EZTouch® Programming Software README for General Information, February 19, 2004

This document provides complementary or late-breaking information to supplement the EZTouch Programming Software documentation. It also documents changes to the PLC drivers, DLLs, and the EZTouch Panel Firmware. The most recent version changes are provided first. Previous version changes follow.

README Contents:

Current Revision/Version

EZTouch Panel Firmware
Revision D.4, February 19, 2004
EZTouch Programming Software
Version 3.1, November 26, 2003

Previous Revisions/Versions

EZTouch Panel Firmware
Revision D.3, January 19, 2004
Revision D.2, December 11, 2003
Revision C.7, November 7, 2002
Revision C.4, May 15, 2002
Revision C.2, January 22, 2002
Revision C.1, January 7, 2002
Revision A.4, April 4, 2001
Revision A.3, April 2, 2001
Revision A.2, February 12, 2001
Revision A.1, January 23, 2001
EZTouch Programming Software
Version 3.0, July 30, 2003
Version 2.4, November 7, 2002
Version 2.2, May 15, 2002
Version 2.0, January 7, 2002
EZTouch Service Pack 1, July 17, 2001
Version 1.01, April 4, 2001
Version 1.0, January 23, 2001

EZTouch Programming Software Version 3.1-A

CHANGES FROM REVISION 3.1 TO 3.1-A

1. The firmware was updated from revision D.2 to revision D.4

2. Generic Ethernet / IP DLL revision D
   A. The DLL has been modified to display the name as "Generic Ethernet / IP" instead of "Generic Ethernet IP".

3. Omron HostLink driver revision H
   Omron HostLink DLL revision F
   A. Added support for discrete tags mapped to DM memory type addresses.

EZTOUCH PANEL FIRMWARE

Rev D.4 February 19, 2004

Problems Fixed

New Features

1. Added support for new display hardware.

EZTOUCH PROGRAMMING SOFTWARE

Ver 3.1 November 26, 2003

Problems Fixed

1. Allow the selection of Ethernet from the Com port combo box in non-Ethernet projects.

2. Fixed a problem with the width of databases columns when opening projects created by previous releases.

3. When importing tags in Excel/CSV format, if the selected driver is Ethernet based a message prompting the user to enter node information is displayed followed by the EZEther configuration dialog box.

4. Fix of following problem, reported by ADC:
"If you start a new Ethernet project from scratch and while on the Project information screen you View/Edit PLC Com setup. Select your panel add a Node and download the config to the panel. Everything works fine until you say OK and go to your actual screen and try to start adding tags. When you try to add tags or objects you get error "Node invalid or not Defined" Then T03_2 Invalid address. If you save and close the project then reopen it will work fine."

5. Modified the warning message text when adding node information.

6. Opening a project with bitmap objects created with revision older than 3.0 could cause the program loader to exit.

7. In bitmap objects the frame option could not be selected if the user chose the "Shrink Object" option.

8. The link to the Mitsubishi Melsec FX driver was missing from version 3.0.

New Features

1. Added support for the Modbus TCP/IP drivers.

PLC Driver Updates and additions

1. Added the Modbus TCP/IP EZ-ETHERPLUS driver.

2. Added the Entivity (Think & Do) Modbus TCP/IP (Ethernet) driver.

3. DirectLogic Ethernet DLL revision D
   A. The DLL has been modified to suppress error messages when converting a project to Ethernet.

Previous Revisions/Versions

EZTOUCH PANEL FIRMWARE

Rev D.3 January 19, 2004

Problems Fixed

1. The part number was not displayed on the 15 inch panel.

New Features

Rev D.2 December 11, 2003

Problems Fixed

1. Fixed a problem in revision D.1 which caused some line graphs to be displayed backwords.

New Features

Rev D.1 July 30, 2003

Problems Fixed

1. Fixed a problem with the large keypads on 320x240 displays. If the project attribute for the large keypad was set the panel attempted to display the large keypad regardless of the display size. The panel now checks the display size.

2. Fixed a problem returning alarm counts Previous revisions returned counts for non-existent alarms. This has been fixed.

