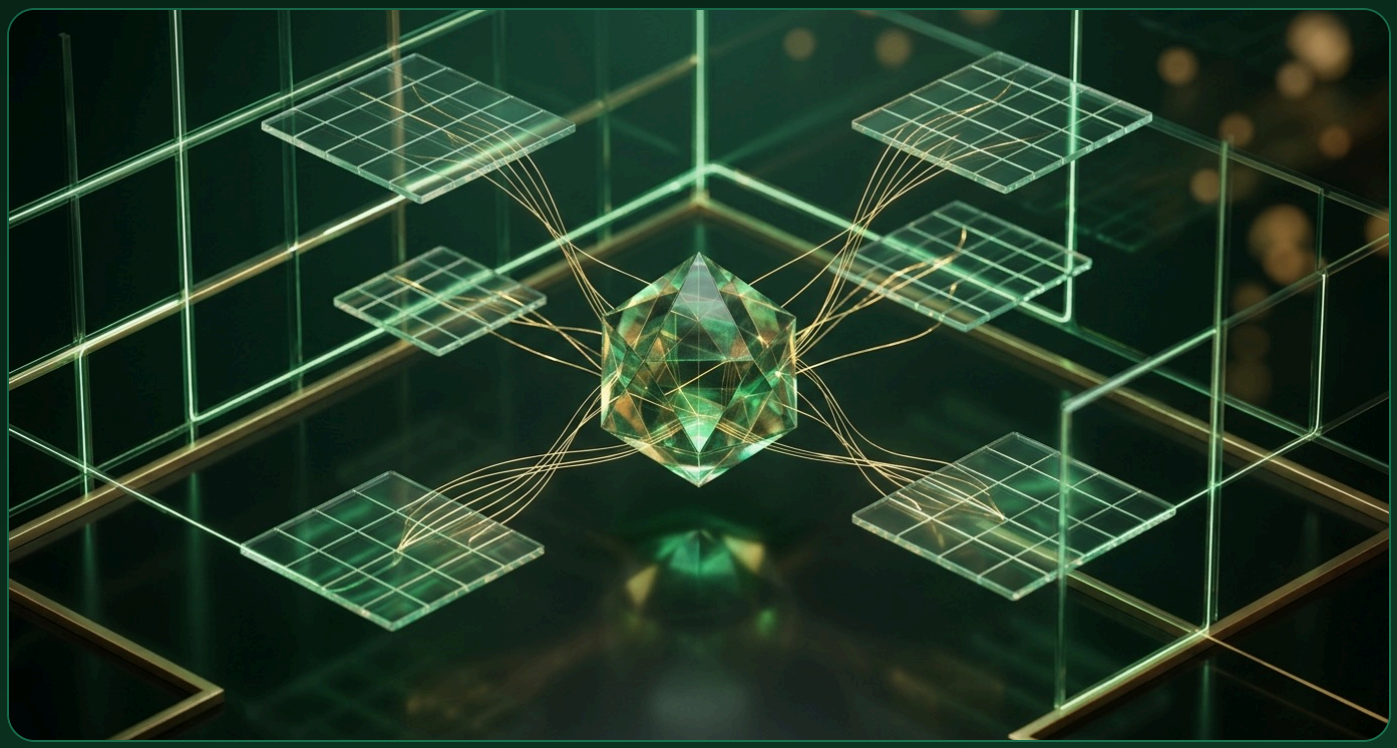
ANTHROPIC CLAUDE & WORKSPACE STUDIOS • FIELD GUIDE

Claude Sheets & Interactive Artifacts

From multi-tab formula workbooks with live cell-outline audit trails and real-time multiplayer co-editing to durable MCP-connected interactive web apps persisted in your Artifacts library.

Multi-Tab Workbooks | Dynamic Excel Formulas | Live Cell-Outline Audit | Real-Time Multiplayer | MCP-Connected Artifacts | .xlsx & .csv Round-Trip



Live Formulas, Zero Guesswork

Build structured multi-tab spreadsheets powered by real `SUMIFS`, `XLOOKUP`, dropdowns, and conditional formatting—never static hardcoded totals.

Cell-by-Cell Transparency

Watch green live cell outlines trace every Claude edit as it lands while teammates co-edit simultaneously in shared spaces.

Sheets to Live Web Apps

Promote any model or workflow into an interactive web Artifact wired directly to live MCP connectors with viewer-scoped permissions.

The Artifacts Studio: Live Grids & Connected Apps

Old AI chat workflows forced you to copy raw tables out of a message bubble or settle for frozen static previews. Inside Claude's **Artifacts Studio**—sitting alongside Claude Whiteboards and Claude Data—**Claude Sheets** gives you a live multiplayer workbook while **Interactive Artifacts** turn workflows into durable, MCP-connected web applications.

