



PV101-C Configuration Software V3.1

Installation and Operations Manual

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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 V3.1 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 set, it may be downloaded from your PC to the PV101-C via a serial or USB connection.

Installing V3.1 Software Configurator

System Requirements

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, and XP.

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

The configuration software and USB driver provide efficient use of your hard drive, using only 3-5 MB of disk space after installation.

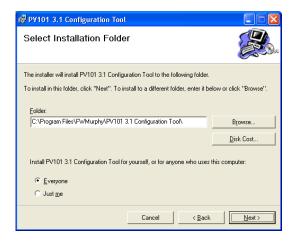
Installation Instructions

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

1. Insert the PV101-C V3.1 CD into the CD drive of your computer. When the installation menu is displayed, select "Install V3.1 Configuration Tool" from the menu. An Installation Wizard is launched. Click on [Next] to continue.



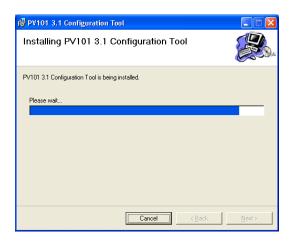
2. You will be asked for a destination folder for the program. You can accept the suggested directory or select a different directory by clicking the [Change] button and browse to the destination folder. Once the destination folder is determined, click [Next] to continue.



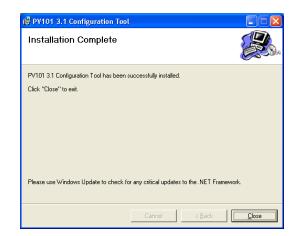
3. The Wizard is now ready to install the program. Click [Next] to begin. This may take several minutes.



4. The following screen is displayed while the configuration tool is being installed.



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

To access the application, select "PV101-C 3.1 Configuration Tool" from the list of programs under your "Start" menu. The first time you launch the application, you will be asked for a key.



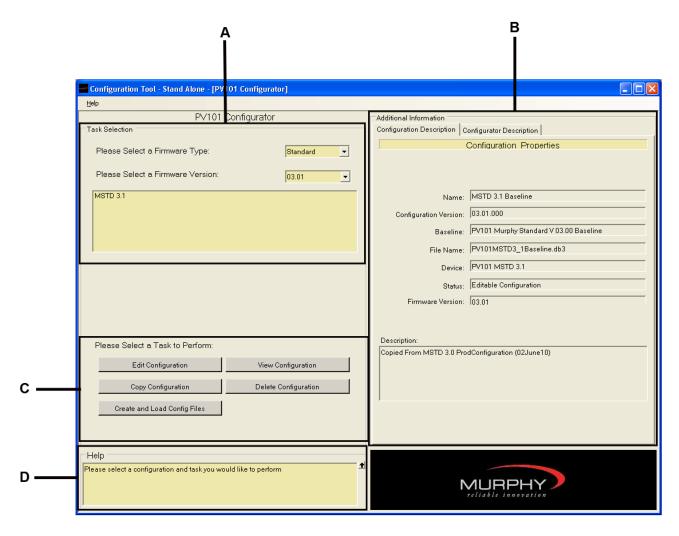
Contact Sales at FW Murphy, at 918-317-4100, or email sales@fwmurphy.com to obtain the product key and press 1 for inside sales. Be prepared to provide the following information:

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

Enter the key provided and press [OK] to continue.

PV101-C Configurator Screen

Once your software is installed and you have entered your key ID as shown in the previous section, the following screen is displayed. You are now ready to use the software. From this default screen, you can manage (view, edit, copy, delete or create and load) the configurations that have been set up for your PV101-C. To get you started, a read-only configuration (MSTD 3.1) is provided. It is recommended that you begin by performing a copy of this database and naming it something unique and meaningful to you. The original database can be stored as the baseline to use at another time.



Navigating the Configurator Screen

Section A: The '**Task Selection**' portion at the top left of screen facilitates configuration file management. In this section, you will find a list of your configurations. Notice the existing configuration called MSTD 3.1. You can double click on this configuration to view it. You can also copy it and edit other configurations that you have created.

Section B: The 'Additional Information' on the right side of the screen provides two tabs that specify properties of the configuration file. The right side of the screen cannot be edited.

Section C: The 'Select a Task to Perform' provides Edit, View, Copy, and Delete buttons for file management. Once you have a completed the configuration file, the Create and Load Config Files button is used to download the new configuration to the PV101-C display unit.