3. Fixed a bug in line graphs with averaged readings. After clearing the line graph the first sample was not calculated correctly.

4. Allow the PLC port to control RTS when it is set to RS232 or RS422. Previous revisions only allowed this when set to RS485.

5. Fixed a problem writing multiple tag values. The exec was removing the entries from the write queue before the driver had finished writing them. This could result in the driver placing incorrect values in the tags. The firmware has been changed to wait until the driver finishes the write before removing entries from the write queue.

6. Corrected a typo in the system error message.

7. Fixed a problem scaling 16-bit unsigned values. If the slope was negative (i.e. as the PLC register increases the display value decreases) then incorrect values were sometimes calculated.

8. In previous revisions the drivers were not stopped prior to performing a reboot. This sometimes resulted in driver errors during the reboot. The drivers are now stopped before performing a reboot.

9. Fixed a problem averaging 2 or more floating point values on a line graph. In earlier revisions this caused incorrect values to be plotted.

New Features

1. Added the “allow stretching”, “stretch to fit” and “keep aspect ratio” flags to bitmap objects.

2. Added Spanish text.

3. Added international characters to the fonts.

4. Added notification & handshake tags, display & entry tags and decimal point tag to the Numeric Entry object.

Rev C.7 November 7, 2002

Problems Fixed

1. Fixed a problem with the user flash card. The user program was always loaded from the card on reset. It has been fixed so that it only loads if the program in the card does not match the program in the panel.

2. Fixed a problem with the visibility control of the alarm history object. The object was either always visible or always invisible.

3. Fixed a problem with the alarm history. On power up the clear times were being overwritten with the current time.

New Features

1. Add the interrupt routine for the generic DeviceNet card.

2. Display the part number for the 15-inch displays.

3. Increased the maximum initialization time from 2 to 20 seconds.

Rev C.4 May 15, 2002

Problems Fixed

1. The label in the popup numeric entry is truncated to 20 characters to prevent drawing it outside of the label area in the popup window.

2. Changed the text area for objects to the full interior area of objects.

3. The user flash functions have been changed to allow any flash card programmed using exec rev C.4 or later to work with any exec rev C.4 or later. For example if an exec rev D.0 is ever released then it will be able to read a flash card programmed using exec rev C.4. The C.4 exec will also be able to read a flash card programmed using exec rev D.0.

3. If a momentary pushbutton turns invisible while it is pressed it is treated as if it has been released.

5. The size of the write queue was changed from 20 values to 40 values.

New Features

1. Added support for Ethernet communications.

2. Added large popup keypads for 640x480 displays. A selection for large keypads has been added to system attributes.

Rev C.2 January 22, 2002

Problems Fixed

1. Some 6" units would power up with the display distorted. A timing delay has been added to correct this.

Rev C.1 January 7, 2002

Problems Fixed

1. Alarm counts are retained across resets.

2. The EZTouch Panel part number is displayed on the setup screen.

3. The alarm history no longer displays non-existent alarms.

4. Some panels had a problem loading the Modbus driver due to the ColdFire register settings. The settings were changed to correct this.

5. Corrected problems that caused the text in objects to be displayed differently between the program loader and the panel. This may result in some objects in earlier user programs not displaying all of the text when used with the new program loader or firmware. To correct this, use the new program loader to stretch the object by 1 or 2 pixels.

6. Objects that use scaling will now allow the values for point 2 to be less than the values for point 1.

New Features

1. Added the Multi-state Indicator object.

2 Added the Multi-state Bitmap object.

3. Added the Bitmap Button object.

4. Added the Increment/Decrement Value object.

5. Added the Draw Frame command.

6. Added a "Display Frame" selection to all objects. If this is deselected the object is drawn without a frame.

7. The Recipe object can move values from tag to tag.

8. Added scaling to the Meter and Bar Graph objects.

9. Added floating-point support to the Meter, Bar Graph, PID Faceplate and Line Graph objects.

10. Added password protection for the alarm history and alarm counts to the Project Attributes (Alarm Protection tab). This applies to the Clear buttons on the panel's alarm history and alarm count screens.

