

Enterprise Web Developer VistA Update

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Enterprise Web Developer (EWD)

- What is it?
 - A framework for web application development

Enterprise Web Developer (EWD)

- What is it?
 - A framework for web application development
 - Particular emphasis on:
 - Very high speed, simple development
 - Very low maintenance
 - Advanced Ajax-based user interfaces
 - The designer in control of the process
 - Programming reduced to an almost trivial level

Enterprise Web Developer (EWD)

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Enterprise Web Developer (EWD)

- Particularly suited to:
 - Web-enablement of Mumps/Caché applications
- All the major, business-critical, Internet-facing Caché-based Ajax applications use EWD
 - Tried and tested
 - Secure (regularly passes IBM's ISS audits)
 - Reliable
 - Very high-performance

Enterprise Web Developer (EWD)

- Available as a Free Open Source product
 - Based around:
 - GT.M
 - Apache
 - m_apache gateway (xinetd)

Enterprise Web Developer (EWD)

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 - EWD for GT.M zip file:
 - EWD routine files
 - m_apache components
 - ewdMgr portal application - source EWD pages
 - Installation instructions

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- <http://www.mgateway.com>



Key Features

- Fragment-based Ajax architecture
 - Intuitive / easy to understand
 - Very easy to use
 - Very easy to maintain
 - Exceptionally functional
 - State-of-the-art user interfaces

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 - Parse files to DOM
 - Or Build from scratch programmatically
 - Analyse and search (DOM APIs or XPath)
 - Modify
 - Add tags/attributes
 - Remove tags, attributes, sub-trees of tags
 - Insert tags/attributes/sub-trees
 - Output DOM as file or HTTP stream

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 - **GT.M as Native XML Database**

Key Features

- Custom Tags
 - Built-in user extensibility
 - Encapsulate an entire set of functionality
 - Express as 1 or more XML tags
 - Constrain/control behaviour via attributes
 - To add a custom tag:
 - Register the tag name
 - Define its associated “tag processor”
 - Acts as an extension to EWD’s compiler
 - XML DOM API instructions
 - Modify the page to create the desired markup, Javascript etc

Latest and up-coming
enhancements
to EWD



VistA-specific Enhancement

- Latest Build (782):
 - GT.M 32k block-size restriction removed
 - VistA 4k block size standard is the default
- Build 782:
 - Debian Installers
 - GT.M kit zip file

Other recent enhancements

- Python support in GT.M version
 - EWD back-end scripts can be written in Python
 - Python module that interfaces to EWD Session APIs
 - EWD can be used as “black box” Ajax framework
 - User can use it with any database accessible from Python
 - No Mumps code needed anywhere
 - Uses our m_python language-binding interface
 - Access Mumps routines/functions from within Python

Upcoming Developments

- High-performance XML parser
- Yahoo YUI Custom Tag Library

High-performance XML parser

- Customers beginning to work with HL7 XML, CDA etc documents
- EWD's built-in parser performance issues
 - Designed for poorly-formed HTML
 - Not optimised for handling large, well-formed XML documents
 - 100k up to many Mb in size

High-performance XML parser

- Caché version of EWD now uses built-in interface to Xerces SAX parser
 - Very high-speed parsing of XML documents into EWD DOM
 - 100k in under 0.5 sec
 - 1.5Mb in 20 seconds

High-performance XML parser

- Port to GT.M soon
 - Python xml.sax version looks straightforward
 - Direct interface to GT.M?

Yahoo YUI Custom Tag Library

- Yahoo YUI Javascript Framework:
 - Free Open Source library
 - Built and maintained by Yahoo primarily for their own use in Yahoo web applications
 - Made freely available for others to use

Yahoo YUI Custom Tag Library

- YUI Pros:
 - Great-looking, highly functional widgets
 - Support across all “A”-grade browsers
 - Exceptionally well architected
 - Strong influence from Douglas Crockford
 - Unlike other Javascript frameworks:
 - Not an “all or nothing” environment
 - Can “cherry pick” widgets to use
 - Can co-exist with your own Javascript code/widgets

Yahoo YUI Custom Tag Library

- YUI Cons:
 - Steep learning curve
 - Requires deep understanding of complex Javascript concepts
 - Programmatic description of widgets
 - Time-consuming to write
 - Extremely difficult to maintain
 - Particularly if maintainer isn't original developer

Yahoo YUI Custom Tag Library

- EWD Custom Tags to the rescue!
 - YUI widgets expressed as EWD custom tags
 - Developer drops in the YUI custom tags
 - EWD's compiler converts them to the appropriate YUI Javascript and markup
- Benefits:
 - Almost zero learning curve
 - Intuitive/ easy to understand and use
 - No programming
 - Simple downstream maintenance