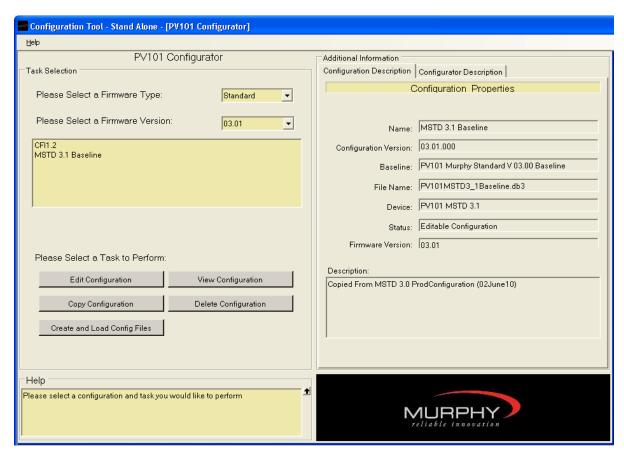
Section D: The '**Help**' at the bottom left provides instructions for the current screen or occupied field. This context sensitive help box is located in the lower left corner of all screens where field help is available. The **Help** at the top left launches a PDF version of this document.

Entering a New Configuration File

To enter or modify a new configuration file, click and highlight **MSTD 3.1.** 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.

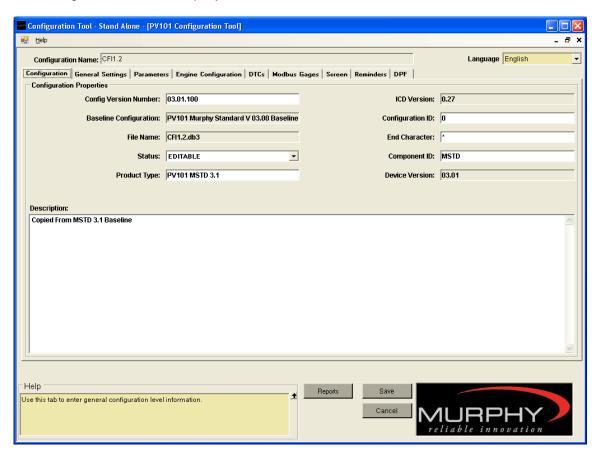


The new configuration file is now listed under MSTD 3.1 and Baseline has been added to MSTD 3.1 configuration file name. Baseline files cannot be edited.



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 your changes have been made 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 is displayed. In order to download a Configuration File, you must have your device connected to the PV101-C and the computer you're working on.

Connecting Your PV101-C to Your Computer

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



Installation

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.

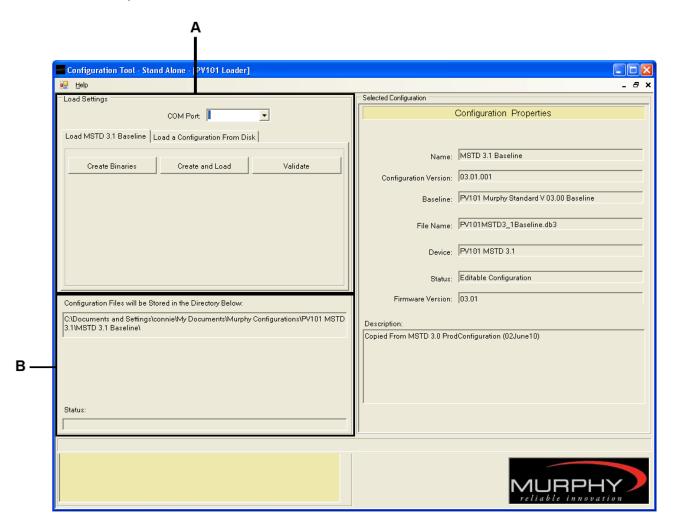


 Connect the opposite end of the USB cable to the PC and continue as shown below.

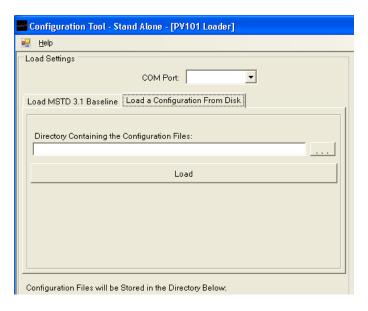


- 1. .Insert the 6-PIN connector into Port B in the back of the PV101-C.
- 2. Connect the programming cable to the RS485 converter.
- 3. Connect the power source cable to the programming cable.

