

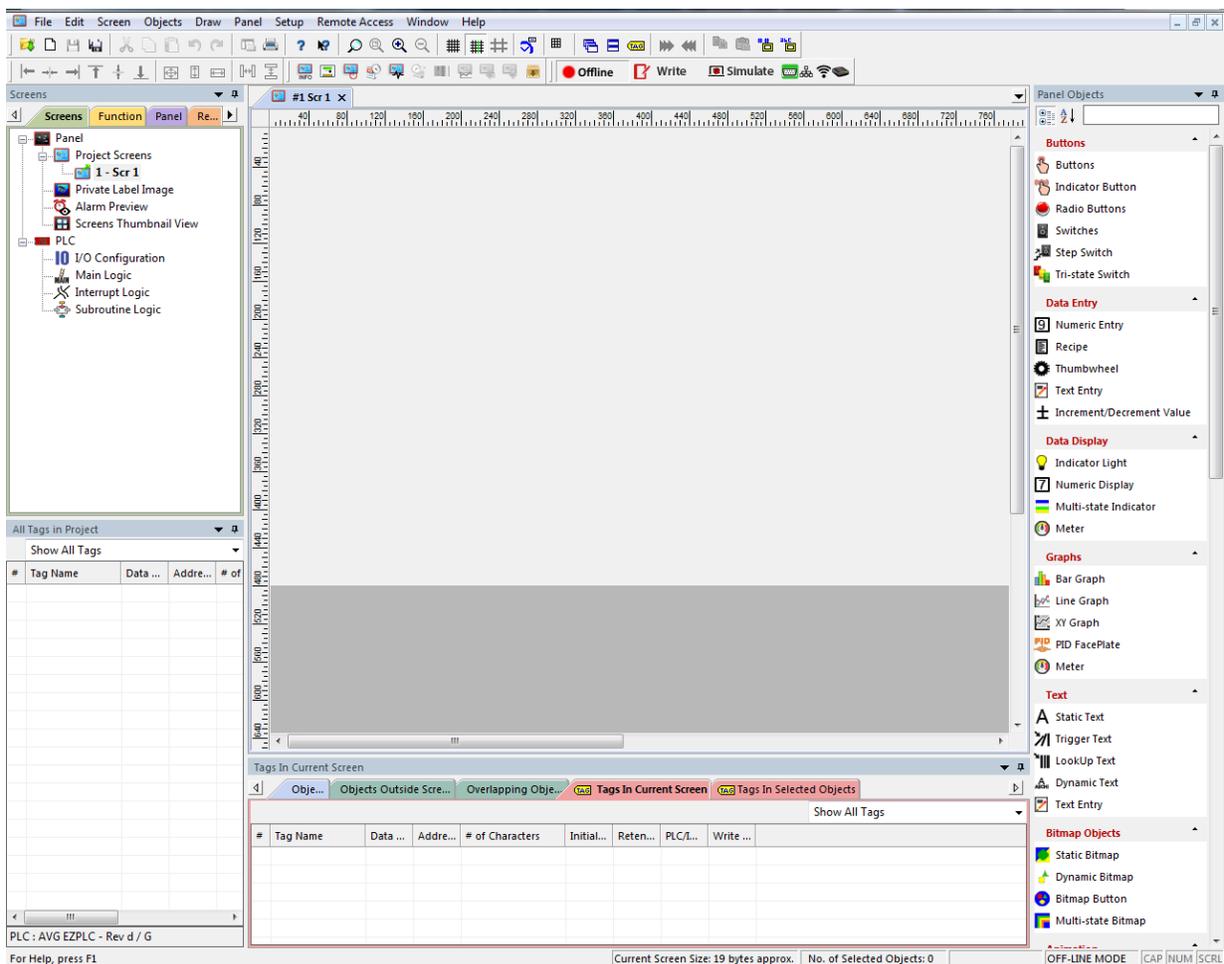
## EZTouch Editor 2.0

With the EZ HMI panel comes with a new version of EZTouch Editor. This version of the of the EZTouch Editor comes with a vast improvement to quality of life and also includes new features available to all panels.

As soon as you open up the EZTouch Editor and open a new project you will notice the new layout. The layout has been improved to provide clearer icons for all objects, make menu options easier to access, group similar options together, improve ability to position objects and overall improve the ability to make changes. Also we have added new features such as encrypted email functionality, Private Label Images, and Improved the Image Database.

### Main Programming Screen

In the new EZTouch Editor, once you are done configuring the Project Information screen, by default the editor will display the EZTouch Panel Main Programming Screen. The new screen layout has an improved Toolbar at the top, redesigned Project Explorer View on upper left, Tag Database on lower left, Screen Info tables at the bottom, and the Object Dashboard on the right. All the views can be modified, moved, or hidden based on user preference. The next section will give a brief overview of functionality.

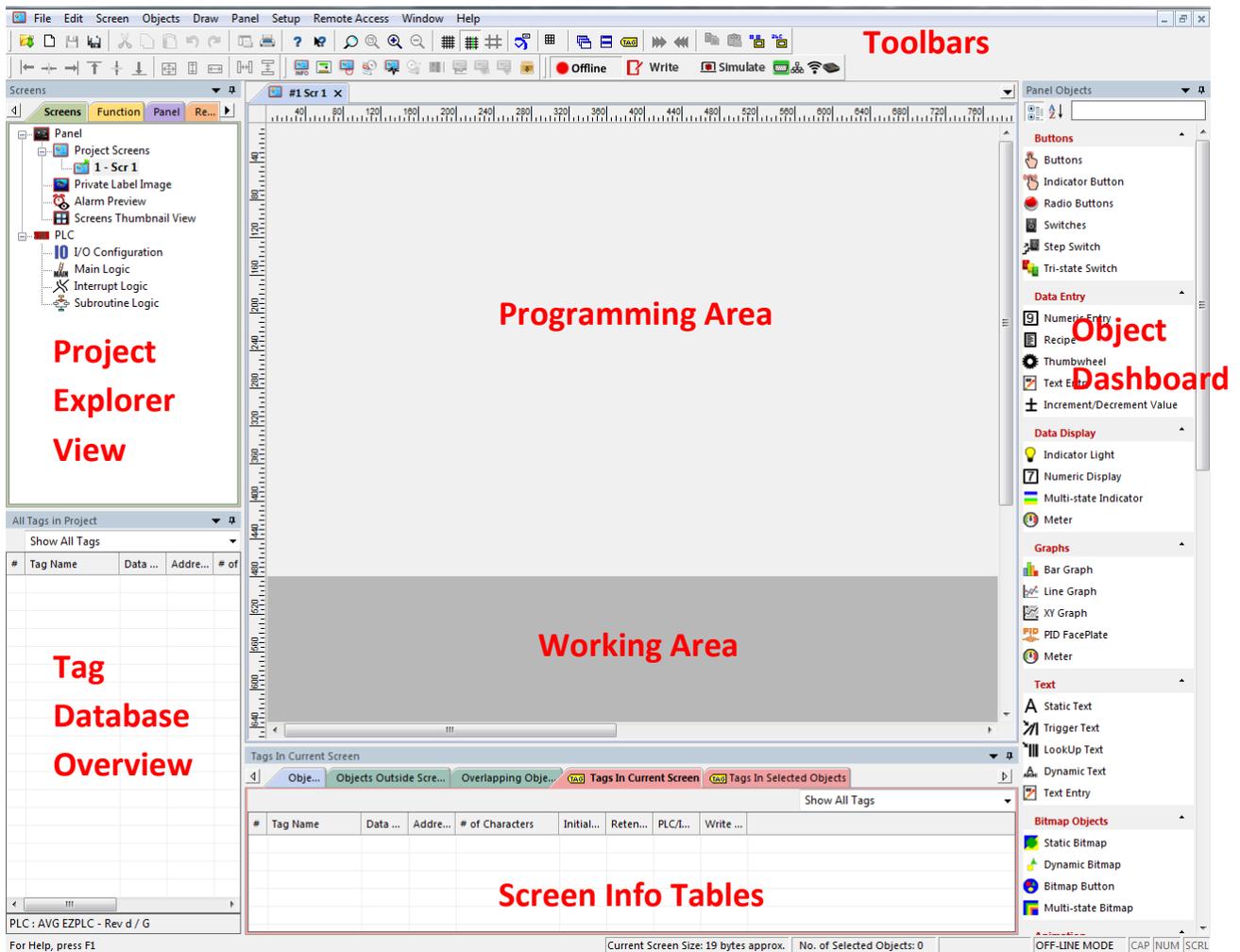


## Programming Area

This is the **programming screen** or the foundation where you will build project screens that will in turn be displayed on the EZTouch Panel unit. The screens can be chosen from the panel touchscreen or controlled by a PLC or computer. The range of these programming screens is 1 to 999.

These screens are used primarily to incorporate objects and messages. Placing these items onto the programming screen allows you to have input and control over what is being displayed on the panel.

The Screen now allows a working area around the display area which is equivalent to 3 other screen areas. Whatever exist in this area does not display on the EZTouch Panel unit but allows for creating and modifying objects.

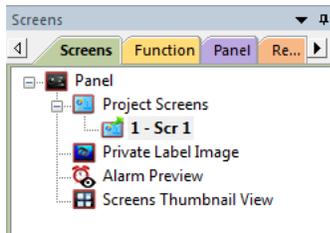


Certain screen editing functions are available from a popup menu that will display when you click the right mouse button.

## Project Explorer View

The project explorer section is located on the left sidebar. It can be hidden or moved based on preference. Also each tab in the explorer can be moved and positioned based on your preference. The tab selection includes:

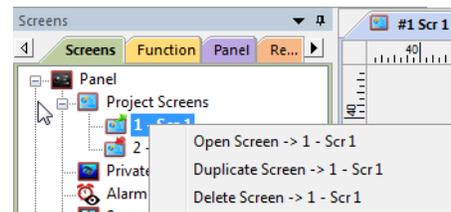
### Screens



This window is located on the left hand side of the main programming screen. It is displayed by default. You can have this section auto hide it by clicking the pin icon.

To go to a screen shown in the Project Screens list, double click on it. Also to go to ladder logic you can also double click that selection.

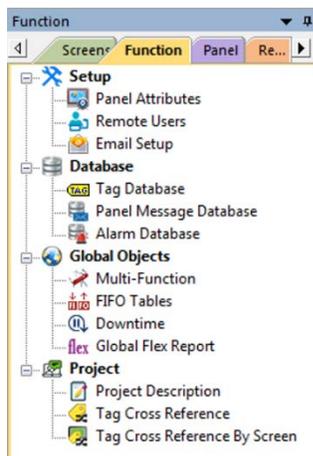
The explorer view allows the user to Open, Duplicate and Delete Screens. These options are available in the right click menu and they operate the same way as the Add / Edit / Delete Screen(s) menu.



You can move the window to a different location in the programming window. Just click on the bar at the top, hold the left mouse button, and drag it to where you want it to appear. If you double click on the bar at the top it will change to a floating window. Double click on the title bar on the floating tool box and it will relocate to its last position. You can also use the arrow drop down at top to select to make it floating or to hide it.

### Function

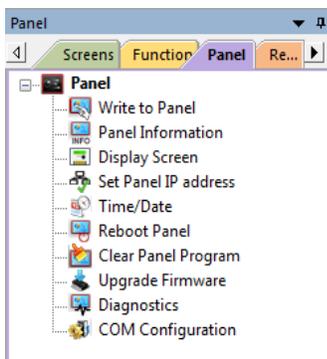
This is the second tab in the Explorer view as default but it can be moved to any position you would like. This has some of the more commonly used EZTouch Editor Setup functions. This includes:



- Panel Attributes - These are the global panel settings for the project.
- Remote Users - To setup RMC use this setup.
- Email Setup - To create alarm or scheduled Emails use this setup.
- Tag Database - To make changes to the tags in your project use the tag database.
- Panel Message Database - Global messages can be setup in this database and then used on multiple screens.
- Alarm Database - All alarms can be configured in this database.

- Multi-Function - To use global functions (constantly change tags etc.) use this setup.
- FIFO Tables - If you would like to have a FIFO table use this setup.
- Downtime - If you would like to have a downtime table use this setup.
- Global Flex Report - To print a global report you will have to use this setup.
- Project Description - Each project can have its own project description.
- Tag Cross Reference - If you would like to search for tags use this.
- Tag Cross Reference by Screen - If you want to see a full list of tags that are on a screen use this.

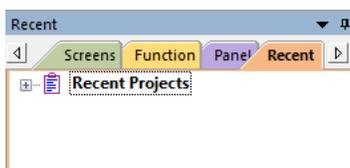
## Panel Options



This is the third tab in the Explorer view as default but it can be moved to any position you would like. This has some of the more commonly used EZTouch Panel functions. This includes:

- Write to Panel - Transfer current project to EZTouch Panel.
- Panel Information - Get current setup information about a connected Panel.
- Display Screen - Change screens on the EZTouch Panel to specified screen.
- Set Panel IP address - Change the IP address of the EZTouch Panel.
- Time / Date - Change the Time / Date of the EZTouch Panel.
- Reboot Panel - Reboot the EZTouch Panel.
- Clear Panel Program - Clear the current program on the EZTouch Panel.
- Upgrade Firmware - Upgrade the firmware of the EZTouch Panel.
- Diagnostics - Check the current condition of the EZTouch Panel.
- COM Configuration - Change the PC to Panel COM configuration.