11. Added support for 6-inch units with 16x12 touch cells.

12. The labels for Numeric Entry objects are displayed on the pop-up keypads. The keypads have been redesigned to prevent accidental pressing of the ENTER key.

Rev. A.4 April 4, 2001

Problems Fixed

1. When a RAM CARD was added to the EZTouch Panel for additional memory, it allowed the RAM access times to fall outside the calculated limits. This could lead to unreliable system operation.

This was fixed by adding a "wait state" to allow the data additional time to become valid. Testing shows that this has a miniscule effect on system performance and allows the system to operate reliably over time and temperature variances.

Rev. A.3 April 2, 2001

Problems Fixed

1. The Screen Saver Object did not display correctly when Visibility was selected. It would also cause popup screens, such as keypads, to draw incorrectly. This has been fixed.

2. If the PLC or program loader switched screens while the protection popup screen was displayed, it sometimes resulted in screens not being displayed correctly. This has been fixed.

3. The buttons on the Alarm History Screen have been moved one pixel left so that they are not off of the display.

4. The Adjust Contrast Object was causing a system error. This was due to an error in the design of the object. Both the firmware and program loader have been modified to correct this.

5. The Setup Screen and Adjust Contrast Object only displayed 2 digits for the contrast. Some of the displays have 3-digit values. The firmware now displays up to 3 digits for the contrast.

New Features

1. The Lookup Text Object has been changed to allow up to 200 characters per message. Previous versions only allowed up to 80 characters.

Rev A.2 February 12, 2001

Problems Fixed

1. The displays would occasionally power-up with random lines on the display. These lines would remain on the display even when new screens were displayed. The display initialization was changed to correct this.

Rev. A.1 January 23, 2001

Initial Release

EZTOUCH PROGRAMMING SOFTWARE

Ver 3.0 July 30, 2003

Problems Fixed

1. In the project attributes dialog box the “Display large keypad on panel” option is disabled for smaller (320x240) panels.

2. Fixed a problem reading alarm counts from the panel. Previous revisions could crash if there were more than 64 alarms

3. Previous revisions show communication progress as a status bar that updates based on elapsed time and not on actual progress. This is changed so that the status bar shows the percentage completed whenever this is possible. This allows the user to judge how much time the operation might require.

4. In previous revisions if a bitmap size was more than the screen size (640x480 or 320x240) the image could not be selected in a bitmap object. Now the user is asked if he wants the image to be resized to fit in the screen.

5. Uploading projects with bitmaps to the panel has been improved. This results in a noticeable decrease in the time required to upload user programs that include bitmaps.

6. Previous revisions did not print multi-line project and screen descriptions correctly. This has been fixed.

7. When the project attributes were edited online the updated tags were not saved. This has been fixed.

8. When the alarm database was edited online the updated tags were not saved. This has been fixed.

9. When objects were edited online the updated passwords were not saved. This has been fixed

New Features

1. The “Change Screen” object accepts a screen number of zero to allow the user to change to the previously displayed screen.

2. The maximum size of bitmap objects has been increased from 64K to 512K. This allows larger bitmaps and more bitmaps per multi-state object.

3. The storage and drawing of bitmaps has been modified to improve performance while editing screens with several bitmaps. This results in a significant improvement over previous revisions when editing screens containing several bitmaps.

4. Added support for Spanish.

5. The driver .plc files are stored in the application folder. Previous revisions stored them in a subfolder named \drivers.

6. Allow multiple screens to be selected for deletion.

7. When the cursor is placed over an object its name and dimensions are displayed on the status bar.

8. Added the “allow stretching”, “stretch to fit” and “keep aspect ratio” flags to bitmap objects.

9. Added notification & handshake tags, display & entry tags and decimal point tag to the Numeric Entry object.

PLC Driver Updates and additions

NOTE All of the driver DLLs have been updated to support Spanish.

