



Highlights

- Rich user interface features to help simplify the design process, supported by sophisticated metadata management
 - Transformation components, including an extensive set of prebuilt objects that act on data to satisfy simple and complex data integration requirements
 - Connectivity objects, including native access to common industry databases and applications
 - Runtime flexibility with a high-performing parallel engine that provides near-limitless scalability in both batch and real time
 - Straightforward management of the operational environment, including analytics built for understanding and investigation
 - Enterprise-class administration via intuitive and robust features for installation, maintenance and configuration
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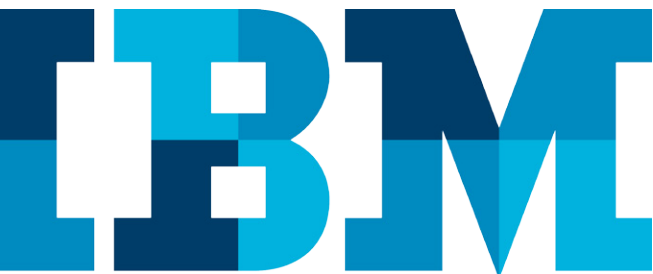
IBM InfoSphere DataStage

Rich capabilities span six critical dimensions of data integration

Every day, torrents of data inundate IT groups and overwhelm business managers. Businesses need to sift through data to glean insights that can help increase company revenues and optimize profits. Yet even after multimillion-dollar investments in business automation projects—such as enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM), business intelligence (BI) and data warehousing solutions—many companies are still plagued with disconnected, “dysfunctional” data. They are stuck with a massive, expensive sprawl of disparate information silos and nonintegrated, redundant systems that fail to deliver a single trusted view of the enterprise.

As a first step in deploying new enterprise applications, integrating business acquisitions or tackling IT business process initiatives, organizations need to ensure that data is reliable, relevant and readily available—in a consistent, condensed form—across the enterprise.

IBM® InfoSphere® Information Server can help organizations understand, cleanse, transform and deliver data for critical business initiatives. It tightly integrates a full range of enterprise information across a wide variety of data sources and targets. Whether building an enterprise data warehouse, implementing a BI platform or integrating dozens of source systems to support CRM, SCM or ERP, InfoSphere Information Server helps ensure that organizations have information that is trustworthy and actionable. With InfoSphere Information Server, you can design an infrastructure for data integration that is reliable, scalable and flexible enough to accommodate today’s dynamic business environments.



Integrate, transform and deliver trustworthy information with IBM InfoSphere DataStage

IBM InfoSphere DataStage® is a core product module of the InfoSphere Information Server information integration platform. It offers world-class data integration and transformation capabilities for unsurpassed levels of productivity.

Key features of IBM InfoSphere DataStage

- Provides an easy-to-use, top-down, work-as-you-think design interface that enables users to design once and deploy anywhere—batch or real time; extract, transform, load (ETL); or extract, load, transform (ELT)
- Includes a comprehensive library of transformation components for easily defining common integration processes
- Allows reusable transformation assemblies to maximize standardization across diverse teams
- Offers excellent connectivity to operational systems, databases and enterprise applications spread across mainframe and distributed systems
- Provides an interactive UI debugger with unique capabilities that enable runtime interaction across symmetric multiprocessor (SMP), massively parallel processing (MPP) and grid deployments
- Supports dynamic overrides of the degree of parallelism at runtime on the highly scalable InfoSphere Information Server engine without any job redesign—which helps companies meet service-level agreements (SLAs)
- Incorporates a graphical UI to manage and deploy data flows throughout the data integration life cycle
- Includes an intuitive, web-based operations console to provide quick answers for operators, developers and other stakeholders as they view and analyze the runtime environment
- Uses a common metadata repository for seamless integration with other InfoSphere Information Server modules including data profiling and data quality capabilities

Supported sources, targets and applications include:

- Text files, including mainframe files
- Complex XML data structures
- Enterprise application systems such as SAP, Oracle, Siebel, PeopleSoft, JD Edwards, Hyperion and salesforce.com
- Almost any database, including partitioned databases, such as IBM DB2®, IBM Informix®, IBM Netezza®, Oracle, Sybase (ASE and IQ), Teradata and Microsoft SQL Server, MySQL and Progress
- Web services
- Analytic tools such as SAS and IBM SPSS®
- Messaging and enterprise application integration (EAI) products including IBM WebSphere® MQ
- Public and private clouds

