

#### IBM Software Group

# AJAX Toolkit Framework

Emerging Internet Technologies Group





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# Ajax - What's our vision

#### Grow Ajax adoption to the next phase

- Evolve tools that significantly reduce the development costs & skills of incorporating Ajax into a broad range of web applications
- Growing usage of Ajax in applications will foster innovation in open source frameworks
- The community & applications produced will enable Ajax future functionality
  - > Through the looking glass innovation will lead to consolidation around a few Ajax personalities i.e.
    - Web Developers rich(er) desktop interactions thru the browser
    - Web Designers rich visual user experiences



# Overview

The AJAX Toolkit Framework (ATF) is a set of plugins which enables:

- ✓ The development of tools for any DHTML/AJAX application
- Tight integration with the existing Eclipse user interface and development paradigm
- ✓ Plug-ins to facilitate use of various AJAX toolkits and/or class libraries

Targets AJAX Application Developers and Toolkit Developers



# **External Dependencies**

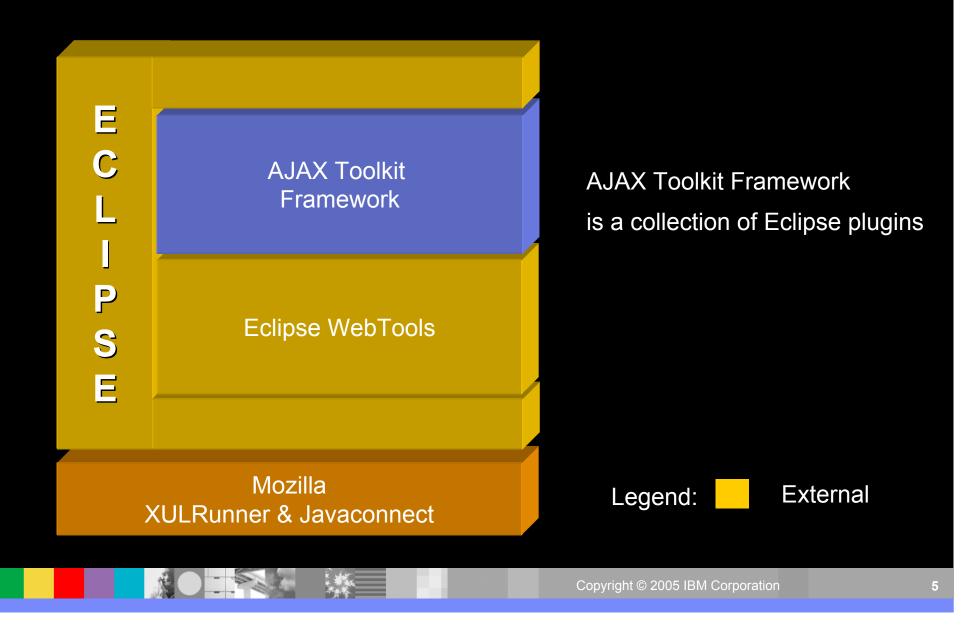
> AJAX Toolkit Framework is a collection of Eclipse Plugins

- The ATF Plugins depend on:
  - Eclipse Web Tools, Mozilla Xul Runner and Java Connect.
- External dependencies include:
  - ✓ Java Script development enhancements Rhino and JSLint
  - ✓ Individual AJAX toolkit personality Zimbra, Rico and other Ajax tool kits





