

APocketTopo

Help — Manuel (V0.9d)

Chaîne ARIS_SpeleoTopo · généré le 2026-07-21

APocketTopo is the Android field link in the ARIS_SpeleoTopo chain: notebook, offline plan, wall sketch, .trox export for SpéléoTopo (Windows). This guide describes the application screen by screen.

Access: : menu (top right) → Help. Scroll to read the chapters below.

ARIS_SpeleoTopo chain (SpéléoTopo)

ARIS_SpeleoTopo (SpéléoTopo, Windows) is the WYSIWYG vector editor in the chain: .trox import, .stopo project, PLAN and DEVELOPED SECTION views, GDHB/radial walls from network, scrap mapping (—), surfaces, symbols, text, SVG/PDF/Therion exports...

Full help: spelebase.fr/ARIS_Logiciels/SpeleoTopo/Fichier_Aide.html

1) Field — APocketTopo (Android): notebook, radials, plan/section sketch, Disto.

2) Desktop — export the .trox (required for SpéléoTopo). VisualTopo can serve as intermediate transfer.

3) SpéléoTopo — 📁 Import .TROX (new project or topo update from .trox if .stopo already saved).

Coming: import into SpéléoTopo of metric wall SVG (plan-murs-m, coupe-murs-m) exported by APocketTopo. Meanwhile, draw walls in SpéléoTopo (scraps) or use GDHB from .trox.

On phone above ground: .db backup + .trox export; wall SVG = preparation (keep files for future SpeleoTopo version).

1. Menus and navigation

- ☰ Menu (left) — field survey: Home, Survey plan, Plan drawing (survey), Points, Stations and shots, Files.

- : Menu (right) — project and settings: My projects, Import/export, Device (link), Maintenance, Settings, Help, Sync, Open source licenses, Detach active project, About, Debug: send logs (ZIP archive of the _logs folder by e-mail).

Each screen appears in only one menu (no duplicate). No bottom tab bar: everything goes through ☰ or :.

Lateral swipe gestures to change pages are disabled (avoids conflicts with drawing). Side menu

opens only with ☰.

2. Typical field workflow

- 1) Create, open or duplicate a project (: → My projects) and set it active.
- 2) At entrance: Points → GPS (up to 60 s, filtered readings) → check « Cave entrance » (UTM in .trox).
- 3) Stations and shots: notebook (Disto or manual), radials if needed.
- 4) Plan drawing (survey): optional wall sketch (plan and section); tools and help in Drawing tools tab.
- 5) Above ground: : → Maintenance for .db backup; Import/export for .trox (SpéléoTopo) and wall SVG.
- 6) Windows: ARIS_SpeleoTopo → Import .TROX → .stopo editing (scraps, symbols, etc.). VisualTopo optional upstream.

3. My projects

One project = one cave or campaign. Only one project is « active » at a time: all stations, shots, points and drawings are attached to it.

- +: create a project (name e.g. « Aven du ... »).
- Copy icon: duplicate project under another name (full copy: network, points, plan and section drawings, entrance reference).
- Tap a row: activate this project.
- Trash: delete (irreversible).

Without an active project, survey screens show a message inviting you to choose one.

4. Points (GPS landmarks)

List of project landmarks: name, latitude, longitude, altitude, note.

- +: new point; GPS button: acquisition up to 60 s (early stop at 45 s if 12 reliable readings kept). Poor-accuracy (> 12 m) or dispersed readings are discarded; final position is a weighted average of kept readings; MSL altitude if available. Stay still outdoors with clear sky.
- « Cave entrance » checkbox: only one point checked per project. It serves as entrance reference for the Survey plan banner (LAT/LON in 6 decimals + UTM, altitude, cave statistics) and for the <Entrees> block in VisualTopo export (.trox).

In deep cave, coordinates can be entered manually if GPS is not usable.

5. Survey plan

Offline plan view (no Internet map underground): landmark in metres (N/E), scale bar, survey network wireframe.

Top banner: LAT, LON, UTM and altitude (from the checked entrance point); cave statistics computed from the survey network: survey length (= sum of leg shots only, excluding radials), projected distance, depth, ascent, general orientation.