InfoSphere DataStage is a core component of the InfoSphere Information Server platform and offers a wide array of capabilities that are native to the platform:

Extensive enterprise connectivity

Successful enterprise-class information integration requires access to a full range of data sources—structured, semistructured or unstructured—within and outside of the enterprise. InfoSphere DataStage provides connectivity to a virtually unlimited array of heterogeneous data sources, targets and applications that can be combined within a single job (see Figure 1).

InfoSphere DataStage supports best-of-breed integration with IBM Netezza Performance Server® data warehouse appliances. This integration provides native connectivity features for parallel reading and writing of data and delivers capabilities to push appropriate transformation work—or parts of transformation work—into the Netezza data warehouse appliance. These features help you realize faster time to value.

Advanced development and maintenance

InfoSphere Information Server uses a powerful architecture that helps developers maximize speed, flexibility and effectiveness in building, deploying, updating and managing their data integration infrastructure. InfoSphere DataStage leverages the productivity-enhancing features of InfoSphere Information Server to help reduce the learning curve, simplify administration and optimize the use of development resources. The result is an accelerated development and maintenance cycle for data integration applications. With InfoSphere DataStage, organizations can achieve strong return on investment (ROI) by quickly constructing their data integration solutions to gain access to trustworthy information and share it across applications and databases.

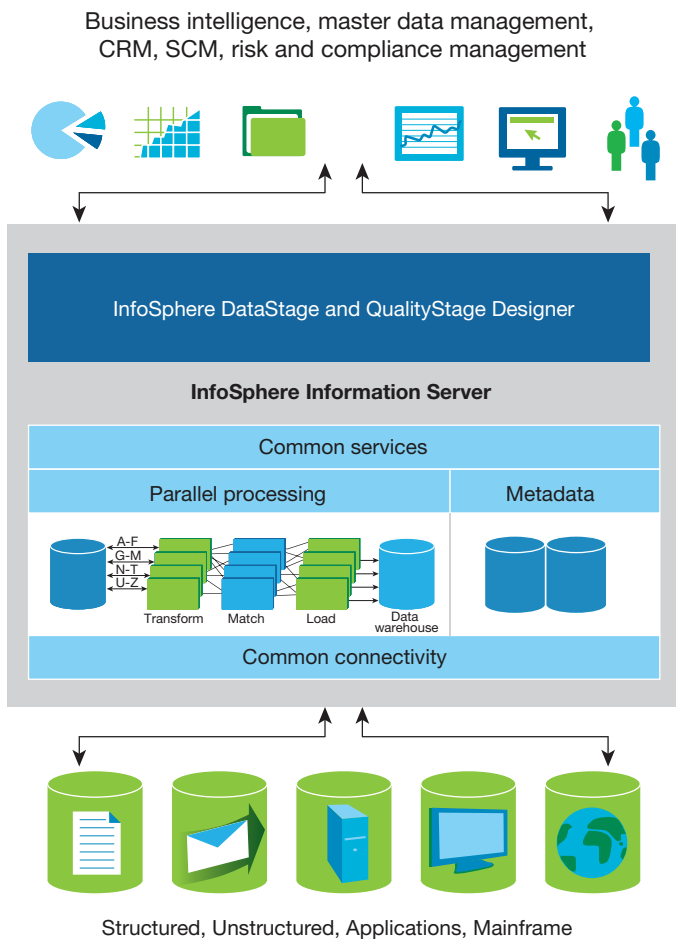


Figure 1: InfoSphere DataStage enables access to multiple source systems, integrating and transforming selected data to deliver trustworthy information to critical business functions.

Integrated design interfaces and common metadata repositories

InfoSphere Information Server has a single design interface that is shared by both InfoSphere DataStage and IBM InfoSphere QualityStage® modules, enabling designers to use any combination of data quality and data transformation capabilities to help ensure that the right data is brought together at the right time. InfoSphere Information Server also provides a unified metadata repository for InfoSphere DataStage and all other modules. Users can immediately access technical and process metadata developed during data profiling, cleansing and integration processes to speed development and reduce the chance for errors.

