

# Configuration

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This section will take you through the steps necessary to configure a new system, edit an existing system, view panel status, and upgrade the EZText Panel firmware.

We recommend that you go through the tutorial in Chapter 4, page 39, before configuring your EZText Panel.

If you don't already have the EZText Programming Software installed on your computer, go to Chapter 4, Tutorial, page 41.

## Configure New System

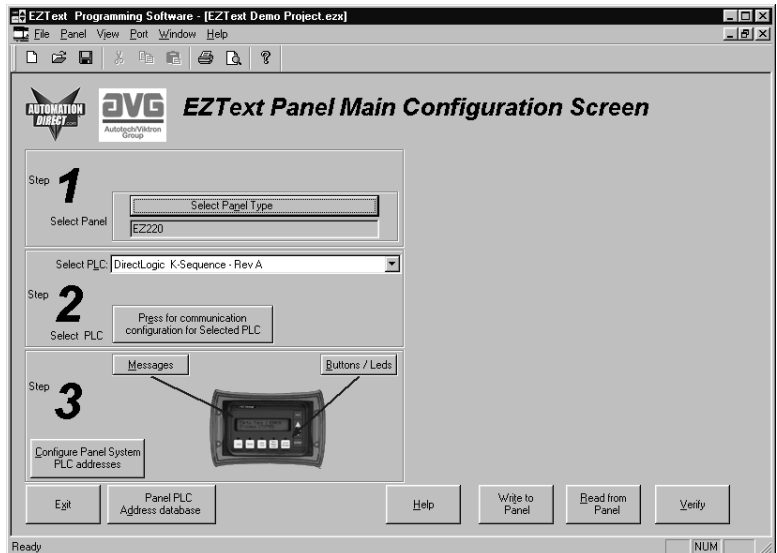
1. Click on the EZText Editor Icon to open the EZText Panel Programming Software. The following screen will appear.



- Click on the **New System** button to configure the EZText Panel program. The following screen will appear.



- Enter a name for the project in the **File name** field. Navigate to the directory and folder where you want to keep the file (or except default location), and click on the **Save** button to save. The following screen will appear.

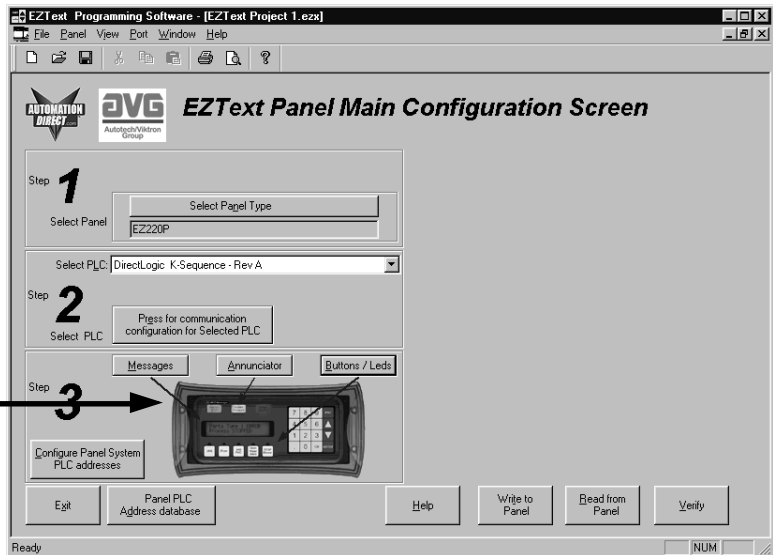


- For **Step 1**, click on the **Select Panel Type** button. The following screen will appear. Under **Panel Type**, click on the model you are using. A **Panel Preview** and **Panel Attributes** specific to the type of panel you have chosen will appear in this dialog box. Click on **OK** to enter your selection.

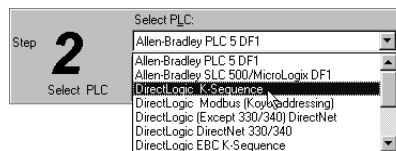


The **Main Configuration Screen** will change to show you the EZ-220P configuration options as follows:

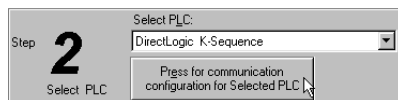
Specific to the EZ-220P Model



- For **Step 2**, click on the Down Arrow next to the **Select PLC** field. Choose the PLC and Protocol type you are using.



- Click on the **Press for Communication Configuration for Selected PLC** button.



