



FIBERATLAS

User Manual

Alpha 14.5a

Review Draft R1

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Manual authority	Build identifier
Packaged Windows R4 candidate	FiberAtlas-Alpha14.5a-Development-Candidate-20260801-R4

REVIEW STATUS: This manual is a review-ready first edition for controlled testing. It does not change the product's private-release status.

Local-first OSP mapping and portable KML/KMZ documentation

FRONT MATTER

Publication record and operating boundaries

Item	Record
Manual	FiberAtlas User Manual — Alpha 14.5a
Manual revision	Review Draft R1
Application version	0.1.0-alpha.14.5a
Authoritative build	FiberAtlas-Alpha14.5a-Development-Candidate-20260801-R4
Candidate date	August 1, 2026
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Audience	OSP designers, drafters, reviewers, and controlled private testers
Status	Verified unsigned development candidate; not public, signed, production-ready, or generally available

Scope

This manual teaches repeatable work in the verified Alpha 14.5a desktop application: local projects, OSP points and routes, properties, folders, styles, numbering, measurements, quantities, photos, KML/KMZ interchange, geometry-only printing, preferences, recovery, and the separate-work-file collaboration model.

PRODUCT LIMIT: FiberAtlas records user-authored geometry, attributes, assumptions, and quantities. It does not certify survey control, legal boundaries, field conditions, utility ownership, engineering adequacy, constructability, permitting, compliance, procurement, or approval.

Evidence labels used in this manual

Label	Meaning
Packaged R4 verified	Repeated in the exact Portable R4 binary or supported by its preserved packaged walkthrough.
Automated R4 verified	Covered by the R4 automated/domain test evidence; not every branch was manually repeated.
Known limitation	Confirmed boundary or deferred acceptance item for this candidate.
Recommendation	A clean-working practice, not an engineering requirement.

FRONT MATTER

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FRONT MATTER

How to use this manual

Start with Part 1 if you have not used FiberAtlas. Use Parts 3–8 for task procedures and Part 10 for exact command, object, shortcut, and file references.

Convention	Use
Bold interface label	A visible command, field, dialog, or button name.
NOTE	Context needed to understand the result.
TIP	A faster or cleaner workflow recommendation.
CAUTION	A condition that can create incomplete, misleading, or hard-to-reconcile output.
WARNING	A stop condition involving data loss, unsafe takeover, or unsupported claims.

Safe practice before testing

- Use a disposable project or a verified copy; never begin with the only copy of customer work.
- Keep the native .fiberatlas file as the working record and export a new KMZ filename for handoff.
- Review the exact source, visibility state, units, and saved/draft status before exporting or printing.
- Open important KMZ and PDF outputs in the recipient's viewer before delivery.

SCREENSHOTS: All application images in this edition come from the exact Alpha 14.5a R4 Portable candidate at a consistent 1526 × 953 window size. The sample contains no customer data.

10–15 MINUTE FIRST PROJECT

Part 1 — Start here

This tutorial creates a small, meaningful OSP concept: one handhole, one distribution route, basic documentation, a temporary measurement, a saved native project, and a portable KMZ export.

TIME: Allow 10–15 minutes. You will create one Small HH, one Distribution route, recorded properties, a saved .fiberatlas project, and a KMZ copy. Internet is needed only for live basemap/search reference.

PART 1

1. Launch and verify FiberAtlas

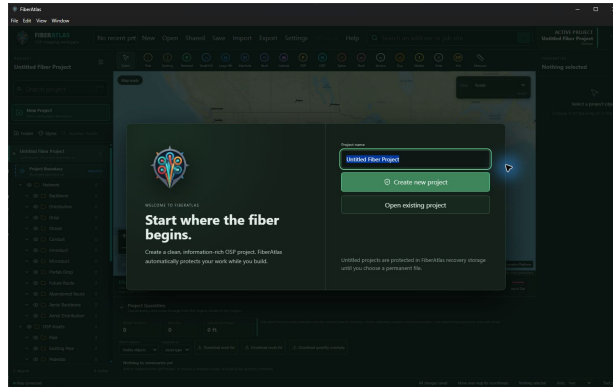


Figure 1-1. Alpha 14.5a start screen in the verified R4 Portable build.

Goal

Open the verified application and confirm the installed build before editing.

Before you begin

Use the approved Alpha 14.5a candidate. The R4 executables are unsigned.

Steps

1. Start FiberAtlas.
2. Allow the Portable build time to extract on its first launch.
3. Open Help, then About FiberAtlas.
4. Confirm the version is 0.1.0-alpha.14.5a.
5. Close About and return to the start screen.

Expected result

The start screen offers Start New, Open Existing, and Import KML or KMZ.

CAUTION: Windows may display Unknown publisher. Verify the release checksum before running an unsigned candidate; do not bypass a mismatch.

If it does not work

If About shows another version, stop and record that version before continuing. Do not label its output Alpha 14.5a.

Related procedures

See Part 10, Version and file reference.

Verification: About version and fresh start were repeated in the exact packaged R4 Portable binary.

PART 1

2. Create the tutorial project

Goal

Create an independent local project named Manual Quick Start.

Before you begin

Choose a disposable folder you control. Decide whether to draw an organizational Project Boundary now or set it later.

Steps

1. Choose Start New or New Project.
2. Enter Manual Quick Start as the project name.
3. Choose a local save location when prompted.
4. Complete the creation flow.
5. Choose Set Boundary Later for this short tutorial.
6. Confirm the active-project header shows Manual Quick Start.

Expected result

A new .fiberatlas project opens with catalog-driven Network, OSP Assets, Service Points, and Notes & Markers organization.

CAUTION: A Project Boundary is organizational geometry only. It is not a property line, service-area approval, permit limit, or survey control.

If it does not work

If creation cannot save, choose a writable local folder. Do not continue drawing under a project name that failed to save.

Related procedures

Part 3 explains storage, backups, and safe moves.

Verification: New Local Project, save-before-handoff, standard folders, and Set Boundary Later are R4-tested behaviors.

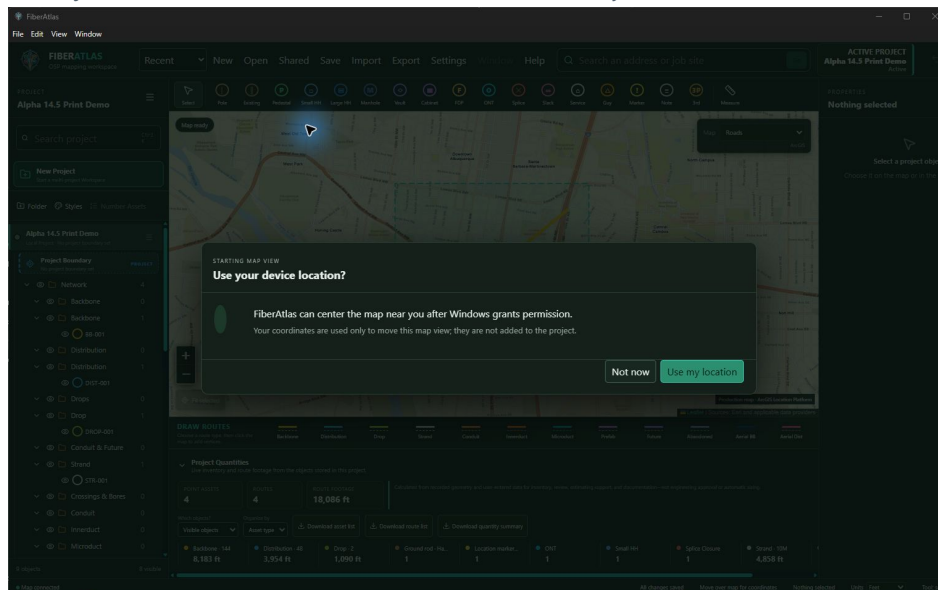


Figure 1-2. Optional device-location prompt.

PART 1

3. Understand the working screen

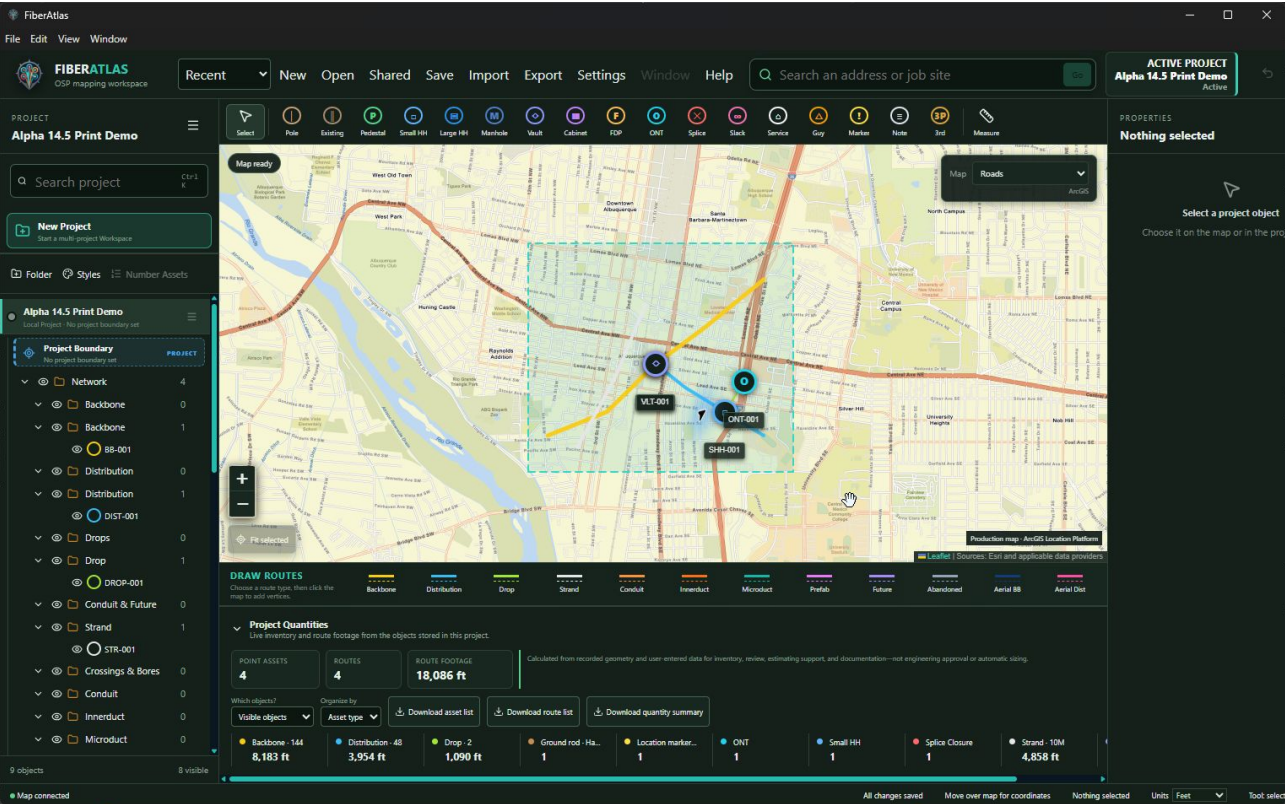


Figure 1-3. Map-dominant workspace with project tree, toolbars, properties, and quantities.