Ease of use

InfoSphere DataStage employs a work-as-you-think design interface (see Figure 2). Developers use a top-down model of application programming and execution, which allows them to create a visual data flow. A robust graphical palette helps developers diagram data flow through their environments with simple, GUI-driven, drag-and-drop design components. To maximize productivity, InfoSphere DataStage includes hundreds of transformation components. Developers also benefit from powerful debugging capabilities and an open application programming interface (API) for leveraging external code.

Productivity and reuse

InfoSphere DataStage helps shorten the development cycle by promoting the reuse of existing data integration business logic. It employs a container concept that enables jobs and metadata created in one container to be shared and reused by other jobs. Quick Find and Advanced Find capabilities make it easy to locate objects for reuse across different projects. Robust job specification reporting provides documentation so other developers can easily understand job design and provide additional support.

Right-time data integration

The InfoSphere Information Server architecture enables InfoSphere DataStage to operate in real time, capturing messages or extracting data at a moment's notice on the same platform that integrates bulk data and using the same transformation rules. By using InfoSphere DataStage together with InfoSphere Information Services Director, data integration jobs can be deployed with Java Message Services, web services and other methods. This service-oriented architecture (SOA) approach enables numerous developers to share complex data integration processes without requiring them to understand the steps contained in the services. The result: data can be used in more ways—without costly hand-coding—to respond to an organization's information integration needs on demand.

Market-leading flexibility and scalability

InfoSphere Information Server facilitates high-performance integration of massive amounts of data. By leveraging the parallel processing capabilities of multiprocessor hardware platforms, InfoSphere DataStage enables businesses to linearly scale the speed of data throughput. Organizations can scale transformation jobs to address the demands of ever-growing data volumes and ever-shrinking batch windows. During development, the deployment configuration automatically adds the desired degree of parallelism. An organization could take the application from 2-way processing in the morning to 32-way in the afternoon to 128-way processing at night—all with a simple change to the configuration file.