A PLC Attributes dialog box specific to your type PLC will appear. Complete the communications information. After selecting the PLC type, you must define the remaining protocol items, such as baud rate, parity, etc. The following table provides the necessary information for most DirectLogic controllers. When using another type PLC, consult that product's user manual to determine the port communications capabilities.

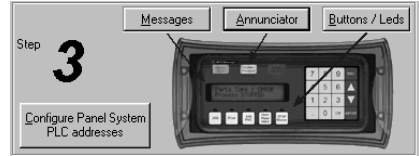
**Table for DirectLogic PLC Attributes**

PLC Model	Port/Baud Rates	Parity	Stop Bit
DL105/230/240	Top	9600	1
	Bottom	(DL240 only) 9600/19.2k	
DL250	Top	9600	1
	Bottom	9600/19.2k	
DL330	DCU only	4800/9600/19.2k	1
DL340	Bottom & Top	4800/9600/19.2k	1
DL350	Top	9600	1
	Bottom	4800/9600/19.2k	
DL430/440	Top	9600	1
	Bottom	9600/19.2k	
DL450	DB15	9600	1
	DB25	9600/19.2k	
	RJ12	9600/19.2k	

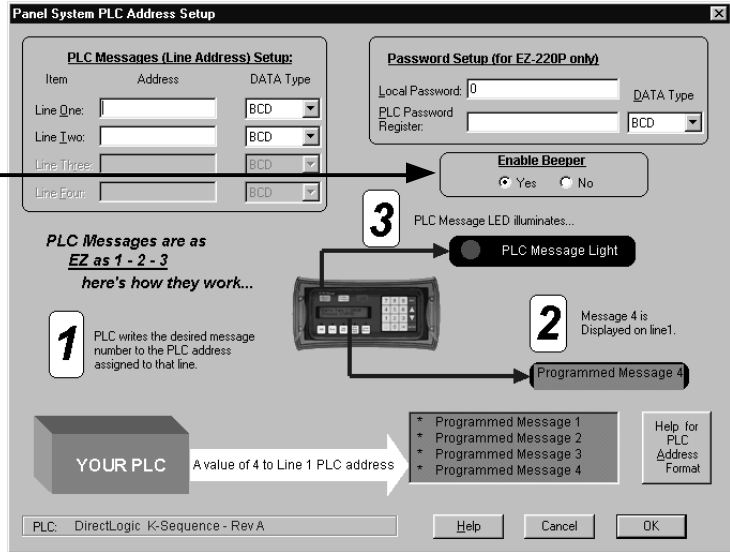
During configuration, ensure that your address and communications parameters match the PLC port settings. There will be a selection for PLC timeout. When the panel sends a message to the PLC and does not receive a response or does not understand the response, it will wait the timeout period before sending the message again.

A communication failure initiates the error message “PLC COMMUNICATION TIMEOUT” on the panel.

- For **Step 3**, click on the **Configure Panel System PLC Addresses** button. The **Panel System PLC Address Setup** window will appear.

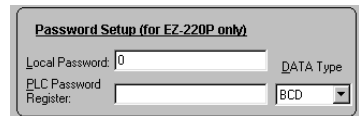


If you want the PLC to be able to turn on the panel beeper, click **Yes**, here.



- Under **PLC Messages (Line Address) Setup**, enter the PLC Addresses for **Line One** and **Line Two**. Select the **Data Type** for the PLC. Select **Yes** or **No** to **Enable Beeper**.

- If you want **Password Protection**, to restrict access to data entry, enter a **Local Password** (up to 5 digits, 0–65535). If you want to store the password in the PLC, enter a register address (**PLC Password Register**) and select the **Data Type** for the PLC. Click **OK** to exit the Setup screen.



10. Next, click on the **Buttons/ LEDs** button (shown to the right) to configure the Panel Functions. The following screen will appear.



**Buttons / LEDs**

LED Control

By Button By Button By Button By Button By Button

BIT 0 LED 1 BIT 1 LED 2 BIT 2 LED 3 BIT 3 LED 4 BIT 4 LED 5

BIT 0 F1 BIT 1 F2 BIT 2 F3 BIT 3 F4 BIT 4 F5

Momentary Momentary Momentary Momentary Momentary

Button Action

Alternate with PLC or button release: There are two methods of turning off the pushbutton:  
1. The operator may simply press the pushbutton.  
2. When the associated "PLC Button Release bit" turns on in the PLC.  
Note: "Panel acknowledge of PLC Release Bit" informs the PLC that the PLC Button Release was completed.

