RELEASE NOTES FOR PATHPILOT V2.7.0

November 2020

ENHANCEMENTS

All

- For more consistent behavior with other computers, you can now abort a button click after pressing the mouse by moving off of the button before releasing the mouse. (PP-1852)

- G30 motions in a part program are now shown in the toolpath preview. (PP-2845)

- We added support for date and time stamping in G-code-based log outputs with a new #<_epochtime> parameter (which converts the current UTC epoch time in seconds). (PP-3006)

- We improved error detection in `G84` / `G33.1` rigid tapping that were previously reported as warnings. (PP-3029)

- We improved error checking in rigid tapping to allow shallower tap cycles. (PP-3043)

- G-code errors from program load now highlight the line causing the error in the G-code source view, and scroll to the error location. (PP-3045)

- We updated the caution message displayed on the **ETS Setup** tab to provide more detail on how to set the G37 position. (PP-3053)

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RELEASE NOTES

Mills

- For G84 non-rigid tapping, an annotation is now shown in the source view with the calculated dwell time for the given spindle speed/belt position. This makes fine-tuning the dwell time easier. (PP-3049)
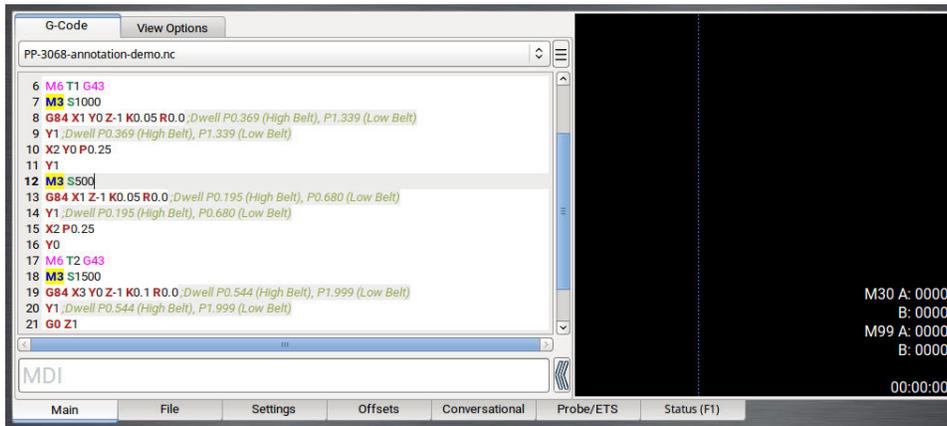
- We improved G-code colors in the Source View and editor, including previously missing G-codes, some comment syntax, M3/M30 ambiguity, and others. (PP-3013)

- The ATC set tool change position now logs old and new positions. (PP-3055)

- When setting the tool change position, the ATC now displays the acceptable range in metric if G21 is enabled. (PP-3056)

- We improved the usability of A-axis center probing with an option to find stock center without rotating the A-axis, and a visually distinct probe model in the live plot. (PP-3060)

- We added 0.5 seconds dwell between ATC drawbar activation and spindle raise. (PP-3093)

FIXED ISSUES

All

- We fixed issues where:
  - PathPilot opened a file with no extension in the editor rather than loading it as a program. (PP-3023)
  - Using the feature to find the A-axis center and set the origin (on the **Probing Rect / Circ** tab) didn't store the correct offset values. (PP-3059)
  - **Find A-axis center** (on the **Probing Rect / Circ** tab) sometimes returned incorrect values when used in G21 mode.
  - In some cases, the tool path live plot wasn't cleared if the tool view was filtered. (PP-3063)
  - If the controller was rebooted without coming out of reset, the current tool in spindle would not be restored the next time the **Reset** button was selected. (PP-3097)
  - Several buttons in the mill ATC and lathe tool touchoff tabs didn't respond after pressing the **Enter** key, needing an explicit mouse click instead. (PP-3098)