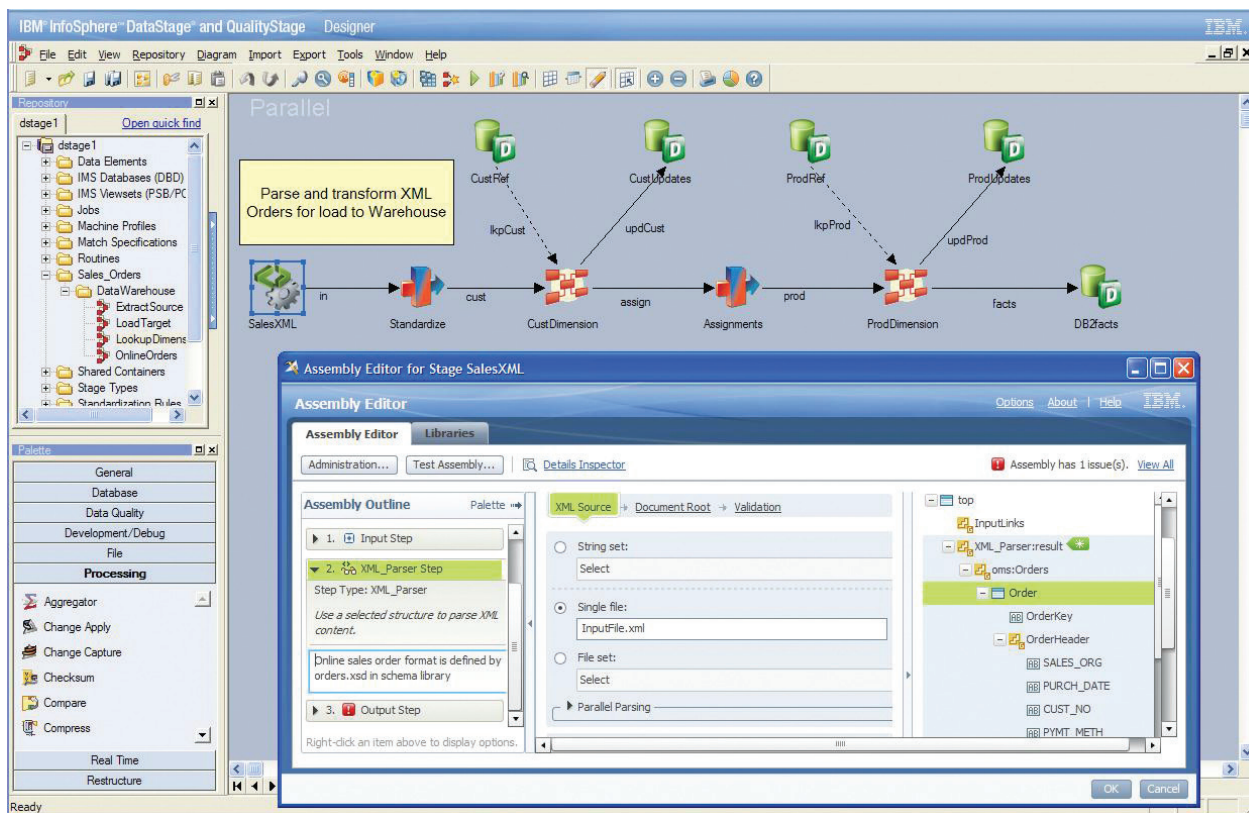


Figure 2: InfoSphere DataStage makes it easy to design enterprise data flows using a top-down, work-as-you-think interface.

The secret: Partitioning and dynamic repartitioning

InfoSphere Information Server parallel technology operates using a divide-and-conquer technique, splitting the largest integration jobs into subsets (partition parallelism) and flowing these subsets concurrently across all available processors (pipeline parallelism). This combination of pipeline and data partition parallelism delivers true linear scalability for InfoSphere DataStage. Performance increases proportionally to the number of processors—hardware is the only limiting factor to performance.

Wide-ranging parallel support for SMP, MPP and grid deployments

IBM InfoSphere Information Server scales effortlessly from simple SMP systems to MPP clusters with hundreds of processors. The same integration capability is available for grid deployment on low-cost servers. This wide-ranging support for parallel processing helps ensure critical enterprise information integration jobs will scale to keep pace with business requirements.

IBM InfoSphere DataStage is available on a wide variety of platforms. For a complete list, please visit ibm.com/software/data/infosphere/datastage/requirements.html

About IBM InfoSphere Information Server

InfoSphere Information Server is a market-leading data integration platform that helps you understand, cleanse, transform and deliver trustworthy information to your critical business initiatives (see Figure 3). The platform provides everything you need to integrate heterogeneous information from across your systems, including capabilities for information governance, data quality, data transformation and data

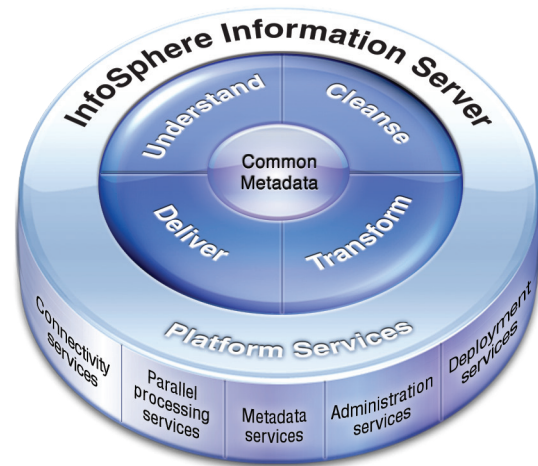


Figure 3: InfoSphere Information Server.

synchronization that help ensure information is consistently defined, accurately represented, reliably transformed and regularly updated. InfoSphere Information Server facilitates and promotes collaboration among business and IT professionals to make sure that strategic initiatives such as business analytics, master data management, application consolidation, migration and data warehousing projects use trusted information that is accurate, comprehensive, insightful and available in real time.

Additional details on the IBM InfoSphere Information Server portfolio can be found at ibm.com/software/data/integration/info_server

For more information

For more information about IBM InfoSphere DataStage, please visit ibm.com/software/data/infosphere/datastage



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