EZPanel Enhanced
EZText Enhanced
EZTouchPLC
EZTextPLC
EZMarquee
EZPLC & EZI/O
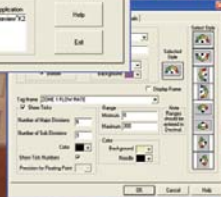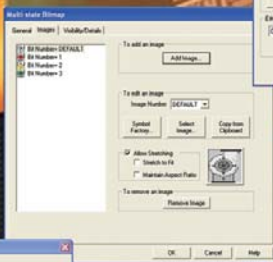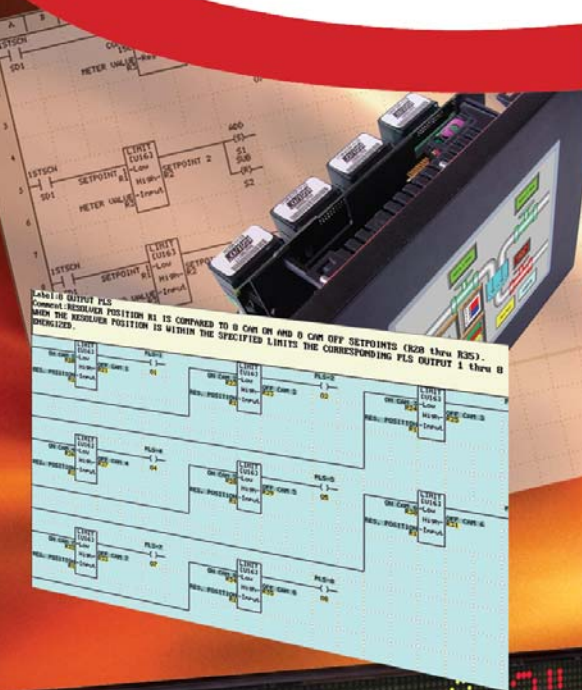EZ Touchscreen CE Computer
EZCE Touchpanel
EZMonitor

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EZText Enhanced Programming Software Getting Started Manual
P/N EZTEXT-GS

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EZAutomation

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EZText Enhanced
Programming Software
Getting Started Manual
P/N EZTEXT-GS

WARNING!

Programmable control devices such as EZText Enhanced Panels are not fail-safe devices and as such must not be used for stand-alone protection in any application. Unless proper safeguards are used, unwanted start-ups could result in equipment damage or personal injury. The operator must be made aware of this hazard and appropriate precautions must be taken.

In addition, consideration must be given to the use of an emergency stop function that is independent of the programmable controller.

The diagrams and examples in this user manual are included for illustrative purposes only. The manufacturer cannot assume responsibility or liability for actual use based on the diagrams and examples.

CAUTION

Do not press the EZText Enhanced Panel pushbuttons with any sharp objects. This practice may damage the unit beyond repair.

Trademarks

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P/N EZTEXT-GS

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Introduction/Installation

In this chapter....

Introduction to the EZText Enhanced Panel

This manual provides information about getting started with EZText Enhanced Programming Software. Hardware installation and panel programming are covered in depth in the EZ-Text Panel User Manuals (**EZ-TEXT-M-E** for the EZ-220, EZ-220V, EZ-220L, EZ-420, EZ-220P, EZ-220PV, **EZ-TEXT-SP-M-E** for the EZ-SP model).

The EZText Enhanced Panels provide a human-machine interface to your PLC automation system. The panels provide features such as 5 user-defined pushbuttons with LED indicators, annunciator lamps, numeric keypad, arrow adjust buttons, LCD message display, numeric LED set point display, and a built-in menu system. The panels communicate with a PLC using either RS-232C or RS-422A/485A serial communication.

The panels allow you to configure up to 256 20-character text strings (16-character for the EZ-SP Set Point Panel) configured as PLC Messages and Local Messages. Local Messages are internal panel messages that the operator can scroll in a menu tree hierarchy. PLC Messages are displayed when prompted from the PLC program. A PLC Message LED illuminates whenever a PLC Message is being displayed. Either message type can have up to three embedded data variables, one of which can be edited by using the arrow adjust buttons or numeric keypad.

Some of the panels have sealed membrane function pushbuttons that allow you to trigger PLC actions with the push of a button. These pushbuttons are used for input signals to the PLC.

The LCD display window supports one (EZ-SP), two, or four message lines that can display 16 to 20 characters each. The messages are programmed using the EZText Enhanced Programming Software. The message control type may be either **static**—text displays that have NO embedded data, **dynamic** —text messages that include embedded data (READ access only), or **interactive** —text messages that allow the operator to enter data, or change values that are stored in the PLC registers (READ/WRITE access).

The EZText Enhanced Panel is available in a variety of models to suit your application.

What you need to get started

Hardware
- EZText Enhanced Panel (Models EZ-220, EZ-220V, EZ-220P, EZ-220PV, EZ-220L, EZ-420, or EZ-SP)
- 24 Volt DC Power Supply (FA-24PS recommended)
- RS-232C Programming Cable (P/N EZTEXT-PGMCBL)
- RS-232C or RS-422A PLC Cable
- Programmable Logic Controller (PLC)
- PC requirements:
  — IBM or compatible PC (486 or better) with a mouse and separate serial port
  — VGA display with at least 800 x 600 resolution (1024 x 768 recommended)
  — Standard Windows 95/98 (Second Edition)/NT4.0/2000® requirements
  — CD ROM Drive
- EZText Enhanced Panel User Manual for your type panel — EZ-TEXT-M-E or the EZTEXT-SP-M-E

Software
- EZText Enhanced Programming Software

Need HELP?

Onscreen HELP
One of the most important features of the EZText Enhanced Programming Software is the availability of context sensitive onscreen help. To access the Help windows, simply press the F1 function key while on the topic where you need help. For example, if you need help while working with panel configuration, hit the F1 function key when that dialog box is open and a pop-up HELP window will be displayed.

PLC HELP
If you need help with the PLC to EZText Enhanced Panel Interface, consult the EZText Enhanced Programming Software Help. Each PLC Driver has a Help Topic that lists the error messages and provides an explanation for each. Also provided are PLC to EZText Enhanced Panel wiring diagrams.

Technical Support
Although most questions can be answered with EZText Enhanced HELP or the manuals, if you are still having difficulty with a particular aspect of installation or system design, technical support is available at **1-877-774-EASY,** Monday through Friday, 6 a.m. to Midnight CST, or FAX us at **1-877-EASY**. **Visit our website at *www.EZAutomation.net.***

EZText Enhanced Panel Setup

SETUP Mode

In order to download the program to the EZText Enhanced Panel using the EZText Enhanced Programming Software, you must be in the Setup Mode. Setup Mode is also where you will **adjust the display contrast** of the EZText

```
SETUP MODE
DRV. REV.:
```

Enhanced Panel. **If connected to multiple panels using the EZMultiplexer, you must set the Mode Switch** on the front panel of the EZ Multiplexer into Program Mode. The EZText Enhanced Panel will start up in the RUN Mode. To access the SETUP Mode, follow these steps:

1.   Press the **UP Arrow** Pushbutton and hold while simultaneously pressing the **DOWN Arrow** Pushbutton to enter the SETUP Mode.

2.   At any time you may press the Escape (**esc**) button to go back to RUN Mode. You will be taken back to the start of the Local Message menu (cursor will be placed at the root level when you return from setup).

Adjust Display Contrast

You may only adjust the Display Contrast when in Setup Mode. To adjust the display contrast use the UP and DOWN arrows to increase or decrease the contrast.

Internal Software and Hardware Revisions

While in **SETUP** Mode the Panel Hardware Revision, Driver Revision, Boot Revision, and Exec (Firmware) Revision numbers will display on the panel.

Preparing for Configuration

If you prepare and plan ahead of time, your use of the EZText Enhanced Programming software will be successful. Below are a few important steps to take to prepare to program your application.

