

FLEXMOTION SOFTWARE 4.0, F1 UPDATE

FlexMotion Software is the motion control software that you use to interface with all National Instruments FlexMotion series motion controllers. The FlexMotion Software is compatible with Windows NT/98/95/3.x and DOS.

These release notes describe changes included in the FlexMotion Software 4.0f1 Update and explain how to update the firmware on your FlexMotion controller to take advantage of these changes using the FlexCommander utility.

Software Installation

You must have the FlexMotion Software Version 4.0 installed before adding this 4.0f1 Update. If you have not yet installed version 4.0, refer to the *FlexMotion Software Version 4.0 Release Notes* and install the software before proceeding. You do not need to remove your FlexMotion controller before installing this update. Your existing configuration settings shown in the Motion Board Configuration Utility will not be affected by this installation.

Complete the following steps to install the 4.0f1 Update:

1. Run the `FlexMotion40f1.exe` self-extracting archive.
2. When prompted, select the directory path where you previously installed your FlexMotion Software (for example, `C:\FlexMotion`).
3. Update your Firmware Code and DSP Code as described in the *Updating Firmware* section of your *FlexMotion Software Version 4.0 Release Notes*.

Summary of Changes

Enhancements

The following items have been enhanced to align more closely with the expected behavior based upon customer feedback.

Plotting in FlexCommander X-Y Demo

When running the X-Y Demo in FlexCommander, no position data would be plotted if any one of the axes being monitored stopped moving. Now, the plot is continuously drawn until all axes are stopped.

Pull-In Delay Between Vector Moves on Stepper Axes

Closed-loop stepper axes performing a vector space move would occasionally exhibit excessively long pull-in times. To improve this, pull-in moves are now performed on all axes in a vector space at the highest velocity calculated for any of the axes.

Resolved Issues

The following issues were discovered after the release of FlexMotion Software version 4.0 and are resolved by this update.

Arc-To-Linear Blended Motion

If multiple arc movements were blended together in a FlexMotion vector space, a subsequent linear move in the same vector space would fail.

Stepper Generator

Under some circumstances, a stepper output would generate an incorrect number of pulses (up to six) for a given move when operating a stepper motor system in open-loop mode.