Configuring Your Operator Panel

3

In This Chapter. . . .
— Preparing for Configuration
— How to Configure Your Panel

Preparing for Configuration

Configuration   If you prepare and plan all information ahead of time, your use of the OP–WINEDIT configuration software will be very successful. Below are a few important items to perform while programming your application.

- Prepare personal computer and ensure proper installation of the OP–WINEDIT configuration software.

- Examine and understand your operator interface requirements. Determine which OP–panel(s) are needed, and if a single panel or multiple panel configuration is to be used.

- Know your PLC product and available resources, such as programming tools, CPU capabilities, unused or user memory for base register assignment (128 consecutive bits/panel)

- Verify type of communications port, as well as which protocol will be used. Determine the CPU link(s) available for connecting an OP–panel (RS–232/RS–422, baud rate, parity, stop bit).

- Think about how the features will be assigned in your panel(s) with respect to your machine or process.

NOTE: In addition to these instructions, use the OP–WINEDIT Help screens to guide you through the process of configuring your panel.

OPEditor Software   The OP–1312 is configured with software running on a personal computer. This software is available through PLC***Direct,*** and referred to as the OPEditor configuration software (part number OP–WINEDIT). The OPEditor is used to download your configuration before connecting the OP–1312 unit and communicating to a PLC or OP–9001 Communication Master.
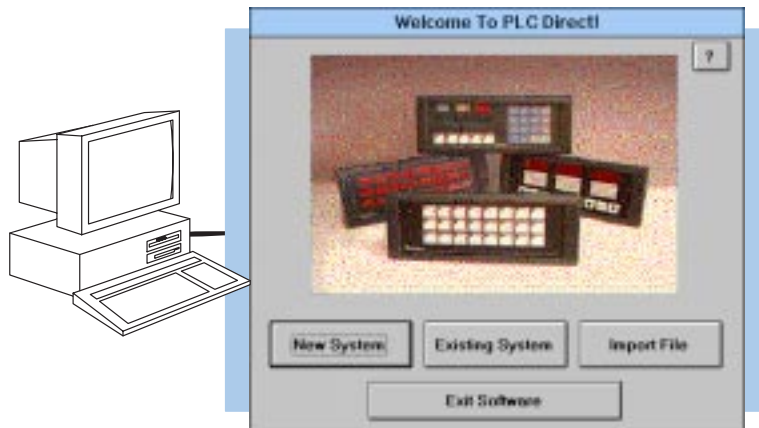
**More about
OPWIN–EDIT**
The OPEditor configuration software allows you to configure OP–panel applications, as well as download (write to panel) and upload (read from panel) the configurations. Use this software to configure your communication link(s), select pushbutton control, and enter operator display messages. The newer and most recommended software is the **OP–WINEDIT** package. This windows software may be ordered from PLC*Direct* using part number OP–WINEDIT.

The HELP System
For the OP–WINEDIT software (e.g. version 1.01 or greater) configuration **Help windows** are provided for performing all necessary configuration tasks. Should you have problems understanding how to program your panel, refer to these built–in On Line Help windows. To call the Help windows, point and click on the Help menu and choose Using help, or click on the [?] ICON located near the top of the main configuration window.

TIP: You may design and configure your Operator Panel configuration(s) offline and save them to disk. The programs may then be downloaded to the OP–panel(s).

**System
Requirements**
The OP–WINEDIT software, must have the following minimum PC configuration:

- IBM 386 (or better) compatible computer
- VGA or SVGA video board and color monitor
- 1 meg of free hard drive space
- 1 meg of RAM memory
- Windows 3.1 or higher (OP–WINEDIT)

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How to Configure Your Panel

To prepare an OP–panel for operator use, the following steps are required.

Step 1 **Load OPEditor** – If you are not already using the configuration software, you must install the OP–WINEDIT configuration software. The software is provided on one 3–1/2" high density diskette and includes an installation guide. The following is a description on how to install OP–WINEDIT.

- Place the installation disk into your computer's floppy drive (usually either drive A or drive B).
- Open Microsoft Windows (3.0 or above) and select **File/Run** from the Program Manager (upper–left corner).
- Select **Run**, and you will see a pop–up window. Type in the path for the drive in which you have placed the setup disk and designate the file **setup**. Here we have used drive A. Click on **OK** when you are finished.

Personal Computer Minimum Requirements:

- ✓ IBM type 386 or above
- ✓ 1 meg of hard drive
- ✓ **Windows 3.1 or later**
- ✓ **Windows 95**
- ✓ 1 meg of RAM

Disk Media:

- ✓ One 3–1/2" high density

OptiMate
OP-WINEDIT
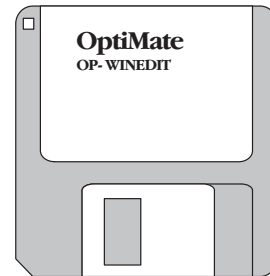
Step 2 **Select the COM ports** – Your OP–WINEDIT software requires you select which port is to be used for upload and downloading. Ensure serial port selected is not being used by other PC software while attempting to operate the OP–WINEDIT software.

