

Technical QA checklist

Functional and scientific verification for a reviewer-style evaluation.

Reviewer	
Date	
Deployment URL	
Release or build	
Operating system	
Browser and version	

Purpose: exercise the complete application, record expected versus actual behavior, and return a saved PDF so failures can be read and investigated by stable test ID.

How to use this form

Download and open in a PDF reader that supports forms. Use a separate saved copy for each full browser run. Tick Done only after executing the case; select Pass, Fail, Blocked or N/A. Leave unexecuted cases as Not tested.

Report reproducibly

Use Remarks for concise observations, settings and evidence filenames. For failures, complete an issue record near the end with test IDs, reproduction steps, expected/actual result and severity. Do not include passwords or sensitive genomic records.

Priorities and sign-off

P0 identifies access, correctness, privacy or release blockers. P1 identifies functionality and usability requirements. A tick is not proof of passing: use the Result field. Resolve failed/blocked P0 cases before a public submission.

Save and return

Use Save or Save as to retain interactive field values, then reopen the saved file to check them. Printing to PDF may flatten fields. Return the saved PDF and referenced screenshots/exports for review; no fields are pre-marked as passed.

Basis: current chromoMap2 controls and the NAR Web Server guidance. This is not an official NAR checklist and cannot guarantee editorial acceptance.

Access and browser readiness

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-001Public submission accessP0

Action: Open the intended public submission URL in a fresh private browser window.
Expected: Final public release opens without credentials; record the temporary development gate as a release blocker.

☐

Done

Result

Not tested

Optional remarks

QA-002HTTPS and landing informationP0

Action: Open the landing page; inspect licence, citation, tutorial and privacy links.
Expected: HTTPS is valid; essential links work and the non-commercial licence is visible.

☐

Done

Result

Not tested

Optional remarks

QA-003Second-browser core workflowP0

Action: Repeat upload, plot, tooltip and export in a second browser; record exact versions.
Expected: Same inputs/settings yield consistent data and usable output without browser-specific failures.

☐

Done

Result

Not tested

Optional remarks

QA-004Responsive layoutP1

Action: Resize the window and try a narrow screen; inspect tabs, selectors, buttons and figure.
Expected: Controls remain reachable; text does not overlap or hide essential actions.

☐

Done

Result

Not tested

Optional remarks

QA-005Keyboard navigationP1

Action: Use Tab, Enter and Escape through navigation, search and modal dialogs.
Expected: Visible focus; controls work by keyboard; dialogs can close without trapping the user.

☐

Done

Result

Not tested

Optional remarks

QA-006Browser support boundaryP1

Action: Try an unavailable optional capability such as WebLLM or restricted storage.
Expected: Core upload, rendering and export remain usable; unsupported optional operations explain the limitation.

☐

Done

Result

Not tested

Optional remarks

Table parsing and validation

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-007 CSV and TSV acceptance

P0

Action: Upload chromosomes.tsv and numeric.tsv, then equivalent comma-separated files.
Expected: Two references and 200 numeric annotations are read with correct names and values.

☐

Done

Result

Not tested

Optional remarks

QA-008 Quoted and Unicode text

P1

Action: Use quoted CSV names containing a comma, Unicode feature names and a UTF-8 BOM.
Expected: Text survives parsing, editing, tooltips and exports without broken columns or characters.

☐

Done

Result

Not tested

Optional remarks

QA-009 Malformed table structure

P0

Action: Try missing/blank/duplicate headers and a row with an extra or missing column.
Expected: Clear rejection with a useful message; no silent truncation or partial acceptance.

☐

Done

Result

Not tested

Optional remarks

QA-010 Coordinate convention

P0

Action: Try zero, negative, fractional, blank, nonfinite and reversed coordinates.
Expected: Application tables require positive one-based inclusive coordinates and reject all invalid cases.

☐

Done

Result

Not tested

Optional remarks

QA-011 Reference compatibility

P0

Action: Try an unknown chromosome and an annotation outside its chromosome bounds.
Expected: Rejection identifies the row/reference; previous accepted data remain intact.

☐

Done

Result

Not tested

Optional remarks

QA-012 Numeric missingness and zero

P0

Action: Include a true zero, an empty cell, a negative numeric value and a category.
Expected: Zero is retained; missingness is not silently converted to zero; categories are not numeric measurements.

☐

Done

Result

Not tested

Optional remarks

Table editor and set management

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-013

Create tables in the editor

P1

Action: Create chromosome and annotation tables without uploading files; populate valid rows.
Expected: Required columns are available; Apply changes produces a usable map.