No.	Workspace area	Purpose
1	Project tree	Find, organize, select, and control visibility.
2	Point toolbar	Place structures, equipment, markers, notes, and measurement.
3	Map	Navigate, select, place points, and draw routes.
4	Route toolbar	Choose Backbone, Distribution, Drop, conduit-family, aerial, and other line types.
5	Properties	Edit the selected object's recorded information.
6	Project Quantities	Review visible-object counts and recorded route footage; download CSV summaries.

TIP: Tree, map, and Properties use one selection state. Select in the tree when overlapping geometry makes map selection difficult.

PART 1

4. Add a Small HH

Goal

Place one Small HH point in the tutorial project.

Before you begin

Confirm Manual Quick Start is the Active Project and the map is centered on the intended test area.

Steps

1. Select Small HH in the point toolbar.
2. Click the intended location on the map.
3. Confirm the new symbol is selected.
4. Press Escape to return to Select after placing the point.

Expected result

FiberAtlas creates a stable point feature with a provisional catalog name and places it in the appropriate project folder.

CAUTION: Map placement records the clicked WGS84 location. It is not surveyed, field-verified, or automatically snapped to legal or utility records.

If it does not work

If the click pans the map, confirm Small HH remains highlighted as the active tool. If the project is read-only, switch to an editable Work File.

Related procedures

Part 4 lists all verified point types and explains editing.

Verification: Repeated placement behavior and catalog defaults are covered by R4 interface and domain tests.

PART 1

5. Draw a Distribution route

Goal

Draw a multi-vertex Distribution route from the handhole.

Before you begin

Keep the project active and visible. Use at least two vertices.

Steps

1. Select Distribution in the Draw Routes toolbar.
2. Click the Small HH location for the first vertex.
3. Click along the intended conceptual path to add intermediate vertices.
4. Double-click the last location, press Enter, or choose Finish to commit the route.
5. Press Escape to return to Select.

Expected result

A Distribution route appears, receives a provisional name such as DIST-001, and contributes its stored geometry length to Project Quantities.

CAUTION: Snapping helps connect mapped geometry but does not prove field connectivity, duct occupancy, fiber continuity, or constructability.

If it does not work

A route needs at least two valid vertices. Press Escape to cancel an incorrect draft and start again.

Related procedures

See Part 4 for Edit Geometry, vertex changes, and endpoint reconnection.

Verification: Route commit, cancel, snapping, and length behavior are verified in the R4 interaction contract and tests.

PART 1

6. Document, measure, save, and export

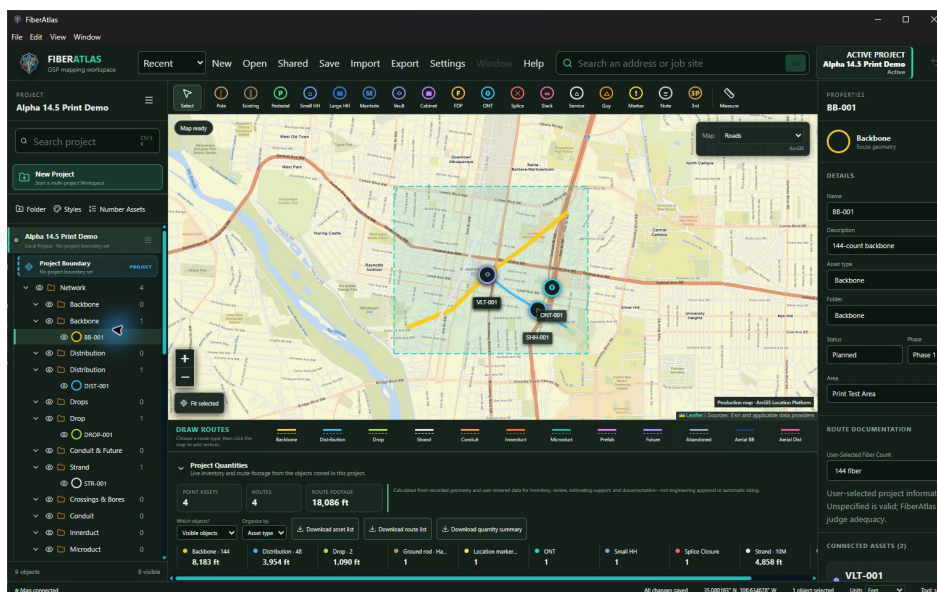


Figure 1-4. Selected Backbone route showing editable properties and route documentation.

Goal

Finish the tutorial with recorded properties, a measurement, a native save, and a KMZ handoff.

Before you begin

Select SHH-001 or DIST-001. Have a destination folder ready.

Steps

1. Enter a clear Description, Status, Area, Phase, and Notes in Properties.
2. For the route, enter a user-selected fiber count only if it is known for the exercise.
3. Select Measure, click two or more map locations, and review segment and running totals.
4. Choose Finish measurement, then Clear.
5. Choose Save and confirm the .fiberatlas path.
6. Choose Export, select KMZ, and choose Export KMZ.
7. Open the resulting KMZ in a compatible viewer and confirm the point, route, names, and descriptions.

Expected result

You have a saved local working project and a separate portable KMZ deliverable.

CAUTION: A KMZ is a handoff format, not the authoritative simultaneous-editing database. Keep the .fiberatlas project and its backups.

If it does not work

If KMZ export reports photo or archive limits, review the message and reduce the problem data; do not ignore a partial or failed export.

Related procedures

Parts 6 and 7 explain measurement, quantities, interchange, and output verification.

Verification: Packaged R4 save, reopen, KMZ export, archive/KML parsing, feature counts, and geometry-only print all passed.

ORIENTATION

Part 2 — Understanding the workspace

FiberAtlas keeps the map central while the project tree, editing tools, Properties, and quantities remain visible. The active project, current tool, selection, units, and save state are always meaningful context.

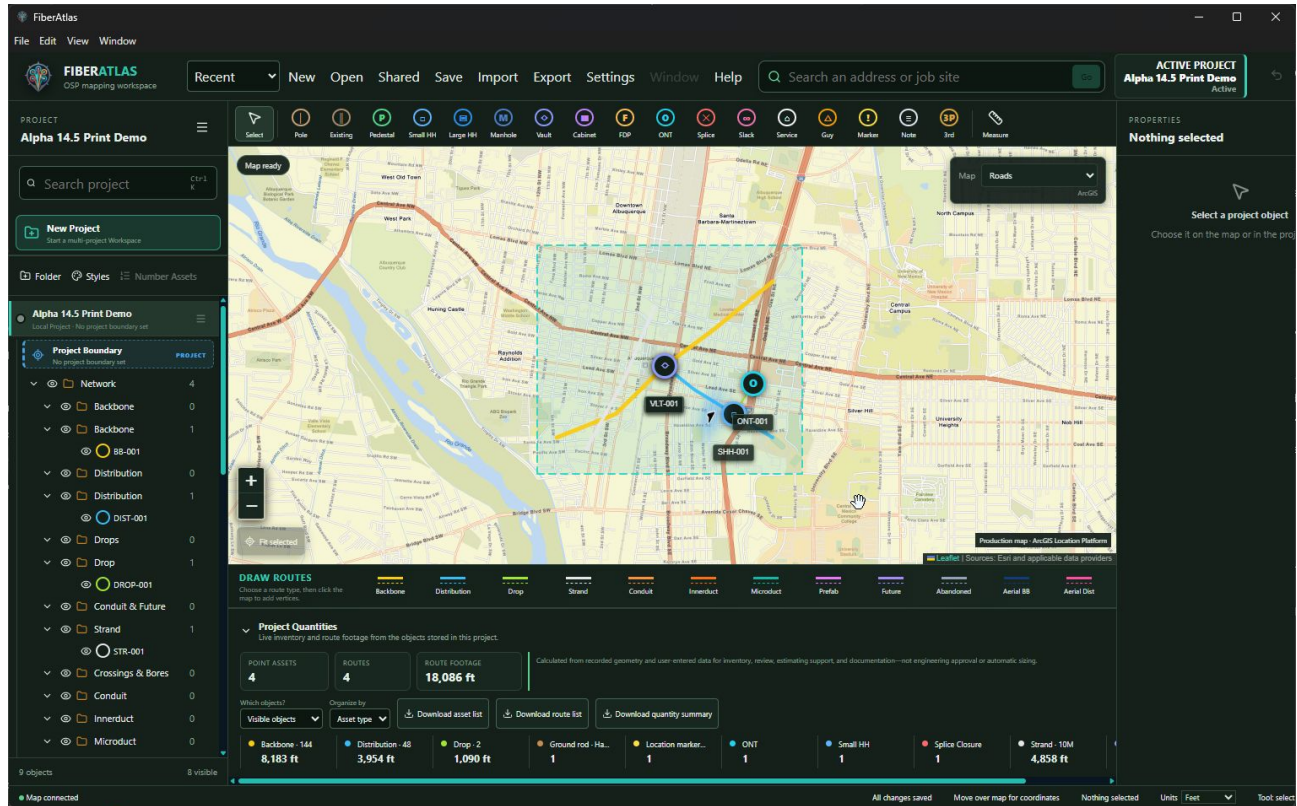


Figure 2-1. Full interface orientation.

