Changes KFLOP and KMotion Released Versions 4.32 -> 4.33a 05/22/2014

KFLOP

New FRO Functionality and Script Commands

Coordinated Motion Forward and Reverse Feed rate capability

Automatic FRO slowdown to prevent Buffer starvation in either the forward or reverse directions. Note FlushBuf command is required to allow running to the end of the buffer.

Buffer Downloaded Time and Buffer Lost times now accumulated within KFLOP.
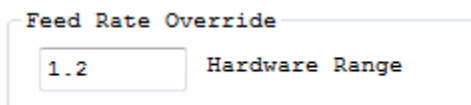
New Script Commands:

FLUSHBUF   FlushBuf Marks the Coord Motion Buffer as complete. Turns off buffer starvation protection ie. FlushBuf
SETFRO   SetFRO F Set Feed Rate Override (1.0 = Normal Feed Rate) ie. FRO 0.9
SETFROTEMP SetFROTemp F Temporarily Set Feed Rate Override (1.0 = Normal Feed Rate)/Force regardless of FeedHold, don't save as last FRO ie. FRO 0.9
SETFROWRATE SetFROwRate F R Set Feed Rate Override (1.0 = Normal Feed Rate) with rate/based on caller specified time (in seconds) to change from FRO 1.0 to 0.0 ie. FRO 0.9 0.25
SETFROWRATETEMP // SetFROwRateTemp F R Temporarily Set Feed Rate Override (1.0 = Normal Feed Rate) with rate based on caller specified time (in seconds) to change from FRO 1.0 to 0.0 Force regardless of FeedHold, don't save as last FRO ie. FRO 0.9 0.25

KMotionCNC/GCode Interpreter

Radius/Diameter Mode Supported for Lathes

Jog Buttons/ Keyboard Buttons orient properly for Lathe and X Forward Front

Hardware FRO Range Supported

Motion Buffer Starvation Protection

M6 sends Tool ID and Tool Slot info to KFLOP based on New Tool Table

GCode State (line number modes) tracks forward and reverse real time with machine progress

Bitmap Buttons now display faster

FeedHold Forward Reverse Buttons

Tool Selectors/Fixture Selectors now have tool tips with relevant info

MDI input highlights after Enter Key for easier data entry. Enter Key only sends MDI if MDI has focus.

Backlash on Jog fix when axis in Defined Coord System is disabled

Mach3 Plugin

HostStatus now updated within KFLOP to indicate when a Job is in progress. This may be useful for disabling MPG activity whenever a Job is in progress. The KFLOP HostStatus HOST_JOB_ACTIVE_BIT will be set appropriately. A macro (`JOB_ACTIVE`) in KFLOP can be used

```
#define JOB_ACTIVE (HostStatus & HOST_JOB_ACTIVE_BIT)
```

This status is set based on the Mach3 Plugin variable MainPlanner->MovementDone

Avoid Crash on Mach3 Threading with Spindle at zero speed

KMotion_dotNet

HardwareFRORange

Export ReadAndSyncCurPositions

SimpleCoordMotion

Sync positions before starting

Dynomotion VB.NET

Fix syncing coordination motion starting position by changing to new call ReadAndSyncCurPositions

User C Programs

Add Texas Instruments Optimizing Compiler Support in <>/C Programs/TI Compiler

ToolChange.c example modified to receive Tool ID and Slot numbers for new Tool table Format

Add USE_POS_NEG_VOLTAGE to Spindle examples for systems that only use magnitude