

Introduction to Apache & The Apache Forrest Documentation Tool

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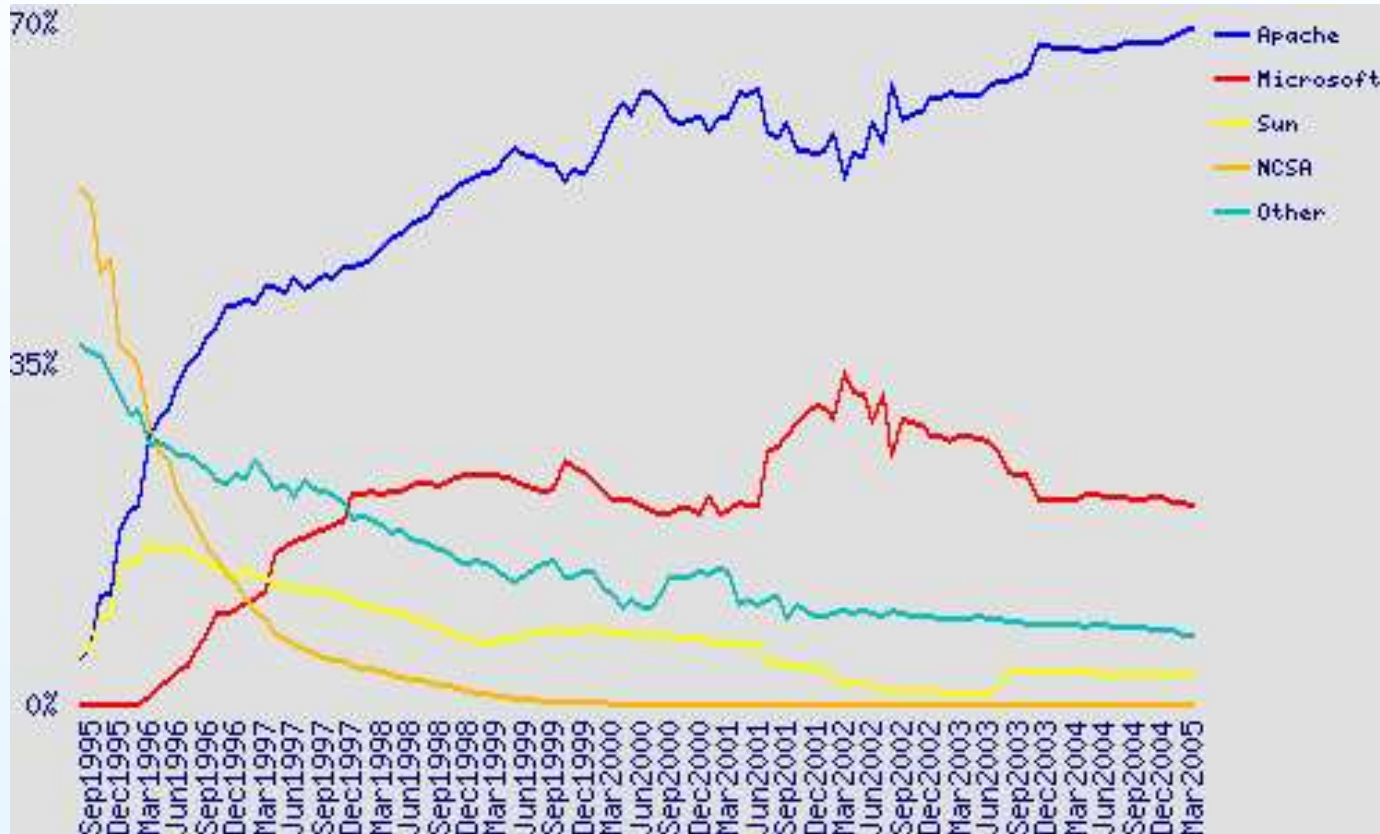
The Apache Software Foundation (ASF)

“The Apache Software Foundation provides support for the Apache community of open-source software projects.” *

- Why Apache?
- Founded June, 1999
- 113+ Members
- Project Characteristics?
 - Collaborative
 - Consensus based development process
 - Open and pragmatic software license
 - A desire to create high quality software that leads the way in its field