☐ Done

Result

Not tested

Optional remarks

QA-014

Edit and paginate data

P1

Action: Open View/edit on the 200-locus dataset; edit a row on a later page.
Expected: Pagination and edits affect the intended row and survive Apply changes.

☐ Done

Result

Not tested

Optional remarks

QA-015

Rows and optional columns

P1

Action: Add/delete/reorder rows; add an optional data2 column; try deleting a required column.
Expected: Edits are correct; required columns cannot be removed; multi-series values are preserved.

☐ Done

Result

Not tested

Optional remarks

QA-016

Rejected edits preserve data

P0

Action: Blank a required coordinate and apply; correct the value and apply again.
Expected: Invalid edit remains uncommitted with a log entry; correction succeeds without losing original rows.

☐ Done

Result

Not tested

Optional remarks

QA-017

Set naming and ordering

P0

Action: Name two sets, reorder them and remove one after creating a working map.
Expected: Names, data and controls stay associated with the correct set; links are remapped or removed correctly.

☐ Done

Result

Not tested

Optional remarks

QA-018

Set count and reset behavior

P1

Action: Increase/decrease set count, clear the project and start a new upload.
Expected: Set count matches controls; reset state is coherent and does not leave stale visible data.

☐ Done

Result

Not tested

Optional remarks

Scientific and synthetic examples

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-019

One-click example loading

P0

Action: Load each of the six scientific examples from the tutorial/application.
Expected: Each becomes an editable project rather than only a static figure; the named example is loaded.

☐ Done

Result

Not tested

Optional remarks

QA-020

Example provenance

P0

Action: Read each card and README; inspect species, source, assembly and processing information.
Expected: Known details are traceable; missing assembly/release information is clearly identified before publication.

☐ Done

Result

Not tested

Optional remarks

QA-021

Example packages

P1

Action: Download and unzip an example package; open open-figure.html with its libraries beside it.
Expected: Files exist, checksums match and the saved figure opens; extracted TSV pairs are usable.

☐ Done

Result

Not tested

Optional remarks

QA-022

Ten-minute scientific tour

P1

Action: Follow the grapevine gene-centred guided tour without additional help.
Expected: Three biological layers and their meaning are identifiable; inspection and export are reachable.

☐ Done

Result

Not tested

Optional remarks

QA-023

Synthetic numerical checkpoints

P0

Action: Inspect numeric.tsv and expected-results.json before changing settings.
Expected: 200 annotations, sum 2046 and raw mean 10.23; synthetic data are not described as biological evidence.

☐ Done

Result

Not tested

Optional remarks

QA-024

Example replacement and recovery

P0

Action: Load an example, then a different example, then user-supplied tables.
Expected: No data or configuration from the previous example is inadvertently retained.

☐ Done

Result

Not tested

Optional remarks

Independent data modes and comparisons

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-025

Annotation-only representation

P1

Action: Select Annotations only for one set and create the map.
Expected: Feature positions are represented without an unintended quantitative or categorical encoding.

☐ Done

Result

Not tested

Optional remarks

QA-026

Independent numeric and categorical sets

P0

Action: Load numeric data in set 1 and categorical data in set 2; set modes separately.
Expected: Changing one set does not alter the mode, palette or representation of another set.

☐ Done

Result

Not tested

Optional remarks

QA-027

Heat-map switch

P1

Action: Toggle Show heat map independently in each set and recreate the plot.
Expected: Only the intended data-color encoding changes; the other sets retain their settings.

☐ Done

Result

Not tested

Optional remarks

QA-028

Same-reference comparison

P0

Action: Compare numeric.tsv with numeric-second.tsv on matching references.
Expected: Second series is twice the first at all named loci; displayed scales are interpretable.

☐ Done

Result

Not tested

Optional remarks

QA-029

Different chromosome complements

P1

Action: Load the rice/maize example and inspect reference lists in both sets.
Expected: Different chromosome counts/order remain valid; no false requirement for equal complements.

☐ Done

Result

Not tested

Optional remarks

QA-030

Multi-layer mixed representation

P0

Action: Create structure, categorical and numeric layers using separate sets.
Expected: Each layer retains the appropriate plot type, visibility, unit and legend meaning.