Buttons at top right:

- Plan (default): horizontal view of the cave. Skeleton: legs, radials, Lg/Ld (left/right) lines at mid-leg.
- Dev. section: developed section (curvilinear abscissa / altitude). Skeleton: red legs, pink radials, Ht/Bs (up/down) lines at mid-leg, station dots.

Both / Skeleton / Walls / Num selector: common to both views (survey network, wall strokes or station codes depending on mode).

6. Stations and shots

Screen centered on the chronological notebook (From, To, Len., Az., Cl.). No « Stations » list mode.

Entry mode shown at top (read-only). Default: VisualTopo. Change only in : → Settings → Measurement entry mode.

- VisualTopo: up to 5 Disto measurements per leg; Lg, Ld, Ht, Bs profile on legs (not radials).
- Pockettopo: 1 measurement per leg; mandatory radials before new station.

Field entry (+): leg shots; Photo and Video for From; Radials button → dedicated screen (return after « Save series » or Cancel).

Station detail: edit, Radials, outgoing shots. Blue Bluetooth button: Disto shot (: → Device link). Sketch: plan canvas.

Undo mistakes: only the last entered station can be deleted (trash in detail, shown only for that station) — confirmation before removal; the shot that created it and its plan marker are removed. Intermediate stations cannot be deleted. Delete an outgoing shot: trash on the row, confirmation; if the arrival station becomes orphaned, it is removed from the plan too.

Measurement options: : → Settings → Device → « Average repeated shots » (the Bluetooth button takes 3 measurements and averages them; an abnormal spread is flagged). « Reverse shot » checkbox in leg entry: a shot taken from arrival toward departure is stored in the correct direction (azimuth +180°, inverted clino).

Media: Documents/APocketTopo/{project}/multimedia/ (~25 s video advised).

7. Plan drawing (survey)

Three tabs: Plan, Dev. section, Drawing tools. Local grid; shots in red (thick legs, thin radials). A discreet frame delimits the drawing area: only the visible grid accepts pencil, eraser, area, text and dimension (area follows zoom and pan). No help banner on Plan and Dev. section tabs.

Plan: walls and areas in N/E; skeleton with Lg/Ld (left/right). Dev. section: same tools in S/Z (developed distance / altitude), leg skeleton, radials, Ht/Bs (up/down).

Plan and Dev. section tabs: zoom by pinch, joystick (bottom left) and +/- buttons (bottom right).

Drawing tools tab:

- Tools: Pan, Pencil, Area, Eraser, Vertex (plan), Text, Dimension, Dashed.
- Colour, width; Closed line and Continuity (pencil only).
- Snap stations and Snap tolerance (0.5 to 3 m, default 1.5 m).
- Undo / Redo; Delete (dedicated tool).
- Help area at bottom: instructions for the selected tool.

Both / Skeleton / Walls / Num selector on Plan and Dev. section.

Exports (SVG/PNG capture, metric wall SVG): : → Import / export only — no longer in Drawing tools tab. Continuity (pencil) recommended for metric walls; no dashed in metric walls.

Saving: each finished stroke is stored in the database for the active project. Switching cave (: → My projects) reloads that project's sketch; other projects' drawings remain in the database.

8. Longitudinal profile (Z section)

Developed section is the Dev. section tab of Plan drawing (survey) (see chapter 7). Axes: abscissa S (developed), ordinate Z (altitude). Skeleton: red legs, pink radials, Ht/Bs (up/down) lines at mid-leg. Lg/Ld (left/right) are shown on the plan.

Walls and areas on « Profile · wall ... » layers. Tools and help: Drawing tools tab (same panel as plan, adapted to section). Delete removes text and dimension; eraser removes strokes and areas.

9. Files

Reminder: data lives in a local SQLite database on the device (private Android/data/.../Documents/APocketTopo folder). This screen points to Maintenance (.db backup), Import/export (.trox, SVG) and My projects — not a phone file explorer.

10. Import / export (SpeleoTopo chain)

Survey exports in Documents/APocketTopo/{cave name}/ (one folder per project, type-aaaammjj_hhmmss.ext files).

