b>          | Available choices: <ul style="list-style-type: none"> <li>• <b>True</b></li> <li>• <b>False</b></li> </ul>   |
| <b>Engine Speed Control Menu ON</b> | This setting controls whether the <b>Engine Speed Control</b> menu is available under the <b>Utilities Menu</b> by default when the PV101 unit starts up. The <b>Engine Speed Control</b> menu can also be enabled/disabled at run-time using the <b>OEM</b> menu. |
| <b>OEM Menu Password</b>            | This is the password that must be entered on the PV101 unit to access the features under the OEM menu. It must be numeric and it must be 4 digits.   |
| For all other fields                | Place the cursor in the field and view the <b>Help</b> box in the bottom left corner for additional information.   |

# Parameters



On this screen, you can specify the parameters to display on the device screens.

- **Section A:** This section provides an area to specify what parameters display on the device 1-up list. You can display as few as 1 or up to 70 parameters in this list. You can select the parameters from the parameter list in Section C and drag up to this section and drop it in. You can adjust the order of this section by either selecting the parameter you want to move and click the arrow up or down on the right or you can drag the parameter to the preferred position in the list.

**NOTE:** Only the first fifty 16-bit parameters marked for the Modbus Register will be registered. If a parameter exceeds 16-bits, it will be counted as two.

- **Section B:** This section provides an area to specify two 4-up display screens on your device. Each tab represents a display. Simply select the parameters to display from the drop-down lists under each tab.
- **Section C:** This section contains the parameters with which you can work. You can select the parameter type; edit the Long Text (name) or the Short String (nickname). The strings will appear on the device as they are entered here once you download the

configuration. In addition, you can open the parameter to modify certain elements of the parameter using one of the Parameter Configuration screens (an example is shown below). As with Section **A**, you can change the order of the parameters contained in Section **C** by selecting the parameter and using the up or down arrows to move it to the desired location in the list.

| Field                                  | Description  |
|--|--|
| <b>1-Up Display Default Parameters</b> | You can select from all available parameters. All parameters that are listed under the Parameters tab are available to you for display. There up to 70 parameters from which to make your selections. You could display all 70 in this list if you chose to do so.                             |
| <b>4-Up Display Default Parameters</b> | Each drop-down menu for both <b>Screen One</b> and <b>Screen Two</b> contain all the parameters listed under the parameters tab. There are up to 70 parameters from which to make your selection.  |
| <b>Parm Type</b>                       | Available choices: <ul style="list-style-type: none"> <li>• <b>Measured</b></li> <li>• <b>State</b></li> <li>• <b>Gear</b></li> </ul>  |
| <b>Long Text</b>                       | Click <b>[Edit]</b> to launch the Text Editor in order to make changes. Refer to ' <b>Text Editor</b> ' for additional information on the Text Editor.   |
| <b>Short String</b>                    | Click <b>[Edit]</b> to launch the Text Editor in order to make changes. Refer to ' <b>Text Editor</b> ' for additional information on the Text Editor.   |
| <b>Open</b>                            | Click <b>[Open]</b> to launch the ' <b>Parameter Configuration</b> ' window that displays all the values assigned to a particular Slot#. All parameters may be edited except the Slot # field. Refer to the appropriate ' <b>Parameter Configuration</b> ' section for additional information. |
| For all other fields                   | Place the cursor in the field and view the <b>Help</b> box in the bottom left corner for additional information.   |

## Measured Value Parameter Configuration

This screen displays all the values assigned to a particular Slot#. All values can be edited, with the exception of **Slot #** and **Special Processing**.

Refer to SAE J1939, NMEA 2000, or proprietary parameter documentation for correct setting values.

**Section A:** Slot #: 2, PGN: 61443, Starting Byte: 3, Starting Bit: 1, Bit Length: 8, Long Text: PERCENT LOAD AT CURRENT RPM, Short Text: LOAD@RPM, Data Range Low: 0, Data Range High: 250, Repetition Rate: 50, Modbus Gage Precision: 0.

**Section B:** Language: English, Configuration Flags:  Data Smoothing Enabled,  Data Page (NMEA 2000),  Modbus Register,  Show Bar Graph, Special Processing: None.

| Unit       | Unit Description Text | Precision | Resolution | Offset | Bar Graph Min | Bar Graph Max |
|------------|-----------------------|-----------|------------|--------|---------------|---------------|
| English    | %                     | Edit 0    | 1          | 0      | 0             | 125           |
| Metric Bar | %                     | Edit 0    | 1          | 0      | 0             | 125           |
| Metric KPA | %                     | Edit 0    | 1          | 0      | 0             | 125           |

Help: [Empty field]

Ok Cancel

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**Section A:** In this section, you can view and edit the details for the parameter. You can customize the standard values. You can rename the parameter if you like (see note) both the long and the short text. Each editable field has context sensitive help available in the lower left corner of the page.

**NOTE:** If you change the long or short text, the translations provided might not be valid, in which case you will need to provide your own translations if they are desired.

**Section B:** In this section, you can enable or disable the configuration flags.

**NOTE:** Only the first fifty 16 bit parameters marked for the Modbus Register will be registered. If a parameter exceeds 16 bits, it will be counted as two.

**Section C:** In this section, you can view or edit the way in which the parameter is represented. In addition, you can define the graph details.

NOTE: For fields with an [Edit] button, you can click **[Edit]** to launch the Text Editor in order to make changes. Refer to '**Text Editor**' for additional information.





## Gear Parameter Configuration

This screen displays all the values assigned to a particular Slot#. All values can be edited, with the exception of **Slot #**.

Refer to SAE J1939, NMEA 2000, or proprietary parameter documentation for correct setting values.