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-C. Select the COM port to which the device is connected. Under the Load [selected configuration name] tab, you can Create Binary files that will be stored on your PC, Create and Load the binary files to the connected PV101-C device and Validate that the configuration loaded correctly. You can also load configuration files previously stored on your computer by selecting the "Load a Configuration from Disk" tab. The following tab is displayed, 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 and can be used as a reference when setting up your configuration files. An example of each tab will be displayed, 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 for additional information.

The following fields are available on every tab.

Field	Description		
Configuration Name	The name assigned when you copied the new configuration file.		
Language	Default choices*:		
	English		
	• French		
	German		
	Spanish		
	• Italian		
	*See the General Settings tab for more information about language		
	setup.		
Help	Provides context help based on tab and field occupied.		
Reports	Launches a window for determining report specifications.		
Save	Saves any changes made to the current configuration file.		
Cancel	Displays a dialog box asking if you want to save changes before		
	exiting.		

Field Sorting

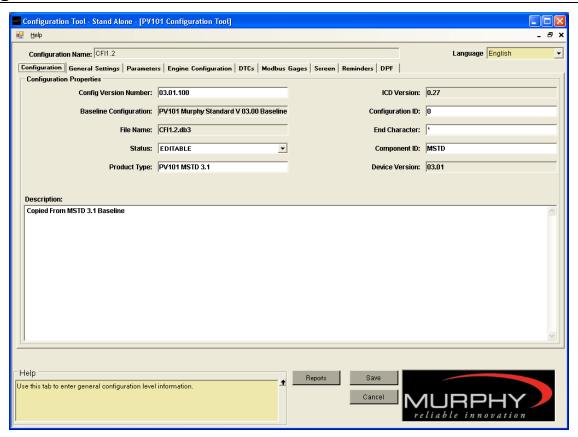
Tables containing data fields are provided on the following tabs:

- 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 will display the data sorted by ascending or descending order, and may be grouped by configuration options.

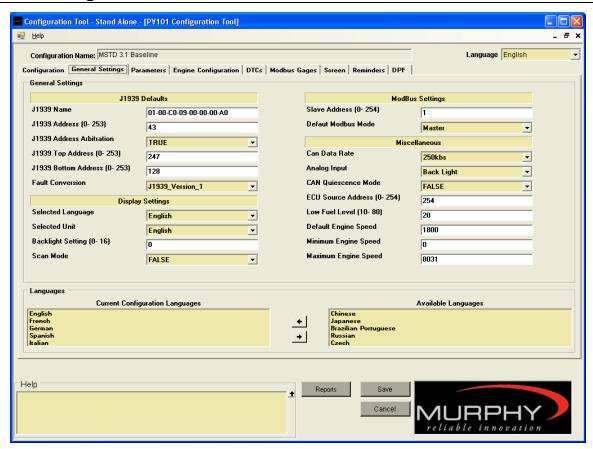
00-02-0721

Configuration



Field	Description		
Status	Available choices:		
	Editable – able to edit		
	Locked – unable to edit		
	INQA – For Murphy Use only		
For all other fields	Place the cursor in the field and view the Help box in the bottom left		
	corner for additional information.		

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:

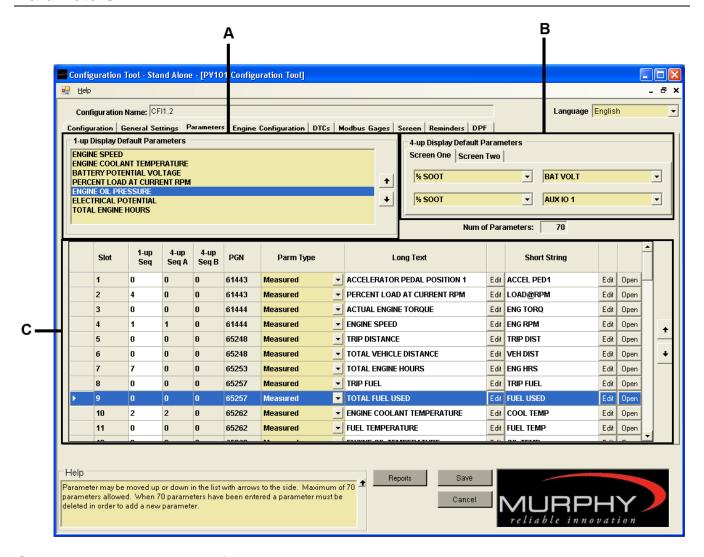
- Configuration Name
- Help

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.

