

Manufacturing Operations Playbook

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Purpose. Use the Manufacturing dashboard to turn fictional production preparation, quality exceptions, maintenance coordination and supplier handoffs into owned work. Five SOPs and four working templates show how an operations team can document decisions and verify completion.

Demonstration scope. All tasks, roles, costs, records and decisions are invented. This is a portfolio operating model, not an approved plant procedure, equipment instruction or authorization to operate machinery, release product or perform maintenance. Actual work requires the plant's approved processes and qualified personnel.

Use this pack. Start with the metric dictionary. Choose the SOP matching the signal, record the owner and evidence, and verify the task in Source data. Keep the mock operating log for decision details not represented by dashboard fields.

Current capabilities. The dashboard tracks task status, workstreams, due dates, budgets, actual spend and missing fields. It does not measure production units, OEE, downtime, scrap, first-pass yield, supplier on-time delivery or labor capacity. Names such as scrap trend followup describe tasks, not calculated manufacturing metrics.

Document control. Mock owner: Plant Operations Lead. Review quarterly and after source-field or calculation changes. Record reviewer, version and acceptance date. Publishing this pack does not enable new automations or customer notifications.

Contents. Operating roles and metric dictionary; SOP 01 Production readiness and shift handoff; SOP 02 Quality hold and disposition tracking; SOP 03 Maintenance planning and return handoff; SOP 04 Supplier and material exceptions; SOP 05 Operating cost and variance review; four reusable templates.

Operating Roles and Metric Dictionary

Use the source records to distinguish task progress from plant performance.

Daily review. Plant Operations Lead checks source freshness, Stuck tasks, overdue open work and missing fields. Choose up to three priorities with a role, next action and date. Weekly, reconcile handoffs, upcoming preparation tasks and budget exceptions.

Mock roles. Production Coordinator owns readiness and shift continuity. Quality Reviewer owns simulated hold decisions. Maintenance Planner owns work preparation and handoff evidence. Supply Coordinator owns delivery discrepancies. Finance Reviewer validates costs; Plant Operations Lead prioritizes dependencies. A sender retains ownership until the receiving role accepts.

Task measures. Open work = total DEMO | tasks minus Done. Completion = Done / total, rounded. Needs attention counts Stuck tasks only, not every overdue task or quality risk. Task completion is not physical production progress or product acceptance.

Budget measures. Reported totals sum available values and disclose missing amounts. Comparable utilization = matched spend / matched budget, using only rows with both amounts. Remaining matched budget = matched budget minus matched spend. Missing is not zero. With a zero matched budget the current display falls back to 0%, which is not meaningful utilization.

Charts. Workstream progress shows the three largest workstreams by task count; cost comparison uses the three largest by reported budget. Upcoming work groups due dates into six weeks from Monday of the current UTC week, including Done tasks. Undated/out-of-window tasks are excluded. This is not a historical output, downtime or capacity trend.

Completeness. Checks Status, Workstream, Next Action, Due, Budget and Actual Spend. Filled fields do not establish accuracy, physical condition or approval. Record simulated acceptance in the task action summary or mock log before marking Done.

Demo controls. Only approved DEMO | tasks are eligible. Preserve 20–30 unarchived tasks, at least six open and 2–4 labeled demonstration gaps. Keep unknown amounts blank; never reopen Done work. Inspect cycle markers, read back changes and verify sync before reporting publication. Proposed manufacturing measures need additional records and validated definitions.

SOP 01 Production Readiness and Shift Handoff

Owner: Production Coordinator; decision: Plant Operations Lead

Trigger and inputs. A fictional work queue is prepared for a shift or a readiness dependency changes. Inputs: task references, mock work-order scope, material/equipment readiness evidence and prior handoff notes.

1. Establish the work package. Identify the sample order, intended outcome, responsible roles and acceptance criteria. Link existing DEMO | tasks rather than duplicating the same open issue. Record the reference/version of the readiness checklist.

2. Check dependencies. Review mock material confirmation, maintenance handoff, quality disposition and role coverage. Record Ready, Pending or Unknown per dependency. Do not infer physical readiness from a task percentage.

3. Record the decision. Plant Operations Lead records a simulated Ready, Conditional or Hold decision and its evidence. Name any condition owner and review date. Use Stuck if a dependency prevents the preparation task from progressing.

4. Accept the handoff. Receiving Coordinator acknowledges scope, unresolved issues and next commitments. Preserve sender accountability until acceptance. Store shift timing separately from task Due if they represent different events.

5. Verify completion. Mark the preparation task Done only after mock acceptance and all six required fields are present. Keep unresolved downstream work open. Completion records a preparation outcome, not that a real production run occurred.

Exception. Missing or conflicting readiness evidence keeps the affected decision provisional. This demo cannot authorize equipment startup, bypass an interlock or replace a plant safety review.

