

Beta Tester's Guide

A checklist for testing future Mandelbrot Metal updates against the released 3.0.1 baseline. Use the version, build number, and What to Test notes shown in TestFlight for the beta you install; this guide does not identify an active beta release.

Report your device and operating system, bookmark or coordinates, exact steps, expected and actual results, and a screenshot or screen recording when useful.

1) Infinity Engine

- Open shallow, high-iteration, and ultra-deep Mandelbrot bookmarks across the validated range, including scenes near 1×10^{25} .
- Confirm pinch and double-tap stop cleanly at 1×10^{25} without snapback, solid-color frames, clipped regions, or changes to the selected center.
- Confirm the full target fractal completes without crescents, seams, clipped regions, stale tiles, or unexplained black areas.
- Record time from applying the bookmark until the entire target frame is rendered and presented. Do not report setup-only, kernel-only, offscreen, zero-size, or partially rendered times.
- Note the drawable size, iteration count, sampling information shown by the app, device temperature, power state, and whether this was the first or a repeat run. Sampling is automatic.
- Confirm Julia scenes remain stable and use the expected direct Julia rendering path.

2) Interaction & Controls

- Pan, pinch, and double-tap at shallow and ultra-deep scales. The previous complete image should remain visible and move immediately while the exact target view renders.
- Verify that deep center coordinates change after a pan and that the completed image recenters correctly.
- Change iterations, contrast, palette, and 3D Look. Sampling is automatic; there is no SSAA switch. Controls should remain responsive during rendering, with a retained preview instead of a blank canvas.
- Check toolbar, More menu, percentage-based rendering indicator, and Pro entry points on both iPhone and iPad in portrait and landscape.

3) Free & Pro

- Free: both fractal modes, the full renderer, all 156 built-in palettes, 56 curated starter bookmarks, five personal bookmark slots, and canvas PNG capture.
- Pro: unlimited bookmarks, custom/photo/imported palettes, 3D Look, and 4K/6K/8K/custom PNG export.
- When purchase testing is part of the TestFlight instructions, exercise Monthly, Annual, Lifetime, Restore, expiration, and eligible Legacy Pro states as directed. Confirm the 56 included starters do not consume Free's five personal slots.
- Confirm upgrade prompts explain the locked feature without interrupting ordinary Free exploration.

4) Persistence & Export

- Save, load, sort, delete, import, export one, and Export All for bookmarks.
- Verify imported deep bookmarks preserve their center, scale, iterations, palette, contrast, and fractal mode.
- Check canvas and Pro high-resolution PNG output for framing, sharpness, color space, 3D state, and aspect ratio.
- Restart the app and confirm settings, Pro access, favorites, bookmarks, and custom palettes persist. Test an update without deleting the app to check that the saved exploration and existing collections are retained.

5) Localization & Accessibility

- Spot-check all 16 supported languages, including right-to-left layouts for Arabic and Hebrew.
- Look for clipped text, untranslated strings, incorrect pluralization, inaccessible controls, and layout changes at larger Dynamic Type sizes.
- Verify onboarding, upgrade screens, purchase errors, menus, alerts, permissions, Help, and capture flows.

6) How to Report

Use **Share Beta Feedback** on the app's TestFlight page, or email support. Include the exact beta version and build number from TestFlight, and say whether the same steps reproduce in the released app.

Email Support

Attach the bookmark and any dependent custom palette when they are needed to reproduce the issue. For performance reports, include the drawable dimensions and complete-frame timing.

7) Pass Criteria

- No reproducible crash, hang, black-canvas transition, deep-coordinate freeze, crescent artifact, or clipped drawable.
- Free and Pro capabilities match the documented split on both iPhone and iPad.
- Every reported performance number represents full-frame completion and presentation at a recorded drawable size.
- No critical regression in navigation, iterations, contrast, bookmarks, palettes, capture, launch, or restoration.

Need help? support@mandelbrot-metal.com