Accessibility Tools Framework (ACTF)  
0.5 Release Review  
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Introduction

- The Accessibility Tools Framework (ACTF) is a Technology sub-project in the incubation phase
  - http://www.eclipse.org/actf

- ACTF aims at providing an extensible and comprehensive framework for accessibility tools.

- This is the first release on Eclipse.org and includes
  - Validation SDK
  - Visualization SDK
  - Alternative Interface SDK
Features

- **Validation components**
  - Provide extensible accessibility validation features with initial support for HTML, OpenDocument Format (ODF), Flash, Java Swing, Eclipse SWT, and accessibility APIs such as Microsoft Active Accessibility (MSAA) and IAccessible2.
  - Developers can customize validation rules by using XML configuration files or through Java APIs.

- **Visualization components**
  - Provide reusable view components for creating accessibility evaluation tools.
  - Provide a visual representation of the usability of content or applications for People with Disabilities (PwD).

- **Alternative interface components**
  - Provide middleware components to make multimedia content controllable via alternative input methods, to add audio descriptions or captions, and to transform user interfaces by using external metadata.

- **Infrastructure components**
  - Provide comprehensive and unified access mechanisms for the user interfaces of applications and for the object models of various kinds of content.
  - Provide middleware to manage components and dataflow in the framework on top of the Eclipse platform.
Non-Code Aspects

- Documentation
  - APIs have Javadoc.
  - Extension points have a reference document.
  - Validation SDK includes documentation in downloads.
  - Other SDK documentation will be published on the Eclipse.org website and be included in the downloads in the next (0.6) release.

- Publication
  - There was one short talk and two long talks about ACTF at EclipseCon08.
  - Some developer’s guide documents were published on the actf-dev mailing list. These documents will be available on the website.
APIs

- APIs conform to Eclipse Quality Standards
  - All APIs are currently provisional
  - ACTF plans to freeze the APIs after reflecting community feedback

- Several examples have been tested
Architectural Issues

Allow developers to build various types of accessibility tools on top of ACTF.

Tools and Runtimes on top of ACTF
- Accessibility Check and Visualization Tools
- Accessibility API Probe Tools
- Alternative Interface Runtimes
- Accessibility Plugins for Tools on Eclipse
- Other Tools, Runtimes, Plugins

Accessibility Tools Framework (ACTF)
- Validation
  - Validation Manager
  - Validation Engine
  - Validation Rules
- Visualization
  - Visualization Engine
  - Report Generator
  - View (UI)
- Alternative Interface
  - Alternative UI Transformer
  - Audio Description & Caption Service
  - Multimedia Controller
  - TTS Service

Accessibility Tools Framework (ACTF)
- Model Service
- Mediator
- Infrastructure
- Repository Service

Eclipse Platform
- Web Content
- Office Document
- Multimedia Content
- Java UIs
- Other Applications
- DB, File
- Existing TTS Engines
- Existing Applications and Content
- Other Tools, Runtimes, Plugins
Tool Usability

- Easy integration into Eclipse by providing several extension points, reusable and customizable view components, etc.

- Several kinds of exemplary tools are available
  - Accessibility API probe tool implementation: AccProbe
  - Accessibility visualization tool implementation: aDesigner
  - Alternative interface implementation for multimedia content: aiBrowser
  - etc.

- Ongoing enhancements and new use cases
  - New visualization tool that automatically analyses a webpage with respect to its visual complexity and shows the complexity as a heatmap.
  - New validation tool to validate pages for both accessibility and mobile friendliness.
    - Please visit the RIAM project page for more details (Reciprocal Interoperability of Accessible and Mobile Webs, <http://hcw.cs.manchester.ac.uk/research/riam/>)

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End-of-Life

- Since this is the first release, there are no features that are designated for end-of-life in this release.
Bugzilla

- Statistics from October 2007 through September 29th 2008
  - 130 bugs created (including initial contributions)
    - 96 were resolved

- Current Status
  - 34 bugs (including 11 enhancements)
    - 1 major bug (for exemplary tool not for platform)
Standards

- ACTF requires Java 1.5 or later and Eclipse 3.3.x or later

- W3C HTML 4.01 recommendation (and older recommendations 3.2, 4.0)
  - HTML model component

- OASIS Open Document Format v1.1 (approved)
  - ODF model component

UI Usability

- ACTF follows Eclipse User Interface Guidelines
Schedule

- ACTF 0.6 planned for December, 2008 (tentative)
  - Next release goals
    - Refinement of APIs
    - Complete Documentation

- ACTF 1.0 targeted for June, 2009
  - Key goals
    - Exit incubation
    - Freeze APIs as Platform API
Communities

- Active Bugzilla
  - mainly by committers (since no release available yet)
  - some from exemplary tool users

- Active discussions on the mailing list and in monthly calls.

- Newsgroup is not much used yet, but is regularly monitored by committers.
Plans for community growth

- Focus on community outreach
  - Hold an ACTF introduction session at accessibility conferences
    - Planned at ACM ASSETS, October 13-15, in Halifax, Canada.
  - Publicize ACTF release on mailing lists, such as
    - W3C Web Accessibility Initiative (WAI), Mozilla Developers ML, WebAIM, Google Accessibility Group, etc.
  - Contact related companies and invite them to join the community
  - Provide more documentation and examples

- Start discussions with other Eclipse projects
  - Contribute HTML model components to Web Tools Platform (WTP)
  - Contribute Validation components to Java Development Tools (JDT), WTP
  - Discuss Eclipse Accessibility Guide with User Interface Best Practice Working Group

- Start community implementation of check logic for coming accessibility guidelines
  - Web Content Accessibility Guidelines (WCAG) 2.0, new Section 508, etc.
IP Issues

- The code has been committed by individuals who are either committers of the project themselves or by their organizations.

- Approved IP Log at

- IP Log up2date at

- Project released under EPL
Thank you!