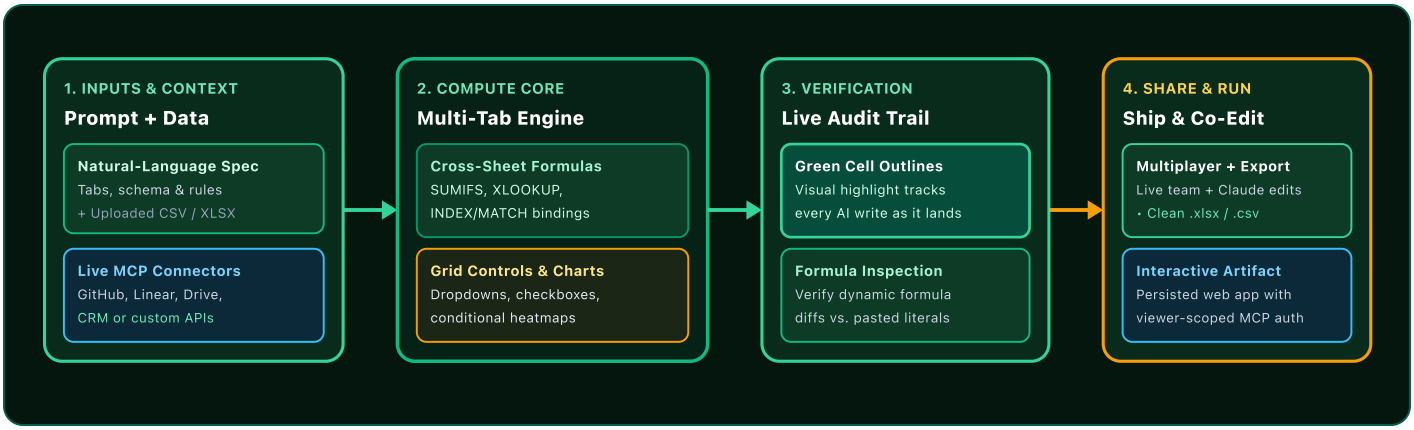
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Golden Rule: Audit Formulas, Not Values All

Core Mental Model: Formula-Driven Grids + Rehydrating Web Apps

Think of the Artifacts tab as a persistent workspace library rather than a temporary chat sidebar. When you need structured calculations, scenario tabs, and Excel-compatible exports, launch **Claude Sheets** so every KPI computes through live cell formulas and visual edit outlines. When your team needs sliders, triage queues, or interactive calculators backed by live company tools, build a **thick Interactive Artifact** that rehydrates fresh state through MCP connectors every time someone opens it.

Architecture: Prompt & Data → Formula Engine → Audit Trail → Deliverables



Core Mental Model: Build Once in Conversation, Persist as Living Team Software

Every Claude Sheet and Interactive Artifact lives in your workspace's **Artifacts** tab so you can close a chat, reopen the asset weeks later, co-edit cells with teammates, or trigger fresh MCP data pulls without rebuilding from scratch.

Setup, Admin Controls & 4-Way Ecosystem Matrix

Claude Sheets and MCP-connected Interactive Artifacts ship across paid Claude plans. Turning on the right organization toggles upfront unlocks smooth saving, reopening, and team sharing.

1 Workspace Access & Artifacts Library

- **Pro & Max:** Full individual access to Claude Sheets (beta), multi-tab formula authoring, `.xlsx` / `.csv` export, and personal MCP-connected Interactive Artifacts.
- **Team & Enterprise:** Adds shared workspace spaces, simultaneous multiplayer co-editing alongside Claude, and viewer-scoped MCP credential brokering.
- **Persistent Library:** Every created sheet or app saves automatically in the left-rail **Artifacts** tab—pin key models, rename versions, and reopen anytime.

2 Admin Controls & Security Toggles

1. **Enable Artifacts:** Workspace Owners open `Organization settings → Artifacts` and switch on Artifact creation, publishing, and shared templates.
2. **Allow Connectors & Capabilities:** Under `Organization settings → Capabilities` and `Connectors`, approve which MCP servers Interactive Artifacts may query.
3. **Enforce Org-Only Sharing:** Artifacts wired to live MCP connectors automatically restrict external public links so sensitive company records stay inside your org.

