



Timely access to accurate plant information is essential for economical and safe operation of any industrial facility. With the advent of modern data processing tools, plants are often inundated with engineering data but lack the tools required to aggregate the information into a useful plant knowledge base. The costs associated with traditional manual information take-off methods are often prohibitive; leading plants to derive less value from an ever-increasing volume of raw data.

Knowledge Manager's data mining tools provide a unique approach to the challenges of managing legacy plant drawings and document files. Knowledge Manager quickly mines the file contents for evaluation by using powerful pattern matching techniques. Tag numbers are automatically recognized and written to the project database. Text contents are written to a full text search engine providing unmatched rich document and drawing search capabilities. Best of all, the data mining process is done without *any* labor other than that required for the initial setup. After the initial extraction of data, the files are periodically re-scanned for changes and the database is updated.

Open, Flexible Database Structure

Knowledge Manager stores all tag and document information in the project database; creating an open, configurable, relational data structure. The open database schema allows the data structure to be adapted to best suit an organization's business objectives and pre-existing standards. Knowledge Manager ships with a default data structure representative of industry *best practices*. The Bentley Services Group guides the initial setup and configuration to ensure the data structure is optimized for your organization. Microsoft® (MSDE or SQL Server) or Oracle 8i is used as the core database engine within Knowledge Manager.

Knowledge Manager shares the project database with the Process & Instrumentation and AutoPLANT Plant Design applications. The common database environment ensures that all plant engineering data is seamlessly shared throughout your organization. Using the powerful import/export tools, plant data can be exchanged with external EPC contractors throughout the entire plant lifecycle.

Unmatched Data Mining Capabilities

Knowledge Manager's robust data mining capabilities are unique in the industry. Knowledge Manager was designed to be particularly flexible in extracting data from legacy drawing archives. Unlike other systems that require a defined structure for data extraction, Knowledge Manager extracts process tag data based strictly on the tag's visibility and pattern match criteria. This approach enables a high rate of capture of tag information from drawings and documents while minimizing the setup requirements. This rule-driven pattern matching application allows very strict matching criteria to be established by tag type, preventing accidental "over selection" of tags.

Combining the flexibility of the project database architecture with Knowledge Manager's data mining application, allows you to quickly build a comprehensive plant engineering knowledge base for use by all plant personnel. The project database is accessed through the AutoPLANT Plant Design applications or PlantLIFE Vision, the easy-to-use, process plant knowledge browser.

Benefits

- ***Automatically builds a project database from legacy drawings, eliminating the need for costly conversion***
- ***Assures accuracy by maintaining the project database with scheduled re-processing of changed files***
- ***Capable of processing 1000+ drawings per hour and provides powerful full text search engine capabilities***
- ***Shares a common database with the AutoPLANT Plant Design applications***