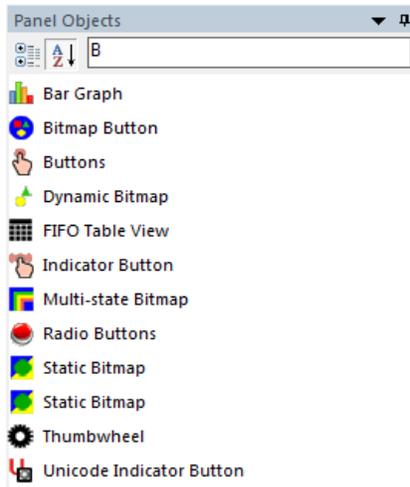
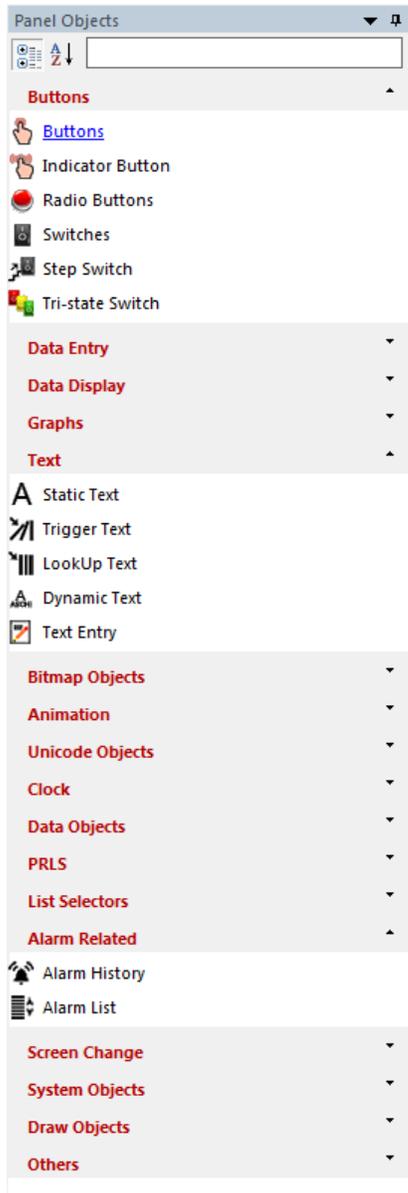
## Recent Projects



This is the fourth tab in the Explorer view as default but it can be moved to any position you would like. This will have a full list of the 12 most recent projects that you have opened.

## Panel Objects Dashboard

The Panel Objects Dashboard has a full list of all available objects that can be placed on the screen. These objects are grouped by category and multiple categories can be open at the same time. They can also be listed in alphabetical order and even searched through to find the object you are looking for. The Panel Objects Dashboard defaults to the right side but it can be moved to any location you want and also can be hidden till needed.



## Tag Database Overview

The Tag Database Overview has a full list of all tags in the tag database. This list can be reordered and double clicking on any tag will allow you to edit that tag. If you would like you can restrict this view to specific types of tags. The Tag Database Overview defaults to the lower left side but it can be moved to any location you want and also can be hidden till needed.

*Note: All editing is still done in the Tag Database, double clicking on any tag will bring it up and allow you to Edit Tag Details.*

All Tags in Project				
Show All Tags				
#	Tag Name	Data ...	Adresse...	# of Characters
1	BUTTON	BIT	S1	
2	INDICATOR	BIT	S2	
3	STRING	ASCII	R1	40
4	FLOAT	F32	R200	
5	NUMERIC TAG	U16	R300	

All Tags in Project				
BIT, Strings				
#	Tag Name	Data ...	Adresse...	# of Characters
1	BUTTON	BIT	S1	
2	INDICATOR	BIT	S2	
3	STRING	ASCII	R1	40

## Screen Info Tables

The Screen Info Tables will provide detailed information on all object and tags in the current screen. The Screen Info Tables default to the bottom of the main programming area but it can be moved to any location you want and also can be hidden till needed.

On the next few pages is a detailed description of each available table.

## Objects

Objects										
4   Objects   Objects Outside Scre...   Overlapping Obj...   TAG Tags In Current Screen   TAG Tags In Selected Objects										
#	Object Type	Rank	Overlapping Group	Top	Left	Width	Height	On Border	Outside Screen	
1	A Static Text	1	0	0	0	398	79	No	No	
2	A Static Text	2	0	0	400	373	163	No	No	
3	A Static Text	3	1	170	425	298	79	No	No	
4	A Static Text	4	1	240	600	193	159	No	No	
5	Indicator Button	5	0	80	0	398	159	No	No	
6	Indicator Light	6	0	240	0	298	159	No	No	
7	Buttons	7	1	240	300	298	159	No	No	
8	Recipe	8	0	400	0	148	79	No	No	
9	Recipe	9	0	400	150	148	79	No	No	
10	Buttons	10	0	400	300	148	79	No	No	
11	Buttons	11	0	400	450	148	79	No	No	
12	Recipe	12	0	400	600	98	79	No	No	

The Objects table lists all the objects in the currently open screen and includes details on the object such as position, size, what objects overlap, and if it is not on the screen. Double clicking the Object in the table will open up its Object Details.

## Objects Outside Screen

#	Object Type	Rank	Overlapping Group	Top	Left	Width	Height	On Border
1	Recipe	13	0	400	760	98	79	Yes

The Objects Outside Screen Table will only list the currently open screen's object which are not on screen. *Note: Objects that are not on the screen will not be visible on the panel.*

## Overlapping Objects

#	Object Type	Rank	Overlapping Group	Top	Left	Width	Height	On Border	Outside Screen
1	Static Text	3	1	170	425	298	79	No	No
2	Static Text	4	1	240	600	193	159	No	No
3	Buttons	7	1	240	300	298	159	No	No

The Overlapping Objects Table will only list the currently open screen's object which are overlapping. It will also give the position of the objects, which is there rank. The higher the rank the more in front the object is and therefore visible. If object are the same size and at the same position then only the highest ranked object will be visible.

Overlapping objects position can be changed in the Overlapping Objects Information screen in the Edit Menu.

## Tags in Current Screen

The screenshot shows a software window titled "Tags In Current Screen". It has a tabbed interface with tabs for "Obj...", "Objects Outside Scre...", "Overlapping Obj...", "TAGS Tags In Current Screen", and "TAGS Tags In Selected Objects". The "TAGS Tags In Current Screen" tab is active. Below the tabs is a "Show All Tags" dropdown menu. The main area contains a table with the following data:

#	Tag Name	Data ...	Address/Exp	# of Characters	Initial Value	Retentive Flag	PLC/Int/Exp	Write...
1	AUTO SCR SW	BIT					INTERNAL	
2	INDICATOR	BIT					INTERNAL	
3	INDICATOR B...	BIT					INTERNAL	
4	PAUSE SCR SW	BIT					INTERNAL	
5	PAUSE_VIS	BIT					INTERNAL	
6	RESUME_VIS	BIT					INTERNAL	
7	SCR_AUTO_M...	BIT					INTERNAL	
8	SCR_MAN_MO...	BIT					INTERNAL	
9	SWITCH TO S...	U16	R308				PLC1	

The Tags in Current Screen Table will list all the tags that are currently used on this screen with their details. Double clicking any of these tags allows you to enter the Edit Tag Details screen and make changes to that tag.

## Tags in Selected Objects

The screenshot shows a software window titled "Tags In Selected Objects". It has a tabbed interface with tabs for "Obj...", "Objects Outside Scre...", "Overlapping Obj...", "TAGS Tags In Current Screen", and "TAGS Tags In Selected Objects". The "TAGS Tags In Selected Objects" tab is active. Below the tabs is a "Show All Tags" dropdown menu. The main area contains a table with the following data:

#	Tag Name	Data ...	Addr...	# of Characters	Initial...	Reten...	PLC/I...	Write ...
1	PAUSE SCR SW	BIT					INTE...	
2	SCR_AUTO_M...	BIT					INTE...	
3	SCR_MAN_MO...	BIT					INTE...	
4	SWITCH TO S...	U16	R308				PLC1	

The Tags in Selected Objects Table will list all the tags that are currently selected by you. Double clicking any of these tags allows you to enter the Edit Tag Details screen and make changes to that tag.

## Creating Your First Project

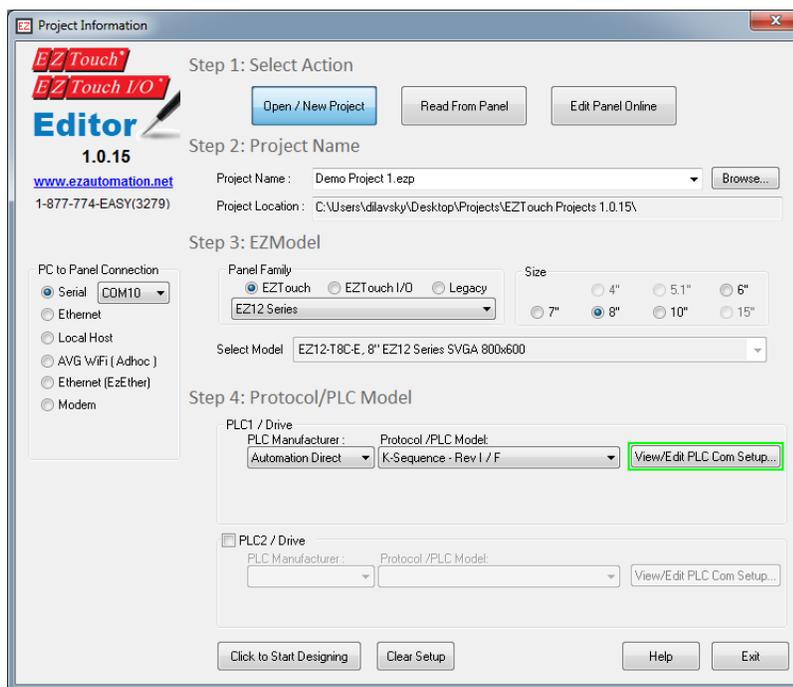
The following is a project tutorial. This section will take you through the process of creating a new project, placing objects on the screen, and transferring a project to the EZTouch Panel unit. This should help familiarize you with the EZTouch Editor environment.

Let's assume you have the EZTouch Editor 2.0 installed on your PC (if you don't, install now). Connect the EZTouch Panel unit to your PC using the P/N EZ-PGMCBL cable or with an USB A to USB B cable [printer cable]). Connect the EZTouch unit to your PLC using the appropriate panel to PLC cable.

### Step 1:

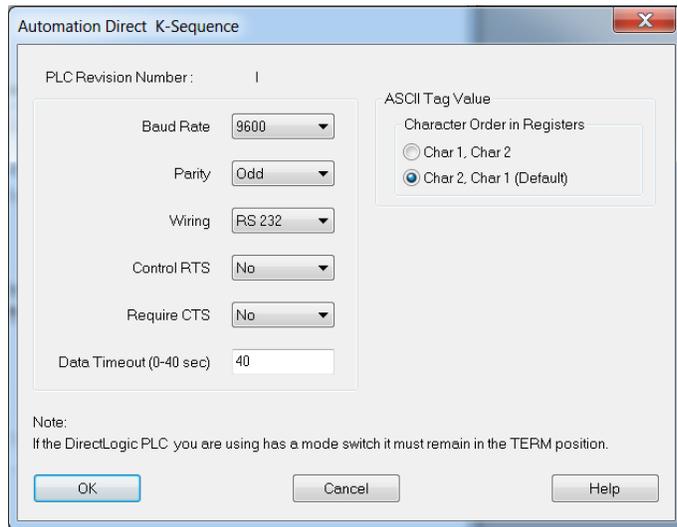
In Step 1 you will be setting up your project by entering project information.

1. From Project Information screen, click on the Open/New Project button.



2. Under Project Name, type in Demo Project 1. The primary EZTouch Panel Program file has an ".ezp" suffix.
3. Under Panel Family Select EZ12 and then in drop down select the Panel Family. In this demo we are using an EZ12.
4. Select the Panel size. In this Demo Program we are using the 8".
5. Under Protocol/PLC Model select Automation Direct for PLC Manufacturer then in the dropdown for Protocol/PLC Type select DirectLogic K-Sequence.

- Click on the View/Edit PLC Com Setup to edit the PLC Attributes. Set the attributes to match those in the DirectLogic K-Sequence attributes dialog box shown below. Click OK.