PART 2

Selection, active project, and status

State	How it appears	Why it matters
Active Project	Named header at upper right and highlighted project row	New objects, folders, notes, photos, numbering, and edits belong to this project.
Selected object	Highlighted tree row/map geometry and populated Properties	Selection does not silently switch the Active Project.
Read-only	Prominent read-only/in-use text; mutation tools disabled	You may inspect, measure, review quantities, and export the latest saved snapshot.
Dirty/unsaved	Save-state notice in the status bar or source banner	Export and print must disclose saved versus draft state.
Map connected	Status at lower left	Basemap and search can use the network; project storage remains local-first.
Units	Selector in the lower-right status area	Controls display and new-project measurement preference.

CAUTION: Looking at another Work File's geometry does not make it active. Read the Active Project header before drawing.

PART 2

Toolbars, map controls, and Properties

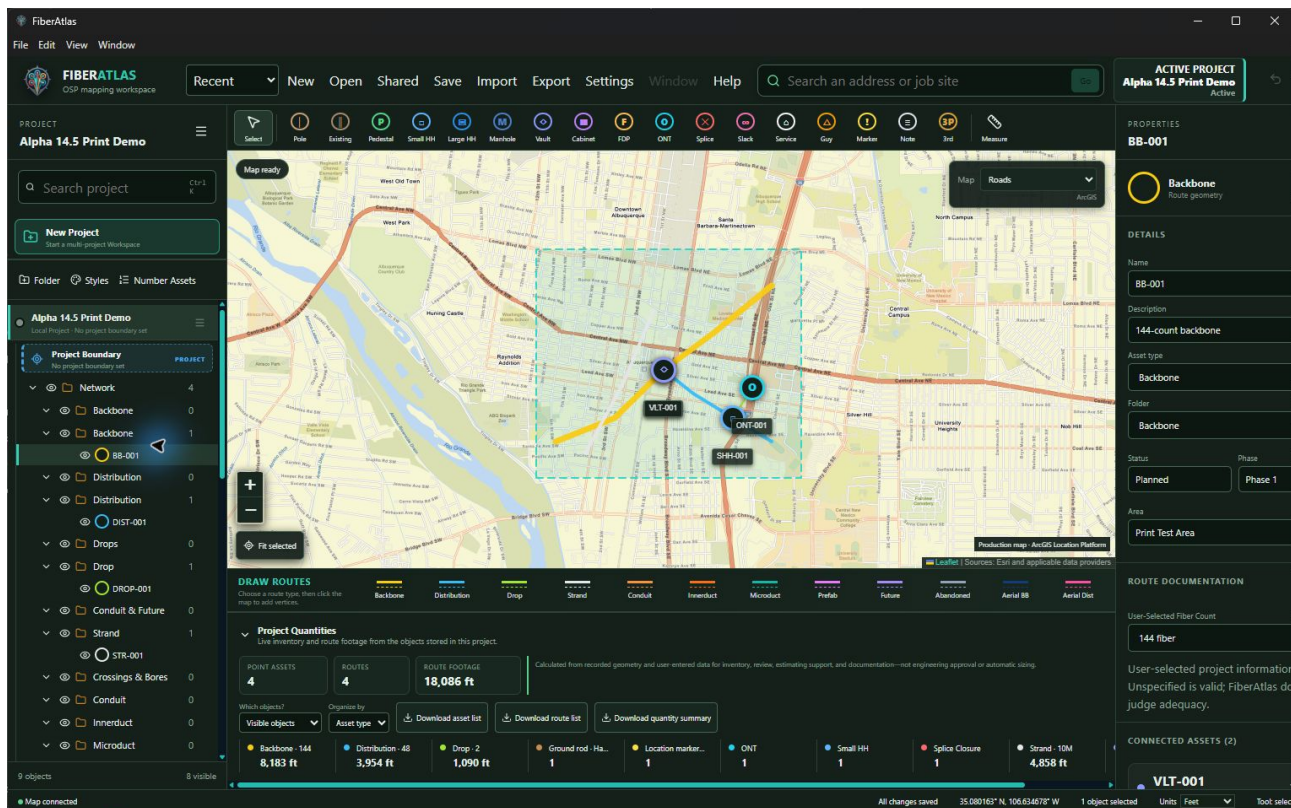


Figure 2-2. Shared selection between the project tree, map, and Properties panel.

- Use Select before inspecting or editing existing features.
- Point tools stay active for repeated placement until you press Escape.
- Route tools stay active after a completed route; the drawing HUD shows vertices, length, snapping, Finish, and Cancel.
- Use Fit selected to bring selected geometry into view.
- Use the basemap selector for on-screen Roads, Terrain, or Satellite reference; provider imagery does not become project data.
- Commit text fields by leaving the field or pressing Enter; this creates useful edit-history entries instead of one entry per keystroke.

PART 2

Notifications, prompts, and decision states

Alpha 14.5a uses typed success, information, warning, and error notices. Read the text: color is supplemental, and important states include words such as Active, Read-only, In use, stale, or unavailable.

Prompt or notice	Meaning	Required response
Use device location?	Optional centering aid	Allow or choose Not now; it does not alter project ownership.
Leaving Active Project area	An edit is crossing an organizational boundary	Switch deliberately, keep drawing in the current project, or cancel the last segment.
Source changed	The saved source no longer matches the version opened	Stop, refresh/reconcile, and avoid last-writer-wins overwrite.
In use — editing by ...	Another session owns the Work File lock	Open read-only or choose another available Work File.
Possible stale lock	Heartbeat is missing or old	Review ownership and recovery details before any takeover.
Import/export summary	Some items may have succeeded while others failed	Read counts and failures; verify the resulting file.

WARNING: Never use a stale-lock takeover merely because a file is inconveniently locked. Confirm the previous editor is no longer writing and preserve the safety backup.

LOCAL-FIRST PROJECT LIFECYCLE

Part 3 — Projects and files

The native .fiberatlas file is the editable project record. A Shared Workspace indexes multiple independent Work Files; KML/KMZ and PDFs are deliverables, not the editing authority.

Artifact	Role
.fiberatlas	Native editable Local Project or Work File
fiberatlas-workspace.json	Shared Workspace index stored with its Work Files
.fiberatlas-print.json	Versioned Print Workspace layout sidecar
.kml / .kmz	Portable interchange/export
.csv	Asset, route, quantity, or materials data export
.pdf	Geometry-only print package or report

PART 3

Create, open, save, Save As, and close

Goal

Maintain a clear native project lifecycle.

Before you begin

Know whether you are starting a new file, opening an existing file, or making a deliberate copy.

Steps

1. Use New or Ctrl+N to begin a new Local Project.
2. Use Open or Ctrl+O to open an existing .fiberatlas file.
3. Use Save or Ctrl+S to write the current project to its known path.
4. Use Ctrl+Shift+S when you intentionally need Save As.
5. Review the resulting project name and Active Project header.
6. Close FiberAtlas only after the status shows all changes saved or after deliberately discarding changes.

Expected result

The native file and active-project identity match your intended work.

CAUTION: Save As creates another file path. Establish which copy is authoritative before anyone continues editing.

If it does not work

If save fails, leave FiberAtlas open, record the message, and choose a writable local Save As destination. Do not report the work saved until the application confirms it.

Related procedures

See the next page for backups, recovery, and external changes.

Verification: Packaged R4 open, save, reopen, and clean-exit passed; Save As is wired to Ctrl+Shift+S and the native save dialog.

PART 3

Autosave, backups, recovery, and external changes

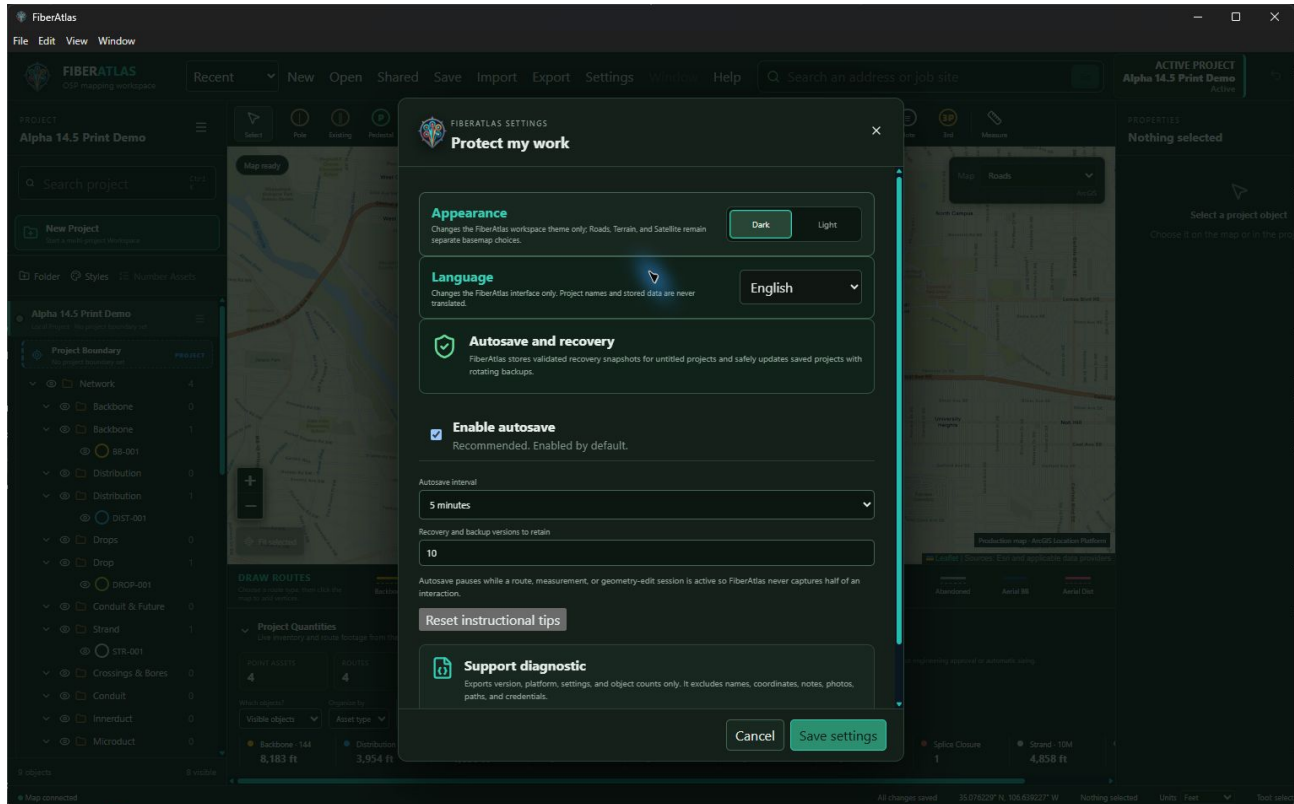


Figure 3-1. Settings with autosave enabled, five-minute interval, and ten retained versions.

