RELEASE NOTES FOR PATHPILOT V2.4.0

December 2019

ENHANCEMENTS

All

- On the Main tab, the Tool Path display now shows M30 and M99 cycle counters. (PP-1703)
  For information, see "M30 and M99 Cycle Counters Reference" (page 3).
- We added support for G37 and G37.1, used to automatically measure tool lengths with an Electronic Tool Setter (ETS). (PP-2682)
  For information, see the most recent version of the machine operator's manual at tormach.com/support.
- We added support for the 24R router. (PP-2702)
- You can now use the command `ADMIN AUDIO` in the MDI Line DRO field to adjust your audio device and volume. (PP-2706)
- In the MDI Line DRO field, commands now autocomplete if you first type the word `ADMIN` or `FIND`. (PP-2707)
- You can now manually refresh the Tool Path display by selecting Refresh (in the Position Status area). Previously, it refreshed automatically, which could sometimes cause interruptions to your workflow. (PP-2709)

Mills

- Feed rate override functions are now disabled when a probe is completing its final (slow/fine) motion in the subroutine. (PP-2705)

Lathe

- When using conversational threading, you can now add a value for spring passes. (PP-1299)

FIXED ISSUES

All

- On the Settings tab, the G-Code Description window now shows entries for G61, G64, and extended work offsets. (PP-2663)
- We fixed an issue where conversational feeds and speeds were enabled when the PathPilot controller powered on, even if the checkbox on the Settings tab was cleared. (PP-2664)

Mills

- We fixed issues where:
  - The Accessory Input LEDs between the Status tab and the Probe tab didn't consistently show the port's actual state. (PP-2425)
  - A bounce on probe input between G38.2 and G38.6 incorrectly stopped the program and caused an error: "Probe tripped during non-probe motion." (PP-2495)

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RELEASE NOTES

- RapidTurn configurations had an incorrect maximum rpm for the high spindle speed range. Now, the maximum is 3500 rpm. (PP-2628)
- The PathPilot controller wouldn't restart if the engraving_fonts folder was missing (for example, if you deleted it). (PP-2654)
- The conversational Engrave tab wasn't compatible with extended work offsets (G54.1 P1 or larger). (PP-2661)
- On 770MX and 770M+ mills, RapidTurn configurations had incorrect scales for Y- and Z-axes. (PP-2696)
- In probing an A-axis circular boss, the final Z probe for center was above the actual center by the probe effective tip radius. (PP-2718)
- When using the pendant to jog in G21 mode on a PathPilot operator console, the machine moved in inches (instead of millimeters). For example, instead of moving 0.1 mm per click, the machine moved 0.01 in. per click. (PP-2721)

- We modified the limits available to use with the soft limit commands (like `ADMIN SET_X_LIMIT`). (PP-2585)
- We updated the Fusion 360™ POST (provided by David Loomes), which was modified to work with extended work offsets. (PP-2695)

Lathe

- We fixed an issue where, when using a roughing tool for a conversational finishing pass, the spindle could stall. (PP-2651)

RELEASE NOTES

M30 AND M99 CYCLE COUNTERS REFERENCE

On the Main tab, the Tool Path display shows M30 and M99 cycle counters. They're useful to count parts completed during unattended operation.

For each M-code, there's an A and B counter. This provides more flexibility, because you can reset them to 0 independently.

For example, you could use M30 A to count parts each shift, and M30 B to count parts each week. The cycle counters persist across the controller's power cycles.

In the MDI Line DRO field, type `ADMIN CYCLECOUNTER` to show or hide the counters and to reset them to 0.

The cycle counters are implemented as read-only persistent G-code numbered parameters, as detailed in the following table. If needed, the cycle counter value can be read in G-code.

Cycle Counter	Parameter
M30 A	#5650
M30 B	#5651
M99 A	#5652
M99 B	#5653

To change a counter value explicitly, use a G10 command: `G10 L99 P~ Q~`

- P~ selects the cycle counter to change. Use any of the values detailed in the following table.

Cycle Counter	P~
M30 A	0
M30 B	1
M99 A	2
M99 B	3

- Q~ specifies the value to set the cycle counter. If Q~ is omitted, the cycle counter is incremented by 1.

  For example, if you program `G10 L99 P2`, the M99 A cycle counter increments by 1.

RELEASE NOTES

MANAGE PATHPILOT VERSIONS

> **Note:** 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" (below)
- "Install an Update File from a USB Drive" (on the next page)
- "Install a Previous Version of an Update File" (page 7)

2.1 DOWNLOAD AND INSTALL AN UPDATE FILE

> **Note:** Downloading and installing an update file requires an Internet connection. From the PathPilot interface, confirm that the Internet button LED light is on.

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

2. From the PathPilot interface, on the **Status** tab, select **Update**.

Figure 2-1: Update button on the Status tab.

3. From the **Software Update** dialog box, select **Check Online**.
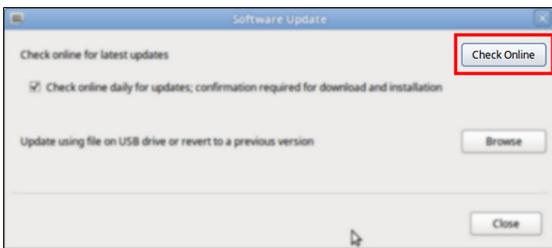
Figure 2-2: Software Update dialog box.

