InfraMind EPC

High-Speed Rail Operational Intelligence

A Practitioner-Built Case Study in Correspondence Workflow Automation

Digitise. Analyse. Decide.

InfraMind EPC — Case Study — v1.0 — June 2026

Executive Summary

This case study describes a targeted automation developed to address a correspondence management bottleneck on a large high-speed rail programme. The engineering, procurement, and construction (EPC) contractor's contracts team faced 3–4 hours of daily manual effort extracting, renaming, and archiving contractual correspondence from Oracle Primavera Unifier.

A practitioner-built automation script reduced batch processing time from 3–4 hours to approximately 15 minutes, improved archive quality from inconsistent to structured and retrieval-ready, and strengthened the project record available for claims support and audit readiness.

> **Key Point:** The case demonstrates how targeted automation at a specific process bottleneck can materially improve contract administration efficiency — without requiring enterprise-scale system transformation.

Project Context

Attribute	Detail
Project type	High-speed rail corridor
Contract form	FIDIC Yellow Book with international oversight
Project value	Multi-thousand crore
Contractor	Major Indian EPC contractor
Work scope	Extended ballastless slab track section

Project details have been anonymised to protect client confidentiality.

The Operational Problem

Before automation, the contracts team spent hours each day downloading correspondence from Oracle Primavera Unifier, renaming files individually, and placing them into the correct folder structure. This was not only slow; it created significant operational risk.

The specific exposure included:

- Missed or delayed retrieval of correspondence due to processing backlog
- Inconsistent archive structure across team members
- Manual filing errors that weakened the project record
- Slower evidence compilation during claims preparation and audit requests

The root cause was not a lack of effort — it was a process designed around manual repetition rather than systematic workflow. The team was skilled and diligent, but the process itself created the bottleneck.

Operational Constraints

- **System limitation:** Oracle Primavera Unifier required individual record-by-record extraction; no native batch export for correspondence
- **Process constraint:** Each file required manual renaming following an established convention; naming errors created retrieval problems
- **Resource constraint:** The contracts team had limited bandwidth; hours spent on extraction reduced time available for review, analysis, and dispute preparation
- **Audit requirement:** The project record had to be maintained to a standard that could support ICC arbitration proceedings

Approach

The automation was designed around a single principle: replicate the manual process with more consistency and speed, not redesign the workflow from scratch. This minimised adoption friction and allowed the solution to be deployed without changes to the existing Unifier configuration or IT approval.

Design principles:

- Minimal user intervention — the script navigated the Unifier interface automatically
- No additional licensing cost — built using commonly available tools
- Completeness-focused — every correspondence record in the queue was processed
- Structured output — files were named and organised for immediate retrieval

Implementation

The solution was developed incrementally over approximately two weeks, with testing conducted on a subset of correspondence before full deployment.

Implementation phases:

1. **Analysis:** Mapped the manual workflow step by step, identifying every decision point and file-handling operation

2. **Script development:** Built the automation bridge between the Unifier interface and the file archive
3. **Validation:** Tested against known correspondence sets; verified naming accuracy and completeness
4. **Deployment:** Integrated into the weekly correspondence processing cycle
5. **Refinement:** Adjusted based on team feedback and edge cases discovered during live use

Measured Outcomes

The following results relate to direct project experience on a high-speed rail programme and should be understood as project-specific operational outcomes.

Measure	Before	After	Improvement
Time per processing batch	3–4 hours	~15 minutes	Approx. 85–90% reduction
Archive quality	Inconsistent, manual errors	Structured, retrieval-friendly	Significant quality improvement
Team availability	Limited time for contract review	15+ hours per week recovered	Reallocated to analysis and claims preparation

> **Note:** These percentages are project-specific. Results on other projects may vary based on correspondence volume, system configuration, and team structure.

Why It Matters

The significance of this case extends beyond productivity improvement. It demonstrates three principles relevant to any EPC contracts team:

- **Useful automation** can start from a very specific process bottleneck — it does not require enterprise transformation
- **The best solutions** are often shaped by the practitioner doing the work, not by external consultants
- **Small operational tools** can materially improve the quality of contract records that later become critical in claims and disputes

Lessons Learned

Aspect	Finding
What worked	Starting with a narrow, well-defined bottleneck allowed rapid deployment and immediate visible impact
What could differ	Earlier involvement of the IT team would have simplified integration testing; the script was initially developed independently
Surprising insight	The quality improvement to the project record was as valuable as the time saving — a cleaner archive made claims preparation measurably faster
Generalisable principle	Process bottlenecks in contract administration are often accepted as "just how it is" — but targeted automation can resolve them without large budgets or system changes

Replicability

This approach is replicable on projects where:

- Oracle Primavera Unifier (or similar document management system) is used for correspondence
- The correspondence volume creates a measurable manual processing burden
- The team has authority to introduce workflow improvements within their scope
- The existing archive structure can serve as the target format

Limitations: This approach is not a substitute for enterprise document management strategy. Organisations with high-volume, multi-project correspondence may require platform-level solutions rather than project-specific automation.

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If your project faces a similar correspondence management challenge, schedule a 30-minute exploratory discussion.