#### AJAX Toolkit Framework is Eclipse Plugins

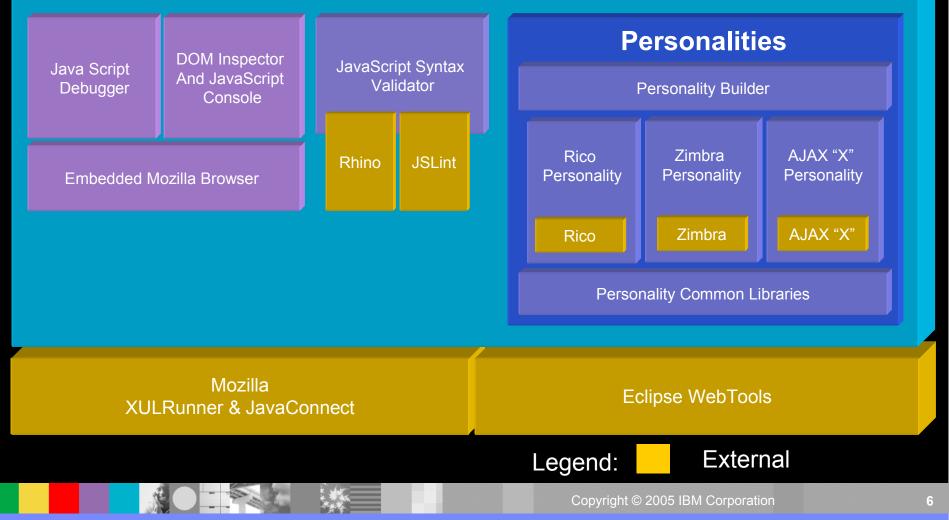






#### AJAX Toolkit Framework Components

# **Eclipse Plugins**





# AJAX Toolkit Framework Components

- JavaScript Editor
  - ✓ Batch and as-you-type syntax validation
- JavaScript Debugger
  - Tight integration with Eclipse debug UI to provide flow control in Mozilla and the ability to examine JavaScript code and variables
- Embedded Mozilla Browser
  - ✓ Access to Mozilla XPCOM
- DOM Inspector / JavaScript Console
  - ✓ Mozilla tools integration for DHTML developers as Eclipse Views.
- Integrated Deployment
  - ✓ J2EE / JSP
  - ✓ Apache / PHP



# **Personality Builder**

- A set of Wizards which accept:
  - ✓ Artifact data (AJAX toolkit libraries)
  - Build requirements data
  - New application templates
  - ✓ Code patterns
    - These may also be added by AJAX Developers
  - ✓ Deployment data
- Wizards output a 'basic' Personality Plugin
  - The builder will provide necessary basic development features targeted for AJAX toolkits
  - Enables customization and addition of functionality

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Specify information to crea	ite a project wizard
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Wizard Name: Rico Pro	oject
Package: com.ibm	n.mrclean.rico.ui
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Description: Creates	s a new Rico Project
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Class:	RicoNature
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# Status

- Eclipse Project Accepted
- Currently available on AlphaWorks
  - http://www.alphaworks.ibm.com/tech/ajaxtk
  - 2400+ downloads since February



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# Backup



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# Personality Builder

	ZIMBRA	RICO	AJAX TECHNOLOGY "X"
ARTIFACTS	<ul><li>.js files</li><li>.css files</li></ul>	■ prototype.js ■ rico.js	<ul> <li>.js, .css, plus arbitrary</li> </ul>
BUILD REQS	<ul> <li>Hi / lo rez image infrastructure</li> <li>Locale setup</li> </ul>	■ n/a	<ul> <li>PB will provide hooks for developer-provided Builders</li> </ul>
NEW APP (templates)	<ul> <li>HTML (.js / .css library accumulator)</li> <li>JS UI</li> </ul>	<ul> <li>HTML (.js library accumulator)</li> <li>onload handler stack pattern</li> </ul>	<ul> <li>arbitrary, but most will likely follow "HTML (.js library accumulator)" pattern</li> </ul>
CODE PATTERNS	<ul> <li>Sample Button</li> <li>Sample Form</li> <li>AJAX req / resp</li> </ul>	<ul> <li>Accordion</li> <li>Live Grid</li> <li>Round corners</li> <li>Drag / Drop</li> <li>AJAX req / resp</li> </ul>	<ul> <li>extensible scheme for addition / edit of new code patterns</li> </ul>
DEPLOYMENT	J2EE / Apache	Apache	<ul> <li>J2EE / Apache</li> <li>Conformant server plugins</li> </ul>

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# **Coding Patterns**

- Technology-specific Coding Patterns may be added by Personality Builder
- Or developed and added by AJAX Developers
- These Coding Patterns may be distributed and shared

Templates
Name       Context       Description       Auto       New         If for       java       iterate over array       iterate over array       iterate over array         If for       java       iterate over collection       iterate over collection       iterate over collection         If is invalid       iterate over collection       if iterate       if iterate       if iterate         If is and       if iterate       if iterate       if iterate       if iterate         If is and       if iterate over an array or Iterable       if iterate over an array or Iterable         If is and       if iterate over an array or Iterable       if iterate over an array or Iterable         Inet       if iterate over an array or Iterable       if iterate over an array or Iterable         Inet       Yattern:       for (\$(iterable_type) \$(iterable_element) : \$(iter
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