☐ Done

Result

Not tested

Optional remarks

Windowing and genomic scales

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-031

Adaptive resolution

P0

Action: Change Window factor through several values and recreate the map.
Expected: Larger factors increase detail/window count; underlying coordinates and input data are unchanged.

☐ Done

Result

Not tested

Optional remarks

QA-032

Fixed 100-bp summary

P0

Action: Set fixed windows to 100 bp with spanning assignment and avg aggregation.
Expected: chr1:1-100 has 13 loci, sum 91 and mean 7 in the numeric fixture.

☐ Done

Result

Not tested

Optional remarks

QA-033

Spanning annotation assignment

P0

Action: Use a feature spanning a window boundary; toggle Map spanning annotations.
Expected: The feature contributes to all overlapped windows only when enabled; exported summaries agree.

☐ Done

Result

Not tested

Optional remarks

QA-034

Partial windows and summary display

P1

Action: Use a reference not divisible by the fixed size; toggle final-window removal and summaries.
Expected: Terminal-window handling follows the control; visible summaries correspond to exported values.

☐ Done

Result

Not tested

Optional remarks

QA-035

Adaptive ticks and exact request

P0

Action: Make the axis narrow, then request Major ticks = 2 and adjust minor ticks/suffix.
Expected: Labels avoid overlap; two endpoint major ticks appear when space permits; minor subdivisions are unlabelled.

☐ Done

Result

Not tested

Optional remarks

QA-036

Absolute and relative coordinate axes

P0

Action: Select Absolute, Relative and Both; check a gene interval with a non-1 origin.
Expected: Values refer to the correct origin; no unwanted absolute/relative captions are appended.

☐ Done

Result

Not tested

Optional remarks

Quantitative and categorical plots

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-037 **Basic quantitative plots** P0

Action: Try bar, scatter, line and area with the same numeric input and settings.
Expected: Values and coordinates remain consistent; representation changes do not alter source measurements.

☐ Done Result

Not tested

 Optional remarks

QA-038 **Numeric aggregation operations** P0

Action: Check avg, sum, min, max, count and median for a small known multi-value window.
Expected: Displayed summaries match independently computed expectations and the window export.

☐ Done Result

Not tested

 Optional remarks

QA-039 **No-aggregation behavior** P1

Action: Select none where supported and inspect the corresponding plot and exported data.
Expected: Behavior is clear and does not silently imply a different summary operation.

☐ Done Result

Not tested

 Optional remarks

QA-040 **Multi-line and multi-area series** P0

Action: Provide data/data2/data3; configure series colors and labels.
Expected: Every intended series appears with the correct values, order and metadata.

☐ Done Result

Not tested

 Optional remarks

QA-041 **Scatter-categorical grouping** P1

Action: Supply numeric values plus cate groups and choose scatter-categorical.
Expected: Numeric positions and category colors are correctly associated and interpretable.

☐ Done Result

Not tested

 Optional remarks

QA-042 **Categorical stacks** P1

Action: Use several categories in one window and select the categorical-stack plot.
Expected: Stack composition and tooltip categories agree with contributing records.

☐ Done Result

Not tested

 Optional remarks

Global layout and typography

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-043Reference geometryP1

Action: Change chromosome/window width, corner curve, chromosome gap and set gap.
Expected: Geometry changes as labelled without altering genomic coordinates or measurement values.

☐ Done

Result

Not tested

Optional remarks

QA-044Margins and alignmentP1

Action: Exercise top/left margins, padding, automatic left margin, centering and text shift.
Expected: Names and axes remain readable; the effect of automatic versus manual placement is coherent.

☐ Done

Result

Not tested

Optional remarks

QA-045Global text sizesP1

Action: Change chromosome, title, axis, legend and tooltip text sizes.
Expected: Each intended text element changes; no clipping at realistic export sizes.

☐ Done

Result

Not tested

Optional remarks

QA-046Y-axis labelsP1

Action: Set plot-y-label x/y offsets and size with a meaningful unit label.
Expected: Labels remain associated with the correct quantitative axis and survive export.

☐ Done

Result

Not tested

Optional remarks

QA-047Legend positioningP1

Action: Try automatic/manual legend placement and plot/link x/y offsets; drag legends.
Expected: Legends remain inside the figure and preserve their meaning after repositioning.

☐ Done

Result

Not tested

Optional remarks

QA-048Window guides and tooltip layerP1

Action: Confirm guides default on; change guide color and disable/re-enable guides.
Expected: Guide visibility/hover behavior follows controls without obscuring chromosome interactions.

