

# REAPER Host Automation Recommendation

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## Direct Answer

Yes, adding a REAPER headless lane is beneficial for LocusQ. It will improve automated host-level regression tests.

## What It Helps With

- Fast, repeatable DAW-level smoke checks after each patch.
- Detecting host lifecycle regressions (load/render/exit behavior).
- Validating transport/layout stability in a real host path.
- Reducing manual setup overhead for repeated QA cycles.

## What It Does Not Replace

- Human listening validation for binaural/spatial quality.
- Device-specific perceptual checks (for example AirPods behavior).
- UX-level interaction quality judgments.

## Recommended Test Model

Use a hybrid model:

1. Automated lane (headless REAPER)
  - Render a fixed `` .rpp `` test project with LocusQ inserted.
  - Assert clean process exit and artifact generation.
  - Use for transport/layout and plugin load regressions.
2. Manual listening lane (REAPER session template)
  - Track 1: synth source.
  - Track 2: LocusQ insert.
  - Route Track 1 -> Track 2.
  - Validate `` stereo_downmix `` vs `` steam_binaural `` in headphones.

## Added Repo Artifacts

- `` scripts/reaper-headless-render-smoke-mac.sh ``
- `` qa/reaper/reascripts/LocusQ_Create_Manual_QA_Session.lua ``
- `` Documentation/testing/reaper-manual-qa-session.md ``
- `` Documentation/plans/reaper-host-automation-plan-2026-02-22.md ``
- Backlog item `` BL-024 `` in `` Documentation/backlog-post-v1-agentic-sprints.md ``

## Steam Diagnostics Status (BL-009)

Latest opt-in self-test evidence confirms active Steam path on current host:

- `steamCompiled=true`
- `steamAvailable=true`
- `stage=ready`
- `err=0`
- Evidence: `TestEvidence/locusq\_production\_p0\_selftest\_20260221T104708Z.json`

## **Key REAPER References Tracked in Backlog**

- <http://reaper.fm/userguide.php>
- <http://reaper.fm/sdk/reascript/reascript.php>
- <http://reaper.fm/sdk/plugin/plugin.php>
- <https://sws-extension.org/>
- <https://reapack.com/>
- <https://github.com/Cockos-Reaper-DAW/Reaper-Audio-Software>
- <https://github.com/reaper-oss/sws>
- <https://github.com/X-Raym/REAPER-ReaScripts>
- <https://github.com/MichaelPilyavskiy/ReaScripts>
- <https://github.com/przemoc/REAPER-ReaScripts>
- <https://github.com/flavianohonorato/scriptsForReaper>
- <https://github.com/edkashinsky/reaper-reableton-scripts>
- <https://github.com/bitfocus/companion-module-cockos-reaper>
- <https://github.com/indiscipline/awesome-reaper>
- <https://github.com/topics/reaper>
- [https://github.com/ashaduri/reaper\\_plugins](https://github.com/ashaduri/reaper_plugins)
- <https://lykaiosnz.github.io/reaper-osc.js/classes/reaper.html>