- Fresh or missing legacy preferences default autosave to On at a five-minute interval with ten retained versions.
- Autosave pauses while a route, measurement, or geometry-edit session is active so an incomplete interaction is not captured.
- Validated writes use temporary sibling data and preserve rotating backups under a clearly named .fiberatlas-backups folder.
- A newer recovery snapshot may be offered after interruption. Review its project identity and time before recovering, ignoring, or discarding it.
- External-change detection stops a save when the source changed after opening; reconcile instead of overwriting newer work.

NOTE: The settings shown are verified defaults for a fresh R4 profile. Existing explicit preferences are preserved during migration.

PART 3

Move, copy, and share a project safely

Goal

Move or share project information without losing the working authority or linked context.

Before you begin

Close or save the project first. Identify the native project, any Print Workspace sidecar, and the relevant backup folder.

Steps

1. Confirm FiberAtlas shows all changes saved.
2. Close the project before filesystem moves.
3. Copy the .fiberatlas file to the approved destination.
4. Copy its .fiberatlas-print.json sidecar when the saved layout must travel with it.
5. Keep the source copy until the destination opens and validates.
6. Open the destination in FiberAtlas and confirm project name, object counts, units, and representative properties.
7. Use KMZ—not the native file—when the recipient needs a portable viewer handoff rather than editing authority.

Expected result

The destination opens with the expected content, and the team knows which native copy is authoritative.

CAUTION: Do not separate or manually edit files inside a Shared Workspace unless the workspace procedure explicitly calls for it.

If it does not work

If the copied project reports an external change, wrong project identity, or invalid file, stop and reopen the untouched source copy.

Related procedures

Part 7 covers portable exports; Part 8 covers Shared Workspaces.

Verification: Native file validation and move-safe source identity are covered by R4 persistence tests; this operational sequence is a documentation recommendation.

MAP AUTHORING

Part 4 — Creating and editing the map

Use the active point or route catalog, then document what is actually known. FiberAtlas provides OSP-specific tools but does not select a design or validate the recorded decision for you.

Geometry	Create with	Commit
Point	A point tool such as Pole, Small HH, FDP, or ONT	One map click; tool remains active for repeated placement
Route	A route tool such as Backbone, Distribution, Drop, or Conduit	Enter, double-click, or Finish after at least two vertices
Temporary measurement	Measure	Finish measurement; it never becomes project geometry
Project/Area/Phase boundary	Boundary onboarding or folder action	At least three vertices and Enter/Finish

PART 4

Add point assets

Goal

Place a verified point asset and document it.

Before you begin

Confirm the Active Project and intended map location. Use Select to end any earlier tool.

Steps

1. Choose the required point type from the top toolbar.
2. Click the map once at the intended location.
3. Review the provisional name and folder in Properties.
4. Enter only known documentation fields.
5. Press Escape to return to Select.

Expected result

The point appears in the map and project tree with catalog-based type, style, name, and folder defaults.

CAUTION: Existing Pole and 3rd Party Equipment are labels, not ownership or field-verification findings. Record the source of those facts in Description or Notes.

If it does not work

If a point is placed incorrectly, press Ctrl+Z immediately or select it and use the verified move/edit controls.

Related procedures

Part 10 contains the complete point catalog.

Verification: Point creation, default identity, selection, undo, and catalog mapping are automated R4-verified behaviors.

PART 4

Draw and extend routes

Goal

Create a line feature with valid vertices and documented route type.

Before you begin

Choose the route class intentionally. Confirm snapping state and Active Project.

Steps

1. Choose a route type in Draw Routes.
2. Click the first endpoint.
3. Click each change in direction once.
4. Review vertex count and running geometry length in the drawing HUD.
5. Press Enter, double-click, or choose Finish to commit.
6. Select the route and review type, folder, status, Area/Phase, and route documentation.

Expected result

The route is stored as a LineString and contributes its recorded geometry length to quantities.

CAUTION: A connected map endpoint does not prove splicing, fiber continuity, duct assignment, attachment rights, or construction feasibility.

If it does not work

Use Escape to cancel an unfinished route. A valid route requires at least two coordinates.

Related procedures

The next page covers geometry editing and reconnection.

Verification: Packaged UI, route-domain tests, and R4 export evidence verify line creation and persisted LineString geometry.

PART 4

Edit vertices, move geometry, and reconnect

Select a route, then enter Edit Geometry. Endpoint handles are square amber and intermediate handles are circular green; shape and text distinguish their roles.

1. Select the route in the project tree or map.
2. Choose Edit Geometry in the selected route controls.
3. Drag a vertex to correct the recorded path.
4. Use a segment-row midpoint insertion control to add a vertex where needed.
5. Remove an intermediate vertex only after confirming the remaining line still represents the intended route.
6. Move an endpoint onto a compatible asset when the recorded connection should change.
7. Finish the edit and review total and segment lengths.
8. Use Ctrl+Z if the edit produced an unintended result.

CAUTION: Geometry editing changes route lengths and can change quantity totals. Re-review the route, connected assets, print scope, and exported deliverables after edits.

VERIFICATION: Drag, midpoint insertion, safe intermediate removal, endpoint editing, total/segment lengths, and undo are verified by the R4 interaction contract and automated tests; this full sequence was not re-clicked in the manual capture session.

PART 4

Edit properties, rename, delete, and undo

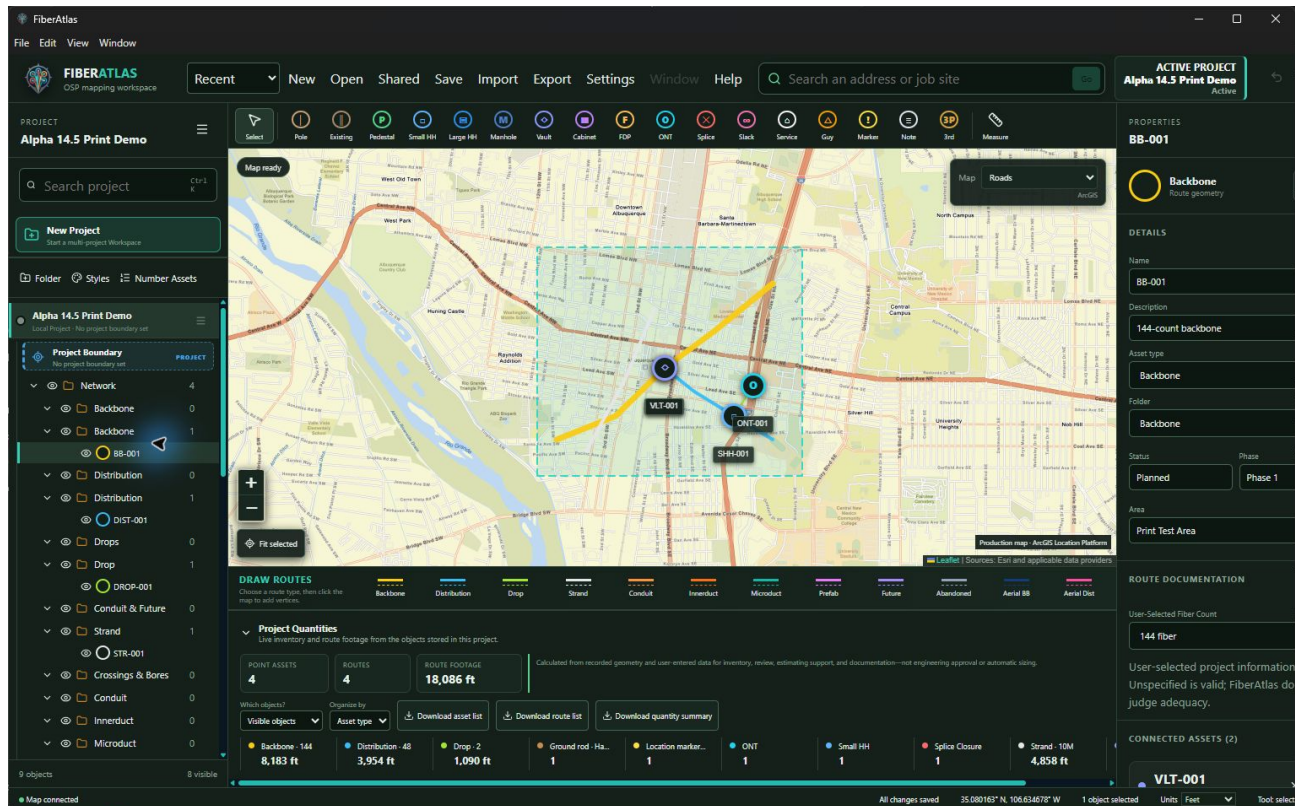


Figure 4-1. Route documentation in Properties.

Task	Action	Result
Edit a field	Select the object; change the field; press Enter or leave the field	One committed history entry
Rename	Change Name in Properties	Tree, labels, exports, and reports use the new recorded name
Delete	Select; press Delete; confirm the named target	Feature is removed but remains undoable
Undo	Ctrl+Z	Reverses the latest supported edit
Redo	Ctrl+Y or Ctrl+Shift+Z	Reapplies the undone edit

KNOWN LIMIT: A general Duplicate Object procedure was not confirmed in the R4 editing workspace and is intentionally excluded. Duplicate in Print Workspace applies to sheets, not project features.