**Section A:** Slot #: 38, PGN: 61445, Starting Byte: 4, Starting Bit: 1, Bit Length: 8, Long Text: CURRENT GEAR, Short Text: CURNT GEAR, Data Range Low: 0, Data Range High: 251, Repetition Rate: 100.

**Section B:** Language: English, Configuration Flags:  Data Smoothing Enabled,  Data Page (NMEA 2000),  Modbus Register, Special Processing: None.

**Section C:** Neutral Gear Text: NEUTRAL, Forward Gear Text: FWD, Reverse Gear Text: REV, Park Gear Text: PARK.

**Section A:** In this section, you can view and edit the details for the parameter. You can customize the standard values. You can rename the parameter if you like (see note) both the long and the short text. Each editable field has context sensitive help available in the lower left corner of the page.

**NOTE:** If you change the long or short text, the translations provided might not be valid, in which case you will need to provide your own translations if they are desired.

**Section B:** In this section, you can enable or disable the configuration flags.

**NOTE:** Only the first fifty 16 bit parameters marked for the Modbus Register will be registered. If a parameter exceeds 16 bits, it will be counted as two.

**Section C:** In this section, you can view or edit the way in which the parameter is represented.

**NOTE:** For fields with an [Edit] button, you can click **[Edit]** to launch the Text Editor in order to make changes. Refer to 'Text Editor' for additional information.

# Engine Configuration

Configuration Tool - Stand Alone - [PV101 Configuration Tool]

Configuration Name: Aug Technical Language: English


Configuration | General Settings | Parameters | Engine Configuration | DTCs | Modbus Gages | Screen | Reminders | DPF

PGN: 65251

| Start Byte | Start Bit | Len | Unit Label        |      | Parameter Description | Precision | Data Range Low | Data Range High | Unit Resolution | Ur Off |
|------------|-----------|-----|-------------------|------|-----------------------|-----------|----------------|-----------------|-----------------|--------|
| 1          | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 1     | 0         | 0              | 64255           | 0.125           | 0      |
| 3          | 1         | 8   | %                 | Edit | PERCENT TORQUE 1      | 0         | 0              | 250             | 1               | 125    |
| 4          | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 2     | 0         | 0              | 64255           | 0.125           | 0      |
| 6          | 1         | 8   | %                 | Edit | PERCENT TORQUE 2      | 0         | 0              | 250             | 1               | 125    |
| 7          | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 3     | 0         | 0              | 64255           | 0.125           | 0      |
| 9          | 1         | 8   | %                 | Edit | PERCENT TORQUE 3      | 0         | 0              | 250             | 1               | 125    |
| 10         | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 4     | 0         | 0              | 64255           | 0.125           | 0      |
| 12         | 1         | 8   | %                 | Edit | PERCENT TORQUE 4      | 0         | 0              | 250             | 1               | 125    |
| 13         | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 5     | 0         | 0              | 64255           | 0.125           | 0      |
| 15         | 1         | 8   | %                 | Edit | PERCENT TORQUE 5      | 0         | 0              | 250             | 1               | 125    |
| 16         | 1         | 16  | RPM               | Edit | ENGINE SPEED PT 6     | 0         | 0              | 64255           | 0.125           | 0      |
| 18         | 1         | 16  | %                 | Edit | GAIN ENDSPEED GOV     | 0         | 0              | 64255           | 0.00078...      | 0      |
| 20         | 1         | 16  | Nm                | Edit | REFERENCE ENG TORQUE  | 0         | 0              | 64255           | 1               | 0      |
| 22         | 1         | 16  | RPM               | Edit | MAX ENG OVERRIDE SPD  | 0         | 0              | 64255           | 0.125           | 0      |
| 24         | 1         | 8   | Sec               | Edit | MAX OVERRIDE TIME     | 0         | 0              | 250             | 0.1             | 0      |
| 25         | 1         | 8   | RPM               | Edit | SPEED CONTROL LOWER   | 0         | 0              | 250             | 10              | 0      |
| 26         | 1         | 8   | RPM               | Edit | SPEED CONTROL UPPER   | 0         | 0              | 250             | 10              | 0      |
| 27         | 1         | 8   | %                 | Edit | TORQUE CONTROL LOWER  | 0         | 0              | 250             | 1               | 125    |
| 28         | 1         | 8   | %                 | Edit | TORQUE CONTROL UPPER  | 0         | 0              | 250             | 1               | 125    |
| 29         | 1         | 16  | RPM               | Edit | EXT SPD CONTROL UP    | 0         | 0              | 64255           | 0.125           | 0      |
| 31         | 1         | 16  | kg-m <sup>2</sup> | Edit | MOMENT OF INERTIA     | 0         | 0              | 64255           | 0.004           | 0      |
| 33         | 1         | 16  | Nm                | Edit | DEF ENG TORQUE LIMIT  | 0         | 0              | 64255           | 1               | 0      |

