



GBOS

GIS Business Object Service

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GBOS – The Universal Integration Tool for Incorporating GIS into Business Processes

The heterogeneous nature of today's application landscapes makes integration of business information systems a major task for IT departments. If integrated utilization of geodata is just as critical to your network processes as is avoiding inconsistencies, or double entry and maintenance of data, GBOS will offer you an easy, step-by-step solution.



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The GIS Business Object Service (GBOS) is an integration tool that operates independently of both systems and manufacturers. It supports process-oriented integration solutions in a distributed systems landscape. Based on standards for service-oriented architecture (SOA), it provides an easy-to-configure package of functions for transferring, assigning, and passing on object-related data and methods.

The package of applications allows GBOS to fill the gap of missing functionalities. This is especially critical for efficient inclusion of geo information systems for cross-systems automation and optimization of geospatial business processes in conjunction with ERP-systems such as SAP®. It further allows the integration of information from other applications such as fleet management, workforce management, network calculation or grid operation into business processes.

As a result, GBOS clears the way for cross-systems data utilization to support and control business processes.

Opportunities for Integrated Business Processes

Open and scalable architecture makes it easy to include GBOS as an integration tool into a company's existing system architecture.

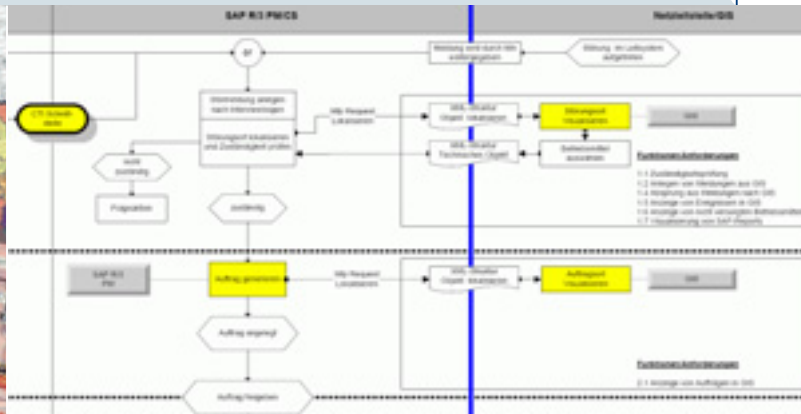
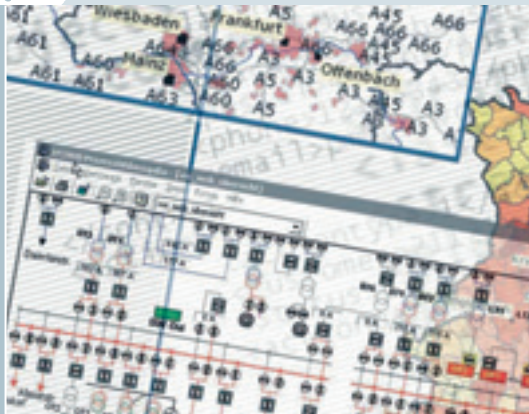
The solution is particularly suitable for:

- utilities and waste-management companies that utilize geographical data and information for their daily business such as in managing their transportation and distribution networks
- companies that use ERP systems such as SAP® R/3 or kVASy for their business processes (customer management, price calculations, planning and maintenance)
- companies that already employ GIS-ERP interfaces with limited functionality for special partial processes, and now wish to extend that support to their business processes

GBOS offers major benefits for business

Integrating business processes with GBOS yields lots of benefits for companies:

- neutrality and lasting value through the support of existing ERP/SAP® and GI systems
- incorporation of existing and other relevant IT applications and data
- faster ROI thanks to easy graphic parameterization instead of system-specific programming
- use of standard protocols
- scalable for every entity such as municipal utility companies and grid operators
- flexibility due to direct coupling of applications or connection to an EAI platform (see Illustration 1)
- integration in "small steps"
- extensive support of the SAP® Netweaver platform through SAP®-certified reference processes including SAP®-PI



GBOS Structure

Integration and communication are based on common recognized standards of a service-oriented architecture (SOA).

