

Release Notes for PathPilot™ v1.9

Release Date: July 10, 2015

NOTE: Updates do not need to be applied sequentially. Simply download the latest update file to be completely up-to-date on PathPilot operating system.

Enhancements:

- #767: Mill/Lathe- Filechooser enhancement: Should support details view (or small icons view)
- #940: Mill/Lathe - Homing enhancement: If machine has already been homed, pressing Ref buttons should result in OK/Cancel popup
- #916: Mill - Conversational - Thread Mill - take X/Y positions from drill table
- #955: Mill - Tool Change: Add tool description to tool change message (e.g. "Insert tool #4 (description) press Cycle Start to continue")
- #957: Lathe - Gcode interpreter: Support G74 canned drilling cycle

Bug Fixes:

- #765: Mill/Lathe - G code window: M30 should reset G-code listing to the top of the program.
- #971: Mill - Conversational: Allow zero RPM on engrave routine for use with drag engraver.
- #937: Mill/Lathe - DROs: Highlighting a portion of the field in the DRO will clear the un-highlighted data as well.
- #964: Mill - Interpreter: Stopping a program using the stop button at an M01 break before a work offset change will cause the G5x command after the M01 break to be interpreted. Ex: G54, M01, G55 - aborting the program at M01 results in G55 system being active.
- #967: Lathe – Machine-OK LED on Status tab does not indicate machine power state correctly.
- #936: Mill/Lathe - Cancel out of New Folder in File tab gives error.
- #970: Lathe – Conversational: Drill routine uses Tap peck depth DRO for peck depth until Drill/Tap button is clicked.
- #961: Mill/Lathe – Soft Keyboard: If user has soft keyboard enabled and types ADMIN CONFIG into the MDI line, the screen goes white and the config picker does not appear.
- #851: Mill/Lathe – Subroutines: External subs are not recognized unless they have an .ngc file extension. *NOTE: subroutines now accept .nc or .ngc, but not .tap, .txt, etc.*
- #969: Mill – Probing: Pressing Stop during a probing move results in the feed rate being set to a very small value.
- #926: Mill – Toolpath preview: XYZ graphic has green for X axis, red for Y. This is opposite of most CAD/CAM systems.
- #872: Mill/Lathe – File: Clear Current Program changes machine to inch units (G20) if it was previously in metric (G21).
- #962: Mill – A axis moves slowly and creeps the final fraction of a degree while DTG is already 0.0.
- #963: Mill – ETS: Move and set tool length button sets tool length correctly internally, but doesn't refresh the tool table display unless you page away from that screen and then return to it.



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- #960: Lathe – Offsets: Tool geometry offset will *not* be applied when machine is first powered on. Workaround: after power on and reference, type a Tx command into MDI line to apply tool offsets.
- #931: Mill/Lathe – File tab: When a file is created with the *save as* drop-down menu choice of the G-code editor program it doesn't show in the folder until the folder is manually refreshed by the user.

Other:

IMPORTANT! Lathe: ESC keyboard shortcut for Stop button was removed due to conflict with MDI line defocus. Do not attempt to stop the lathe using the ESC key – use the spacebar (pause) instead.

Release Notes for PathPilot™ v1.8.2

Release Date: June 11, 2015

NOTE: Updates do not need to be applied sequentially. Simply download the latest update file to be completely up-to-date on PathPilot operating system.

Enhancements: None

Bug Fixes:

- #952: Mill/Lathe - Update file: Zero length files copied into update file prevent a number of utilities (e.g. touch screen calibration, others) from functioning
- #951: Lathe - Spindle speed range: Setting (5c pulley versus D1-4 pulley) is not remembered between power cycles.
- Always defaults to D1-4 setting.
- #946: Mill/Lathe - Touchscreen: ADMIN TOUCHSCREEN broken in v1.8

Other:

- No other notes

Release Notes for PathPilot™ v1.8

Release Date: June 2, 2015

Enhancements: #901: Lathe – Conversational Enhancement: Option for peck tap on drill/tap screen

Bug Fixes:

