



— GETTING STARTED TUTORIAL

VRProject

From the estimate to a confident execution plan

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Installation, setup and step-by-step workflows

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This guide walks you through getting VRProject running, setting up your own project, and the main workflows step by step. Bold words are the names of buttons, tabs and menus as they appear on screen.

1 About VRProject

VRProject is the estimating, scheduling and specialist-planning workbench from VissRad. Twelve tools share one tool bar, one way of working and one hand-off into the schedule. It runs in the browser or installed on your own Windows or Mac computer, and your records stay on that computer.

Tool	What it does
VRScheduler	CPM schedule editor and Primavera P6 / Microsoft Project schedule analysis. The VRProject icon opens it.
VREstimator	Drawing takeoff (PDF and DXF), assemblies, crews and EPC estimating. Its Schedule tab sends the estimate to the Schedule Editor or exports a P6 XER.
VRPlanner	Capital work planning: step out work items into work steps, crew sizes, craft hours, equipment and materials.
VRDCPlanner	Data center construction planning.
VRE&IPlanner	Electrical and instrumentation planning.
VRPowerPlanner	Power plant construction planning.
VRPowerOutage	Power plant outage planning on a seven-day outage calendar.
VRUpstreamPlanner	Upstream oil and gas field development planning.
VRMidstreamPlanner	Pipeline and station construction planning.
VRRailHighwayPlanner	Rail and heavy highway construction planning (30 modules).
VRTAR	Turnaround estimating: scope wizard, event fragnet, manpower, materials, progress and adjustments.
VRCMMS	Maintenance management: assets, work orders, preventive maintenance, spares and QR asset labels.

How the tools fit together

Every path ends in the Schedule Editor. VREstimator, VRPlanner, the seven specialist planners, VRTAR and VRCMMS each send their plan to the open schedule (or export a P6 XER), where it is checked, progressed and exported to Primavera P6 or Microsoft Project.

NOTE

This guide uses the synthetic sample projects that every tool opens on. They do not describe any real project, client or contractor.

2 Open or install VRProject

Option A: use it online

- 1 Open <https://dwaynepennington.github.io/VRProject-app/> in Microsoft Edge or Google Chrome.
- 2 The Schedule Editor opens with the tool bar across the top. Click any tool name to switch to it.
- 3 Records you enter are kept in that browser on that computer. Use File > Save file (or a schedule export) to keep a copy.

Option B: install it on Windows 10 or 11

- 1 Download the offline setup package (`VRProject-Setup-2026-10-29.zip`).
- 2 Right-click the zip file and choose **Extract All...**
- 3 Open the extracted folder and double-click **Install VRProject**. If Windows asks whether to run it, choose **Run** (or **More info** > **Run anyway**).
- 4 Setup copies VRProject to your user folder, puts a VRProject icon on the Desktop and a VRProject folder in the Start menu with an entry for each tool, then opens it.
- 5 To pin it, right-click the Desktop icon and choose **Pin to taskbar** (on Windows 11, choose **Show more options** first).

TIP

No admin rights, no internet connection and no server are needed. The extracted folder and the zip can be deleted after setup.

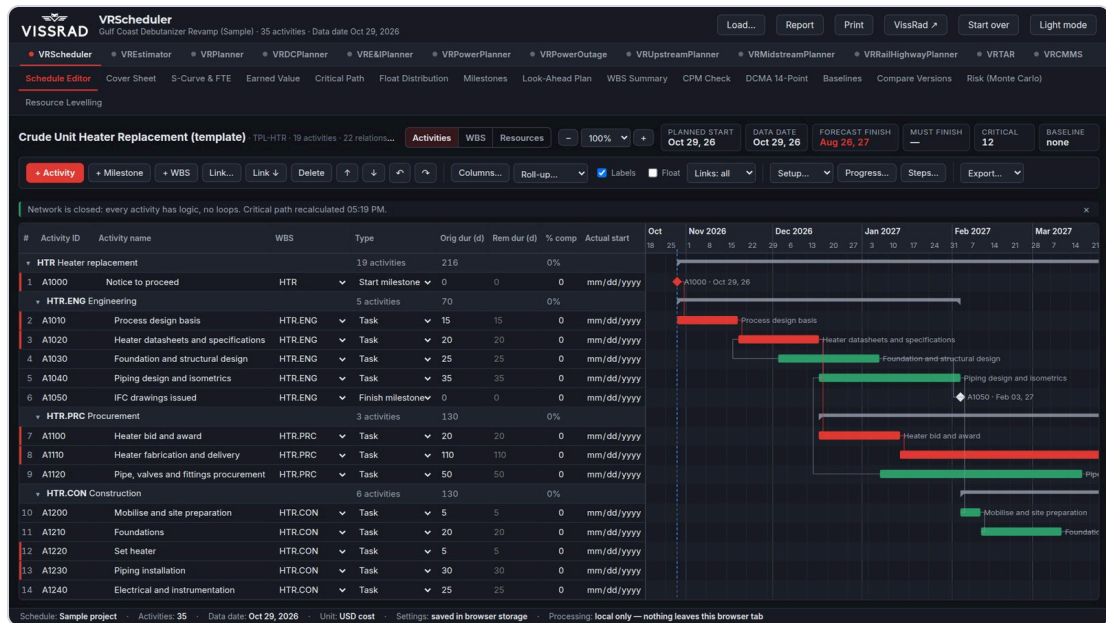
Option C: install it on a Mac

- 1 Install Google Chrome or Microsoft Edge if the Mac has neither (Safari cannot open the tools in their own window).
- 2 Double-click the zip file. It extracts to a VRProject folder.
- 3 Double-click **Install VRProject (Mac)**. macOS warns that it cannot check the file. On macOS 15 and later click **Done**, open **System Settings** > **Privacy & Security**, click **Open Anyway**, then **Open**. On macOS 14 and earlier, Control-click the file, choose **Open**, then **Open**.
- 4 Setup runs in a Terminal window, puts an app for each tool in `~/Applications/VRProject` and opens VRProject. You can close the Terminal window.

