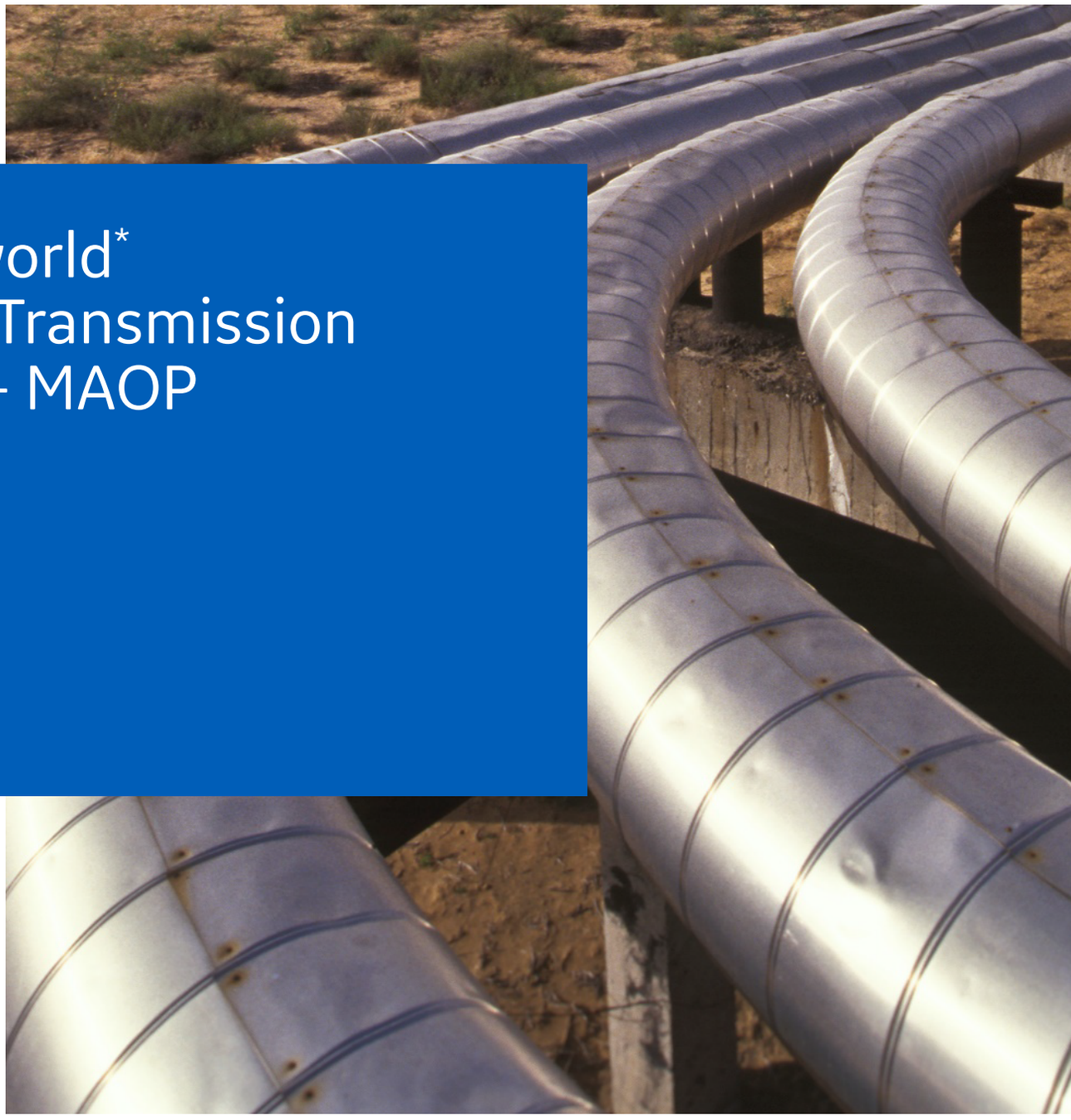
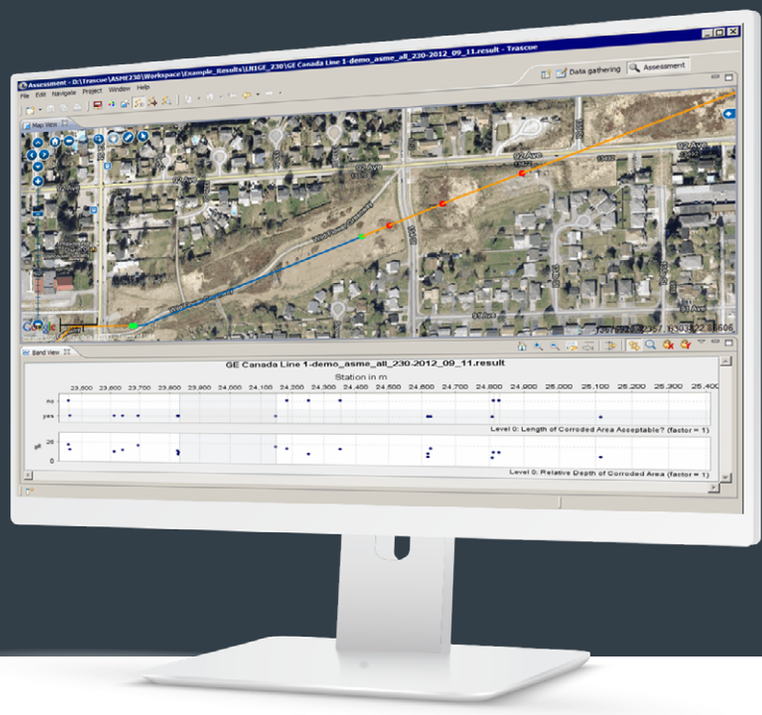
Smallworld* Global Transmission Office – MAOP



