

S01 — Faults & Defects (F&D;) — Screen Spec (MVP)

1) Purpose

A lightweight, engineer-first intake + triage screen that captures faults/defects from:

- Daily Log
- Planned Maintenance (PM) triggers
- Manual user entries

...and structures them into:

- Work Orders (when meaningful work is required)
- Notifications + (future) VOS counters until reviewed
- Reports & History for traceability and recurrence analysis

Design intent: **few clicks, minimal admin**, while automations keep accountability and reduce missed issues.

2) Inputs (what the user captures)

2.1 Minimum fields (MVP required)

- **Title**
- **Department (owner domain)**: Bridge / Deck / Interior / Galley / Engineering / Misc
- **Location**: free text + optional “how to find it”
- **Nature of defect**: select from list (user can add new options later)
- **Reported by**: who raised the issue
- **Priority**: Critical / High / Medium / Low
- **Reviewed**: Yes/No
- **Work Order requested**: Yes/No
- **Linked Work Order**: link (if created)

2.2 Optional fields (MVP nice-to-have)

- **Deep description / context**
- **Attachments**: photo/video

- **Temporary fix applied:** Yes/No + note
- **Estimated downtime impact:** quick selector
- **Parts used:** optional links to inventory consumption (can be minimal in MVP)
- **Tags:** safety/guest-facing/critical machinery (optional)

2.3 Unique ID

System generates a unique defect record number (format configurable later).

3) Outputs (what it creates/updates elsewhere)

3.1 On creation (from Daily Log / PM / User)

- Create a **Defect Record** in **Unreviewed** state
- Add to **Notifications tray** as “Needs review”
- Increment (**future**) **VOS** counter: “Unreviewed defects”

3.2 On review / confirmation

- Mark defect as **Reviewed**
- Clear “Needs review” notification state
- Write/update defect into **Reports & History** for traceability

3.3 Work routing

- If **Work Order requested = Yes** → auto-create a **Work Order draft** pre-filled from defect (WO screen captures detailed planning/execution)
- If **Resolved (no WO)** → keep visible for a **monitoring window** (default 14 days; configurable later), then archive to history

3.4 Linked Work Order closure

When the linked Work Order is **Closed/Rectified**, the defect is removed from the active queue and remains in **Reports & History**.

4) Tabs / sections / subviews (layout)

4.1 Department tabs (top of screen)

All | Engineering | Deck | Bridge | Interior | Galley | Misc

Tabs are a fast filter on the defect list (based on the Department field).

4.2 Status filters / chips

- Unreviewed
- Reviewed
- WO Open (or WO Requested)
- Resolved (temporary / monitoring)
- Closed (history-only)

4.3 Main list row (at-a-glance)

Each defect row shows:

- Priority indicator
- Title
- Location
- Age (days open)
- Status
- Quick links/icons: Equipment (if linked), WO (if linked), Attachments (if any)

4.4 Defect detail view

Sections:

- Summary (title, dept, location, reported by, timestamp)
- Nature + deep description
- Priority + tags
- Evidence (attachments)
- Engineer actions (Review, Mark Resolved, Request WO, Mute/Snooze)
- Links (Equipment, WO, Inventory, Source Daily Log entry, History)

4.5 Quick add defect

Button: **Log Defect** → short form → saved as Unreviewed (engineer may optionally mark Reviewed).

5) Rules & behaviors (automations + triggers)

WO request vs WO open (MVP rule)

- From **F&D**, the engineer can only set **WO Requested** and create a **WO Request**.
- The actual **WO Open / In Progress** state is created/controlled in **S02 — Tasks & Work Orders** after review.

5.1 Escalation (daily)

If a defect remains **Unreviewed**, it escalates **daily** (priority/visibility increases each day) until reviewed.

5.2 Mute/Snooze with accountability

Engineer may mute/snooze a defect only via an **override step**:

- Requires an override permission + password
- Must be audited (who/when/why)

5.3 Review gating for WO creation

Defects should be **Reviewed** before routing into Work Orders by automation (prevents junk WOs).

5.4 Status flow (MVP)

- Unreviewed
- Reviewed
- WO Requested / WO Open
- Resolved (temporary / monitoring)
- Closed (history-only)

5.5 Temporary fix & priority de-escalation

A defect can be marked **Resolved (temporary)** (aka mitigated):

- Requires a mitigation note
- Allows priority to be reduced (e.g., Critical → Medium)
- Keeps a **Temporary fix** flag visible for awareness and auditing
- Can include a next review date (optional)

5.6 Resolved → reopen

If a “Resolved (temporary)” defect reoccurs within the monitoring window:

- Engineer can **Reopen** → returns to Reviewed/WO Requested fast path (minimal retyping)

5.7 History persistence rule

Once reviewed/confirmed, defect data is stored in long-term history for traceability (even if not yet fixed).

6) Links to other screens (drill-down + create-from-here actions)

From a defect you can jump to:

- Equipment & Manuals (E&M): equipment detail (if linked)
- Tasks & Work Orders: create/open linked WO
- Inventory & Requisitions: consume parts / draft requisition (optional MVP)
- Daily Log: source entry reference (if originated there)
- Reports & History: defect timeline, recurrence, closure record

MVP decisions locked

- Department tabs across the top: **Yes**
- “Reported by” is who raised it; assignment/ownership happens in WO later: **Yes**
- Escalation cadence for Unreviewed: **Daily**
- Priority ladder: **Critical / High / Medium / Low**
- Temporary repair allows de-escalation with audit trail: **Yes**
- Equipment linking: **Hybrid**
 - Strong prompt to link if known
 - Optional “Capture unknown equipment” quick-create stub

Equipment linking — Hybrid details (MVP)

- If equipment exists in the system: show picker (search + recent) and prompt to link
- If not known: allow saving unlinked, but offer **Capture Unknown Equipment** mini-flow:
 - Name, system/department, location, optional model/serial, optional nameplate photo
 - Create equipment stub + link to defect