PLC Button Release Bits:

BIT 10 REL 1 BIT 11 REL 2 BIT 12 REL 3 BIT 13 REL 4 BIT 14 REL 5

Panel acknowledge of PLC release bits

BIT 10 ACK 1 BIT 11 ACK 2 BIT 12 ACK 3 BIT 13 ACK 4 BIT 14 ACK 5

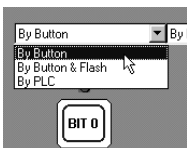
LED (Bit Read) PLC Word: \_\_\_\_\_

Buttons (Bit Write) PLC Word: \_\_\_\_\_

Help Cancel OK

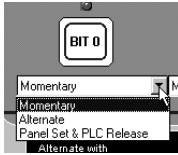
\*Note: All bit designations are in octal (used by Koyo PLCs). Use Bit 8-12 for PLCs using decimal bit numbering system.

11. First select the **LED Control** for Button F1. You may choose to have the LED controlled **By Button**, **By Button & Flash**, or **By PLC**. Make selections for Bit 0 through Bit 4. The LED function depends on the type of **Button Action** selected.



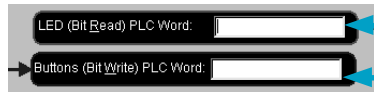
- **By Button** means that the LED illuminates when the button is pressed.
- **By Button & Flash** means that the LED illuminates and flashes when the button is pressed.
- **By PLC** means that the LED illuminates when triggered by the PLC.

12. Select the **Button Action** for each button Bit 0 through Bit 4. You may choose from **Momentary**, **Alternate**, or **Panel Set and PLC Release**.



- **Momentary** means that the Button is ON only while the button is being pressed.
- **Alternate** means that the Button it turned ON when the button is pressed and only turns OFF when the button is pressed again.
- **Panel Set and PLC Release** means that the Button is turned ON when the button is pressed and turns OFF when pressed again or when turned off by the PLC.
  - **PLC Button Release Bits** use Bit 10 through Bit 14 (Octal) or Bit 8 through Bit 12 (Decimal). If the button is ON, the PLC can release the button by setting the corresponding release bit.
  - **Panel Acknowledge of PLC Release Bits** use Bit 10 through Bit 14 (Octal) or Bit 8 through Bit 12 (Decimal). The panel turns ON these bits to acknowledge the PLC Release Bits.

13. Enter a **LED (Bit Read) PLC Word** and a **Buttons (Bit Write) PLC Word** address.

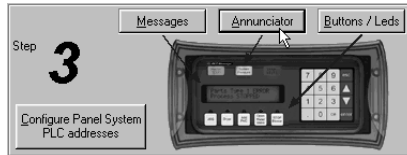


This register controls LEDs and PLC Button Release (Read Only or Read/Write)

This register controls Buttons and Panel Acknowledge (must be Read/Write)

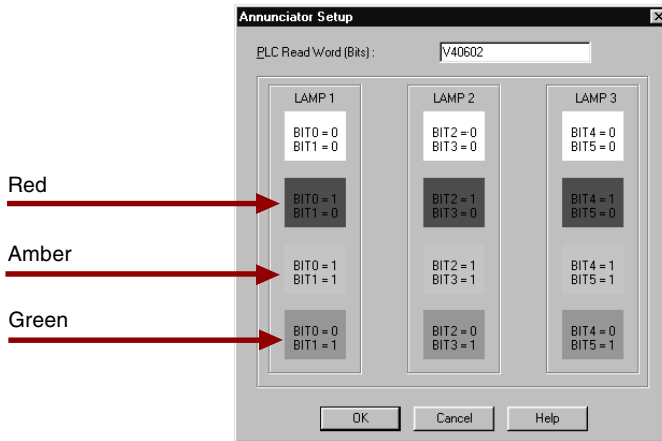
14. Click on **OK** to save your Button/LED control selections.