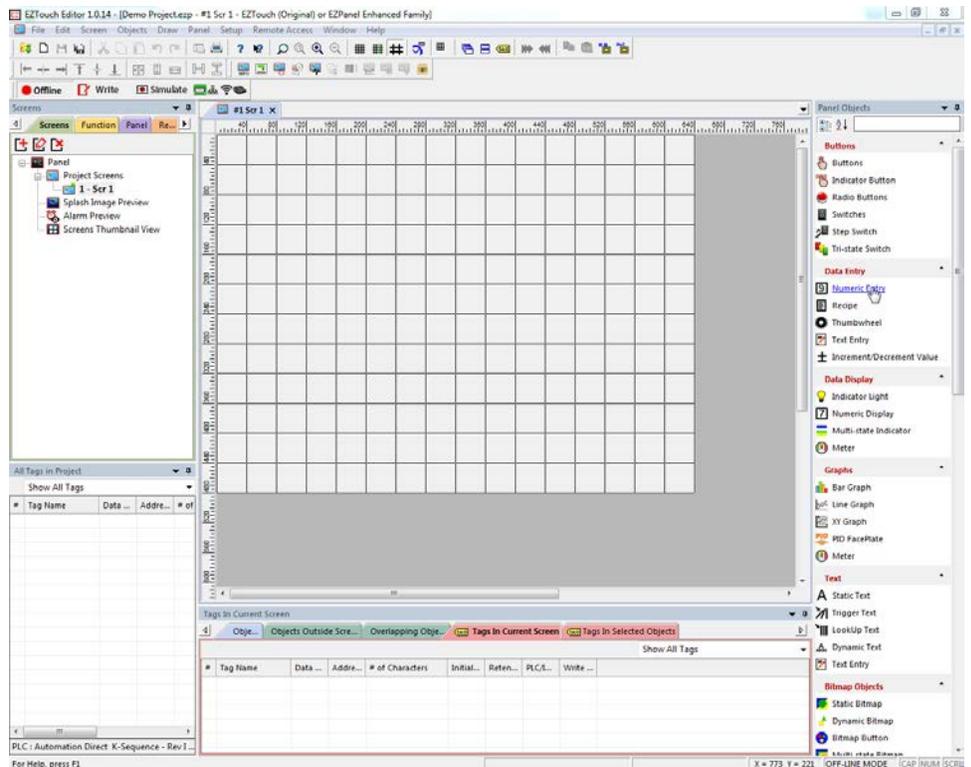


***Step 1 is complete!***

## Step 2:

You are now ready for Step 2, Design Your Screens. In Step 2 we will place 4 objects on the screen. You have already configured your PLC ladder logic for this Demo Project in the first part of the tutorial.

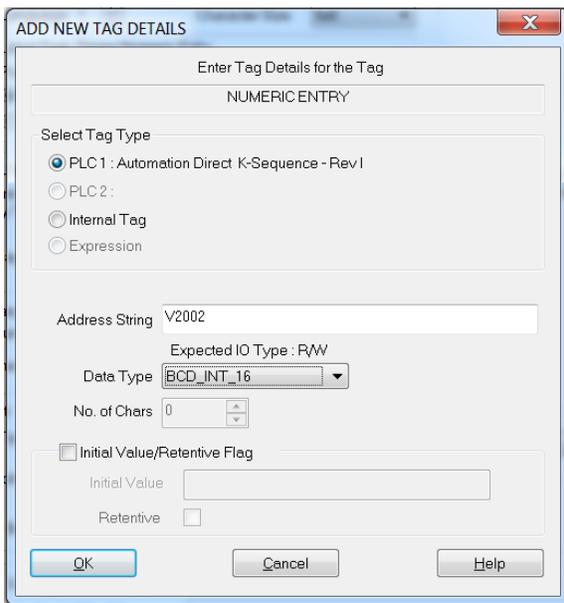
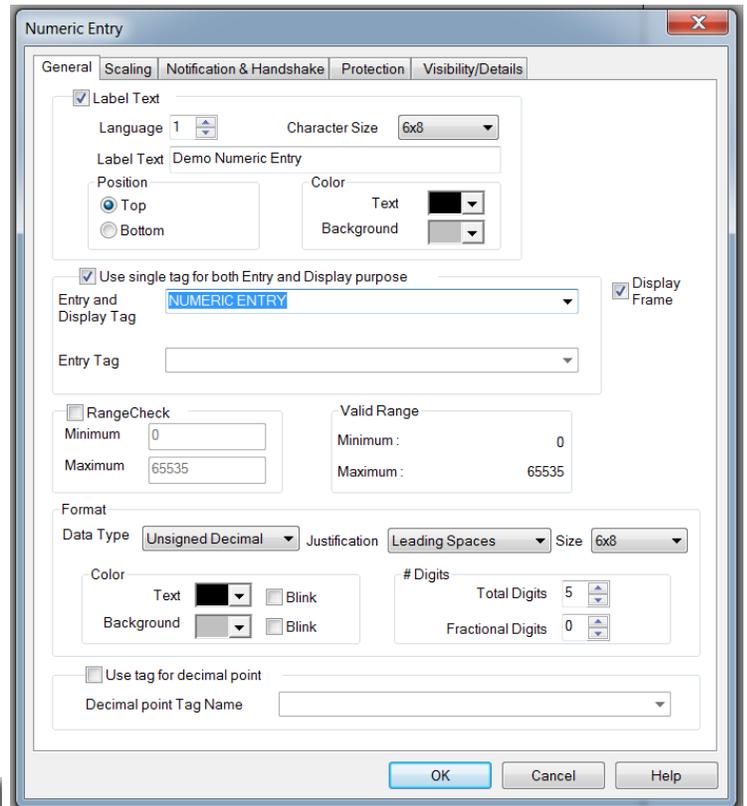
The EZTouch Editor working environment is shown below. Toolbars provide easy access to all major programming functions and features. The objects shown below represent the touch buttons and displays that will be transferred to the panel and communicate with the PLC when this tutorial is completed.



Go to Data Entry tab on the right side of the screen and select the Numeric Entry.

After selecting Numeric Entry the following screen will appear.

1. Click on the box in front of Label Text to activate the object label.
2. In the field next to Label Text, type in Demo Numeric Entry as shown above.
3. Click in the field next to Tag Name and type in Numeric Entry. Press Enter. The following screen will appear.

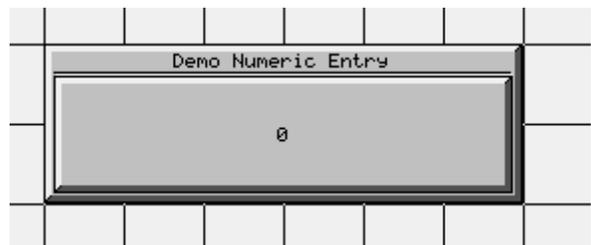


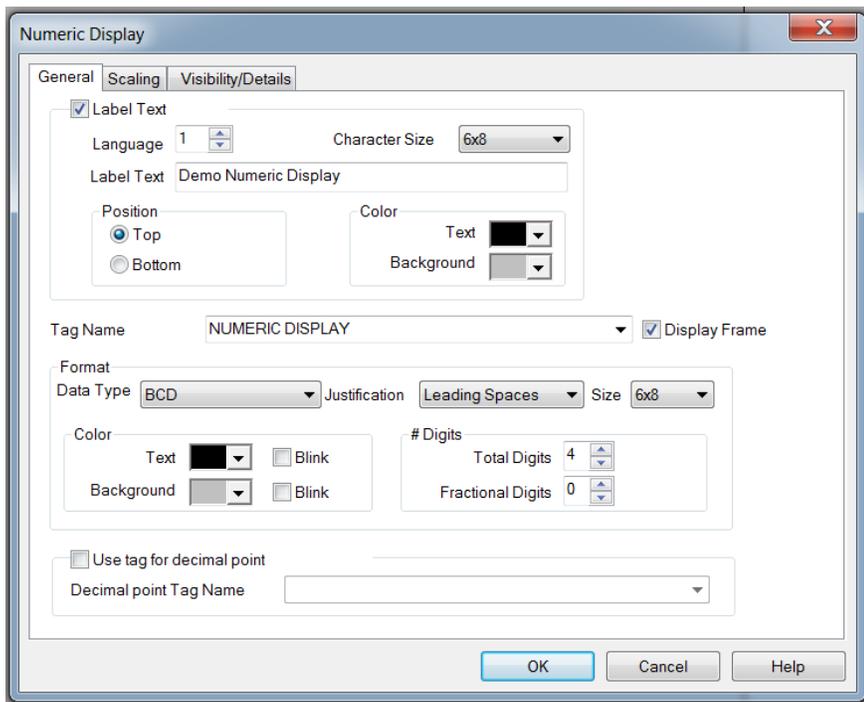
4. In the field next to Address String, type in V2002, as shown above. Select BCD\_INT\_16 for the Data Type. Click OK.

5. A crosshair cursor will appear on the programming screen. Position crosshair where you want the object to appear, and click once.

6. Grab the object by a handle and drag to resize it until the label displays in its entirety, as shown below.

7. Next, we'll create a Numeric Display object. Click on Data Display tab. There select the Numeric Display. The following dialog box will appear.



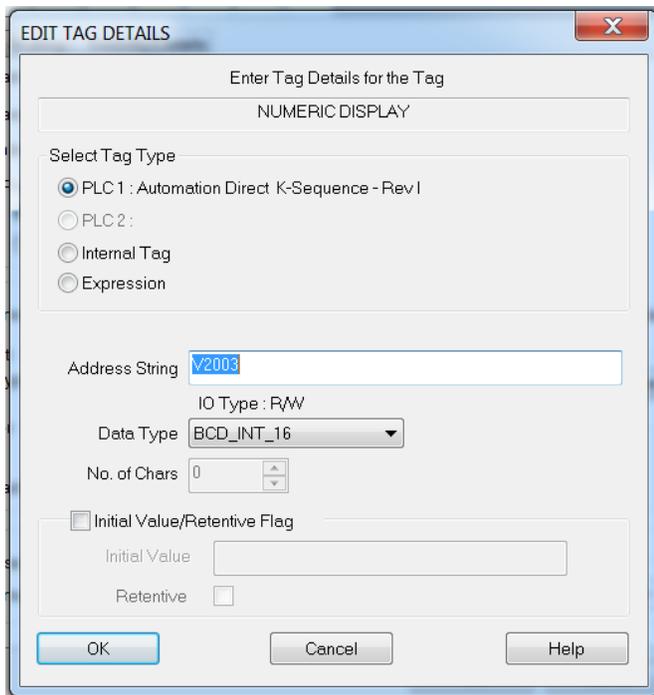


8. Click on the box in front of Label Text to activate the object label.

9. In the field next to Label Text, type in Demo Numeric Display as shown above.

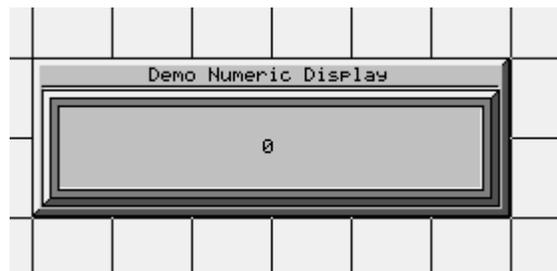
10. Click in the field next to Tag Name and type in Numeric Display. Press Enter.

11. The following screen will appear. In the field next to Address String, type in V2003, as shown above. Select BCD\_INT\_16 as the Data Type. Click OK.

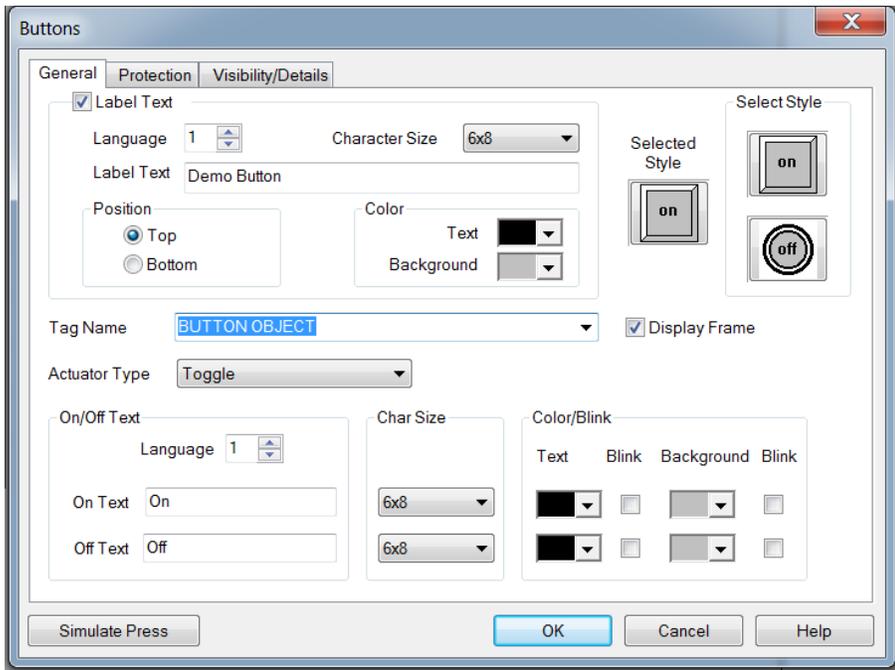


12. A crosshair cursor will appear on the programming screen. Position crosshair where you want the object to appear, and click once.

