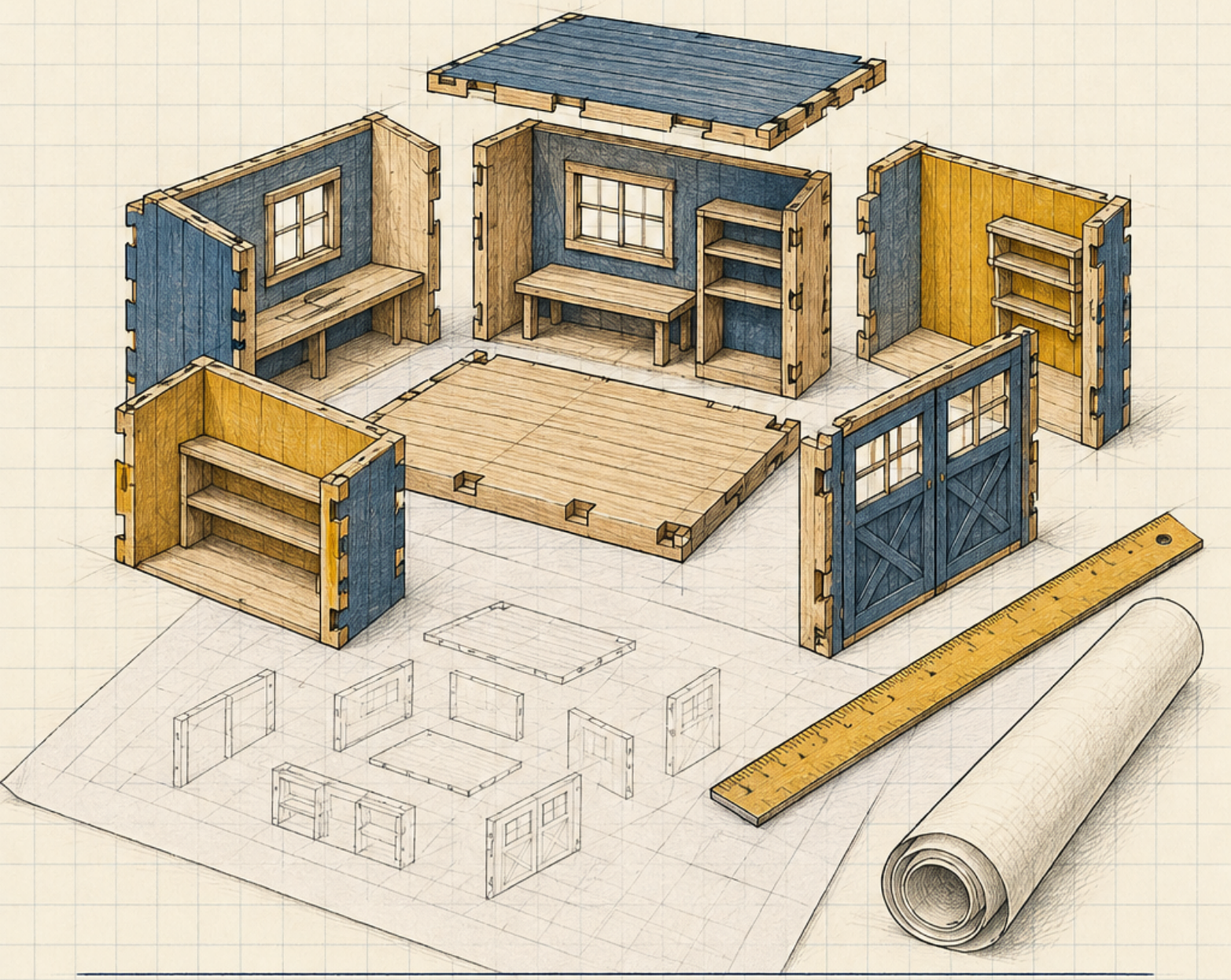
# How to Build a Work Breakdown Structure from Scratch



# Start with the whole result

*A work breakdown structure helps the team see the complete scope it must deliver.*

## Define the purpose

A WBS decomposes agreed project scope into manageable components. It supports completeness, ownership, estimates and control before activities are sequenced in a schedule.

## Workshop case

A small repair business is opening a new workshop. It needs a usable site, installed workstations, prepared inventory, trained people and controlled project delivery.

## Use the workbench

Build the hierarchy from the intended result, then define its lower components. The example grows through the pages so each decomposition decision has a clear purpose.

**TAKE IT TO YOUR PROJECT**

Write the complete result at the top of a blank page.

# Collect the scope inputs

*A hierarchy is only as complete as the understanding behind it.*

## Gather evidence

Review the objective, requirements, acceptance needs, assumptions, constraints, existing scope records and stakeholder expectations. Clarify important gaps before treating the WBS as settled.