15. Now you are ready to configure the Annunciator Lamps. Click on the **Annunciator** Button, shown below.

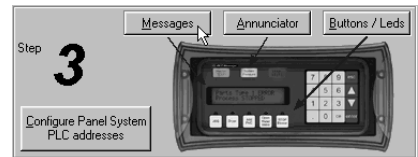


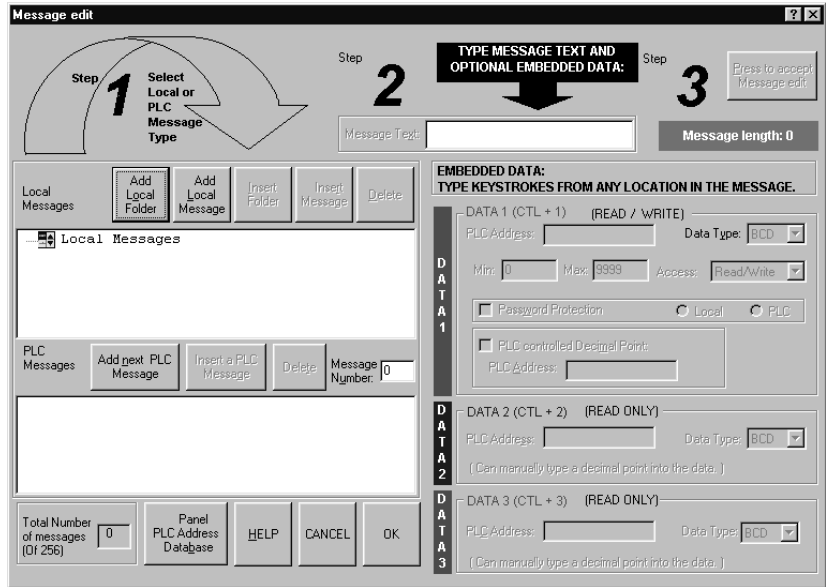


The following screen will appear.



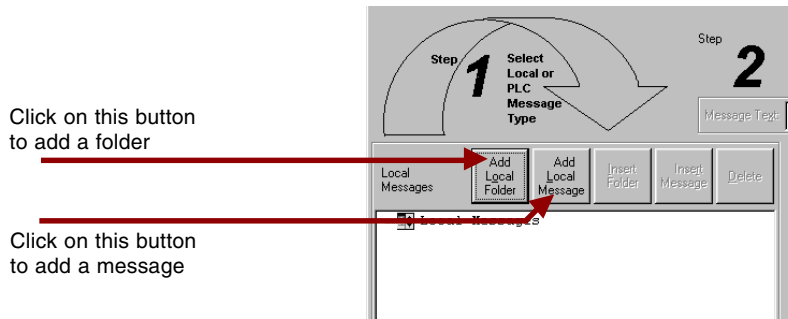
16. Enter a PLC address in the **PLC Read Word (Bits)** field. When you configure the PLC ladder logic, use the bit assignments as shown in the dialog box above to control the three annunciator lamps. (White represents OFF.)
17. Click on the **OK** button to save the register address and exit the screen.
18. Now you are ready to configure **Local** and **PLC Messages**. Click on the **Message** button (as shown to the right). The screen at the top of the following page will appear.





19. For **Step 1**, choose to configure a **Local** or **PLC Message**. Local Messages are messages stored in the panel in a menu hierarchy and provide information and instructions to the operator. PLC Messages are triggered by a value in a PLC register. The PLC Message LED will illuminate to tell the operator that the PLC has triggered a message. The buttons will not respond for 3 seconds after the PLC Message has been triggered to ensure that the operator has a chance to read the message. See step 20 (next step) to program a **PLC Message**. To program a **Local Message**, perform the following steps.

- a. Next to **Local Messages**, click on the **Add Local Folder** button or the **Add Local Message** Button.





**NOTE:** Folders can have up to 19 characters maximum.

- b. Under **Step 2**, type in up to 20 characters in the **Message Text** field.
- c. **Step 3**, click on the **Press to Accept Message Edit** button. The message text you have typed in will appear in the Local Message field.

1 Enter text here      2 Click here to accept text

Step 2      Step 3

Message Text: Local Message 1      Message length: 15

3 Configured Message will appear here      Total characters in current message is shown here

- d. If you want to embed data from a PLC register in a Local Message, place the cursor in the message where you want the value to appear and press F5 or (CTRL+1) for Data 1, F6 or (CTRL+2) for Data 2, or F7 or (CTRL+3) for Data 3. Each press of the function key will enter one data value digit. You may enter up to 5 characters (depending on the data type).

Message Text: Local Message 1111      Message length: 20

In the message, the data will be represented by red 1's for DATA 1, blue 2's for DATA 2, and green 3's for DATA 3. (The actual value will display in the message on your EZText Panel.)