13. Grab the object by a handle and drag to resize it until the label displays in its entirety, as shown below.



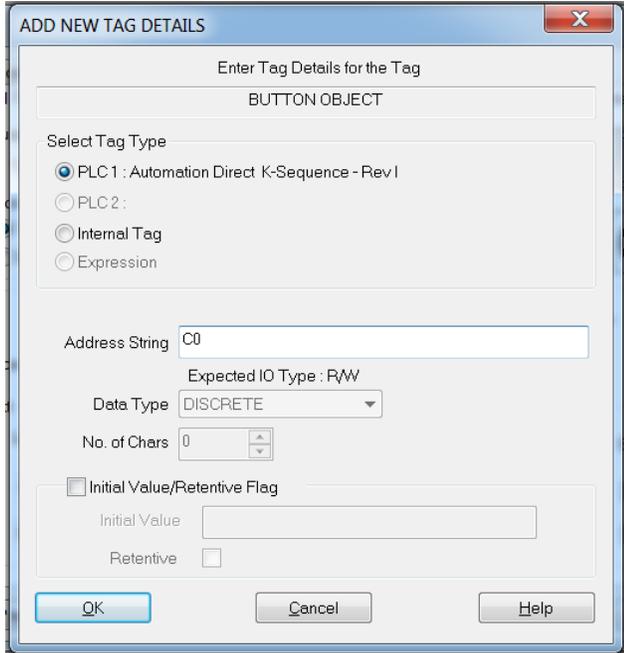
14. Next, we'll create a Button object. Click on Buttons tab. There click on Buttons. The following dialog box will appear.



15. Click on the box in front of Label Text to activate the object label.

16. In the field next to Label Text, type in Demo Button.

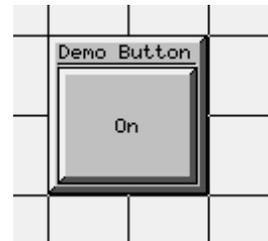
17. Click in the field next to Tag Name and type in BUTTON OBJECT. Press Enter. The following screen will appear.



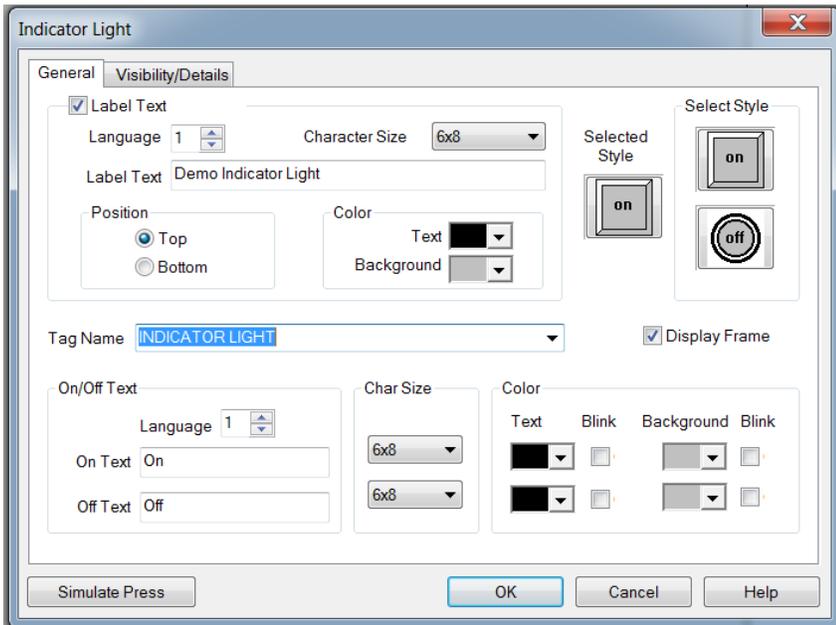
18. In the field next to Address String, type in C0, as shown above. The Data Type should remain as DISCRETE. Click OK.

19. A crosshair cursor will appear on the programming screen. Position where you want the object to appear (under the Numeric Entry object), and click once.

20. Grab the object by a handle and drag to resize it until the label displays in its entirety, as shown below.



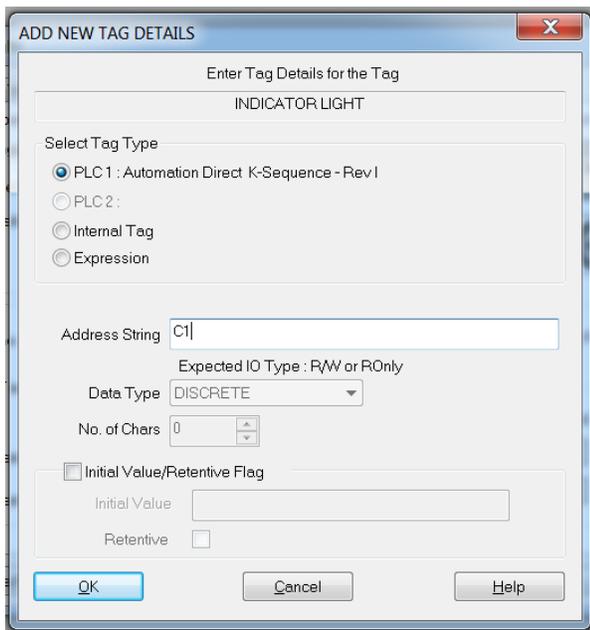
21. Next, we'll create an Indicator Light object. Go back to Data Display tab. Click on the Indicator Light. The following dialog box will appear.



22. Click on the box in front of Label Text to activate the object label.

23. In the field next to Label Text, type in Demo Indicator Light as shown above.

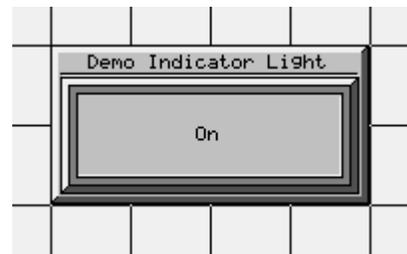
24. Click in the field next to Tag Name and type in INDICATOR LIGHT. Press Enter. The following screen will appear.



25. In the field next to Address String, type in C1, as shown above. The Data Type should remain as DISCRETE. Click OK.

26. A crosshair cursor will appear on the programming screen. Position the crosshair where you want the object to appear (under the Numeric Display object), and click once.

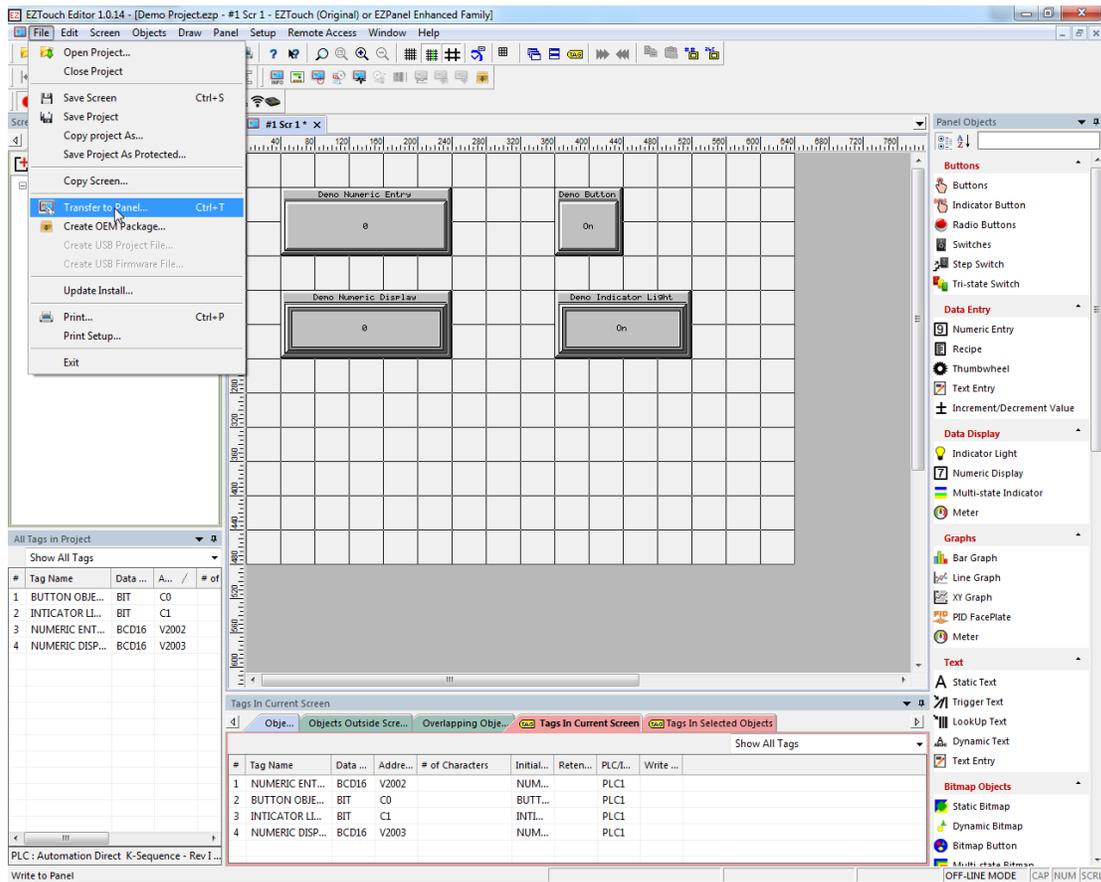
27. Grab the object by a handle and drag to resize it until the label displays in its entirety, as shown below.



28. Click on File > Save Project.

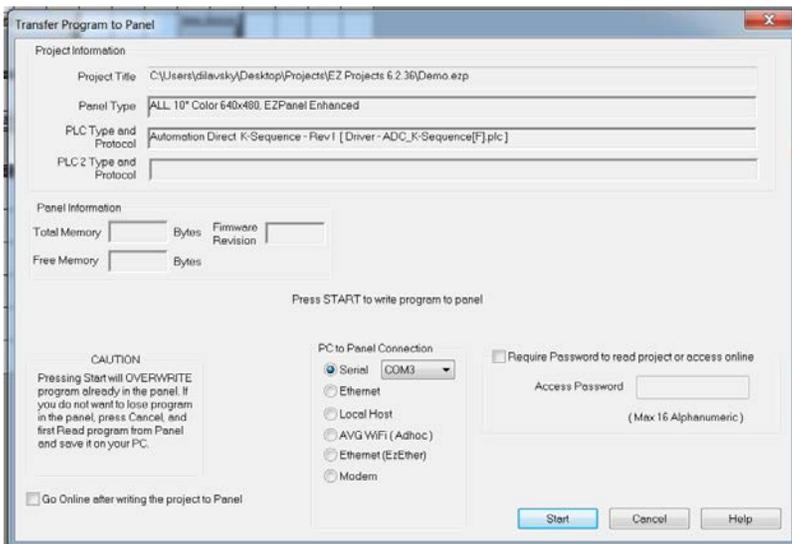
**You've just completed Step 2, Design Your Screens! Now we will transfer Demo Project 1 to the EZ12 unit.**

### Step 3:



You are now ready for Step 3, Write Your Program to Panel.

1. Go to File > Transfer to Panel.. (Keyboard Link Ctr + T) as shown in the graphic below.



2. Click on the Start button at the bottom of the Write Program to Panel dialog box to begin transferring the project to the panel.

3. Your user program, Demo, should now be written to the EZTouch Panel unit, and the screen you have created should be displayed on the panel.

4. Panel Information will be updated with information it receives from establishing a link with the panel and the PLC.

To test the link, press the Demo Numeric Entry button on your EZTouch Panel screen. A popup keypad similar to the one shown below should display.

7	8	9	Demo Numeric Entry	
4	5	6	<input type="text"/>	
1	2	3	MINIMUM	0
0	Clear		MAXIMUM	9999
			CURRENT	0
			Cancel	Enter

Enter a number on the keypad by pressing the number keys. Press Enter. The keypad will disappear and the number you entered should appear on the Demo Numeric Display on your panel screen.

Press the Demo Button on your panel screen. It will change from On to Off. The Demo Indicator Light should change from On to Off, also.

### ***You've just completed Step 3, Write Your Program to Panel!***

You have now successfully configured a PLC, created a user program, transferred it to the EZTouch Panel unit and established communication between the PLC and panel.

This simple tutorial has taken you through the major steps to creating a working link between your application and an EZTouch Panel unit. Of course, there are almost unlimited capabilities for creating a program unique to your application!



Changes are easy, too. Create your own Demo project based on this one, adding color, password protection, and dynamic graphics, for instance.

The EZTouch Panel unit and EZTouch Editor are practical, versatile — and best of all — make it "EZ" for you to create a dynamic interface for your application!

## Firmware Upgrade

The EZ Touch program loader now includes a feature that allows EZ HMI to upgrade firmware with a USB Flash drive. This process especially benefits System Integrators and OEMs with upgrading the Panels on-site without having to actually connect to a computer.