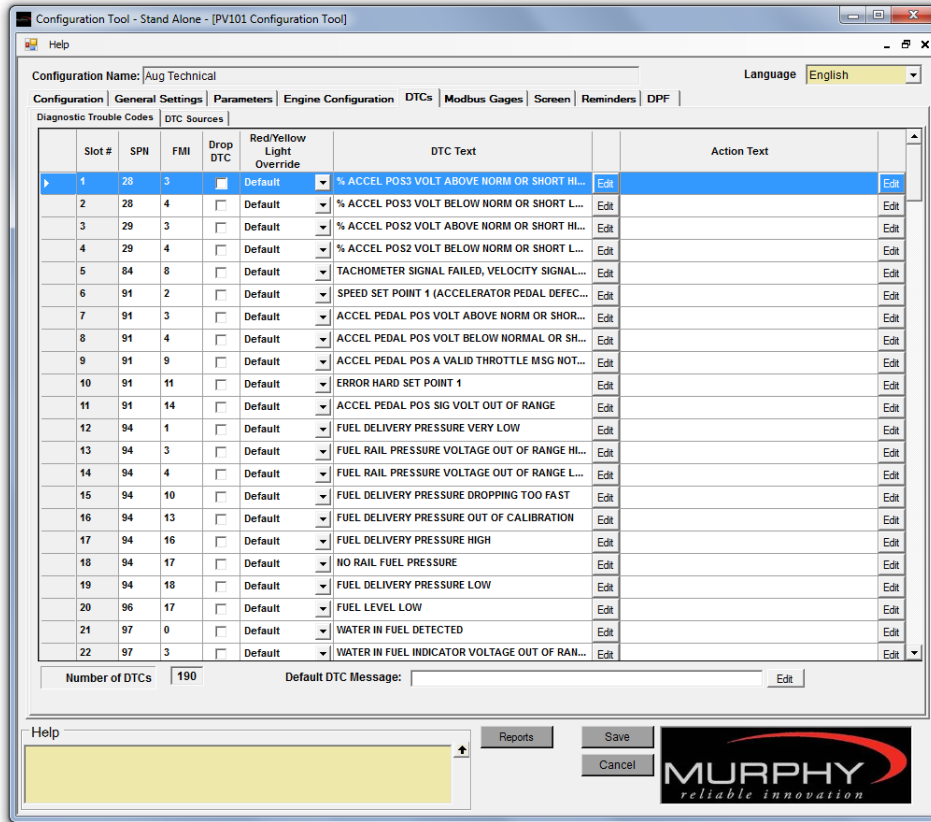
Help

Reports Save Cancel



For fields with an **[Edit]** button, you can click **[Edit]** to launch the Text Editor and make changes. Refer to 'Text Editor' for additional information.

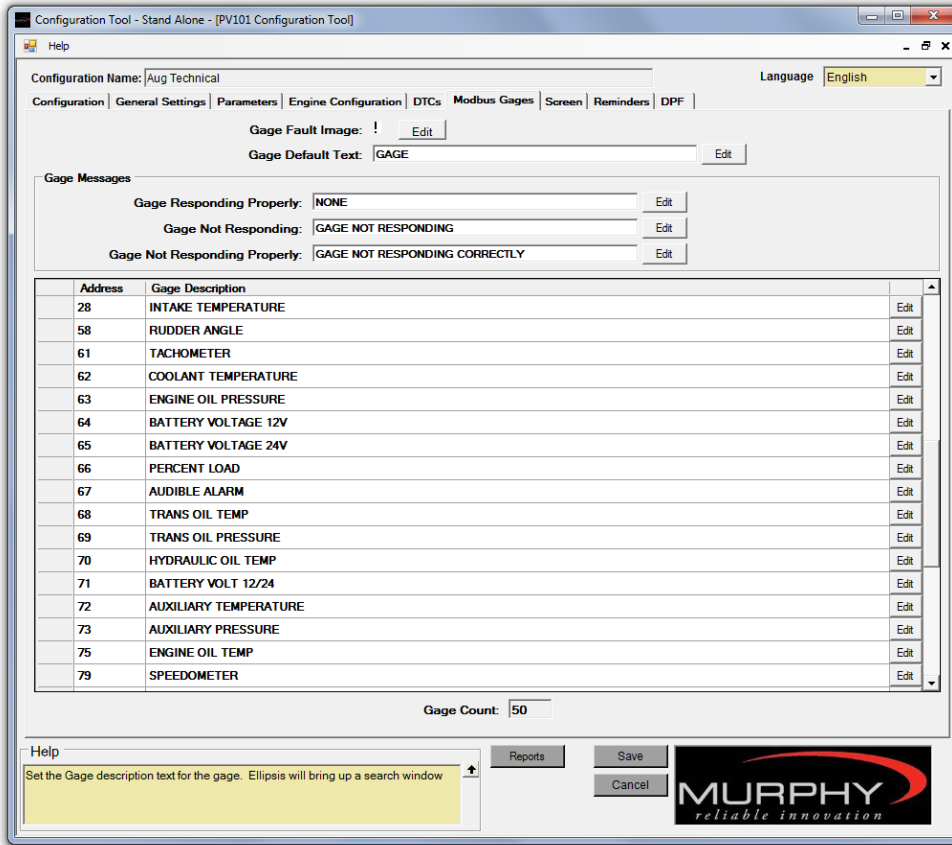
# DTCs



Under this tab, you can view and define the Diagnostic Trouble Codes (DTC) for your configuration. You can edit the text for any of the trouble codes and you can provide an action to take in the event the trouble code is detected.

| Field                            | Description   |
|----------------------------------|---|
| <b>Drop DTC</b>                  | Click box to select. If you select this box, this trouble code will not be recognized or used in your configuration.  |
| <b>Red/Yellow Light Override</b> | Available choices: <ul style="list-style-type: none"> <li>• <b>Both</b> – both the red and the yellow light will be displayed.</li> <li>• <b>Default</b> – factory setting</li> <li>• <b>Red</b> – overrides default and displays the red light only</li> <li>• <b>Yellow</b> – overrides default and displays the yellow light only</li> </ul> |
| <b>DTC Text</b>                  | Click <b>[Edit]</b> to launch the Text Editor in order to make changes. Refer to ' <b>Text Editor</b> ' for additional information on the Text Editor.  |
| <b>Action Text</b>               | Click <b>[Edit]</b> to launch the Text Editor in order to make changes. Refer to ' <b>Text Editor</b> ' for additional information on the Text Editor. If the Action Text is left blank, then no action text will be displayed when a DTC is present.   |
| For all other fields             | Place the cursor in the field and view the <b>Help</b> box in the bottom left corner for additional information.  |