**EMBEDDED DATA:**  
TYPE KEYSTROKES FROM ANY LOCATION IN THE MESSAGE.

**DATA 1** (CTL + 1) (READ / WRITE)  
PLC Address:      Data Type: BCD  
Min: 0      Max: 9999      Access: Read/Write  
 Password Protection       Local       PLC  
 PLC controlled Decimal Point:  
PLC Address:     

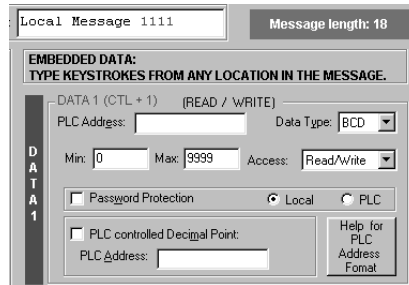
**DATA 2** (CTL + 2) (READ ONLY)  
PLC Address:      Data Type: BCD  
(Can manually type a decimal point into the data.)

**DATA 3** (CTL + 3) (READ ONLY)  
PLC Address:      Data Type: BCD  
(Can manually type a decimal point into the data.)



**PLEASE NOTE:** DATA 1 is READ/WRITE and allows the option for the operator to change data values in the PLC register using the Control Keys on the EZText Panel. DATA 2 and DATA 3 are READ ONLY and will display a value from the PLC register. You cannot change the DATA 2 or DATA 3 value from the panel.

- e. Now you will need to configure the embedded data . If you have embedded data, you will notice that the DATA 1, DATA 2, or DATA 3 field is now available.

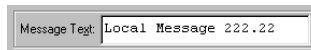


- f. You must first enter the **PLC Address** where the value resides. Select the **Data Type** (format) for your PLC Type (either **BCD** or **Binary**).
- g. Select the **Access** for the PLC register. Will you want the message to display a register value (READ only)? Do you want the message to display a register value and allow the operator to change the value with the numeric keypad (READ/WRITE)?
- h. If you select **READ/WRITE** Access, you can enter a **Minimum** and **Maximum** Range that the operator can write to the PLC.
- i. Select whether or not to enable **Password Protection** for this data value. Select **Local** or **PLC**. Passwords are entered by the operator with the numeric keypad. The operator will not be able to change the data value if the correct password is not entered.
- j. You may configure **DATA 1** to display a decimal point that is controlled by the PLC. The location of the decimal point must be configured in your PLC ladder logic program. Place a check mark in the box next to **PLC Controlled Decimal Point** and then enter the **PLC Address** where the control resides. (This is DATA 1 only — you cannot configure PLC Control for a DATA 2 or DATA 3 embedded value.) Keypad entry, not arrow adjust, must be used when using decimals.

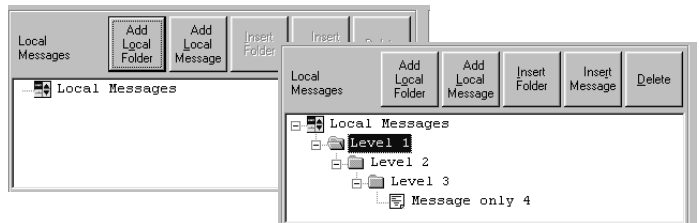


If PLC control for the decimal point is enabled, the program will place a decimal point at the end of the characters representing the data value in the Message Text field — **1111.** in the figure above. Then placing a value of 1–4 (BCD) or 1–5 (Decimal) in the PLC register will place the decimal in the appropriate location.

- k. You may manually enter a decimal point in DATA 1, DATA 2 or DATA 3, by placing your cursor in the message where you want it to appear in the value, and then insert the decimal point as shown below.



- l. Create Folders to group messages relating to the same topic. The first message or folder you program will appear on the first line of the EZText Panel display when it is in Run Mode. (Second programmed message displays on second line, etc., up to four lines, depending on the type of panel you are using.) The Local Message and Folder menu tree can have up to 3 levels as shown in the following example.



- m. To add a folder, click on the **Add Local Folder** button.
- n. To insert a Message or Folder between already configured messages, you must first have a message or folder highlighted. Click on **Insert Folder** or **Insert Message**. The inserted Message or Folder will be placed above the highlighted Message or Folder.
- o. To delete a Message or Folder, click on it to highlight it and then click on the **Delete** button.

- p. To save your messages, click on the **OK** button at the bottom of the **Message Edit** window. To exit without saving, click on the **Cancel** button.

20. **PLC Messages** are triggered by a value in a PLC register. The PLC Message LED will illuminate to show the operator that the PLC has triggered the message. To program a PLC Message, click on the **Add Next PLC Message** button.