RELEASE NOTES

Mills

- We added support for A-axis positioning moves (part of traverse move to initial position) with G84 (PP-3014), and A-axis support for G30. (PP-3061)
- We fixed issues where:
  - G84 soft tapping cycles had an extra delay at the bottom of the hole, which could compress the tension-compression head on retract. (PP-3018)
  - Axis couldn't be referenced without the enclosure door closed if door switch/lock was installed. This behavior should have been limited to only CE configurations. (PP-3019)
  - In rare cases, G84 soft tapping generated a cryptic error message in long-running programs. (PP-3028)
  - A status message that displayed when the tool change position was out of range didn't accurately display the range. (PP-3057)
  - The A-axis display checkbox in the **View Options** menu could be unchecked while a program was running. The display would be unchanged, but the checkbox no longer matched the display state. (PP-3065)
  - Conversational circular pockets very close to the tool diameter would do a straight plunge instead of a helical ramp. (PP-3050)
  - Conversational rectangular pockets could be cut oversize in X if the tool radius was very close to the corner radius. (PP-3052)
  - Conversational rectangular/circular pockets could cause a plunge entry to extend past the -X edge of the pocket. (PP-3067)
- We updated the Fusion 360™ post-processor (provided by David Loomes), which has the following changes:
  - Added support for partial circular bore and partial circular boss probe operations.
  - Implemented size and position tolerance checking for the stock (set the **wrong size** or **Out of position** check boxes on the **Actions** tab for each probe operation in Fusion).
  - Option to print probe results to the status screen (set the **Print Results** check box on the **Actions** tab).
  - Implemented the **Measure tool** and **Tool break control** options in **Manual NC** CAM operations.
  - Implemented **Tool break control** when selected on the **Post Processor** tab in the Fusion 360 tool library.
  - Provided multiple options to control retraction at various stages during program execution. This replaces the old **Use G30** and **Use G28** options to give finer control. Default settings give the same results as Use G30 = Yes and Use G28 = No.

> 💡 **Tip!** For more information on the changes made to the Fusion post-processor, we recommend watching David Loomes' YouTube video: https://youtu.be/qrJZmE5qgzI

Lathe

- Previously, conversational programs posted `G30 Z#5422`. This meant that G30 didn't move in X, even if the **G30 Move in Z Only** checkbox was cleared (on the **Settings** tab). Now, conversational programs post only `G30`. (PP-2930)

RELEASE NOTES

- We fixed an issue where the **Spindle RPM** slider in CSS mode wasn't uniform, reaching maximum spindle speed before the 100% position. (PP-3016)
- We added error detection to prevent G33.1 rigid tapping in G96 mode and protect against tap breakage. (PP-3042)
- We fixed an issue where set start line on the lathe didn't correctly track tool offsets. (PP-3087)

Plasma

- PathPilot now immediately recognizes a failed plasma arc and pauses machine motion until the torch can be relit. (PP-2999).

RELEASE NOTES

MANAGE PATHPILOT VERSIONS

You don't need to install updates sequentially. You can update from any previous version to the current version of PathPilot. Depending on what you want to do, refer to the following sections:

- "Download and Install an Update File from the Controller" (below)
- "Install an Update File from a USB Drive" (on the next page)
- "Install a Previous Version of an Update File" (page 7)