1. Allen-Bradley Data Highway Plus driver revision E
   Allen-Bradley Data Highway Plus DLL revision I

   A. Support for 230K baud was accidentally dropped when DLL revision B was done. It has been restored.

   B. Address ranges were limited to 255. This has been changed to 999 to support the PLC 5.

   C. Added support for SLC500 I/O

   D. Allow the user to specify the byte order for strings.

2. Allen-Bradley SLC 500/MicroLogix AIC driver revision D

   A. Fixed a bug that could cause the driver to report an error when there were no tags on the display.

3. DirectLogic Ethernet driver revision B

   A. Changed to update the tag value after writing to the ethernet card. This was a problem if the tag was not displayed on the screen, for example if used in a recipe object.

4. DirectLogic K-Sequence driver revision D

A. Fixed a bug in which tag databases that contained 32-bit or string tags followed by 125 or more tags could cause invalid checksum errors.

5. DirectLogic Modbus RTU DLL revision E

A. Read-only addresses other than SP-Special Relay (Discrete) and V-Special Relay (Discrete) are treated as read-write addresses.

B. When converting from DirectLogic K-Sequence or DirectLogic DirectNet (except 330/340) the following message will appear:

Addresses of type X, T, GX, V (0-377) will be converted as is. But, these addresses are Read Only Addresses in DirectLogic Modbus (Koyo Addressing format). If you have associated any touch objects (Numeric Entry, Pushbutton, etc.), you must reassign the addresses.
Do you want to continue the conversion?

6. Omron HostLink driver revision G

A. The driver would occasionally lock up the panel. In Protocol.c function PT_CheckForReply the port number in the PLC_READCHAR_STRUCT variable was not set before calling the firmware to get the data bytes. This has been corrected.

Ver 2.4 November 7, 2002

Problems Fixed

1. Fixed a problem importing tags from Excel. Imported tags that had the same name and type as existing tags were changed to internal tags when the porject was closed. The tags are now saved with the imported PLC address.

2. Fixed a problem identifying panels with firmware revisions A.1 through B.1. The program loader did not identify the panel type and would not allow the user to upload new programs or firmware.

New Features

1. Added support for 15” TouchPanel.

PLC Driver Updates and additions

1. Added Modicon ModbusPlus driver.

2. Added the generic DeviceNet driver.

3. Added the generic Ethernet/IP driver.

4. Added the generic Profibus DP driver.

5. Allen-Bradley AIC driver revision C
Allen-Bradley AIC DLL revision C

A. Added support for I (input) and O (output) file types.

B. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

C. The device name was accidentally dropped when DLL rev B was done. It has been restored.

6. Allen-Bradley Data Highway Plus DLL revision E

A. Support for 230K baud was accidentally dropped when revision B was done. It has been restored.

B. Address ranges were limited to 255. This has been changed to 999 to support the PLC 5.

7. Allen-Bradley Remote I/O driver revision B
Allen-Bradley Remote I/O DLL revision D

A. Fixed a problem with initializing on a slow network.

B. Fixed a problem reading string tags when the string was the maximum length. The driver was writing past the end of the tag's value area.

C. Added an option to switch the byte order of ASCII strings.

8. Allen-Bradley SLC 500 DF1 Full Duplex driver revision B

A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

9. Allen-Bradley SLC 500/MicroLogix DF1 Half Duplex

A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

10. GE Series 90 SNP-X driver revision C
GE Series 90 SNP-X DLL revision D

A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

B. A bug was introduced in DLL revision C that limited the range of Genius Global Data to 255. If a project with tag addresses above 255 was loaded those tags were changed to internal tags. The full range (1-7680) has been restored.

11. DirectLogic DirectNet driver revision C

A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit

tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

12. DirectLogic DirectNet 330/340 driver revision D

    A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

13. Mitsubishi Direct driver revision B

    A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

14. Omron HostLink driver revision F

    A. When a PLC address is used for both a 16-bit tag and a 32-bit tag we would only get the 16-bit tag returned. This was because when processing the 32-bit tag we only received the address of the 16-bit tag. This gave us the value in the 16-bit tag instead of the 32-bit tag. This problem has been corrected.

15. Siemens S7 driver revision C

    A. Writing strings to tags would overwrite other values when the string was longer than the tag. This was fixed by using strncpy in place of strcpy.

Ver 2.2 May 15, 2002

Problems Fixed

1. Fixed a problem with lines drawn at the extreme right or bottom edge of the display. They would cause an object off the screen error.