PART 4

Apply styles, labels, and visibility

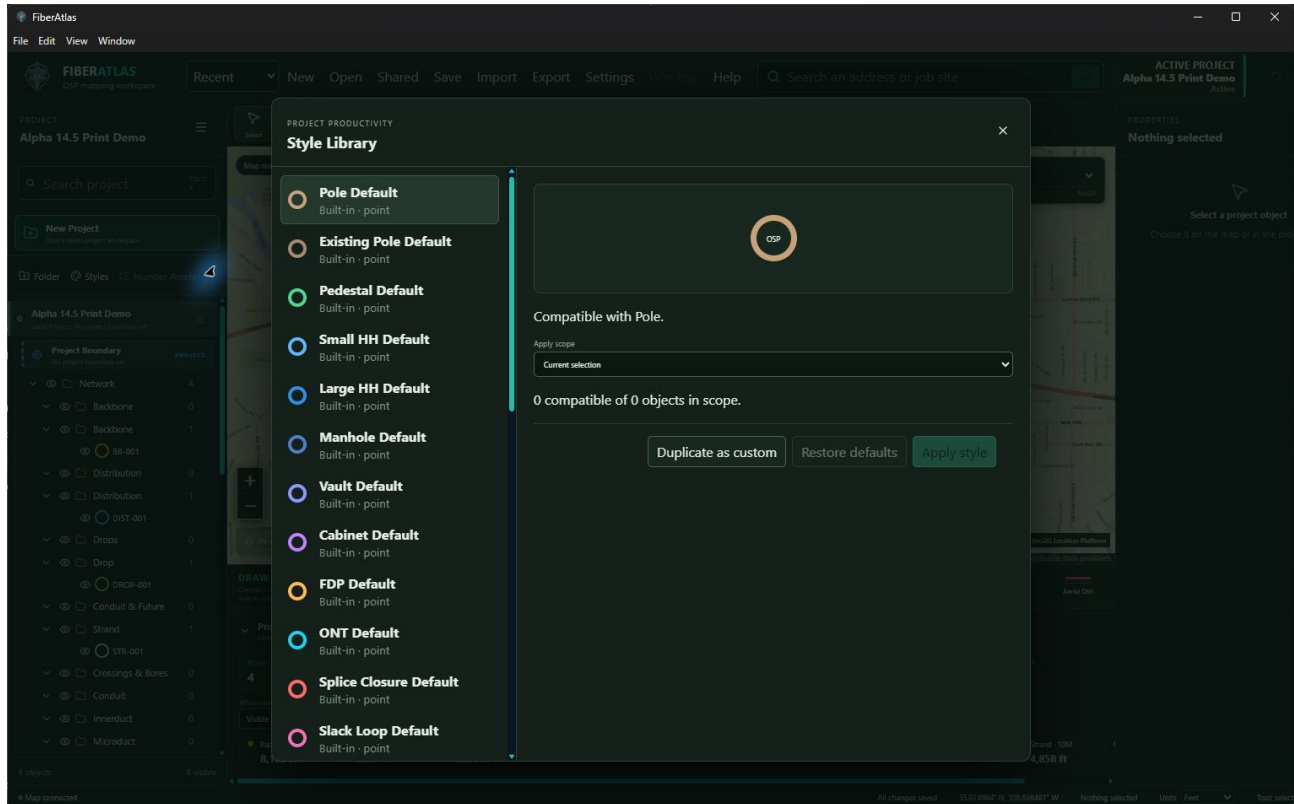


Figure 4-2. Style Library with built-in styles and Duplicate as custom.

1. Select the intended object or establish the intended apply scope.
2. Choose Styles to open Style Library.
3. Review the selected built-in style and compatible object count.
4. Choose Duplicate as custom before changing a built-in style.
5. Name the custom style, set permitted appearance values, and apply it to the reviewed scope.
6. Use tree eye controls to hide or show a feature or inherited folder scope.
7. Review labels and quantities after visibility changes.

NOTE: Project Quantities counts visible objects only. Hiding a folder can therefore change the displayed counts and footage without deleting data.

PART 4

Attach and manage asset photos

Goal

Attach field-reference images to a selected point asset.

Before you begin

Use JPEG, PNG, or WebP files no larger than 8 MB each. Remove customer identifiers or sensitive content not required for the project.

Steps

1. Select a point asset.
2. Scroll in Properties to Photos.
3. Choose Add photos or drop supported files into the photo area.
4. Read the batch summary; successful files can remain even if another file fails.
5. Enter a Caption for each useful image.
6. Choose Set cover for the representative image.
7. Reorder or Remove photos as needed.
8. Save the native project before export.

Expected result

The project stores the accepted original image bytes and exactly one cover image when photos exist.

CAUTION: Large or numerous photos increase native and KMZ size. The current grid uses original imported data URLs rather than bounded thumbnails.

If it does not work

Read the calm batch summary. Unsupported signatures, types, or sizes are rejected without discarding successful sibling reads.

Related procedures

Part 7 explains why KMZ can carry photo resources but standalone KML cannot embed the bytes.

Verification: Photo ingestion, partial success, signature/size validation, one-cover normalization, save/recovery, and KMZ round trip passed focused R4 tests; the complete failure matrix was not manually repeated.

PROJECT CLARITY

Part 5 — Organizing OSP information

Organization should make ownership, scope, and review easier to understand. It should never imply an engineering conclusion FiberAtlas did not establish.

ORGANIZATION: Local Project and Work File define editing and lock scope. Project Boundary, Area/Phase boundary, General Folder, and catalog folders organize content without creating survey or legal authority.

PART 5

Create folders and use boundaries

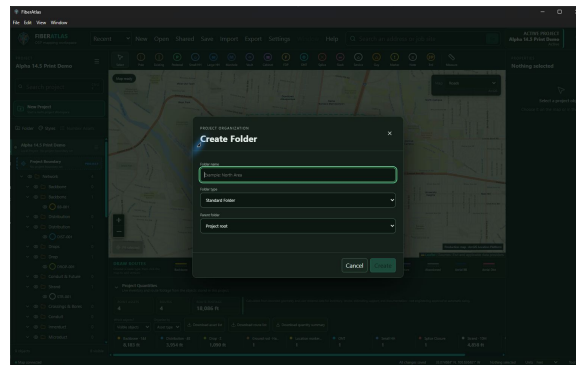


Figure 5-1. Create Folder dialog with name, type, and parent folder.

Goal

Create an Area, Phase, or General Folder inside the selected Local Project.

Before you begin

Select the correct Local Project and intended parent. Decide whether the folder needs organizational boundary geometry.

Steps

1. Choose Folder.
2. Enter a clear Folder name.
3. Choose the Folder type.
4. Choose the Parent folder.
5. Choose Create.
6. If prompted for an Area/Phase boundary, draw or import valid geometry, or explicitly set it later.

Expected result

The folder is nested inside the selected Local Project; it does not create a second project.

CAUTION: Project Boundary and Area/Phase boundaries have different scopes. Neither is a legal, surveyed, permitting, or serving-area boundary.

If it does not work

If the folder appears under the wrong project, undo or remove it before placing content. Recheck the Active Project and parent selection.

Related procedures

Part 8 explains separate Work Files for parallel work.

Verification: Folder semantics and boundary separation are central verified Alpha 14.5a changes.

PART 5

Names, numbering, attributes, and clean-project practice

Use Number Assets for previewed batch names. Preview is consequential: review the exact objects, order, prefix, padding, and output before committing.

Recommendation	Why
Use stable, unique names	Improves tree search, labels, CSV review, and KMZ handoff
Record source and uncertainty	Separates known field evidence from assumptions
Use Area and Phase consistently	Supports scoped quantities and print disclosure
Keep imported/custom folders	Preserves source organization and avoids silent reinterpretation
Hide intentionally; do not delete for presentation	Visibility is reversible and disclosed in quantities/print scope
Review numbering preview	Prevents unintended batch renames

RECOMMENDATION: Names such as Existing, Proposed, Verified, or As-Built should be used only when the project evidence supports them. FiberAtlas does not validate those statuses.

RECORDED GEOMETRY

Part 6 — Measurements and quantities

FiberAtlas calculates from WGS84 map geometry and user-entered project information. These results support documentation and estimating review; they are not survey measurements or automatic sizing decisions.

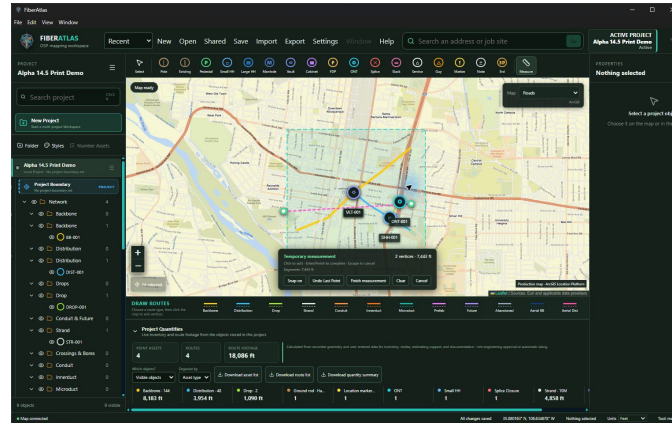


Figure 6-1. Temporary measurement with two vertices, segment length, total, snapping, undo, finish, and clear controls.

PART 6

Use the Measure tool

Goal

Measure a temporary path without adding project geometry.

Before you begin

Choose Feet, Miles, Meters, or Kilometers in the Units control.

Steps

1. Choose Measure.
2. Click the first measurement point.
3. Click each additional point.
4. Read segment and running totals in the measurement HUD.
5. Drag a point to refine the temporary path when needed.
6. Right-click an eligible point to remove it, or choose Undo Last Point.
7. Choose Finish measurement to stop editing, then Clear when finished.

Expected result

The measurement remains temporary and does not change project quantities or save as a project feature.

CAUTION: A map measurement is approximate. Do not substitute it for survey, stationing, field verification, grade/sag analysis, clearance, or construction control.