Update or remove

Task	Windows	Mac
Update	Extract a newer package and run Install VRProject again. Records are kept.	Run Install VRProject (Mac) from the newer zip. Records are kept.
Remove	Start menu > VRProject > Uninstall VRProject (or Settings > Apps). You are asked whether to keep your records.	Double-click Uninstall VRProject in <code>~/Applications/VRProject</code> .
Records folder	<code>%LOCALAPPDATA%\VRProject\profile</code>	<code>~/Library/Application Support/VRProject/profile</code>

3 The workbench



The Schedule Editor with the twelve-tool bar across the top.

Every tool has the same layout: the top bar (tool name, project, File menu), the tool bar with the twelve tools, then the tool's own tabs. The tool you are in is underlined in red.

Control	What it does
Tool bar	Switches tools. The project and your work in each tool are kept when you switch.
Project / Event	Switches between projects (or turnaround events), or adds one with New project / New event .
File menu	Save file downloads a backup of the tool; Open file puts a backup back.
Tabs	Each tool's workflow, left to right. The planners all use the same tabs.

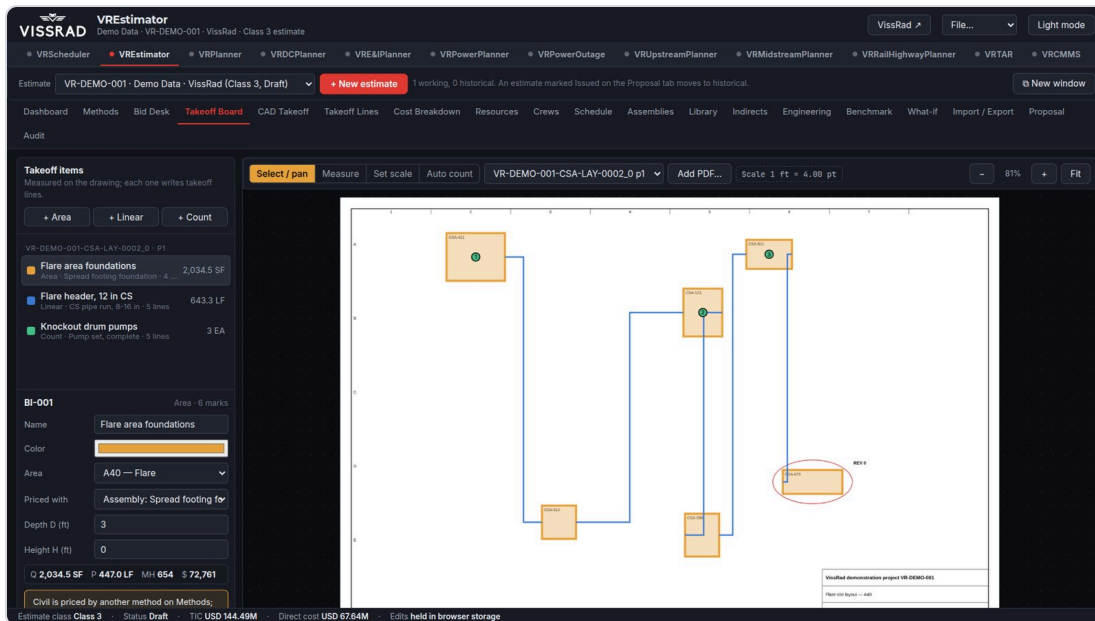
Start your own project

- 1 Each tool first opens on its synthetic sample project, so you can explore before entering anything.
- 2 Use **New project** (planners), **New event** (VRTAR) or, in VRCMMS, **Start your own site** on the Dashboard.
- 3 VREstimator asks first: start a blank estimate, or explore the demo estimate.