# Modbus Gages



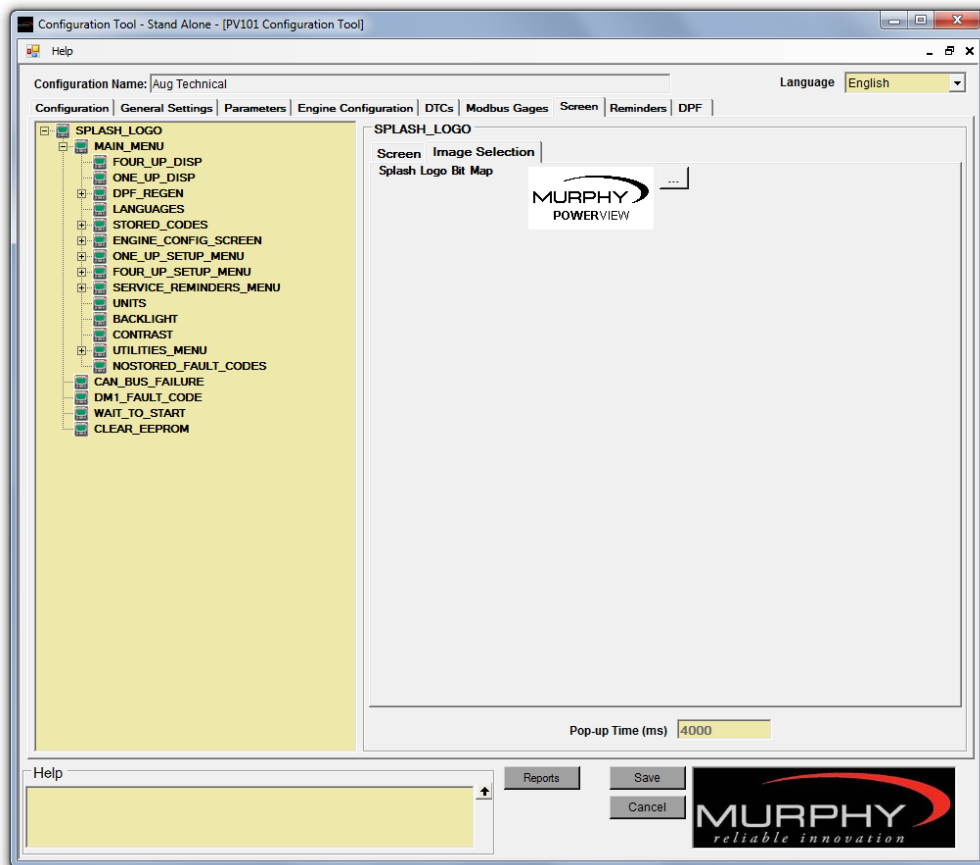
This tab supports 255 MODBUS gages.

All fields on this tab can be edited using the **[Edit]** button. To make changes, click **[Edit]** next to the desired field and the Text Editor is launched. Refer to **'Text Editor'** for additional information.

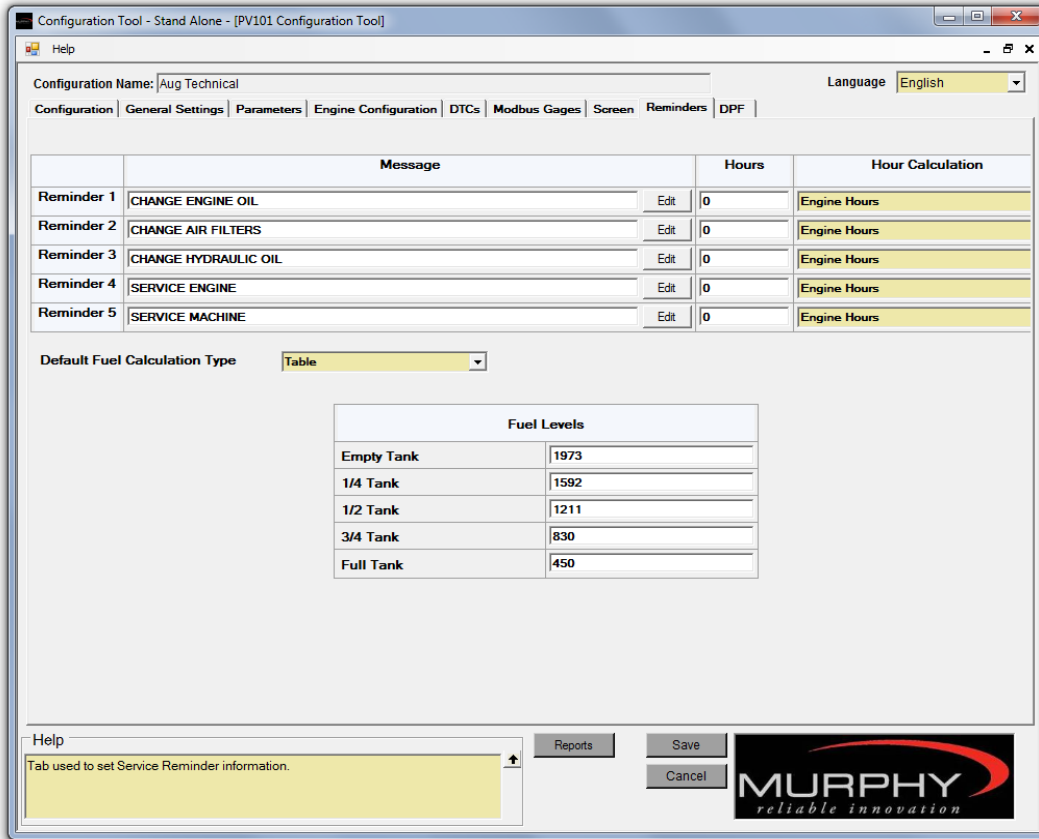
## Screen

Under the screen tab, you can change the strings in the program.