-   Prepare your personal computer and ensure proper installation of the EZText Enhanced Programming Software

-   Know your operator interface requirements. Determine the type of EZText Enhanced Panel and the number of EZText Enhanced Panels required by your application

-   Know your PLC type and available resources, such as, programming tools, CPU capabilities, user memory, etc.

-   Verify type of communications port, as well as protocol used.

-   Determine the CPU link(s) available for connecting an EZText Enhanced Panel(RS-232/RS-422, baud rate, parity, stop bits.

- Determine how the pushbuttons, LEDs, PLC Messages, and Local Messages will be assigned in your panels with respect to your machine or process.

- To prepare your application, use the application worksheets provided in appendix A of the EZ-Text Panel User Manuals. The example worksheets will help you understand how the EZText Enhanced Panel program is configured. Blank worksheets can be used in planning, implementing, and using your EZText Enhanced Panels.
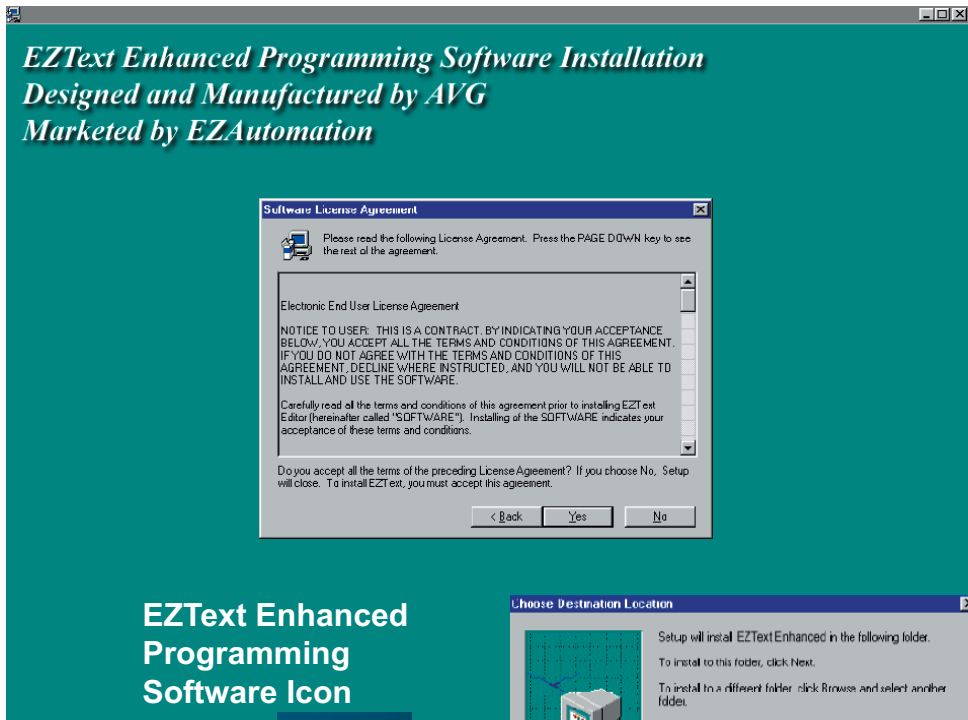
Installing EZText Enhanced Programming Software

EZText Enhanced Panels are configured with software running on an IBM or compatible personal computer. This software is available through EZAutomation (P/N EZ-TEXTEDIT-E). The software is used to download your configuration before connecting the panel and communicating with a PLC. Help Topics are provided to help you configure your panel. You design and configure your EZText Enhanced Panel program off-line and save it to disk. The program may then be transferred to the EZText Enhanced Panel. To install EZText Enhanced Programming Software, perform the following steps:
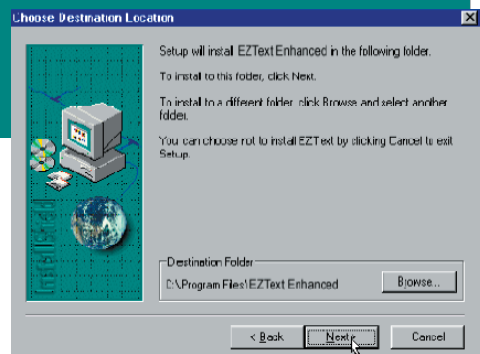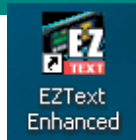
- Place the CD into your **CD ROM Drive.** The install program should launch automatically. If it does not, perform the following steps:

  — From Windows click on the **Start** Button, and then click on **Run** from the menu. The **Run** dialog box will pop up.

  — At the prompt type D:\ (or your CD Drive) \setup.exe or click on the **Browse** Button and find the **Setup.exe** file for EZText Enhanced Programming Software.

  — Click on the **OK** button to begin the installation. The EZText Enhanced Programming Software Installation Screen will appear.

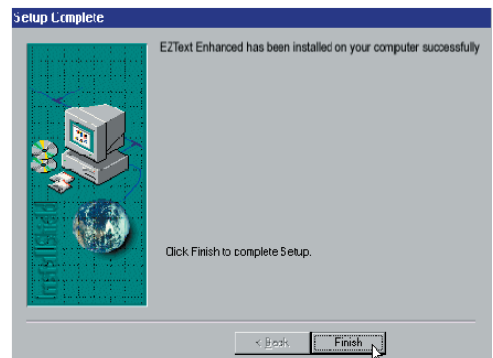- Follow the onscreen prompts to load the software.

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Installation Screens

EZText Enhanced Programming Software Installation
Designed and Manufactured by AVG
Marketed by EZAutomation

Software License Agreement

Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.

Electronic End User License Agreement

NOTICE TO USER: THIS IS A CONTRACT. BY INDICATING YOUR ACCEPTANCE BELOW, YOU ACCEPT ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE WITH THE TERMS AND CONDITIONS OF THIS AGREEMENT, DECLINE WHERE INSTRUCTED, AND YOU WILL NOT BE ABLE TO INSTALL AND USE THE SOFTWARE.

Carefully read all the terms and conditions of this agreement prior to installing EZText Editor (hereinafter called "SOFTWARE"). Installing of the SOFTWARE indicates your acceptance of these terms and conditions.

Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install EZText, you must accept this agreement.

< Back   Yes   No

EZText Enhanced Programming Software Icon

This icon will appear on your desktop after installation.

EZText Enhanced

Choose Destination Location

Setup will install EZText Enhanced in the following folder.

To install to this folder, click Next.

To install to a different folder, click Browse and select another folder.

You can choose not to install EZText by clicking Cancel to exit Setup.

Destination Folder
C:\Program Files\EZText Enhanced   Browse...

< Back   Next >   Cancel

This is the final installation screen. Here you select the destination folder where your software program will be installed. The default destination location is C:\Program Files\EZText Enhanced. If you wish to select another destination, click on the Browse button.

To complete the installation, click on Next> button. That's all there is to it! The EZText Enhanced Icon shown above will appear on your desktop. Simply click on it to open the

Setup Complete

EZText Enhanced has been installed on your computer successfully

Click Finish to complete Setup.

< Back   Finish

6

2

What's Inside

In this chapter....