* ASF

Apache as a Market Leader



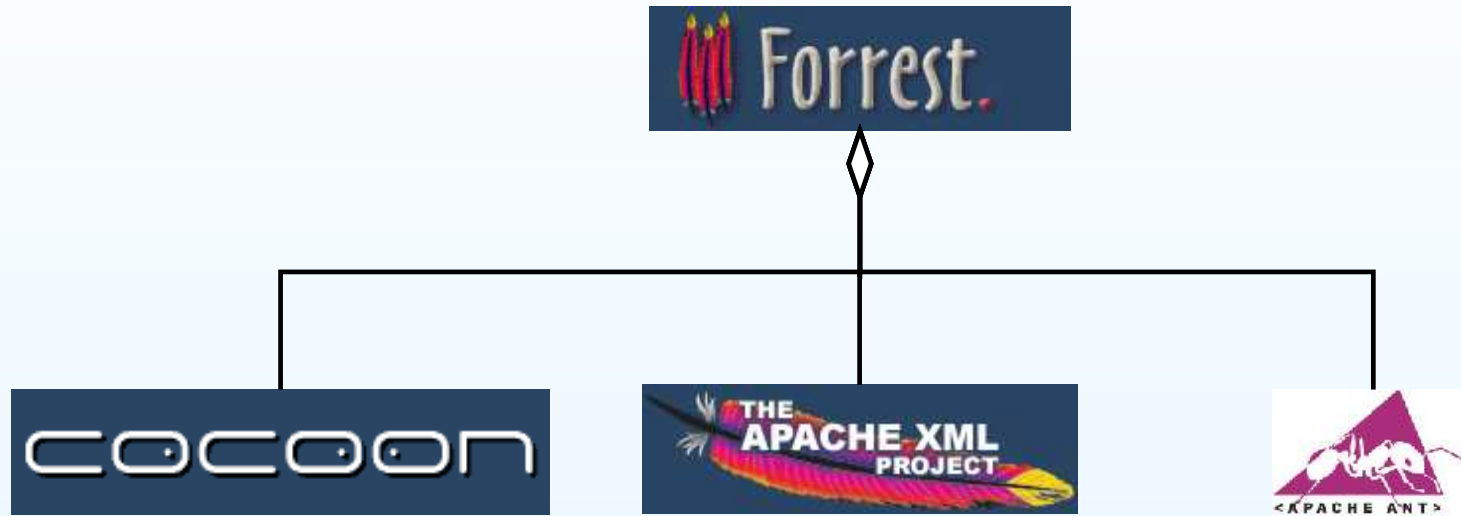
- Market Share August 1995 - March 2005 *

*Netcraft.com

Apache Projects

- Web Servers
 - HTTP Server
 - Jakarta Tomcat
- XML Processing
 - Xerces
 - Xalan
 - Axis
- Web Development (SoC)
 - Struts
 - Cocoon
 - Forrest
- Miscellaneous
 - Ant
 - SpamAssassin

The Forrest Equation



Cocoon

- Separation of Concerns “A Design Pattern which states that problems can be seperated into a set of components each of which focus on only one core concern.” *
- Improved Collaboration
- Component Pipelines
- Building Block Approach
- 10+ Datasources
- Various Transformers
- 10+ Output formats

* ASF

Apache XML

- World Class XML Parsing/Transformation
- Standards compliant - Supports new XML 1.1 also!
- Support Apache Projects
- Xerces - Processing XML Files (config files)
- Xalan - Transforming XML Files using XSLT (site pages)

Ant

- Java Based Make Tool
- Improves on Make Tool/Shell Scripts
- Platform Independent
- Combines XML/Java
- Stable

Apache Forrest

“Apache Forrest is an XML standards-oriented documentation framework based upon Apache Cocoon, providing XSLT stylesheets and schemas, images and other resources.” *

- What it is...
 - Documentation framework
 - XML -> HTML/PDF Generator
 - W3C standards compliant
 - A great tool!
- What it is not...
 - A graphic designer
 - A mind reader
 - A crap tool!