**NOTE:** It is important to keep in mind when editing strings. All of our default parameters and text strings are translated into multiple languages. When you edit the text string, the translation is no longer valid. You will have to provide your own translations for unique parameter names and text strings.



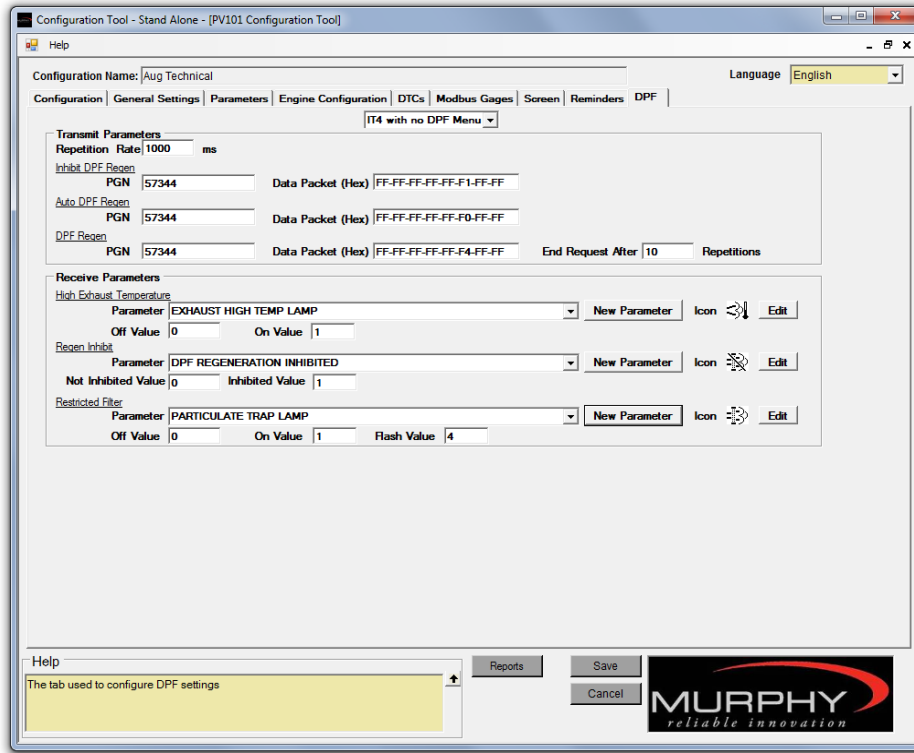
# Reminders



Reminders allow you to set up to 5 reminders that will be displayed on the PV101-C when their values are tripped.

You can change the message that will be displayed through the Text Editor. You will also enter the hours for the expiration timer to trip the reminder and specify how the hours are calibrated.

| Field                         | Description  |
|-------------------------------|--|
| Hour Calculation              | Available choices: <ul style="list-style-type: none"> <li>• Engine Hours</li> <li>• Machine Hours</li> </ul>     |
| Default Fuel Calculation Type | Available choices: <ul style="list-style-type: none"> <li>• Set Points</li> <li>• Table</li> </ul>               |
| For all other fields          | Place the cursor in the field and view the <b>Help</b> box in the bottom left corner for additional information. |



NOTE: The new parameter button can be used to add a new parameter for DPF functions. When a parameter is added here, it is also added to the parameter tab. To add a parameter here requires that you be under the 70-parameter limit.

| Field                           | Description  |
|---------------------------------|--|
|                                 | Available choices: <ul style="list-style-type: none"> <li>• <b>IT4 with DPF Menu</b> – Adds DPF as a menu item</li> <li>• <b>IT4 with no DPF Menu</b> – IT4 icons are displayed, but there will be no DPF menu option by default. The DPF menu option can also be enabled/disabled at run-time by using the OEM menu.</li> </ul> |
| <b>High Exhaust Temperature</b> | All parameters listed under the ‘ <b>Parameters</b> ’ tab are available for selection.   |
| <b>Regen Inhibit</b>            | All parameters listed under the ‘ <b>Parameters</b> ’ tab are available for selection.   |
| <b>Restricted Filter</b>        | All parameters listed under the ‘ <b>Parameters</b> ’ tab are available for selection.   |
| For all other fields            | Place the cursor in the field and view the <b>Help</b> box in the bottom left corner for additional information.   |