4-Way Ecosystem Matrix: Choosing the Right Anthropic Data & App Surface

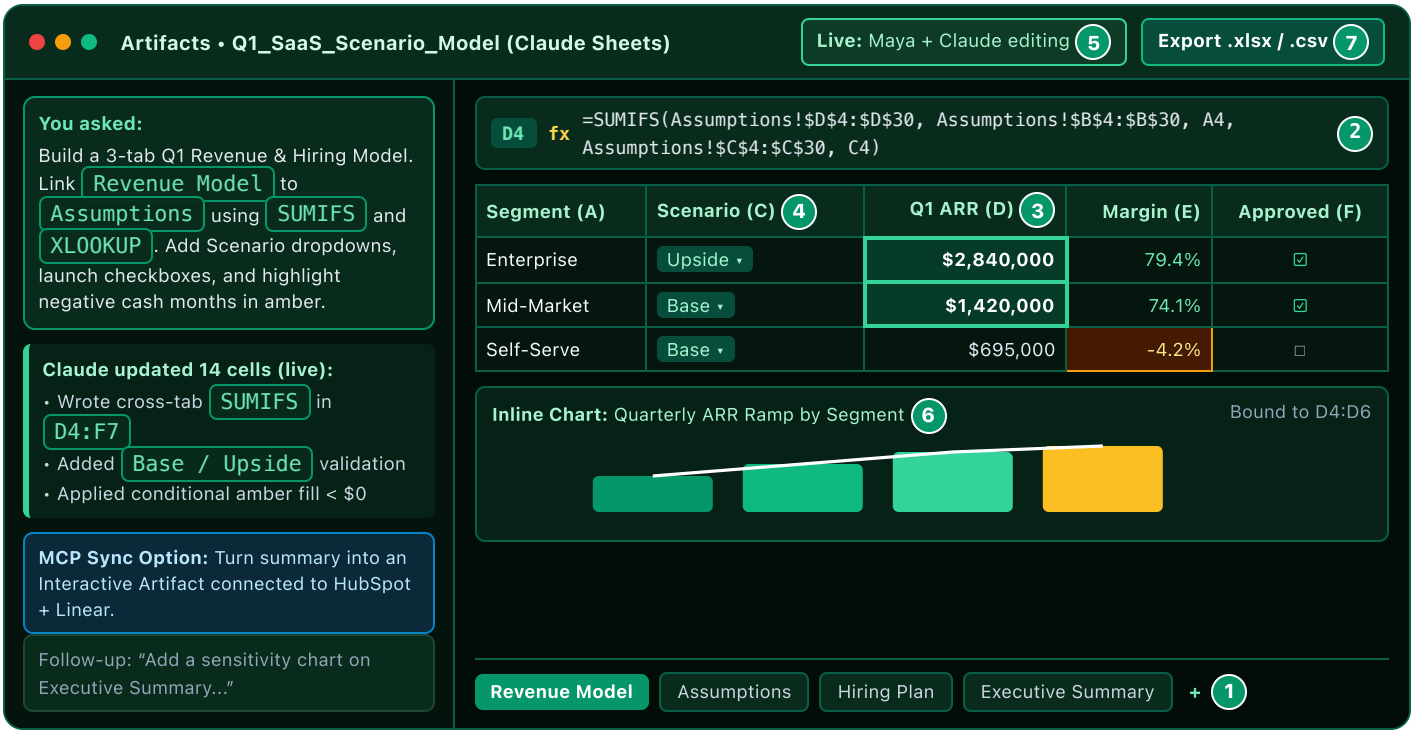
Workspace Surface	Engine & Persistence	Best-Fit Workflows	Export & Auth Model
1. Claude Sheets *(Artifacts Studio)*	Native live multi-tab grid saved in Artifacts tab with cell outlines & multiplayer.	Financial models, RFP scorecards, hiring plans, scenario tables, and interactive team trackers.	Exports clean `.xlsx` (with formulas) or `.csv`; shared workspace editing.
2. Claude Dashboards & Data	Governed SQL studio wired to warehouses (Snowflake, BigQuery) & semantic layers.	Auditable company KPIs, Certified Queries, Scrollytellers, and narrated Visual Shorts.	Credential-safe Live Sharing (viewers see results without DB keys).
3. Built-in `xlsx` Skill / Claude for Excel	Code-sandboxed `openpyxl` generation or native Microsoft Excel add-in sidebar.	50,000+ row corporate workbooks, legacy VBA/macro files, or complex audit schedules inside Excel.	Direct local `.xlsx` file or in-place desktop Excel workbook edits.
4. Interactive React / HTML Artifacts	Durable web app shell persisted in Artifacts tab; rehydrates via MCP tools.	Custom ROI calculators, sprint triage boards, release checklists, and live CRM/issue consoles.	Viewer-scoped MCP OAuth (each viewer runs calls under own rights).

10-Second Rule of Thumb

Need **rows, columns, and live formulas** teammates can edit and export to Excel? Choose **Claude Sheets**. Need **warehouse SQL governance**? Use **Claude Data**. Need **buttons, sliders, and live API actions**? Build an **Interactive MCP Artifact**.

Annotated Tour: Claude Sheets Split-Screen Workspace

Claude Sheets pairs your conversational prompt thread on the left with a responsive, multiplayer spreadsheet canvas on the right—highlighting every formula and cell edit in real time.



Interface Controls Legend (Pins 1–7)

1 **Multi-Tab Workbook Strip:** Switch between linked sheets (`Assumptions`, `Revenue Model`, `Summary`) or add new tabs referenced by cross-sheet formulas.

2 **Cross-Sheet Formula Bar:** Displays the active cell's real Excel-style syntax (`=SUMIFS(...)`, `=XLOOKUP(...)`) so you confirm live formulas rather than pasted text.

3 **Live Green Cell-Edit Outlines:** Every cell Claude writes or updates illuminates with a crisp emerald outline as edits land, giving you an instant visual diff.

4 **Data Validation & Grid Controls:** Native dropdown lists, clickable checkboxes, and conditional formatting highlight rules right inside the grid.

5 **Multiplayer Co-Editing Presence:** Shows active teammates and Claude editing inside the shared workbook at the same time without locking each other out.