2. Using bitmaps in Windows 95 would cause the program loader to freeze. This was due to a leakage problem in Metabmputility.dll that has been fixed.

3. Changed the text area for objects to the full interior area of objects.

4. When objects are pasted into the screen they are placed 4 pixels down and left of the original object position.

5. The “same size”, “same height” and “same width” functions use the size of the first object selected instead of the last object selected.

6. Whenever the user selects the print function he is asked if he wants to save the project.

7. Add the ability to import addresses for existing tags. The tags must have the same name and data type.

New Features

1. Added the “copy screen” function to the edit menu.

2. Added copy/paste for the multi-state indicator messages.

3. Added the “COM Configuration” function to the Panel menu. The user is no longer asked to confirm the COM configuration every time he uses a Panel menu function while offline.

4. Added the “Display large keypad on panel” check box to the general tab sheet for project attributes.

5. Added Ethernet support. This includes Ethernet connection for the program loader as well as an Ethernet PLC driver.

PLC Driver Updates and additions

1. Modicon Modbus RTU DLL revision C.

   A. The Modbus RTU DLL changed to use a bit number of 0 for discrete tags mapped to bit zero in a register and a bit number of 255 for non-discrete tags. The map entries for these discretes now have “\0” added to the end of the map string. This makes them consistent with tags mapped to other bits in a register.

2. GE Series 90 SNP-X driver revision B
   GE Series 90 SNP-S DLL revision C

   A. The driver and DLL were changed to allow discrete tags to be mapped to a bit in a register. This required the driver to perform a read/modify/write.

3. Entivity (Think N Do) Modbus DLL revision C

   A. Fixed a bug with long tag descriptions in the Think N Do map file. Tag descriptions of more than 100 characters caused the DLL to crash.

   B. Fixed a problem with string tags in the Think N Do map file. Extra zeros were being added to the address.

4. DirectLogic K-Sequence DLL revision C

   A. Fixed a problem converting discrete tags from other drivers. The bit numbers for discretes were treated as decimal numbers instead of octal numbers.

4. DirectLogic DirectNet DLL revision C

   A. Fixed a problem converting discrete tags from other drivers. The bit numbers for discretes were treated as decimal numbers instead of octal numbers.

Ver 2.0 January 7, 2002

Problems Fixed

1. Corrected problems that caused the text in objects to be displayed differently between the program loader and the panel. This may result in some objects in earlier user programs not displaying all of the text when used with the new program loader or firmware. To correct this, use the new program loader to stretch the object by 1 or 2 pixels.

2. Objects that use scaling will now allow the values for point 2 to be less than the values for point 1.

New Features

1. The look and feel of the Tag, Alarm and Message Database was changed. They now pop up a dialog box to edit an entry.

2. Added the ability to export the Tag, Alarm and Message Databases to Excel.

3. The use can select the default data type for numeric tags.

4. Added zoom.

5. Added the ability to resize bitmaps.

6. Added the ability to import .wmf and .emf files.

7. Added orthogonal (horizontal/vertical) line drawing. The F8 key is used to enable/disable orthogonal drawing.

8. Added Explorer View window to main programming screen that lists all of the screens. The user can double-click on a screen title to edit that screen.

9. Added the Multi-state Indicator object.

10. Added the Multi-state Bitmap object

11. Added the Bitmap Button object.

12. Added the Increment/Decrement Value object.

13. Added the Draw Frame command.

14. Added a "Display Frame" selection to all objects. If this is deselected the object is drawn without a frame.

15. The Recipe object can move values from tag to tag.

16. Added scaling to the Meter and Bar Graph objects.

17. Added floating-point support to the Meter, Bar Graph, PID Faceplate and Line Graph objects.

18. Added password protection for the alarm history and alarm counts to the Project Attributes (Alarm Protection tab). This applies to the Clear buttons on the panel's alarm history and alarm count screens.

