RELEASE NOTES FOR PATHPILOT V2.9.0

July 2022

ENHANCEMENTS

We added:

- An example spindle warmup program in the **Examples** folder in the **File** tab. Whenever the machine has been idle overnight or longer, running the spindle warmup program provides proper lubrication to the spindle bearings. For the 24R specifically, there's also a new spindle break-in program. (PP-3376)

- Driver support for new versions of USB WiFi adapters. (PP-3377)

- Detection of some error conditions in mills and lathes. A running program or MDI command now stops with an error if:

  - A motion requiring specific spindle rpm doesn't see the spindle reach the target speed within 20 seconds.

  - A motion requiring spindle synchronization doesn't see an index pulse within 10 seconds. (PP-3386)

- Support for the automatic tool changer (ATC) for 24R routers. (PP-3394)

- Support for the ZA6 robot. (PP-3395)

- Dropbox support now requires updating the Chrome browser on your controller. To easily update the browser, you can now use a script from the **Examples** folder in the **File** tab. (PP-3593)
  To learn how to use the technical support script, click here to read our how-to article.

FIXED ISSUES

All

We fixed issues where:

- In very rare situations, PathPilot unexpectedly shutdown while editing a conversational G-code program, though it could occur in other situations. (PP-3318)

- It wasn't possible to download files from PathPilot HUB if they were contained in a folder that didn't already exist on the local controller. (PP-3333)

- In some cases, the G71 path preview was shown incorrectly after a conversational edit session (program execution was not affected). (PP-3341)

- Introduced in PathPilot v2.8.2, a full-turn helical path could, in some cases, have too small of a pitch (due to an extra full turn). (PP-3354)

- An error could occur when downloading files from PathPilot HUB that are inside of folders. (PP-3390)

- Tool descriptions with colons were truncated during programs where manual tool changes were required. (PP-3431)

Mills

We fixed issues where:

- The maximum Z feed rate for conversational tapping was too small in G21, preventing you from saving an otherwise valid tapping program. (PP-3301)

- In some cases, G30 in conversational code failed with a limit error when the G30.1 Z position was at maximum Z height. (PP-3313)

- If G33.1 was called via MDI as the very first command after selecting **Ref** or **Reset**, it failed with an error, and caused the next MDI command to pause indefinitely before execution (which required you to select **Stop/Reset**). (PP-3328)

- A G-code error after a tool change in a running program could leave the previous tool's offset active. (PP-3357)

- On MX mills, calling a tool change reset the G28 position. (PP-3371)

Lathes

We fixed issues where:

- G71 conversational profile gouged if the profile crossed X0 with cutter compensation active. (PP-3277)

- On 8L lathes, warnings about incorrect tool offset X values for front/rear tool posts were reversed. (PP-3312)

- Ring-jogging in Y would eventually cause a soft emergency stop due to a joint following error on the non-existent Y axis. (PP-3334)

- Introduced in PathPilot v2.8.3, the G30 X position was incorrectly scaled. (PP-3344)

- Some rear tool post only tools were visible in the tool selection screen as possible tool types for the 8L lathe, which only uses front tool post tools. (PP-3369)

- In some cases, invalid tool numbers greater than 9999 were accepted in G-code, leading to spurious python exceptions in log files during conversational operations. (PP-3370)

- An explicit tool change to T0 didn't completely clear the tool offset if a wear offset was previously active (subsequent tool changes/offsets were unaffected). (PP-3378)

- In very rare situations, attempting to reference the X- and Z-axis at the same time on the 15L Slant-PRO lathe could result in one of the axes moving in the opposite direction it normally travels to reference. (PP-3383)

- In conversational profiling, front tool post tools weren't correctly configured and displayed. In some cases, the default front/back angles were incorrect, requiring an override to get proper profiling behavior. Also, we fixed the display of front tool post tool shapes in conversational profiling so that they match the lathe's orientation. (PP-3400)

- Recommended feed/speed/thread passes weren't populated for some materials on the 8L lathe. (PP-3427)

Plasma

We fixed issues where:

- In some cases, using set start line failed with a soft limit error if the start line was after a G15. (PP-3458)
- Unexpected AXIS_ABORT error messages sometimes appeared on the **Status** tab after a change in G20/G21 units during MDI actions or while running programs. (PP-3435)

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 6)

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**.
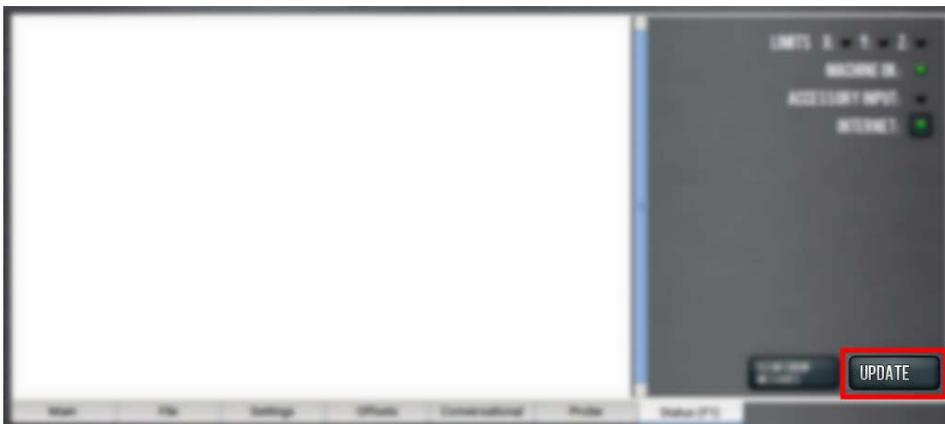
Figure 1: Update button on the Status tab.

