

# **MindTelligent, Inc.**

## **XDoclet With Oracle 9i AS (Application Server)**

### *A Technical White Paper*

## Objective

When adopting any new technology, a certain amount of trade-off is expected between the increased functionality of the new technology and the tools that support it. We are currently experiencing that trade-off with the adoption of using EJB 2.0, specifically with Container Manager Persistence/Relation Entity Beans. Because the EJB 2.0 specification is relatively new, none of the existing helper utilities or "Wizards" currently support the new functionality provided by the specification.

This leaves the developers of the new system's Entity EJB's at a disadvantage in the fact that the J2EE and Oracle9iAS deployment files (ejb-jar.xml and orion-ejb-jar.xml) will have to be written by hand. Typically in EJB development, this is handled by one of the Wizard's in the IDE, as it is a very time consuming, repetitive task.

Additionally, because this will be written by hand, it will be up to the developer to make sure this file is checked into the source repository. If any changes are made to the EJB, the developer will have to remember to check out the deployment XML files and modify those as well, if needed.

## Solution

An open source alternative exists that can provide us with the solution to this issue. This alternative is a utility called XDoclet. XDoclet is an extension to the Javadoc Doclet engine, and is a pre-processor that is executed via ANT prior to actual compilation of our application source code. XDoclet works in such a manner that in a standard Javadoc comment, the developer would insert specialized tags that the XDoclet processor recognizes. XDoclet would then generate the ejb-jar.xml and orion-ejb-jar.xml files at build time, based upon these specialized tags.

There are many advantages to utilizing this tool in our development/deployment environment. One of the biggest would be developer productivity. The developer could write everything that is needed for the deployment descriptors at development time. This would occur when the information needed for this task is fresh in the developers mind, not hours or days after development, when deployment descriptors are typically written. This would also alleviate the time-consuming task of writing the deployment descriptors by hand, also freeing up the developer's time. Additionally, it would provide a further level of self-documenting code. This is because everything needed to describe what is going on in the EJB is contained in one file. In one location, a developer looking at the code for the first time can see the various methods provided by the EJB, as well as the actual database table/column to which the accessor/mutator method is being mapped.

An additional benefit of utilizing XDoclet would be the fact that the `ejb-jar.xml` and `orion-ejb-jar.xml` files would not have to be maintained in the source repository. Our build scripts would trigger the generation of these files. This would assure us that we have the latest version of these files at all times, and there would be no possibility of the developer forgetting to update the version in the source repository.

XDoclet has extremely comprehensive documentation available both online, and in the download archive. Additionally, it has very well commented source examples of how to utilize the tool not only for EJB's, but for several other technologies as well. While the developers do not provide examples for every application server supported by XDoclet, the source examples provide a very good starting point to learning the tool.

Additionally, a very large online support community for XDoclet exists on the jGuru website. Located on the site is an actively maintained FAQ system. Additionally, there is an active discussion forum available. The developers of the utility actively participate, answering questions and providing general support of the utility.

#### References

[XDoclet \(http://xdoclet.sourceforge.net/\)](http://xdoclet.sourceforge.net/)

[XDoclet FAQ hosted on jGuru \(http://www.jguru.com/faq/Xdoclet\)](http://www.jguru.com/faq/Xdoclet)

[XDoclet Forum hosted on jGuru](http://www.jguru.com/forums/home.jsp?topic=Xdoclet)

[\(http://www.jguru.com/forums/home.jsp?topic=Xdoclet\)](http://www.jguru.com/forums/home.jsp?topic=Xdoclet)