

DETAILED INSTRUCTIONS

One Click Line Dimensions

Dimension multiple elements in one click by drawing a line across them — works with angled walls.

Overview

One Click Line Dimensions turns wall dimensioning from a click-by-click chore into a single action: draw a line across the walls you want dimensioned, run the tool, and press one button. The plugin finds every wall your guide line crosses, builds references on both faces of each wall, and places a complete dimension string along the exact path of your line — including walls at any angle and rotated building wings.

The tool works per level, remembers your guide lines inside the project file itself, and can re-run the same dimension layout on one level or on every level you select — cleaning up its previous output and recreating it fresh each time (smart update). Guide lines can also live inside a Revit group, in which case editing the group updates the dimension layout on every level automatically.

Note on naming: inside Revit, the tool's dialog windows and the dimension style it creates appear under the on-screen name **ArchPlug DimLine**. Wherever this guide quotes a label containing that name, it is the literal text you will see on screen.

Key Benefits & Use Cases

- **One line instead of dozens of picks.** A single guide line drawn across a plan produces a full dimension string referencing both faces of every wall it crosses.
- **Angled and rotated geometry.** The dimension string follows your guide line in any direction. Walls that meet the line at an angle are intersected mathematically, so rotated wings, skewed partitions and non-orthogonal plans dimension just as reliably as orthogonal ones.
- **Repeatable, updatable output.** Re-running the tool deletes its previously created dimensions and reference markers in the view and recreates them from the stored guide lines — move a wall, press **Place dimensions** again, and the string is current.
- **Multi-storey efficiency.** Store guide lines once, copy them to every other floor, tick the levels you want, and dimension the whole building in one run.
- **Typical uses:** apartment-plan dimension strings for permit and construction sets, repeated floor plates in residential towers, fast interior partition dimensioning, and keeping dimension sets alive through design changes.

Requirements

- **Autodesk Revit 2022, 2023, 2024, 2025 or 2026** (Windows).

- **Windows** — Revit plugins are Windows-only.
- Part of the **ArchPlug** suite of Revit plugins. The shared ArchPlug components (reference-marker family, theme settings) are installed together with the plugin.
- A **Floor Plan view** — the tool runs in floor-plan views and dimensions the walls visible there.

Installation

1. Run the supplied `.msi` installer and follow the wizard.
2. Start (or restart) Revit.
3. Open the **ArchPlug** ribbon tab — the One Click Line Dimensions button is on it.
4. Open a floor-plan view and click the button to launch the tool.

The installer also places the ArchPlug reference-marker family on your machine; the plugin loads it into a project automatically the first time it is needed.

User Interface Walkthrough

Selection prompt (Revit status bar)

If the current level has no stored guide lines yet and nothing was selected when you launched the tool, Revit switches to selection mode with this prompt:

Select detail/model line(s) or a group of lines, then click Finish on the ribbon (Esc to cancel)

The selection filter only accepts: - straight **detail lines** and **model lines** (curved segments are not accepted), and - **groups** that contain at least one straight line — you can pick the whole group without Tab-ing into it.

Click **Finish** on the ribbon to confirm, or press **Esc** to skip selection.

Main window — "ArchPlug DimLine"

A compact, non-resizable window that stays on top of Revit but does **not** block it — you can keep panning, zooming and working in the model while it is open. It remembers where you last placed it. There is no Cancel button; close it with the **X** or the **Esc** key.

Control	What it does
Stored lines (this level): N	Header label showing how many guide lines are stored for the active view's level. Updates live after every run and after changes made in the levels panel.
stored lines on all levels >	Button (top-right) that opens the <i>Stored lines on all levels</i> panel (see below). Always enabled. If the panel is already open, clicking brings it to the front.
(N levels selected)	Small counter under the button showing how many levels are ticked for the "all levels" run.
Current level	Level-mode checkbox: the run dimensions only the active view's level. Mutually exclusive with All levels — exactly one of the two is always selected.
All levels (selected in level settings)	Level-mode checkbox: the run dimensions every level ticked in the <i>Stored lines on all levels</i> panel. If it is selected but no levels are ticked, Place dimensions is disabled until you tick at least one level.
Skip exterior wall thickness (first + last per line)	Option: on each guide line, the first and the last wall crossed are treated as exterior walls and only their inner face (toward the building) is referenced — their thickness is left out of the dimension string.
Skip exterior SKEW wall thickness only (keep orthogonal)	Option: same as above, but applied only when the exterior wall is <i>skewed</i> relative to the guide line (neither parallel nor perpendicular within 1°). Orthogonal exterior walls keep both faces. Mutually exclusive with the option above — checking one unchecks the other.
Place dimensions	The primary action button (also triggered by Enter). Runs the dimensioning for the selected level mode. The window stays open afterwards so you can adjust options and run again; the button is temporarily disabled while a run is in progress.

