

POSM Overlay Tool – User Guide

Burn inspection overlays directly into POSM inspection MP4 videos (subtitle overlay → ffmpeg burn-in).

Quick Start (Most Users)

1. Copy the POSM Overlay Tool folder from the POSM install disc into your POSM application folder.
2. Double-click “POSM Overlay Tool.exe”.
3. Select one or more inspection sessions.
4. (Optional) Click Render TEST to preview overlay placement.
5. Click Process Selected Sessions and allow the tool to run.
6. When finished, reopen the inspection in POSM to view the updated video.

Notes:

- The original video is automatically backed up as <video>.preOverlay.mp4.
- The final MP4 replaces the original video filename.
- For large batches or long videos, it is recommended to run the tool before leaving for the day.

1. Overview

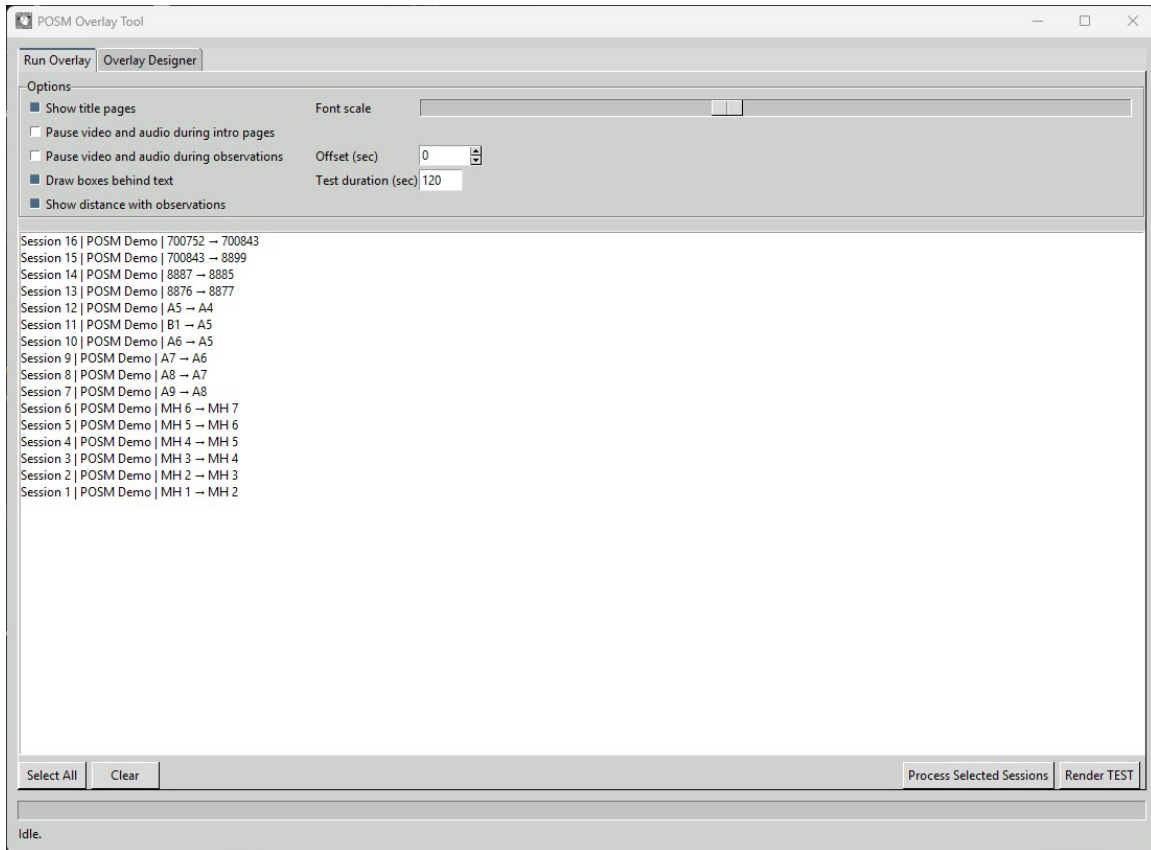
The POSM Overlay Tool generates standardized inspection overlays from POSM.mdb (SpecialFields header fields and fault observations) and burns them into the session MP4 video using ffmpeg. It creates a backup of the original video before replacing it.

2. What the Tool Produces

- For each processed session video:
- <video>.preOverlay.mp4 (backup of the original video)
- <video>.mp4 (final video with overlay burned in)
- <video>.overlay.ass (generated subtitle overlay file for reference)

3. Important Notes

1. Burning overlays requires re-encoding video, so processing time depends on video length and computer speed.
2. Audio is preserved by copying the original audio stream when possible.
3. To revert an inspection video, rename the .preOverlay.mp4 back to the original filename.