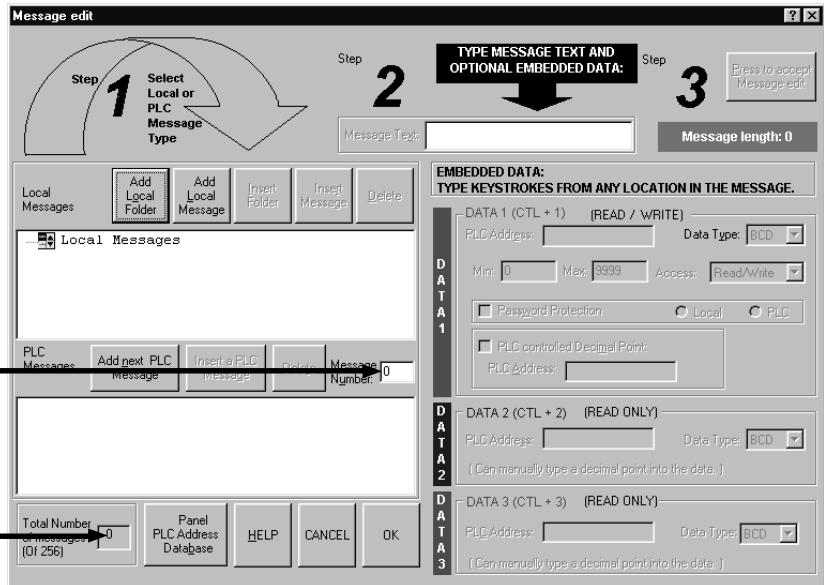
PLC Message LED illuminates to indicate panel is displaying a PLC triggered message



- a. Type in text up to 20 characters in the **Message Text** field. The 20 character maximum includes **Data Items**, also, if you choose to enter them. You will see the **Message Length** value change as you enter characters to let you know how many you have used. The current **Message Number** and **Total Number of Messages (of 256)** programmed are also displayed for your information.

To configure a PLC message out of sequence, click in the message number field and type in the message number

Total number of messages configured is shown here



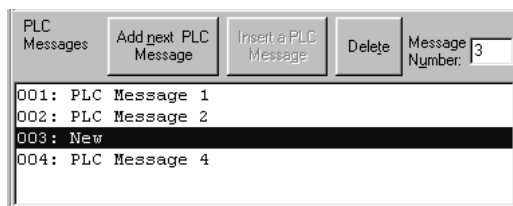
- b. If you want to embed data values from a PLC register in the message, press **F5 or (Ctrl+1)** for **DATA 1**, **F6 or (Ctrl+2)** for **DATA 2**, or **F7 or (Ctrl+3)** for **DATA 3**. Each press of the function key will enter 1 data value character. You may enter up to 5 characters depending on the data type you have selected.
- c. You will configure Data 1, Data 2, and Data 3 values the same way as described in a Local Message.
- d. If you have configured messages out of sequence and you want to insert a message between messages already programmed, click on **Insert a PLC Message**. Be aware that blank messages count in the Total Messages allowed.

**For example:**

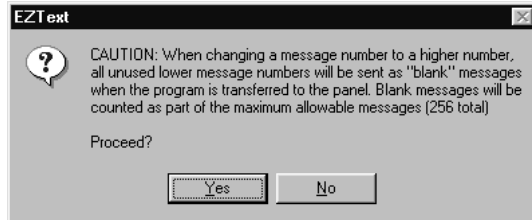
You have programmed PLC Messages numbered 001, 002 and 004, skipping PLC Message number 003, as shown below.



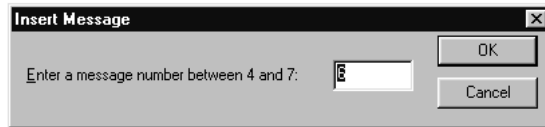
Click on **004: PLC Message 4** in the message field to highlight it, and then click on the **Insert a PLC Message** button. PLC Message Number 003 will appear above PLC Message Number 004 and you may enter the new message.



Be aware that when programming messages out of sequence, that the “blank” messages are counted in the Total Messages allowed. The following “CAUTION” message will appear when you enter a message number higher than the next number in sequence.



