

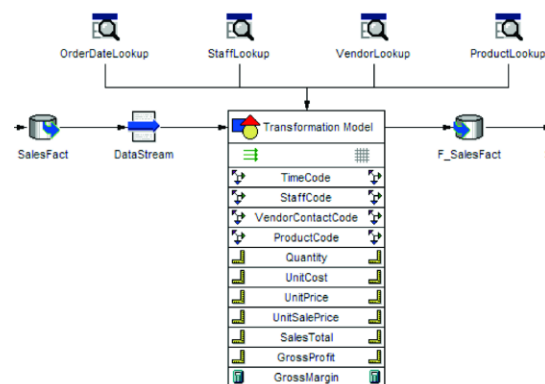
Cognos 8 Business Intelligence Data Integration

Deliver a dimensional data warehouse for high performance business intelligence

The success of a business intelligence implementation is measured by how well business users understand the data. If data is presented in a consistent, intuitive way, if it is simple to understand, and if it delivers on performance, you will gain widespread buy-in and acceptance of your BI platform.

Automated dimensional management

Cognos 8 BI Data Manager provides data merging, extraction, transformation, and dimensional management to deliver a data warehouse optimized for high performance business intelligence.



The data integration design environment displays the data flows of a build

Dimensional framework

Successful data warehousing projects are built on a dimensional framework. The use of shared (or conformed) dimensions across departmental, process, and business boundaries means that distributed data sources can be integrated into a consistent, enterprise-wide view.

Cognos Data Manager delivers patented, automated dimensional management capabilities. Central to the data integration engine is a dimensional framework that builds and manages conformed subject matter data marts as part of a complete data warehouse. It ensures that each subject area is designed incrementally and integrated consistently with existing data warehouse subject matter.

The dimensional framework benefits your organization by:

- Ensuring that data is structured according to specific business dimensions, such as customer, time, and location, to support the way business users think.

- Enforcing a consistent view of your corporate information across the enterprise data warehouse.
- Providing a central location to update dimension definitions.

Leverage all of your data

Cognos simplifies the data integration process for IT and delivers the results in a variety of formats—including dimensional structures, relational tables, and snowflake schemas.

Through the Cognos open data strategy and partners, Cognos Data Manager supports a wide range of data sources. These include data from common relational formats (IBM, Oracle, SQL Server, SQL, SAP BW, Teradata, Sybase, and ODBC) as well as dimensionally aware sources like IBM DB2, OLAP sources, ERP data, modern sources such as Web Services and XML, Excel, PowerPoint, and flat files, and mainframe sources.

Centralized metadata

Cognos Data Manager supports the centralized metadata model provided by Cognos Framework Manager. With a centralized metadata model, you can apply consistent business rules, dimensions, and calculations to your data, regardless of its source.

As well, integration with Cognos 8 BI allows you to leverage your existing pre-modeled data as well as any associated joins/cardinality and business rules—such as calculations and filters. Third-party metadata models can also be imported into Framework Manager and used as data integration sources.

Integration with planning data

Cognos Data Manager fully leverages your Cognos Planning data, allowing you to integrate plans with actuals. From the dimensional framework, Data Manager publishes metadata to Cognos Framework Manager. The Framework Manager metadata model spans all data and applications, including Cognos Planning sources.

Analysis of relational data

Data Manager supports high performance analysis of relational data, by creating aggregate tables at multiple levels within and across hierarchies in the dimension tables.

Full multilingual support

Cognos provides multilingual support to enhance your data integration capabilities. Using Unicode standards, Cognos Data Manager interacts with data and metadata that contain characters from multiple locales at the same time. This allows you to quickly build a global data integration platform.