Market leading application for calculating Maximum Allowable Operating Pressure for gas transmission pipelines

Increased demand for energy on an aging infrastructure and frequent, more restrictive regulatory requirements represent major challenges for pipeline utilities to accurately represent their asset network and provide traceability of assets and completeness of data.



Solution

GE Digital offers a software application for utilities to calculate the Maximum Allowable Operating Pressure for gas transmission pipelines for a line loop in accordance with 49 CFR 192 (US Code of Federal Regulations) in a verifiable, traceable and complete method.

Value delivered

- Compliance with the PHMSA MAOP regulations.
- Eliminate third party one-off MAOP analysis.
- Maintain a living traceable, verifiable and complete record system of your transmission system

Customer outcomes realized

Up to 10%

Reduction System design productivity

Improves regulatory reporting processing time

Reduction MAOP and Regulatory reporting costs

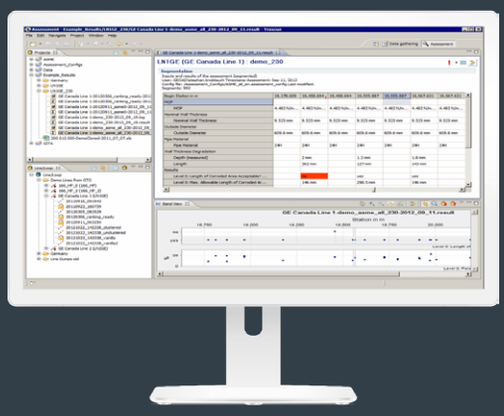
Key Features and Benefits

Key Features	Benefit(s) to Customer
Out of the box reporting	Provides a method to calculate, trace and verify the maximum allowable operating pressure and comply with the PHMSA rules in a traceable, verifiable and complete method.
Capability to compare assessment configurations	Allow the customer to compare line versions and assessment results to support what-if scenarios and to provide proof for changes over time.
Full viewing capabilities	Allows the customer to view the line loop calculations in a band view, on a map view or in table format. This allows for a visual determination of MAOP or design factor for a line loop.
Tracking of data origin	Allows the customer to track the inputs into the MAOP calculation that tracks when the design or field inputs were changed for the particular line loop.
Full capabilities to edit and manipulate line loop data	Provides the opportunity to perform scenario analysis and design analysis for line loops, creating what if scenarios or to assist in design changes.
Preserve snapshots in time	Allows the customer to view the MAOP and supporting calculation details in versions in time to assist in determining changes to the design inputs over time.

Solution Differentiators

Differentiator:

- Band view diagrams
- Design factor diagrams
- Worst case scenario simulations
- Ability to support future design changes

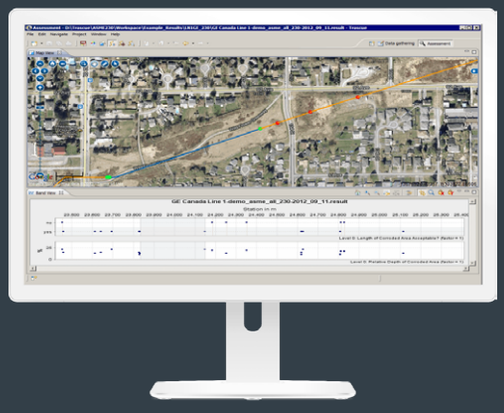


Value:

Traceable... Ability to link records clearly to the original design or testing information

Verifiable... Ability to calculate specifically to verifiable records or choose the worst case scenario when records cannot be located