4 Tutorial 1: Estimate in VREstimator

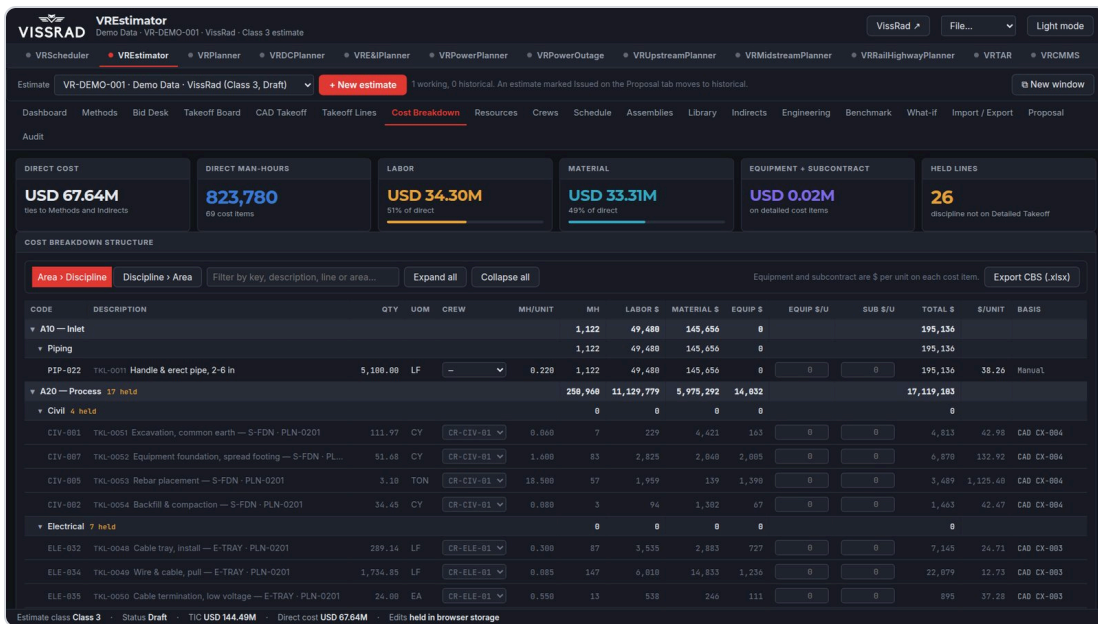
Goal: take off quantities from drawings, price them, and turn the estimate into schedule activities.

- 1 Open **VREstimator** from the tool bar and choose a blank estimate (or the demo estimate to follow along).
- 2 On **Methods**, choose the estimating method per discipline.
- 3 On **Takeoff Board**, load a PDF drawing, set the scale for the sheet, and measure areas, lengths and counts. Use symbol auto-count to find repeated symbols.



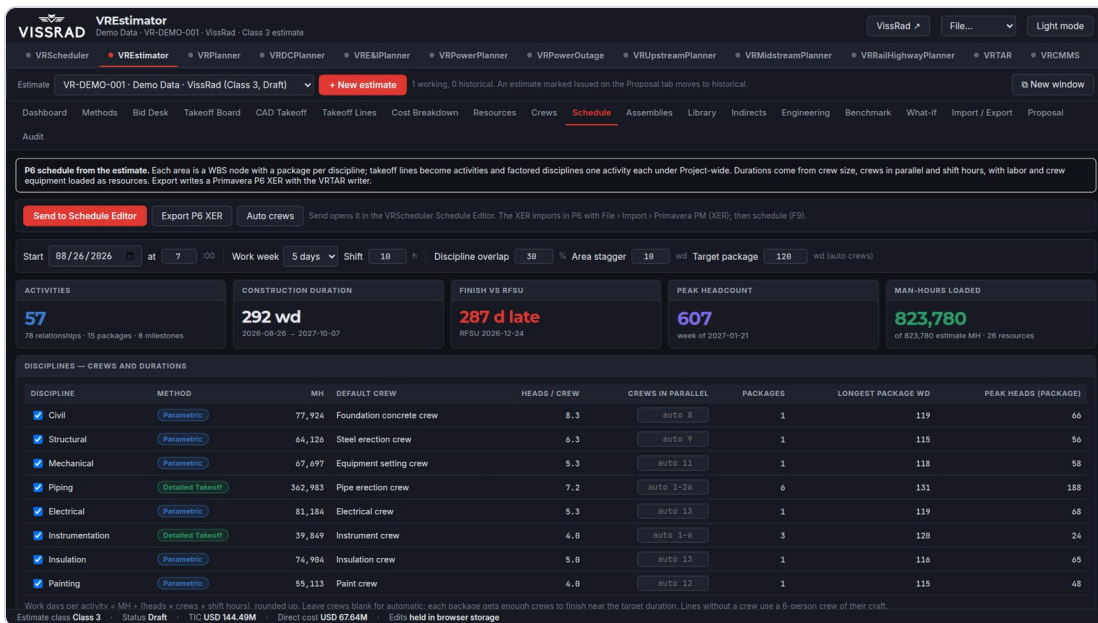
Takeoff Board: measurements on PDF sheets, each with its own scale.

- 4 On **CAD Takeoff**, load a DXF file. Its layers and blocks become lengths and counts.
- 5 Use **Assemblies** to price many items from one measurement, and **Crews** to set crew mixes and rates.
- 6 Check the roll-up by area and discipline on **Cost Breakdown**.



Cost Breakdown rolls the estimate up by area and discipline.

- 7 Test changes on **What-if** before committing them, and compare against **Benchmark**.
- 8 On **Proposal**, record the AACE class and pass the QA gate.
- 9 On **Schedule**, review the activities generated from the hours and crews, then send them to the Schedule Editor or export a P6 XER.