— Create a Multi-Panel System
— Right Click Menu for Multi-Panel System
— Changes to Panel System PLC Address Dialog Box
— Changes to Message Edit Dialog Box
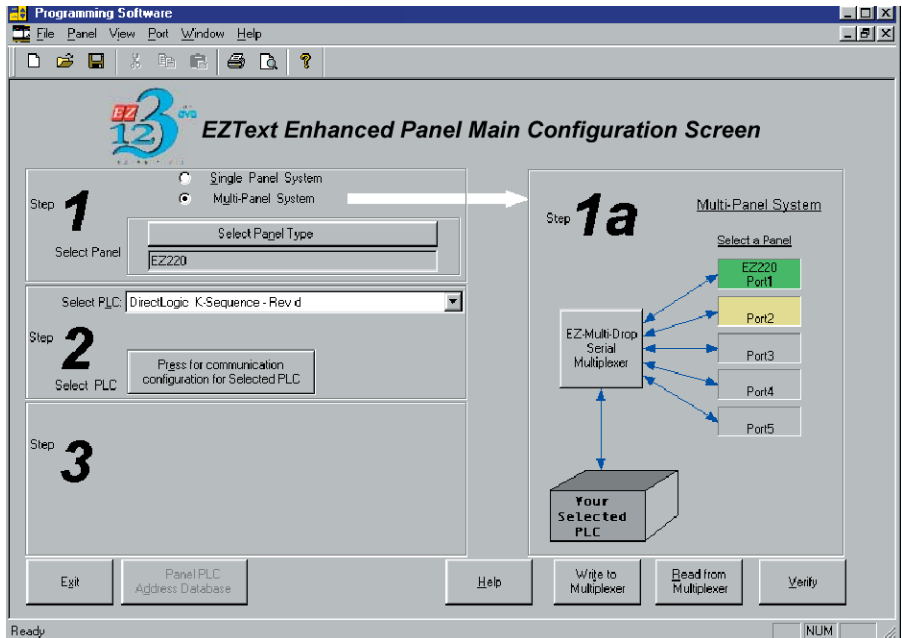— Changes to Memory Mapping/PLC Data Registers

Create a Multi-Panel Project using EZText Enhanced Programming Software

With the programming software installed, connect the EZ Multiplexer to your PC using the P/N EZTEXT-PGMCBL cable. Set the MODE Switch on the front panel of the Multiplexer to PROGRAM (ON). Connect from 1 to 5 EZText Enhanced Panels to the COM1, COM2, COM3, COM4, and/or COM5 ports on the front panel of the EZ Multiplexer using cable P/N EZ-MULTI-CBL. Apply 24 VDC to the EZText Enhanced Panels and EZ Multiplexer power connectors. Click on the EZText Enhanced Programming Software icon to start the program.

1. From the **Welcome** screen, click on the **New System** button.

2. The **Create Project** window will appear. Type in the name of your project in the **File name** field. Click on **Save**. (If you don't want your project saved to the default "Project" folder, navigate to the directory and/or folder where you want it to reside.)

Click here to open this window
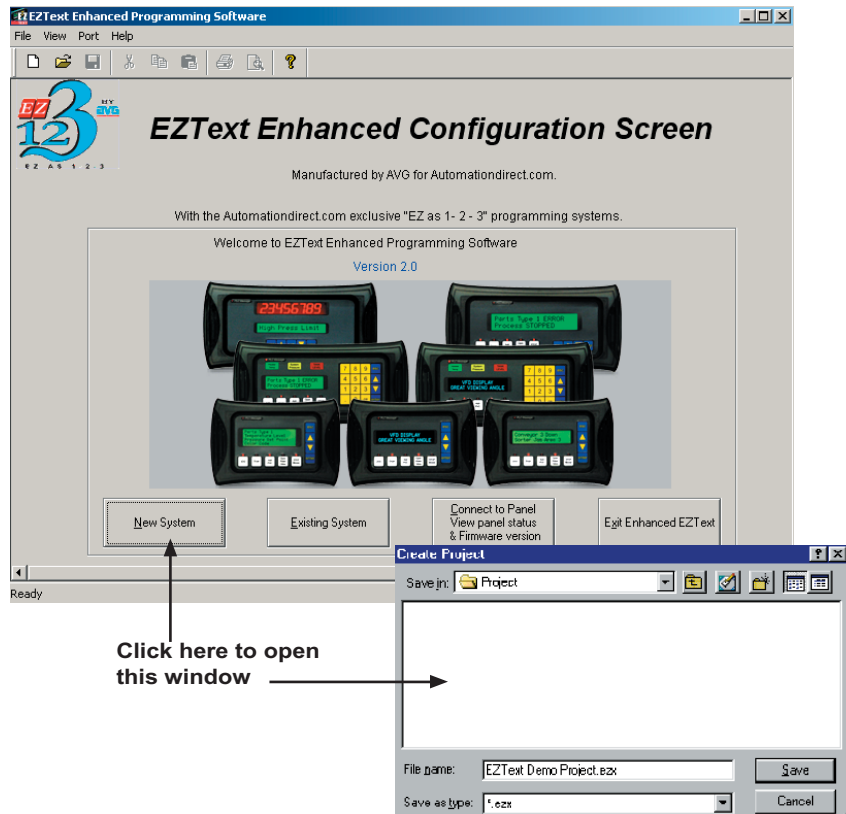
3. In **Step** 1, select **Multi-Panel System**. When Multi-Panel System is selected, **Step 1a** on the right hand side of the screen will become available. You will also notice that two buttons at the bottom of the screen will change to "Write to Multiplexer" and "Read from Multiplexer." You may program up to 5 panels connected to a Multiplexer. Click on the **Port 1**, **Port 2**, **Port 3**, **Port 4**, or **Port 5** button.

a. Under **Step 1a**, **Select a Panel,** you will choose the first panel that you want to configure. There are three ways that you can choose the panel type for each port. Click on **Port 1** and then click on the **Select Panel Type** button under **Step 1**, or double click on **Port 1**, or click on **Port 1** and then right click your mouse to open the popup menu and choose **Select Panel**. You may configure the panel connected to **Port 1, 2, 3, 4,** or **5** in any order. They do not have to be configured sequentially.

Right Click Menu — choose Select

b. The **Select Panel** dialog box will open. Under **Panel Type**, click on the panel type that is connected to that port. A picture of the panel will appear under **Panel Preview**, and key features of the panel are displayed under **Panel Attributes**.

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c. Click on the **OK** button to select and close the dialog box. The Panel type you have selected will appear above Port 1, 2, etc.

4. You may also import a panel configuration from another project. Click on the Port/Panel that you want to copy the project to. Right click your mouse button to bring up the Right Click Menu. Select **Import Configuration**.

5. The **Open** project dialog will open. You may select either a Single Panel or a Multi-Panel project. Click on the project you want to import to highlight it, and then click on the **Open** button.

6. If you have selected a Multi-Panel project to import, the dialog box to your right will open allowing you to select the particular Port/ Panel configuration that you want to import into your current project. Click **OK**. In
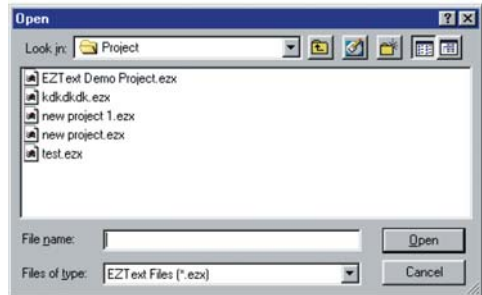
a Multi-Panel EZText Enhanced project, you may only import one Port/Panel configuration from an existing project into one Port/Panel in the current project with each **Import Configuration** command.

7. In **Step 2, Select PLC,** you will choose the type PLC you are using. You will only be able to select one PLC type per project (whether it is a Single Panel System or a Multi-Panel System). If you need more information on PLC configuration, consult your EZText Enhanced User Manual, EZText Enhanced Programming Software Help Topics, or your PLC Manual.

a. Click on the DOWN arrow next to the **Select PLC** field to view the drop down menu of available PLCs. Click on the PLC Type to select.

b. Click on the **Press for communication configuration for Selected PLC** button.

c. The **PLC Communications Attributes** window will appear for the PLC you have selected. Set the appropriate attributes and Click on the **OK** button.
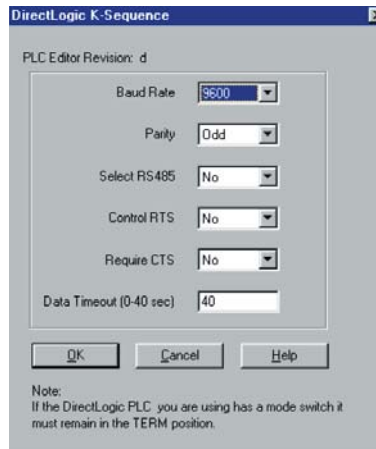
During configuration, ensure that your address and communications parameters match the PLC port settings. There will be a selection for PLC timeout. When the panel sends a message to the PLC and does not receive a response or does not understand the response, it will wait the timeout period before sending the message again.