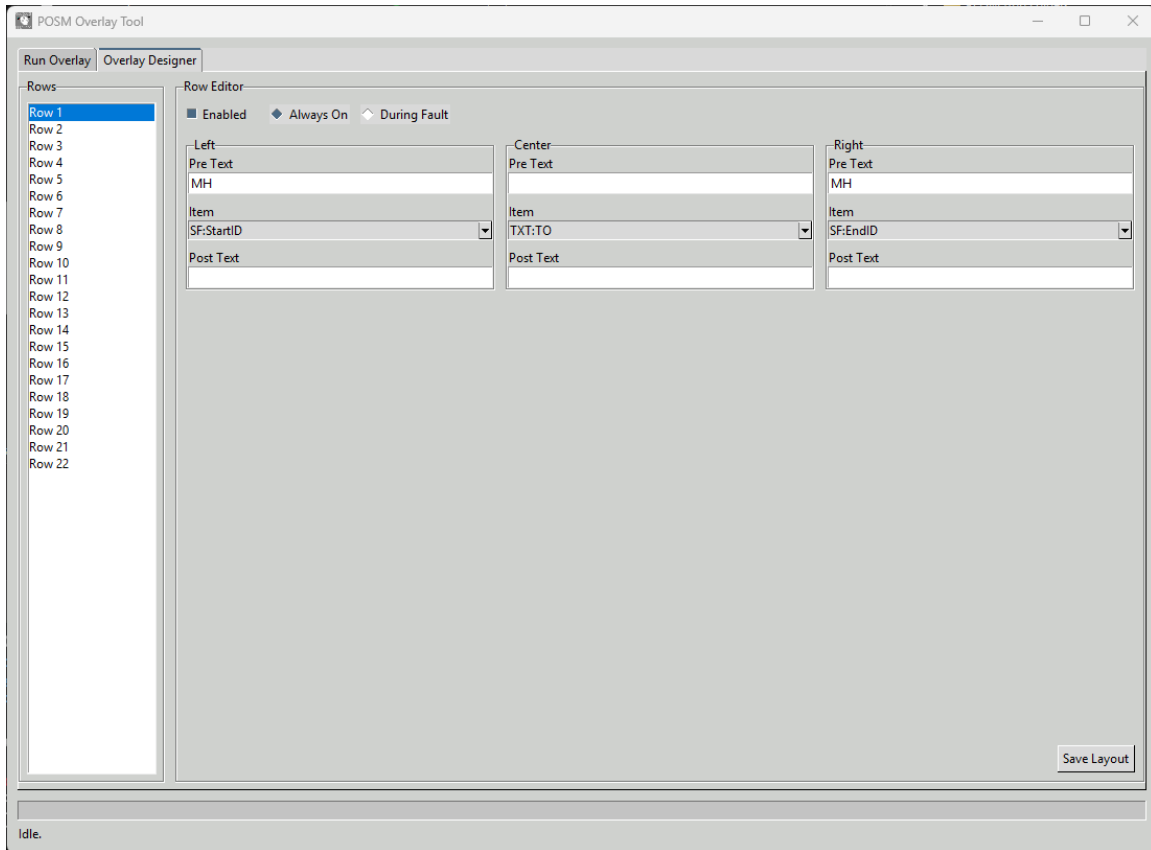
4. Using the GUI

Run Overlay tab:

- Select one or more sessions (use Select All / Clear).
- Render TEST: short preview run using the Test duration setting.
- Process Selected Sessions: processes full inspection videos.
- Progress bar updates per session and per processing stage.

Additional Options:

- **Show title pages.** Displays inspection intro pages generated from the POSM database.
- **Pause video and audio during intro pages.** Freezes the video (black screen) and pauses audio while intro pages are displayed. Use this when adding intro pages to videos that did not originally have them.
- **Pause video and audio during observations.** Freezes the video and pauses audio at each observation point so the overlay text remains readable. Multiple observations at the same location are displayed sequentially during a single pause.
- **Draw boxes behind text.** Adds semi-transparent background boxes behind overlay text for readability.
- **Show distance with observations.** Displays the inspection distance with each observation.



5. Overlay Designer

The Overlay Designer allows users to control where inspection data appears on the video using a row and column grid, similar to POSM's built-in overlay designer.

Designer concepts:

- Rows define vertical placement (Row 1 at the top, Row 22 near the bottom).
- Each row contains three columns: Left, Center, and Right.
- Each column supports Pre Text, Item selection, and Post Text.
- Item selections come from SpecialFields (header data) and fault data (Fault Name, Remarks, Distance).
- Row Mode controls when a row is visible: Always On or During Fault.

Recommended default rows:

- Row 1 (Always On): Manhole Start ID → Manhole End ID
- Row 2 (Always On): Date | Project Name | Time
- Row 15 (During Fault): Fault Name | Remarks
- Row 16 (During Fault): Distance + FT (or M for metric inspections)

Using the Designer:

1. Open the Overlay Designer tab.
2. Select a row number on the left.
3. Set Enabled and choose Always On or During Fault.
4. Configure Left, Center, and Right columns using Pre Text, Item, and Post Text.
5. Click Save Layout to store settings in overlay_layout.json.
6. Run a Render TEST to verify placement and readability.

6. Installing / Running the Tool

The POSM Overlay Tool is distributed as a standalone Windows application. No additional software installation is required.

- Copy the tool folder from the POSM install media into the POSM application folder.
- Run the EXE directly from that folder.