☐ Done

Result

Not tested

Optional remarks

Per-set properties and navigation

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-049

Sticky set selector

P1

Action: Scroll to the bottom of per-set properties and select another set.
Expected: The selector remains visible under the tabs and edits apply to the newly selected set.

☐ Done

Result

Not tested

Optional remarks

QA-050

Section jump controls

P1

Action: Use all Global/Per-set and Additional Features jump buttons.
Expected: Correct section is selected, visible and highlighted without hiding its heading under sticky controls.

☐ Done

Result

Not tested

Optional remarks

QA-051

Set-specific appearance

P1

Action: Change chromosome/annotation colors, chromosome names and body visibility.
Expected: Only the intended set changes; other sets retain their appearance.

☐ Done

Result

Not tested

Optional remarks

QA-052

Numeric domains and palettes

P0

Action: Try explicit/per-set/shared numeric domains and categorical domain order.
Expected: Colors agree with configured limits/categories; a shared domain is not silently applied to unrelated units.

☐ Done

Result

Not tested

Optional remarks

QA-053

Plot dimensions and axes

P1

Action: Change plot height, y ticks/domain/label and colors for one set.
Expected: Only the selected track changes; values remain consistent.

☐ Done

Result

Not tested

Optional remarks

QA-054

Reference line

P1

Action: Enable a reference line; set position, color and width for one set.
Expected: Line is drawn at the intended numeric value and is retained in exported output.

☐ Done

Result

Not tested

Optional remarks

Filters and epi-tags

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-055

Single-threshold plot filters

P0

Action: Test greater/less/equal comparisons using values below, at and above the threshold.
Expected: Boundary behavior matches the chosen comparison and recolors only qualifying values.

☐ Done

Result

Not tested

Optional remarks

QA-056

Range plot filters

P0

Action: Exercise AND/OR range conditions with both Number 1 and Number 2.
Expected: Values inside/outside the interval follow the selected condition.

☐ Done

Result

Not tested

Optional remarks

QA-057

Filter scope and reset

P1

Action: Apply a filter to one set, switch sets, then remove it.
Expected: Filter is layer-specific and removal restores the unfiltered encoding.

☐ Done

Result

Not tested

Optional remarks

QA-058

Epi-tag representation

P1

Action: Select Tags with single and multi-value windows.
Expected: Markers communicate the intended local measurements; crowded windows remain inspectable.

☐ Done

Result

Not tested

Optional remarks

QA-059

Epi-tag appearance

P1

Action: Change color, single/multi radius, triangle size and plot shift.
Expected: Each control affects the intended tag component without changing source data.

☐ Done

Result

Not tested

Optional remarks

QA-060

Epi-tag filtering

P0

Action: Set an epi-tag threshold/range in one set and compare with Plot filter.
Expected: Tag display filtering remains distinct from recoloring and from permanent record deletion.

☐ Done

Result

Not tested

Optional remarks

Labels markers strands and highlights

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-061

All and selected labels

P1

Action: Enable labels; try an explicit name subset, font, angle, separator and max/window.
Expected: Names and count limits follow settings; hidden labels do not imply missing input records.

☐ Done

Result

Not tested

Optional remarks

QA-062

Named feature markers

P1

Action: Mark geneA/geneB; assign colors in order and change size, offset and stroke.
Expected: Markers identify the intended existing loci and preserve their order/color assignment.

☐ Done

Result

Not tested

Optional remarks

QA-063

Missing marker or label names

P1

Action: Enter an absent name and inspect the result and logs.
Expected: No invented locus appears; behavior makes the absent match understandable.

☐ Done

Result

Not tested

Optional remarks

QA-064

Strand arrows

P0

Action: Use positive and negative strands; change placement/color/size/tail.
Expected: Arrow direction follows strand; interval endpoints remain ordered start <= end.

☐ Done

Result

Not tested

Optional remarks

QA-065

Plot highlights

P1

Action: Create/import highlights with start/end/color/opacity/label; toggle layer.
Expected: Intervals align with coordinates; background/overlay and labels behave as documented.

☐ Done

Result

Not tested

Optional remarks

QA-066

Invalid overlay inputs

P0

Action: Try malformed highlight/link JSON and invalid required table values.
Expected: Clear error, no crash, and recovery after correction.

☐ Done

Result

Not tested

Optional remarks

Text legends and figure descriptions

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-067

Custom text styling

P1

Action: Add text; set font, color, size, rotation, italic and underline; drag it.
Expected: Text responds to controls and remains readable at intended coordinates.