Step 3 **Choose Single or Multiple Panel** – Decide the number of operator panels to be used within your application.

Step 4 **Select the Configuration Link** – Here is where you will need to select the PLC type and model which will be used in your OP–panel application.

Direct
LOGIC
PLC

***Direct*LOGIC *PLCs* :** Some ***Direct*LOGIC CPUs feature a secondary communication port which may be used to connect the OptiMate units. Your OPEditor configuration must match the PLC port setups, such as address, baud rate, stop bits, and parity. Also ensure the secondary communications port is set for HEX mode, not ASCII.

Step 5 **Complete the Communications Information –** After you have selected the PLC type you must define the remaining protocol items , such as the baud rate, parity and stop bit settings. The following table provides the necessary information for most PLC*Direct* controllers. In the case of using other PLC product and family, you should reference the proper product User manual(s) to determine the port communications capabilities.

PLC Model		Port/Baud Rates	Parity	Stop Bit
DL105/230/240	Top	9600	Odd	1
	Bottom	Bottom (DL240 only) 9600/19.2k	Odd/None	
DL250	Top	9600	Odd/None	1
	Bottom	9600/19.2K		
DL330	DCU only	4800/9600/19.2k	Odd/None	1
DL340	Bottom &Top	4800/9600/19.2k	Odd/None	1
DL350	Top	9600	Odd	1
	Bottom	4800/9600/19.2K	Odd/None	
DL430/440	Top	Top 9600	Odd	1
	Bottom	9600/19.2k	Odd/None	
DL450	DB15	9600	Odd	1
	DB25	9600/19.2k	Odd/None	
	RJ12	9600/19.2k	Odd/None	

During configuration, ensure that your address and communications parameters match the PLC port settings. There will be a selection for PLC timeout. When the panel sends a message to the PLC and does not receive a response or does not understand the response, it will wait the time–out period before resending the message. A communication failure after 12 seconds initiates the message "Host Communication Fail" on the panel.

You also have several ports which can be used to connect your communications cable. Some of these ports have fixed PLC address assignments, and some *do not*. The ports which allow configuring the PLC addresses can be set to a unique address, ranging from 1 through 90. **Refer to your User Manual for specific information on the ports of your PLC**.

OTHER **PLCs :** For Allen–Bradley, you will need to connect to Channel 0 (bottom serial port), using DF1 full duplex. Additionally, the Allen–Bradley software allows you to set the bottom port to a unique PLC address. The software default is PLC Address 1. You must select CRC error detection and ensure the address on the configuration screen matches the address you have assigned. This port must also be configured for either 4800 or 9600 baud. No other baud rates are supported for communicating between the OP–panels and an Allen–Bradley PLC. Since the Allen–Bradley software uses a default baud rate of 1200, you must change the settings.

Step 6   **Select the Panel Address** – The panel has a DIP switch on the rear of the unit which is used to set the panel address (between 0–31). This address is used for two functions. The first function is for setting the address for configuration and the second is for the specific panel address. This panel address (0–31) is used with multiple panel configurations and the OP–9001 Communications Master. The address number that you select on the switch must also be configured to the panel.

Step 7   **Select the Base Register Address and File Number –** This step is very important because it establishes the link in your PLC memory to the panel. For **Direct**LOGIC PLCs, the following section describes the mapping process. Once you are familiar with the mapping process and you know the memory in your PLC to use (refer to the user manual for your respective PLC type), enter your selection.

If you choose Allen–Bradley as your PLC Type, you must enter the PLC File Number in addition to a Base Register Address. You must expand the memory map in the Allen–Bradley PLC to include all registers being used by the OP–panel. The panel will only recognize integer file types N7 and user–defined file types N9 through N255. Enter the number only and not the prefix N. The Base Register Address is any number between 0 and 255.

Step 8   **Select the Panel Type** – Since the configuration program is the same for all panels, you will need to select OP–1312.

Step 9   **Configure the Panel Functions** – Prepare the functions of the panel and how the operator control shall work for the features you are selecting to use. These features are discussed in detail in the following chapter.

Step 10   **Save and Download** – Once you have completed your configuration, you can save it to disk and/or write directly to the panel. If saving to the panel, verify that the DIP switch is set to 31 to download the configuration.

NOTE: After your configuration has been properly downloaded, you will need to reset the DIP switch to the appropriate panel address and power cycle the panel. This can be accomplished by simply removing and reinstalling the power source**.**