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Enterprise Web System Framework with Struts

Mediator **Version2.0**

Supported for Oracle10g

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The Mediator framework, with Struts 1.0/1.1, provides a powerful mechanism for the development of enterprise business web applications.

The Mediator, designed for business applications, is a perfect framework that solves the developer's problems.

In the present time, the Struts framework, developed under the Jakarta project, is very popular among the business Web applications. In fact, we have developed many Struts based Web systems for 4 years. **With this experience, reducing the amount of implementations drastically and keeping the quality of the business logic constantly are very difficult because there are many differences in the developer's skill.**

Although the Struts is a wonderful framework based on the Model 2 design pattern, it is necessary to extend the original classes to achieve the customer's business model. However, many meaningless extensions are seen on development, such as only renaming the base classes or extending business non-dependence logics. Actually, analyzing the business model and reflecting the solution are necessary, however, in many cases, it is not done perfectly, but implementation is proceeding. As a result, the quality of the implementation is dependent on developers that to keep the fixed quality becomes difficult.

Perfect business analysis under object orientation is ideal for developing a business application. However, it doesn't seem to proceed well because there is a gap between the ideal and the actual.

What is Mediator

For Business Logic,

- it keeps the best quality constantly.
- it does not depend on the skills of developers.
- it decreases the 50% of implementations with best design process.
- it achieves good system performance.
- it simplifies the function improvement.
- it templates the development method.

Mediator powerfully supports the development of business logic.

Quality Management

With Mediator, the restriction of methods implemented in a business logic class can be controlled. Only the methods which follow this restriction are permitted to be executed. In addition, an error report is outputted to the business logic which is not permitted. Even though, it comes to make extension a sacrifice, it securely keeps the best quality of applications. In other words, it is Mediator's architecture that the framework will be extended, or a restriction is deregulated when the business logic classes need to be extended.

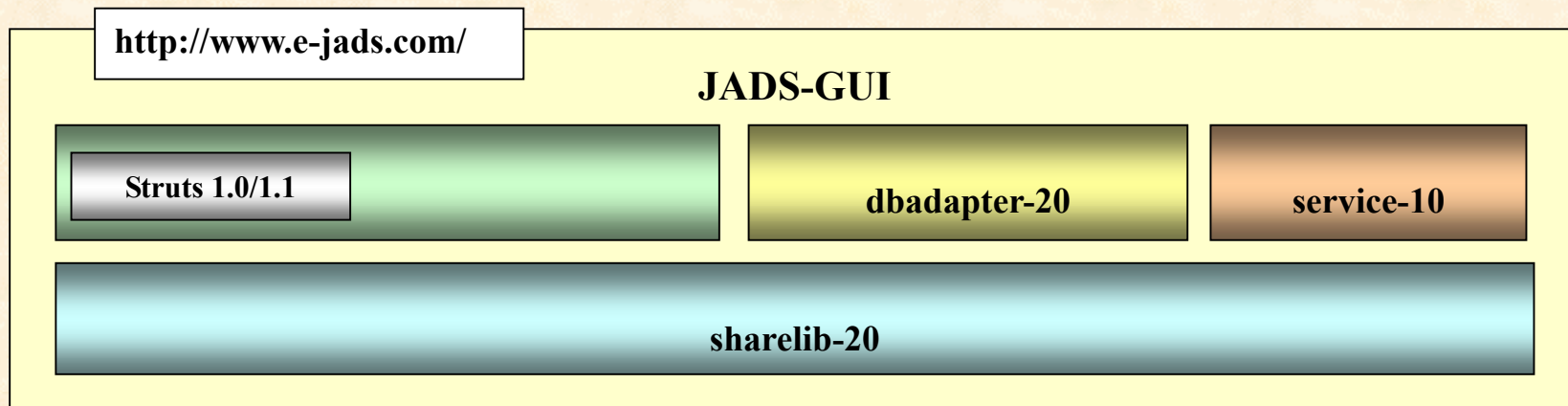
Business Logic Definition

In addition to Struts Action Mappings, subdivided behaviors of the business logic methods are configured in the Mediator's XML file. It means that replacing or rearranging of the business logic will be done with just revising the XML file. Moreover, the visibility of the source code rises by subdividing business logic, and maintenance improves.

Emphasis of Design Process

With Mediator at the time of the design process, function, interface, and forward are all configured in XML file. From this XML file, the source code of business logic will be generated automatically. The specification of business logic is also added into the source code in Javadoc style. As a result, programmers are able to understand the specifications much easier.

Mediator is composed by many packages and GUI tools.



sharelib-20

The basic package provides the functions of Bean Access, Cache Engine, File I/O, Logging, and Common Utilities

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Mediator's main package provides Struts Collaboration, Business Logic Definition, Database Access, Business Logic Support, and Validation Engine.

dbadapter-20

Database Access package includes that O/R Mapping, Automatic Transaction Management, and Connection Pool.

service-10

Special Business Support package provides the functions of EJB, SOAP, and CGI.

JADS-GUI

GUIs for JADS Libraries that supports designs for the Business Logic Mapping and various use of settings.

Mediator is standardized for application servers support Struts 1.0 or 1.1.

JDK	1.3.1 or later
Struts	1.0 or 1.1
ServletAPI	2.2 or later 2.3 or later for Encode Filter Class
JSP	1.1 or later
Database	JDBC is required a few parts of dbadapter package are supported only for Oracle 8i, 9i, or 10g
Web Container	Java 2 Platform, Enterprise Edition (J2EE) Compatibility Below is confirmed container. TOMCAT4/5, Oracle9iAS, Oracle10gAS, WebLogic8.0J, InterStage, Cosminexus, WebOTX, and WebSphere
GUI Tools	Microsoft Internet Explorer 5.01 or later

Mediator satisfies

Business Logic

- Business logic configuration by XML file.
- Business logic implementation control by XML file.
- Input validation engine loading by XML file.
- The offer of the base classes fitted to the purpose.
- The automatic generation of business logic template.

Database

- The offer of the base class for the database management fitted to the purpose.
- The automatic control of the transaction.
- Object mapping of a result of inquiry.
- The individual connection pool which is not dependent on any JDBC drivers.
- Dump trace output of a result of inquiry.

Others

- Providing session manager and authentication check.
- Providing customizable interface class.
- Logging for bottle bottleneck analysis and system resource consumption.
- Loading high-speed object cache engine.
- Providing powerful GUI tools for support and design.