8. For **Step 3**, click on the **Configure Panel System PLC Addresses** button. The **Panel System PLC Address Setup** window will appear.
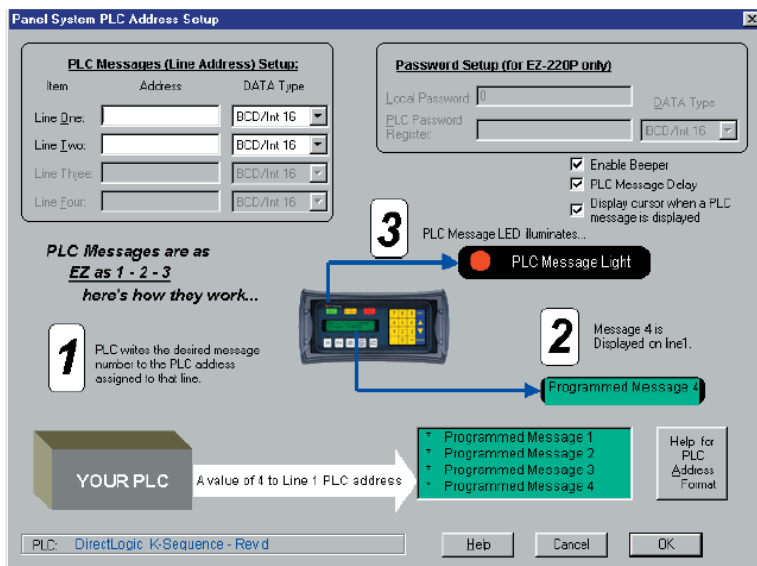
Step 3 is the same whether you have a Single Panel System or a Multi-Panel System. For each Port/Panel you have connected, follow the instructions in the EZText Enhanced User Manual that came with your unit or consult the EZText Enhanced Programming Software Help Topics.

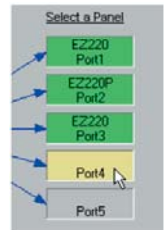## Right Click Menu — Items Unique to Multi-Panel System Configuration

Select Panel
Delete Panel
Import Configuration
Export Configuration
Information
Upgrade Firmware

A "right click" menu is availble for Multi-Panel Systems. To access the right click menu, put your cursor arrow in the Port 1, Port 2, Port 3, Port 4, or Port 5 box on the Main Configuration Screen and click your right mouse button. The Right Click Menu will appear (as shown to the left).
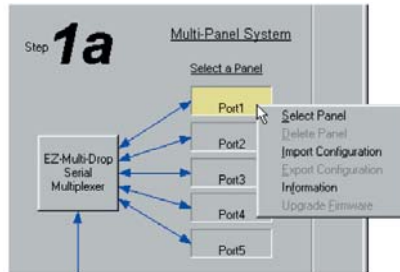
If you have not yet selected a panel type to associate with the port, some menu items will not be available —they will be appear in gray.

The Port currently selected for configuration will appear in yellow. Those ports not yet configured or without an EZText Enhanced Panel associated with it will appear in gray. Ports with an EZText Enhanced Panel associated with it that is not selected for configuration will appear in green.

The six menu items available on the Multi-Panel System's Right Click Menu are described below.

Select Panel
The Select Panel menu item allows you to select an EZText Enhanced Panel Type to assign to the port you have clicked on. You may click on a port to reassign the panel type at any time. If the Panel/Port has already been configured, and you choose another type panel, you may lose information when switching if the panel types are not compatible. You may also open this screen by double clicking in the Port/Panel box under Step 1a, Select Panel, or click on the Select Panel button under Step 1.

Delete Panel
Click in the Panel/Port box that you want to select on the Main Configuration Screen. Right click to bring up the menu and then click on the Delete Panel menu item. The message to the right will appear. Click on **Yes** to Delete the Panel configuration for that Port or **No** to abort the operation.
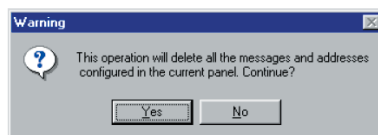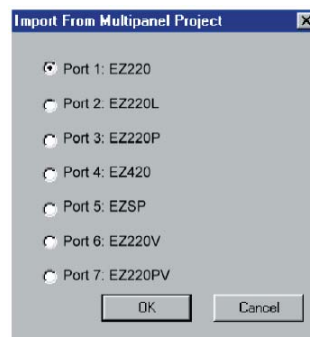
Import Configuration
If you have an existing Single Panel or Multi-Panel project that has the panel configuration that you want for your current project, click on **Import Configuration**. The window to the right will appear. Click on the EZText Enhanced Project where the configuration that you want to import resides.
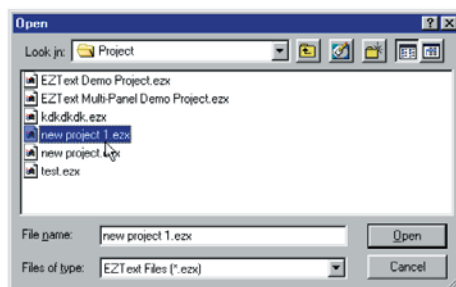
If you have selected a Multi-Panel project, the window shown to the right will appear allowing you to select the particular Panel/Port configuration to import. Click **OK** to import. The following warning will appear. Click on **Yes** to continue, **No** to abort the import.

Export Configuration
You may also export a Single Panel or Multi-Panel Configuration. Click on **Export Configuration**. The **Save As** screen will appear. Type in the name of the project where you want to save the selected panel configuration. Click on the **Save** button to export.
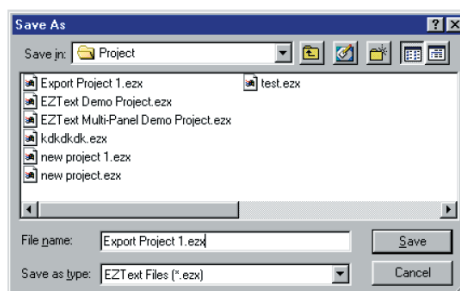
Information
Click on the panel you wish to receive information on and then click on **Information** to access the **Panel Status** window for the Panel/Port you have selected. A picture of the panel type, key features of the current panel, and Panel and PLC information is provided (panel model, Firmware Revision, Memory Size, PLC Driver, and PLC Driver Revision number are displayed).

Upgrade Firmware
Consult your EZText Enhanced User Manual that came with your unit before you upgrade your panel firmware!

Click on the panel you wish to upgrade, right click your mouse for the menu, and then click on Upgrade Firmware. The following window will appear. Select the correct firmware and click on the OK button.
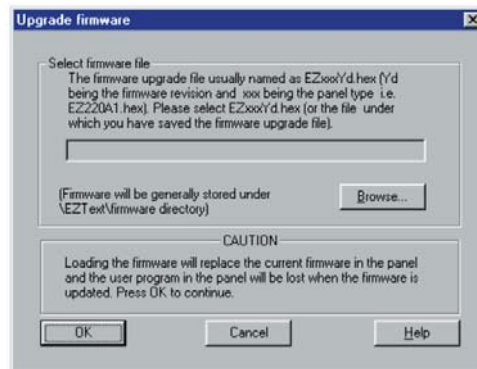
Configure Panel PLC System Address Dialog Box

The EZ-220P model's **Password** feature allows double words. You may choose a 32-bit BCD or Binary **Data Type.**