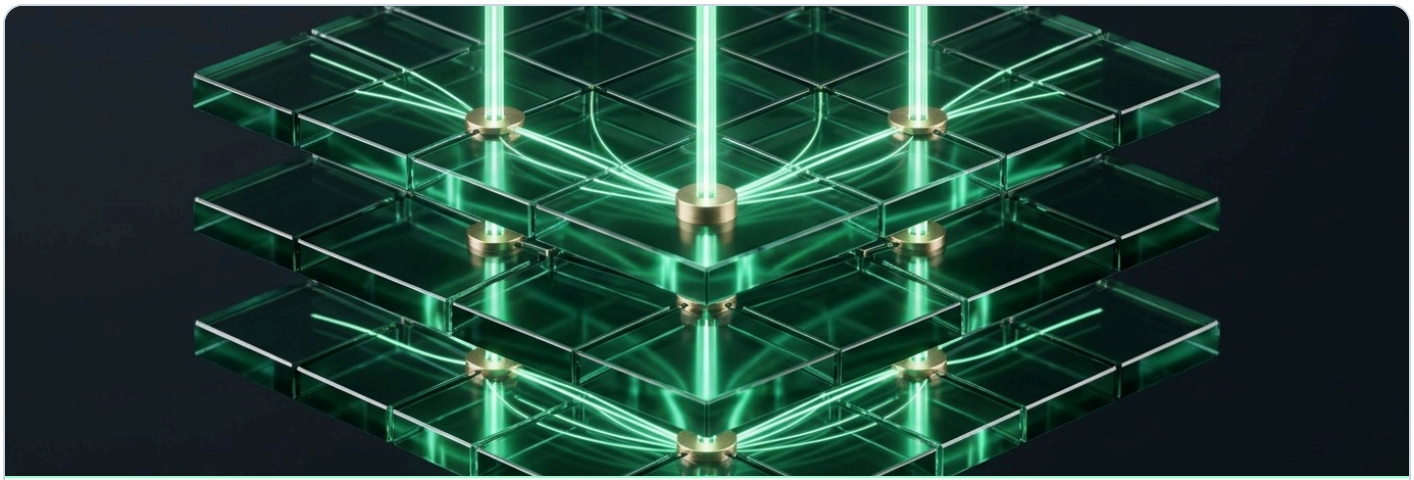
6 **Inline Charts Bound to Cells:** Embedded bar, line, and stacked visualizations update automatically whenever upstream formula cells or dropdowns change.

7 **Clean .xlsx & .csv Export:** Downloads a portable multi-tab `.xlsx` workbook preserving formulas, formatting, and validation rules, or a flat `.csv` snapshot.

> **Habit of Pros:** Click Pin **3**'s outlined total cells immediately after Claude finishes writing and glance at Pin **2** to confirm a `=` formula is driving the number.

Multi-Tab Modeling, Formulas & Interactive Controls

A trustworthy workbook separates raw inputs from calculation logic and executive summaries. Claude Sheets natively writes cross-tab formulas, interactive cell controls, and live charts so changing one driver recalculates the entire model cleanly.



Cross-Tab Formula Architecture: Keep `Inputs & Assumptions` on a base sheet, wire `Calculations` via `SUMIFS` and `XLOOKUP`, and roll totals cleanly into an `Executive Summary` tab with inline charts.

1 Dynamic Cross-Tab Formula Toolkit

- `SUMIFS` & `COUNTIFS`: Aggregate multi-column raw tables across tabs by segment, region, and month without brittle manual cell offsets.
- `XLOOKUP` & `INDEX/MATCH`: Pull commission tiers, FX rates, or pricing SKUs dynamically from reference lookup tabs with built-in not-found fallbacks.
- `IFERROR` & `ROUND` **Guards:** Wrap division ratios (like gross margin or CAC payback) in `IFERROR(..., 0)` so empty launch months never throw `#DIV/0!`.

2 Controls, Formatting & Inline Charts

- **Data Validation Dropdowns:** Constrain scenario pickers (`Conservative`, `Base`, `Upside`) and status columns so teammates cannot introduce typos that break `SUMIFS`.
- **Checkboxes & Conditional Formatting:** Add interactive `TRUE/FALSE` launch checkboxes wired into formulas (`IF(F4, D4, 0)`) plus amber/red thresholds on margin dips.
- **Inline Charts:** Embed multi-series bar or trend charts directly beside summary tables so sensitivity tweaks update visuals instantaneously.

Golden Architecture Pattern: The 3-Layer Workbook Rule

Always prompt Claude to separate tabs into **(1)** `Assumptions` (blue-tinted editable inputs & dropdowns), **(2)** `Model` (formula-only monthly rows referencing Assumptions), and **(3)** `Summary` (cross-tab KPIs & charts). That structure prevents accidental formula overwrites during team reviews.

Color-Coded Spreadsheet & Artifact Prompt Anatomy

Vague prompts like *"make me a budget spreadsheet"* tempt models to type static numbers into total rows. Specifying tabs, input validation, formula types, styling, and export rules upfront produces audit-ready workbooks on the first pass.

5-Tag Workbook & Artifact Prompt Formula

[1. Workbook Structure & Tabs] [2. Input Schema & Validation] [3. Cross-Tab Formulas] [4. Conditional Formatting & Charts] [5. Export & Hand-Off Rules]

" Create a 3-tab Claude Sheet named Q1_Hiring_and_Runway with tabs Executive_Summary, Headcount_Model, and Assumptions. On Assumptions, add a Scenario dropdown (Base, Lean, Stretch) and an Include_Role checkbox column alongside department, base salary, and 22% benefits load. On Headcount_Model, calculate monthly fully loaded cost across Jan–Dec using SUMIFS, XLOOKUP against Assumptions, and IFERROR guards—never hardcode any subtotal or total cell. Highlight any month where net burn exceeds $180k in amber, format currency as $#,##0, and embed a stacked column chart by department on Executive_Summary. Keep all functions Excel-standard so the workbook exports cleanly to .xlsx for our CFO review. "

