Right Hemisphere®
Deep Server Connect™

- Integrate part and assembly information from CAD, PLM, ERP and other enterprise applications into product graphics enabled business processes, related documents and applications
- Provide a scalable integration architecture using open industry standards to interconnect Deep Server with your existing enterprise information systems
- Automate your product media publishing processes while leveraging existing business information systems ensuring the correct product information with the correct product graphic, at the right time in the right format while reducing time to market.

Introduction

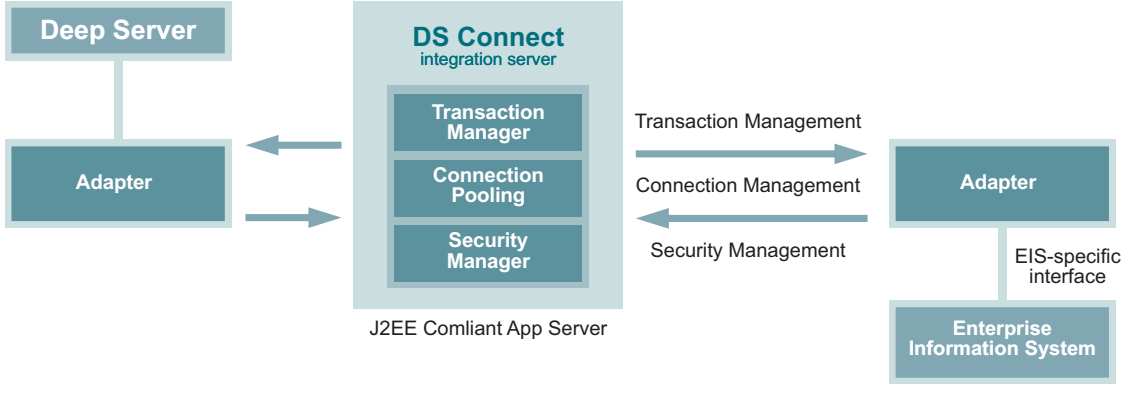
In today's manufacturing enterprises product information resides in diverse repositories including (but not limited to) information systems for production logistics, product documentation, product marketing, sales and post sales support. For example, CAD data is located on Product Data Management (PDM) and Product Lifecycle Management (PLM) servers. Part and pricing data relating to this CAD data can be located in IT on Enterprise Resource Planning (ERP) servers. and product project management data is often located on project management servers. Finally, the documents are developed and stored in content management systems (ECM). Connecting and communicating with these various systems to send and receive product data is a daunting technical and operational challenge. This challenge is compounded by the fact many changes take place in product design data and related product information during a product's lifecycle.

Right Hemisphere DEEP SERVER CONNECT™

was designed to address this problem and ensure business processes based on product media can successfully leverage existing product information stored in multiple diverse enterprise information systems.

With DEEP SERVER CONNECT™

Right Hemisphere's Deep Server Connect can dynamically query for or receive updated product information which can be automatically incorporated with related product graphics into publications for customer support, maintenance and e-commerce applications, providing significant benefits to original equipment manufacturers (OEM), operators and service providers.



Dassault Systemes Enovia VPM®, PTC Windchill®, Unigraphics Teamcenter, PTC Pro/Intralink®, SAP/PLM® etc.

Deep Server Connect Capabilities

- Interconnect, manage, synchronizing and transfer the right data between enterprise information systems to match with the right graphic, at the right time, in the right format to support your product communication business processes

- Integrate part and assembly information from CAD, PLM, ERP and other enterprise applications into product graphics enabled business processes and related documents

- Automate reuse of product information from UGS Teamcenter, Dassault Enovia, SAP, Perforce, Microsoft Project, and more, in product documentation and product media

- DEEP SERVER CONNECT™ employs open industry standards such as J2EE, HTTP, SOAP, LDAP and XML to interconnect your Deep Server PGM platform with your existing enterprise information systems to provide a flexible, scalable integration architecture

- DEEP SERVER CONNECT™'s application server and component architecture comprises a core framework and component adaptors. DEEP SERVER CONNECT™ provides a J2EE standards compliant application server with enterprise class memory management, message mapping and database persistence and proven enterprise application adaptors.