☐ Done

Result

Not tested

Optional remarks

QA-068

Custom text persistence

P1

Action: Save/reload, recreate, export and import a figure containing custom text.
Expected: Text and positions persist without duplication or unexpected drift.

☐ Done

Result

Not tested

Optional remarks

QA-069

Built-in per-set legends

P0

Action: Enable Show legend in numeric and later categorical sets.
Expected: Both continuous and category keys appear for the selected sets, including non-first sets.

☐ Done

Result

Not tested

Optional remarks

QA-070

Custom manual legends

P1

Action: Add numeric/categorical custom legends with manual domain, title, colors and text size.
Expected: Keys match actual figure encodings and do not silently recolor source layers.

☐ Done

Result

Not tested

Optional remarks

QA-071

Custom field-derived legends

P1

Action: Infer a domain from a selected annotation field, then compare with manual domain.
Expected: Entries reflect the intended source field and scope; no unexplained categories.

☐ Done

Result

Not tested

Optional remarks

QA-072

Rich title and scientific metadata

P1

Action: Format title text and links; enter plot description and set/series meanings.
Expected: Formatting behaves safely; scientific descriptions and saved project metadata remain coherent.

☐ Done

Result

Not tested

Optional remarks

GFF3 parsing and indexed inputs

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-073Valid plain GFF3 catalogP0

Action: Read reference.gff3 and inspect geneA and geneD.
Expected: Both genes appear with the correct coordinates and strand.

☐ Done

Result

Not tested

Optional remarks

QA-074Malformed GFF3 rejectionP0

Action: Try bad column count, blank/zero/reversed coordinates, strand, phase and score.
Expected: A line-specific error is reported and invalid models are not silently plotted.

☐ Done

Result

Not tested

Optional remarks

QA-075Sequence-region and FASTA handlingP0

Action: Test declared-region bounds, comments, percent-encoded attributes and embedded FASTA.
Expected: Valid features parse; outside-boundary features reject; embedded sequence is not treated as feature rows.

☐ Done

Result

Not tested

Optional remarks

QA-076Missing hierarchy and gene selectionP0

Action: Try a file with no gene rows or a gene with no linked transcript hierarchy.
Expected: Limitations are explained; the app does not fabricate transcript models.

☐ Done

Result

Not tested

Optional remarks

QA-077BGZF and matching TBIP0

Action: Use a real compatible bgzip GFF3/TBI pair through the indexed route.
Expected: Gene discovery and regional queries succeed; record exact files/browser.

☐ Done

Result

Not tested

Optional remarks

QA-078Index mismatch and recoveryP0

Action: Try missing/wrong TBI or ordinary gzip where indexed BGZF is required; restore valid files.
Expected: Useful rejection followed by a successful valid run; no stale catalog/query mixture.

☐ Done

Result

Not tested

Optional remarks

Gene maps alignments and local signals

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-079

Positive-strand gene structure

P0

Action: Build geneA with zero flank from reference.gff3.
Expected: Gene interval 101-310; exons 101-150 and 251-310; positive strand.

☐ Done

Result

Not tested

Optional remarks

QA-080

Negative strand and transcript map

P0

Action: Build geneD and its transcript view; use a 50-bp flank.
Expected: Correct negative strand; displayed reference 51-360; exons retain genomic coordinates.

☐ Done

Result

Not tested

Optional remarks

QA-081

Feature classes and canonical selection

P0

Action: Toggle gene/exon/CDS/UTR choices; inspect canonical-transcript selection metadata.
Expected: Only selected available features are used; selection rule and missing classes are not misrepresented.

☐ Done

Result

Not tested

Optional remarks

QA-082

Local BAM depth and read view

P0

Action: Load the synthetic BAM/BAI at geneA; test depth and aligned-read modes.
Expected: Depth 1 at 101-105, 2 at 106-110, 1 at 111-115; read extent is correct.

☐ Done

Result

Not tested

Optional remarks

QA-083

Local regional signals

P0

Action: Combine geneA with signal.bedgraph; test a compatible BigWig separately.
Expected: bedGraph 100-110 maps to 101-110 with value 2; reference and assembly remain compatible.

☐ Done

Result

Not tested

Optional remarks

QA-084

Generated tables and benchmarks

P1

Action: Inspect/edit generated inputs and download available chromosome/annotation/benchmark outputs.
Expected: Tables match the selected region; timing/engine metadata are present and exports reopen.