Language Setup: You can customize the Language drop-down list by selecting languages in the 'Available Languages' box and clicking the [Left Arrow] to move them to the 'Current Configuration Languages' box. You can select up to five languages to be displayed 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 [Right 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 (at a minimum) from the 'Current Configuration Language' box prior to selecting Chinese or Japanese.

Field	Description		
J1939 Address	Available choices:		
Arbitration	• True		
	False		
Fault Conversion	Available choices:		
	• J1939_Verson_1		
	• J1939_Version_2		
	• J1939_Version_3		
Selected Language	Default choices*:		
	English		
	French		
	German		
	Italian		
	Spanish		
	*See Language Setup above for information on how to specify the		
	languages contained in this list.		
Selected Unit	Available choices:		
	English		
	Metric Bar		
	Metric KPA		
Scan Mode	Available choices:		
	True		
	False		
Default Modbus Mode	Available choices:		
	Master		
	Slave		
Can Data Rate	Available choices:		
	• 100kbs		
	• 125kbs		
	• 1MBps		
	• 250kbs		
	• 500kbs		
	• 800kbs		
Analog Input	Available choices:		
	Back Light		
	Fuel Level		
CAN Quiescence	Available choices:		
Mode	• True		
	False		
For all other fields	Place the cursor in the field and view the Help box in the bottom left		
	corner for additional information.		



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 are displayed on the device 1-up list. You can display as few as 1 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.

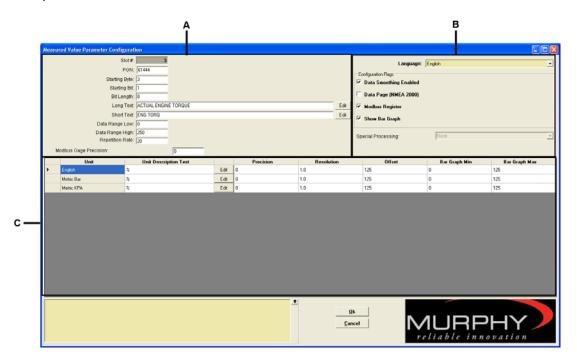
Section B: This section provides an area to specify two 4-up display screens on your
device. Each tab represents a display. Simply select the parameters to display from the
drop-down lists under each tab.

• Section C: This section contains the parameters with you can work. You can select the parameter type, edit the Long Text (name) or the Short String (nick name). 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 the Measured Value Parameter Configuration screen 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	
1-Up Display Default Parameters	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.	
4-Up Display Default Parameters	Each drop-down menu for both Screen One and Screen Two contain all the parameters listed under the parameters tab. There are up to 70 parameters from which to make your selection.	
Parm Type	Available choices: • Measured • State • Gear	
Long Text	Click [Edit] to launch the Text Editor in order to make changes. Refer to ' Text Editor ' for additional information on the Text Editor.	
Short String	Click [Edit] to launch the Text Editor in order to make changes. Refer to 'Text Editor' for additional information on the Text Editor.	
Open	Click [Open] to launch the 'Measured Value Parameter Configuration' window that displays all the values assigned to a particular Slot#. All parameters may be edited except the Slot # field. Refer to 'Measured Value Parameter Configuration' for additional information.	
For all other fields	Place the cursor in the field and view the Help 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** #.



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.

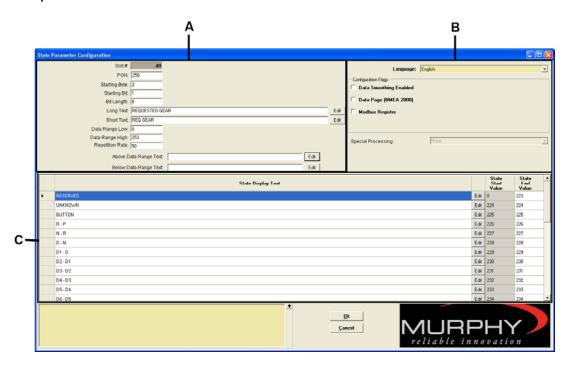
NOTE: Only the first fifty 16 bit parameters marked for the Modbus Register will be registered. If a parameter exceeds 16 bits, it will be counted as two.