Completion evidence. Checklist/version, decision rationale, accepted receiving role, timestamp and owned remaining conditions.

Dashboard connection. Production and Operations task progress, Stuck count and upcoming dates. Production throughput and schedule attainment are proposed measures.

SOP 02 Quality Hold and Disposition Tracking

Owner: Quality Reviewer; coordination: Production Coordinator

Trigger and inputs. A simulated quality exception, traceability discrepancy or hold is identified. Inputs: fictional lot reference, acceptance criteria, inspection record and source task.

1. Record the hold clearly. Create or reuse the DEMO | exception task. In the mock log, identify affected sample lot, reason, scope and evidence. Record the simulated hold independently of the task's status.

2. Assign investigation. Name the Quality Reviewer and the next evidence needed, such as a mock trace record or sample reinspection result. Use Stuck for a blocking dependency and retain a specific next action.

3. Review the evidence. Compare the fictional results against the documented exercise criteria. Preserve conflicting findings and versions. Do not transform a missing measurement into a pass or replace it with zero.

4. Record disposition. Quality Reviewer records a mock decision, reason, evidence and timestamp. Production Coordinator acknowledges any resulting restriction or follow-up. A dashboard status change alone is never a product-release approval.

5. Close the administrative task. Close only after the simulated disposition is accepted and required fields are complete. Keep corrective-action follow-ups separate and owned. Preserve completed history if an issue recurs.

Exception. Without criteria, trace evidence or the responsible reviewer's decision, the mock hold remains unresolved. Real quarantine, rework, scrap and release processes are outside this demonstration.

Completion evidence. Lot reference, criteria, reviewed results, disposition decision, acknowledgment and follow-up owner/date.

Dashboard connection. Quality task status and missing evidence. First-pass yield, defect rate and scrap cost require measured unit populations and cost records; they are not derived from task completion.

SOP 03 Maintenance Planning and Return Handoff

Owner: Maintenance Planner; acceptance: mock equipment owner

Trigger and inputs. A fictional maintenance preparation task, equipment handoff or inspection queue needs review.

Inputs: sample asset reference, scope, dependency list, mock availability and checklist.

1. Confirm scope and roles. Record the fictional asset and intended maintenance outcome. Identify the planning owner, technical reviewer and receiving role. This procedure coordinates evidence; it does not describe how to service equipment.

2. Check planning evidence. Review sample parts availability, required expertise, readiness documents and proposed window. Keep missing dates blank and label the demonstration gap. Do not infer engineer availability from task counts.

3. Obtain the simulated plan decision. Record the reviewed mock work package and decision. Any real safety authorization, isolation or technical procedure must come from the plant's approved process; none is issued here.

4. Capture validation and handoff. In the exercise log, record mock validation results, residual limitations and receiving-role acceptance. Planning completion and equipment return acceptance are distinct decisions.

5. Reconcile the task. Update status, next action, due and supported spend. Mark Done only when the planned administrative outcome is accepted and required fields are complete. Keep unresolved handoff work open.

Exception. Absent evidence or unresolved critical dependencies block the mock handoff. A completed task does not demonstrate actual equipment availability or authorize restart.

Completion evidence. Scope/version, planning decision, sample validation record, accepted handoff and residual actions.

Dashboard connection. Maintenance tasks and budget comparison. Downtime, MTTR and preventive-maintenance compliance need event times, asset history and defined eligible schedules.

SOP 04 Supplier and Material Exceptions

Owner: Supply Coordinator; escalation: Plant Operations Lead

Trigger and inputs. A fictional delivery discrepancy, missing material confirmation or supplier handoff blocks preparation. Inputs: sample order/lot reference, expected quantities, receiving evidence and need-by commitment.

1. Match the records. Compare the mock order, delivery reference and receiving record. Check that units and scope agree. Distinguish an expected arrival from an accepted receipt; neither is inferred from task Due.

2. Describe the discrepancy. Record the missing quantity, timing uncertainty or document issue and its effect on planned work. Keep unverified amounts unknown and link affected tasks.

3. Assign the next decision. Name the Supply Coordinator and reviewer. Draft a mock clarification or alternate-supply request; do not send it to real suppliers or issue a purchase commitment.

4. Reconcile the response. Record the simulated confirmation and revised commitment with evidence. If material requires a mock quality disposition, use SOP 02; a receiving check alone does not release the material.

5. Verify downstream acceptance. Production Coordinator accepts the handoff or states the remaining dependency. Update the task and supported spend. Mark Done only after the discrepancy's acceptance criterion and required fields are complete.

Exception. An unresolved delivery or approval dependency remains open. A revised task date must not erase the original commitment from the mock log or create a false on-time-delivery result.

Completion evidence. Matched references, discrepancy rationale, original/revised commitments, simulated decision and receiving acceptance.