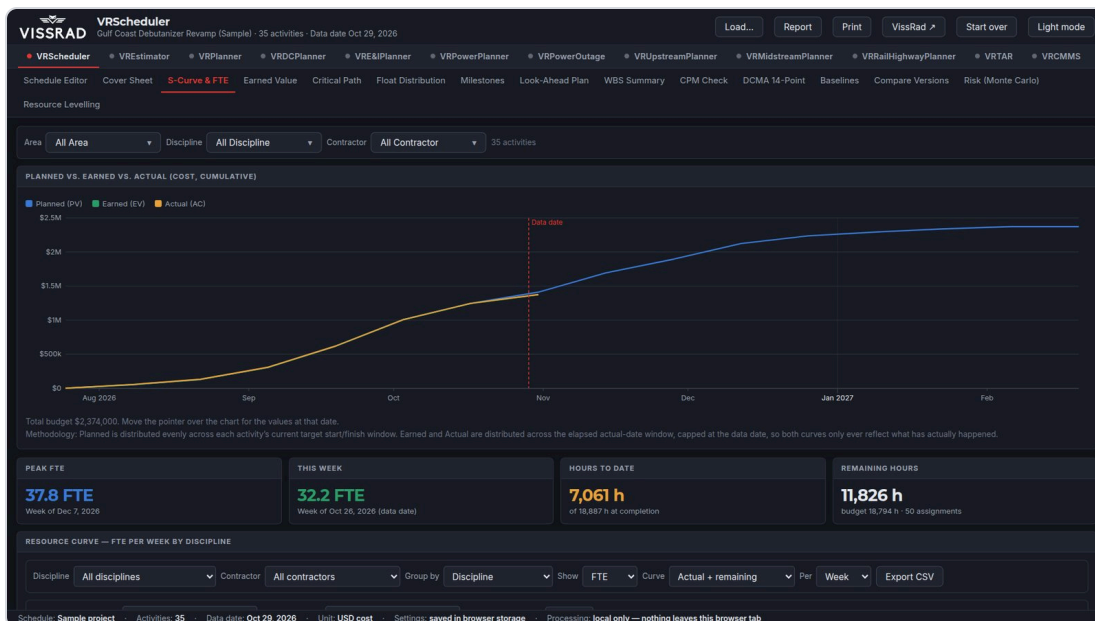


The Schedule tab: activities with durations driven by hours and crews.

5 Tutorial 2: Build and check a schedule

Goal: build or load a schedule in VRScheduler, check its quality, and report on it.

- 1 Open **VRScheduler** (the Schedule Editor). Add activities, logic, calendars and the WBS; the critical path recalculates as you type.
- 2 Or open an existing schedule: Primavera P6 XER or XML, or Microsoft Project XML.
- 3 Use the analysis tabs: **Cover Sheet**, **S-Curve & FTE**, **Earned Value**, **Critical Path**, **Float Distribution**, **Milestones**, **Look-Ahead Plan** and **WBS Summary**.



S-Curve & FTE.

- 4 Run **CPM Check** and **DCMA 14-Point** and fix what they flag before the schedule is relied on.
- 5 Save a baseline on **Baselines**, and use **Compare Versions** to see what moved between two versions.
- 6 Run **Risk (Monte Carlo)** for a probabilistic finish date, and **Resource Levelling** to smooth the loading.
- 7 Export the schedule as P6 XER, Microsoft Project XML or CSV, or produce the summary report as PowerPoint or PDF.

6 Tutorial 3: Step out work in a planner

Goal: plan a scope in a planner and send it to the schedule. The steps are identical in VRPlanner and all seven specialist planners; this example uses VRRailHighwayPlanner.

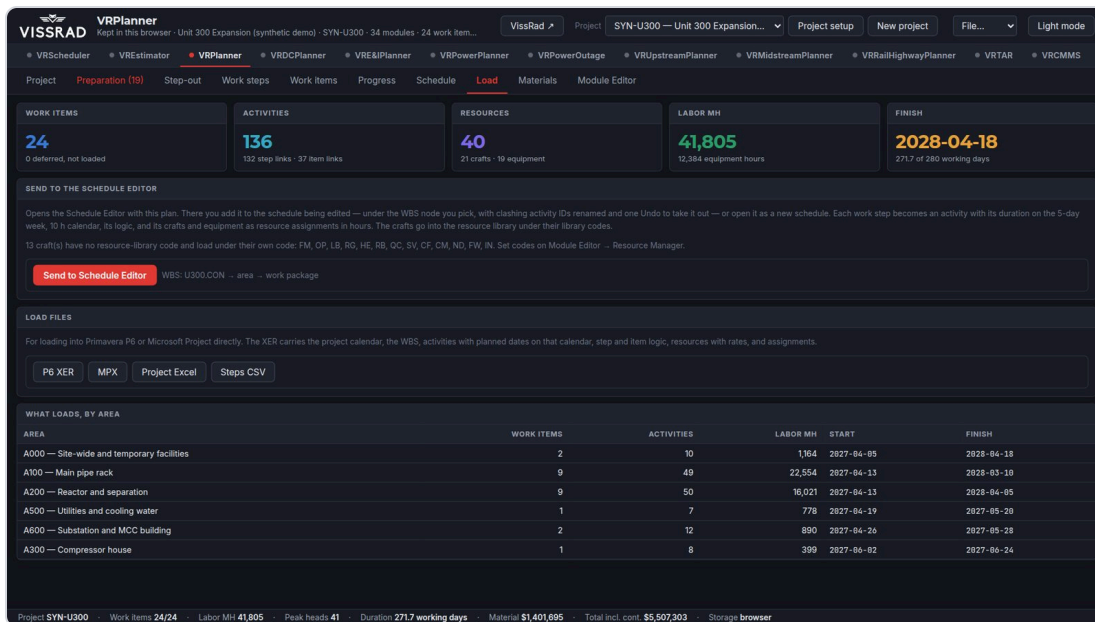
- 1 Open the planner and use **New project**. On **Project**, enter the name, construction start date and working calendar.
- 2 On **Step-out**, filter the module library by category or area and pick a module (for example **Girder erection**).
- 3 Fill in the work item (package, description, area, start-after logic), then answer the questions one by one. Each answer switches work steps on or off and sets the quantities; the live totals update as you go.
- 4 Click **Add work item**. Repeat for each scope item.