Unchecked options are dimmed with a dark veil over their text; the checkbox square itself always stays clickable. All option states are saved automatically and restored the next time you open the tool.

Keyboard: Ctrl+Z / Ctrl+Y undo and redo changes you made to the checkboxes in this window (this never touches the Revit model). **Esc** closes the window — if the levels panel is open, the first Esc closes the panel and the next Esc closes the main window.

The window follows the ArchPlug suite theme (dark or light, with your chosen accent color) set in ArchPlug Settings.

Levels panel — "Stored lines on all levels"

A resizable side panel that opens next to the main window. It lists every level that has a non-template **Architectural** floor-plan view (MEP/structural/site plans are filtered out), sorted by elevation.

Hint text: "Tick levels for the 'all levels' run (Shift+click for a range)."

Control	What it does
Level list (columns Level / Stored lines)	One row per level, showing the level name and either " N lines " or " no lines ". Each row has a checkbox : ticked levels form the target set for the <i>All levels</i> run. Shift+click ticks or unticks a whole range at once. Tick states are saved in the project.
Delete lines for selected levels	Deletes the plugin's output for every <i>highlighted</i> row (use Shift/Ctrl to highlight several): its created dimensions and reference markers, plus any guide-line copies the plugin itself drew. Guide lines you drew yourself are never deleted. The level's stored line set is cleared.
Padlock button	Locks the copy source . Colors: red — no valid source is highlighted; green — the single highlighted level has stored lines and can be locked; yellow — a source is locked. Click to lock/unlock.
Copy lines to selected levels + Copy	With a source locked (yellow padlock), highlight the <i>empty</i> target levels and click Copy . The source level's guide lines are reproduced on each target level at its own elevation, and the freshly filled levels are automatically ticked for the <i>All levels</i> run. Copy is enabled only while a source is locked. Levels that already have lines are never overwritten.
Hide / Unhide group	Orange-framed group with four buttons and two scope checkboxes (below).
Hide all lines / Unhide all lines	Hides or unhides the stored guide lines in their floor-plan views (per-view "Hide in View" — the elements are not deleted).
Hide all dimensions / Unhide all dimensions	Hides or unhides every dimension the plugin created (its own dimension style) across floor-plan views.
Current level / Checked levels (scope checkboxes)	Choose what the four Hide/Unhide buttons operate on: only the active plan view's level, or every level ticked in the list. Mutually exclusive; the choice is saved in the project.

Keyboard: Ctrl+Z / Ctrl+Y undo and redo tick and scope changes inside the panel. **Esc** closes the panel (the main window stays open).

Messages you may see

- "*Run this in a Floor Plan view.*" — the tool was launched from a non-plan view.
- "*No stored lines to dimension for the selected mode.*" — the run found nothing to do; select guide lines first or copy lines to the target levels.
- "*No empty levels selected to copy to.*" — **Copy** was clicked without highlighting empty target levels.
- "*'Current level' scope: the active view is not a floor plan, so there is no current level. Nothing was changed.*" — Hide/Unhide with the *Current level* scope needs an active floor-plan view.

- "'Checked levels' scope: no levels are ticked in the list. Tick the levels first. Nothing was changed." — Hide/Unhide with the *Checked levels* scope needs at least one ticked level.
- "Could not determine the level of the active view. Lines were not stored." — the active view has no associated level.

Step-by-Step Workflow

1. **Open a floor-plan view** of the level you want to dimension.
2. **Draw guide lines** (detail lines or model lines) across the walls you want in each dimension string — one line per string, crossing every wall it should measure. Straight lines only.
3. **Select the guide lines** (or a group containing them) — either select them *before* launching the tool, or launch first and pick them at the prompt, then click **Finish** on the ribbon.
4. **Launch the tool** from the **ArchPlug** ribbon tab. The main window opens and shows *Stored lines (this level): N*.
5. **Choose the level mode:** **Current level** for just this floor, or **All levels (selected in level settings)** for a multi-level run.
6. (*Multi-level*) Click **stored lines on all levels >**. In the panel, lock a source level with the padlock, highlight the empty target levels, click **Copy**, and make sure every level you want dimensioned is **ticked**.
7. **Set the exterior-wall options** if you want the outer wall thickness left out: **Skip exterior wall thickness (first + last per line)** or **Skip exterior SKEW wall thickness only (keep orthogonal)**.
8. Click **"Place dimensions"**. The plugin removes its previous output in each target view and creates fresh dimension strings along your guide lines.
9. **Review the result.** Adjust walls or guide lines as needed and click **Place dimensions** again — the output updates in place. The window stays open the whole time.
10. **Tidy up for printing** if desired: in the levels panel, use **Hide all lines** to hide the guide lines in the views (the dimensions stay).

