

S09 — Projects (Yard / Extended Maintenance / Major Jobs) — Screen Spec (MVP)

Status: Updated draft (engineer-first scope locked)

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Purpose: Plan + cost + schedule **yard periods and major jobs**, then trigger confirmed work into **Tasks & Work Orders** workflow.

1) Purpose (engineer-first)

Projects is where the engineer (and captain/manager when needed) can:

- Build a practical “yard list” / “major works list” that feels like an **Excel sheet** (fast scan, fast edit).
- Group work by **department** and track scope, suppliers, estimates, timelines, and yard exposure.
- Auto-capture big items from the system (deferred WOs/defects, big PM triggers) so nothing is forgotten.
- Once approved/confirmed (including deposit handling), push items into **S02 Tasks & Work Orders** so they run the normal WO lifecycle and reporting.

This is not a full PM tool and not a full Gantt product — it's the engineer's **yard planning and cost control layer**.

2) Core objects (definitions)

A) Project

A container for an upcoming yard period or extended maintenance campaign.

Examples: “May 2026 Yard Period”, “AV/IT Upgrade Campaign”, “HVAC Major Service Window”.

B) Project Line Item (Job)

A single planned job line (the “Excel row”) that can later become a WO/Task.

Examples: “Overhaul FW pump”, “Replace chilled water circ pump”, “Network switch upgrade”.

C) System-sourced candidates (auto-populate inputs)

A project can be populated from:

- **Deferred WOs** (S02) and/or **Deferred Defects** (S01)

- **Big PM triggers** (S05) that are classed as major services (hours/interval nearing)
 - Optional manual “yard approaching” rule (date proximity)
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3) Inputs (what the user enters)

3.1 Project header fields (MVP)

- Project name (required)
- Project type: Yard / Extended Maintenance / Refit / Upgrade / Compliance / Other
- Location/yard (optional): Yard name + port
- Planned start/end + actual start/end (optional)
- Yard duration: planned days (required if type=Yard), actual days (auto)
- Status: Draft / Planned / Active / On Hold / Completed / Archived
- Owner: Engineer / Captain / Manager (simple selection)
- Yard costs (optional): daily rate / fixed fees / docking / utilities (basic fields)
- Notes + attachments (yard scope, yard quote PDFs)

3.2 Project line item fields (Excel-row style) (MVP)

Each line item (job) captures **WO-like particulars**, plus planning extras:

- Department: Engineering / AV/IT / Deck / Interior / Safety / Other (required)
- Title / scope (required)
- Linked source:
 - Defect (optional)
 - WO (optional)
 - PM trigger row (optional)
 - Equipment (E&M;) (optional but encouraged)
- Work type: Repair / Service / Replacement / Upgrade / Compliance
- Priority: Low / Med / High / Critical
- Planned execution window: “in yard” / “pre-yard” / “post-yard” (simple selection)
- Estimated duration (days/hours) + target start/end (optional)
- Assigned contractor (preferred) (optional)
- Yard dependency toggle (requires yard access / can be done afloat)

Supplier estimate block (MVP)

Up to **three supplier estimates** per line item:

- Supplier 1: name + estimate amount + lead time + notes
- Supplier 2: name + estimate amount + lead time + notes
- Supplier 3: name + estimate amount + lead time + notes

Cost controls (MVP)

- Selected supplier (none until chosen)
- Approved budget (single number) (optional but recommended)
- Payment tracking:
 - Status: Not approved / Approved / Deposit paid / Paid in full
 - Deposit amount (optional) + date
 - Balance amount (auto = selected estimate - deposit) + due date (optional)

4) Outputs (what Projects creates/updates elsewhere)

4.1 Confirmed work triggers into S02

When a line item is **confirmed** (Approved + vendor chosen):

- Create a **WO Request** (or Task request) in S02 with:
 - Scope, priority, department, linked equipment, linked defect/PM row
 - Selected supplier + estimate + lead time
 - Project + line item reference (Job ID)
- S02 owns the decision “WO vs Task” (per your policy), but Projects can propose a default class.

4.2 Reporting linkage

- Work completion reporting stays in **S03 WOT Reports**.
- Projects shows a **read-only “Reporting” subview** per line item:
 - Report pending / submitted
 - Labor + parts + costs pulled from WOT report(s)
- Optionally (later): a “Yard / Extended Maintenance” filter inside WOT Reports for quick access.

4.3 Archive and DOS rollups

- **Archive → Project Cost Projections (S08)** reads:
 - Approved budgets + supplier selections
 - Purchases allocated to the Project line item
 - WOT labor/parts totals allocated to the Project line item
 - **DOS (S07)** reads project rollups:
 - Active projects count
 - At-risk jobs (over time / over budget / stalled)
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5) Layout (tabs / sections)

A) Projects list (default view)

Excel-friendly list with filters:

- Filters: status, type, date range, owner, yard proximity
- Columns: name, status, planned dates, planned days, actual days, budget vs actual, risk flags

B) Project detail (main “sheet”)

Tabs inside a project:

- 1) **Sheet (Line Items)** *(primary)*
 - Department group headers (collapsible)
 - Row-based editing (Excel feel)
 - Inline supplier estimate blocks (expand/collapse)
 - Inline payment status (deposit/paid)
 - Bulk actions: “Mark approved”, “Assign contractor”, “Export sheet”

2) Overview

- Yard dates + duration tracking
- Yard cost summary (fees + projected)
- Project totals (budget/actual/forecast)

3) Contractors & Estimates

- Vendor comparison view (line items grouped by supplier)

4) Schedule

- Simple timeline list (not full Gantt): planned start/end + duration per item

5) Reporting

- Line items with reporting status + links to WOT reports

6) Files

- All attachments for the project

C) Line item detail (drawer/modal)

Clicking a row opens the full detail:

- Scope, links, estimates, approvals, payments, contractor, schedule, notes, attachments
- “Create WO Request” / “Create Task Request” button (if confirmed)

6) Rules & behaviors (automations + triggers)

A) Auto-populate rules (candidate ingestion)

Projects can ingest candidates into a “Proposed” state:

- Deferred defect/WO older than X days (configurable) → suggest for next yard
- PM trigger flagged “major” + due within Y days/hours → suggest
- Yard date nearing (within Z days) → prompt “review proposed list”

B) Yard duration overrun flags

If Project type = Yard and actual days exceed planned days:

- Flag project: “Yard overrun”
- Flag line items still not completed
- DOS counter increments (optional) and/or notification sent

C) Approval → trigger workflow

Line item may only trigger into S02 when:

- Status set to **Approved/Confirmed**
- Selected supplier chosen (or “in-house”)
- Payment state optionally captured (deposit/paid)

Then:

- Generate WO request in S02 (not open)
- Keep link back to Project line item.

D) Payments

- Deposit is optional
- When deposit recorded:
 - Payment status becomes "Deposit paid"
 - Balance is computed
- All payment changes are written to Activities Log (S08).

E) Audit trail

- All changes (estimates, supplier selection, approvals, payments, schedule edits) log to:
 - **Archive → Activities Log (S08)**

7) Links to other screens (drill-down)

- Project/Line Item → open:
 - linked defect (S01)
 - linked WO/Task (S02)
 - linked WOT report (S03)
 - linked requisition/purchases (S04)
 - linked PM row (S05)
 - linked equipment (E&M;)
 - Archive rollups for this project (S08)

MVP notes (scope control)

- Excel sheet feel is key: fast row editing + grouping by department.
- Limit estimates to max 3 per line item in MVP.
- Avoid full Gantt; do a simple "schedule list" tab.

- Keep “contractor assignment” simple in MVP (text + select from suppliers list).