

j2flex 1.0

Flexible Persistence

Find out more:
www.j2flex.com

Company Overview

Being an Adobe Silver Solution Partner and Authorized Training Provider, we provide high-quality consulting, training and project solution services based on Adobe Enterprise products including Flex, LiveCycle, ColdFusion and Flash Media Server.

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j2flex - Flexible Persistence

With Adobe Flex developers can easily create Rich Internet Applications. LiveCycle Data Services is Adobe's solution for providing access to Java based middleware directly from Flex Frontends, including data synchronization. However, it's still up to the Java developer to develop the service and persistence layer.

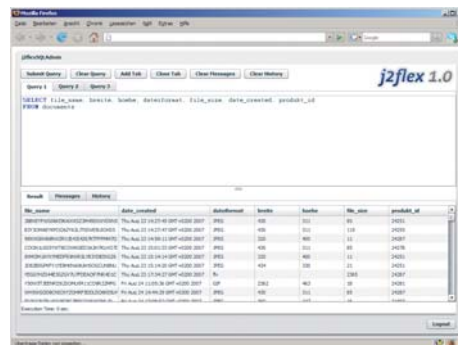
With **j2flex** we offer a solution to easily create, manage and map your business objects from Java to Flex and vice versa. Basic data operations like create, retrieve, update and delete (CRUD) are handled completely by **j2flex** without writing a single line of Java code. **j2flex** is 100% Java based and easily integrates with your existing J2EE infrastructure.

The main concept

The main concept in **j2flex** is a "meta database", an object-oriented data model stored in a relational database system like MS SQL Server or Oracle.

This approach allows us to persist pretty complex data definitions very easily and without much hassle, including 1-1, 1-n and n-m relationships. Due to this dynamic persistence schema, new object types (i.e. business entities) can be added to the system pretty easily without modifying the physical database model.

Also, it's very easy to modify existing object definitions. On the other hand, if you already have a full-blown physical database model in place, it's also simple to make it work with **j2flex**. All you have to do is to add OBJ_ID and OBJ_TYPE columns to your physical data model. Now that you know how data gets persisted in **j2flex** the next question is what to use to query this "meta database"? Well, SQL of course!



Probably the best thing in **j2flex**' core engine is the SQL Parser. This allows you to use pseudo-SQL statements to query the database. Why pseudo? Because it is no "real" SQL. The SQL you send to **j2flex** is parsed on the server side into real SQL before the data is fetched from the database. Why's that? As said above, when a Contact gets persisted, the real data gets stored in several physical tables. The SQL Parser allows you to query the database as if the Contacts would be stored in a table called CONTACT- This is because when you create a new data type "Contact" a virtual table of that name gets created, think of it as the class name in terms of OOP. So querying all Contacts becomes as simple as `select * from CONTACT`

With **j2flex** you can send those queries directly from a Flex client to the server. As they are no real SQL queries there's no danger of SQL injections as everything gets handled by the SQL Parser.

Also, the SQL Parser only allows SELECT statements, so you cannot call INSERT/UPDATE/DELETE on it. To create, update or delete objects (data) you use the **j2flex** create, update and delete API functionality. So with **j2flex** you can directly read data from and save data your database without too much worrying about how this works - and without writing server side code. Just use SQL-Statements inside the Flex Application.

j2flex also offers a solution for integrating a Flex application into an existing J2EE infrastructure - including mapping the physical data model to the Flex world, dedicated authentication and authorization, workflow support and much more.

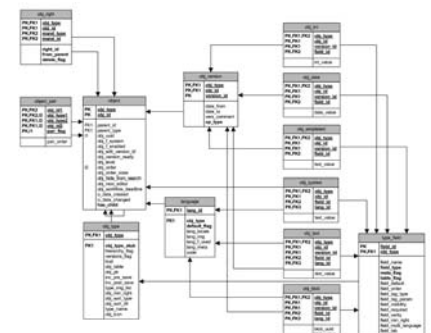
Finally, you can easily extend **j2flex** to meet your needs, either through the Flex/ActionScript 3 or Java API. **j2flex** conforms to Flex 2 Framework standards, can be used with Cairngorm and offers easy integration with the Data Management Services of LiveCycle Data Services.

Customer benefits

- Base CRUD functionality requires no single line of server side code
- The **j2flex** Framework services offer easy access to SQL-Databases and LDAP-based user management systems
- Integration with LiveCycle Data Management Services saves coding time

Technical summary

- Based on meta database model
- Server-side Java-API providing access to the meta database model
- Client-side Flex-API to access j2flex services directly from the Flex client
- Multi-language fields for database objects
- Administration console for maintaining the meta database model
- A complete integrated user and authorization management system that can be synchronized with external LDAP-Systems
- Role-based security access system
- Integrated asset and document management
- Full text retrieval



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