19. The Panel Menu items are available while programming offline.

20. Added support for 6-inch Slim Bezel Model units with 16x12 touch cells.

PLC Driver Updates and additions

1. All DLLs were changed to improve the address sorting. They are all now revision B.

2. DirectLogic Modbus driver revision D.

   A. Writing multiple discrete tags did not work when the tags where mapped to bits in consecutive registers. This has been fixed.

3. Modicon Modbus Driver revision D
   Modicon Modbus DLL revision B

   A. Added the byte and word order for numeric and text tags to the attributes.

   B. Writing multiple discrete tags did not work when the tags where mapped to bits in consecutive registers. This has been fixed.

4. Omron HostLink Driver revision D

   A. The word order used to write 32-bit tags was wrong. It has been changed to LSW-MSW.
   B. The drive would generate error code 12 when reading tags of different sizes mapped to overlapping or consecutive PLC registers. The tag values would be invalid. For example a 16-bit tag mapped to address 200 and a 32-bit tag mapped to address 200 would cause this error. The driver was not reading all of the PLC elements. This has been fixed.

5. Think & Do Driver revision D

   A. Writing multiple discrete tags did not work when the tags where mapped to bits in consecutive registers. This has been fixed.

6. Added Allen-Bradley Data Highway Plus Driver.

7. Added Allen-Bradley Remote I/O Driver.

EZTouch Programming Software Service Pack 1 July 17, 2001

1. Added support for the Think and Do PLC to the EZTouch 6" (DirectLogic only) panel.

2. The help for the GE driver works.

3. Added the Siemens S7 driver.

4. DirectLogic Modbus Driver revision C
   DirectLogic Modbus DLL revision A.2

   A. The driver now reads multiple discretes at a time. This decreases the tag update time.
   B. Implemented RTU delay.
   C. The PLC supports only discrete tag type for V addresses. (Earlier DLL allowed word type tags for V addresses).

5. Modicon Modbus Driver revision C

A. The driver now reads multiple discretes at a time. This decreases the tag update time.

B. Implemented RTU delay(delay between transmissions).

6. Omron HostLink Driver revision C

A. The word order for 32-bit tags was changed from high-low to low-high.

7. Think & Do Driver revision C

A. The driver now reads multiple discretes at a time. This decreases the tag update time.

B. Implemented RTU delay.

Ver 1.01 April 4, 2001

Problems Fixed

1. Renaming a screen containing a Line Graph Object corrupted the project file and caused the program loader to crash. The user could not open the project again. The problem has been fixed in this release.

2. The Adjust Contrast Object would occasionally cause the firmware to crash. This was due to an error in the design of the object. This required changes to both the program loader and the firmware.

PLEASE NOTE: Program Loader version 1.01 will be able to open projects created by version 1.0 that use the Adjust Contrast. However if any change is made (even saving a screen without changes) the project cannot be opened with an earlier version. Doing so may cause the earlier version to crash.

3. An Incorrect Message Packet error would occasionally occur while uploading a user program. This was due to the program loader not waiting until it gets a valid message from firmware. This has been fixed.

4. Inserting a BMP (24 bit color) and width 512, 256 and 64 pixels would crash the program loader. This has been fixed.

5. An error message occurs in projects created for 6-inch panels that have screens with horizontal lines from one edge to another edge (e.g., lines with coordinates (0,40) to (320,40) when the user closes the project and tries to reopen it. The error message states that objects are out of 320 x 240 boundary. This problem has been fixed.

6. Items that snapped to the grid were one pixel wider and higher the grid size. This was due to snapping all of the object's corners to the grid. For example, the touch grid has horizontal lines at 0, 40, 80, and 320. Thus, if an object has a left edge at 40 and a right edge at 80, it is actually 41 pixels wide. Earlier versions of the program loader treated the display as one pixel larger that the actual size to allow for this. Objects at the right, bottom edge of the screen were adjusted by one pixel when the screen was saved. This resulted in objects at the bottom or right edge appearing differently on the program loader than they did on the EZTouch Panel. For example, some of the text in the object may show up on the program loader but not on the EZTouch Panel.

Version 1.01 snaps the top and left edge of objects to the grid. The minimum size for a touch object is now 40 x 40 instead of 41 x 41. This prevents objects from being larger than the grid size. It also prevents a visibility problem from snapped objects having the outer line of their frames overlapping.