Fragile Prompt vs. Formula-First Claude Sheets Prompt

Prompt Dimension	Fragile Prompt (Causes Hardcoded Totals)	Formula-First Prompt (Audit-Ready Output)
Tab Separation	"Build a financial forecast for our startup."	Explicitly defines `Assumptions`, `Monthly_Model`, and `Executive_Summary` tabs.
Formula Mandate	Says nothing about formulas, letting static values sneak into summary rows.	Requires `SUMIFS`, `XLOOKUP`, and `SUM` with explicit rule: *zero hardcoded totals*.
Input Controls	Leaves scenario names as free text that teammates easily misspell.	Specifies data-validation dropdowns (`Base/Upside`) and `TRUE/FALSE` checkboxes.
Visual & Error Guard	Ignores zero-division cells and inconsistent decimal formatting.	Enforces `IFERROR` wrappers, currency/percent formats, and amber risk thresholds.
Export Readiness	Uses obscure syntax that breaks when downloaded.	Requests standard Excel-compatible formulas verified for `.xlsx` round-tripping.

Pro Habit: One-Line Anti-Hardcoding Instruction

Add `"Use live formulas for every derived cell; never write computed literals"` to your Claude Project Instructions. Whenever you edit an assumption cell later, every summary table and chart updates automatically.

Live Cell-Outline Audit & Real-Time Multiplayer

Traditional AI document tools overwrite an entire file behind a loading spinner, forcing you to hunt for what changed. Claude Sheets renders every edit live in front of you and supports simultaneous team co-editing.

1 Live Green Cell-Outline Tracking

Whenever you ask Claude to adjust a tax rate, add a cohort column, or fix a lookup range, each modified cell is dynamically **outlined as it lands**. You see the exact blast radius of every prompt across tabs in real time.

2 Auditing Formula Diffs vs. Values

A cell showing `$142,500` looks identical on screen whether typed manually or computed dynamically. Click any freshly outlined cell and inspect the formula bar to confirm it holds `=SUMIFS(...)` rather than a literal value.

3 Simultaneous Team + Claude Co-Editing

Inside shared workspace spaces, finance, ops, and product leads can toggle checkboxes, update assumption cells, and prompt Claude in the same live grid—with visual cell indicators distinguishing teammate cursors from AI edits.

4 Version History & Surgical Undo

Before running a sweeping structural refactor (like splitting one tab into three), note your current Artifact snapshot. If a new formula range misses an edge case, roll back cleanly or ask Claude to patch only the flagged range.

The 30-Second Formula & Co-Editing Audit Protocol

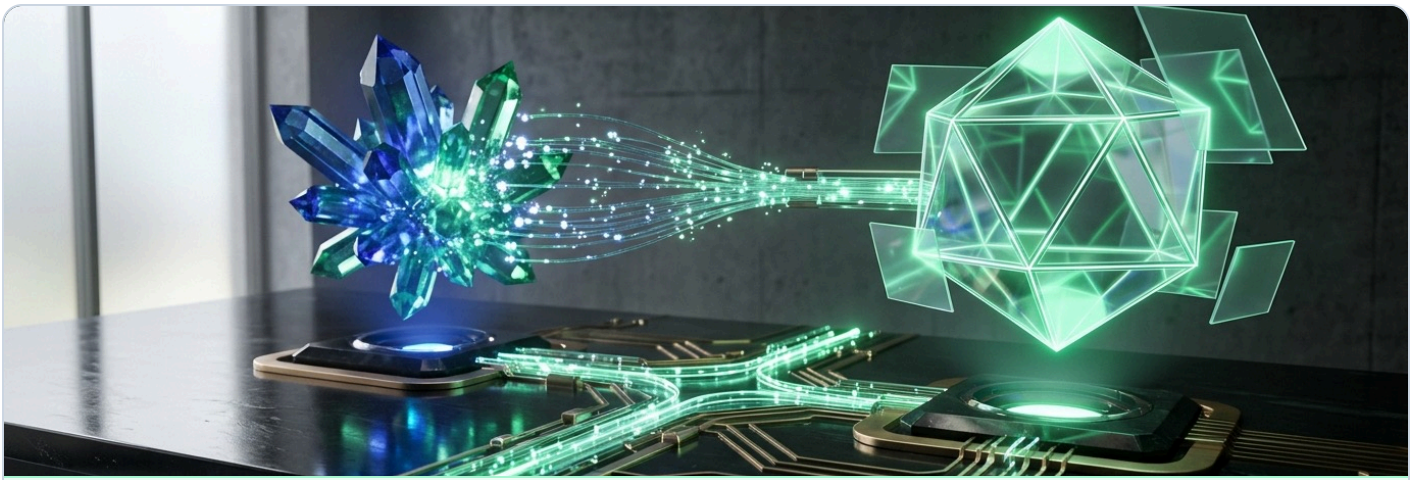
Audit Check	What to Inspect in the Live Grid	Follow-Up Fix Prompt if Needed
1. Outlined Total Cells	Click green-outlined subtotal and grand-total rows; confirm the formula bar begins with `=` and spans the full range.	"Replace hardcoded values in `E12:G12` with dynamic `SUM` formulas referencing rows 4–11."
2. Cross-Tab Range Locks	Check `$` absolute row/column anchors in `XLOOKUP` and `SUMIFS` so dragging formulas down never shifts lookup tables.	"Lock the lookup table range in `D4:D20` with `$` anchors and fill down cleanly."
3. Assumption Stress Test	Flip one dropdown from `Base` to `Upside` or toggle a checkbox; verify downstream charts and KPIs move immediately.	"Link cell `C2` scenario picker into `Assumptions!B4:B12` so KPIs react live."
4. Error & Boundary Scan	Scan for `#REF!`, `#VALUE!`, `#N/A`, or unformatted decimal overflows on edge rows.	"Wrap lookup cells in `IFERROR(..., 0)` and apply uniform `$#,##0` formatting."