- Fix for #877: Mill - Interpreter: Zero-radius arc error on G-code with arc radii < 0.0005
- Fix for #930: Mill/Lathe - File tab: File preview window on file page does not update when file has been edited
- Fix for #928: Lathe - Reset: Control will go into reset from loss of machine-ok signal randomly and infrequently
- Fix for #923: Mill/Lathe - Coordinate Rotation: G10 L2 Rx results in accurate rotation but DRO position readouts do not read in new rotated system
- Fix for #822: Mill - Homing: 4th axis homing support (via accessory 4th Axis Homing Kit, PN 31921) is missing
- Fix for #856: Lathe - Tool DRO: Tool DRO in Offsets tab requires double click to change
- Fix for #918: Lathe - Feedhold: Feedhold during a Feed/Rev move (G95) waits until end of the move before taking effect
- Fix for #913: Mill - Conversational: Circ Pocket routine may output zero feed rate command depending on pocket size, stepover, tool dia entries
- Fix for #915: Mill - Tool Table: GUI sluggish on Tool Offsets page after clicking buttons on that page
- Fix for #908: Mill - Conversational: Rect Pocket routine fails to create code on some X/Y start and end entry combinations
- Fix for #911: Mill - ETS: Move and Set Tool Length occasionally results in *Probe tripped during MDI move* error message
- Fix for #299: Lathe - Conversational Chamfer: *Length of cutter compensation entry move is not greater than the tool radius* error on some tool clearance/tool radius combinations
- Fix for #886: Mill/Lathe - Feedhold via keyboard space bar ignored during Single Block

Other:

IMPORTANT! Restart PathPilot controller before attempting installation; install immediately thereafter. Mill controllers that run a G-code program prior to installing update are likely to experience a freeze of the PathPilot interface when trying to update. If this happens, no data has been lost. Simply shut down the controller by holding down the power button for 10 seconds. Complete update installation immediately after restart. This does not affect lathe controllers.

Release Notes for PathPilot™ v1.7.2

Release Date: April 21, 2015

Enhancements:

- #875: Mill/Lathe - Enhancement: Add ESC keyboard shortcut to stop program
- #882: Mill/Lathe - Enhancement: Clicking on line in tool path display should highlight corresponding G-code in G-code display window
- #876: Mill/Lathe - Enhancement: Add ALT-Enter to give focus to MDI line
- #865: Mill/Lathe - Enhancement: Add ALT-E for editing a G-code program
- #846: Mill - ATC: Remove the Fetch button and the Fetch DRO from the ATC screen

Bug Fixes:

- Fix for #881: Mill - Interpreter: M998/G30 move will go to incorrect position if *G30 moves in Z only* box on settings screen is unchecked
- Fix for #864: Mill/Lathe - USB: When USB stick is left plugged in, PathPilot controller may fail to start if the USB stick is *bootable*
- Fix for #879: Lathe - Jog Shuttle: Step sizes for X (Dia) movement are double what they should be (0.0010 step yields 0.0020 movement)
- Fix for #847: Mill - Probing: *Probe tripped during a non-probe MDI command* error message on low feed rate probe moves
- Fix for #874: Mill - Probing: Faulty distance to go display in G21 mode when doing G32.x
- Partial fix for #866: Mill - Tool path preview: A-axis rotation can cause tool path to look distorted, especially on code without 4th axis moves
 - Added option via right-click menu to choose between 3 and 4 axis display. Defaults to 3 axis
- Fix for #858: Mill - Probing: Probe Z to table or very low plane gives G38.2 error
- Fix for #867: Mill - Probing: Find work zero with ETS yields z axis over travel error message
- Fix for #849: Mill/Lathe - Homing: Don't allow axis to reference if it is already sitting on a limit switch
- Fix for #855: Mill - ATC: Fetch and Store Current Tool buttons do not work in G21 metric
- Fix for #860: Mill - ATC: Need a confirmation popup on set tool change position button

Other:

Enhancement #846 (Mill - ATC: Remove the Fetch button and the Fetch DRO from the ATC screen) changes the workflow for using the ATC slightly. Previously, to fetch a tool from the carousel the operator would have to switch to the ATC tab, type the desired tool number into the Fetch DRO, and click the Fetch button. Now the operator will only need to type the desired tool number in the Tool DRO and hit Enter (or click the M6 G43 button). The operator will see a pop up dialog asking if it's OK to fetch the tool from the ATC – clicking OK to this dialog will fetch the tool.

Release Notes for PathPilot™ v1.6

Release Date: March 24, 2015

Enhancements: Enhancements #814/836 Mill/Lathe - Feed rate DRO: Change F DRO so that it displays current machine velocity when jogging.

Bug Fixes:

- Fix for #564 Mill - Interpreter: Spurious duplicate O word error message on M6 MDI command
- Fix for #828 Mill/Lathe - Trajectory planner: *Can't add circular move error* on helical arc-arc blending
- Fix for #832 Mill - Conversational: Engrave code is in G54 regardless of setting on conversational DRO
- Fix for #835 Mill - Conversational: Circ Pocket routine results in G2/3 with P val = 0.000 error
- Fix for #837 Mill - MDI/Jog: Spurious *Unable to execute command: (ABORT) in MDI mode* message
- Fix for #841 Mill/Lathe - Interpreter: *Can't use two G codes from same modal group* error should tell user which G codes are causing the problem
- Fix for #842 Mill - Conversational: Pocket routine in G21 can create G code with zero feed rate
- Fix for #845 Mill - Conversational: Thread milling internal thread routine generates left hand thread, should be right hand.
- Fix for #847 Mill - Probing: *Probe tripped during a non-probe MDI command* error message on low feed rate probe moves