The screenshot displays the VRRailHighwayPlanner interface. On the left, under '1 - CHOOSE A MODULE', there is a search bar and filters for categories, sources, and areas. A table lists 30 modules with columns for MODULE, REV, CATEGORY, AREAS, and Q. The 'Girder erection' module is highlighted. On the right, under '2 - WORK ITEM - GIRDER ERECTION (REV 1)', there are fields for Work package (WP-300-031), Tag, Description (Girder erection), Area (R300 - Bridge 1: river crossing), Status (Approved), and Earliest start (1). Below these are 'Start after' logic rules. Under '3 - QUESTIONS - 1 OF 4', there is a question '(1) Girders' with a quantity of 40 and an 'Add work item' button. At the bottom, a 'LIVE WORK STEPS' summary shows 5 steps, a duration of 26 days and 260 hours, a labor of 2,560 hours, and a total cost of \$429,550.

MODULE	REV	CATEGORY	AREAS	Q
Mobilization, field office and plant	1	General	R180, R290, R380	+5
Maintenance of traffic, by phase	1	General	R180, R290, R380	+5
Railroad protection and track-line windows	1	General	R180, R290, R380	+5
Erosion control and stormwater (SWPPP)	1	General	R180, R290, R380	+5
Clearing, grubbing and removals	1	Earthwork	R180, R290, R380	3
Roadway excavation and embankment	1	Earthwork	R180, R290, R380	5
Subgrade stabilization and aggregate base	1	Earthwork	R180, R290, R380	3
Storm drainage: pipe, inlets and manholes	1	Drainage	R180, R290, R380	+1
Box culverts	1	Drainage	R180, R290, R380	+1
Retaining walls (MSE or cast-in-place)	1	Drainage	R180, R290, R380	+1
Utility relocations and adjustments	1	Drainage	R180, R290, R380	+1
Asphalt paving (mill and overlay or full depth)	1	Paving	R180, R290, R380	+1
Concrete paving (slipform)	1	Paving	R180, R290, R380	+1
Curbs, gutter, sidewalk and median barrier	1	Paving	R180, R290, R380	+1
Bridge foundations: piles and drilled shafts	1	Structures	R380, R480	4
Bridge substructure: footings, columns, caps and abutments	1	Structures	R380, R480	3
Girder erection	1	Structures	R380, R480	4
Bridge deck and barrier	1	Structures	R380, R480	4
Bridge rehabilitation and deck overlay	1	Structures	R380, R480	5

Step-out: module library on the left, the work item and its questions on the right.

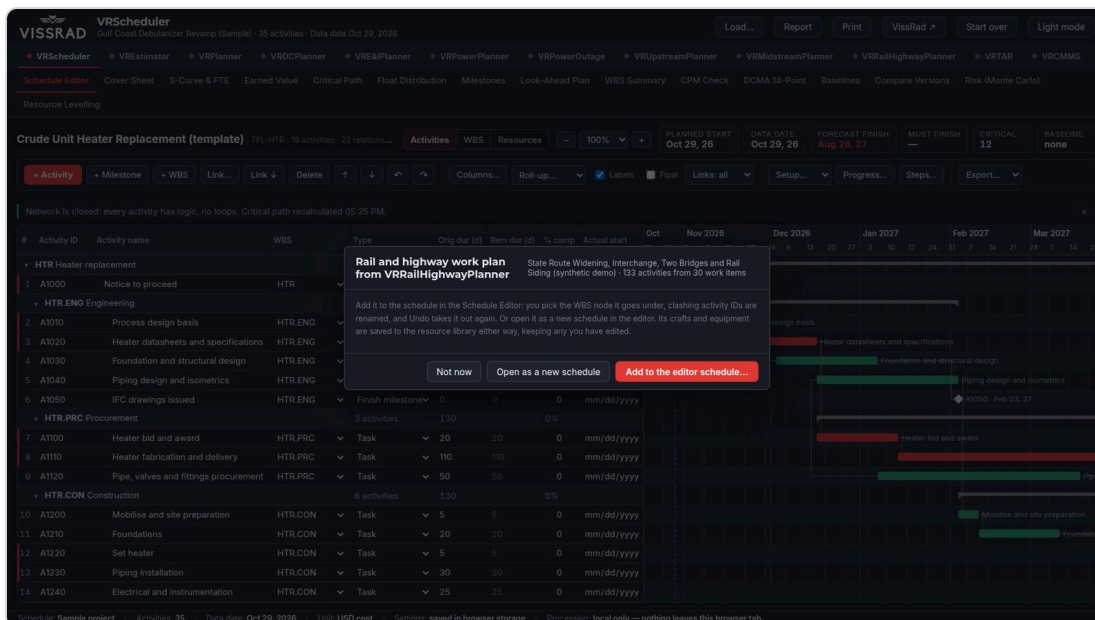
- 5 Review **Work steps** (crew sizes by craft, equipment, durations) and **Work items**.
- 6 Check **Schedule**, **Load** (manpower and equipment loading on the working calendar) and **Materials**.
- 7 Use **Module Editor** to calibrate unit rates to your own history.