☐ Done

Result

Not tested

Optional remarks

Genome-scale data reduction

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-085Reference region selectionP0

Action: Choose chromosome/scaffold/contig filters with a compatible reference.
Expected: Only intended regions are included, with correct names and bounds.

☐ Done

Result

Not tested

Optional remarks

QA-086Gene-density reductionP0

Action: Run gene-density with known genes and fixed windows.
Expected: Counts match the documented assignment rule; terminal-window denominators are explicit.

☐ Done

Result

Not tested

Optional remarks

QA-087BAM genome-wide depthP0

Action: Reduce the synthetic BAM with its BAI using fixed 100-bp windows.
Expected: Covered depth sum 20 and 15 covered bases; covered-base mean is distinguished from zero-inclusive mean.

☐ Done

Result

Not tested

Optional remarks

QA-088Regional numeric reductionP0

Action: Reduce BED/bedGraph/CSV/TSV and a compatible BigWig using the dedicated route.
Expected: Numeric intervals are assigned correctly; no double conversion of coordinates.

☐ Done

Result

Not tested

Optional remarks

QA-089Reduction operations and engineP0

Action: Check count/sum/avg/min/max/median on a small known bin; record engine/fallback.
Expected: Values match reference semantics; approximate medians or fallback behavior are disclosed.

☐ Done

Result

Not tested

Optional remarks

QA-090Generated-table to final map bridgeP0

Action: Inspect/edit reduced tables, choose a representation and recreate the final map.
Expected: Same editable table workflow is used; no unintended second aggregation or sample-series mix-up.

☐ Done

Result

Not tested

Optional remarks

chromoLinks relationships

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-091

Create and import named links

P0

Action: Use the link editor selectors and links.tsv between two valid sets.
Expected: geneA and geneB connect the intended named endpoints with one-based set indices.

☐ Done

Result

Not tested

Optional remarks

QA-092

Within and across references

P0

Action: Test a link within one reference and across references/sets.
Expected: Endpoints resolve correctly; relationship meaning does not depend on screen proximity.

☐ Done

Result

Not tested

Optional remarks

QA-093

Directed edges

P1

Action: Enable directed edges and inspect source/target orientation.
Expected: Direction agrees with source/target records and survives export.

☐ Done

Result

Not tested

Optional remarks

QA-094

Chord links

P1

Action: Switch a working edge configuration to chord mode.
Expected: Chords follow the mapped feature spans and do not resolve to unrelated loci.

☐ Done

Result

Not tested

Optional remarks

QA-095

Link colors and legends

P0

Action: Test uniform, numeric and categorical link-data encodings plus legend offsets.
Expected: Colors and legend agree with link values and remain distinct from chromosome data palettes.

☐ Done

Result

Not tested

Optional remarks

QA-096

Unresolved links and set reordering

P0

Action: Try absent/duplicate names and reorder/delete linked sets.
Expected: No incorrect links are silently drawn; set remapping/recovery is coherent.

☐ Done

Result

Not tested

Optional remarks

Exports and reproducibility

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-097

PNG resolution

P0

Action: Export at low and high PNG scales and inspect the actual files.
Expected: Pixel dimensions increase; labels, legends, text and overlays are not clipped.

☐ Done

Result

Not tested

Optional remarks

QA-098

SVG vector fidelity

P0

Action: Open the exported SVG in a separate viewer/editor.
Expected: Text, colors, paths, markers, arrows and links match the rendered figure.

☐ Done

Result

Not tested

Optional remarks

QA-099

Online-library interactive HTML

P0

Action: Export online HTML; open it in another browser/device without app authentication.
Expected: Embedded data render with versioned hosted libraries; core interactive inspection works.

☐ Done

Result

Not tested

Optional remarks

QA-100

Offline interactive HTML

P0

Action: Export offline HTML with both libraries; disconnect the network and open the folder.
Expected: Figure renders without network access; dependency instructions are complete.

☐ Done

Result

Not tested

Optional remarks

QA-101

HTML import round trip

P0

Action: Import an exported mixed-set figure with custom text/legends and settings.
Expected: Recognized data, types and settings recover correctly without cross-set changes.

☐ Done

Result

Not tested

Optional remarks

QA-102

Window-data CSV

P0

Action: Export windows after changing resolution/aggregation; inspect identifiers and values.
Expected: CSV matches the latest rendered state and known numeric checkpoints.