Multiplayer Etiquette: Assign Ownership by Tab During Live Reviews

When three teammates collaborate alongside Claude in a shared space, keep human manual tweaks on the `Assumptions` tab while letting Claude execute bulk formula edits on `Model` tabs so concurrent edits never collide on the same cell range.

Interactive MCP-Connected Web Artifacts

Sometimes a spreadsheet grid isn't enough—you want interactive sliders, custom buttons, or a live triage console. Modern Interactive Artifacts act as **durable "thick artifacts"** saved in your Artifacts library that rehydrate live state via MCP connectors.



From Static Snapshots to Live Connected Apps: Interactive Artifacts render custom React/HTML interfaces on the right while pulling fresh issues, docs, or metrics from connected MCP servers on the left under each viewer's own permissions.

1 Turning Tables into Interactive Apps

- **Live Rehydration:** Instead of freezing yesterday's JSON inside React code, wire the Artifact to MCP tools (Linear, GitHub, Jira, Slack, Notion, Google Drive, or custom remote MCPs) so opening or clicking *Refresh* fetches current records.
- **Two-Way Actions:** Add UI controls that trigger approved MCP write actions—such as assigning a blocker ticket, posting a release summary, or updating a deal stage—after explicit user confirmation.
- **Persistent Library Home:** Pin your tool inside the **Artifacts** tab so teammates treat it as an internal micro-app without hunting through old chat threads.

2 Viewer-Scoped Authentication & Safety

- **Per-Viewer Credentials:** When a colleague opens your shared MCP-connected Artifact, tool calls execute using **the viewer's own OAuth account** brokered through Claude—never leaking the creator's private access tokens.
- **Clean Access Boundaries:** Two teammates opening the same triage board automatically see only the repositories, projects, or folders their individual accounts are authorized to access.
- **Org-Scoped Sharing:** Connectors trigger strict internal sharing boundaries so live operational tools never leak outside your organization workspace.

Prompt Pattern: Upgrading Any Sheet Logic into a Live MCP Artifact

"Keep our scoring weights from this Claude Sheet, and build an interactive React Artifact wired to our connected Linear and GitHub MCP tools. On load, pull open P1 bugs for the current sprint, let leads filter by owner, and include a button to post a Slack digest."

5 Real-World Copy-Paste Sheets & Artifact Recipes

Swap the bracketed team names or connector targets and paste these blueprints straight into Claude. Each recipe enforces formula discipline, visual clarity, and clean downstream handoffs.

Recipe & Persona	Surface Used	Copy-Paste Prompt Blueprint	Key Controls & Output
1. 3-Scenario SaaS Runway & Hiring Plan *Founder / Finance*	Claude Sheets (3 Tabs)	"Build a 12-month SaaS model with tabs `Summary`, `Model`, and `Assumptions`. On `Assumptions`, add a Scenario dropdown (`Conservative`, `Base`, `Upside`) and role checkboxes. Drive monthly revenue, payroll, and cash balance on `Model` strictly via `XLOOKUP` and `SUMIFS`; highlight runway < 9 months in amber."	Scenario dropdowns, checkboxes, runway chart + `.xlsx` export.
2. Weighted Vendor RFP Scorecard *IT / Procurement*	Claude Sheets (2 Tabs)	"Create tabs `Scorecard` and `Weights` to evaluate 5 vendors across Security, API Fit, Support, and TCO. Validate scores 1–5 via dropdowns, compute weighted totals using `SUMPRODUCT` referencing `Weights`, add a finalist checkbox, and highlight top-ranked vendor rows in emerald."	`SUMPRODUCT` scoring, 1–5 validation, finalist filter.
3. Sales Quota & Commission Tier Sheet *RevOps / Sales Lead*	Claude Sheets (3 Tabs)	"Build tabs `Rep_Payouts`, `Deals_Log`, and `Tier_Rates`. Aggregate closed-won bookings per rep from `Deals_Log` using `SUMIFS`, look up accelerator rates (10%, 12%, 15%) from `Tier_Rates` with `XLOOKUP`, wrap attainment in `IFERROR`, and flag attainment ≥ 100% in green."	Cross-tab attainment lookup + clean payroll `.xlsx`.
4. Live Sprint Triage & Release Console *Eng Manager / PM*	Interactive Web Artifact + MCP	"Build a persisted Interactive Artifact connected to our Linear and GitHub MCP tools. On load, fetch open sprint issues and unmerged PRs under the viewer's permissions, group by blocker severity, add owner/status filters, and include a one-click *Copy Release Notes* panel."	Live MCP rehydration, viewer-scoped auth, saved in Artifacts tab.
5. Customer Renewal Health Matrix *CS Ops / Account Lead*	Claude Sheets + Artifact Pair	"Create a multi-tab Renewal Tracker from this CSV with `Account_Health` and `Playbooks` tabs. Add Risk Tier dropdowns (`Green`, `Yellow`, `Red`) and EBR Complete checkboxes, summarize ARR at risk via `SUMIFS`, and export-check formulas for Google Sheets and Excel."	ARR-at-risk summary, EBR checkboxes, dual export check.