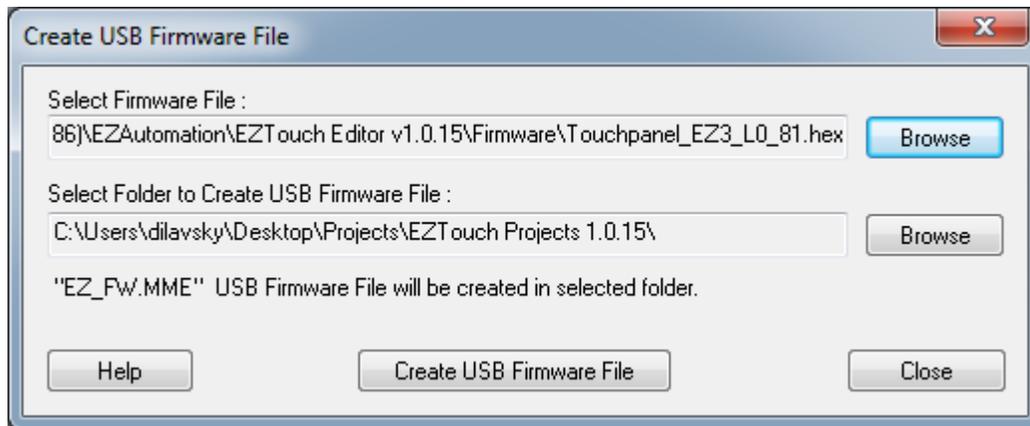
**Note: Firmware upgrade will eliminate the program on the panel. Please backup the file.**

If you would like to load a Project File to the panel using a USB, you will need to use another USB. A USB with firmware will only ever allow firmware upgrade.

### Creating Firmware Upgrade files for use with USB Flash Drive

To create the USB firmware file, follow the direction below. Please be careful and use the correct firmware file.

1. In the EZTouch Main programming window, click on menu **File > Create USB Firmware File** to create user project file for use with the USB flash drive.



2. In the Select Firmware File, select the EZ HMI firmware file.
3. Next select the folder you would like to save the USB firmware file to. This can be a USB folder.
4. Final click the **Create USB Firmware File** button. This will create the USB file which will be called "EZ\_FW.MME".

## Upgrading Firmware with USB Flash Drive

To actually upgrade the firmware on any EZ HMI panel, follow the directions below.

1. Use the directions above to create USB firmware file and then move this file "EZ\_FW.MME" to a USB. Note you cannot change the name otherwise this will not function.
2. Take the USB and insert it in a powered on EZ HMI unit. Note firmware on the Panel has to be version L.0.130 or higher already for this to function. If it is not please use the serial firmware upgrade.
3. The panel will stop normal operations and you will see text on the panel saying it is verifying the firmware ("Verify file"). While this is happening please do not power off the unit or take out the USB.
4. Once the firmware file is verified, the firmware will upgrade on the panel ("Write file").
5. Once the upgrade is done the panel will tell you ("Done"). Please take out the USB at this point.
6. After about 5 seconds after firmware upgrade is done, the panel will restart. Note if you have not taken out the USB then the panel will check the USB firmware file on the USB again once it has powered on. It will not upgrade again after it verifies that the file is for the same firmware version.
7. You have now upgraded the firmware on the panel. You can at this point download a project to the panel or you can use a different USB to load a USB project file.

## Upgrading Firmware over Serial Cable

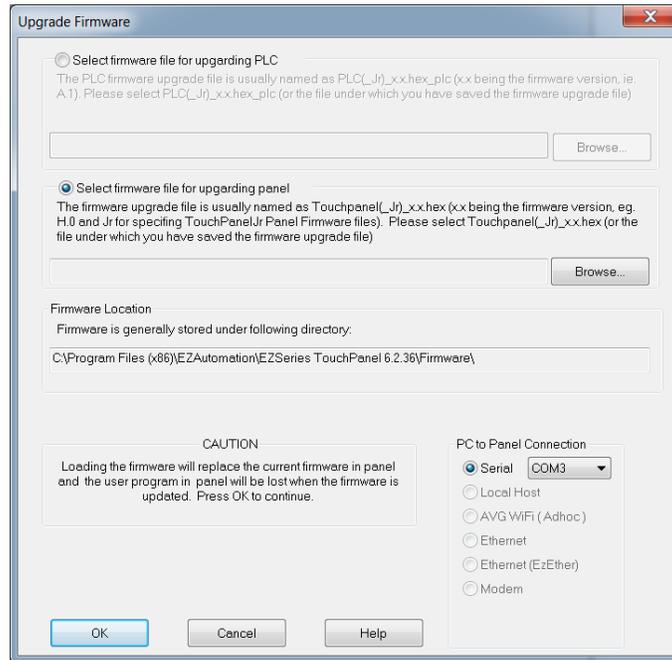
In the **Main Programming Window**, if you click on **Setup > Upgrade Firmware**, it will allow you to upgrade the firmware of your EZPanel.

There may be occasional upgrades to the EZTouch Panel internal software, also referred to as the Exec or Firmware. Check the EZAutomation web site ([www.EZAutomation.com.au](http://www.EZAutomation.com.au)) periodically for information about software and firmware upgrades.

### To Upgrade Firmware

1. Back up the user program currently stored in the EZTouch Panel unit and save to disk.

2. Click on **Upgrade Firmware** and navigate (click on Browse button) to the new firmware file (.hex file).



**Note:** If the EZPanel is connected to a PLC (other than the EZPLC), you will not see the option for EZPLC f/w upgrade.

3. Please make sure to use serial communication to upgrade firmware. In serial communication select the appropriate COM port and click on the **OK** button to begin the upgrade. A status bar will let you know when the upgrade is complete.
4. The dialog box will show the **File Revision** number of the firmware and the **Panel Revision** of the Firmware. Check these revision numbers. If they are the same (no upgrade is needed) you may click on the **Abort** button to exit. If the file you have selected is not the right one, click on the **Select a different file...** button.

## Calibration

The new program loader and EZ HMI panels have a couple new ways of calibrating screens. The program loader still has the ability to initiate calibration from the Panel Menu. Just go in the EZPanel Main Programming Window, to **Panel > Touch Screen Calibration**, and this will prompt the connected panel to go through the calibration sequence.

We also now have an on screen calibration option in the setup menu. As well as a USB calibration option.

### Setup Menu Calibration

The setup menu (hold left upper corner (40x40) of screen for 5 seconds) has a button that allows for Touch Screen Calibration. For more Setup Menu information please see the Setup Menu Section.

Note: If nothing is pressed for 15-20 seconds during calibration mode then previous calibration is used and panel will restart. Therefore if you accidentally enter calibration mode you only need to wait and panel will exit by itself.

### USB Calibration

You can use any file with the extension .cal on a USB to calibrate the panel. For example an empty text doc which extension is changed to ".cal"(ex: Calibrate\_text.cal). Once USB is put in panel the panel will immediately enter calibration mode (if it does not then you might need to power cycle the unit). After calibration mode it will restart, please remove the USB during restart otherwise panel will reenter calibration mode once it finishes powering up.

*Note: USB can be disabled. If it so you will need to go to the setup menu and reenale it for this functionality.*

## Project File Load

The EZTouch program loader now includes a feature that allows panels with a USB port, to be programmed with a USB Flash drive. This process especially benefits System Integrators and OEMs with upgrading the Panels on-site without having to actually connect to a computer. Since multiple programs can be saved on one USB Flash drive, the user can program different panels with the same USB Flash drive, or quickly change the Panel from for different jobs.

### The panels can be programmed in following easy steps:

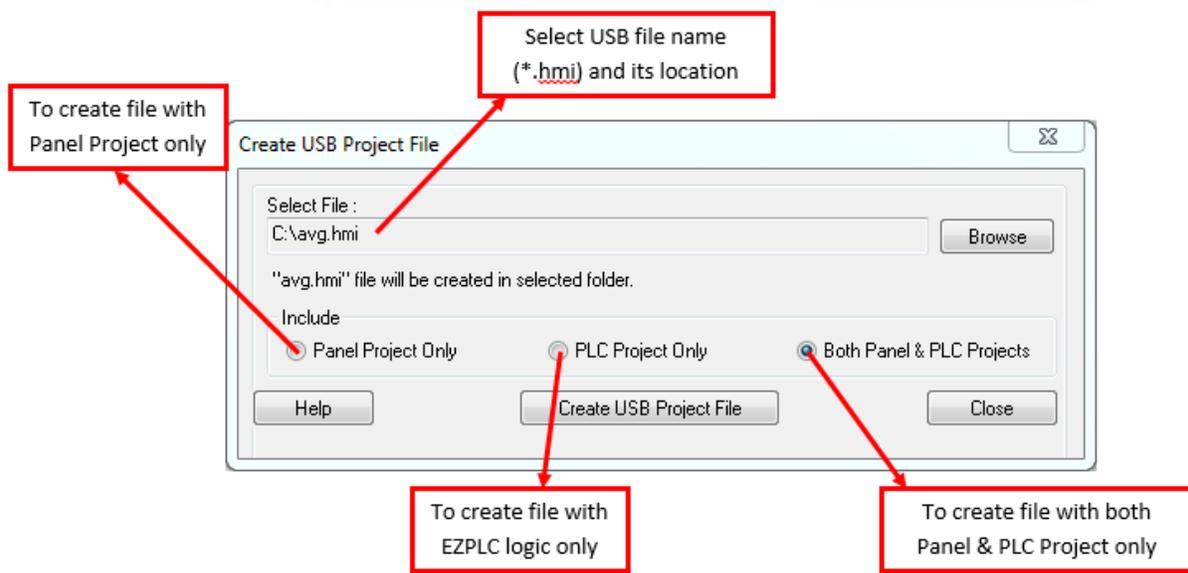
1. Create a USB file (\*.hmi) using the EZ Touch Program Loader.
2. Save the file on the USB Flash drive (only in the root directory). It will ask if you would like to save to flash, select yes if you would like to have your program retain over power cycle.
3. Insert the USB stick into the panel's USB port. You might need to power cycle before the next step happens.
4. The panel brings up a list of projects that are available on the USB Flash drive. Select the necessary project and press OK. (If the panel is not compatible with the project selected, an Error message is displayed.)
5. The project is automatically loaded on the panel.

## Creating files for use with USB Flash Drive

In the EZ Touch Main programming window, click on menu **File > Create USB Project File** to create user project file for use with the USB flash drive. User can select name. The file is saved with .hmi extension.

The dialog box shown below would appear:

*Note: Radio button options are available only if you are using one of the AVG PLC drivers in the project.*



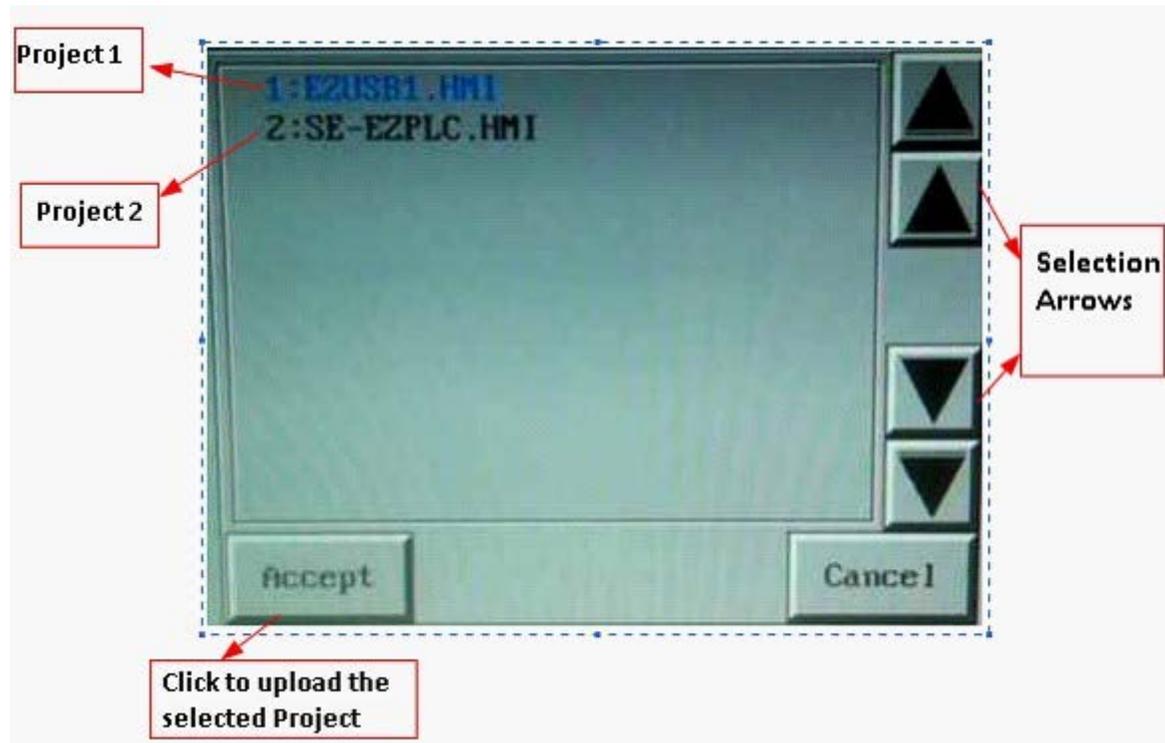
## Copy file(s) on USB Drive

Copy file(s) created by the editor on the root directory of a USB flash disk. (Please note files copied in other than root directory would not be read by the panel.)

All files are saved automatically with .hmi extension. Files without this extension will not be read.

