Wipro enables data transformation and migration for O&G super major
180,000+ legacy data files migrated to a digital infrastructure engineering platform

**Client background**

**Client:** O&G global super major  
**Industry:** Global integrated oil and gas company  
**Products/Services:** Deliver heat, light and mobility products and services  
**Areas of operations:** Global

**Challenges**

The O&G super major’s documents and data encompassed a wide variety of source systems, files, COTs, and custom applications which were used to maintain assets. It wanted to craft a scalable strategy to leverage current data and documents as a critical enabler to gain a competitive advantage across global operations. The key challenge was to release the value trapped in the files and data while successfully migrating the diverse data/information associated with years of operations. Some of the challenges were:

- Disparate information sources and variable quality of documents and metadata
- Procedural and material standardization for global upstream
  - As part of the global shift to Bentley, one objective was to homogenize the attributes and associated values across the client’s upstream projects and operations via a masterclass library
- Strategic improvement of data quality, accuracy, and availability in line with the asset management group’s best practices
- Migration schedule and data volume, 180,000+ files

**Solution**

Wipro combined domain technical expertise with its data wrangling automated technologies to address the business challenges by creating and enabling processes for aggregating, digitizing and extracting technical metadata to enable loading of data. These key processes and technologies helped enable a seamless migration of critical legacy and operational data into the engineering platform; while maintaining the integrity of the client’s asset data and files in support of safe, reliable operations. The use of our data wrangling services solution provided an accurate, up-to-date, and comprehensive master set of information for all documents and associated metadata vital for migration. To support the client’s clear objectives, it was essential to deliver on our commitment of implementing an adaptable automated and agile digitization, data mining and transformation solution, which would ensure information integrity throughout.

- Extract required metadata directly from over 180,000 engineering documents via automated image correction, OCR and targeted regular expression search patterns.
- Multi-levels of deduplication to eliminate redundant information and create a single source of the truth from data stores.
- Identify only the required files for migration, post identification of over 20,000 ROT (redundant, obsolete and trivial) files.
- Employ internal engineering IM knowledge to accurately align attribute values from multiple project-phase procedures and 3 data sources with available masterclass library values.
**Business impact**

- Successfully retaining the integrity of files and metadata contributes to the overall safety of the client’s assets/facilities and employees.

- Detection and quarantine of duplicate and near match files thus enabling personnel to access true single source information, which is critical to operating and maintaining their facility.

- Reduction of maintaining ROT (redundant, obsolete and trivial) information from their legacy IM systems.

- Data extraction, transformation and population of target systems for effective operational decision-making.

- Transformed metadata aligns with clients’ numbering and coding schemas, which adds to information findability and standardization.

"The Wipro team joined the project system implementation at a crucial time ... understanding the requirements of our data validation and data loads, delivering validated data with 0% data load errors".

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