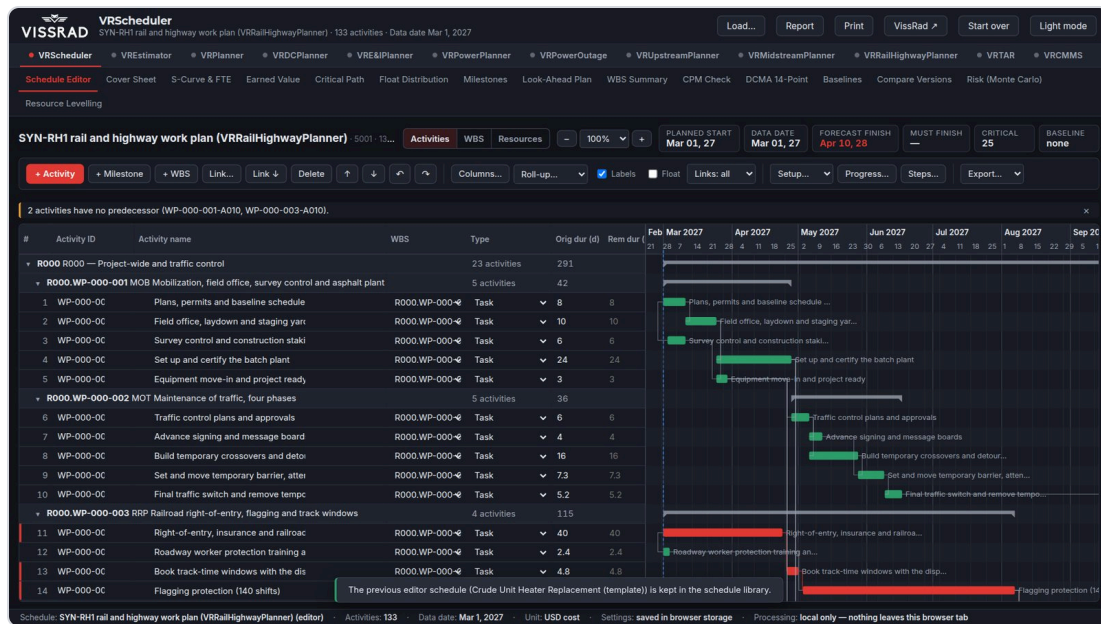
Load: manpower and equipment loading before the plan is issued.

Send the plan to the Schedule Editor

- 1 Click **Send to Schedule Editor**.
- 2 Choose to add the plan to the open schedule under a WBS node, or open it as a new schedule. Clashing activity IDs are renamed automatically.
- 3 Review the activities in the Schedule Editor. **Undo** removes the whole hand-off if needed.



The hand-off dialog.



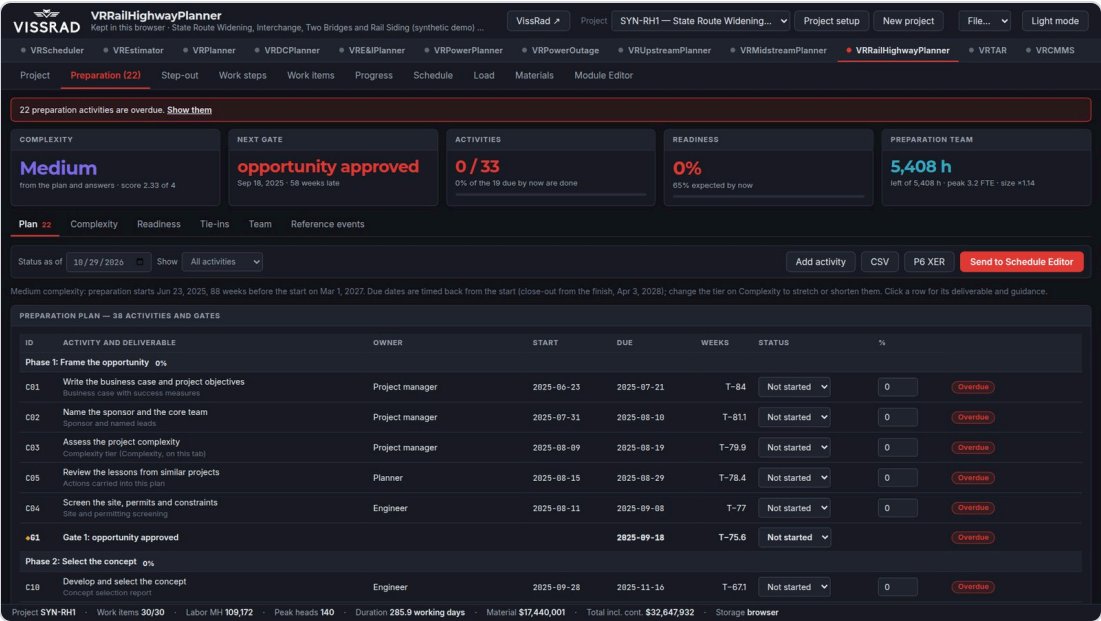
The plan in the Schedule Editor: 133 activities from 30 work items, with logic, crafts and equipment.

IMPORTANT

Planner unit rates are demonstration norms. Calibrate them to your own history in the Module Editor before a plan is issued.