Feature Reference

What gets dimensioned

- **Walls.** The plugin collects all walls visible in the target floor-plan view and intersects each guide line with their centerlines in 2D.
- For every wall a guide line crosses, references are created on **both wall faces** (the centerline offset by half the wall width to each side). The resulting dimension string therefore shows each wall's thickness and the clear distances between walls.

- References are sorted along the guide line and combined into **one linear dimension per guide line**, placed exactly on the guide line's position.
- A guide line needs at least **two** references (i.e. it must cross at least one wall) for a dimension to be created; lines that yield fewer references are skipped silently.

Angled and rotated geometry

- The dimension line runs along your guide line — horizontal, vertical, or at any angle.
- Wall/line intersections are computed geometrically, so walls at any rotation are picked up. Reference markers are placed at the true intersection points, keeping the dimension accurate on skewed layouts.

Exterior-wall thickness options

- On each guide line, the **first** and **last** wall crossed count as exterior.
- **Skip exterior wall thickness (first + last per line):** exterior walls contribute only their inner face — the dimension string starts and ends at the inside of the envelope.
- **Skip exterior SKEW wall thickness only (keep orthogonal):** the thickness is skipped only for exterior walls that sit *skew* to the guide line. A wall counts as skew when its angle to the guide line is more than 1° away from both parallel and perpendicular. Orthogonal exterior walls keep both faces.
- The two options are mutually exclusive.

Reference markers

- At every reference point the plugin places a small instance of the ArchPlug reference-marker family (loaded into the project automatically on first use). If the family is unavailable, it falls back to placing a tiny (10 cm) detail line perpendicular to the guide line at each point.
- All markers are tagged and tracked, so the plugin can find and remove them again on the next run or when you delete a level's output. Do not attach your own annotations to them.

The dimension style

- On first use in a project the plugin creates a linear dimension type named **ArchPlug DimLine** (duplicated from an existing linear type in the project) and applies its defaults: Arial 1 mm text, 1 mm witness-line and dimension-line extensions, a diagonal 1 mm tick mark when one exists in the project, and **centimeter** display units.
- On every later run the existing type is reused **as-is** — any manual changes you make to the type (text size, tick, units, etc.) are preserved and apply to all dimensions the plugin creates.

Smart update (re-running)

- Each run first deletes, per target view: all dimensions of the **ArchPlug DimLine** type in that view, plus the plugin's own reference markers. Then it recreates everything from the stored

guide lines.

- Dimensions you placed manually with *other* dimension types are never touched.
- The whole run is one Revit transaction named "ArchPlug DimLine" — a single Revit **Undo** reverses it.
- Revit warning popups (e.g. duplicate-geometry warnings) are suppressed during the run so it never stops to ask questions.

Guide-line storage — per level, inside the project

- **One line set per level.** Selecting lines while a level already has a stored set replaces that set.
- The stored sets, the ticked-level list and the Hide/Unhide scope are saved **inside the .rvt file**, so they survive Save As, renaming, copying the file, and moving to another computer.
- Options (level mode, skip options) and the window position are saved per user on the machine.

Revit-group support

- If the guide lines you select live inside a **Revit group** (model or detail group), the level is *bound* to that group: on every start and every run, the line set is re-read live from the group instance. Add or remove lines in the group and the change flows into the dimensioning — on **every** level bound to that group type, since Revit propagates group edits between instances.
- **Copying with groups:** when you copy lines to a level that already contains an instance of the same group type, the level simply binds to its own instance — nothing extra is drawn. If the target level has no instance, the plugin copies the group instance itself to that level, keeping the lines inside a group. Only if that fails does it fall back to drawing loose detail-line copies.

Copying lines between levels

- **Copy** in the levels panel reproduces the source level's guide lines onto highlighted **empty** target levels, drawn at each target level's own elevation in that level's floor-plan view. Copies are real, selectable detail lines.
- Levels that already have lines (yours or previously copied ones) are never overwritten; the source itself is never a target.
- Freshly filled levels are ticked automatically so the *All levels* run includes them.
- Plugin-drawn copies are tagged internally; **Delete lines for selected levels** removes them, but never removes guide lines you drew yourself.

Multi-level runs

- With **All levels (selected in level settings)** active, the run processes every **ticked** level that has stored lines, each in its own Architectural floor-plan view (the view where the lines

were stored, or the level's first floor plan as fallback).

- Levels are processed independently — output on other levels is never touched.
- **Place dimensions** is disabled while *All levels* is selected with zero ticked levels.

Hide / Unhide

- **Hide all lines / Unhide all lines** hide or reveal the stored guide lines in their views using Revit's per-view element hiding.
- **Hide all dimensions / Unhide all dimensions** do the same for every dimension of the plugin's dimension type across floor-plan views — including dimensions that are currently hidden (unhide finds them document-wide).
- The scope checkboxes (**Current level / Checked levels**) limit both operations to one level or to the ticked set.