Deep Server Connect Advantages

Supply the Right Information along with the right 2D & 3D Product Graphic in the Right Format, Right Now

- Leverage information employed in multiple business processes and stored in diverse information systems across your enterprise to supply global demand for diverse product graphics and related product information across your sourcing, sales, and service business processes

- Deliver documents and product media based applications to drive business processes on demand or automatically.

Streamline 2D and 3D product graphics based processes

- Fully leverage your existing intellectual property in the form of computer aided design data and related product information in your for product media communications

- Create business rules to access information in your enterprise information systems including PLM, ERP and service and support systems

- Replace manual processes of integrating textual and numerical product information with related product graphics with automated best practice solutions leveraging existing information into your product related publications

- Scale your product graphics publishing processes to support high volume, fast turnaround, and/or continuously changing product graphics, product information and product document requirements

- Ensure accurate coordinated product media as products and configurations, pricing, sales and support information change.

DS Connect integration server key characteristics

High Performance and Scalability	Reliability	Data Security	Ease of Use
• Connect designed from the ground up with enterprise traffic, enterprise service bus support, and service-oriented architecture as key design points to handle enterprise messaging traffic. • Dynamic caching to speed response and balance loads.	• Connect's "Broker" based design incorporates clustering, fail-over, load balancing, and distributed deployment features required to deploy large scalable enterprise applications • Reliability is Designed and built in at every layer.	• Designed and built in at every layer. • Single login/password for user authentication and access to appropriate areas. • MyProject functionality allowing user to isolate model data from other users. • LDAP integration.	• Step-by-step install wizard. • GUI-based development, administration, and systems management. • Independent from other pre-installed software (i.e., application servers, databases).

Adapters Overview

CONNECT™ Enterprise Adaptors provide connectivity bridges to your enterprise PLM, ERP, project management, content management and other systems

Each adaptor contains application-specific code tailored to a particular information system (e.g. the UGS TeamCenter adaptor provides bidirectional data communication). Each adaptor uses CONNECT™'s integration server architecture for memory management, XML message mapping and connection pooling and transaction management.

The following is a selected list of adapters for use with the Connect Integration Server. The table identifies each available adapter and a number of other important characteristics. There are other off-the-shelf adapters available upon request.

Adapter Type	Application	Application Version	Adapter Required	Adapter Version	Adapter Connection Technology	Comments
Application System Adapters	**Deep Server**	4.x	Deep Server Adapter	1.1	SOAP over HTTP	This adapter is included in all DS configurations except the Department configuration.
	Enovia LCA	V4 or V5	Enovia Adapter	1.1	C++ API module	
	UGS Teamcenter Engineering	TCE 2005	Teamcenter Adapter	1.1	Java	
	PTC Intralink	Intralink 3.4	ProIntralink Adapter	1.1	Java	
	PTC Windchill	Windchill 8.x	Windchill Adapter	1.1	Java	
	Perforce	2005.2	Perforce Adapter	1.1	MS Command Script, Java	
	mySAP PLM	SAP ERP 2005	mySAP Adapter	1.1	Java	

Adapter Type	Application	Application Version	Adapter Required	Adapter Version	Adapter Connection Technology	Comments
Application System Adapters	**MS Project**	2003	MS Project adapter	1.1	C++ API module	For use in managing graphics collaboration projects
	Agile	e6	Agile Adapter	1.1	Java	
	ENOVIA MATRIX ONE	10	Matrix One Adapter	1.1	Java	
	ENOVIA SMARTEAM	V5 R14	Smartteam Adapter	1.1	Java	
	ENOVIA VPLM	V5 R16	VPLM Adapter	1.1	Java	
	ENOVIA V4	VPM V1.5 and V1.6	VPM Adapter	1.1	Java	
	Teamcenter Enterprise	2005	Teamcenter Enteprise Adapter	1.1	Java	
	LDAP	OpenLDAP, IBM Directory Server	LDAP Adapter	1.1	Java	
Data Adapters	**DB2**	Avail vers	DB2	Latest	Obj oriented	
	DB2/400	Avail vers	DB2/400	Latest	Obj oriented	
	DBASE	Avail vers	DBASE	Latest	Obj oriented	
	Essbase	Avail vers	Essbase	Latest	Obj oriented	
	Excel	Avail vers	Excel	Latest	Obj oriented	
	Flat Files	Avail vers	Flat Files	Latest	Obj oriented	
	Informix	Avail vers	Informix	Latest	Obj oriented	
	Microsoft Access	Avail vers	Microsoft Access	Latest	Obj oriented	
	Microsoft OLAP Services	Avail vers	Microsoft OLAP Services	Latest	Obj oriented	
	Microsoft SQL Server	Avail vers	Microsoft SQL Server	Latest	Obj oriented	
	MySQL	Avail vers	MySQL	Latest	Obj oriented	
	Oracle	Avail vers	Oracle	Latest	Obj oriented	
Technology Adapters	**Any J2EE Application**	Avail vers	Any J2EE Application Server	Latest	Obj oriented	
	BEA MessageQ	Avail vers	BEA MessageQ	Latest	Obj oriented	
	BEA WebLogic Application Server	Avail vers	BEA WebLogic Application Server	Latest	Obj oriented	
	BEA WebLogic Integration	Avail vers	BEA WebLogic Integration	Latest	Obj oriented	