## Programming the panel using USB Drive

To program the panel from USB Drive, insert the USB flash directly into the panel's USB port. The panel would display a list of files available in the root directory (with .hmi extension). An example is shown below:



Select the required project using the Up-Down arrows and press "Accept". If the panel is not compatible with the project selected, an Error message saying "Wrong panel Type" is displayed. The selected project is then automatically loaded into the Panel.

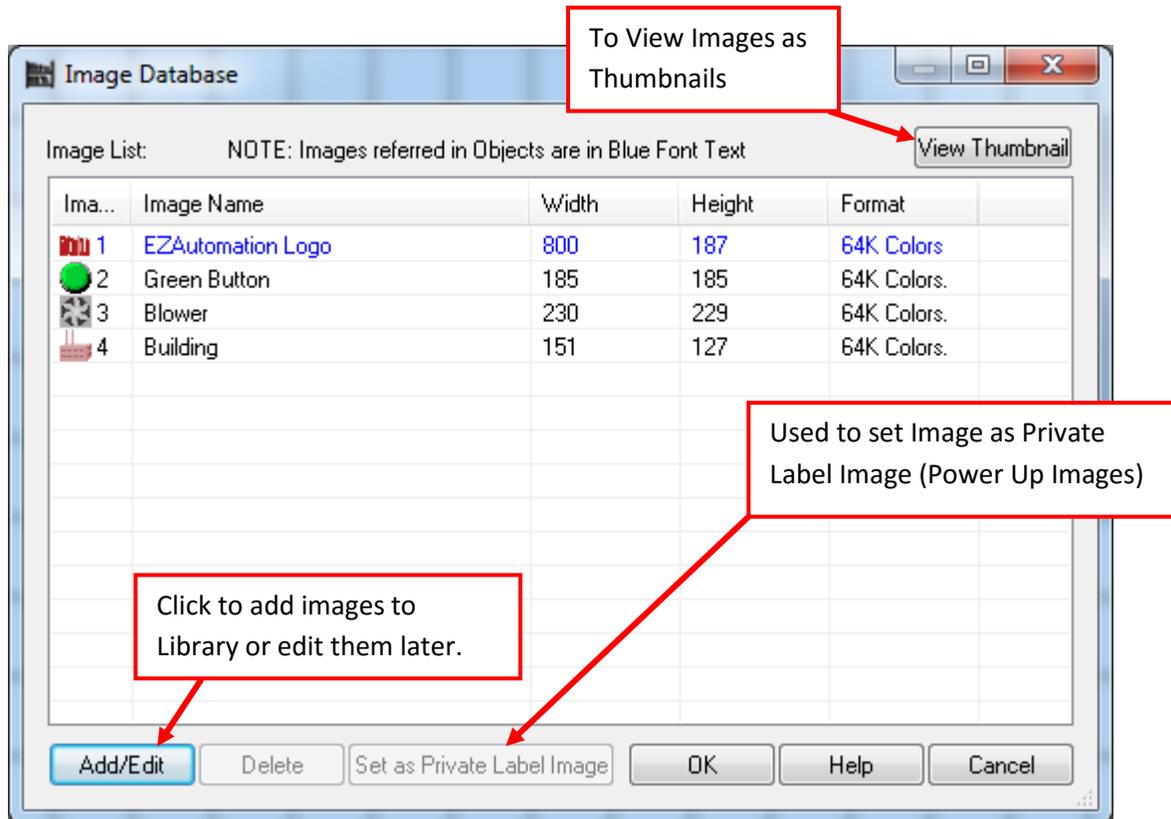
## Image Database

In addition to the Bitmap objects already offered on the panels, EZTouch software now includes the Image Database. This Image Database is used in sync with Bitmap objects and/or Animation objects. It allows the user to refer and use one bitmap with several different objects, **thus saving a tremendous amount of memory**. The Image Database has following features:

1. An extensive built-in **Symbol Factory** of over 3000 images for industrial automation, including pumps, pipes, valves, tanks, mixers, material handling, sensors, PLCs, and ISA symbols to copy and paste hundreds of built-in graphic files directly to the project screen.
2. You may also click on **AVG Image Library** to gain access to a library of over 3,000 symbols for industrial automation. These images have been formatted to allow easy dimension changes.
3. The user can also download (or copy from clipboard) and use their own graphic image files. (e.g: **Bitmap(.bmp)**, **Windows Metafile (.wmf)**, **Windows Enhanced Metafile (.emf)** etc.)
4. The users also have an option of using the built-in photo Editor to create and customize images.

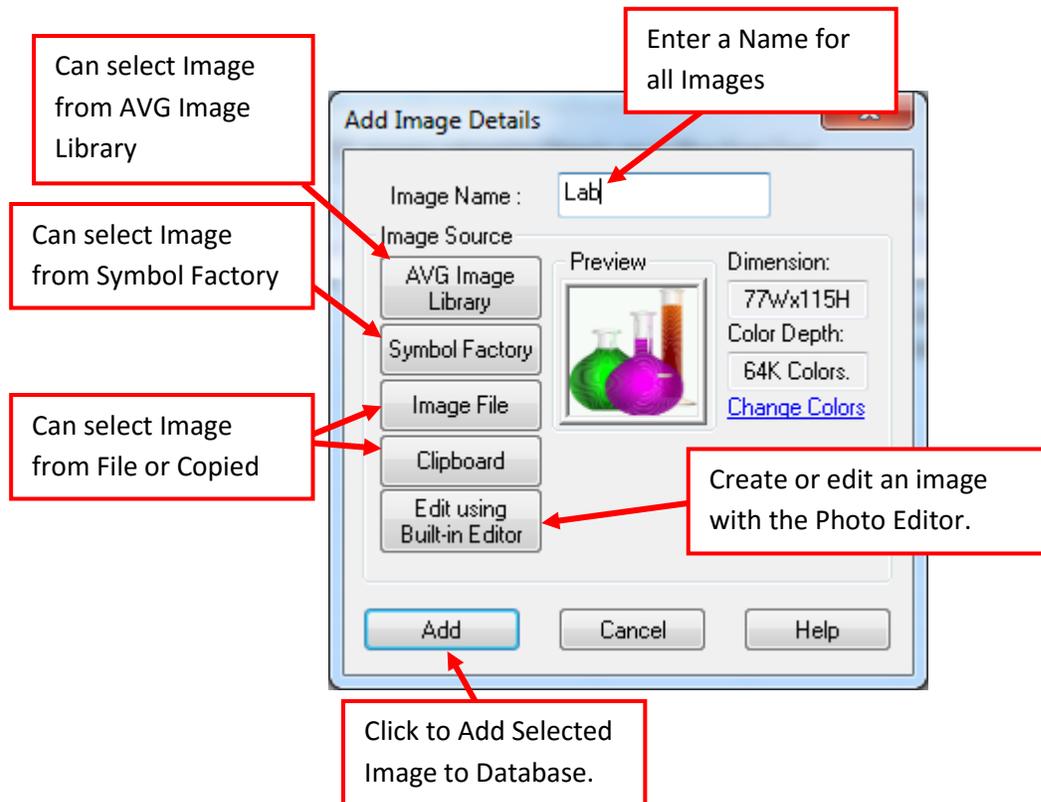
## Programming Image Database

In the EZ Touch Main programming window, click on **Setup > Image Database** to create the Image Database. The dialog box similar to the one shown below would appear



## Adding Images to the Database:

Once the user clicks the Add/Edit button, the following dialog box appears:



Repeat this process till all the required images have been added to the Database. Click **Cancel** when done. The Image Database dialog box would appear again. Press **OK**.

## Using the Image Database:

The Image Database can be used with any of the following objects:

1. **Bitmap Objects:** In the EZ Touch Main Programming Window, click on Main Menu > Objects > Bitmap Objects

- *Dynamic Bitmap*
- *Bitmap Button Object*
- *Multi-state Bitmap*

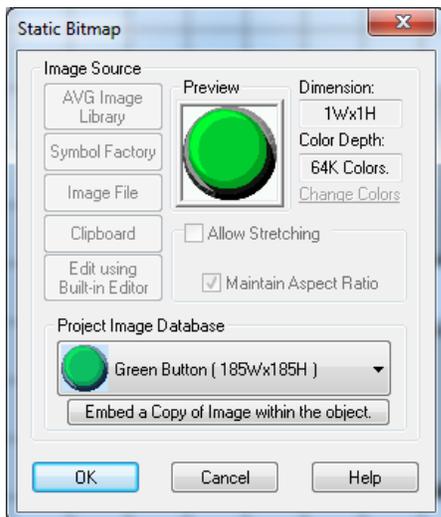
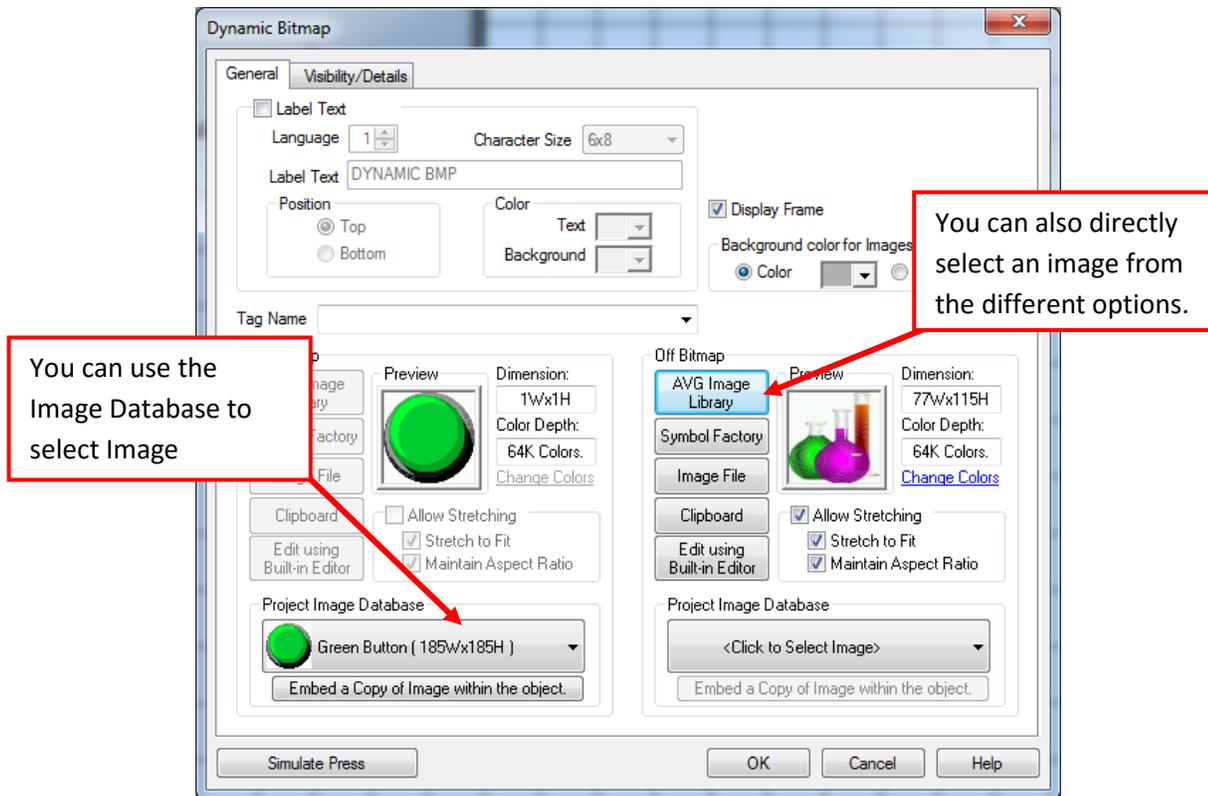
2. **Animation:** In the EZ Touch Main Programming Window, click on Main Menu > Objects > Animation

- *Single Position*
- *Multi Position*
- *Single Image Dynamic Position*

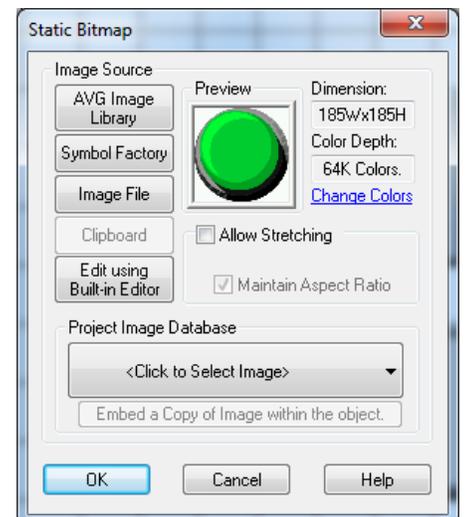
## An Example: Using Image Database with a Dynamic Bitmap

A Dynamic Bitmap can show a visual representation of a process. There are two bitmaps per object, one that is shown when a bit is ON and another that is displayed when the bit is OFF. Depending on the state of the discrete tag, the corresponding bitmap is displayed on the panel.

