

Changes KFLOP and KMotion Released Versions 4.30 -> 4.31 03/12/2014

KFLOP

Konnect IO Board Functionality Added

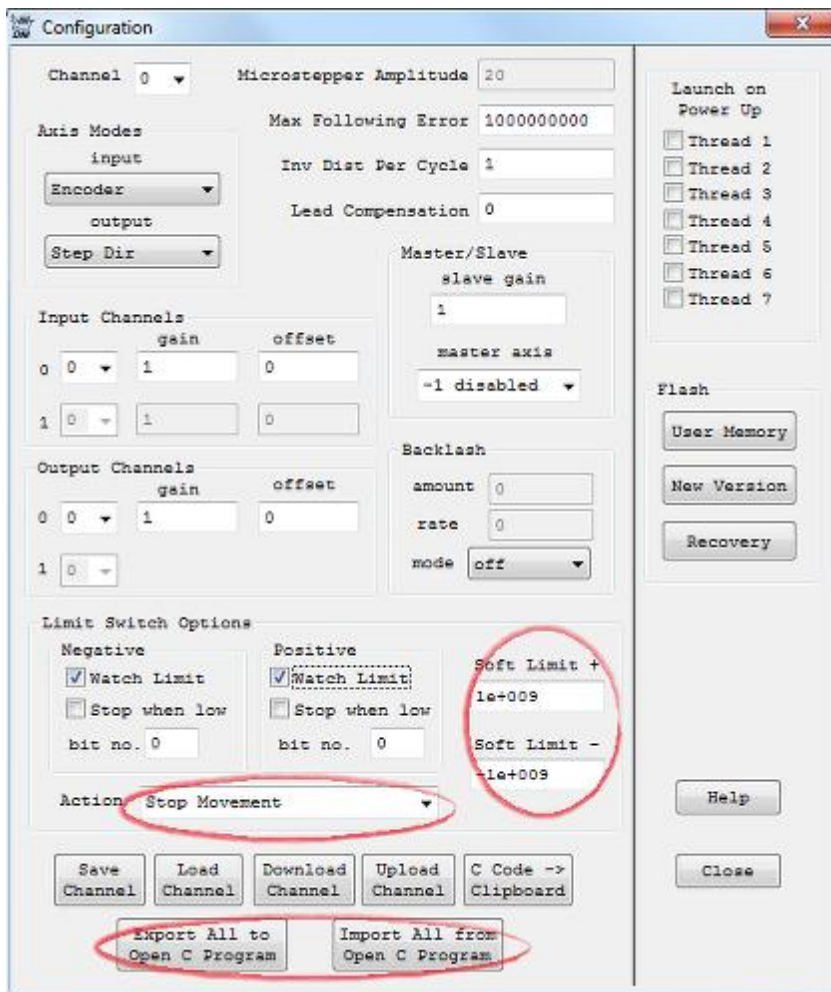
Fix 8-bit Limit switch Legacy Compatibility

ExecTime returns more resolution

Soft Limit Support with deceleration and without axis disables

Hardware Limits also support Stop Movement without disabling axes

Import/Export All Settings to C (copy/paste not required)



KMotion.exe

Includes a new Digital I/O Screen - Virtual IO bits. It will display 64 Extended Virtual IO bits anywhere in the 1024-2047 range. This can be helpful for anything that makes use of Extended Virtual IO bits including Konnect Boards.