Key features

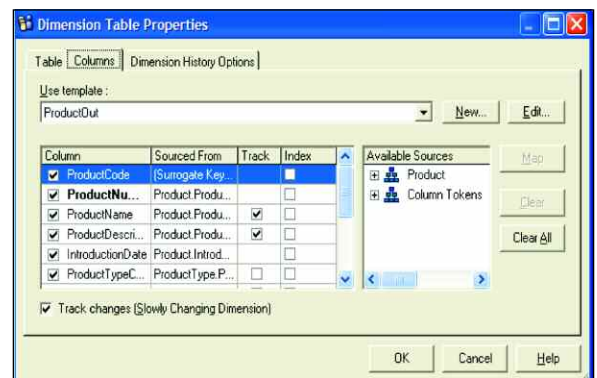
Cognos Data Manager simplifies the extraction, transformation, and loading (ETL) process for IT. It provides a single interface with live graphical displays of the builds used to construct the data warehouse. This enables easy drill-through to display and modify properties. Automated wizards lead developers through the steps in creating dimensions or fact tables. Data Manager also fully supports aggregation and merging operations.

Automated tasks and processes

Cognos Data Manager automates many of the complex processes associated with warehouse dimension table creation and management, without the need for manual coding. Automated tasks or areas include:

- Surrogate key generation and management of surrogates both in dimension tables and fact tables.

- Implementation of slowly changing dimensions (SCD) to manage historical data. This includes management of late arriving facts associated with SCDs, allowing for the arrival of fact records that must have a surrogate assigned from an older dimension record.



Automated support for slowly changing dimensions

- Loading of dimensional history.

Referential integrity validation

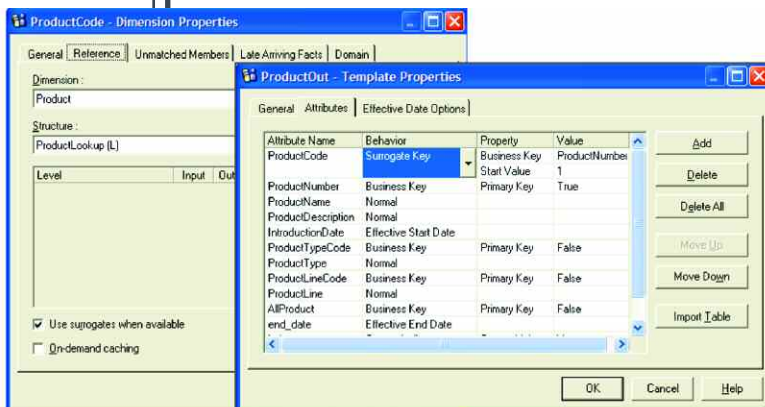
The Data Manager hierarchy explorer validates hierarchies within dimensions—such as parent child relationships, multiple parents, and foster children—so issues can be resolved before data is loaded into the warehouse. By checking for referential data integrity, Cognos Data Manager ensures that dimensional information is built accurately and consistently.

Pipelined transformation engine

Data Manager's powerful transformation engine works within existing data architectures to transform high volumes of transactional data into a data foundation for BI. The transformation engine, or data pipeline, provides the ability to read the data in a single pass, delivering multi-level aggregations, referential integrity, and metadata components.

Sophisticated multi-developer environment

Cognos 8 BI Data Manager works with source control systems, promotes or shares components from environment to environment, and performs component impact analysis.



Automated surrogate key management dimensions and facts

Integration with source control systems allows users to lock components while development occurs. Users can maintain multiple versions of a component, and determine where a specific component is being used. This functionality allows small companies to work with minimal source code controls. It allows larger organizations to implement stringent development guidelines. All of these functions are completed with Data Manager's easy-to-use graphical interface.

Crafting an event process

There are many events in the data integration phase. These include the delivery of the target tables, calls to existing business rule modules, report launches, email notices, and rebuilding indexes for the database. These events are all designed in a drag-and-drop visual palette to produce a coordinated set of commands called a JobStream.

A JobStream can multi-task events and allow commands to be executed in a parallel or serial manner. Conditional events control the processing path based on situations such as the existence of rejected records, a specific day of the week, or errors encountered during the process.

