

ObjectWeb Architecture Meeting
 December 11-12, 2006
 Paris, France



Many thanks to Alcatel for hosting this meeting and to François Carrez for his help in the preparation of the meeting.

Monday December 11th, 2006	
Room IO	
10:00am – 04:00pm : RNTL/JONES meeting (private meeting) 04:00pm – 06:00pm : Meeting of the ObjectWeb College of Architects (public meeting, access by audio conference reserved to ObjectWeb members) – [Phone bridge : +33 1 72 15 06 85]	
Room Pegase 3	
02:00pm – 05:30 pm : New addition to ObjectWeb Code Base session (part 1)	
02:00pm - 02:30pm Title : JOnAS and SIP Servlets Invited speaker: Thomas Leseney, Nexcom	Abstract: "Session Initiation Protocol (SIP) is the leading signaling protocol that the telecommunications industry has adopted for next-generation networks and applications. Similar to HTTP servlets, the SIP Servlet API allows easier development of SIP services. SIP Servlet API is a standard defined through the Java Community Process. This presentation gives an overview of SIP, SIP Servlets and rationale for the integration of SIP Servlets within the JOnAS Application Server".
02:30pm - 03:00pm Title : Tom: a software environment for defining transformations in Java. Speaker name : Pierre-Etienne Moreau, INRIA (Loria)	Abstract : We present an extension of Java that adds pattern matching facilities. This is well suited to implement transformation rules and manipulate tree structures such as XML documents or Abstract Syntax Trees. Tom also provides a powerful strategy library to control the application of such transformations. This can be seen as an extension of the Visitor design pattern, that makes easy the definition of traversals. The technology is mature and has been applied to many applications, from BPEL analysis to the implementation of the Tom compiler itself. Recently, we have developed a plugin for ASM that allows to analyse and transform Java bytecode. For instance, a pattern of instructions can be easily defined and searched. The strategy language can be used to follow the control flow graph. In this presentation, we will introduce the basics of Tom, illustrated by several examples.
03:00pm - 03:30pm Title : Presentation of the Orchestra project Speaker name : Goulven Le Jeune, Bull	Abstract to come
03:30pm – 04:00 pm Break	
04:00pm - 04:30pm Title : MOBI – Mobile Middleware with Adaptation capabilities Invited speakers : Nearchos Paspallis, University of Cyprus and Jacqueline Floch, SINTEF ICT (Norway)	Abstract: The talk will introduce an open platform for the development of self-adaptive mobile applications. This platform is at the heart of the MOBI-project application to ObjectWeb. We will present the main characteristics of the platform and its relations with relevant ObjectWeb projects. The platform was initially developed and evaluated within the IST project MADAM (2004 -2007) and will be extended within the newly started IST project MUSIC (2007 -2010). Both projects aim at providing software engineers means to develop mobile adaptive applications. Today, it is technically difficult to create such applications using existing methods and tools. The large range of devices and types of infrastructure, the ways in which they can change, the situations in which users can find themselves and the functions they desire, introduce great complexity and pose considerable technical challenges. System developers must deal with numerous configurations,