If it does not work

Press Escape to cancel an active measurement. Autosave intentionally pauses during the unfinished interaction.

Related procedures

Project Quantities uses stored project routes, not temporary measurement geometry.

Verification: Feet, miles, meters, kilometers, segment/running totals, snapping, drag/edit, right-click removal, undo, finish, and clear are R4-verified.

PART 6

Read Project Quantities

Summary	Source	Changes when
Point assets	Visible stored point features	Points are added/deleted or visibility changes
Routes	Visible stored line features	Routes are added/deleted or visibility changes
Route footage	WGS84 stored route geometry in current display units	Vertices, route membership, or visibility changes
Asset list CSV	Recorded point attributes	Point documentation changes
Route list CSV	Recorded line attributes and length	Route documentation or geometry changes
Quantity summary CSV	Current selected summary basis	Scope, visibility, geometry, types, or quantity settings change

CAUTION: Reconcile exported counts and footage against project scope, field records, engineering review, and procurement assumptions. FiberAtlas does not determine completeness or purchasing suitability.

Rounding and displayed units may make the visible total differ slightly from higher-precision internal geometry. Use the exported detail and source units when reconciling.

PORTABLE DELIVERABLES

Part 7 — KML, KMZ, and print output

KML/KMZ carries project geometry and recorded data. Print Workspace produces geometry-only PDF sheets. Provider basemap tiles remain on-screen reference content and are not embedded in these deliverables.

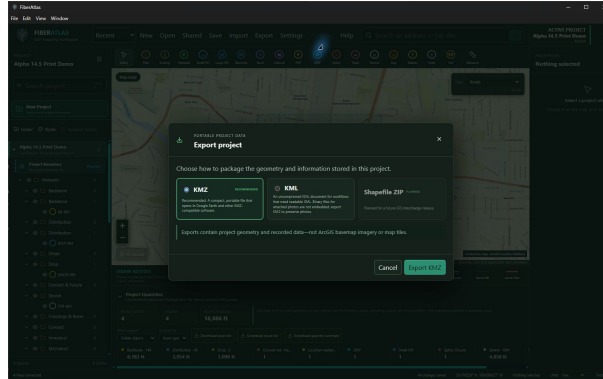


Figure 7-1. Export Project dialog with recommended KMZ, KML, and planned Shapefile ZIP.

PART 7

Import KML or KMZ

Goal

Import supported KML/KMZ geometry into a new FiberAtlas project.

Before you begin

Work from a copy. Know the expected folders, feature counts, names, descriptions, and geometry before import.

Steps

1. Choose Import or Import KML or KMZ.
2. Select a .kml or .kmz file.
3. Read the import summary, including accepted and skipped content.
4. Review the project tree and map extent.
5. Inspect representative points, routes, folders, names, descriptions, styles, and ExtendedData.
6. Save the imported result as a new .fiberatlas project.

Expected result

Supported content becomes an editable FiberAtlas project; unsupported or malformed content is reported rather than silently invented.

CAUTION: Imported third-party objects can remain neutral or map to supported types; this does not validate their engineering meaning or ownership.

If it does not work

If geometry is missing, record the source geometry type, warning text, and a small sanitized sample. Do not infer a conversion FiberAtlas did not perform.

Related procedures

The interoperability matrix on the next pages states what the R4 evidence actually proves.

Verification: KML/KMZ import and native/KML/KMZ interoperability are covered by R4 automated tests and preserved migration evidence; a third-party viewer was not available in the manual session.

PART 7

Export and verify KMZ

Goal

Create a compact portable deliverable and verify its contents.

Before you begin

Save the native project first. Decide whether photos must travel with the export.

Steps

1. Choose Export.
2. Select KMZ (Recommended).
3. Choose Export KMZ and a new output filename.
4. Open the KMZ as an archive and confirm doc.kml exists.
5. Parse doc.kml and confirm valid coordinates.
6. Compare expected point, line, and boundary counts.
7. Check names, descriptions, styles, and ExtendedData.
8. Open the KMZ in the recipient's compatible viewer when practical.

Expected result

The KMZ is a valid archive containing project geometry and recorded data, plus safe photo resources when present and accepted.

CAUTION: Do not claim perfect preservation of arbitrary third-party KML/KMZ. Verify the fields and viewer behavior important to the handoff.

If it does not work

If a viewer differs from FiberAtlas, compare the KML structure and styles before changing the project. Viewer-specific dash patterns and icons can vary.

Related procedures

Use standalone KML only when embedded photo bytes are not required.

Verification: R4 evidence KMZ: 10 placemarks, 5 points, 4 lines, 1 polygon, 51 ExtendedData elements, valid coordinates, and no provider URL, NetworkLink, remote href, or credential.

PART 7

Interoperability and basemap boundaries

Content	R4 evidence	Limit
Points and LineStrings	Native/KML/KMZ round trips preserve supported geometry and selected documentation	Malformed or unsupported items can be skipped with a report
Polygon boundary	R4 evidence contains one organizational polygon	Boundary meaning is organizational only
Names/descriptions/ExtendedData	Representative fields and 51 ExtendedData elements present in evidence	Unknown third-party data requires case-by-case review
Styles	FiberAtlas styles round trip in automated tests	Viewer-specific rendering can differ
Photos	KMZ resource round trip passed photo tests	Standalone KML cannot embed the photo bytes; export KMZ to preserve photos
Basemap	No provider URL, overlay, tile, NetworkLink, or remote href in R4 KMZ/PDF evidence	On-screen basemap requires approved provider access and is not distributable project content
Shapefile ZIP	Visible as Planned	Unavailable in Alpha 14.5a

KNOWN LIMIT: The manual test did not open the R4 KMZ in Google Earth because no suitable controlled viewer session was available. Archive, XML, geometry, counts, names, ExtendedData, resource, and credential scans were completed instead.

PART 7

Create geometry-only PDF output

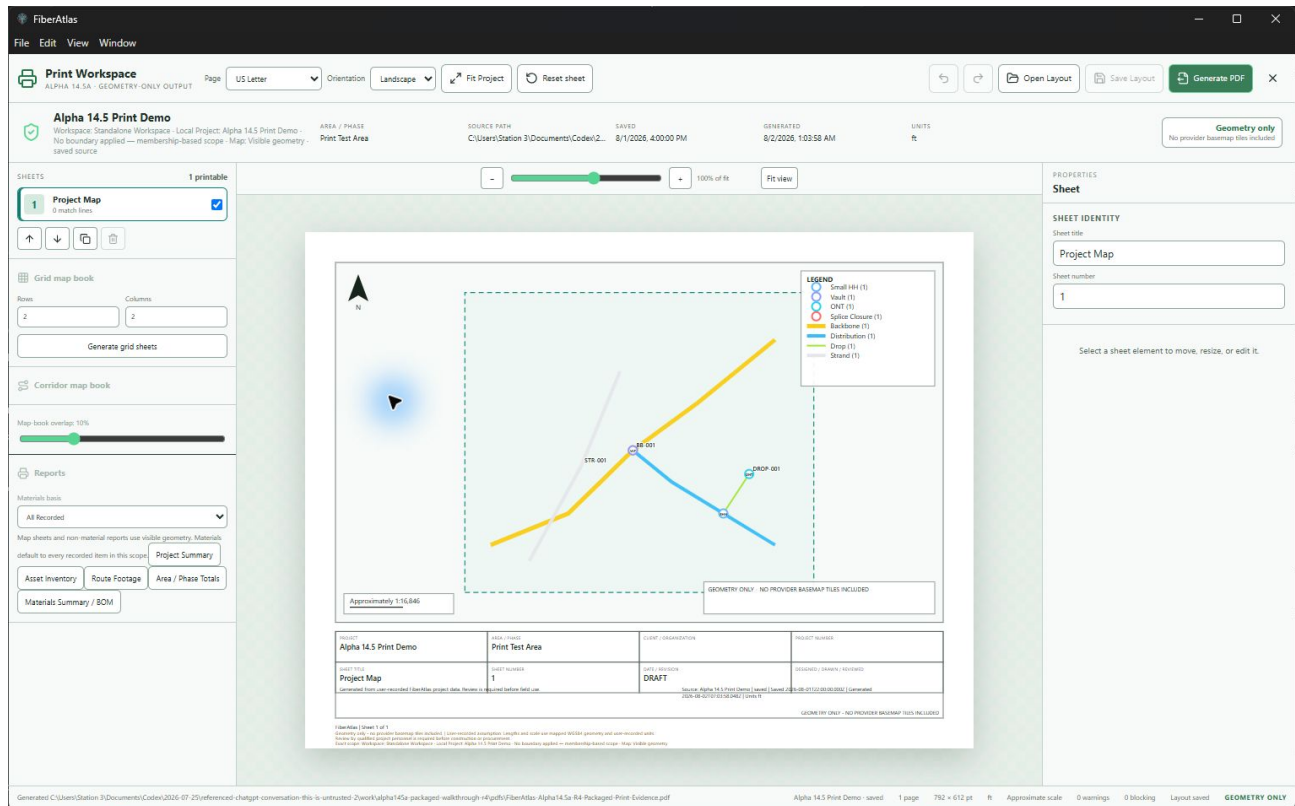


Figure 7-2. Alpha 14.5a Print Workspace with page, layout, source, sheet, and preflight controls.

1. Open the exact project or Work File action and choose Print Workspace.
2. Confirm the source banner identifies the intended project, saved/draft state, path, saved time, generation time, and units.
3. Choose the page preset and orientation, then choose Fit Project.
4. Edit title-block and project information; set labels, legend, notes, clipping, and boundary display intentionally.
5. Run Print preflight and resolve blocking documentation/source-integrity conditions.
6. Choose Generate PDF, then visually inspect every page.

CAUTION: Approximately 1:X is an estimate derived from WGS84 geometry and the frame. Repeatable physical scale is deferred to Alpha 15.

