



GIAXT™

Granularity Information Architecture, Inc.

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Overview

GIAXT™ is an Allaire ColdFusion extension (CFX) written in Sun Microsystem's Java 2™ which allows ColdFusion 4.5 programmers to take advantage of XML Transformations to manipulate XML documents in a ColdFusion Markup Language environment. GIAXT™ abstracts the direct use of Java based XSL Transformation classes from popular third party XSL Transformation tools, namely Apache Software Foundation's Xalan, James Clark's XT, IBM's LotusXSL, and others, allowing for modular use of XSL parsers in Allaire ColdFusion.

GIAXT™ implements the W3C Recommendation for XSLT, November 16, 1999.

Use of GIAXT™ assumes some knowledge of Allaire ColdFusion, XML (Extensible Markup Language), XSL (Extensible Stylesheet Language), XSLT (Extensible Stylesheet Language Transformations).

Usage Syntax

Once installed, XML transformations can be affected on an XML document using a prewritten XSL transformation stylesheet, with the result being placed in a ColdFusion variable for access in CFML documents using this syntax:

```
<CFX_GIAXT    XML="kitten.xml"
              XSL="cats.xsl"
              OUT="transformed" />
```

In this example usage, the XML file `kitten.xml` will be transformed according to the stylesheet `cats.xsl` and the resultant transformation will be placed in the ColdFusion variable `transformed`, which can then be accessed via common ColdFusion methods, such as:

```
<cfoutput>#transformed</cfoutput>
```

Other example uses are to transform Allaire WDDX (Web Distributed Data Exchange) XML into other XML formats, such as Microsoft's BizTalk, Ariba's cXML, or CommerceOne's CBL, or to transform WDDX into other text formats such as EDI, plain text, and most notably, HTML.

Requirements

GIAXT requires

- Allaire ColdFusion 4.5 or higher
- Sun Java2™ Standard Edition (JSE) 1.2 / Sun JDK 1.2.2 / Sun JRE 1.2.2
- An XML Transformation Java class package (James Clark's XT is included)
- GIAXT base Java2™ classes, provided as a Java Archive (jar)

Contents of GIAXT Download

GIAXT version 1.5.1 contains the following in the zip archive when downloaded:

- `giaxt-1.5.1.jar` – a Java2™ CFX XSLT interface
- `kitten.xml` – an example XML document
- `cats.xsl` – an example XSL stylesheet to be used as an example with `kitten.xml` (transform to HTML)
- `ReleaseNotes.html` – latest release notes in HTML format
- `Licence-GIA-GIAXT-Evaluation.txt` - Granularity Information Architecture, Inc.'s End User License Agreement for Evaluation use; 30 day trial license (by downloading GIAXT, you are agreeing to terms contained within this license)
For full commercial pricing, please contact Granularity Information Architecture, (contact information below)
- `xt.jar` and `xp.jar` – James Clark's XML transformation tools.

Installation

1. Create a directory to hold GIA related java jars, ex. `d:\CFAS\Java\gia`
We'll refer to this as `[gia_class]`
2. Place `giaxt-1.5.1.jar`, `xp.jar`, `xt.jar` into `[gia_class]`
3. In the CFAS Administrator, set up java (Server->Java)
 - Java JVM Path: `[path_to_JDK]\jre\bin\classic\jvm.dll`
Where `[path_to_JDK]` is the location of the JRE/JSE on your system.
 - Class Path: `[gia_class]\giaxt-1.5.1.jar;[gia_class]\xp.jar;[gia_class]\xt.jar`
4. In the CFAS Administrator, set up GIAXT (Extensions->CFX Tags)
 - Tag Name: `CFX_GIAXT`
 - Class Name: `GIAXT`

The Allaire ColdFusion Application Server may need to be restarted to take effect.

Known Issues

Error reporting in GIAXT is not robust

Using XSLT stylesheet syntax prior to 19990813 (ie, older XSLT versions and Microsoft's XSL variants) will crash, without warning, the ColdFusion Application Server

GIAXT's speed in transformation is determined in part by the speed of the underlying 3rd party XSLT classes.

Future Improvements

GIAXT is continually being improved for speed and for ease of use. Currently, in consideration for future improvements are:

- Named XSL templates to keep frequently used XSL stylesheets in memory for even faster processing
- More intuitive error handling via standard Allaire ColdFusion methodologies

Contact Information

Information regarding GIAXT can be found at the URL: <http://www.granularity.net/technologies/> and comments, questions, licensing requests, and suggestions can be directed to: xmltechnologies@granularity.net

References

Allaire ColdFusion	http://www.allaire.com/
XSL Transformations	http://www.w3c.org/TR/xslt
XML	http://www.w3c.org/TR/REC-xml
Granularity Information Architecture, Inc.	http://www.granularity.net/technologies/
XT, James Clark	http://www.jclark.com/xml/xt.html
IBM Lotus XSL	http://www.alphaworks.ibm.com/

About Granularity Information Architecture

Granularity Information Architecture, Inc. is an Internet development, consulting, and venture technology firm specializing in Electronic Commerce, Enterprise Application Integration (EAI), legacy-to-web integration, leveraging ERP systems on the web, healthcare technology, and XML/EDI. Granularity provides high-quality service for startups to medium and large companies requiring effective and innovative implementation of existing and emerging Internet technologies. Services include developing Internet-based electronic commerce Internet-based EDI, XML, and Enterprise Resource Planning and Internet technologies integration, and evaluating/implementing emerging technologies.

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