Dashboard connection. Supply workstream, Stuck tasks and due-date distribution. Supplier on-time delivery and fill rate require separate order and receipt records with agreed denominators.

SOP 05 Operating Cost and Variance Review

Owner: Finance Reviewer; decision: Plant Operations Lead

Trigger and inputs. Weekly mock cost review, a scope change or an allocation nearing consumption. Inputs: approved task budget, spend evidence, cost period and separate remaining-work estimates if available.

1. Define comparable costs. Confirm that budget and spend cover the same fictional work, currency and period.

Identify whether labor, materials and vendor charges are included. Avoid counting a commitment again as an actual cost.

2. Reconcile the source. Check task amounts against the mock cost record. Disclose missing values and use paired rows for comparable utilization. Resolve a gap only from a stated synthetic assumption or mock approval.

3. Explain variance. Calculate matched budget less matched spend. Record scope, timing and pending-cost explanations. An underspend does not demonstrate savings if work is unfinished or costs are missing.

4. Review the forward view. Where separately documented, add remaining-cost estimates to actual cost to obtain a forecast. Name assumptions and uncertainty. The current dashboard does not store these estimates or calculate margin.

5. Record an owned decision. Operations Lead records a mock action: request evidence, resequence work, revise scope or approve an allocation. Put the action and reviewer role in the task or log; read back any changes.

Exception. No complete evidence means no complete forecast. Zero matched budget has no meaningful utilization percentage. Never enter zero merely to clear a missing-field flag.

Completion evidence. Cost basis, reconciled figures, missing-data disclosure, variance explanation, decision and next review date.

Dashboard connection. Reported budget/spend and workstream costs. Unit cost, scrap cost, forecast-to-complete and margin require additional production and financial records.

Templates for Readiness and Quality Decisions

Copy these structures into a fictional operating log.

Readiness and shift handoff. Work package/reference: ____ | Shift/window: ____ | Checklist version: ____ | Materials evidence: ____ | Maintenance handoff: ____ | Quality disposition: ____ | Coverage: ____ | Ready/Pending/Unknown: ____ | Decision and rationale: ____ | Receiving role/acceptance: ____ | Open condition/owner/date: ____

Readiness example. DEMO | Sample packaging run: material confirmation is received but the mock inspection slot is unconfirmed. Production Coordinator records Conditional readiness and owns the scheduling follow-up. The task remains open; the dashboard does not authorize a real run.

Quality hold and disposition. Sample lot/reference: ____ | Hold reason/scope: ____ | Exercise criteria: ____ | Inspection/trace evidence and version: ____ | Reviewer: ____ | Missing evidence: ____ | Mock disposition/rationale: ____ | Decision timestamp: ____ | Receiving acknowledgment: ____ | Follow-up owner/date: ____

Quality example. A fictional trace reference is missing from a sample lot record. The task is Stuck while the mock record is located. After Quality Reviewer checks the matching evidence and records a simulated release decision, the administrative task can close if required fields are complete. Record any corrective action separately.

Proposed first-pass yield example. A separate mock log has 200 units entering an inspection step and 184 passing on the first attempt: first-pass yield is 92%. Reworked units are not retroactively first-pass successes. The dashboard task completion percentage cannot supply this result; unit-level records and consistent scope are required.

Templates for Maintenance and Cost Reviews

All example values are fictional and illustrate the limits of task data.

Maintenance planning and handoff. Asset/work reference: ____ | Scope/version: ____ | Planning owner: ____ | Required expertise/parts: ____ | Proposed window: ____ | Missing evidence: ____ | Mock approval decision: ____ | Sample validation result: ____ | Residual limitation: ____ | Receiving acceptance: ____ | Next action/date: ____

Cost and variance worksheet. Task/workstream: ____ | Period/cost basis: ____ | Approved budget: ____ | Recorded spend: ____ | Matched remaining budget: ____ | Remaining estimate: ____ | Forecast total cost: ____ | Missing evidence: ____ | Decision/reviewer: ____ | Owner/action/date: ____

Matched-cost example. Task A has \$20,000 budget and \$13,000 spend. Task B has \$10,000 budget and missing spend. Reported budget is \$30,000; reported spend is \$13,000 with one missing-spend task. Comparable utilization is $\$13,000/\$20,000 = 65\%$, and matched remaining budget is \$7,000. The incomplete Task B is excluded from the matched denominator.

Forecast example. If a separate mock estimate shows \$8,500 remaining cost for Task A, forecast total cost is \$21,500 and forecast overrun is \$1,500. Neither remaining budget nor the dashboard status supplies that estimate. Disclose assumptions and cost coverage before presenting the forecast.

Logic review checklist. Trace each metric to fields and formula; verify complete and missing-value examples; check denominators and date boundaries; distinguish administrative completion from operational acceptance; read back source changes and the published snapshot; record reviewer/version and unresolved limits.