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.

State Parameter Configuration

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



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.

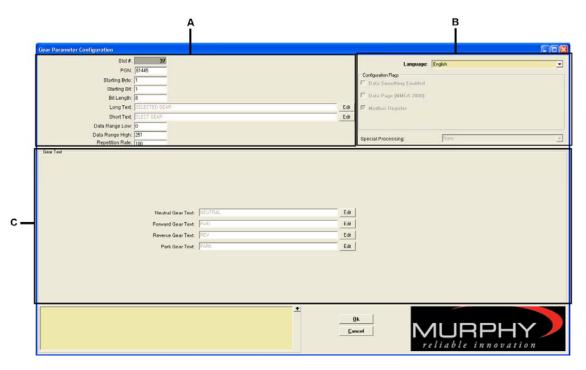
NOTE: Only the first fifty 16 bit parameters marked for the Modbus Register will be registered. If a parameter exceeds 16 bits, it will be counted as two.

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** #.



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.

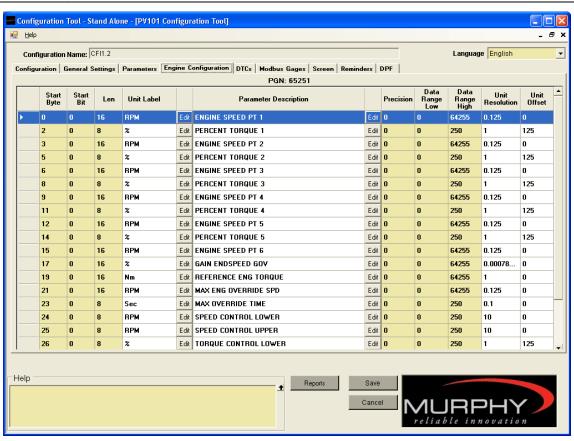
Section B: In this section, you can enable or disable the configuration flags.

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.

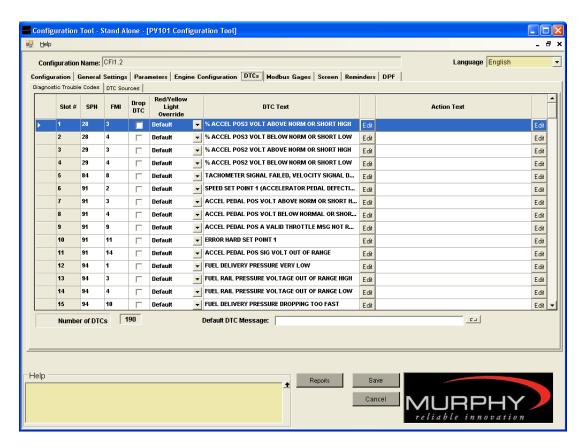
Section C: In this section, you can view or edit the way in which the parameter is represented. In addition, you can define the graph details.

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.

Engine Configuration



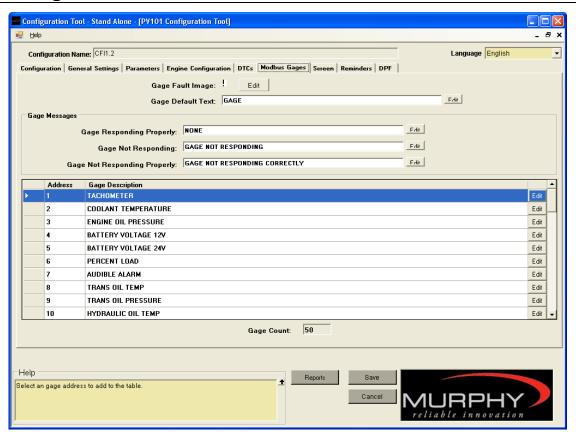
For fields with an **[Edit]** button, you can click **[Edit]** to launch the Text Editor and make changes. Refer to '**Text Editor**' for additional information.



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			
Drop DTC	Click box to select. If you select this box, this trouble code will not be			
	recognized or used in your configuration.			
Red/Yellow Light	Available choices:			
Override	 Both – both the red and the yellow light will be displayed. 			
	Default – factory setting			
	Red – overrides default and displays the red light only			
	Yellow – overrides default and displays the yellow light only			
DTC Text	Click [Edit] to launch the Text Editor in order to make changes.			
	Refer to 'Text Editor' for additional information on the Text Editor.			
Action Text	Click [Edit] to launch the Text Editor in order to make changes.			
	Refer to 'Text Editor' 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 Help box in the bottom left			
	corner for additional information.			