4. Select **Install**.

Figure 2-3: 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**.
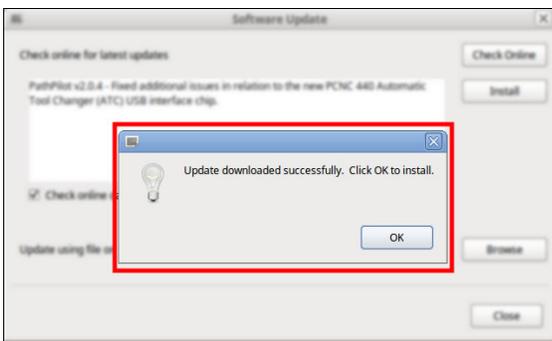
Figure 2-4: OK button on the dialog box.

The update file is installed on the PathPilot controller.

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

2.2 INSTALL AN UPDATE FILE FROM A USB DRIVE

1. From tormach.com/pp-updates, 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 PathPilot interface, on the **Status** tab, select **Update**.

Figure 2-5: Update button on the Status tab.

RELEASE NOTES

6. From the **Software Update** dialog box, select **Browse**.
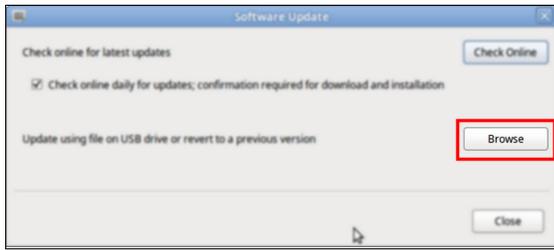
Figure 2-6: Software Update dialog box.

7. From the **Browse** dialog box, select **USB**.
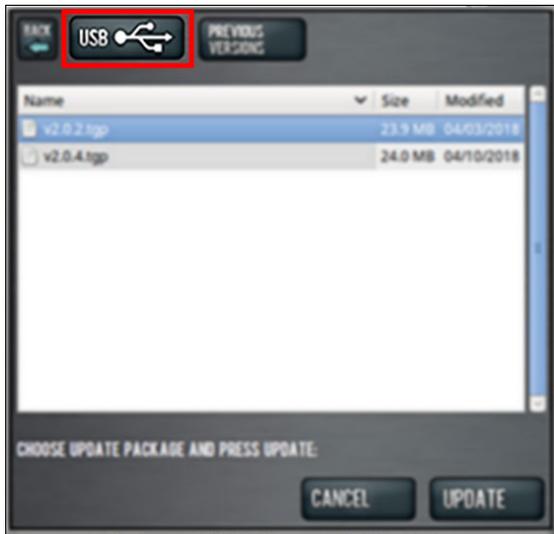
Figure 2-7: Browse dialog box.

8. Select the desired update file, and then select **Update**.

Figure 2-8: Update button.

The update file is installed on the PathPilot controller.

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

RELEASE NOTES

2.3 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 PathPilot interface, on the **Status** tab, select **Update**.

Figure 2-9: Update button on the Status tab.

3. From the **Software Update** dialog box, select **Browse**.
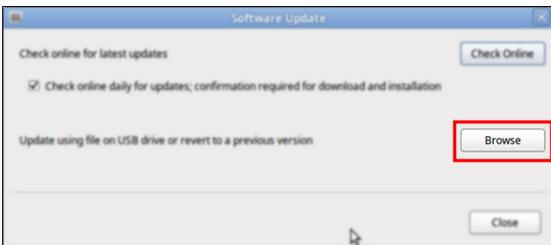
Figure 2-10: Software Update dialog box.

4. From the **Browse** dialog box, select **Previous Versions**.
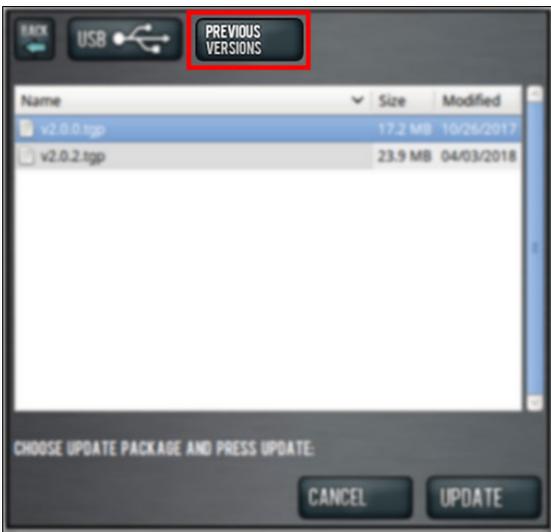
Figure 2-11: Browse dialog box.

RELEASE NOTES

5. Select the desired update file, and then select **Update**.
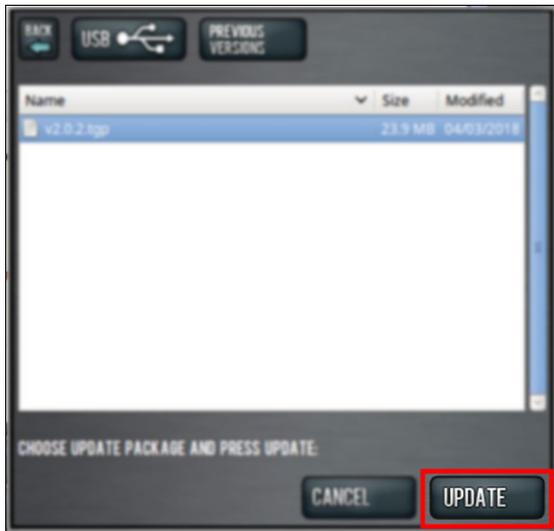
Figure 2-12: Update button.

The update file is installed on the PathPilot controller.

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