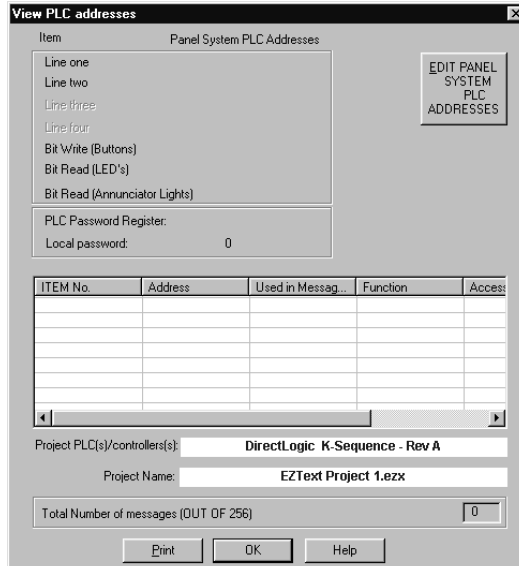
If you have skipped more than one message number (e.g., you have programmed messages 1 through 4, skipped messages 5, and 6, and then programmed 7), and highlight message 7 and click on Insert a PLC message, the following dialog box will appear asking you to enter the number (e.g., 5 or 6) of the message you want to insert.



- e. To delete a message, click on it to highlight and then click on the **Delete** button.



- To view the PLC Addresses you have programmed click on the **Panel PLC Address Database** button. The following window will open.

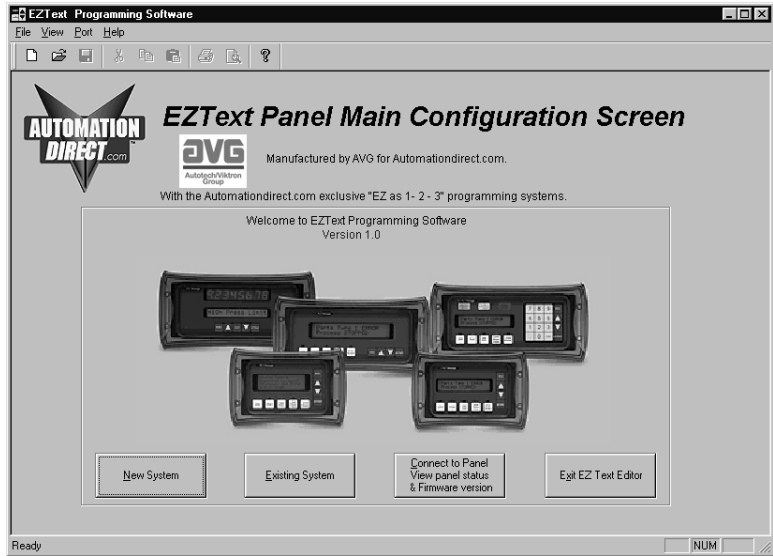


Shown here will be the addresses mapped to the panel display lines (**Line one**, **Line two**, etc.), the **Bit Write (Buttons)**, **Bit Read (LEDs)**, **Bit Read (Annunciator Lights)**, **PLC Password Register** or **Local Password**, and the PLC Message Data Items. (Items grayed out are not available for EZText Panel model EZ-220P.) The **PLC/controller** you have selected and the **Project Name** are also displayed, along with the **Total Number of messages (OUT OF 256)** programmed. This is for information only—to edit the addresses, click on the **EDIT PANEL SYSTEM PLC ADDRESSES** button.

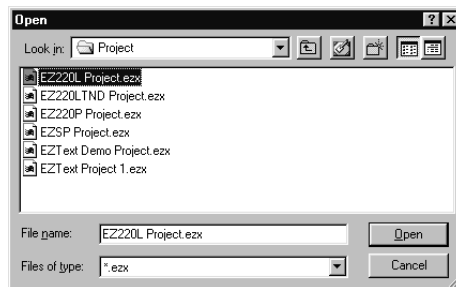
- Click on the **Print** button to print the database or the **OK** button to exit.