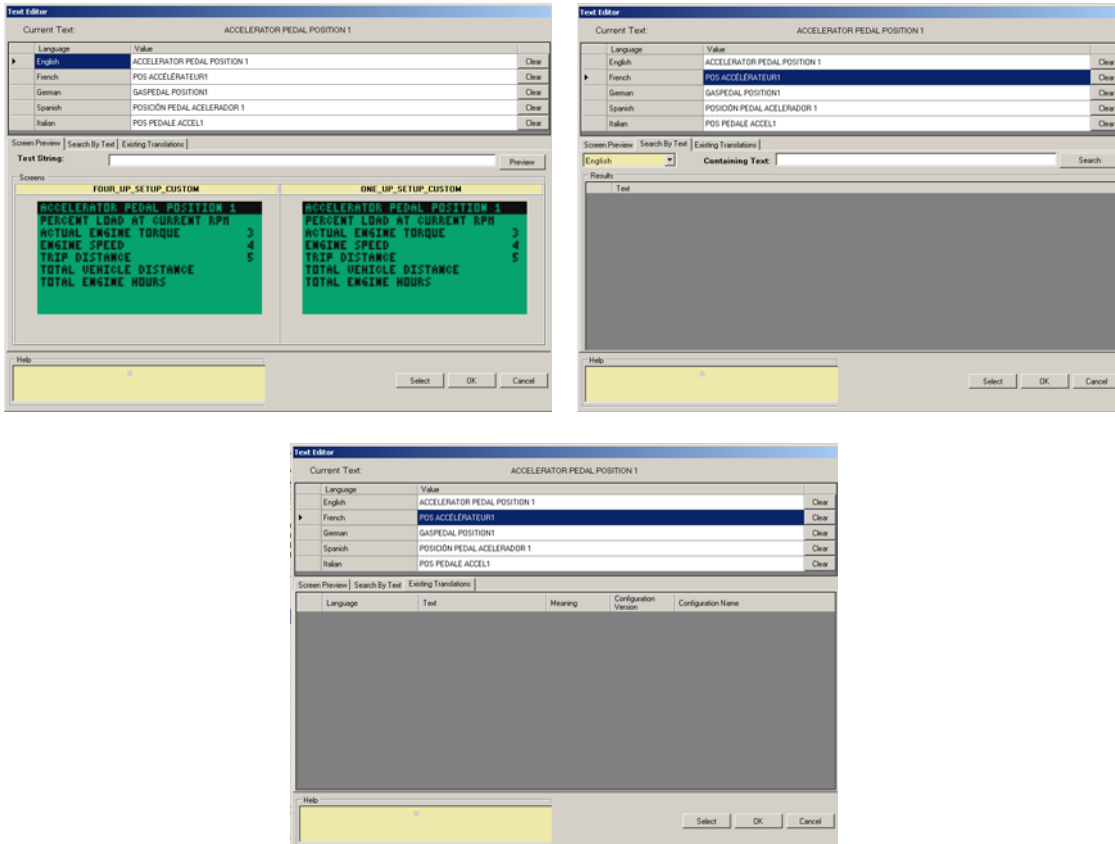
NOTE: For information on editing the icons displayed on your PV101-C, see the Image Editor section.



## Text Editor

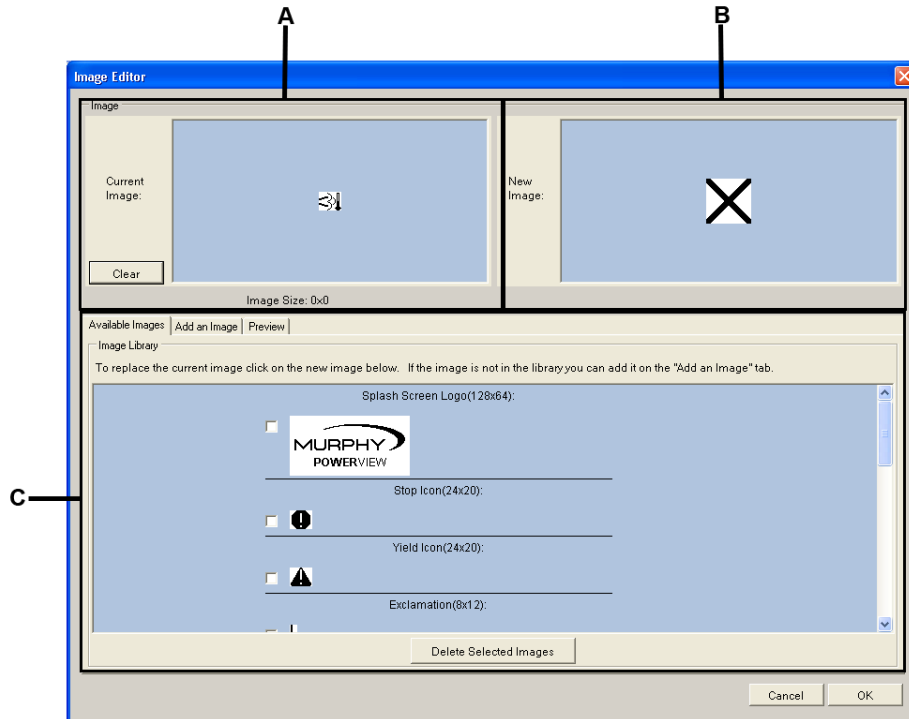
Almost every string in the configuration tool is editable. You know the string is editable when there is an **[Edit]** button next to the field.

It is important to keep in mind when editing strings. All of our default parameters and text strings are translated into multiple languages. When you edit the text string, the translation is no longer valid. You will have to provide your own translations for unique parameter names and text strings.




## Image Editor

This editor allows you to edit the images (icons) that are displayed on your PV101-C. You can change the displayed images, add an image from your computer to the image library, delete an image from the library and you can preview how the image will be displayed on the PV101-C screen. There are three tabs under which you can work,



**Section A:** In this area, the currently selected image is displayed. The default images are contained in the library. If you click **[Clear]**, the image will be cleared from the Current Image box.

**NOTE:** While the image is cleared from the Current Image box, it is not removed from the database, nor is it removed as the displayed image on the PV101-C.

**Section B:** In this area, the new image that you have selected is displayed: . When you have selected a new image, it will replace the X.