Adapter Type	Application	Application Version	Adapter Required	Adapter Version	Adapter Connection Technology	Comments
	IBM WebSphere Application Server	Avail vers	IBM WebSphere Application Server	Latest	Obj oriented	
	IBM WebSphere MQ (MQSeries)	Avail vers	IBM WebSphere MQ (MQSeries)	Latest	Obj oriented	
	Java	Avail vers	Java	Latest	Obj oriented	
	JMS	Avail vers	JMS	Latest	Obj oriented	
	Sonic ESB	Avail vers	Sonic ESB	Latest	Obj oriented	
	SonicMQ	Avail vers	SonicMQ	Latest	Obj oriented	

Summary Roles and functions of Adapters

Adapter	Description and functional role
DS Adapter	The DS adapter is responsible for communicating to Deep Server on behalf of all 3rd party systems: • Mapping standard XML transactions to RH XML transactions. • Connecting to Deep Server and managing that connection. • Making the request and obtaining the response. • Optionally filtering the response. • Returning standard RH XML responses to the caller (in this case, the PDM Adapter) • Optionally logging all activity.
PDM Adapter* *Note - there are different PDM/PLM adaptors available for TeamCenter, Enovia etc.	The PDM adapter is responsible for communicating to the PDMs on behalf of Deep Server. The adapter performs the following functions: • Mapping standard XML transactions to PDM specific XML transactions. • Routing requests to the PDM application, • Returning responses. • Optionally filtering the response. • Optionally logging all activity.
Security Adapter	The security adapter is responsible for authorizing the usage of PDM assets. • Logging in to 3rd party applications (PDM) to gain login and asset control access. • Optionally logging all activity.
Logic Adapter	The logic adapter is responsible business logic specific to customer integration requirements: • Translation of type differences between applications (1 == yes, 2 == no). • Reacts/ manages data transfer between DS and enterprise information systems based on business process such as the product release process. Customized data flow accepts/retrieves data based on state transitions in the partner systems • User - Object Subscription list functions • Optionally logging all activity.

Pricing

Pricing is defined within the RH Price List. Please contact your Right Hemisphere regional sales manager for further information.

Implementation Overview

The high level overview of the Integration Server implementation process is:

Phase 1: Discovery - joint information gathering and goal assessment to ensure a thorough customization, install and deployment of the Integration Server solution.

Phase 2: Preparation - System Integrator preconfiguration of a new Integration Server Solution server.

Phase 3: Customization - Customization of Integration Server Solution components based on the customer's business integration requirements.

Phase 4: Delivery - Completion of Integration Server Solution server installation, training, deployment, and testing of the server within the customer's corporate network environment.

Phase 5: Assessment and customer signoff - Review of the Integration Server Solution server operation and customer acceptance.

System components and requirements

Integration Server Technical Components

Deep Server CONNECT™	• Technical requirements available on request.
Adapters	• Technical requirements available on request.

Integration Server Product Support

- Right Hemisphere Technical Support
- Right Hemisphere Pilot Sales Support
- Post installation week, as needed
- As needed through Partner Development department

For more information about the Integration Server Solution, please visit www.RightHemisphere.com, email sales@RightHemisphere.com, or call us at 510/818-2880.