## Workshop case

The owner expects four usable benches and a stocked tool area. The landlord handles a separate structural repair, but the workshop team still needs its completion as an external dependency.

## Resolve boundaries

Separate work the project owns from outside work it depends on. Record exclusions and interfaces so the hierarchy does not hide an unassigned commitment.

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List a requirement, an exclusion and an external dependency.

# Name the top-level project

*The root should represent the full authorised scope.*

## Use a meaningful root

Choose a clear project result and an identifier. Keep its boundary consistent with the authorised objective and scope.

## Workshop case

1.0 Ready repair workshop includes the products and work needed for the agreed opening. It does not include expanding a second site or running the business indefinitely.

## Check the wording

A broad name can conceal disagreement. Confirm what "ready" means to the people who will accept and operate the workshop.

**TAKE IT TO YOUR PROJECT**

State what evidence would show the root result is complete.

# Choose a first decomposition

*Use a structure that makes the scope understandable and manageable.*

## Group the work

A product-oriented breakdown often helps people focus on results. The chosen structure should cover the work coherently and support the project's control needs.

## Workshop case

Use 1.1 Ready premises, 1.2 Installed workstations, 1.3 Prepared inventory, 1.4 Operating readiness and 1.5 Project coordination and closure.

## Check the coverage

Make sure training, handover, verification and management work have a place. A hierarchy of physical objects alone can omit required work.

**TAKE IT TO YOUR PROJECT**

Check whether your first level covers the full authorised result.

# Apply the completeness rule

*Children should account for the parent's scope without overlaps or hidden gaps.*

## Check the boundary

At each decomposition, verify that the lower components collectively cover the parent work. Use consistent definitions so the same work is not counted under two branches.

## Workshop case

Power supply to the bench area belongs in premises. Mounting and connecting a bench under the agreed interface belongs in workstations. Define the handoff clearly.

## Ask a review question

If every child is complete, is the parent complete? If not, identify the missing work rather than adding a vague “miscellaneous” allowance.

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Test one parent against its children and identify any unassigned work.

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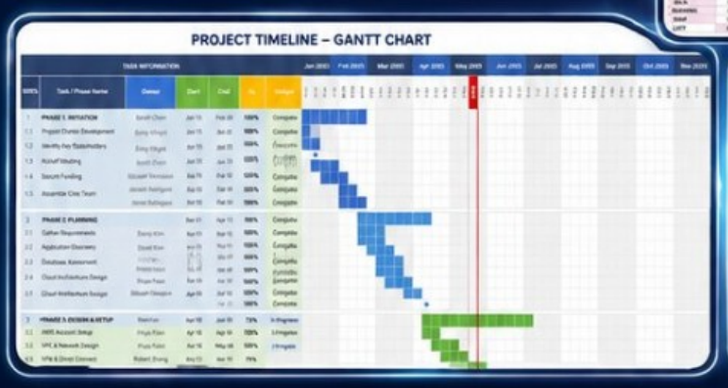
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# Decompose a branch into results

*Choose components the team can recognise and verify.*

## Develop the branch

Break installed workstations into suitable parts such as agreed layout, assembled benches and verified workstation connections. Continue only as far as useful control requires.

## Workshop case

1.2.1 Approved layout, 1.2.2 Assembled benches and 1.2.3 Verified workstation connections together describe the workstations result under the stated boundary.

## Check interfaces

An approved layout needs an owner and acceptance evidence. A connection requirement must be coordinated with the premises branch to avoid omission or double counting.

**TAKE IT TO YOUR PROJECT**

Decompose one branch into three verifiable results.

# Know when to stop

*A useful work package is small enough to estimate and control without unnecessary fragmentation.*

## Use control needs

Consider clarity, ownership, cost and duration estimates, acceptance and reporting. There is no universal number of levels that fits every project.

## Workshop case

Four similar benches assembled by one team can form one work package. If benches have different suppliers, conditions or acceptance needs, a further breakdown may be useful.

## Avoid false precision

Splitting every screw into its own component can create records that add little control. Keep the level connected to real management decisions.

**TAKE IT TO YOUR PROJECT**

Explain why one proposed work package is an appropriate size.

# Assign consistent identifiers

*Codes help connect records, but the code itself does not define the work.*

## Use a hierarchy

Give components unique IDs reflecting their place in the structure. Keep the scheme stable enough for estimates, responsibility and change records to refer to the same work.

## Workshop case

1.2.2 identifies assembled benches inside installed workstations. It does not mean the work must occur second in the calendar. Schedule sequencing is a separate step.

## Control the references

If the structure changes, preserve or map relevant references so costs, requirements and decisions remain traceable.

**TAKE IT TO YOUR PROJECT**

Check whether two records are referring to the same component version.

# Write a WBS dictionary

*A short definition prevents the same label from meaning different work to different people.*

## Define the package

Record ID, name, purpose, included and excluded work, owner, acceptance evidence, assumptions and relevant interfaces. Add estimate and control details as appropriate.