DOWNLOAD AND INSTALL AN UPDATE FILE FROM THE CONTROLLER

1. Confirm that the PathPilot controller is powered on and out of **Reset** mode.

2. Downloading and installing an update file requires an Internet connection. From the **Status** tab, confirm that the **Internet** button LED light is on. Then, select **Update**.
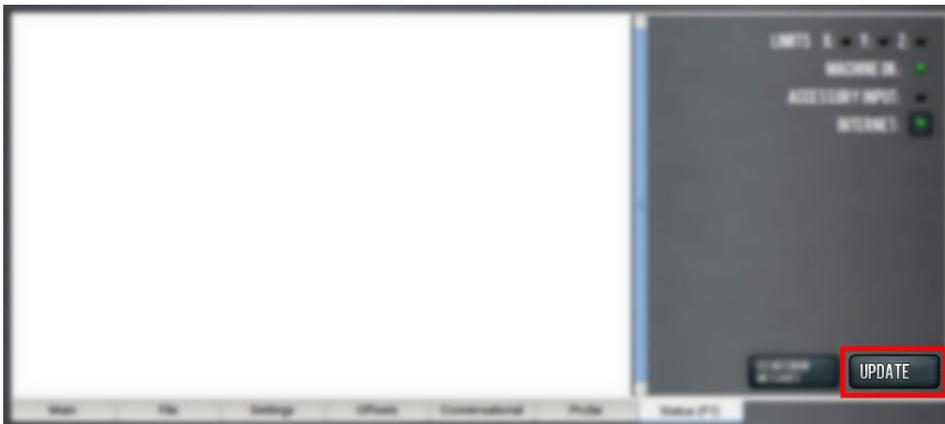
Figure 1: Update button on the Status tab.

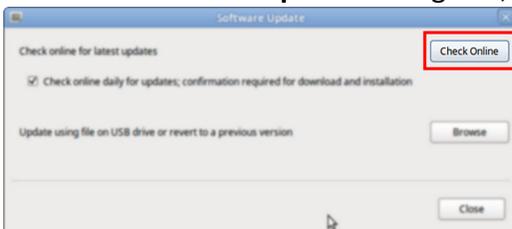3. From the **Software Update** dialog box, select **Check Online**.

Figure 2: Software Update dialog box.

4. Select **Install**.

tormach.com
SB0046: Release Notes for PathPilot v2.7.0 (1120B)
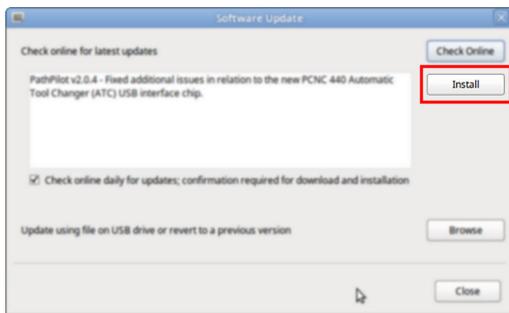
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Figure 3: Install button on the Software Update dialog box.

The update file is downloaded, and a notification dialog box displays.

5. From the dialog box, select **OK**.
   The update file is installed on the PathPilot controller.

6. Follow the on-screen instructions to restart the PathPilot controller.

INSTALL AN UPDATE FILE FROM A USB DRIVE

1. From the PathPilot support center, download the most recent PathPilot update file.

2. Transfer the PathPilot update file to a USB drive.

3. Put the USB drive into the PathPilot controller.

4. Confirm that the PathPilot controller is powered on and out of **Reset** mode.

5. From the **Status** tab, select **Update**.

Figure 4: Update button on the Status tab.

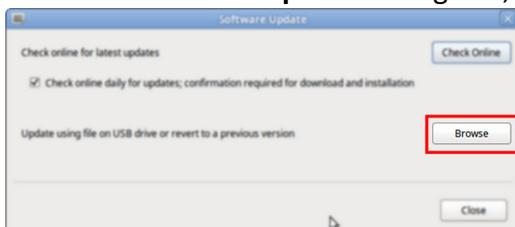6. From the **Software Update** dialog box, select **Browse**.

Figure 5: Software Update dialog box.

7. From the **Browse** dialog box, select **USB**.
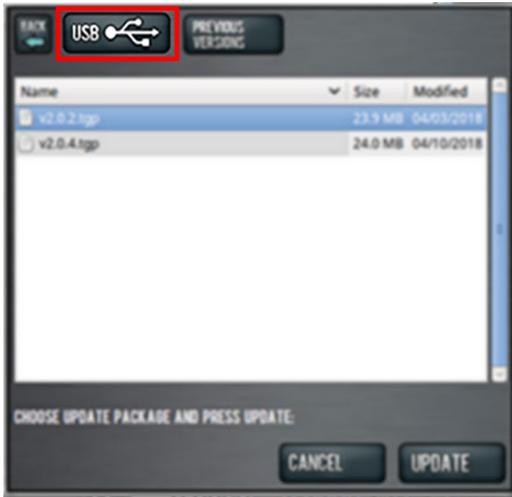
RELEASE NOTES

Figure 6: Browse dialog box.