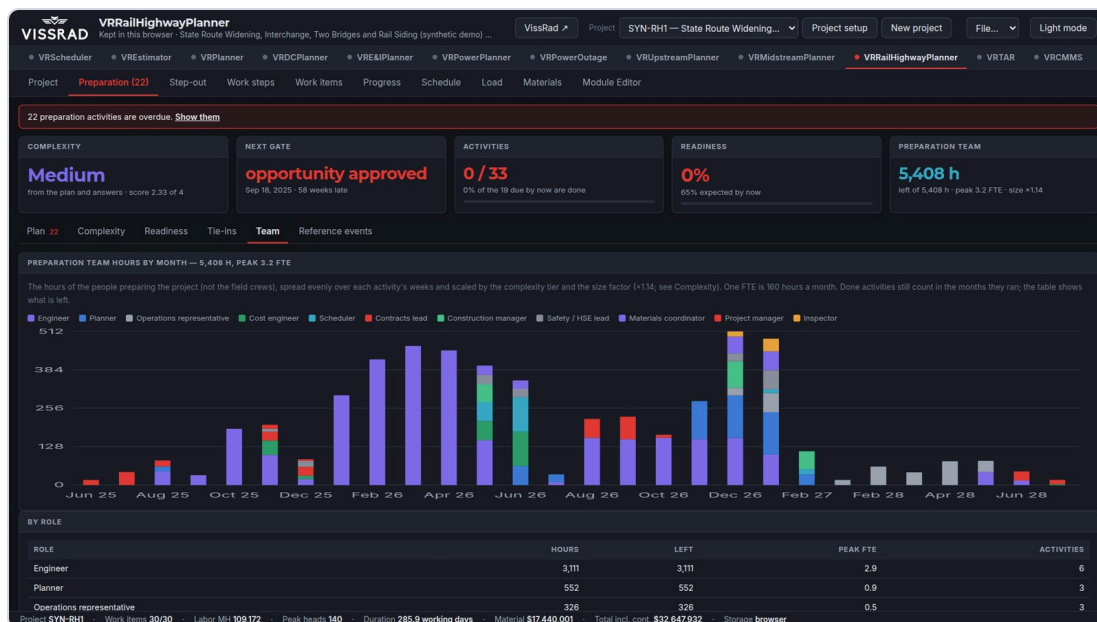
7 Tutorial 4: The Preparation tab

Every planner and VRTAR has a **Preparation** tab for the work before the work. The number on the tab is the count of preparation activities.



Preparation plan: gates and activities timed back from the construction start.

Sub-tab	What to do
Plan	The gated preparation plan, timed back from the construction start (or the shutdown in VRTAR). Set the status and percent of each activity; overdue items are flagged. Export as CSV or P6 XER, or Send to Schedule Editor.
Complexity	The tier (Low, Medium, High) is scored from the plan's own hours, duration, headcount and units. A higher tier lengthens the preparation plan.
Readiness	Readiness scored across eight areas, against what should be done by the next gate.
Tie-ins	Register of tie-ins and their readiness.
Team	Preparation-team hours by role and month.
Reference events	Your own past jobs, to compare against.



Team: preparation hours by role and month, scaled by tier and project cost.

How team hours scale with project cost

Team hours are multiplied by a size factor of $\sqrt{(\text{project cost} \div \text{reference cost})}$, limited to between $\times 0.3$ and $\times 3$. The reference cost is \$10M for VRTAR and VRPowerOutage and \$25M for the other planners. The cost is the plan's own total with contingency, so it grows as you add work items. To set the factor yourself, enter a size factor override on the Team sub-tab.

8 Tutorial 5: Measure progress

Progress is measured by rules of credit, so the field reports in steps rather than guesses.

- 1 In a planner, open **Progress** and enter the steps completed for each work item.
- 2 In the Schedule Editor, open an activity's **Steps**. Each step is weighted; the weighted percent complete feeds earned value and the S-curve.

Step progress A1120 Pipe, valves and fittings procurement | 2,000 budget hrs

Rule of credit: Piping: install and test (10 steps) - suggested

Code	Step	Weight	Budget hrs	Step % complete	Earned hrs
EXP	Expedite and stage	5%	100	100	100
LFT	Lift into place	7%	140	100	140
FIT	Fit-up	10%	200	100	200
WLD	Weld or bolt up	28%	560	80	448
SUP	Supports	17%	340	40	136
PNC	Pre-test punch list	10%	200	0	0
TST	Test	8%	160	0	0
RST	Post-test restoration	10%	200	0	0
TRC	Heat tracing	3%	60	0	0
TO	Turnover	2%	40	0	0
Total		100%	2,000		

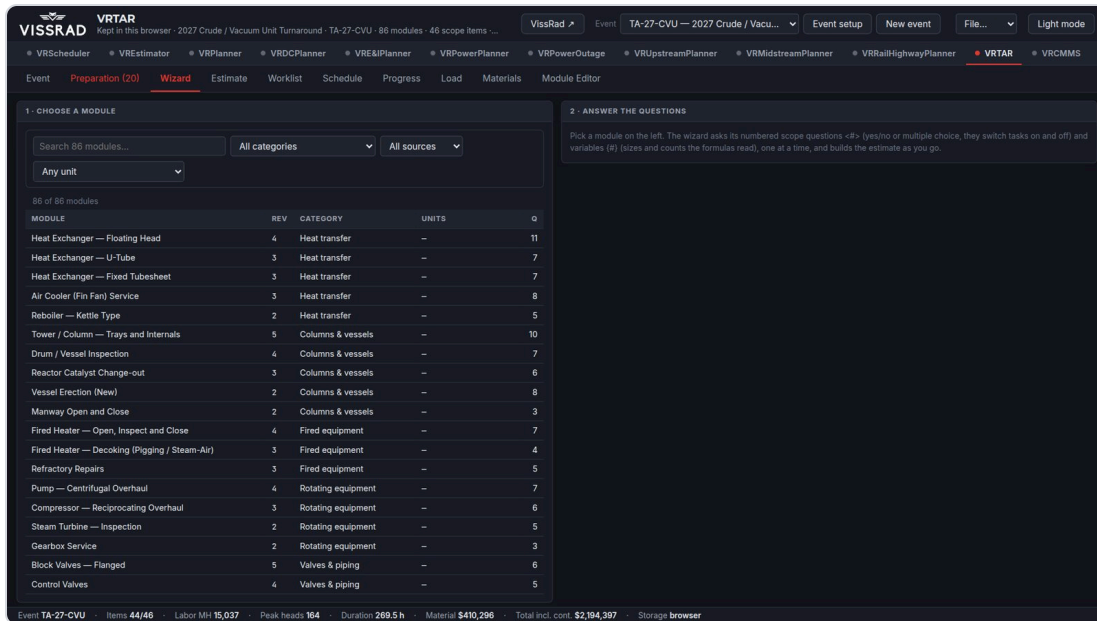
Activity % complete: 51.2% | earned 1,024 of 2,000 budget hrs