7. In earlier versions, if a touch object and a non-touch object were selected, it was possible to position the touch object so that it was not aligned to the touch cell. This has been changed. Now if the selected objects are a combination of both touch and non-touch objects, only the non-touch objects will be aligned.

8. When printing a project (if the user selects only alarm database to print), the programming software would print a large number of blank pages at the end of the print job. This has been corrected.

9. When a project is transferred from the panel to a file, all of the tags are treated as read/write in the new project. This allows the user to modify the project to write to tags that should be read only. The programming software has been changed to store the correct access type for the tags.

10. In version 1.0 it was possible to enter blank tags in a Recipe Object by using spaces. The firmware will not write values for any tags past the first blank tag. You can no longer enter blank tags in the recipe object.

11. The default languages in the Lookup Text and Message Database were not being set properly. Message 1 in the Message Database might have 5 language strings. If you set the default language to 3 and open the message dialog, it was not showing the language string 3 for message 1. This has been fixed.

12. The number of characters for the legend display in the Line Graph Object has been changed to 16 to match the firmware.

13. The error message displayed if the flash card is not large enough to hold the user program has been changed from:

"Error C04_3: Panel is out of memory; Please delete few objects and try again. If you have line graphs in your project, reduce number of samples and try again. Bitmaps and line graphs are objects that may consume lot of memory. If you are using line graphs in your project, reducing the number of samples will reduce memory consumption."

to:

"Error C04_11: Panel is out of memory; Flash card size is smaller than User RAM size. Please contact your panel vendor."

14. The text size spacing (number of pixels between the text rectangle and starting character text) changed to 1 to match the firmware (earlier it was 2).

New Features

1. Help buttons have been added to the following dialog boxes: Project Description, Select PLC, and Upgrade Firmware.

2. Triggered Text Object was crashing when the user typed in more than 100 characters for ON/OFF text. The number of characters allowed has been increased to 500.

3. All the non-touch objects can be resized to a minimum size of 10 x 10.

4. The number of characters allowed in the Message Database is increased to 200 characters.

PLC Driver Updates

1. DirectLogic DirectNet 330/340 driver revision B.
DirectLogic DirectNet 330/340 DLL revision A.2

   A. Tags mapped to registers R600-677 did not read the correct values. The driver was treating these as 8-bit registers instead of 16-bit registers. This has been corrected.

2. DirectLogic Modbus driver revision B.

   A. Discrete tags mapped to bits in registers did not write the correct value to the registers. The driver was not performing a read-modify-write operation. For example, writing to a tag was mapped to 40001/3 would write a garbage value to register 40001.

   B. Recipe objects, which include a mixture of discrete and data values, did not write all of the values to the PLC.

   C. The update time has been improved. Earlier versions read one PLC element at a time. The driver will now read as many elements at a time as is possible.

3. Modicon Modbus driver revision B.

   A. Discrete tags mapped to bits in registers did not write the correct value to the registers. The driver was not performing a read-modify-write operation. For example, writing to a tag was mapped to 40001/3 would write a garbage value to register 40001.

   B. Recipe objects, which include a mixture of discrete and data values, did not write all of the values to the PLC.

   C. The update time has been improved. Earlier versions read one PLC element at a time. The driver will now read as many elements at a time as is possible.

5. Omron HostLink driver revision B.

   A. Recipe objects with multiple tags would generate PLC error 12 and not write all of the values. This has been corrected.

6. Think N Do Modbus driver revision B.
Think N Do Modbus DLL revision A.2

A. Discrete tags mapped to bits in registers did not write the correct value to the registers. The driver was not performing a read-modify-write operation. For example, writing to a tag was mapped to 40001/3 would write a garbage value to register 40001.

B. Recipe objects, which include a mixture of discrete and data values, did not write all of the values to the PLC.

C. The update time has been improved. Earlier versions read one PLC element at a time. The driver will now read as many elements at a time as is possible.

D. Think N Do version 6.0 and 6.1 are supported.

Ver 1.0 January 23, 2001

Initial Release