Prototyping and deployment

Data Manager's graphical design environment lets you prototype your warehousing solutions and deploy them quickly. It provides:

- Visual reports for JobStream actions, build processes, source and target mappings, and star joins of fact and dimension tables in a star schema.
- A reference explorer for prototyping and validating business rules in the dimensional framework.
- The ability to package components and easily move them from environment to environment.
- The ability to test functions and scripts as they are developed in the same environment.
- Automatic generation of the data definition language (DDL) for creating tables and indexes.

Leverage EII for collaborative development

Through the Cognos open data strategy and partners, Cognos uses Enterprise Information Integration (EII) to provide virtual data integration capability. Using EII technology for prototyping ensures that end results are aligned with actual business user needs.

With EII virtual views, you can quickly expose source data "on the fly." End users can access the data with Cognos reporting, run queries against it, and see the results—allowing them to provide more precise feedback on their requirements to your development team. Once the requirements are finalized, you can quickly create the physical data integration logic and workflows to implement the persisted data store in a matter of weeks, rather than months.

Web-based deployment

Cognos 8 BI uses a zero-footprint, Web-based deployment model. This helps reduce the administrative burden on IT while improving user adoption. With centralized deployment and administration, IT does not have to install and manage client desktop software, minimizing deployment and maintenance costs.

The open, Web standards-based environment is built on the proven Cognos ReportNet architecture. This design allows organizations to take full advantage of their existing IT infrastructure and skill investments. The reach of the Web means users can easily access and distribute their BI data from anywhere in the organization with continuous availability.

Cognos 8 BI is built on a single, native Web services architecture for maximum flexibility. It works with your existing application and Web servers, portals, browsers, enterprise applications, platforms, databases, and security models. It supports Linux, Windows, and UNIX operating systems in uniform and mixed platform deployments. A single, fully documented API allows developers and IT users to customize, integrate, and rebrand the reporting interface to suit the organization.

Designed for enterprise-level deployment, Cognos 8 BI offers proven scalability to hundreds of thousands of users through an N-tiered, multi-server, multi-threaded architecture. This design provides full failover recovery and dynamic load balancing.

Intuitive search capabilities

Providing fast, effective search capabilities within your BI infrastructure reduces workload for IT by giving users access to the reports, analysis, and BI information that already exists in an organization. Search functionality helps IT increased user self-service, reduce report creation backlog, and reduce the workload associated with creating

and maintaining drill paths between related reports. For users it provides faster access to the most relevant BI and unifies knowledge assets with performance information to provide better quality decisions-making.

Better performance management

Data integration is a key component within Cognos 8 Business Intelligence. Cognos 8 BI is the only solution that provides complete BI functionality in one product, on a single, proven architecture. It delivers seamless reporting, analysis, scorecarding, dashboards, and event management. This simplifies your IT environment and the way everyone works with information. A variety of access modes let users interact with BI content using familiar applications or devices, such as a BlackBerry®, search engine, or Microsoft® Office application. The result is high user adoption, better decisions, and greater agility across the organization. Cognos 8 BI is the clear choice for BI standardization and a cornerstone of better performance management.

Technical specifications

- OS Platforms: IBM AIX, HP-UX (PA-RISC & Itanium), Sun Solaris (SPARC), Redhat Linux (Intel & IBM P Series), and Microsoft Windows
- Database Source/Target Support: IBM DB2, Informix, Oracle, SQL Server, Sybase ASE & IQ, Teradata, ODBC, and flat files.
- Other Source Support: SAP R/3

About Cognos

Cognos is the world leader in business intelligence (BI) and performance planning software for the enterprise. Our solutions let companies improve and direct corporate performance by enabling all of the key steps in the management cycle—from planning and budgeting, to measuring and monitoring performance, to reporting and analysis. Cognos is the only company to support all of these key management activities with a complete solution that spans all of the essential components of CPM—enterprise planning, scorecarding, and business intelligence.

Founded in 1969, Cognos employs over 3,600 people and serves more than 23,000 customers in over 135 countries. For more information on Cognos please visit www.cognos.com