☐ Done

Result

Not tested

Optional remarks

Projects and local persistence

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-103

Save and reopen

P0

Action: Name a project, save, refresh the page and reopen it.
Expected: Data, set modes, overlays and settings return without loss or unintended changes.

☐ Done

Result

Not tested

Optional remarks

QA-104

Update existing project

P1

Action: Change a saved project and save it again; compare the selected project entry.
Expected: The intended project updates without overwriting an unrelated project.

☐ Done

Result

Not tested

Optional remarks

QA-105

Delete and clear workflows

P1

Action: Delete a disposable saved project and clear the active dataset.
Expected: Selected project is removed; remaining entries and default state remain coherent.

☐ Done

Result

Not tested

Optional remarks

QA-106

Origin and private-session limits

P1

Action: Try a different deployment origin/profile and a private session.
Expected: Local-storage scope and persistence limits are correctly explained.

☐ Done

Result

Not tested

Optional remarks

QA-107

Storage unavailable or full

P0

Action: Use restricted storage or simulate quota exhaustion when possible.
Expected: Core processing continues where possible; failed saves are clearly reported.

☐ Done

Result

Not tested

Optional remarks

QA-108

Portable recovery

P0

Action: Keep original inputs and exported HTML; restore on a separate browser.
Expected: Portable recovery does not depend on the original browser project database.

☐ Done

Result

Not tested

Optional remarks

Search navigation status and logs

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-109

Property versus section search

P1

Action: Search margin, top margin and resolution.
Expected: Property searches exclude unrelated siblings; section searches retain relevant grouped controls.

☐ Done

Result

Not tested

Optional remarks

QA-110

Open and Know more

P1

Action: Use Open and Know more in search and supported assistant results.
Expected: Search closes, exact target is revealed/highlighted, and the correct tutorial chapter opens.

☐ Done

Result

Not tested

Optional remarks

QA-111

Compact current status

P1

Action: Cause an error, then successfully create a plot.
Expected: Only short labels are shown; successful status turns green despite older errors in the log.

☐ Done

Result

Not tested

Optional remarks

QA-112

Log history and timestamps

P1

Action: Generate load, error and success events; open View Logs.
Expected: Full messages and row summaries have timestamps and appropriate error/success distinctions.

☐ Done

Result

Not tested

Optional remarks

QA-113

Latest-entry scroll and clearing

P1

Action: Add enough log entries to scroll; open, close, reopen and clear history.
Expected: Latest entry is visible on opening; no automatic modal opening; Clear history preserves current state.

☐ Done

Result

Not tested

Optional remarks

QA-114

Other navigation aids

P1

Action: Try theme switch, Getting Started video, tooltips help, citation and plot-type gallery.
Expected: Controls open the intended content, can close, and do not discard active work.

☐ Done

Result

Not tested

Optional remarks

Tutorials and reviewer learning route

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-115

Plain light-green opening

P1

Action: Open Tutorials in a wide and narrow browser window.
Expected: Title is Tutorials followed by contents; light-green navigation and readable text.

☐ Done

Result

Not tested

Optional remarks

QA-116

Contents numbering and navigation

P1

Action: Expand each unit in the sidebar and full contents; follow chapter links.
Expected: One global chapter sequence; no duplicate unit-local list numbers; destinations are correct.

☐ Done

Result

Not tested

Optional remarks

QA-117

Conceptual platform explanation

P0

Action: Scan the first chapters and the comparison/scale diagram.
Expected: Comparison by chromosome sets, multi-scale references and multi-omics encodings are clear.

☐ Done

Result

Not tested

Optional remarks

QA-118

Three creation routes

P0

Action: Follow each route card through its input, generated/prepared table and final-map steps.
Expected: Routes converge on editable tables; chromoLinks is optional, not the definition of comparison.

☐ Done

Result

Not tested

Optional remarks

QA-119

Search font print and links

P1

Action: Search chapters, change text size, inspect print preview and follow all download/reference links.
Expected: Navigation remains usable and content/assets/downloads are present.

☐ Done

Result

Not tested

Optional remarks

QA-120

Documentation truthfulness

P0

Action: Compare UI labels, compatibility notes, example metadata and assistant limitations with actual behavior.
Expected: No unsupported performance/browser/scientific claims; missing provenance is visible and tracked.

☐ Done

Result

Not tested

Optional remarks

Statistics and optional assistant

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-121

Independent numeric test reference

P0

Action: Run matched numeric windows and compare effect estimates/p-values with a reference calculation.
Expected: Results agree within a documented tolerance; missing values and true zeros are distinguished.