In addition to other sources, Bitmaps can now also be selected from Image Database as shown in the dialog box below:



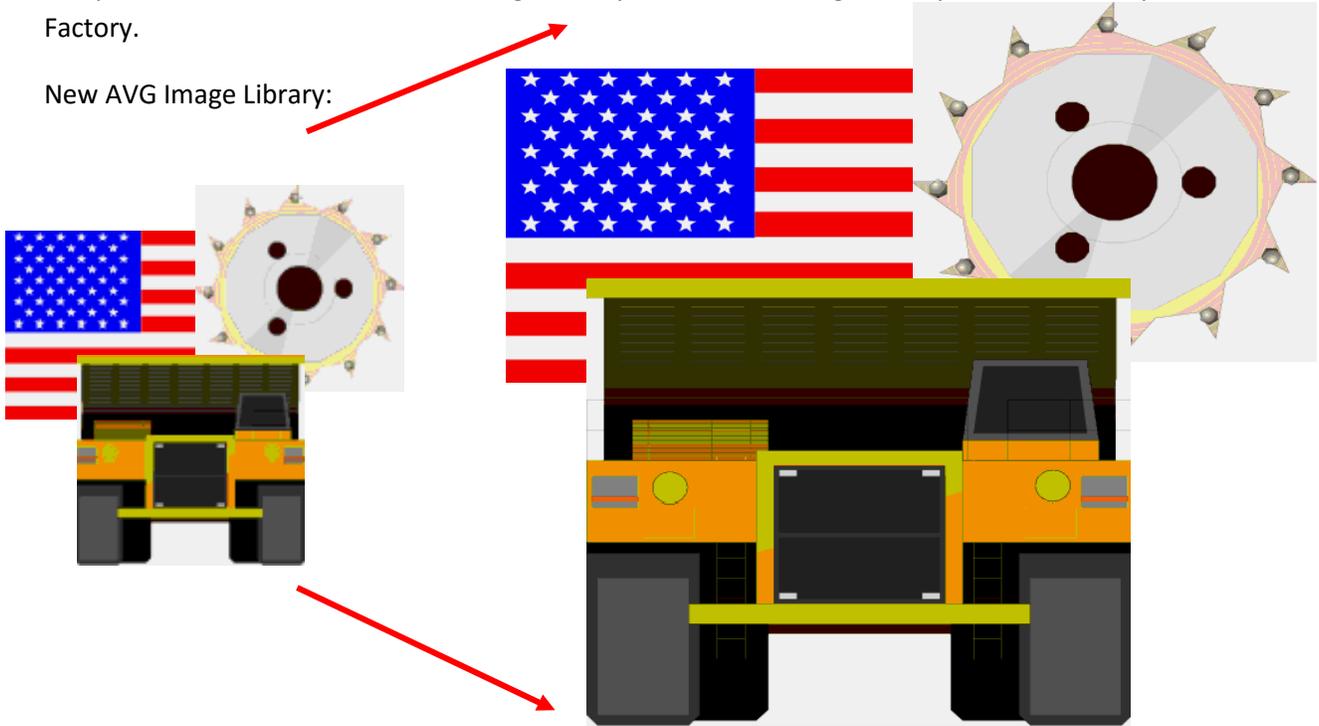
Once you use a library image in an object, and then you want to embed the image within the object itself for some reason (for example to resize the object, modify the image), click the button “Embed a Copy of Image within the object” in the dialog box. (see the left dialog box below. This button is only available when object refers to image from the Image Database.) It includes a copy of the library image within the object, and it would be delinked from the Image Database as shown in the dialog box on the right.



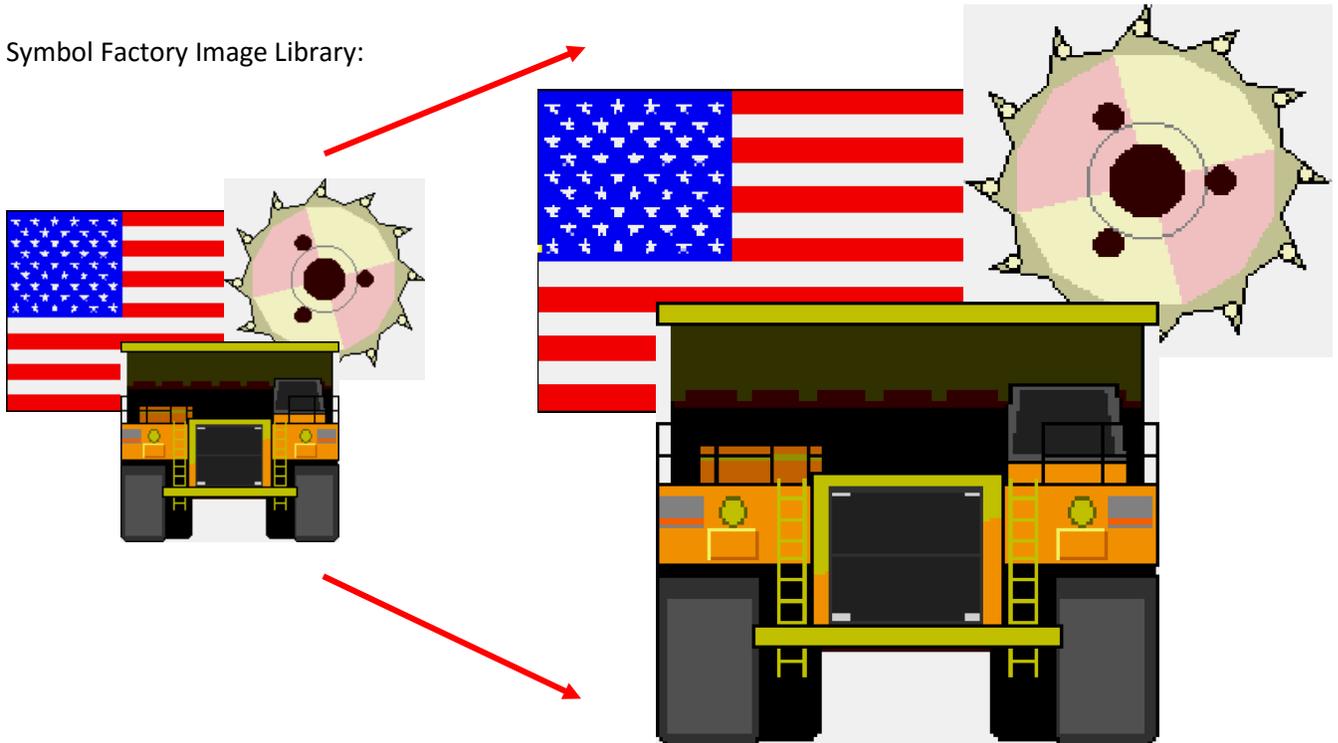
## AVG Image Library

EZTouch Editor includes the AVG Image Library with Images that are detailed both when small size and when become larger. The other image library has also been left in just in case you need it but as a comparison see below. To use AVG Image Library use the AVG Image Library instead of the Symbol Factory.

New AVG Image Library:



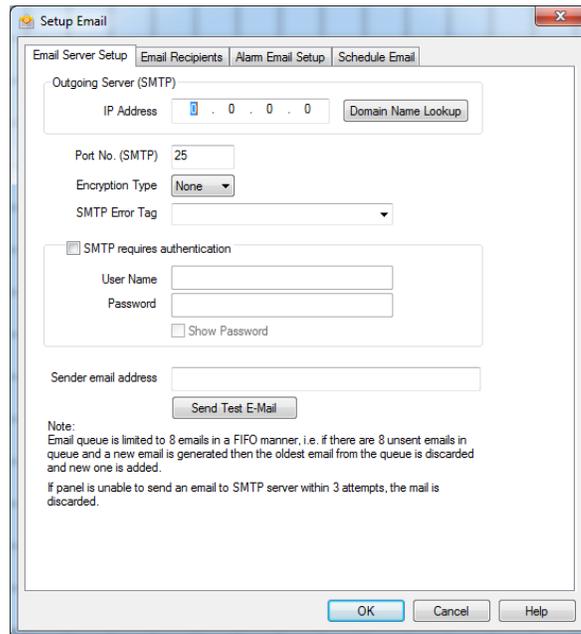
Symbol Factory Image Library:



## Email Setup (Gmail, Yahoo, etc.)

The EZTouch Editor 2.0 now has support for sending emails that can be used with any Email Server (Gmail, Yahoo, etc.). The email setup is very fast and easy and allows for the EZ HMI panel to send emails if there is an alarm or even on a scheduled basis (such as product count at shift change).

To setup the please go to **Remote Access > Email Setup...** The following dialog will appear with 4 tabs.



## Email Server Setup

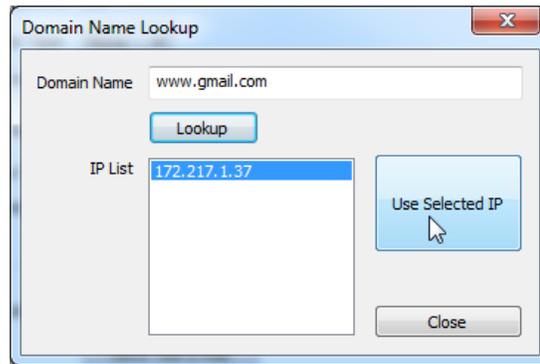
The main tab for setup is the Email Server Setup. Here you will need to input all the parameters for your email client, for example your gmail account. It is usually best to setup an account which you will use exclusively for these emails but it is not required.

## Outgoing Server (SMTP)



To setup your emails you will have to enter the IP address of the server on your network. To find this IP address use the Domain Name Lookup and enter the domain name (ex. www.gmail.com). The found IP address will be the Server IP on your network. To use this IP address press the Use Selected IP.

*Note: If the development network is different than production network the Server IP might be different.*



You can also just directly enter the domain name and it will automatically detect the IP address needed. Note that the DNS Server has to configure for this to work correctly.



### Port Number (SMTP)

Port No. (SMTP)

Every Server will have a specified Port No. that is used with it. Please enter the number here.

*Note: Based on encryption the Port No. might change.*

### Encryption Type

Encryption Type

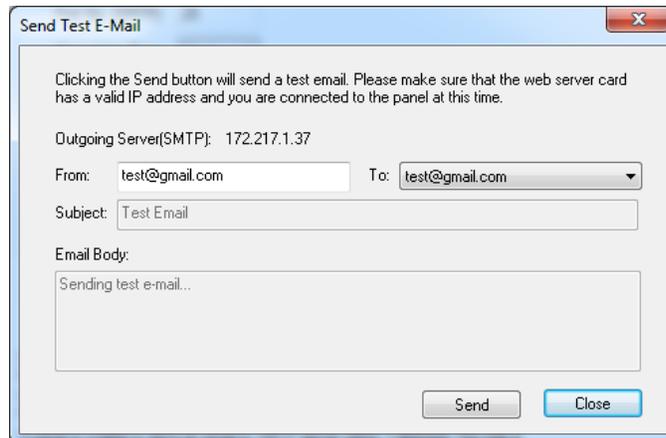
For most Email Servers you will be required to use encryption (encryption is different then authentication, you will most likely require both). Encryption is used to make sure your emails are not intercepted and go to the correct Server. The Email provider will inform you which encryption and Port Number should be used.



## Sender Email Address

Sender email address

Enter the Email address which the emails will be sent from here. Also you can use the Send Test Email option to verify that all your settings are correct.



Send Test E-Mail

Clicking the Send button will send a test email. Please make sure that the web server card has a valid IP address and you are connected to the panel at this time.

Outgoing Server(SMTP): 172.217.1.37

From: test@gmail.com To: test@gmail.com

Subject: Test Email

Email Body:  
Sending test e-mail...

The Send Test Email option requires all information to be entered and then it connects to your selected panel (make sure have Serial/Ethernet connection to panel) and request that the panel send the email to the specified recipient (you will need to enter a recipient in the Email recipient tab). If everything works correctly the recipient should receive the test email. If the recipient does not get the email please check all your settings.

## Unsent Email FIFO

Sending email takes a certain amount of time and therefore email might be generated at a faster rate than they can be sent. Therefore there is a FIFO queue where up to 8 unsent emails are stored till they are sent. As mentioned this queue is a FIFO and therefore the oldest email will be dropped if a 9th email is generated.

*Note: The panel will attempt to send each email up to 3 times and then the email will be discarded. Each attempt will be followed by short waiting period.*

## Email Recipients

Click on the Email Recipients tab to add the email addresses of the new recipients or to edit the email addresses of the existing recipients. Recipients can be tag based but if an email recipient address is incorrect you will not receive any indication from the panel. The panel cannot receive emails from server that an email was not delivered.

*Note: The maximum number of recipients could be 8. Once an alarm is triggered, the alarm emails will be sent to all the email addresses added to this list.*

The screenshot shows a 'Setup Email' dialog box with four tabs: 'Email Server Setup', 'Email Recipients', 'Alarm Email Setup', and 'Schedule Email'. The 'Email Recipients' tab is active. Below the tabs, a message states: 'Alarm marked for emails, when triggered, will sent to everyone in the list'. On the left, there is a list box containing one email address, 'test@gmail.com'. To the right of the list box are two sections: 'Add New Email Address' and 'Edit Selected Email Address'. The 'Add New Email Address' section has a radio button for 'Tag' (selected) and a dropdown menu, and a radio button for 'Constant' with a text input field containing 'test@gmail.com'. Below this is a button labeled '<< Add New Email'. The 'Edit Selected Email Address' section has a radio button for 'Tag' and a dropdown menu, and a radio button for 'Constant' (selected) with a text input field containing 'test@gmail.com'. Below this is a button labeled '<< Edit Selected Email'. At the bottom of this section is a button labeled 'Delete Selected Email(s)'. At the very bottom of the dialog box are three buttons: 'OK', 'Cancel', and 'Help'.