Special wall conditions handled automatically

- **Edit Profile walls:** a wall whose profile was edited may have no material left at the view's cut plane where your line crosses it. The plugin checks this and skips such crossings, so no dimension "floats" over a cut-away region.
- **Windows and doors:** if the guide line crosses a wall exactly at a window or door, the wall is still dimensioned (both faces) — an opening is not treated as a missing wall.
- **Performance:** wall geometry checks are cached per level during a run, keeping multi-level runs fast even in models with many edited-profile walls.

View discipline filtering

- The levels panel and all multi-level operations use only non-template floor-plan views whose discipline is **Architectural** — matching the "Floor Plans" branch you actually draw in, and ignoring auto-created MEP/structural/site plans.

Tips & Best Practices

- **Draw one guide line per dimension string** and make it cross *only* the walls that string should measure. Its endpoints define where the string starts and ends.
- **Place the guide line where you want the dimension** — the dimension is created exactly on the line, so position it at your preferred offset from the walls.
- **Put guide lines in a Revit group** on repetitive floors. Copy propagation then works through the group: edit the group once, and every bound level updates at the next run.
- **Use the skip options for envelope strings:** interior dimension chains usually should not include the exterior wall thickness — turn on **Skip exterior wall thickness (first + last per line)** for those runs.

- **Hide, don't delete, guide lines before printing.** Use **Hide all lines** so the stored layout survives for future updates; deleting the source lines removes the basis for re-running.
- **Keep the window open while iterating.** It is modeless: move walls, then press **Place dimensions** again — no need to relaunch.
- **Tune the look once.** After the first run, edit the **ArchPlug DimLine** dimension type (text size, tick, units) to your office standard; the plugin will respect your changes from then on.
- **Shift+click** in the levels list to tick long ranges of levels in one gesture.

Troubleshooting & FAQ

The tool says "Run this in a Floor Plan view." It only works in floor-plan views. Open the plan of the level you want to dimension and launch again.

I clicked "Place dimensions" and got "No stored lines to dimension for the selected mode." The target level(s) have no stored guide lines. For *Current level*, select guide lines in the active view and relaunch the tool (or draw them and select them at the pick prompt). For *All levels*, make sure the ticked levels actually contain lines — use **Copy** in the levels panel to fill empty floors.

"Place dimensions" is greyed out. *All levels (selected in level settings)* is active but no levels are ticked. Open **stored lines on all levels >** and tick at least one level, or switch to **Current level**.

No dimension appeared on one of my lines. A guide line produces a dimension only if it crosses at least one wall (two references). Check that the line really intersects wall centerlines in this view, and that the walls are visible in the view.

A wall the line crosses was skipped. If the wall's profile was edited (Edit Profile), the plugin skips crossings where the wall has no material at the view's cut plane — that is intentional, to avoid dimensions floating over cut-away areas. Crossings over windows/doors are kept.

The dimension shows centimeters but my project uses other units. The plugin's dimension type is created with centimeter display units by default. Edit the **ArchPlug DimLine** dimension type's units once — your setting is kept on all future runs.

I selected a curved line and it was refused. Only straight detail/model lines are accepted as guide lines; arcs and splines cannot define a linear dimension path.

Small marker symbols appeared at the wall faces. Can I delete them? Those are the plugin's reference markers — the dimensions are attached to them. Leave them alone; they are cleaned up and recreated automatically on every run. If they bother you visually, note they are managed together with the dimensions; deleting them manually will detach the dimension references until the next run.

Copy is disabled in the levels panel. Copy requires a locked source: highlight exactly one level that has stored lines (padlock turns **green**), click the padlock to lock it (**yellow**), then

highlight the empty target levels and click **Copy**.

Copy says "No empty levels selected to copy to." All the highlighted targets already have lines (or you only highlighted the source). The tool never overwrites an existing line set — use **Delete lines for selected levels** on a level first if you want to replace its lines.

I renamed / Save-As'd the project — are my stored lines gone? No. The stored lines, level ticks and scope travel inside the project file itself, so they survive renames, copies and moves between computers.

Does re-running duplicate my dimensions? No. Each run first removes the dimensions of its own type (and its markers) in the target view, then recreates them — one clean set per run. Manually placed dimensions of other types are untouched.

Can I undo a run? Yes — a run is a single Revit transaction; one press of Revit's **Undo** removes everything the run created. (Ctrl+Z *inside the plugin windows* only undoes checkbox/tick changes, never the model.)

The window opened in a strange place / on a disconnected monitor. The tool restores its last position only if it is still on a connected screen; otherwise it opens centered. Simply move it — the new position is remembered.

Some floors are missing from the levels list. The list shows only levels that have a non-template **Architectural** floor-plan view. Create an architectural floor plan for the level (or set the view's Discipline to Architectural) and reopen the panel.