Enable Beeper is a check box. **PLC Message Delay** is selectable, as is **Display cursur when a PLC message is displayed.**
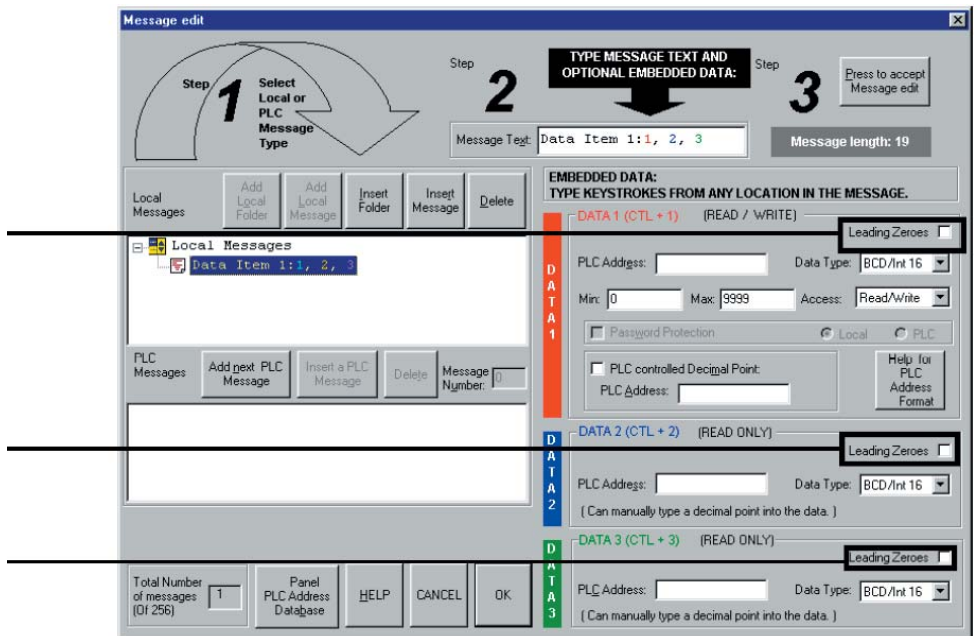
1. **Passwords** are increased to **32-bit BCD or Binary**. The range for 32-bit Binary is extended to 4294967295 (a 10-digit value can be used). The range for 32-bit BCD is extended to 99999999 (an 8-digit value can be used).

2. The **Enable Beeper** is programmed with a **check box** which allows you to deselect this feature. **Enable Beeper** is selected by default. If you do not want to hear the beeper each time a button is pressed on the panel, click on the box in front of **Enable Beeper** to remove the check mark.

3. The **PLC Message Delay** is selectable. When a PLC Message is displayed on the panel, panel buttons won't function for 3 seconds. This allows time for the operator to view the PLC Message before inadvertently pressing a button to perform another operation. The **PLC Message Delay** is enabled by default. To disable the 3 second delay, click on the check box in front of **PLC Message Delay** to remove the check mark.

4. A check box appears that will let you select whether or not the cursor will display in the EZText Enhanced message window when
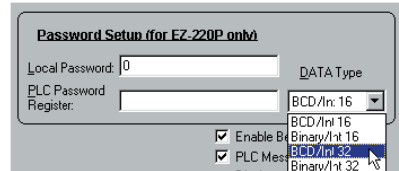
a PLC Message has been triggered. The cursor will display by default. To disable this option, click in the box in front of **Display cursor when a PLC Message is displayed** to remove the check mark.
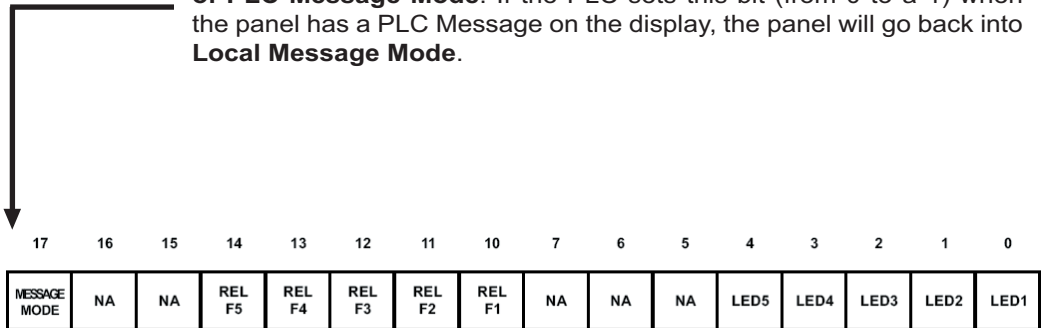
Message Edit Dialog Box

1. Check boxes appear in the **Message Edit, Data 1, Data 2, and Data 3** configuration that allow you to choose whether or not you want **Leading Zeroes** to appear before a data value in the message window.

2. There is support for double words in each data set. You can choose a **32-bit integer address BCD and binary**. The range for 32-bit Binary is extended to 4294967295 (a 10-digit value can be used). The range for 32-bit BCD is extended to 99999999 (an 8-digit value can be used).

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Changes to Memory Mapping/PLC Data Registers

The EZText Enhanced Panels communicate with the PLC through user-defined PLC data registers. PLC registers are assigned during configuration using the EZText Enhanced Programming Software. For discrete operations, such as pushbuttons and LEDs, the register bits are accessed by the PLC control program.

The **LED control register uses B17** to allow you to **take the panel out of PLC Message Mode**. If the PLC sets this bit (from 0 to a 1) when the panel has a PLC Message on the display, the panel will go back into **Local Message Mode**.

17	16	15	14	13	12	11	10	7	6	5	4	3	2	1	0
MESSAGE MODE	NA	NA	REL F5	REL F4	REL F3	REL F2	REL F1	NA	NA	NA	LED5	LED4	LED3	LED2	LED1

Main Menu Items – Reference

In this chapter....

— Welcome Screen
— Main Configuration Screen
— Main Menu Items

Welcome Screen
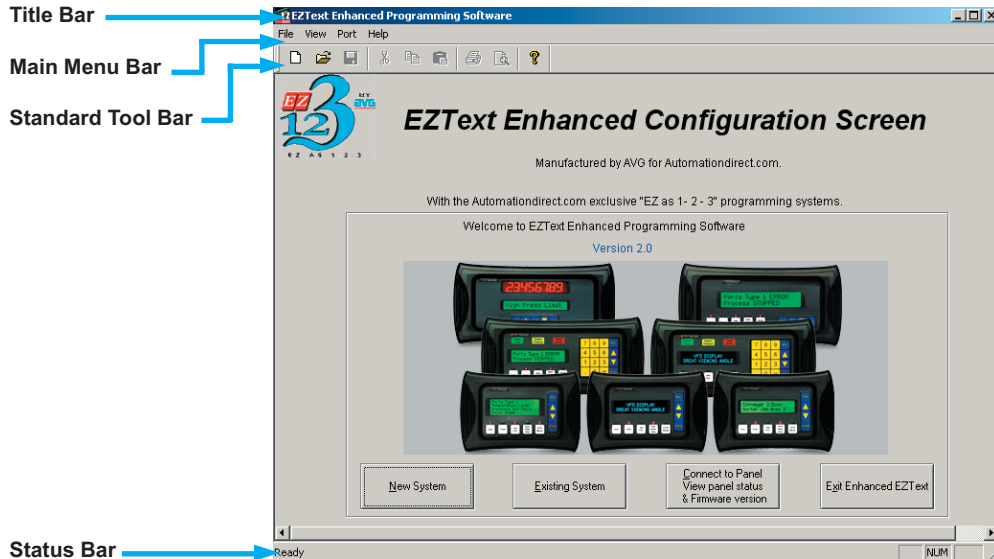
Title Bar
The Title Bar tells you the name of the EZText Enhanced project file that you currently have open.

Main Menu Bar

This is the Main Menu Bar. EZText Enhanced Programming Software menus are represented by the names listed across the top of the Main Configuration Screen and directly under the Title Bar. The selections shown above are available after you click on New System or Existing System (open a project).

Standard Tool Bar

The Standard Tool Bar consists of icons for frequently used commands. These commands are also found in, and accessible from, the Main Menu Bar. From left to right the icons represent:

- Open new project
- Open existing project
- Save the active project
- Cut the selection and put it on the clipboard
- Copy the selection and put it on the clipboard
- Paste clipboard contents
- Print the active project
- Print Preview
- About EZText Enhanced Programming Software

Status Bar

The Status Bar is located at the bottom of the Main Configuration Screen and shows the status of the current screen. It provides information about a tool bar item that the pointer passes over.