☐ Done

Result

Not tested

Optional remarks

QA-122

Statistical edge cases

P0

Action: Try too few windows, constant values, unmatched intervals and sparse categories.
Expected: No fabricated significance; unsupported or unstable cases are clearly handled.

☐ Done

Result

Not tested

Optional remarks

QA-123

Scientific interpretation boundary

P0

Action: Read summaries and assistant interpretations of window comparisons.
Expected: Spatial dependence, lack of biological replication and unadjusted multiple testing are not overstated.

☐ Done

Result

Not tested

Optional remarks

QA-124

Structured assistant functions

P1

Action: Use no-LLM mode to find a setting, inspect data and apply a supported property change.
Expected: Selected property/scope is correct; unrecognized requests do not make unintended edits.

☐ Done

Result

Not tested

Optional remarks

QA-125

Optional local model behavior

P1

Action: Try a WebLLM mode and an environment where it is unavailable.
Expected: Downloads and limitations are explained; failures do not disable core workflows.

☐ Done

Result

Not tested

Optional remarks

QA-126

Context and memory reset

P0

Action: Load a new example, change datasets and clear assistant memory.
Expected: Old scientific context is not carried into unrelated data or presented as current evidence.

☐ Done

Result

Not tested

Optional remarks

Privacy robustness and release checks

For every case: execute the action, compare the expected result, then record a status and optional remarks.

QA-127

Local processing and privacy statement

P0

Action: Inspect network requests during local upload/analysis and read the privacy notice.
Expected: Uploaded data/prompts are not sent to an unintended service; cookie/storage disclosures match behavior.

☐ Done

Result

Not tested

Optional remarks

QA-128

Imported HTML and unsafe text

P0

Action: Try script-like names, markup and a disposable HTML import containing unsafe behavior.
Expected: Text is safely represented and import isolation prevents access to unrelated app data or navigation.

☐ Done

Result

Not tested

Optional remarks

QA-129

Moderate/large data responsiveness

P0

Action: Run a documented larger dataset; record sizes, rows, hardware, timings and memory symptoms.
Expected: Behavior is measured, not guessed; UI remains usable or reports a clear resource limitation.

☐ Done

Result

Not tested

Optional remarks

QA-130

Worker/resource failure recovery

P0

Action: Interrupt a dependency download or use a missing/mismatched resource; then retry valid inputs.
Expected: No permanent broken state or misleading success; recovery and logs are useful.

☐ Done

Result

Not tested

Optional remarks

QA-131

Independent user rehearsal

P0

Action: Give the URL and tutorial to a scientist who has not used the application.
Expected: They complete upload, comparison, inspection, export and error recovery without coaching.

☐ Done

Result

Not tested

Optional remarks

QA-132

Submission release decision

P0

Action: Review all failed/blocked P0 cases, unresolved provenance, exports and browser results.
Expected: No critical correctness/access blocker remains; version, maintenance and rollback ownership are recorded.

☐ Done

Result

Not tested

Optional remarks

Browser matrix and release decision

Use this page to summarize independent runs; retain test IDs and evidence for differences.

Chrome

Version and OS

Run status

Not tested

Core workflows tested and differing QA IDs

Firefox

Version and OS

Run status

Not tested

Core workflows tested and differing QA IDs

Safari

Version and OS

Run status

Not tested

Core workflows tested and differing QA IDs

Edge

Version and OS

Run status

Not tested

Core workflows tested and differing QA IDs

Unresolved P0 case IDs

Unresolved P1 case IDs

☐ I have reviewed blockers and recorded the public-release decision below.

Issue records

Reference one or more QA IDs. Use a separate attachment for additional issues when necessary.

Issue 1

Related QA IDs

Priority

P1

Steps to reproduce and exact inputs/settings

Expected versus actual result

Evidence filename(s) / browser-specific notes

Issue 2

Related QA IDs

Priority

P1

Steps to reproduce and exact inputs/settings

Expected versus actual result

Evidence filename(s) / browser-specific notes

Issue 3

Related QA IDs

Priority

P1

Steps to reproduce and exact inputs/settings

Expected versus actual result

Evidence filename(s) / browser-specific notes

Additional remarks and evidence

Record missing provenance, measured limits, scientific concerns or further issue IDs.

Scientific interpretation and provenance

Performance measurements and support limits

Further defects or follow-up requests