Other:

- No other notes

Release Notes for PathPilot™ v1.5

Release Date: March 13, 2015

Enhancements: No major enhancements

Bug Fixes:

- Fix for #760 Mill/Lathe - Filechooser: Creation of same folder name in same location should display an error.
- Fix for #785 Mill - MDI: M6 command may cause incorrect program load if current program was loaded from drop-down
- Fix for #776 Mill/Lathe: Single Block takes multiple clicks at M6, M998, G30, G84 codes
- Fix for #811 Mill - Probing: Set ref surface, set probe length workflow results in incorrect probe length measurement
- Fix for #810 Mill - Probing: Z Move and Set Work Offset button doesn't set Z work offset; only probes Z like find Z button
- Fix for #749 Mill/Lathe - g code interpreter: *Unknown g code error* on line xxxx should print out the invalid code
- Fix for #743 Mill/Lathe - File util: Rename of currently loaded file results in odd error message
- Fix for #800 Mill - Interpreter: G code error prints incorrect line number for offending code
- Fix for #798 Mill - Conversational: Routines that utilize tool diameter (face, pocket, profile) assume diameter is imperial units
- Fix for #797 Mill - TTS Height Gauge: USB communication cable puts imperial units in tool table regardless of G20/21 setting
- Fix for #792 Mill - Feed rate DRO: Feed rate displayed in inches/min when running a g code program using G21
- Fix for #789 Mill/Lathe - File tab: Unplugging USB stick without pressing Eject button results in multiple error messages
- Fix for #827 Mill - Keyboard jogging: Short tap of jogging key after MDI move or program run results in runaway jog
- Fix for #770 Mill/Lathe - Tool table: Enter key should go to next length value, tab to go from dia to length
- Fix for #762 Mill/Lathe - Filechooser: Renaming and deleting of Open File should not be allowed
- Fix for #766 Mill - Spindle: Spindle delay before G1 move may not be long enough in all cases
- Fix for #742 Mill/Lathe - interpreter: limits exceeded by a program should be flagged as error at load time, not run time
- Partial fix for #736 Mill/Lathe - Tool path preview: Large g code programs cause significant file load delay while generating preview
- Details – Programs longer than 100,000 lines have preview clipped to the first 100,000 lines. A warning that the preview has been clipped is issued on the *Status* screen.

Other:

- No other notes

Software Update Instructions

NOTE: Updates do not need to be applied sequentially. Simply download latest update file to be completely up-to-date on PathPilot operating system.

1. Download the most recent PathPilot update file (vX.X) at www.tormach.com/pathpilot_tracking.html#history
2. Transfer this file to a USB drive.
3. Put the USB drive in your PathPilot controller.
4. With the PathPilot controller on and out of Reset mode, go to the Status screen and click the Update button (see **Figure I**).