Buttons: Cancel, Apply

Step progress in the Schedule Editor.

9 Tutorial 6: Plan a turnaround in VRTAR

- 1 Open **VRTAR** and use **New event**. On **Event**, enter the event name and shutdown dates.
- 2 Use **Preparation** for the event preparation plan, timed back from the shutdown with scope freeze as one of its gates.
- 3 On **Wizard**, answer a short set of questions per scope item to get its tasks, crew hours, equipment and material.

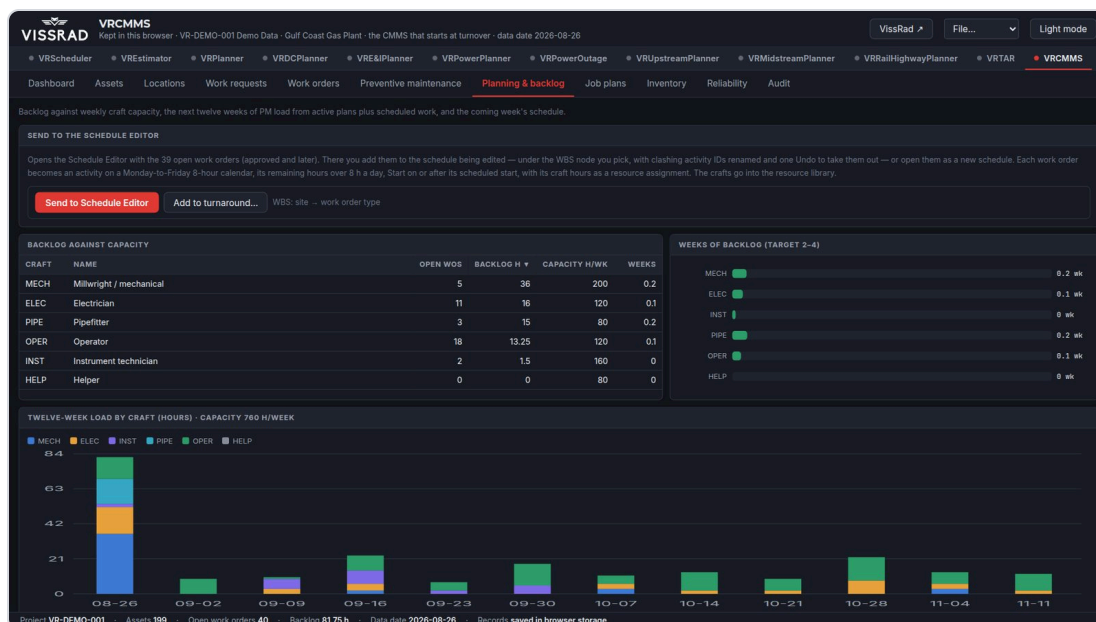


The VRTAR scope wizard.

- 4 Review **Estimate** and **Worklist**. The worklist rolls up into the event fragnet.
- 5 Check **Schedule**, **Load** and **Materials**, and record **Progress** during the event.
- 6 Export to Excel, P6 or SAP, or send the fragnet to the Schedule Editor.

10 Tutorial 7: Maintenance in VRCMMS

- 1 Open **VRCMMS**. On the Dashboard, use **Start your own site** for your own records.
- 2 Build the asset register in **Assets** and **Locations**.
- 3 Raise **Work requests**, turn them into **Work orders**, and set up **Preventive maintenance** and **Job plans**.
- 4 On **Planning & backlog**, send open work orders to the Schedule Editor or into a VRTAR event.
- 5 Track spares in **Inventory** and failures in **Reliability**.



Planning & backlog.

11 Saving, backups and P6

Need	How
Back up a tool	File > Save file downloads a backup; File > Open file restores it.
Send a plan to the schedule	Send to Schedule Editor in VREstimator (Schedule tab), every planner, Preparation, VRTAR and VRCMMS.
Hand off to Primavera P6	Export the schedule as P6 XER (or XML); each planner and Preparation can also export XER directly.
Hand off to Microsoft Project	Export Microsoft Project XML from the Schedule Editor.
Share a report	Schedule summary report as PowerPoint or PDF; CSV exports for spreadsheets.

Troubleshooting

Symptom	What to do
Windows blocks the installer	Choose More info > Run anyway. Setup needs no admin rights.
Mac says it cannot check the installer	Approve it once in System Settings > Privacy & Security (see Option C).
Links between tools do not open on a Mac	Use Chrome or Edge; Safari is not supported.
My records are gone in the browser	Online records live in that browser profile. Restore from a saved file, or use the installed version.
Durations look high or low	Calibrate unit rates in the Module Editor; the shipped rates are demonstration norms.