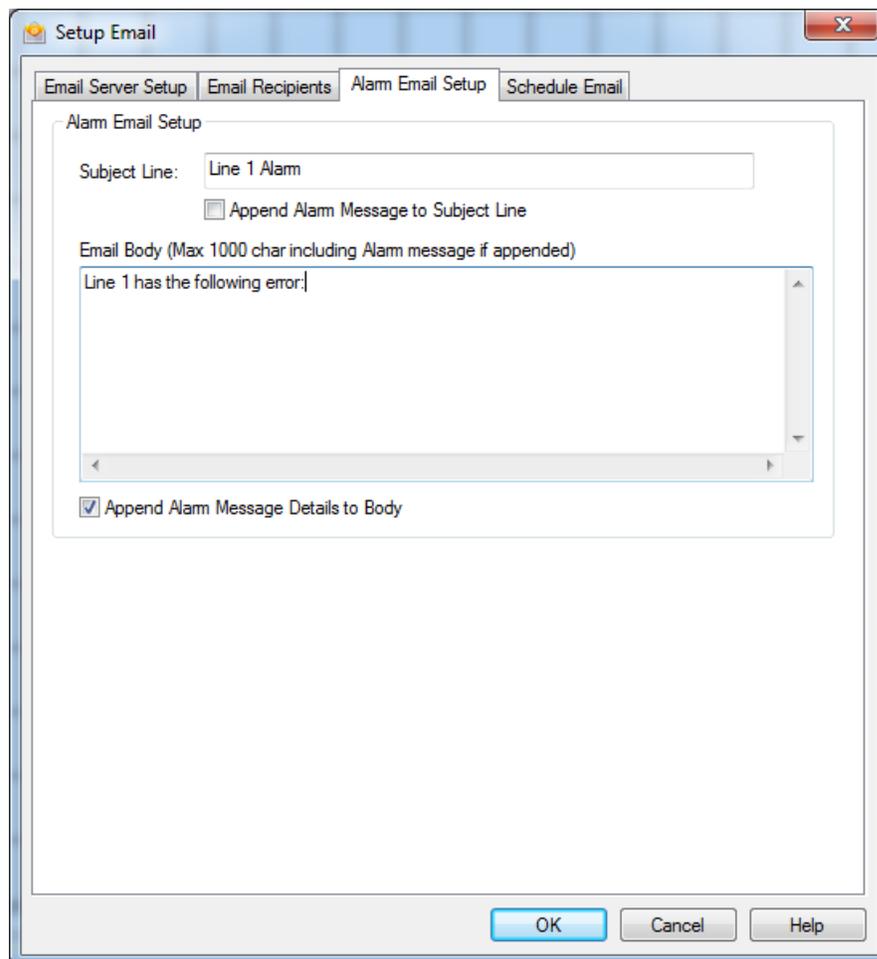
## Alarm Email Setup

Alarm Email Setup allows you to create one template with user defined email subject line, and the user defined email body. You may check the Append Alarm Message to Subject Line, and the Append Alarm Message Details to the Body boxes to automatically add the triggered alarm message, or/and the alarm message details, right after your Subject Line and the Email Text.

Appending the alarm message allows inserting of tags to the email since Alarm messages can include tag data.

*NOTE: Subject Line can be max of 128 characters including the triggered Alarm message. Whereas, the Email Body can be maximum of 1000 characters including the Alarm message details, if appended.*

Example:



The screenshot shows a dialog box titled "Setup Email" with four tabs: "Email Server Setup", "Email Recipients", "Alarm Email Setup" (selected), and "Schedule Email". The "Alarm Email Setup" tab contains the following fields and options:

- Subject Line:** A text box containing "Line 1 Alarm".
- Append Alarm Message to Subject Line
- Email Body (Max 1000 char including Alarm message if appended):** A text area containing "Line 1 has the following error:".
- Append Alarm Message Details to Body

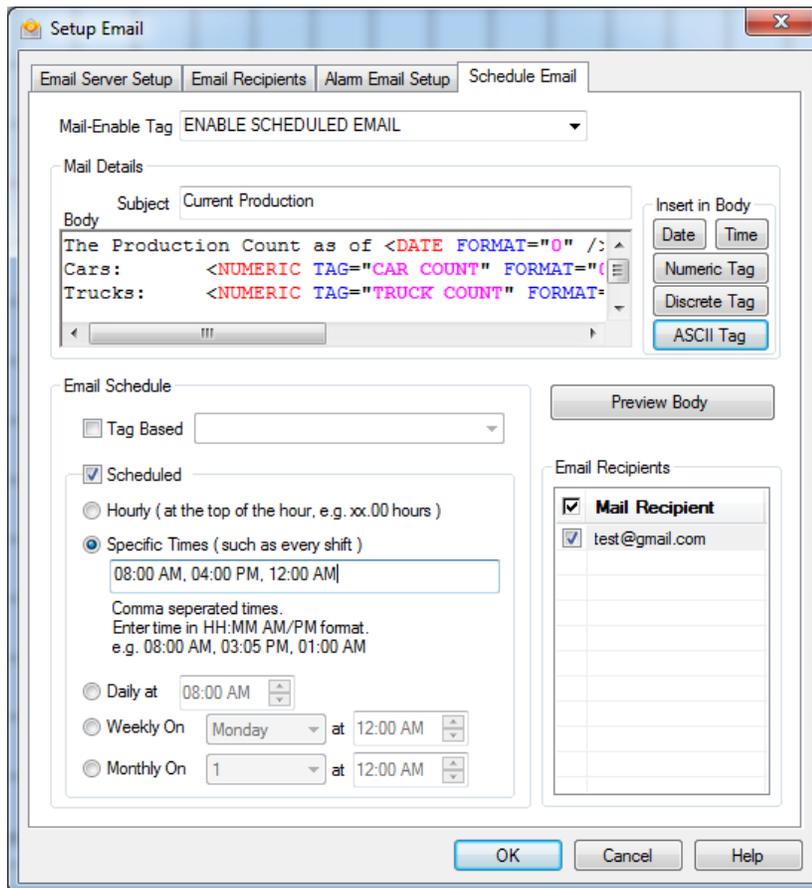
At the bottom of the dialog box are three buttons: "OK", "Cancel", and "Help".

**IMPORTANT NOTE:** You may only add/edit the email addresses for the new or existing users in the OFF-LINE programming mode.

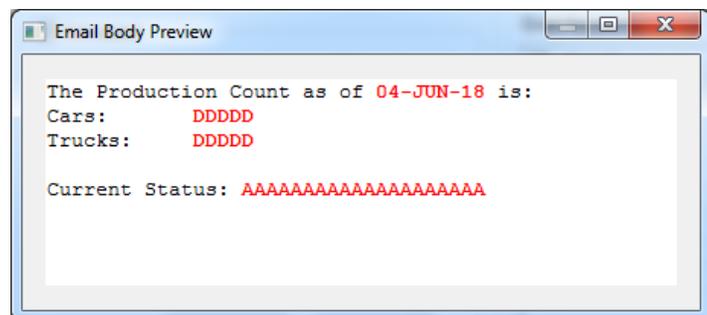
## Schedule Email

Click on the Schedule Email tab to create a desired email schedule. This scheduled email will be sent at specified intervals to specific email recipients. The schedule can be tag-based or occur on regularly scheduled intervals such as hourly, daily, weekly, monthly or at specifically chosen times. The email can also be sent to one or several email recipients and include variables in the body of the email such as date, time, numeric tag, discrete tag, or ASCII tag information.

Below is an example which will be sent at 8:00 AM, 4:00 PM, and Midnight (12:00 AM). The example has a date and 2 tags embedded. Finally it has an ASCII tag which has the current status embedded as well.



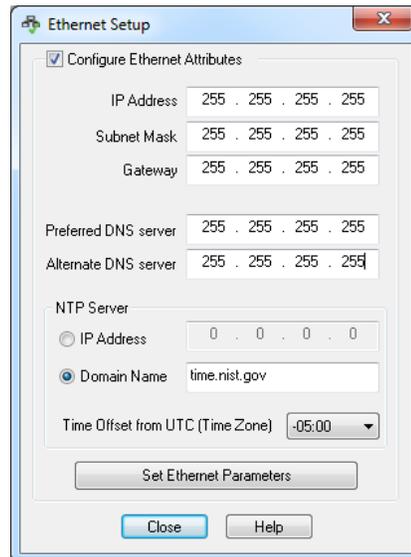
Use the *Preview Body* button to view a generated email based on selections.



## Ethernet and NTP Setup

In the **Panel Main Programming Window**, if you click on **Setup > Ethernet Setup**, it will display the Ethernet Setup window for defining the Ethernet settings for your corresponding Panel. When selected, the following screen will be shown.

*Note: These settings can also be changed on the Panel using the Setup Screen Button.*



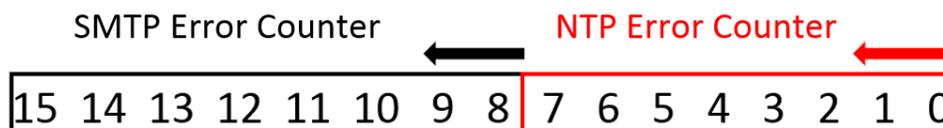
As shown in the above screen, user can specify the IP Address, Subnet Mask, and Gateway for the Panel. Also for Domain Name functionality you can configure your DNS server IP Addresses.

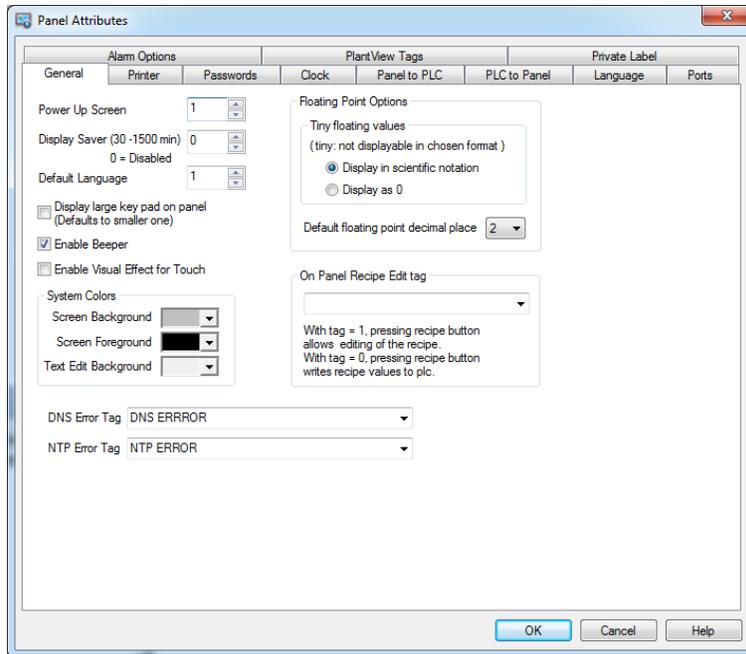
For easier troubleshooting a DNS Error Tag is provided in the Panel Attributes. This tag will display a count for both a DNS NTP lookup failure and a DNS SMTP lookup failure (up to 255). The counter will reset when a DNS lookup does not fail.

The Most Significant 8 bits are the SMTP lookup failure counter and the Least Significant 8 bits are the NTP lookup failure counter.

*Note: To use this correctly you will most likely need to separate the bits and the easiest way is to move only certain bits in the PLC into another register.*

### Error Register:

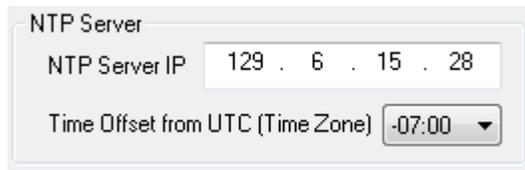




## NTP Setup

The NTP Server communication setup is also included in the Ethernet Setup. This means that the NTP Server will retain and function no matter what the project on the Panel is. To setup NTP server you only have to add the NTP Server IP and the Time Offset from UTC. Below is a simple chart of some UTC times.

Note: Current daylight savings is not implemented so might need to change the offset to allow for daylight saving.



Time Zone	GMT time offset (UTC)
Eastern Standard Time (EST)	- 5:00
Central Standard Time (CST)	- 6:00
Mountain Standard Time (MST)	- 7:00
Pacific Standard Time (PST)	- 8:00
Middle European Time (MET)	+ 1:00
Indian Standard Time (IST)	+ 5:30
China Standard Time (CST)	+ 8:00
Australian Eastern Standard Time (AEST)	+ 10:00

For troubleshooting there does exist a NTP Error Tag in Panel Attributes.

Error Code	Error Cause
0	No Error
>0	Cannot connect to NTP Server please check IP of server