Main Configuration Screen

When you click on the **New System** button from the Welcome Screen, a **Create Project** window opens. Enter the name of the project and where to save it, then click on the **Save** button. You will open to the **Main Configuration Screen**. From this screen you will select a Single or Multi-Panel System, your EZText Enhanced Panel and PLC Type, and configure your system. Shown below is the Main Configuration Screen for a Single Panel System.

Main Configuration Screen for a Single Panel System.

Notice that Step 1a is grayed out, and on the bottom right, the two center buttons say Write to Panel and Read from Panel, these will change when a Multi-Panel System is selected. See next page.

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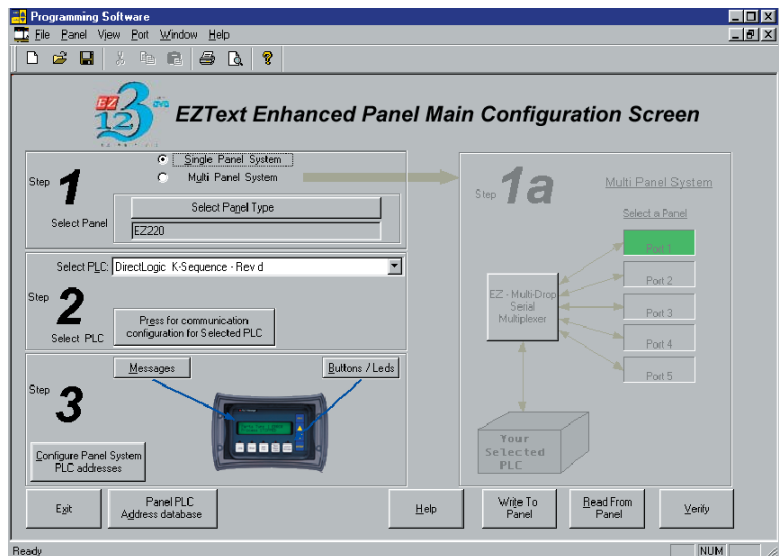
**Main Configuration Screen for a Multi-Panel System.**
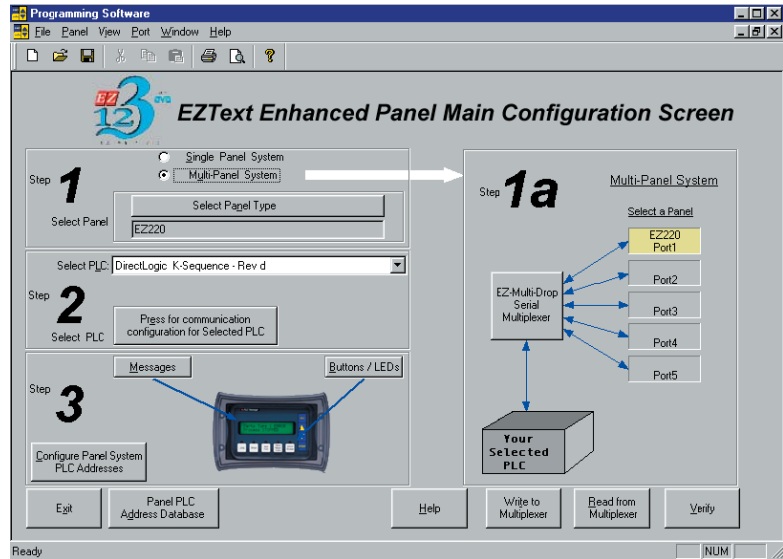
Notice that Step 1a is now available, allowing you to select a panel model for each of the five ports. The five ports are available on an EZ Multiplexer communication master unit (P/N EZ-MULTIDROP). For more information on the EZ Multiplexer unit that allows you to connect up to 5 EZText Enhanced Panels to a single PLC, visit EZAutomation's website (www.EZAutomation.net), consult the EZText Enhanced Programming Software Version Help topics, or your EZ Multilplexer's manual, P/N EZ-MULTIDROP-M.

On the bottom right, the two center buttons now say Write to Multiplexerl and Read from Multiplexer. Multi-Panel Projects are stored in the EZMultiplexer master communication unit that sends and receives data from a PLC and connected EZText Enhanced Panels.

Main Menu Items

In this section we'll take you through the menu items. Any differences between the menu items (in terms of functionality or availability) for a Single Panel System and a Multi-Panel System are so noted.
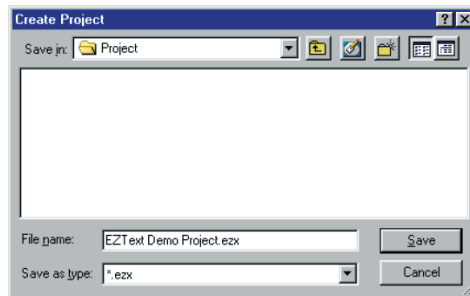
File Menu*

New

1. Click on **New** to open a new project. The following screen will appear.
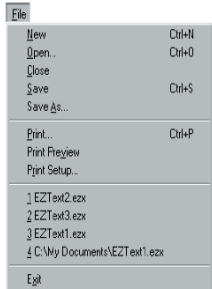
* The File Menu is the same for both a Single Panel System and a Multi-Panel

2. Enter a name for your project in the **File Name** field. Navigate to the directory/folder where you want the project to reside (if different than the default **Project** directory created for you when you install EZText Enhanced Programming Software.)

3. Click on **Save** to save this project name and exit this window.

4. The Main Configuration Screen will open allowing you to begin configuring your system.

Open

1. Click on **Open** to open an existing project for editing. The following screen will appear.

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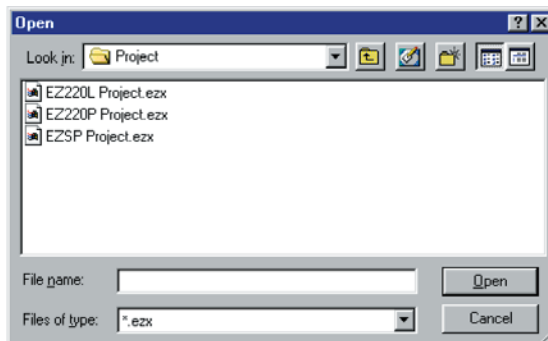
2. Navigate to the directory/folder where the project resides (if different than the default Project directory created for you when you install EZText Enhanced Programming Software.) Select the project you wish to edit from those listed.

3. Click on **Open** and exit this window.

4. The **Main Configuration Screen** will open allowing you to begin configuring your system.

Close
Click on Close to close the current project.

Save or Save As
Click on **Save** to save the current project configuration. Click on **Save As** to save project under a different name.

Print, Print Preview, Print Setup
If a Single Panel System, the current project will print. If a Multi-Panel System, click on a port/panel to see the configuration for that panel and then click on print.

Click on **Print** to send the current EZText Enhanced project to the printer.