Chaining Sheets into Interactive Apps

Start with Recipe 1 or 3 inside **Claude Sheets** to validate every formula and edge case with your team. Once the math is locked, say: *"Turn this model's logic into an Interactive Artifact slider calculator for our sales reps."*

Reopening & Iterating in Artifacts Tab

Keep quarterly trackers alive across months by reopening the saved sheet from the left-rail **Artifacts** tab, dropping in fresh monthly actuals, and watching green cell outlines update downstream totals cleanly.

Never Hardcode Summary Cells During Quick Edits

If you ask Claude for a last-minute adjustment before a meeting, say *"Adjust the formula in `D14`"* rather than *"Change `D14` to $420k"*—so the workbook stays dynamically linked.

Enterprise Governance, Export Fidelity & Round-Tripping

Shipping spreadsheets and live web apps inside a company requires clear admin guardrails, predictable `.xlsx` and `.csv` export fidelity, and knowing when to graduate heavy workbooks to dedicated Excel tooling.

1 Enterprise Admin Controls

- **Master Artifacts Toggle:** Admins govern availability under `Organization settings → Artifacts`, including approved corporate templates.
- **Connector Allowlists:** Control which MCP servers (GitHub, Linear, Slack, custom endpoints) are permitted inside `Organization settings → Connectors`.
- **Scoped Sharing Guardrails:** Interactive Artifacts backed by live MCP connectors enforce internal organization boundaries so private records cannot be exposed via open public URLs.

2 When to Promote Beyond Claude Sheets

- **Built-in `xlsx` Skill:** Promote here when generating massive automated multi-sheet reports (>50k rows), custom Python `openpyxl` styling, or batch document pipelines.
- **Claude for Excel:** Graduate here when Finance must audit existing 20-tab corporate workbooks containing legacy VBA macros, PivotTables, or external Bloomberg/ERP links directly inside desktop Excel.
- **Claude Data:** Move recurring warehouse SQL metrics into Certified Queries when dashboards need automated database refreshes.

Export Fidelity & Round-Tripping Matrix

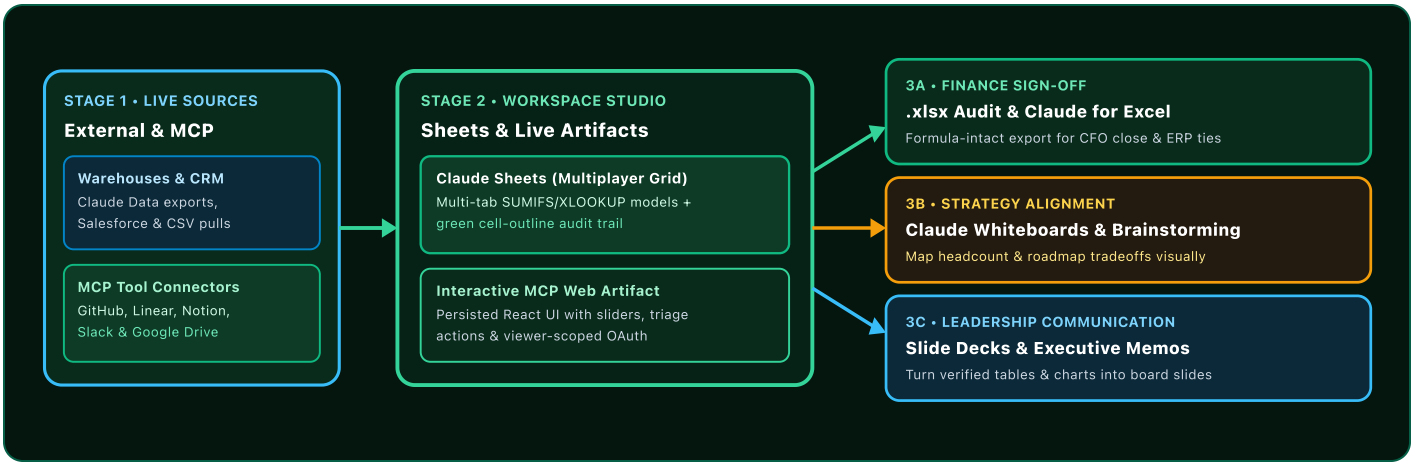
Export / Share Target	What Preserves Cleanly	What Changes or Requires Check
`.xlsx` Download *(Excel / Google Sheets)*	Multi-tab structure, standard formulas (`SUMIFS`, `XLOOKUP`, `IFERROR`), number formats, and cell colors.	Check newer dynamic array syntax in older desktop Excel versions; verify dropdown ranges after import.
`.csv` Download *(Data Pipelines)*	Clean evaluated cell values for the active sheet, ready for Python, SQL imports, or BI uploads.	Strips multiple tabs, formulas, formatting, checkboxes, and inline charts by design (plain text values only).
Shared Workspace Sheet *(Artifacts Library)*	Full multiplayer co-editing, live green cell-edit outlines, inline charts, and prompt revision history.	Teammates must belong to the workspace/space to co-edit cells live alongside Claude.
Interactive Artifact Link *(MCP Web App)*	Custom React UI, interactive controls, and live MCP rehydration across sessions.	Each viewer authenticates MCP connectors under their own account; external public links blocked when live MCPs are attached.