Modbus Gages



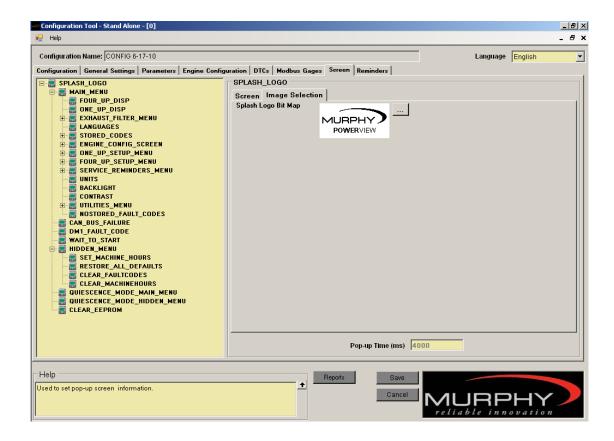
This tab supports 255 modbus gages.

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.

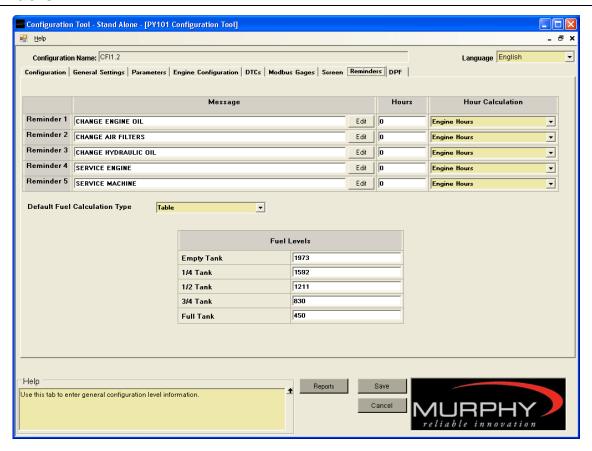
Screen

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 ten 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.



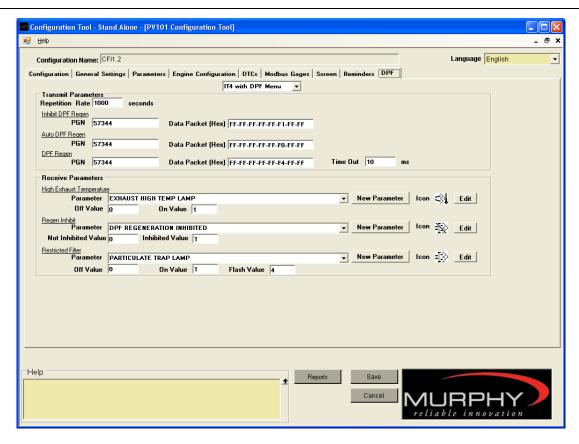
Reminders



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:		
	Engine Hours		
	Machine Hours		
Default Fuel	Available choices:		
Calculation Type	Set Points		
	Table		
For all other fields	Place the cursor in the field and view the Help 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.

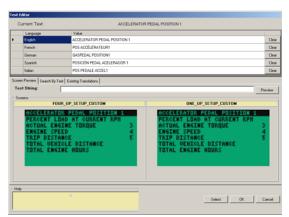
Field	Description		
	Available choices:		
	IT4 Off – Removes DPF as a menu item and turns DPF off		
	IT4 with DPF Menu – Adds DPF as a menu item		
	IT4 with no DPF Menu – Functions but not included as a menu item		
High Exhaust	All parameters listed under the 'Parameters' tab are available for		
Temperature	selection.		
Regen Inhibit	All parameters listed under the 'Parameters' tab are available for		
	selection.		
Restricted	All parameters listed under the 'Parameters' tab are available for		
Filter	selection.		
For all other	Place the cursor in the field and view the Help box in the bottom left corner		
fields	for additional information.		

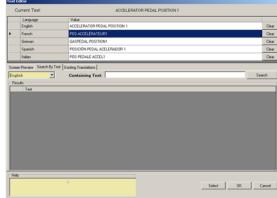
NOTE: For information on editing the icons displayed on your PV101-C, see the Image Editor section.

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 ten 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.