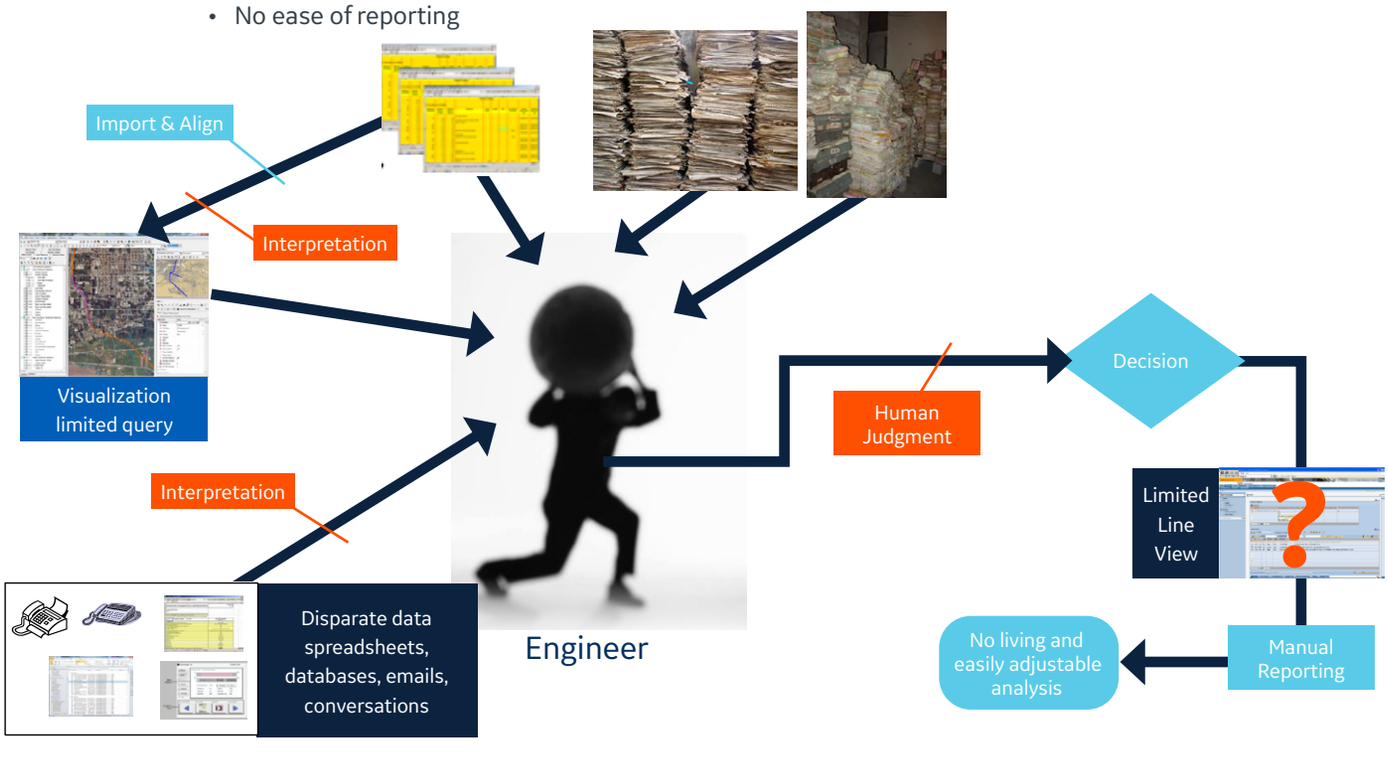
Complete... Records that are easily reviewed and, therefore, easily approved and signed off by senior management



Customer process before...

TODAY's Engineer Without the Smallworld Gas MAOP Calculator

- Manual MAOP calculation
- No traceability
- No ability to have a living record that is modifiable
- No ease of reporting



Customer process after

TODAY's Engineer With Smallworld MAOP Calculator

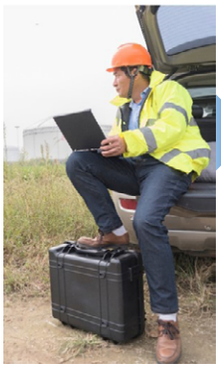
- Consolidated data sources
- Traceability of calculations
- Ease of reporting

MAOP Analysis or Reporting Required

Single Source of Data Input

Consistent & Complete Analysis Eliminates Sources of Error

Traceable, Verifiable and Complete Reporting



Customer Solution Example

MAOP Calculation and PHMSA Reporting

Problem

A large pipeline company in the United States, like all pipeline companies, was faced with the new, detailed and complex reporting challenge of determining the Maximum Operating Pressure of each line loop for their existing transmission lines. This would involve extensive consultant fees, sorting through manual records and pressure tests, and manually calculating the MAOP based on the specific details for each pipe segment, including age, material, condition and structure.

Solution

GE installed its MAOP Calculator for ease of calculation, viewing, performing analysis and reporting. This solution will eliminate the one-off challenge as well as the manual reporting and analyzing MAOP year-over-year.

Contact Us
ge.com/digital/sales-contact-me