

# 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).

## User Guide: Custom MR-1 Post Processor

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