Click on **Print Preview** to see how the current project will look when printed. The following window will appear.
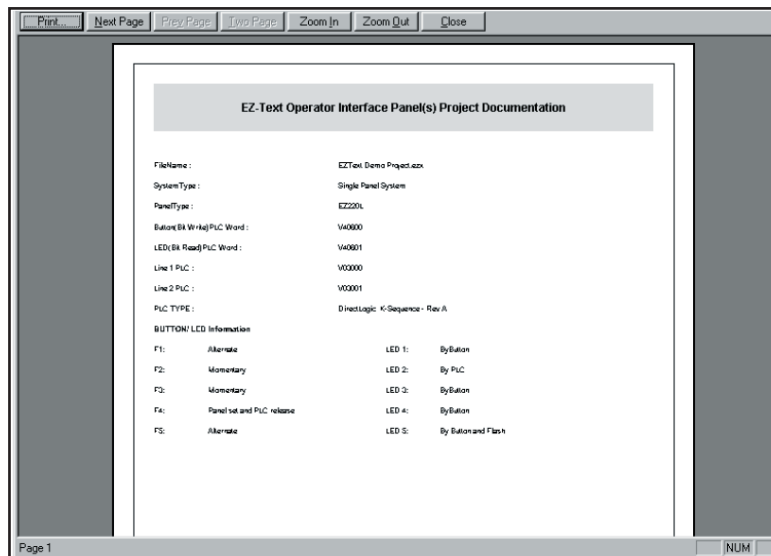
On the first page, the following will be listed (all or in part, depending upon the Panel Type):

File Name: (*.ezx file)
System Type: (Single or Multiple Panel System)
Panel Type: (shows the Panel type you have selected)
Button (Bit Write) PLC Word: (the PLC address is shown)
LED (Bit Read) PLC Word: (the PLC address is shown)
Line 1 PLC: (the PLC address is shown)
Line 2 PLC: (")
Line 3 PLC: (")
Line 4 PLC: (")
PLC TYPE: (shows the PLC type you have selected)
PLC Password Register: (PLC address is shown, EZ-220P & EZ-220PV only)
Annunciator Word: (PLC word register is shown, EZ-220P & EZ-200PV only)
BUTTON/LED Information
    F1: (whether button action is Momentary, Alternate or Panel Set & PLC Release)
    F2: (")
    F3: (")
    F4: (")
    F5: (")
    LED 1: (whether it is illuminated By Button, By Button & Flash, or By PLC)
    LED 2: (")
    LED 3: (")
    LED 4: (")
    LED 5: (")

| Print | Next Page | Prev Page | Two Page | Zoom In | Zoom Out | Close |

Single Panel System
EZ220P

PLC Messages	Data 1 Reg	Data Type	R / W	L / R Password	Dec Pt Reg	Data 2 Reg	Data Type	Data 3 Reg	Data Type
[001] PLC Message 1									
[002] PLC Message 2									
[003] PLC Message 3 11111	V20002	BCD	R/W	L	V20001				
[004] PLC Message 4 2222							BCD		

Page 2 | NUM

The second page lists the **PLC Messages** and configuration information about each, such as:

Data 1 Reg   (PLC register where value is located)
Date Type   (BCD or Binary)
R/W   (Read/Write or Read Only access)
L/R Password (whether it is stored as Local—L, or in a PLC Register—R) (EZ-220P & EZ220PV Panel only)
Dec Pt Reg(PLC register that controls data value decimal point for Data 1 item)
Data 2 Reg   (PLC register where value is located)
Data Type   (BCD or Binary)
Data 3 Reg (PLC register where value is located)
Data Type   (BCD or Binary)

**Print Preview
Local Messages**

After listing of **PLC Messages**, the **Local Messages** are listed, with the following information:

Data 1 Reg   (PLC register where value is located)
Date Type   (BCD or Binary)
R/W   (Read/Write or Read Only access)
Dec Pt Reg   (PLC register that controls data value decimal point   for Data 1 item)
Data 2 Reg   (PLC register where value is located)
Data Type   (BCD or Binary)
Data 3 Reg   (PLC register where value is located)
Data Type   (BCD or Binary)

Click on **Print Setup** to change the print settings.

Recent Files

A list of recently opened project files (up to 4) are provided here. You may click on one of these files to open the project.
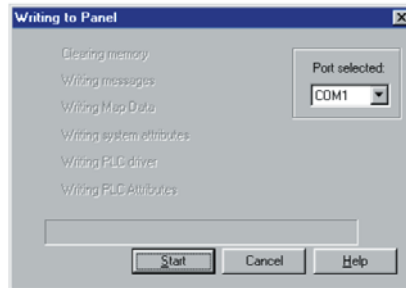
Exit

Click here to **Exit** EZText Enhanced Programming Software.

Panel Menu

Write Project

1. Click on **Write Project** when you are ready to write the program to the EZText Enhanced Panel. If you are configuring a Multi-Panel Project, you will be writing the project to the EZ Multiplexer. The following window will appear.
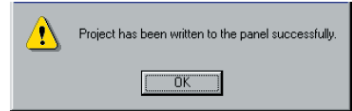
    Ensure that the EZText Enhanced Panel(s) is in SETUP Mode BEFORE attempting to Write Project. If it is a Multi-Panel Project, ensure that the EZ Multiplexer is in PROGRAM Mode (Mode Switch is located on front panel of Multiplexer) and the EZText Enhanced Panels are in SETUP Mode.

2. Make sure the correct Port is selected and then click on the **Start** button.The progress bar at the bottom of the window will let you know where you are in the write to panel process. A check mark will appear next to the items that are completed.
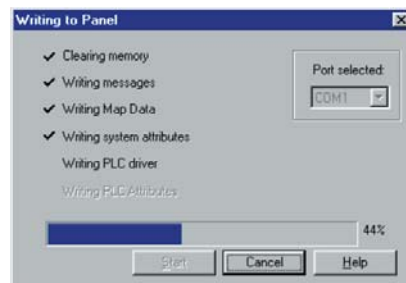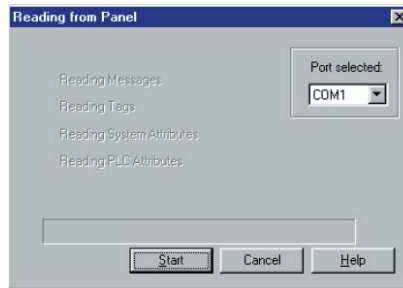
3. When the write to panel process is complete, the message to the right will appear letting you know that the current EZText Enhanced program was successfully written to the panel. Click on **OK**.
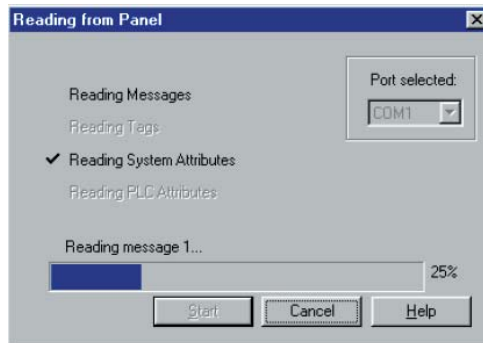
Read Project

1. If you want to edit an existing program already loaded into the panel or Multiplexer, create a new project, then click on **Read Project** to transfer it to the EZText Enhanced Programming Software. The following screen will appear.
Ensure that the EZText Enhanced Panel(s) is in SETUP Mode

BEFORE attempting to Read or Verify Project. If it is a Multi-Panel Project, ensure that the EZ Multiplexer is in PROGRAM Mode (Mode Switch is located on front panel of Multiplexer) and the EZText Enhanced Panels are in SETUP Mode.

2. Make sure the correct Port is selected and then click on the **Start** button. The progress bar at the bottom of the window will let you know where you are in the Read Project process. A check mark will appear next to the items that are completed.

3. When the **Read Project** process is complete, the message to the

right will appear letting you know that the current program was successfully read from the panel or multiplexer and transferred to your project. Click on **OK**.

Verify

Click on **Verify** to compare the program open in EZText Enhanced Programming Software to the program loaded in the EZText Enhanced Panel. The **Reading from Panel** window will appear, showing the progress of the verification. When complete, a message will appear telling you if they are the same or if they are different.
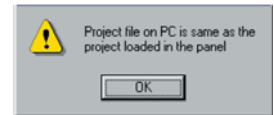
Clear Memory

Put the EZText Enhanced Panel(s) in Setup Mode (and the EZ Multiplexer, if applicable, into the Program Mode) and click on **Clear Memory** to erase the user project from the EZText Enhanced Panel (and EZ Multiplexer) memory. If you have a system project loaded into the panel that you want to keep, be sure to save it before you clear the memory. To save it, click on **Read Project**, and save the project to disk.