## Configure Existing System

1. Click on the EZText Editor Icon to open the EZText Programming Software. The following screen will appear.

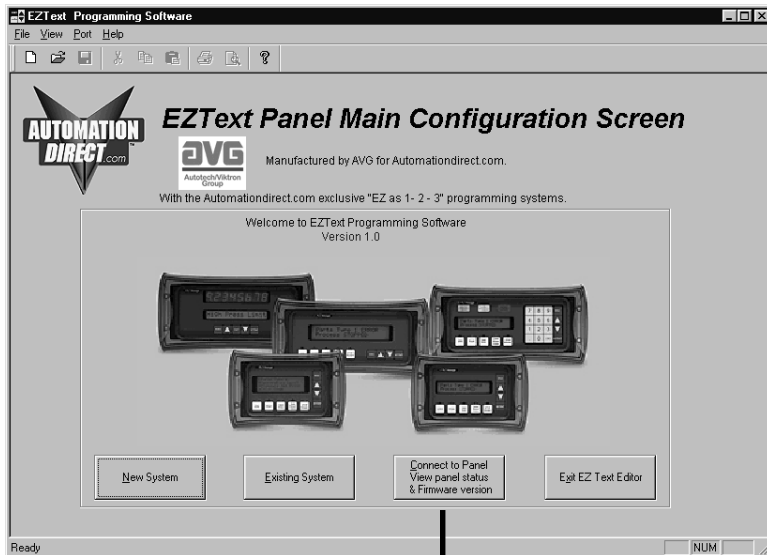


2. Click on the **Existing System** button to edit an EZText Panel program. The following screen will appear.



3. Select the project you want to edit from the default program directory or navigate to where the project resides. Click on it to highlight, and then click on the **Open** button and the project you have selected will open to the Main Configuration Screen.
4. Begin editing your project.

## Connect to Panel, View Panel Status and Firmware Version

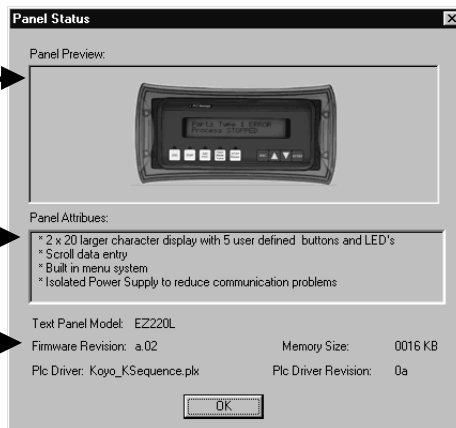


Click on the **Connect to Panel, View Panel Status & Firmware Version** button to view the panel status. The **Panel Status** window will open. An example is shown below (the EZ-220P model is not shown).

Picture of the panel type you are connected to

Key features of the current panel

Panel and PLC information is displayed, including panel model, Firmware Revision, Memory Size, PLC Driver, and PLC Driver Revision number

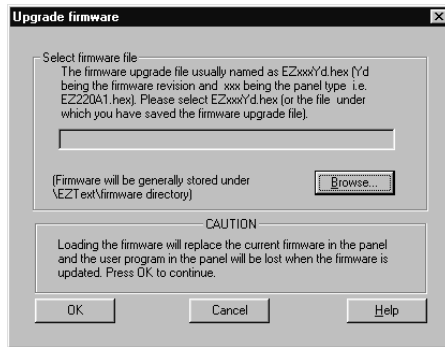


## Upgrade Firmware

There may be occasional upgrades to the EZText Panel internal software, also referred to as the Exec or Firmware. Check the Automationdirect.com web site 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 Panel simultaneously.
2. Under the **Panel Menu**, click on **Upgrade Firmware**. The following screen will appear.

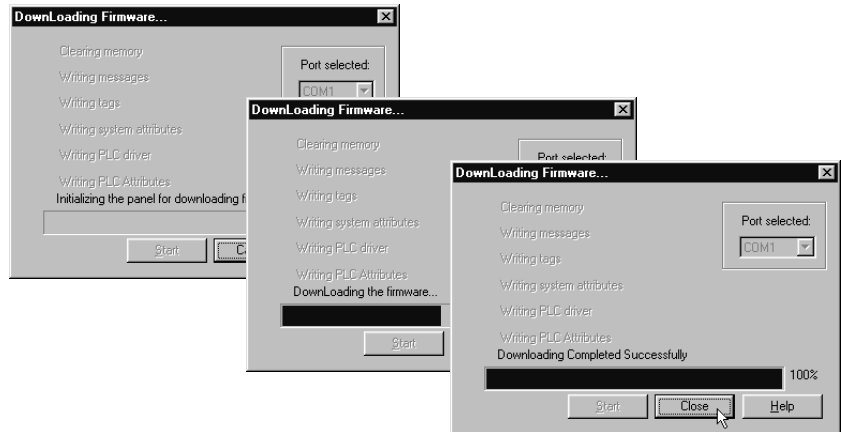


3. Click on the **Browse** button. The window, shown below, will open to the default folder, **Firmware** (located in the EZText Program directory). If the firmware file has been downloaded from the Automationdirect.com website to another location, navigate to the new firmware file (.hex file).



There are five types of firmware files (.hex) for the different types of EZText Panels: **EZ220xy** — for the EZ-220 panel; **EZ220Lxy** — for the EZ-220L panel; **EZ420xy** — for the EZ-420 panel; **EZ220Pxy** — for EZ-220P panel; 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 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 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 Programming Software, as shown below. If this happens, do the following:



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.