Yahoo YUI Custom Tag Library

- Originally built for and in production use by major EWD user
- Initial port to GT.M version of EWD completed
- Yahoo! have become very interested
 - Implementation Focus: Enterprise Web Developer, a Python/YUI Framework
 - <http://www.yuiblog.com/blog/2010/01/05/enterprise-web-developer/>
- Now moving YUI tag library fully into EWD
 - Likely release in a few weeks time

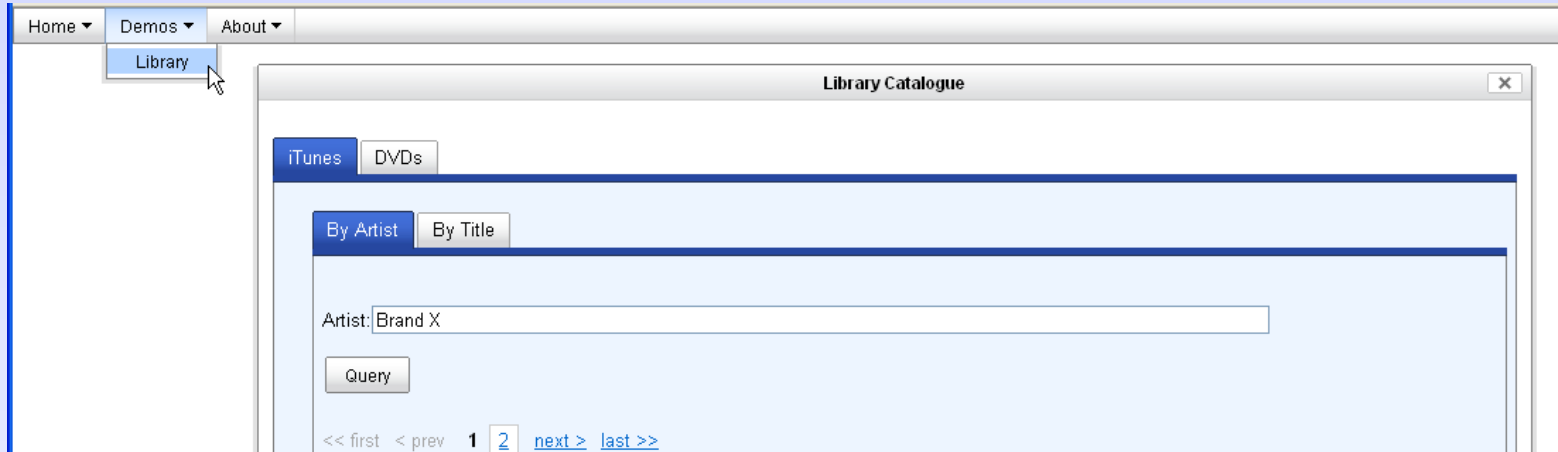


Yahoo YUI Custom Tag Library

The screenshot shows a web browser window with a navigation menu (Home, Demos, About) and a 'Library' dropdown. The main content area is titled 'Library Catalogue' and features tabs for 'iTunes' and 'DVDs'. Below these are search filters 'By Artist' and 'By Title'. A search input field contains 'Artist: Brand X' and a 'Query' button. Below the search field is a pagination control showing '1' selected and '2' highlighted. The search results are displayed in a table titled 'Matching Tracks'.

Album	Track Name	Composer	Track No	Last Played
Livestock	Nightmare Patrol		1	14/05/2009 10:34
Livestock	-ish		2	23/02/2009 19:02
Livestock	Euthenasia Waltz		3	23/10/2009 18:50
Livestock	Isis Mourning (i)		4	30/09/2009 12:15
Livestock	Isis Mourning (ii)		5	21/04/2009 18:25
Livestock	Malaga Virgen		6	12/08/2009 06:16
Masques	The Poke	John Goodsall	1	23/09/2009 14:41
Masques	Masques	Percy Jones/Peter Robinson	2	16/11/2009 12:01
Masques	Black Moon	Merric Port	3	26/02/2009

Yahoo YUI Custom Tag Library



```
<yui:TabView>  
  <yui:Tab label="By Artist" active="true" dataSrc="selectCDXArtist.ewd" />  
  <yui:Tab label="By Title" active="false" dataSrc="selectCDXTitle.ewd" />  
</yui:TabView>
```

Livestock	Isis Mourning (i)		4	30/09/2009 12:15
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Yahoo YUI Custom Tag Library

- See my YouTube Videos:
 - EWD + Python + YUI Custom Tags
- <http://www.mgateway.com/ewdDemo.html>

EWD

- The perfect Ajax framework for Vista