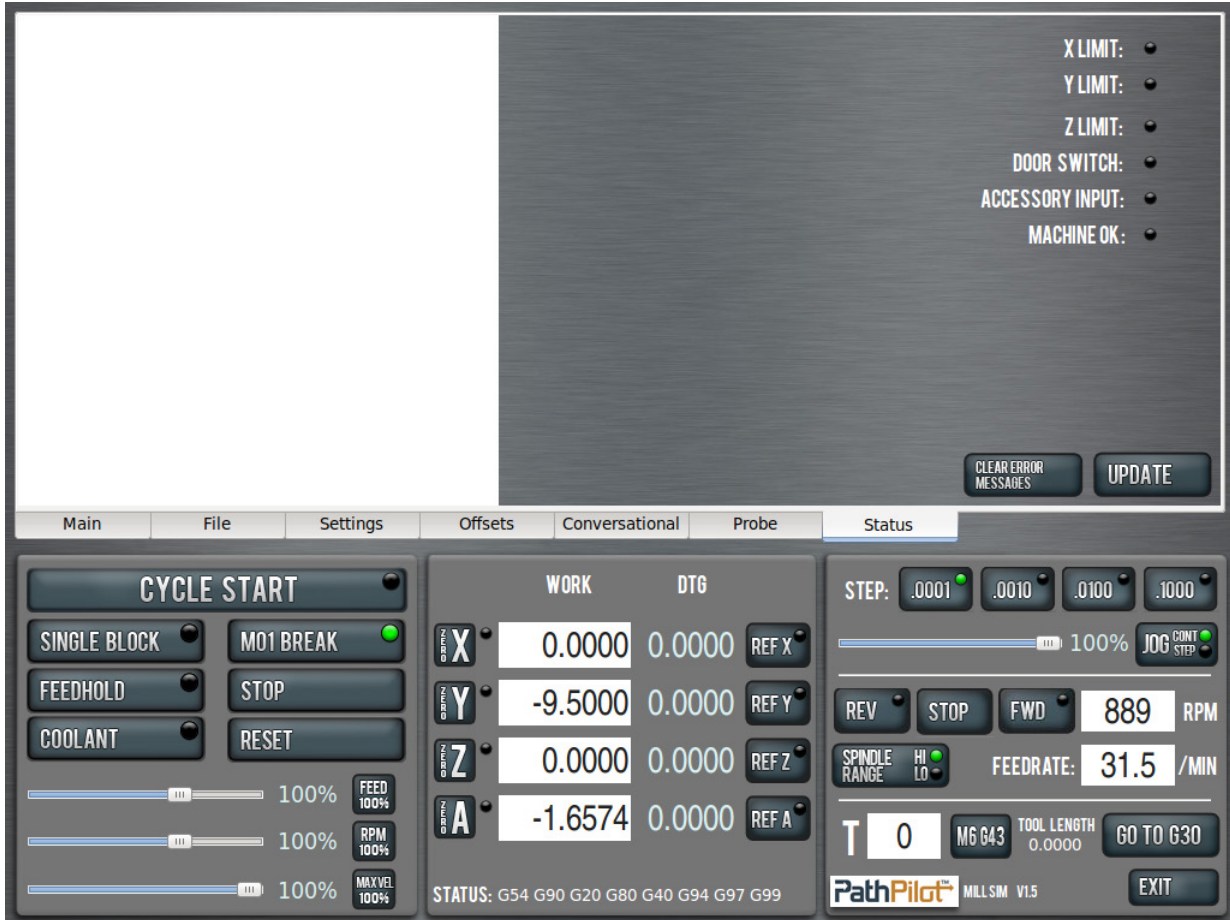


Figure I

5. Navigate to the (vX.X) file on your USB drive and click Update (see **Figure 2**).

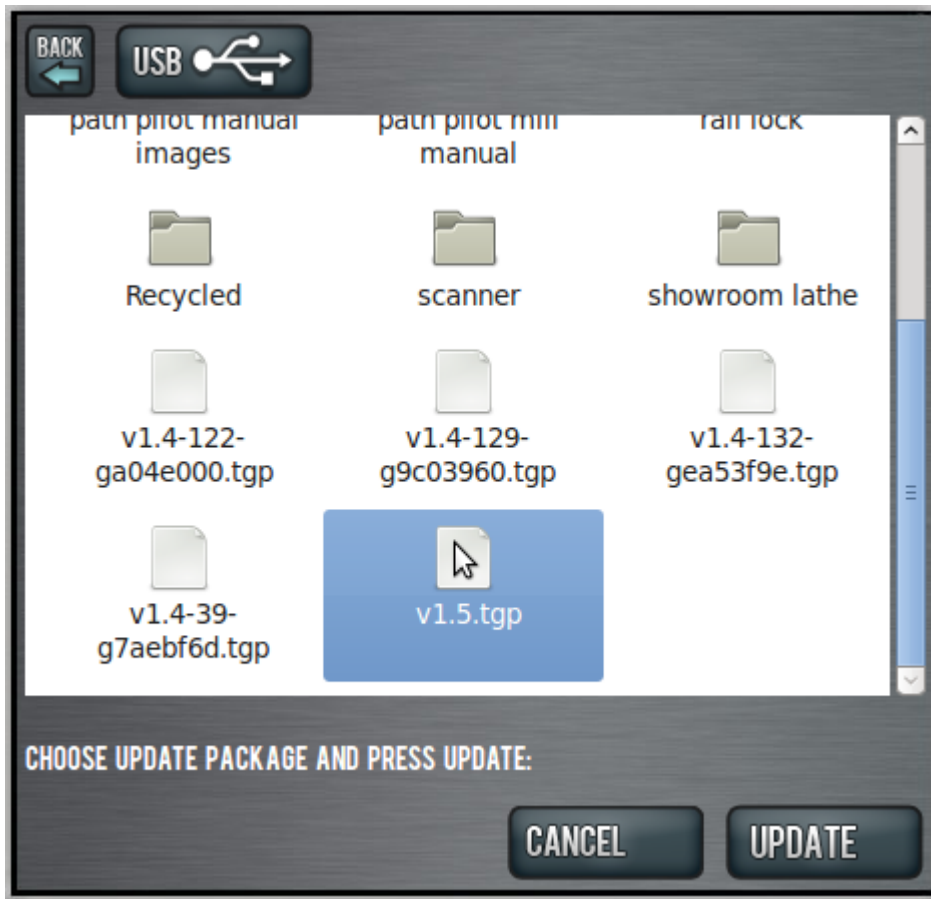


Figure 2

6. Push the E-stop button on the mill when prompted and click OK (see **Figure 3**).



Figure 3



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