- .trox: VisualTopo 5.23 — entry to ARIS_SpeleoTopo (📁 Import .TROX). Checked cave entrance → UTM.
- Magnetic declination: exported azimuths are raw magnetic. The correction is applied automatically on PC by VisualTopo (auto declination, from date and entrance coordinates); do not correct it on the phone (otherwise double correction). Set the entrance geographic coordinates so auto declination applies.
- .trox import: confirmation requested before each import (new project or replace active network).
- Metric wall SVG (plan-murs-m, coupe-murs-m): 1 m = 1 unit, outer walls. Import into SpéléoTopo not available yet; keep files for a future version. Survey network: always via .trox.

Full Android backup (.db / pack): : → Maintenance (chapter 11).

11. Maintenance (.db backup)

: → Maintenance: export and import of internal SQLite database (all projects, stations, points and drawings on the device).

- Export .db / zip pack / session: Documents/APocketTopo/_sauvegardes/ (global backup).
- Any import (.db, pack, session) requests confirmation before opening the file.

Use this page before a device change, major system update or after startup crash. For SpéléoTopo, also export .trox via Import / export (Documents/APocketTopo/{cave name}/ folder).

12. Field device (Bluetooth)

: → Device (link): choose type (Disto X310/A3 SPP, DistoX BLE, DistoXBLE UART, Bric 4/5, Cavway X1/XBLE, SAP 5, SAP 6), scan and save Bluetooth address, test connection.

Once connected, the measurement button in the notebook (Stations and shots) injects azimuth, length and clino into current entry. Check Pocketopo / VisualTopo mode in Settings before the survey day.

13. Settings

- Language: French, English or Spanish (interface and this guide) — choose then « Apply and restart » (saved at every startup).
- Display: default, power saving or dark theme (saved automatically).
- Measurement entry mode: VisualTopo (default) or Pocketopo — only place to change mode (Stations and shots screen shows it read-only).
- Shortcut to Device (link).

14. Field best practices

- Check active project before descending.
- At entrance: GPS up to 60 s, stay still with clear sky, then check « Cave entrance ».
- VisualTopo by default; check Settings if using Pockettopo (mandatory radials before new station).
- Entry mistake: delete only the last station or last shot (station detail, confirmation) — no deletion in the middle of the network.
- Above ground: .db backup (: → Maintenance) and .trox export (Import/export, essential for SpéléoTopo); wall SVG optional (SpeleoTopo import coming).
- Underground: everything is local, no Wi-Fi.
- Dark / power saving mode for battery.

15. Troubleshooting

- Startup crash: trace in APocketTopo folder; restore a .db via : → Maintenance.
- Walls missing after switching cave: reactivate the correct project (: → My projects); sketch is stored per project in the database. Use Walls selector on Plan tab.
- GPS no fix: allow precise location, stay outdoors with clear sky, still up to 60 s; check warnings (discarded readings, spread).
- Doubtful altitude: warning message if MSL correction impossible — manual entry.
- Disto not responding: reopen Device link, check Bluetooth and device type.
- Empty plan: active project? imported network or entered shots?
- Cannot delete a station in the middle of the network: expected — only the last entered station can be deleted (station detail).
- Ghost station marker on plan: delete the last shot or last station (with confirmation); orphan stations are removed from the plan.
- Cannot draw: finger may be outside visible grid — pan or zoom on Plan or Dev. section tab.
- Delete has no effect (sketch): aim at text, dimension or inside area; walls erase with eraser.
- .trox export without entrance: check an entrance point with plausible WGS84 coordinates.
- Measurement device communication issue: : → Debug: send logs to email the _logs folder (ZIP archive) to contact@spelebase.net.

16. Development

ARIS_SpeleoTopo chain: APocketTopo (Android) and ARIS_SpeleoTopo / SpéléoTopo (Windows, WYSIWYG).

SpéléoTopo help: spelebase.fr/ARIS_Logiciels/SpeleoTopo/Fichier_Aide.html

Developed for ARIS by Pascal MOUNEYRAT — contact@spelebase.net — spelebase.fr