KMotionDLL

Fix Release Token Issues

KMotionCNC/CoordMotion/GCode Interpreter

New Feed Rate and Spindle Controls with bar graph indicators

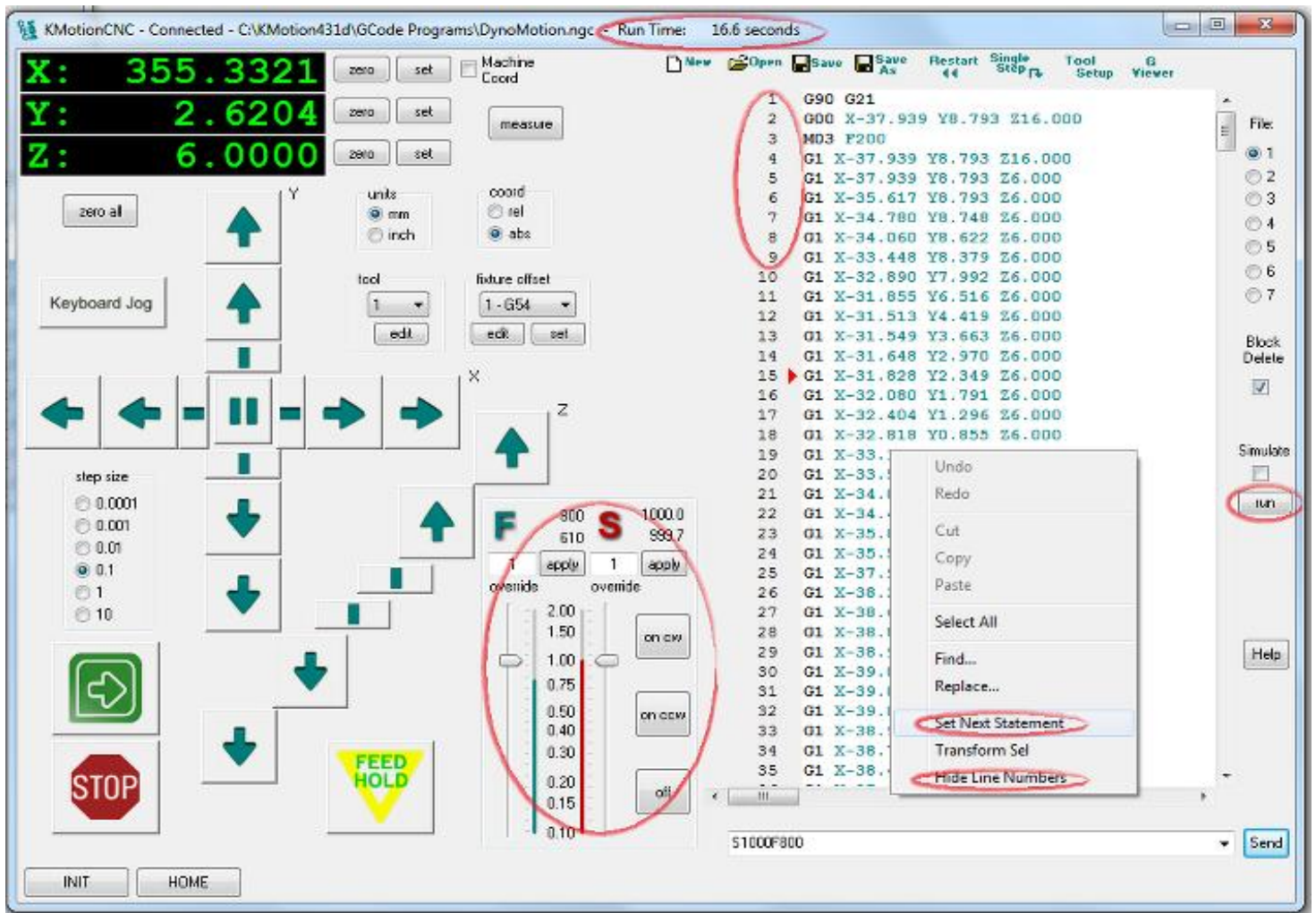
GCode Line Number Option

Quick Run Simulation for Plotting and Soft Limit Checking

Job Run Timer

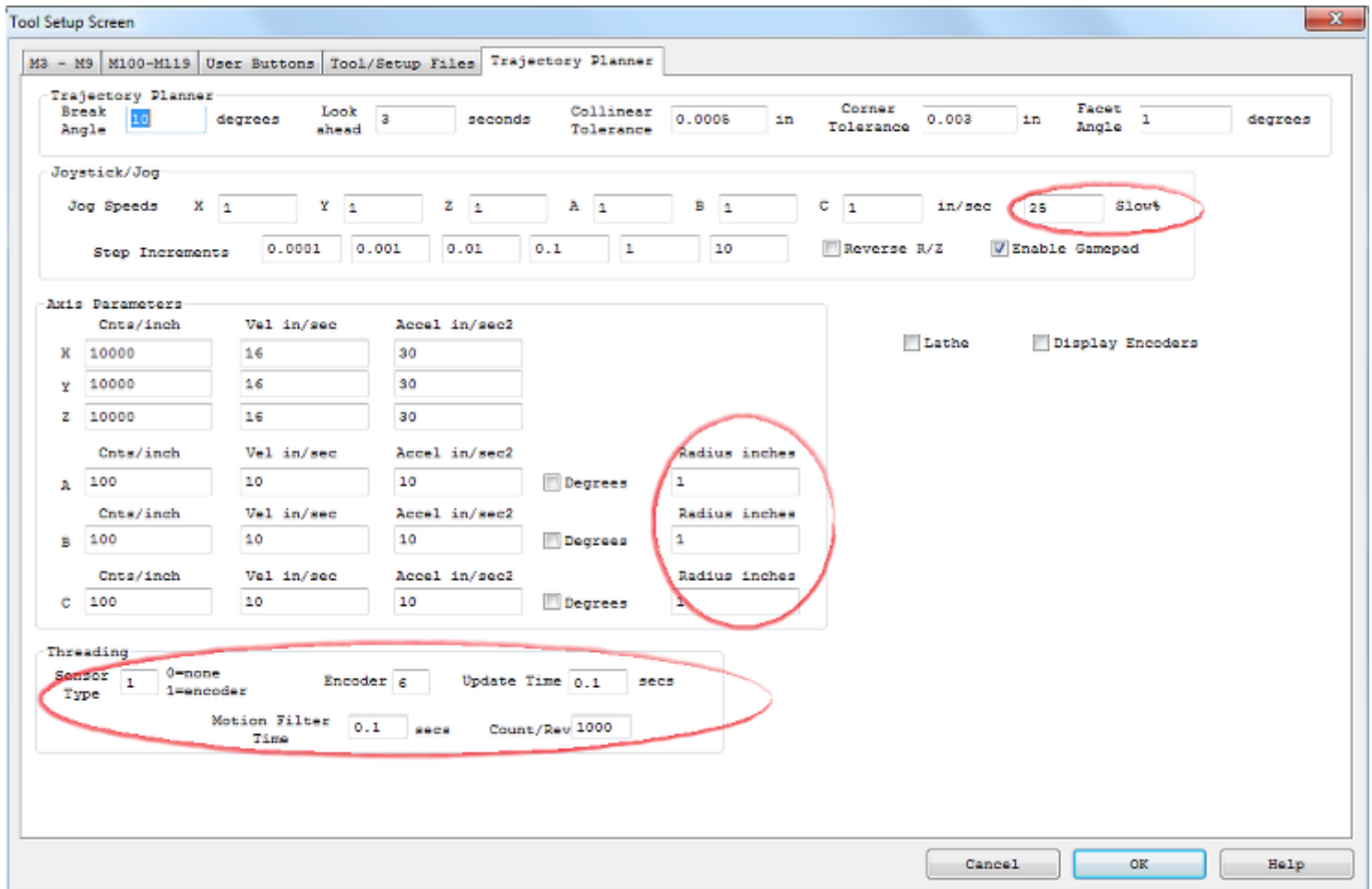
Trajectory Planner Improvements - fully buffered, 3rd order Rapids (straight line) and Dwells for fully deterministic operation

