

# ***LogicFlex-EPX Software Package***

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## **JK-EPX User Manual**

- \* JK-EPX is a complete software package that controls the *LogicFlex-EPX*.
- \* This software drives LogicFlex's embedded 2X16 LCD, monitors and reacts to user-pressed buttons, controls I/O relays, offers remote control between multiple LogicFlex-EXP devices using TCP/IP, allows users a telnet server interface for remote monitoring, and provides a complete user interface.
- \* Its compiled EXE is preinstalled in *LogicFlex-EPX*.

### **How To Use JK-EPX**

- \* To start the software package:
  - 1) Connect the Com2/Console port (J22) to your PC's serial port with the console cable (P/N 86-0025).
  - 2) Connect your 10BASE-T network cable (P/N 86-0019) between the Ethernet socket (J18) on your *LogicFlex-EPX* and the network hub.
  - 3) Open a HyperTerminal program on your PC and configure the serial port for 9600 baud, 8 data bits, 1 stop bit and no parity.
  - 4) Apply power to the *LogicFlex-EPX* using the AC adapter (P/N 70-0009) or a source of unregulated DC (7 to 34V) capable of supplying 500mA to J9. J9 pin 5 is positive and J9 pin 4 is negative.
  - 5) When the Hyper Terminal program is on your PC's screen and power is connected the *LogicFlex-EPX* should respond with a welcome message and a B:\> prompt.
  - 6) Type **jkepx.exe** then press **enter**.
  - 7) Your *LogicFlex-EPX* LCD will now have text on the screen, follow the prompts on the screen by pressing the buttons indicated.
  - 8) The following are descriptions of the buttons on the front of the *LogicFlex-EPX* and their function.

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\* Buttons:

**UP** : Move arrow up; scroll up; select numbers, letters.

**DOWN** : Move arrow down; scroll down; select numbers, letters.

**LEFT** : Return to previous menu; move cursor to the left.

**RIGHT**: Trigger the option pointing by the arrow; move cursor to the right.

**PLUS** : Process my data now !

( in Connect to WWW menu, if connection is not established within a couple of seconds, your remote host is probably not ready yet.

You can press the ' + ' button to stop currently failed connection and try connecting again. ).

**MINUS**: Exit.

Pressing ' - ' in main menu will exit JK-EPX. User control will be shifted to DOS.

Pressing ' - ' during established connection will disconnect from WWW.

\* All menus, selections, and submenus are very user friendly.  
Instructions displayed are intuitive and easy to follow.

## **Source Code**

\*The structure of this program has been built using a State-Machine based implementation. Control variables, flags, and 3 levels of data structures are active throughout the program. This provides a variety of user options including: TCP/IP connectivity, memory capability, and enhanced performance.

\* See jkepx.ide, jkepx.cpp for more details.

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## **Editing Source Code**

- \* To start your software development open a C or C++ compiler. Next, go to **open project**, a screen will appear that will allow you to select a file to open. Select the file **jkepx.ide** then press **ok**. At this point you will be looking at the source code for the JK-EPX software package and you are able to begin developing it for your use.

## **Remote Control of JK-EPX**

- \* In order to control one *LogicFlex-EPX* by another *LogicFlex-EPX* first refer to How To Use JK-EPX at the beginning of this manual. Once those steps have been completed and you have entered the main menu on the *LogicFlex-EPX* LCD press the **Down** or **Up** arrow button until you see “->**Client/Server?**.” Press the **Right** arrow button then make one *LogicFlex-EPX* the **Client**, which will control the other *LogicFlex-EPX* that you set as the **Server**. Make your way back to the main menu and press the **Down** or **Up** arrow button until you see “->**Set IP Address.**” Press the **Right** arrow button then Set the IP address for the local *LogicFlex-EPX* and then set the IP address for the remote *LogicFlex-EPX*. Make your way back to the main menu and press the **Down** or **Up** arrow button until you see “->**Connect to WWW.**” Now press the **Right** arrow button on the server first then the **Right** arrow button on the **Client** to connect. Once connected the *LogicFlex-EPX* that is the **Client** will be the only *LogicFlex-EPX* that will have menu items available. The **Server** *LogicFlex-EPX* will only echo the commands that are being sent from the **Client** and respond to those commands.

## **Telnet**

- \* The telnet application that has been designed into this software package is user friendly and easy to use. After connecting your 10BASE-T network cable (P/N 86-0019) between the Ethernet socket (J18) on your *LogicFlex-EPX* and the network hub simply open a telnet terminal and click on the **Connect** button. Next, click on the **Remote System** button, this will bring up a screen that will ask for the Host Name, Port, and Term Type. For the Host Name enter the IP address that you have previously set for your *LogicFlex-EPX*. For the Port, type or select **telnet**. For the Term Type, type or select **vt100**. Finally, click on the **connect** button and the telnet server program will appear in your telnet terminal.

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- \* If the telnet server does not appear repeat the process above. If a screen appears containing a red circle with a white X in the middle and the message **Could not open a connection to (your IP address here)**, check you Ethernet cable and make sure your *LogicFlex-EPX* is turned on.
- \* The telnet server has been designed to work any time there is a scrollable menu on the 2X16 LCD and when one *LogicFlex-EPX* is connected to another for remote control purposes. There are very few times that a telnet terminal will not be able to access the telnet server embedded in this software package.

## **Help Contact**

- \* Please contact JK microsystems if you have any questions.

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- \* Thank you for purchasing our product.

Last update: June 10, 2004

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