Maintenance Barrier Tracking

Expose execution barriers. Improve Wrench time.

A Member of the Procex.AI solution family

Solution Overview

Procex Maintenance Barrier Tracking is a purpose-built, SAP-compatible application that captures, classifies, and analyzes real-world execution barriers that prevent maintenance work from being completed as planned. It converts informal execution knowledge into structured, analyzable intelligence directly linked to SAP EAM work execution.

The solution works with standard SAP EAM processes and transactions, embedding barrier capture into normal work order confirmation and close-out activities. AI-assisted classification and analytics turn captured barriers into actionable continuous improvement insights.

Business Problem Addressed

Maintenance organizations frequently experience recurring execution delays caused by missing materials, planning gaps, permit delays, access constraints, and engineering data issues. These barriers are rarely captured in structured form, making root-cause correction difficult and allowing repeat failures to persist.

Traditional EAM systems record what work was completed — but not why work could not be completed efficiently. Maintenance Barrier Tracking closes this visibility gap.

SAP Compatibility and Clean-Core Alignment

Maintenance Barrier Tracking is designed to operate with SAP EAM — not replace it — and follows strict clean-core principles.

Deployed as an SAP BTP side-by-side application, it requires no modification to SAP standard tables or code.

Integration uses approved SAP connectivity patterns including APIs, OData services, and secure connectors.

Every barrier record is linked to SAP work orders, operations, notifications, and assets while respecting SAP authorizations.

Supports both ECC and S/4HANA landscapes.

Core Functional Capabilities

Barrier Capture at Execution: Barrier capture is triggered during work order confirmation or close-out with a fast, technician-friendly interaction requiring minimal keystrokes.

Quick Capture Features: one-click barrier flag, configurable category picklists, short note or voice entry, delay impact estimate, and work impact classification.

AI-Assisted Classification: AI suggests barrier categories and root-cause classes using confirmation notes, order history, status changes, and material signals, with user confirmation.

SAP Data Integration

Read Integration includes work order headers and operations, status history, confirmations, material reservations and movements, planner group, work center, priority, equipment, and functional location.

Optional Write-Back allows barrier summaries to be written to SAP order or confirmation text or extension fields under governance control.

Barrier Taxonomy Framework

A configurable multi-level taxonomy supports structured analysis across domains such as Materials, Planning, Engineering, Access, Safety, Tools, Contractor, and Coordination.

Customer-specific barrier taxonomies can be configured without SAP modification.

Analytics and Insights

Barrier intelligence dashboards show frequency, impact hours, and rates by planner group and work center.

AI pattern detection highlights repeat barriers, systemic causes, and correlations with schedule attainment and backlog age.

Continuous Improvement Integration

Barrier intelligence feeds planning checklist improvements, master data correction targeting, materials policy adjustment, shutdown readiness improvement, backlog prioritization, and readiness gate controls across the Procex solution suite.

User Experience

Fiori-aligned, mobile-friendly interface with rapid barrier capture and role-based dashboards.

Designed for sub-five-second barrier entry in field execution contexts.

Security and Governance

Supports SAP SSO, role-based access, plant-level data partitioning, audit trails, and configurable retention policies.

Typical Business Benefits

Repeat execution delays reduced 15–30 percent.
Improved schedule attainment and wrench time.
Faster systemic root-cause correction.
Improved shutdown readiness and execution reliability.
Preservation of field execution knowledge.

Expose execution barriers. Improve wrench-time.