



The integrated solution for gas transmission facilities management

G/Pipeline from Intergraph is a multidimensional solution providing powerful tools to support the facilities asset/configuration management needs of the pipeline industry. It was created specifically for natural gas transmission companies with support for stationing, and it incorporates input from our clients, industry partners, and project implementation experience.

Significant out-of-the-box functionality enables a fast-track approach that reduces the costs and timeframe typically associated with delivery and deployment of such systems. G/Pipeline represents a major technology advancement in configurable, commercial off-the-shelf (COTS) software. It provides the capability to link many of the critical workflow processes into an integrated information environment, reducing the cost of designing, operating, and maintaining the critical assets that deliver energy to your customers.

Product Suite

G/Pipeline includes a suite of applications that address the variety of operations performed by pipeline personnel with varying responsibilities, skills, and expertise. G/Designer is targeted to address the tasks of the companies' design engineers, technicians, and mapping clerks who perform the day-to-day maintenance operations of the facility data model.

G/Analyst, G/Administrator, G/NetViewer, G/MobileViewer, and G/NetExport provide managers and field personnel access to information they need to make informed decisions in a timely manner. The G/Pipeline product descriptions are as follows:

- **Analyst**, a view-only product, provides tracing, spatial query, plotting, and analysis capabilities.
- **Designer** includes the Analyst application and enables users to maintain the facility data (both graphic and tabular) in a single database. Additionally, users can undock a laptop computer and run disconnected from the corporate database while creating and editing data in the field. Back in the office, the changes can be merged into the long-term transaction data model.



- **Administrator** includes the functionality of both Designer and Analyst. This seat is designed to address the needs of the system administrator and/or super user who supports the day-to-day system operations of the system.
- **NetViewer** provides view-only enterprise Web data access. Users can review graphic and tabular data; perform traces and queries; create redlines that can be viewed in Designer; control map display; and review proposed data changes.
- **MobileViewer** is a view-only product for users who need disconnected view access to the data. MobileViewer provides the user the same functionality available on NetViewer, but in a disconnected environment.
- **NetExport** provides a way to export the G/Pipeline data into other formats such as MapInfo, MicroStation, AutoCAD and ArcInfo. The interface product relies on the third party application, FME Objects, from Safe Software.

Interfaces to popular engineering analysis, asset management packages, DOT compliance applications, and many other third-party systems can be supported by G/Pipeline. Data stored in the facilities database is retrieved and formatted to fit the requirements of the specific system. This data extraction can be completed using the Analyst trace routines or, in many cases, standard SQL processing.

G/Pipeline supports interfaces to the following work management system (WMS) products:

- **SAP**. The G/SAP Interface provides the foundation of an interface to the SAP PM, MM, and CSS modules.
- **STORMS**. The G/STORMS Interface provides the foundation of an interface to the Severn Trent STORMS work management system.
- **Work Management Information System (WMIS)**. The G/WMIS Interface provides the foundation of an interface to the Logica work management system.
- **Generic interface to WMS**. This interface can be adapted to a utility's in-house WMS to pass information between the WMS and G/Pipeline.

Additionally, Intergraph plans to support interfaces to the following applications:

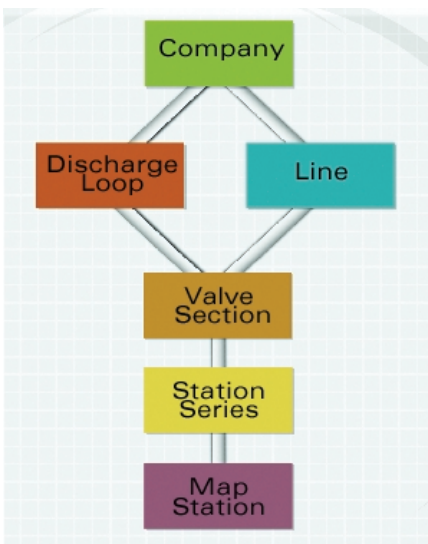
- **Alignment Sheet Generation (ASG).** G/Pipeline will provide an interface to James W. Sewall Company's ASGPipeline software to produce alignment sheets. This interface will include extraction of graphical and tabular data corresponding to user-defined section(s) of the G/Pipeline map view. Multiple pipelines may be extracted for creation of a single alignment sheet. The extracted information will then be passed to the ASGPipeline software, where creation of the alignment sheet takes place. Once the alignment sheet is created, the user can submit it to a plotter via standard plotting software.
- **Class Location Calculation.** G/Pipeline will provide an interface to James W. Sewall Company's class location product.
- **MAOP Calculation.** G/Pipeline will provide an interface to James W. Sewall Company's product for calculating maximum allowed operating pressure.
- **HCA Analysis.** G/Pipeline will provide an interface to James W. Sewall Company's product for analyzing high consequence areas. The HCA data is screened for proximity to the pipeline, based on the configured corridor width.

Data Model

A key component of G/Pipeline is the gas network geofacilities model and database. The geofacilities model includes the features, graphic definition and attribution, network definition, connectivity, relationship management, and geographic registration necessary to build and maintain a pipeline system configuration consistent with the way the system is installed, located, referenced, and operated in the field.

Each facility (feature) in the model (depicted in the following diagram):

- Is comprised of one or more components, which can include graphic symbols, text, labeling, and database records.
- Is assigned to a specific facility grouping, providing a logical organization of the facility model.
- Is assigned lifecycle states and state transition paths to support asset lifecycle management.
- Can be associated with one or more reference documents or files.



G/Pipeline supports the stationing model adopted by the pipeline industry.

Because it supports the stationing model, G/Pipeline can maintain typical features such as:

- Pipeline Facilities; for example, pipe segments, valves, and fittings.
- Routing Facilities; for example, Points of Inflection (PIs) and Station Series.
- Range Events; for example, coatings, crossings, class areas, MAOP, and strength tests.
- Point Events; for example, mileposts and DOT structures.
- Land Rights information; for example, leases and rights-of-way.
- Storage Facilities; for example, storage fields and wells.
- Offshore Facilities; for example, offshore areas, offshore blocks, and platforms.
- Landbase.

Business Rules

G/Pipeline observes specific business rules such as:

- Pipeline facilities do not overlap the stationing of other Pipeline facilities.
- Range Events can cross Station Series.
- Graphic location is determined by the Points of Inflection.

Pipeline-specific enhancements to G/Designer are as follows:

- Placement Support:
 - Place Station Series
 - Place Point of Inflection
 - Interactive by Stationing/Automatic by Stationing
 - Place Range Event
- Edit commands:
 - Bump Map Station
 - Modify Station Series Range
 - Move Point of Inflection
 - Update Station Series
 - Translate state along pipeline
- Viewing Commands:
 - Highlight Range Events (Dynamic Segmentation).



For more information or a demonstration, call 1-877-818-4171 in the United States.



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