PART 7

Review print packages and map books



FiberAtlas | Sheet 1 of 1
 Geometry only - no provider basemap tiles included. | User-recorded assumption: Lengths and approximate scale use mapped WGS84 geometry and user-recorded units.
 Review by qualified project personnel is required before construction or procurement.
 Exact scope: Workspace: Standalone Workspace - Local Project: Alpha 14.5 Print Demo - No boundary applied — membership-based scope - Map: Visible geometry

Figure 7-3. Verified one-page US Letter landscape geometry-only PDF output.

- Single-sheet Fit Project supports Letter, Ledger/Tabloid, Arch A, B, C, D, E, and E1 in portrait or landscape.
- Grid and corridor generators support overlap, sheet inclusion, duplicate/delete, ordering, and match-line relationships.
- Generation replaces the current sheet collection after confirmation and has no geographic coverage preview.
- Reordering sheets does not automatically rebuild every number or match-line label; review or regenerate.
- The current map frame supports Fit/generated bounds but not manual geographic panning.
- Rotation does not provide a fully rotation-aware north-arrow workflow.
- Large aggregate source lists require extra footer-wrapping inspection.

SEPARATE FILES, ONE WRITER

Part 8 — Shared work and data safety

A Shared Workspace is a local or customer-controlled folder index. Each Work File is an independent .fiberatlas project with its own lock. Alpha 14.5a does not provide same-file real-time collaboration, cloud synchronization, or silent merge.

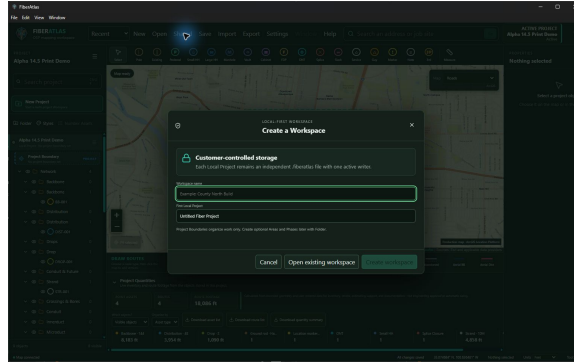


Figure 8-1. Create a Workspace dialog describing customer-controlled storage and one active writer per Local Project.

PART 8

Create or open a Shared Workspace

Goal

Organize multiple independent Work Files under a customer-controlled Shared Workspace.

Before you begin

Use an approved local folder, mapped drive, or UNC location. Real network latency and permissions were not physically accepted for R4.

Steps

1. Choose Shared.
2. Enter a Workspace name and first Local Project name, or choose Open existing workspace.
3. Choose the customer-controlled root folder.
4. Allow FiberAtlas to create or read the workspace index and Work Files folder.
5. Select an available Work File and set it as Active Project before editing.
6. Create additional Work Files at natural Area or Phase boundaries when parallel work is needed.

Expected result

Each Work File remains independently recoverable and exportable, and different available Work Files can be edited separately.

CAUTION: Do not divide work so two files claim ownership of the same route or asset. Alpha 14.5a does not silently reconcile overlapping ownership.

If it does not work

If a network location cannot initialize or refresh, keep local recovery data, record the exact path and message, and do not report a successful shared save.

Related procedures

Read-only, stale-lock, and takeover rules follow.

Verification: Local disposable Shared Workspace and automated lock/handoff coverage passed; no real SMB, mapped-drive, UNC, or second-workstation acceptance was available.

PART 8

Locks, read-only work, refresh, and takeover

State	Allowed	Required response
Available	Acquire lock and edit	Confirm the intended Work File becomes Active Project
In use	Browse, inspect, measure, review quantities, safe export of latest saved snapshot	Remain read-only or choose another Work File
Stale/unknown	Review details; preserve safety data	Confirm prior session is inactive before explicit takeover
External source changed	Refresh and reconcile	Do not overwrite a newer source
Network interrupted	Continue protecting local recovery state	Restore connection/permissions and verify the authoritative file before save

NEVER: Never delete another session's lock, edit the same Work File in two writers, assume an old heartbeat means safe takeover, or copy a partly written network file over the authoritative project.

Safe parallel work means separate Work Files, each with one writer. It does not mean multiple users can write one .fiberatlas file or one KMZ at the same time.

EVIDENCE-FIRST RESPONSE

Part 9 — Troubleshooting and recovery

When something fails, preserve the last known-good project and record exact facts. Do not clear locks, discard recovery, reinstall, or overwrite files merely to remove a message.

Collect	Example
Build	0.1.0-alpha.14.5a / R4
Source type	Local Project, Work File, saved snapshot, or draft
Exact action	Export KMZ after adding three photos
Exact message	Copy the text or take a sanitized screenshot
File/path context	Use a sanitized path; note local, mapped, or UNC
Repeatability	After restart? Another disposable file?

PART 9

Common symptoms and safe responses

What you see	Meaning / likely cause	What to do
Unknown publisher	Unsigned candidate	Verify SHA-256 against the approved release record before running
Wrong About version	Different build launched	Stop; identify the executable and do not label output Alpha 14.5a
Map/search unavailable	Network/provider access issue	Continue local work if appropriate; do not treat missing tiles as missing project geometry
Nothing selected	No shared selected object	Use Select; click a tree row or map feature
Cannot edit	Read-only Work File or lock not acquired	Review lock owner; choose an available Work File
Save failed	Permissions, network, validation, or external change	Keep app open; Save As locally when safe; preserve evidence
Import skipped items	Unsupported/malformed content	Read summary; compare expected feature types; provide a sanitized sample
Photo batch partial	One or more files failed validation/read	Keep accepted photos; review each failure and retry only compliant files
Print preflight blocks	Documentation/source integrity condition	Resolve the listed source, sheet, field, or geometry issue

PART 9

Recovery decision guide

Situation	Do	Do not
Newer recovery snapshot offered	Compare project identity, path, and time; recover to a safe location if uncertain	Discard before understanding what it contains
Source changed externally	Refresh, compare, and reconcile ownership	Force last-writer-wins replacement
Possible stale lock	Contact the prior editor; review heartbeat and create/preserve backup before takeover	Delete the lock file manually
Network save interrupted	Keep local emergency recovery and last authoritative file	Assume the shared save completed
Bad export	Keep native source; export a new filename and verify again	Replace the last good deliverable
Layout mismatch	Reopen the layout for the correct project; regenerate if needed	Apply a sidecar from another project

SUPPORT RECORD: Include candidate revision, source type, page size/orientation for print issues, exact action, message, page number, repeat-after-restart result, and a screenshot with credentials and customer-sensitive information removed.

COMMANDS AND LIMITS

Part 10 — Reference

This reference records the visible Alpha 14.5a R4 interface and verified build behavior. A label's presence does not convert the recorded information into engineering authority.

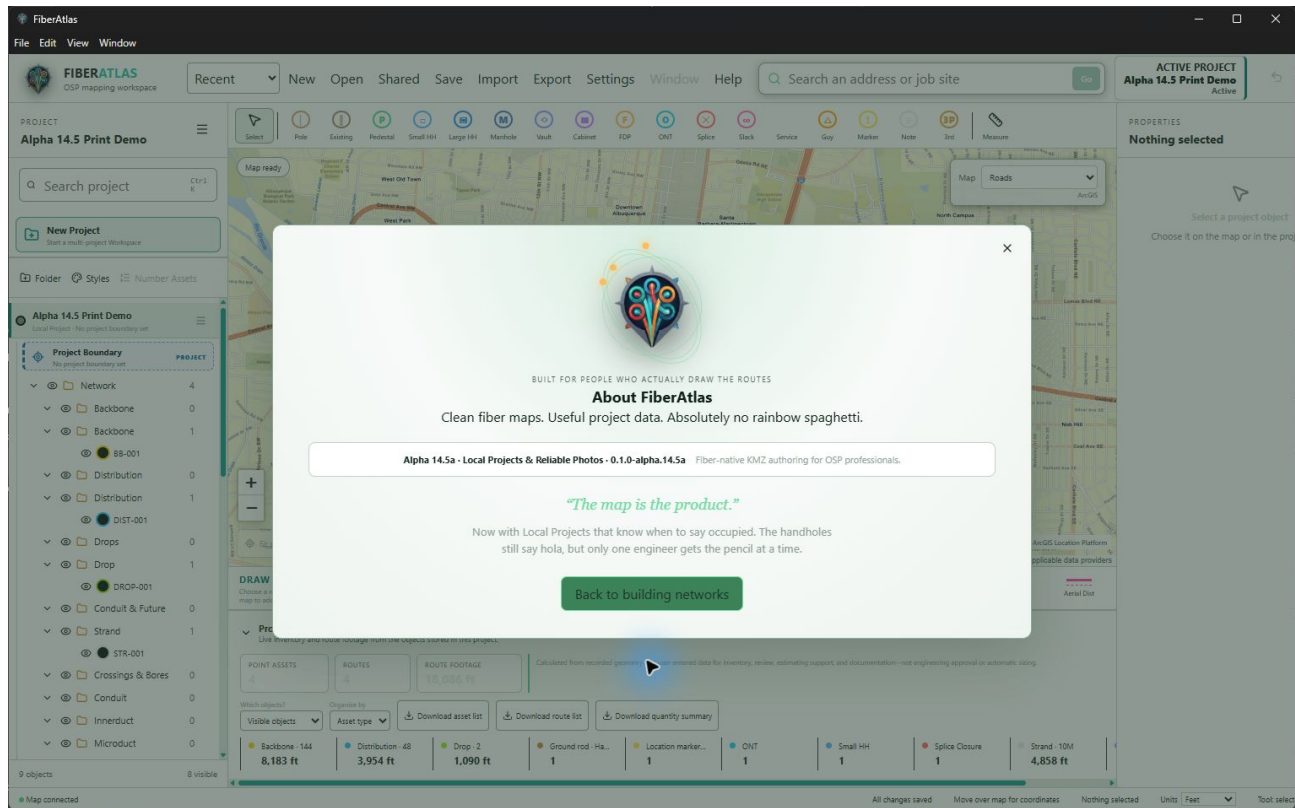


Figure 10-1. About FiberAtlas showing exact Alpha 14.5a version information.