Information

Click on **Panel Information** to open the **Panel Status** window. It will show a picture of the panel (**Panel Preview**) that is currently connected to your computer; **Panel Attributes**, **Text Panel Model**, **Firmware Revision** (also referred to as internal software or Exec), **PLC Driver**, **PLC Driver Revision**, and **Memory Size**. If connected to an EZ Multiplexer, it will provide you with information on the multiplexer. Click on **OK** to exit.
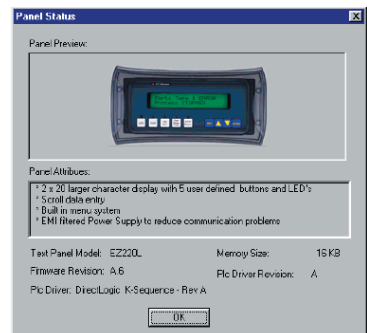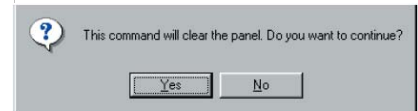
Upgrade Firmware (this is available if project is Single Panel System)

There may be occasional upgrades to the EZText Enhanced Panel internal software, also referred to as the Exec or Firmware. Check www. EZAutomation.net periodically for information about software and firmware upgrades.
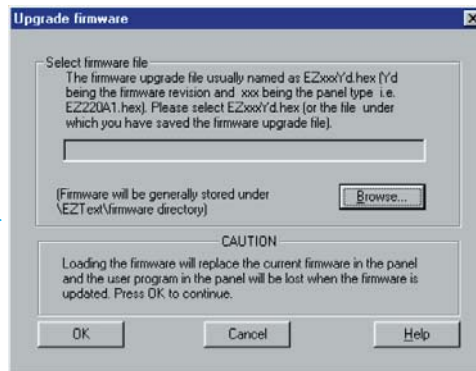
To **Upgrade Firmware**:

1. Place the panel in **Setup Mode** by pressing the UP/DOWN arrows on the EZText Enhanced Panel simultaneously.

2. Under the **Panel Menu**, click on **Upgrade Firmware.** The following screen will appear.
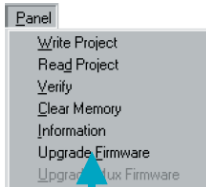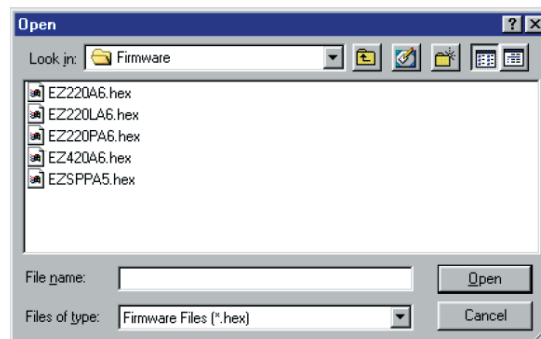
Click on **Panel > Upgrade Firmware**

This window will open

3. Click on the **Browse** button. The window, shown below, will open to the default folder, **Firmware** (located in the EZText Enhanced Program directory). If the firmware file has been downloaded from the EZAutomationirect website to another location, navigate to

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the new firmware file (.hex file). There are five types of firmware files (.hex) for the different types of EZText Enhanced Panels: **EZ220xy** — for the EZ-220 & EZ-220V panels; **EZ220Lxy** — for the EZ-220L panel; **EZ420xy** — for the EZ-420 panel; **EZ220Pxy** — for EZ-220P & EZ-220PV panels; and the **EZSPPxy** —for the EZ-SP Set Point Panel. The "x" represents the major revision of the firmware (e.g., A). "y" represents the minor revision (e.g., 1). **Make sure that you select the correct firmware.hex file for your type panel**, and send the upgrade to the panel.

4. Select the appropriate **COM** port under **Port Selected** (if necessary) and click on the **Start** button to begin downloading the firmware to the EZText Enhanced Panel. A status bar will let you know when the upgrade is complete. Click on **Close** when complete.
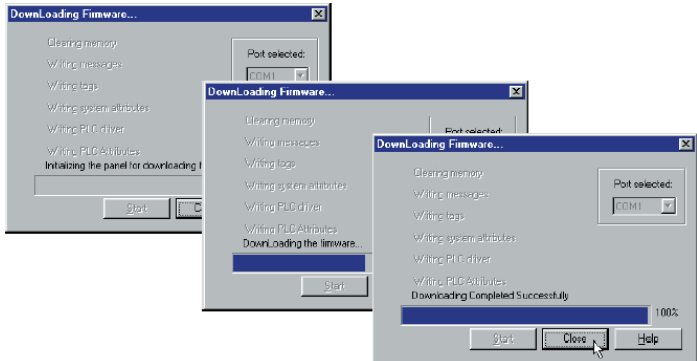
When you initialize the **Upgrade Firmware** process, the EZText Enhanced Panel Message display will read **SELF TESTING**. When the download begins, the display will read **LOADING EXEC**. When the download is complete, the panel will enter the Run Mode.

If the message **INCOMPATIBLE EXEC** is displayed on the panel while the Upgrade is in process, it means that the wrong firmware file has been sent to the panel. You will also receive an error message from the EZText Enhanced Programming Software, as shown below. If this happens, do the following:

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1. Click on the **OK** button on the Error Message.

2. Click on the **Cancel** button on the **Downloading Firmware** window.

3. Click on **Upgrade Firmware** to start the process over, being careful to select the correct firmware.hex file.

Upgrade Firmware, when you press the Start button, the panel will display SELF TESTING while the upgrade is initializing.

When the download begins, the panel will display LOADING EXEC.

If you get the message, INCOMPATIBLE EXEC, you have sent the wrong firmware file. Exit all windows and start the Upgrade Firmware process again, being careful to select the correct file.

Upgrade MUX Firmware (this is available if project is a Multi-Panel System)

There may be occasional upgrades to the EZ Multiplexer internal software, also referred to as the Exec or Firmware. Check www.EZAutomation.net periodically for information about software and firmware upgrades.

Download the file in the same way you would the panel firmware. Remember to set the EZ Multiplexer Mode Switch on the front panel to PROGRAM Mode.
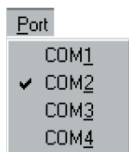
View Menu
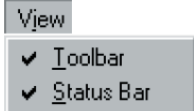
Toolbar
Click on **Tool Bar** (Standard Tool Bar) to open or close the tool bar that appears in the main configuration window.

Status Bar
The Status Bar is located at the bottom of the Main Configuration Screen and shows the status of the current screen. It provides information about a tool bar item on the main configuration screen that the pointer passes over.
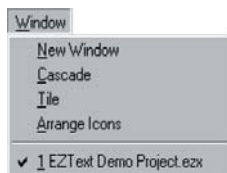
Port Menu

COM1
COM2
COM3
COM4
The **Port Menu** allows you to view the current port, or change to another COM port on your computer. Select the port that is connected to the EZText Enhanced Panel. Choose from COM1, COM2, COM3, or COM4.

Window Menu

New Window
Click here to open a new window.

Cascade
Click here to view open files in the window. Screens will cascade down window, overlapping each other, but with their title bars in view. This is helpful when you are making changes to two or more systems at the same time. Click on the title bar of one of the screens to bring it to the front. The title bar is grayed out in screens that are not currently active.

Tile
Click here to view open screen files in the window. Screens will be arranged within the window. The title bar is grayed out in screens that are not currently active.
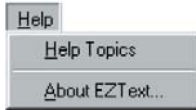
Arrange Icons
Click on this to rearrange minimized project windows (icons) within the main window.

Active Windows
This is a list of the screens that are currently open. Click on a screen in this list to bring it into view. A check mark will appear in front of the active screen in this list.

Help Menu

Help Topics

Click on **Help Topics** to view the help topics for EZText Enhanced Programming Software. The help window is in Windows 2000 format. Use the **Contents** tab to view help topics by category. Click on the **Index** tab to view an alphabetical list of all help topics. Click on the **Search** tab and then enter a word or words to search the help topics for.

About EZText Enhanced

Click on **About EZText Enhanced** for copyright, manufacturer, and version number of the EZText Enhanced Programming Software.

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