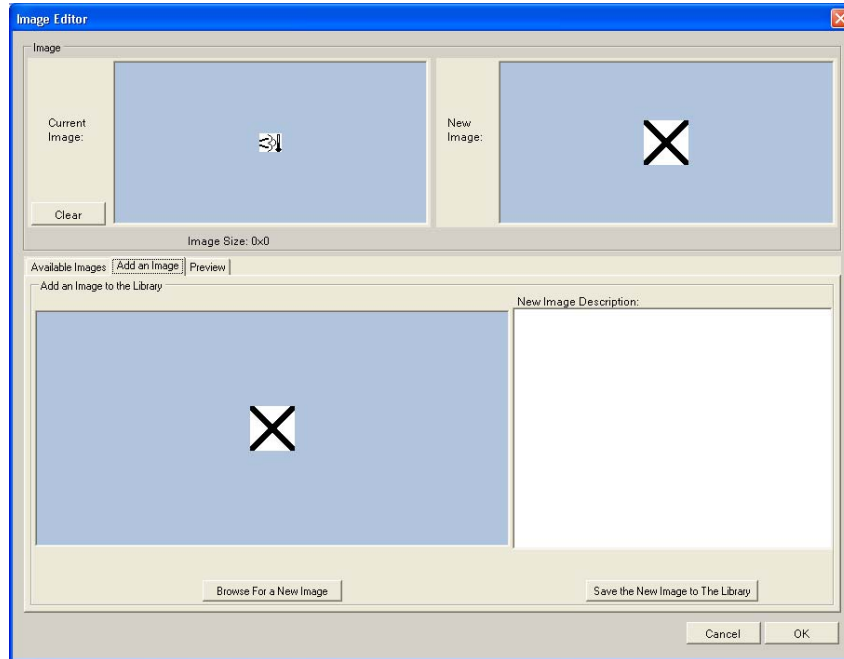
**Section C:** The action tabs are located in this section.

- **Available Images Tab:** Contains the image library from which you can select a new image or delete an image from the library. If you want to select a new image, click on the image. The new image will be displayed in Section B, the New Image window.

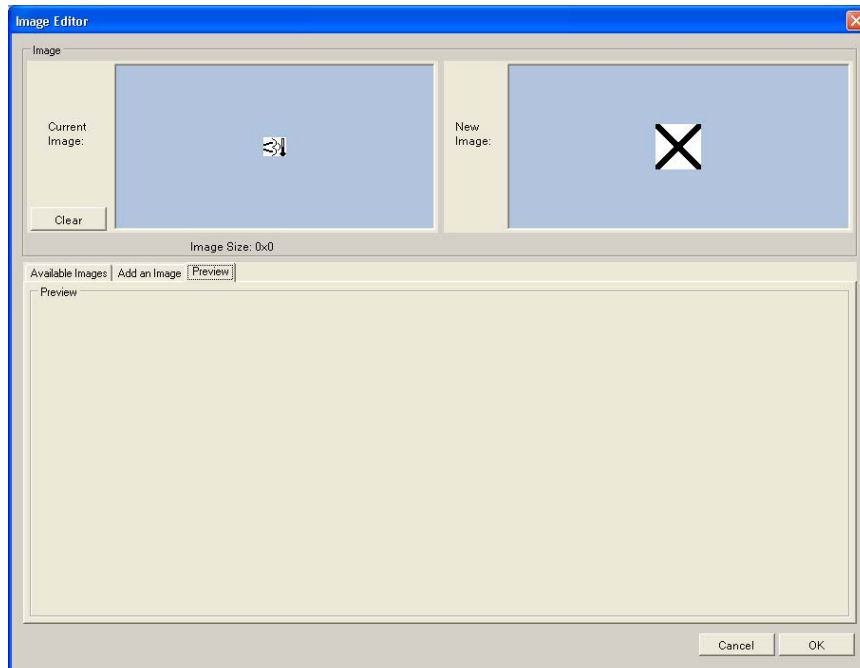
**NOTE:** If you do not see the new image in the New Image window, it will not be displayed in the program.

To delete one or more images from the library, check the box next to the image(s) and click **[Delete Selected Images]**.

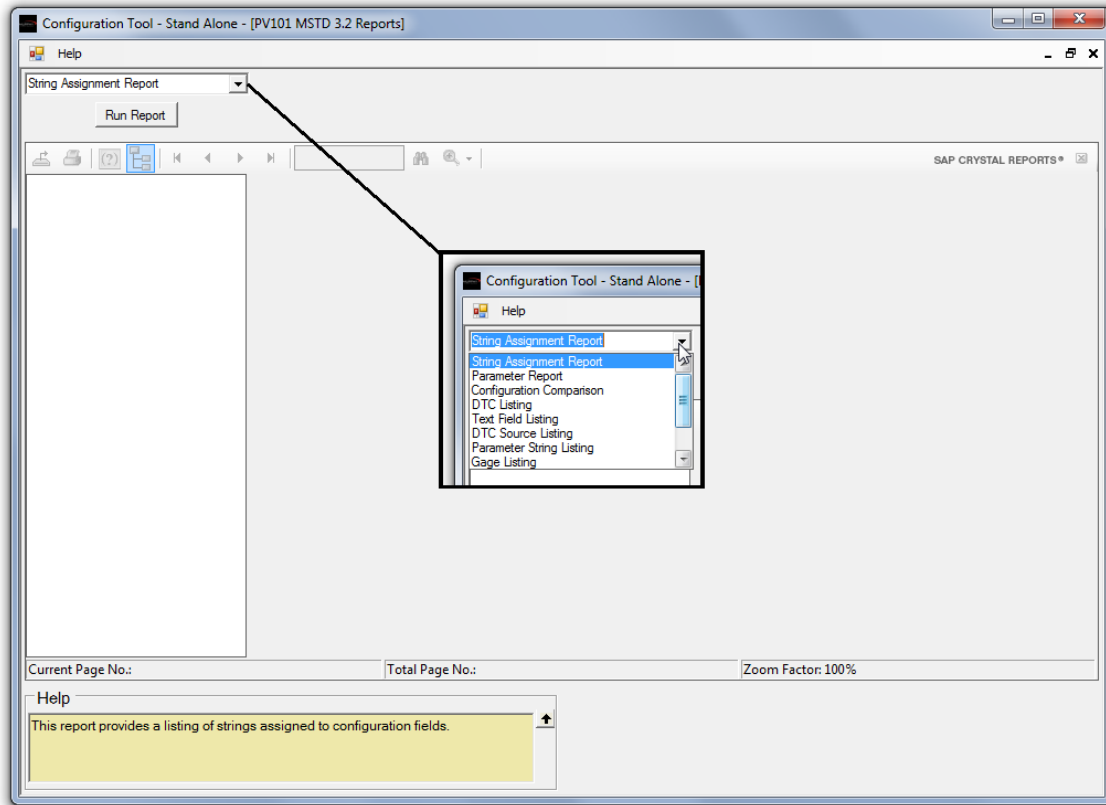
- **Add an Image Tab:** from here, you can add an image to the image library. Once the image is added to the library, it can be selected from the **Available Images** tab.