3-Point Post-Export Formula Verification Check

Right after opening a downloaded `.xlsx` in Excel or Google Sheets: **(1)** press `Ctrl+~` (or View → Show Formulas) to confirm formula strings survived intact, **(2)** check for zero `#NAME?` or `#REF!` cells, and **(3)** toggle one dropdown cell to verify linked totals recalculate.

Cross-Tool Synergy Pipeline Across Your Workspace

Claude Sheets and Interactive Artifacts work best as the calculation and app layer between raw systems of record and final executive deliverables—connecting seamlessly with Claude Whiteboards, Claude Data, and Slide Decks.



End-to-End Quarterly Planning Loop

1 Ground Actuals Upstream

Pull certified revenue actuals from **Claude Data** or live sprint velocity via **Linear / GitHub MCP** so your starting assumptions match real operational truth.

2 Model Collaboratively in Sheets

Build `Assumptions` and `Scenario` tabs in **Claude Sheets**; co-edit tradeoffs with team leads while watching green cell outlines validate formulas.

3 Package Interactive Tools & Boards

Expose day-to-day operational slices as an **Interactive MCP Artifact** for managers, and map hiring dependencies onto a **Claude Whiteboard**.

4 Export .xlsx & Present Slides

Download a clean `.xlsx` for **Claude for Excel** financial close review and generate board-ready **Slide Decks** directly from the verified summary tab.

Why This Pipeline Eliminates Copy-Paste Errors

Instead of re-typing metrics across five disconnected tools, every slide deck, whiteboard priority, and Excel audit traces cleanly back to one persisted Artifacts model.

Troubleshooting Clinic & Pre-Flight Checklist

Most spreadsheet and interactive Artifact hiccups trace back to static literal pastes, missing Excel formula anchors, flat CSV exports, or viewer MCP authentication boundaries. Keep this clinic nearby before sharing.

Top 7 Issues & 10-Second Fixes

Symptom / Failure Mode	Root Cause	10-Second Fix
1. Total cells don't update when inputs change	Claude wrote hardcoded static numbers instead of formulas in summary rows.	Click the cell to check the formula bar; prompt: *"Replace all literal totals with live* `SUMIFS` / `SUM` *formulas."*
2. `#REF!` **or** `#NAME?` **in exported** `.xlsx`	Relative cell anchor shifted during edits or used non-standard function syntax.	Prompt Claude to add `$` range locks and rewrite with standard Excel-compatible `XLOOKUP` / `INDEX–MATCH`.
3. Downloaded file missing tabs & formulas	Exported as flat `.csv` instead of multi-tab `.xlsx`.	Re-export using **Export .xlsx** from the top-right toolbar so all sheets, formulas, and formats survive.
4. Teammate sees blank data in MCP Artifact	**Expected viewer-scoped auth:** colleague hasn't connected their own MCP OAuth account.	Have the viewer authorize the required MCP connector (Linear, GitHub, Drive) in their Claude settings and refresh.
5. Concurrent edits overwrite formula ranges	Two people or Claude edited the exact same rows simultaneously without tab separation.	Restore the previous Artifact version, assign human inputs to `Assumptions`, and run Claude structural edits sequentially.
6. Dropdowns or highlights disappeared after edit	Inserting new rows pushed data outside the original validation/conditional rule range.	Prompt: *"Extend Scenario validation dropdowns and amber conditional formatting across* `B4:F50`*."*
7. Artifacts or MCP option missing in workspace	Admin disabled Artifacts or hasn't allowlisted the connector yet.	Ask a Workspace Owner to enable `Organization settings → Artifacts` and approve the connector under `Connectors`.

6-Point Pre-Flight Checklist Before Sharing with Stakeholders

☑ 1. Zero Hardcoded Totals

Clicked key KPI and subtotal cells to verify real `=` formulas in the formula bar—zero static pasted numbers.

☑ 2. Clean 3-Layer Tab Separation

`Assumptions` inputs, dropdowns, and checkboxes sit cleanly apart from `Model` math and `Summary` charts.

☑ 3. Live Cell Outlines & Edge Stress Test

Toggled one scenario dropdown and confirmed green-outlined formulas recalculate cleanly with zero `#DIV/0!` errors.

☑ 4. .xlsx Round-Trip Verified

Downloaded `.xlsx` and opened in Excel or Google Sheets to confirm tabs, currency formatting, and formulas work natively.

☑ 5. Viewer-Scoped Auth & Sharing Checked

For MCP-connected Artifacts, verified org-only sharing scope and confirmed teammates hold access to underlying connectors.

☑ 6. Named & Pinned in Artifacts Library

Gave the Sheet or Artifact a clear title in the Artifacts tab so anyone can reopen and co-edit weeks later.

Final Takeaway: Spreadsheet Rigor Meets Live Connected Software

Claude Sheets brings dynamic multi-tab formulas, cell-outline audits, and multiplayer co-editing into one studio—while **Interactive MCP Artifacts** turn those workflows into durable, permission-safe team apps.