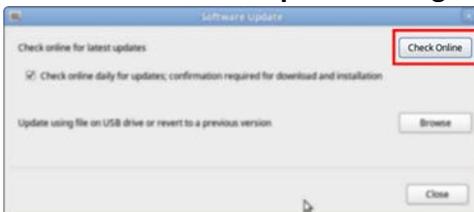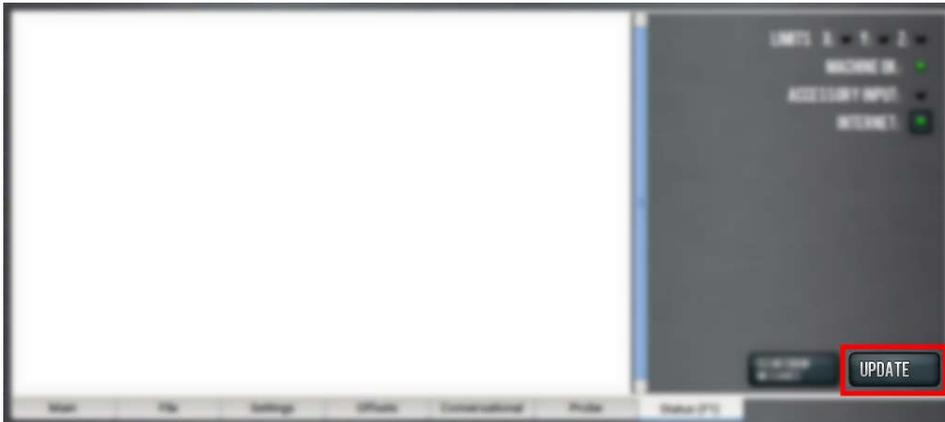3. From the **Software Update** dialog box, select **Check Online**.

Figure 2: Software Update dialog box.

4. Select **Install**.

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.

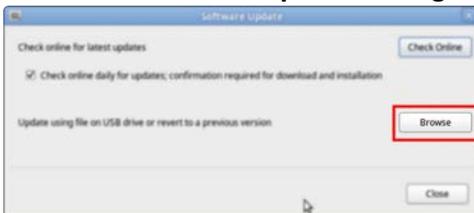6. From the **Software Update** dialog box, select **Browse**.

Figure 5: Software Update dialog box.

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

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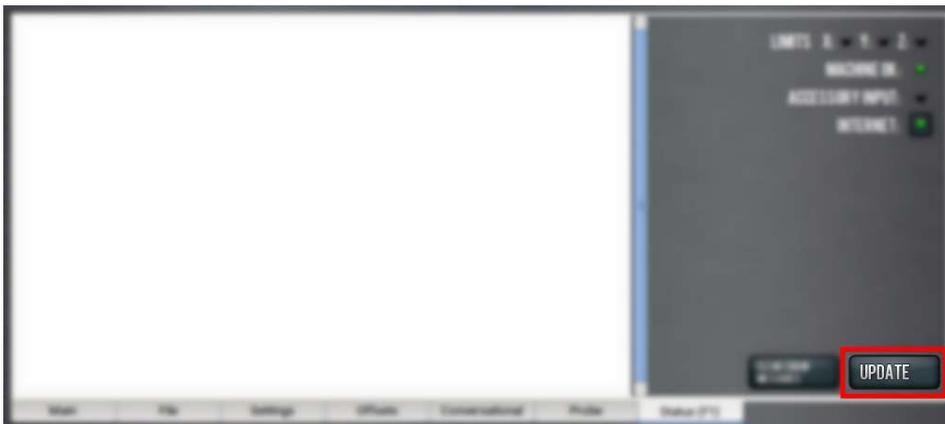
2. From the **Status** tab, select **Update**.

Figure 7: Update button on the Status tab.

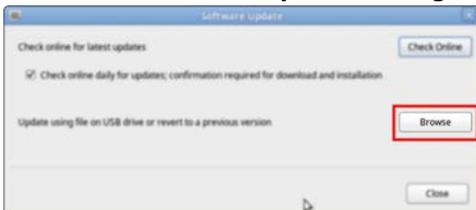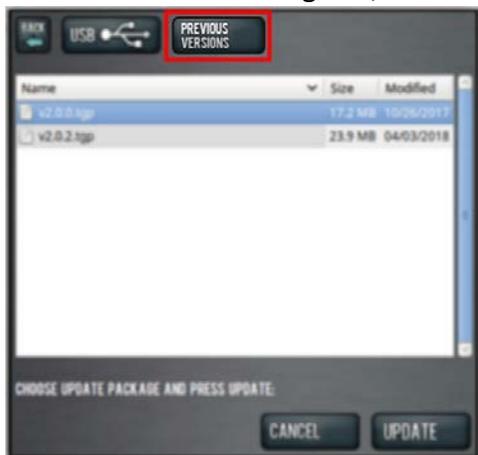3. From the **Software Update** dialog box, select **Browse**.

Figure 8: Software Update dialog box.

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

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.