	<p>operational and maintenance issues and provide systems that dynamically and automatically adapt.</p> <p>The MOBI open platform consists of an adaptation-enabling middleware and associated modelling tools. The main functions supported by the middleware are to detect context changes, to reason about them and make decisions about what adaptation to perform, and implement the adaptation choices. We adopt a component-based approach where both applications and middleware are developed as component frameworks facilitating dynamic adaptation. The platform also supports evolution at both design and run time, the latter being achieved through the publication of new components and models. A version of the middleware is now being ported on OSGi exploiting the component deployment and management capabilities provided by OSGi. At the modelling level, we provide a UML profile and relevant UML tools allowing the architect to model variability and variants properties. The tools support the generation of compile-time architecture models which significantly ease and improve the development process. Further planned extensions of the platform include generalisation of the approach to ubiquitous computing environments, generalisation to Service Oriented Architecture, distributed adaptation reasoning, and dependable and secure adaptation. Although our work has focused on mobility and mobile applications, we believe that the mechanisms provided by the platform can be exploited in additional areas where dynamic adaptation is needed, such as for example in autonomic computing and in robotics.</p>
<p>04:30pm - 05:00pm Title : JWTGen project : web application functional test code generator Speakers names : Jerome Petit and Mickael Baron, SERLI</p>	<p>Abstract: JWTGen uses real user navigation and to produce test code, reducing time and cost of functional test writing phase.</p> <p>The generated code is JUnit-based, and uses open source frameworks like HTTPUnit and PDFUnit.</p> <p>SERLI will present the technical details and the roadmap of the JWTGen project, and the coherence with other ObjectWeb projects.</p>
05:00pm – 05:30pm	One slot available
Tuesday December 12th, 2006	
<i>Room Pegase 3 :</i>	
09:00am - 10:00am: New addition to ObjectWeb Code Base session (part 2)	
09:00am - 09:30 am	One slot available
<p>09:30am - 10:00am Title : JASMINE : tool and framework for administration, deployment and monitoring of large Java Enterprise and Service Oriented distributed Applications Speakers names : Benoît Pelletier, Bull and Noël de Palma, INRIA (Sardes)</p>	<p>Abstract: Java EE clusters are more and more frequently deployed within Enterprise Information Systems, to cope with the growing requirements in term of scalability and availability. Besides, SOA solutions get widely deployed to host enterprise applications. In many cases the sudden expansion of such systems has led to very complex structures which, using conventional methods, can only be monitored and controlled with difficulty. These distributed architectures raise new administration issues, since they cannot be handled reasonably by hand to satisfy the required QoS:</p> <ul style="list-style-type: none"> - the N-tiers model, Java EE and the JVM, the distributed aspects of a cluster, the different services of a SOA architecture increase the number of software pieces to administrate and the number of events to monitor in the global system. - the configuration and tuning capabilities provided by the middleware components, together with the complexity of the Java EE and SOA specifications, do require the setting of a huge number of parameters. <p>The JASMINE project aims to develop an administration tool dedicated to Java EE, MOM or SOA distributed applications in order to facilitate the job of the system administrator. It relies on advanced management features and on autonomous behaviour capabilities to reduce the management costs of such architectures. JASMINE main benefits are</p> <ul style="list-style-type: none"> - to reduce the risk of human error in configuration and management operations - to improve the response time to eliminate malfunctions occurring in the system - to improve the global availability of applications (by minimizing service interruption periods)

	<p>- to optimize global performance</p> <p>JASMINE is based on the Jade project which provide a framework to build autonomic systems.</p> <p>A jade system is organized as a collection of components of four different kinds: system representation, common services, autonomic managers and managed elements :</p> <ul style="list-style-type: none"> - The system representation provides the explicit knowledge of the system structure and configuration (both managed system and management system). These knowledge is generated from the implicit structure of the legacy distributed system. - A set of Common services which provide coarse-grain management services independant from any managed legacy middleware. Instances of such service are a deployment service, a discovery service ... - A set of autonomic managers which implement self-healing aspect and self-optimizing behaviors. These managers target some well-known distributed system patterns. - A managed Element framework used to control legacy ressources such as nodes, clusters, network equipments, middleware servers ... <p>The Jade framework relies on the fractal component model to build managed elements and autonomic control loops.</p>
10:00am – 10:30am Break	
<i>Room Pegase 3 :</i>	
10:30am - 12:00am : ESB Session	
Session Chair : Alain Boulze, INRIA	
10:30am – 11:00am	<p>Title : An example of components integration (XQuare) as an ESB service engine</p> <p>Speaker name : Antoine Mensch, Odonata (tbc)</p>
11:00am – 11:30am	<p>Title : Component-based distributed JBI architecture: design and administration</p> <p>Speakers names : Pierre Garcia and Vivien Quema, INRIA (Sardes)</p>
11:30am – 12:00am	<p>Title : Illustration of a BPEL usage demonstrator based on ESB</p> <p>Speaker name : Denis Hutin and Alain Boulze, ObjectWeb</p>
<i>Room IO</i>	
02:00pm - 04:30pm: Meeting of the ObjectWeb Board of Directors (access reserved to Board members)	