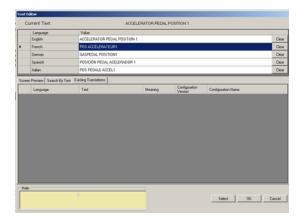
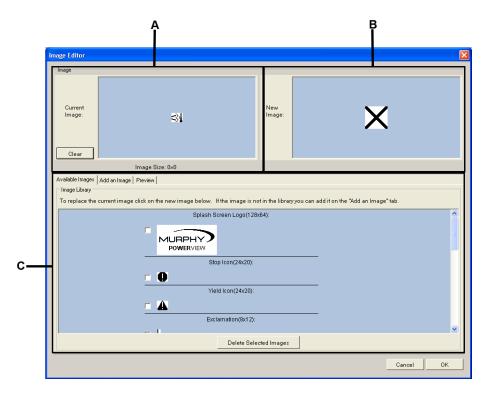


Image Editor

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 Currently 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: X. When you have selected a new image, it will replace the X.

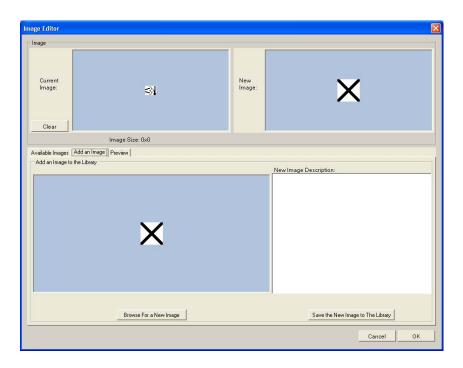
Section C: The action tabs are located in this section.

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.

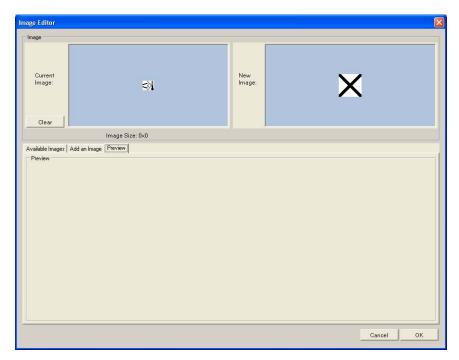
NOTE: If you do not see the new image in the New Image window, it will not be displayed in program.

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

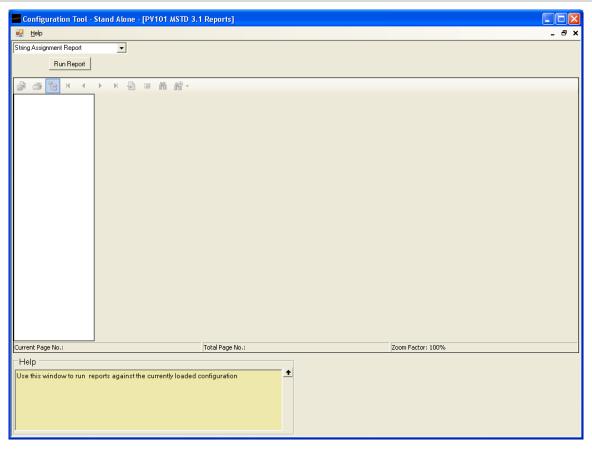
• Add an Image Tab: From here you can add an image to the image library. Once the image is added to the library, it can be selected from the **Available Images** tab.



 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 or print or export reports to other formats such as Excel, Word, and pdf files.

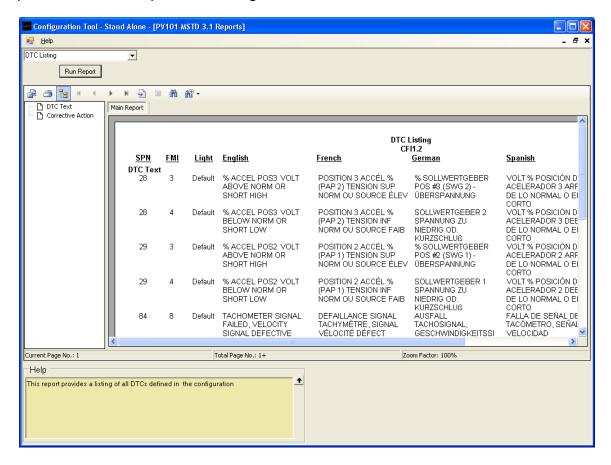
Available Reports include:

- 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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