*<http://forrest.apache.org>

Installing

- Download & Install J2SE 5.0 (Java) *
- Download Apache Forrest 0.6 †
- Upzip Forrest
 - 1. `gzip -dvr filename.gz` (linux)
 - 2. `tar -xvf filename` (linux)
 - 1/2. unzip using Winzip (Windows/dos)
 - 3. goto `apache-forrest-0.6` directory (dos/linux)

* <http://java.sun.com>

† <http://forrest.apache.org/mirrors.cgi>

Setup Environment

- Environment
 - 1. Open favourite editor and add to .bashrc (linux)
 - 2. export
FORREST_HOME= ronan/apache-forrest-0.6/src/core
(linux)
 - 3. export PATH=\$PATH:\$FORREST_HOME/bin (linux)
 - 1. Go to "My Computer", "Properties", "Advanced", "Environment Variables" and add: (Windows)
 - 2. FORREST_HOME as
C:\full_path_to\apache-forrest-0.6\src\core
(Windows)
 - 3. PATH as %PATH%;%FORREST_HOME%\bin
(Windows)
- Restart environment
- Run forrest -projecthelp (see all commands)

Building a Website

- Building a Forrest Site
 - 1. mkdir website (linux)
 - 2. cd website (linux)
 - 1. md website (dos)
 - 2. website (dos)
 - 3. forrest seed (linux/dos) [build directory structure]
- Dynamic Site
 - 4a. forrest run [create the website/run Jetty]
 - 5a. See site running <http://localhost:8888/>
- Static Site
 - 4b. forrest [create the website]
 - 5b. See site running <file:///home/demo/website/build/site/index.html>

Choosing a Skin

- forrest.properties file
 - Set Forrest skin [project.skin]
 - pelt - Uses CSS "div" and no HTML tables.
 - leather-dev - This is the evolution of the "pelt" skin.
 - tigris - From style.tigris.org
 - plain-dev - Minimal skin to produce plain HTML documents.
 - forrest-site - Old skin, Uses HTML tables.
 - krysalis-site - Uses HTML tables.

Editing a Skin

- skinconf.xml file [cd src/documentation]
 - Set project details
 - Set group details
 - Set copyright details
 - Set trail/menu details
 - Set feedback details
 - Set override/add css details
 - Set PDF output settings
 - Set credits details

Adding Content

- index.xml file [cd content/xdocs]
 - Enter a page title
 - Enter a section title
 - Create sections arbitrarily
 - Each section has a title & content
- Things to note...
 - Pages are structured for you [consistency]
 - Pages are validated using DTD [quality]
 - Only simple tags allowed [SoC *]
 - All data stored in XML files [maintainability]
 - All styling information defined by skin [maintainability]

*Principle of Separation of Concerns

Adding a Page

- Create new_page.xml file
 - Use index.xml as a template
 - Put in content
- Edit site.xml
 - Used to generate menus [consistency/quality]
 - Add "element" for each page added
- Things to note...
 - Note the nesting structure of the menus
 - No embedded external links (external-refs section) [SoC *]
 - Define links in site.xml
 - Reference in page_name.xml using ext:reference

*Principle of Separation of Concerns

Playing with Tabs

- tabs.xml file
 - Defines menu tab structure [consistency/quality]
 - Add tab "element" for each page added

Advanced Features

- Writing a skin [XSLT knowledge required]
- Cocoon sitemaps [Preprocessing of content]
- Cocoon integration
 - Consume Web Services
 - Consume RSS newsfeeds
 - Database queries
- SVG to PNG rendering
- Create DTDs for other document types

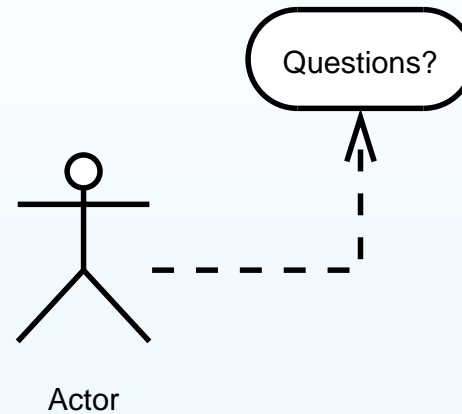
Conclusion

- User friendly
- Skill transferal [know XML know forrest!]
- Excellent documentation *
- Portable [Java/XML based]
- Powerful [Very extensible]
- More to come [only version 0.6]
- Other options
 - Maven
 - Lenya
 - DocBook

*<http://forrest.apache.org>

Questions

Thanks for listening!



Open Source tools used to make this presentation.....

