Winner of the OMG Award:
"Best BPM Application That Demonstrates the Use of Standards"

GENES̄iS

BOC Information Systems - GENESIS Project

Small and Medium Enterprises (SMEs) are still facing hurdles when using current e-Business Technologies. With heterogeneous systems, varying from ERP to spreadsheet-based island applications, SMEs processes usually require significant manual input preventing them from achieving efficient electronic business data interchange.

The European Union co-funded a project called GENESIS to develop an e-Business platform that allows typical SMEs to conduct their business transactions over the Web. A set of generic processes/documents contributes to interoperability, keeping the ability to apply context-specific restrictions if necessary. Therefore the project considered a solution where SMEs could establish collaboration through the GENESIS platform in an intuitive and cost-effective way. Starting point was the front-end capture of process descriptions and a maximum usage of standardized technologies.

BOC led the Work Package "Enterprise Modelling" and provided the modelling tool ADONIS. It started with the definition of an innovative environment relying on a combination of standard modelling notations (BPMS, BPMN, CCTS) and related export mechanisms (BPEL, XML, XSD).

Facts and figures:

Project name
GENESIS
Project Duration
33 Months
Field
Enterprise Application Interoperability,
B2B Transactions
Standards
BPMS, BPMN, BPEL, CCTS (ISO 15000-5), UBL, XML
Project Partners (Selection)
BOC, Insiel, Logo, NTUA, SAP, SingularLogic

« Innovative modelling environment relying on a combination of standard notations (BPMS, BPMN, CCTS) and related export mechanisms. »

BOC set up a well-suited Business Process Analysis (BPA) methodology to capture user requirements with the ADONIS BPMS modelling notation. The BPA addressed the complexity that arose from multiple process variants caused by different organisations, ERP applications, or legal environments. A common business language, based on the UBL reference library, was then adopted to significantly accelerate the definition of process models and the specification of related business documents. Nevertheless, it was necessary to configure an intuitive modelling environment that could be used by both Business Analysts and IT Specialists. This was achieved by specifying process choreography using BPMN notation and CCTS for a comprehensive decomposition of business documents into Information Entities.

Another challenge faced was the generation of BPEL code from BPMN diagrams representing collaboration processes. Such choreographies were not directly executable in BPEL. Therefore BOC adapted ADONIS to generate BPEL orchestrations for each party involved in the process and additional BPEL code for the server controlling messages exchanged between parties. As a result the GENESIS team could finally apply Model Driven Architecture (MDA) principles to business processes and business documents.

- Business Process Modeling Notation (BPMN) is a graphical representation for business processes, and Business Process Execution Language (BPEL) is a language for executable process descriptions.
- Core Component Technical Specification (CCTS) promotes the concept of syntax-neutral and technology-independent building blocks, Core Components, which can be used for data modelling. It has been integrated into the ISO15000-5 standard.
- Universal Business Language (UBL) is a library of standard electronic business documents.

A BOC Success Story

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BOC were one of the winners of the "BPM Case Study Competition" organised by the BPM Consortium (OMG and BPTrends) where the GENESIS project was awarded in the category "Best BPM Application that demonstrates the Use of Business Process Standards". Entries were judged on the complexity of the business problem addressed, the business value achieved, the level of cross-organisational collaboration, and the usage of BPM approaches.

http://www.bptrends.com

Innovation triggered by BOC

BOC uses it's outstanding industry experience and expertise in BPM to provide its customers with innovative and valuable solutions. The meta-modelling capabilities of ADONIS enabled the configuration of the best-suited modelling environment to meet sophisticated requirements of the GENESIS project, including:

- Graphical representation of Core Components as specified by ISO 15000-05 including contexts
- Linkage of BPMN data objects to their CCTS decomposition as reusable Information Entities
- Generation of BPEL code from BPMN, even for collaboration processes that are split in three executable process definitions

« BOC successfully managed to bridge the gap between business and IT by solving the challenging requirements with its business process management software ADONIS. »

BPTrends is the primary source of business intelligence for business executives and process change practitioners around the globe. Industry thought leaders provide analysis and opinion on trends, directions and best practices relating to all aspects of business process management.

OMG is an international not-for-profit computer industry consortium. OMG Task Forces develop enterprise integration standards for a wide range of technologies and industries. OMG's modelling standards enable powerful visual design, execution and maintenance of software, including IT Systems Modelling and Business Process Management.

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