- **Preview Tab:** From here, you can view a mock of how the image will be displayed on the PV101-C screen. It will be displayed in the bottom portion of the screen.



# Reports



This module allows you to run a set of pre-defined reports on your configuration settings. You can view, print, or export reports to other formats such as Excel, Word, and PDF files. Use the drop-down list to access all reports.

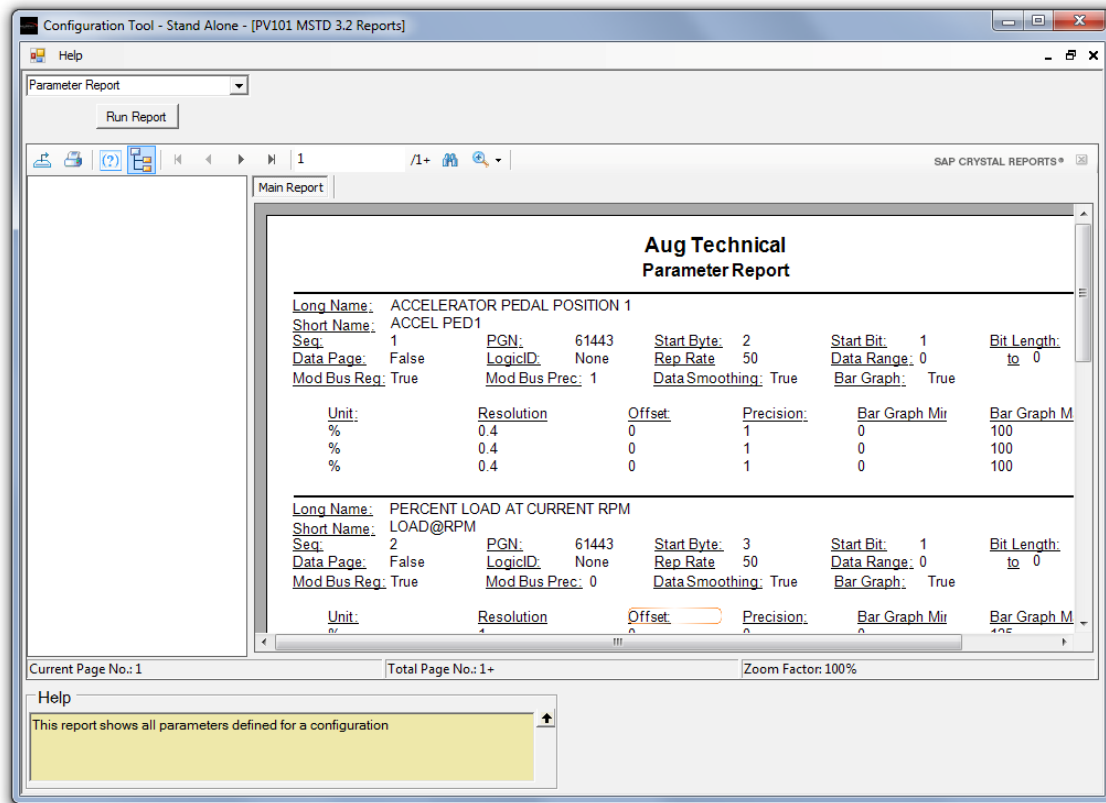
Use the Available Reports include:

- **String Assignment Report** – provides listing of strings assigned to configuration fields
- **Parameter Report** – shows all parameters defined for a configuration
- **Configuration Comparison** – displays the differences between two configurations
- **DTC Listing** – provides a listing of all DTCs defined in the configuration
- **Text Field Listing** – provides a listing of all strings used by the configuration. All strings for the default language are listed by their translations.
- **DTC Source Listing** – lists the address and name of all DTC sources defined in the configuration
- **Parameters String Listing** – lists the parameter string values mapped to display screens
- **Gage Listing** – lists all modbus gages defined in the configuration with the description strings for all languages
- **Screen Fields** – provides a listing of strings assigned to configuration fields
- **Parameter Unit Validation** – provides a list of units for each measured parameter

- **Parameter QA Data Only** – returns all parameter data as one row per parameter for verification

To run a report, click the drop down list and select the desired report, then click **[Run Report]**.

The report is listed in the pane on the right.



The icons located across the top of the report allow you to perform the following actions:

- Export Report
- Print Report
- Toggle Group Tree
- Go to First Page
- Go to Previous Page
- Go to Next Page
- Go to Last Page
- Go to Page
- Close Current View
- Find Text
- Zoom



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