Improved Set-Next-Statement with intelligent backward scan and Safe Z Moves



Slow Jog Percentage Setting

A B C Angular Axis now supports Radius for Feed Rate calculations



New Work/Fixture Offset Edit/Save Dialog [See](#) and [See](#)

Custom Buttons now can have Hot Keys Assigned. [See](#)

A B C Axes can be driven in Degrees instead of Inches/mm. [See](#)

Now allows configuring an M Code for a WaitBitBuf delay.

Expanded Tool Table

GCode Interpreter issue with incorrect feedrate with switching Units and new feedrate on the same line fixed

Fixed Helix Z feedrate bug. There were several things that were not being handled correctly. The issues mainly showed up with different axis constraints (velocity/tangential acceleration/radial acceleration) in different directions. When traversing a large angle arc/helix the directions can change a lot. We need to honor the worst case constraints throughout the arc.

Option added to replace arcs with many multiple line segments within the specified Collinear Tolerance. This allows more optimized motion through the entire arc as the constraints vary.

Option for KMotionCNC Zero buttons to zero using selected fixture offset rather than G92 offsets

G96/G97 CSS (Constant Surface Speed) added to KMotionCNC. See description here on how to configure:
<http://dynamotion.com/Help/KMotionCNC/SpindleControl.htm>

Handle the A B C rotary axes properly. For Angular axes the Radius Specified in the KMotionCNC Tool Setup should allow all the same features that exist for xyz, Collinear Tolerance, Corner Rounding, Break Angle, and Feedrate to be used. We also enhanced the GCode Viewer to Include B axis motion. This should allow your example of Z-B motion to run smoothly. Please see this Video (Flash is required)
<http://dynamotion.com/Videos/BAxis9.swf.html>

Fix G59.1 G59.2 G59.3 Dropdown Labels

KMotionCNC only M2 resets all offsets M30 does not

Tool Table Get/Set commands from KFLOP

Fix issue with Soft Limits when no board connected

Fix Crash from GViewer with large number of Arcs

Fix "Rebound" when Jogging with some axes disabled

Optimize GViewer Plotting

CoordMotion & Trajectory Planner

Bug in Collinear Tolerance that sometimes (Borland Compiler) resulted in square root of negative number error.

New functions StraightFeedAccel and ArcFeedAccel where the desired Acceleration can be specified

Mach3 Plugin

Mach3 support for more IO bits now supported. Port3 can be used for accessing the first 128 Extended Virtual IO bits

Mach3 Stop Button Fix

Increase Allowed External Pulse Rates to 2.5MHz

Fix Hang if Threading Initiated with Spindle off

TCC67 Compiler

Add check for "unexpected character in constant"

KMotion_dotNet

ReadAndSyncCurPositions Added

GetBoardType made public

Fixed GetStatus / WaitToken bug

User C Programs

ModBus Examples

Konnect Examples

Added Konnect PWM to Analog Example

SimpleHomeIndexFunctionTest.c which uses SimpleHomeIndexFunction.c

SpindleUsingJogs Examples

AntiServoDither Example

CommutateDualDAC Example

Flash Non-Volatile example

JogWithPot example

ToolTableSet Examples

HostStatus Example

SetFRO Examples