The service modules parameterized in GBOS can connect object-related services to linked systems. They encapsulate complex and deeply nested sequences of functions on the GIS site into simple object services using graphically supported parameterization, and as a next step supply them for process integration.

GBOS defines and parameterizes these object services as business objects for real-world objects relevant to integration.

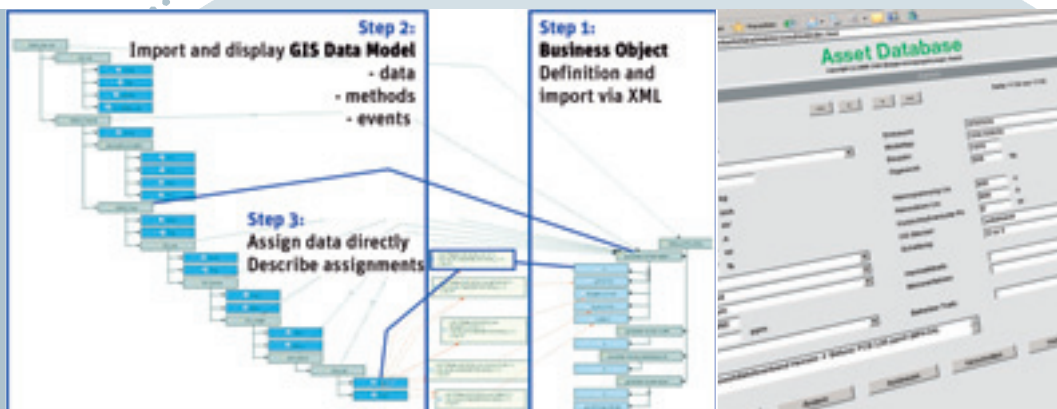
GBOS publishes the business objects for external communication as connectors, with their attributes and object services, via the usual channels of communication such as http, file, socket, ODBC etc.

GBOS uses these connectors to furnish the communications objects administered in its repository to both EAI supported integration platforms such as SAP®-PI, IBM Websphere, etc., and for direct coupling to third-party systems.

The advantage is that if a company later decides to launch an EAI integration platform, it can continue to utilize the communication objects it has been using up till now.



Illustration 1: An example of GBOS architecture either by direct application to application (A:A) coupling or using an EAI layer



Extensive programming of interfaces is unnecessary because GBOS solves the definition of any business objects relevant to communication by employing pure parameterization. This occurs with the aid of a graphically supported definition tool, the Business Object Designer (BOD). It allows GBOS to offer a high-performance, easy-to-configure working environment for defining, administrating, and documenting the communication objects that it administers in its repository.

SAP® Certification of the Reference Scenario with GBOS

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CeGIT and CSC have developed a reference scenario to support the house service connection processes. In that case GBOS is used as EAI-based integration of GIS und SAP®. SAP® has certified this scenario as PI content for integration with SAP®-PI 3.0.

It includes the following system components:

1. SAP®-PI integration platform with depiction of the integration process (PI content)
2. GBOS – for linking any GI systems to SAP®-PI and furnishing the communication objects needed for the process
3. SAP® R/3 – here, the integration process in SAP®-PI depicts the corresponding SAP® (PM) system structure as a basis for maintenance and order processing completely automatically.

The Solution

GBOS in addition to the know-how of CeGIT guarantees that a company's integration projects will be easy to start and implement, thus assuring meaningful, efficient business processes.

CeGIT accompanies the process through providing comprehensive support for the introduction and implementation of GBOS:

- permits live presentation of integration scenarios that have already played out and proven their worth, it also provides documents for assessing performance based on existing process specifications
- depicts the desired process by Proof of Concept
- performs GBOS pilot applications for assessing costs prior to implementation
- supports initiating and determining processes
- incorporates already established links and defined objects
- supports process modeling (customizing, settings)
- offers Staff training
- ongoing development of GBOS and incorporation of additional service modules

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