

MR-1 Custom Post Processor - Change Log & User Guide

Change Log from OEM to Custom Version

1. Manual Tool Change Workflow:

- Replaced T/M6 calls with manual comment-based tool changes.
- Removed `useToolCall` and `useM06` options.

2. End-of-Program Parking Logic:

- Added `sendToFront`, `sendToHome`, and `retractZOnly` properties.
- If `sendToFront` is enabled:
 - Uses `sendToFront()` after each section except the last.
 - On the last section, uses `sendToHome()` if it's also enabled.
- If only `sendToHome` is enabled, it triggers after every section.
- If `retractZOnly` is enabled, overrides all others.

3. G53 Z0 Initial Move:

- Inserts a `G53 Z0` move at program start.

4. File Splitting:

- Enhanced subprogram naming and modal reset between files.

5. Modal Reset:

- Ensures modal state is reset after split files.

6. Tool Comments:

- Improved formatting of tool info comments (includes ZMIN, CR, etc.).

7. Coolant Logic:

- Cleaned up and ensured OFF is issued before retraction.

8. Removed G28:

- G28 removed from `safeRetractMethod` dropdown (not safe for MR-1).

9. Modify `sendToFront()` command:

- Cleaned code to verify Send to Front will only execute after all toolpaths for a given tool are completed

10. Denote units on Send To Front Dimensions in Post

- 11. Incorporate G20 into Code to verify switch back to inches before sending machine to front position at end of tool

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Key Post Properties:

Split File:

- Options: None, By Tool, By Toolpath
- Auto-generates multiple .nc files if selected.

Safe Retracts:

- Options: G53, Clearance Height (G28 removed).
- G53 = machine coordinate retract. Clearance Height = CAM-defined safe Z.

Use Sequence Numbers:

- Outputs N-numbers optionally, or only on tool change lines.

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Write Machine / Tool List:

- Adds comments at top of file about tools and machine info.

Separate Words:

- Adds spaces between G-code words.

Custom End Behavior:

Retract Z Only:

- Moves Z to home (G53 Z0), disables spindle/coolant. Ignores all other options.

Send to Front:

- Moves Z up, XY to front (defined values), spindle off, coolant off.
- If Send to Home is also enabled, last section will use Send to Home instead.

Send to Home:

- If Send to Front is enabled: used only on the last section.
- If Send to Front is disabled: used after every section.

Recommended Settings:

- Safe Retracts: G53
- End Behavior: Enable Send to Front + Send to Home
- Split File: Use 'Split by Tool' for manual tool changes