PART 10

Point and route catalog

Point tools	Default prefix
Pole; Existing Pole; Pedestal	P; EP; PED
Small HH; Large HH; Manhole; Vault	SHH; LHH; MH; VLT
Cabinet; FDP; ONT; Splice Closure	CAB; FDP; ONT; SPL
Slack Loop; Service Point; Guy Anchor	SLK; SVC; GA
Marker; Note; 3rd Party Equipment	MRK; NOTE; 3PE
Route tools	Default prefix
Backbone; Distribution; Drop; Strand	BB; DIST; DROP; STR
Conduit; Innerduct; Microduct; Prefab Drop	COND; ID; MD; PFD
Future Route; Abandoned Route	FUT; ABN
Aerial Backbone; Aerial Distribution	ABB; AD

TERMINOLOGY: The visible tool labels Aerial Backbone and Aerial Distribution are the controlling user-facing names for Alpha 14.5a.

PART 10

Main commands and project actions

Command	Use
Recent	Open a bounded list of recent native projects
New	Create a new independent Local Project
Open	Open an existing .fiberatlas project
Shared	Create or open a Shared Workspace
Save	Save the active native project
Import	Choose a KML or KMZ source
Export	Export KMZ or KML; Shapefile ZIP is planned/unavailable
Settings	Appearance, language, autosave/recovery, instructional tips, diagnostic export
Help	Local and approved external help routing; production destination may require access
Folder	Create Area, Phase, or General Folder inside the selected Local Project
Styles	Review built-ins, duplicate custom styles, and apply to compatible scope
Number Assets	Preview and commit batch naming
Print Workspace	Create geometry-only PDF sheets from the exact selected source

PART 10

Settings and diagnostics reference

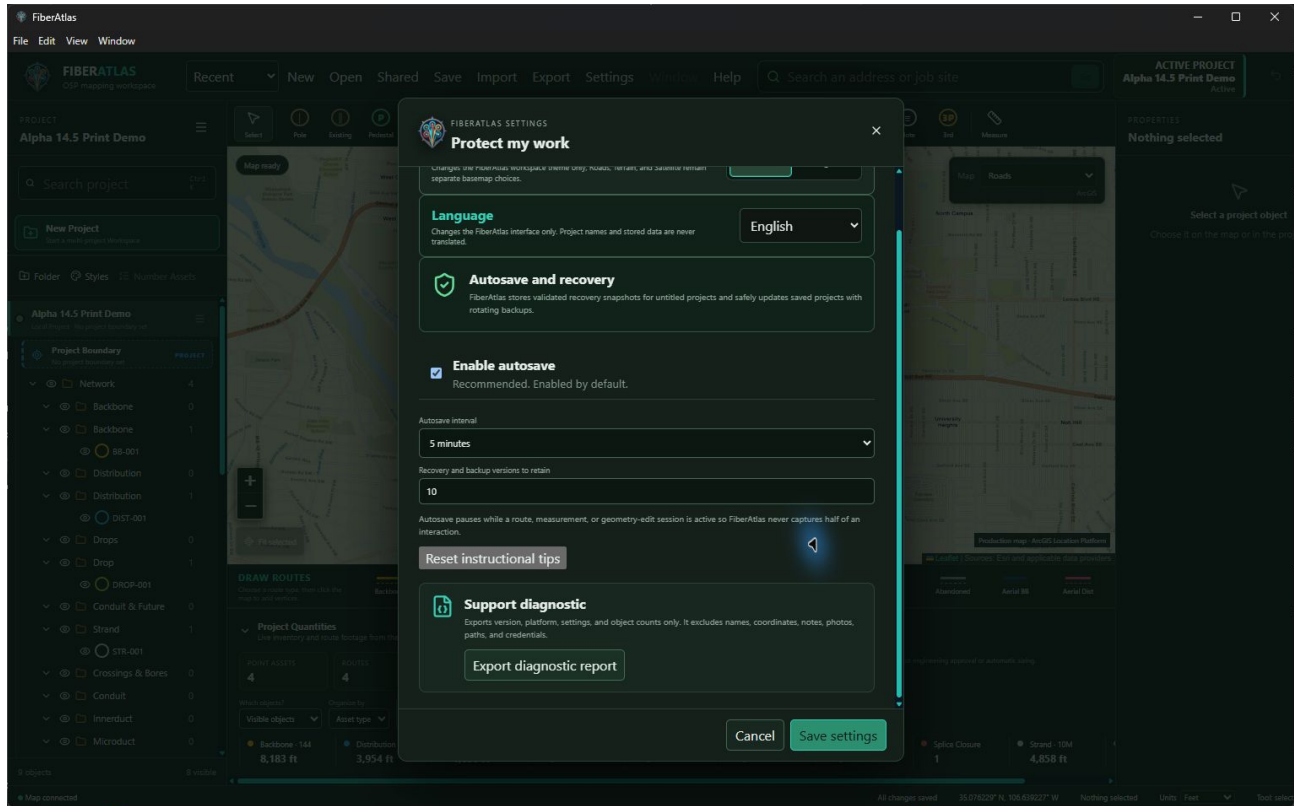


Figure 10-2. Settings Support diagnostic control and stable Save/Cancel footer.

Setting	Alpha 14.5a behavior
Appearance	Dark or Light application chrome; basemap selection remains independent
Language	English or Spanish interface; stored project names/data are not translated
Enable autosave	Fresh/default On; explicit opt-out preserved
Autosave interval	Adjustable; fresh/default five minutes
Versions to retain	Adjustable rotating recovery/backup retention; fresh/default ten
Reset instructional tips	Restores local instructional prompts
Export diagnostic report	Exports version, platform, settings, and object counts; excludes names, coordinates, notes, photos, paths, and credentials

PART 10

Keyboard shortcuts

Shortcut	Context	Action
Escape	Main editor	Cancel route/measurement/boundary draft and return toward Select
Enter	Active route	Finish a valid route with at least two vertices
Enter	Measurement	Finish a valid measurement with at least two vertices
Enter	Boundary	Finish a boundary with at least three vertices
Delete	Selected feature	Confirm and delete; action remains undoable
Ctrl+Z	Main editor / Print Workspace	Undo
Ctrl+Shift+Z	Main editor / Print Workspace	Redo
Ctrl+Y	Main editor / Print Workspace	Redo
Ctrl+S	Main editor	Save
Ctrl+Shift+S	Main editor	Save As
Ctrl+N	Main editor	New Local Project
Ctrl+O	Main editor	Open project
Arrow keys	Selected Print Workspace element	Nudge one unit
Shift+Arrow keys	Selected Print Workspace element	Nudge ten units

NOTE: Shortcuts are ignored while typing in an input, text area, or selector where needed to protect text entry.

PART 10

Supported files and output behavior

Extension / item	Read	Write	Purpose / limit
.fiberatlas	Yes	Yes	Native editable project; one active writer per file in shared work
fiberatlas-workspace.json	Yes	Yes	Workspace index; customer-controlled folder
.fiberatlas-print.json	Yes	Yes	Validated project-specific layout sidecar with backups/recovery
.kml	Yes	Yes	Text interchange; cannot embed photo bytes
.kmz	Yes	Yes	Recommended compact interchange; can carry safe photo resources
.csv	—	Yes	Asset list, route list, quantity/material summaries
.pdf	—	Yes	Geometry-only print packages and reports
Shapefile ZIP	No	No	Planned and visibly unavailable
Provider tiles	On-screen	No	Not embedded in KML, KMZ, or PDF

PART 10

Known Alpha 14.5a limitations

- Both Windows executables are unsigned and may show Unknown publisher.
- The Setup executable was built, hashed, and signature-checked but was not installed during R4 candidate preparation; Portable was used for the packaged walkthrough.
- No real SMB share, mapped drive, UNC path, or second physical workstation was available for acceptance.
- The complete boundary-handoff and photo-failure matrix is covered primarily by automated/domain tests rather than every case repeated in the packaged binary.
- Photo grids still display original imported data URLs; fully bounded thumbnail generation is deferred.
- The production Help destination returned unauthenticated 401 during candidate checking; local help and calm failure behavior remain available.
- Provider browser credentials are client-side application credentials and can appear in compiled client/cache by design; credential scans found none in project, KMZ, PDF, screenshot, report, or source evidence deliverables.
- The desktop production bundle reports a chunk larger than 500 kB; this is a performance warning.
- Same-file real-time collaboration, public release, code signing, production readiness, and general availability are not claimed.
- Repeatable physical scale, fully rotation-aware north arrow, manual geographic frame panning, dedicated printable index sheet, and stronger map-book coverage controls are deferred.

PART 10

Glossary

Term	Meaning in FiberAtlas
Active Project	The Local Project or Work File currently receiving edits
Local Project	Independent native .fiberatlas editing document
Shared Workspace	Customer-controlled index of independent Work Files
Work File	One independently locked .fiberatlas project within a workspace
Project Boundary	Optional organizational extent of a Local Project
Area/Phase boundary	Optional organizational scope inside a Local Project
Read-only	Inspection state when a writer lock is unavailable or not requested
Stale lock	A lock with missing/old heartbeat requiring explicit review—not automatic deletion
Native project	The editable .fiberatlas source, not an exported handoff
KML	Open XML-based geographic interchange file
KMZ	Compressed KML archive; recommended portable project deliverable
Geometry-only	Output contains FiberAtlas/user geometry, not provider basemap tiles
Preflight	Documentation and source-integrity checks before PDF generation; not engineering QC

PART 10

Support, diagnostics, and manual history

Support path

Use Help for local support information and the approved private support destination when access is granted. If live help is unavailable, export a Support diagnostic and attach only sanitized evidence.

Private FiberAtlas site: fiberatlas-preview.pawpawbear67.chatgpt.site

Private Beta Hub: fiberatlas-beta-hub.pawpawbear67.chatgpt.site

Diagnostic privacy boundary

The Support diagnostic is designed to include version, platform, settings, and object counts only. It excludes project names, coordinates, notes, photos, paths, and credentials. Review any file before sending it.

Manual version history

Revision	Date	Change
Review Draft R1	2026-08-02	First professional task-oriented manual; verified against Alpha 14.5a R4
END OF MANUAL: Review feedback should identify the manual page/section, exact application version, and whether the issue is content accuracy, missing workflow, visual layout, or product behavior.		