## Workshop case

For 1.2.2, include assembly and positioning of four benches to the approved layout. Exclude the building's supply wiring, which is owned under premises.

## Verify completion

The facilities lead accepts the package after the benches are complete, stable and positioned under the agreed criteria. Reference the inspection record.

**TAKE IT TO YOUR PROJECT**

Write a dictionary entry that makes one boundary explicit.

# Estimate from the defined work

*A clear work package gives the estimate a useful basis.*

## Build the amount

Estimate the required labour, material, equipment and other relevant cost, with assumptions and uncertainty visible. Keep the units consistent.

## Workshop case

Bench assembly requires 12 person-hours at $30 and $600 materials. The simple direct-cost estimate is $360 + $600 = $960 before separately applicable items and risk allowances.

## Check the basis

If the package also needs transport, inspection or specialist connections, decide where those costs belong before assuming the estimate is complete.

**TAKE IT TO YOUR PROJECT**

List the cost assumptions behind one work package.

# Assign ownership and interfaces

*Each package needs a clear route for delivery and acceptance.*

## Name the responsibilities

Identify who leads delivery, who provides inputs, who accepts completion and who resolves an interface conflict. Confirm capacity and authority with those people.

## Workshop case

The assembly lead needs the approved layout and cleared space. The facilities lead accepts the result. The premises owner must confirm the handoff date for the space.

## Use the agreement

A responsibility name without a defined package leaves ambiguity. Review the dictionary and interface conditions together.

**TAKE IT TO YOUR PROJECT**

Name a package owner and the acceptance owner.

# Connect the WBS to activities

*Scope components become schedulable through the actions needed to create them.*

## Derive the work

Identify activities for each package, then estimate durations, dependencies and resource needs. Maintain links back to the WBS so the schedule covers the agreed scope.

## Workshop case

The assembled-benches package needs delivery, assembly, positioning and inspection activities. The layout and clear-space inputs constrain when they can begin.

## Check the distinction

The WBS organises the work. The schedule models when activities can happen. A hierarchy alone cannot establish a credible finish date.

**TAKE IT TO YOUR PROJECT**

List the activities needed for one package and its first dependency.

# Review the whole structure

*A useful WBS survives a walk-through with people who understand the delivery and operation.*

## Use several perspectives

Ask the sponsor, team, technical specialists and operating owners to check scope coverage, boundaries, interfaces, acceptance and the manageability of packages.

## Workshop case

The inventory owner notices that tool labelling was omitted. The operating lead adds the support handover needed for opening. Resolve those gaps before baseline approval.

## Use the evidence

Walk from each requirement to the relevant component and from each component to its completion evidence. Investigate anything that cannot be traced.

**TAKE IT TO YOUR PROJECT**

*Find one requirement with no clear place in the hierarchy.*

# Baseline and manage changes

*The controlled structure should stay aligned with authorised scope.*

## Record the basis

Approve the WBS and definitions through the agreed governance, with version and date. Keep the current structure accessible to the people using estimates and plans.

## Workshop case

The owner requests two more benches. Assess the scope, cost, space, schedule and operating effects before the relevant authority decides.

## Update the links

An approved change may affect dictionary entries, estimates, responsibilities, requirements and schedule activities. Keep those records coherent.

**TAKE IT TO YOUR PROJECT**

Trace one new scope item through the records it would change.

# A compact workshop WBS

*Read the example as a scope map with defined boundaries.*

## Top-level view

1.0 Ready repair workshop contains ready premises, installed workstations, prepared inventory, operating readiness, and project coordination and closure.

## Workstation branch

1.2.1 Approved layout; 1.2.2 Assembled benches; 1.2.3 Verified workstation connections. The dictionary defines the power-supply handoff and acceptance responsibilities.

## Use the map

Check requirements, estimates and activities against this structure. Adapt the example to actual scope rather than copying its categories without review.

| ID | Component |
| --- | --- |
| 1.1 | Ready premises |
| 1.2 | Installed workstations |
| 1.3 | Prepared inventory |
| 1.4 | Operating readiness |
| 1.5 | Coordination and closure |

**TAKE IT TO YOUR PROJECT**

Rebuild the example from memory and explain one interface boundary.



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# Your WBS quality check

*A complete and understandable scope map improves later planning.*

## Check coverage

Does the root reflect the authorised result? Do the lower components cover their parent without double counting? Are management, verification and transition activities accounted for?

## Check control

Can each package be defined, owned, estimated, accepted and linked to the schedule? Are assumptions and interfaces visible enough to support a real commitment?

## Check the current version

Confirm approval, references and change handling. A beautifully drawn hierarchy becomes useful when people can rely on its definitions and links.

**TAKE IT TO YOUR PROJECT**

Review one branch with its delivery and acceptance owners.