

# WinPX for *FlexMax*

## Using E@syDrivesPX

### Needed:

- 1) *FlexMax* Brushless DC drive
- 1) PC operating on Windows 98<sup>®</sup>, Windows 2000<sup>®</sup>, or Windows ME<sup>®</sup> and 2.0 Mb disk space
- 1) Serial cable with PCI-485 interface for connection of PC to drive
- 1) E@syDrives and PXBasic software

### Set-up:

- 1) Connect drive to PC using serial cable and PCI-485 Interface. The PCI-485 Interface should be connected directly to the PC serial port, and the other end of the serial cable connected to the XS connector on the regulation card. This is the SUB-D connector on the right on the regulation (bottom) card. Make sure the dip switches on PCI-485 Interface are set to **ON**.
- 2) Apply power to drive. Consult manual as necessary.
- 3) To load *E@asyDrives* onto the PC, insert the 3.5" diskette labeled "Disk 1" and follow the instructions in the "readme.txt" file. Insert "Disk 2" and continue. Then insert "Disk 3" to complete the installation.
- 4) To load *PXBasic* onto the PC, insert the 3.5" diskette labeled "Disk 2" and follow the instructions in the "readme.txt" file.

### Using *WinPX*:

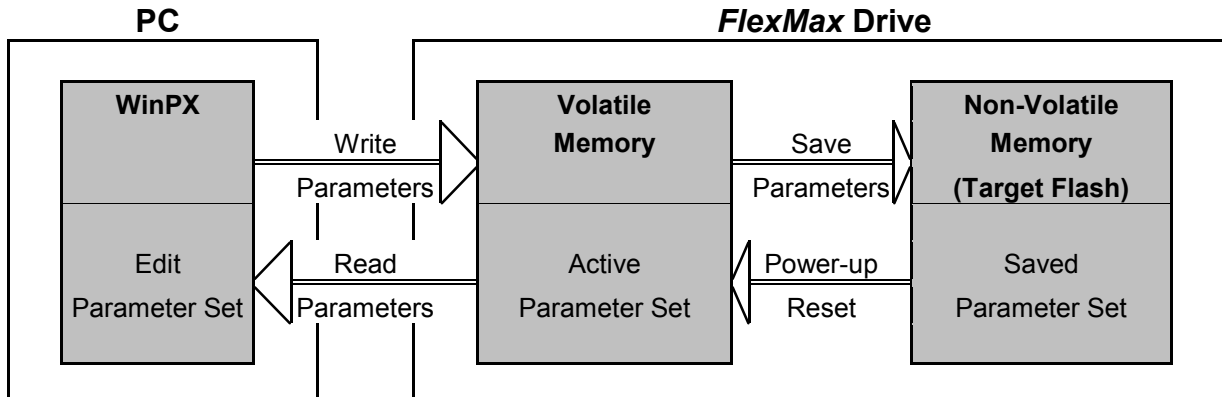
*Note: All file locations shown are the default locations from the set-up program. If you did not use the default locations, substitute the correct path on your PC in the instructions.*

- 1) Launch *E@syDrives* by clicking on the [E@syDrives for FlexMax](#) icon.
- 2) Open a parameter file into E@sydrives:
  - a. *soxxxxx\_x.par* from the 3.5" diskette labeled "Disk 2", or
  - b. C:\Program Files\Powertec Industrial Motors\E@syDrivesPX\PXBasic\V3.30 (or later version if used)
  - c. You may also use another parameter file that is known to be of the same version level as the *PXBasic* you are using.
- 3) If necessary, select "Connect" from the "Target" menu. You should see a rotating symbol in the lower left of the screen.
- 4) To upload the parameters currently stored in drive active memory:
  - a. Highlight "All parameters" in the left hand menu tree

- b. Select “Read all” from the “Parameters” menu (or click on the “Read all parameters” icon). The parameters should turn from red to black to indicate that the parameter displayed is confirmed by the PC to be resident in the drive active (volatile) memory.
  - c. You may wish to save this parameter set to your PC with a new file name.
- 5) To download a parameter file into drive:
- a. Open a parameter file that is known to be of the same version level as the *PXBasic* you are using.
  - b. Highlight “All parameters” in the left hand menu tree.
  - c. Select “Write all” from the “Parameters” menu (or click on the “Write all parameters” icon).
  - d. To save parameters into drive flash (non-volatile) memory, select “Save parameters” from the “Parameters” menu (or click on the “Save parameters” icon).
  - e. Reset drive.
- 6) To change parameters:
- a. Select desired menu folder from menu tree at left
  - b. Select desired parameter value to change in table on the right (parameters with an asterisk after the IPA# are read-only)
  - c. Change the highlighted parameter value and press enter
  - d. Select “Write parameter” from the “Parameters” menu. OR
  - e. Select “ON line mode” from the “Parameters” menu. In on-line mode, parameters are updated dynamically into the “Active Parameter Set”.
  - f. To save the Active Set of parameters into the “Target Flash” non-volatile memory, select “Save parameters” from the “Parameters” menu (or click on the “Save parameters” icon).
- 7) To monitor parameters:
- a. Select “Monitor window” from the “View” menu.
  - b. Select the “Monitor” folder from menu tree at left
  - c. Select desired parameter to monitor in table on the right (ie “Actual speed”). Click and drag to the Monitor window at the bottom of the screen.
  - d. Repeat for as many parameters as you want to monitor.
- 8) To Recover Fault History Data
- a. On icon bar click on “Active Alarms” (Yellow triangle w/Exclamation)
  - b. A window will open, Click on “History”.
  - c. “Alarm History” will open displaying last 24 faults that have occurred.
  - d. Click on “save to File”.
  - e. Window will open to V3.30 Folder.
  - f. Type in file name and save.
  - g. “file successfully written” will appear, Click “OK”
  - h. Close window ( the X in top right of window)
  - i. Open “microsoft Excel” or some other program and import the saved document.
  - j. Format to size compatible to print.

## Parameter Management:

**Figure 1** illustrates the parameter management scheme used in the drive.



**Figure 1**

The set of parameters used by the drive is the “Active Set”. On each power up or drive reset, the “Saved Parameter Set” of parameters residing in the drive non-volatile flash memory is copied to the “Active Set”.

The drive comes from the factory with a Saved Parameter Set in drive flash memory. If the drive was purchased as part of a motor/drive package, the parameter file is tailored to the specific motor. If the drive was purchased separately, it comes with a default set of parameters that may need to be modified slightly for the specific motor used.

The user can change the parameters in the Active Set by making the changes in the “Edit Parameter Set” in WinPX, and using either the “Write parameter” or “Write all parameters” command. The “Write parameter” command writes only the highlighted parameter, while the “Write all parameters” command writes all the parameters in the highlighted menu folder. To write all of the parameters from the Edit Set to the Active Set, highlight “All parameters” in the left hand menu tree, and execute a “Write all parameters” command. If you are in the “On-line” mode, changes to the Edit Set are dynamically written to the Active Set when you press the enter key. Some parameters, such as “Drive configuration”, do not become Active until they are Saved, and the drive is reset.

The user can save the Active Set into the drive non-volatile flash memory by executing a “Save parameters” command. Remember, on drive power-up or reset, any unsaved parameters in the Active Set will be replaced by the Saved Set in flash memory.