8. Select the desired update file, and then select **Update**.
   The update file is installed on the PathPilot controller.

9. Follow the on-screen instructions to restart the PathPilot controller.

INSTALL A PREVIOUS VERSION OF AN UPDATE FILE

1. Confirm that the PathPilot controller is powered on and out of **Reset** mode.
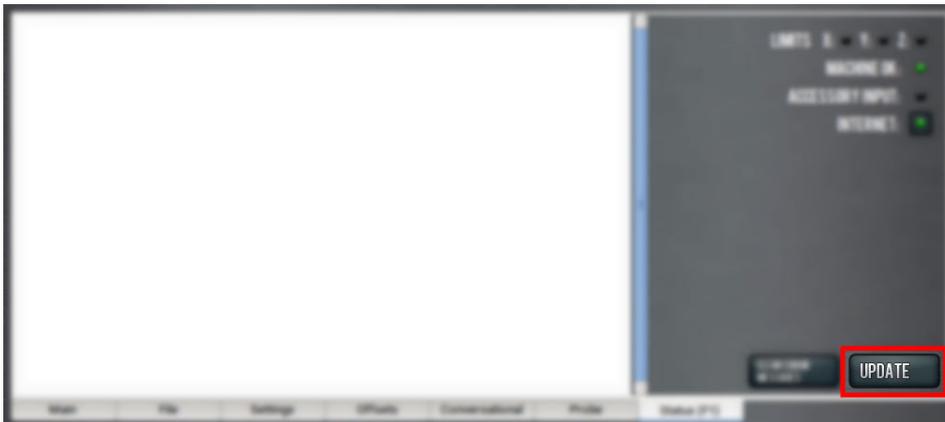
2. From the **Status** tab, select **Update**.

Figure 7: Update button on the Status tab.

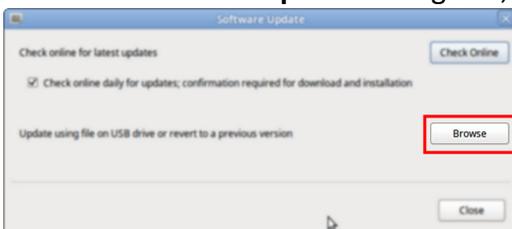3. From the **Software Update** dialog box, select **Browse**.

Figure 8: Software Update dialog box.

4. From the **Browse** dialog box, select **Previous Versions**.
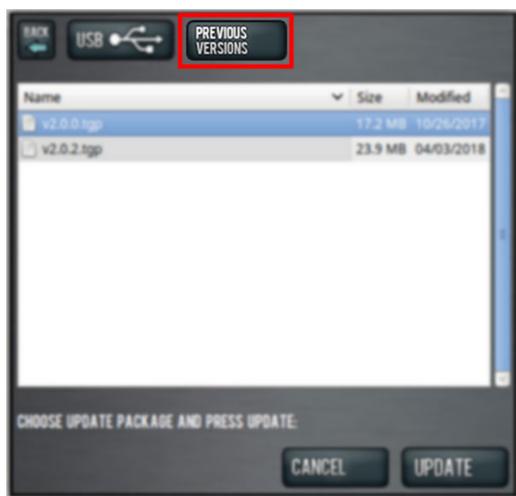
RELEASE NOTES

Figure 9: Browse dialog box.

5. Select the desired update file, and then select **Update**.
   The update file is installed on the PathPilot controller.

6. Follow the on-screen instructions to restart the PathPilot controller.