



Sequoyah 1.0
Release/Graduation Review
May 2010

Sequoyah Team

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Release review data compiled for [Development Process 2.4](http://www.eclipse.org/projects/dev_process/development_process.php)
(http://www.eclipse.org/projects/dev_process/development_process.php)

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Background



- Eclipse Sequoyah inherits components from TmL and MTJ, which have been active projects for more than 3 years. Both TmL and MTJ were on the Galileo simultaneous release and MTJ graduated at that time. Each of the projects have gone through numerous release cycles and are considered mature. Sequoyah satisfies the requirements for graduation and it is our desire to make this official with the Helios Simultaneous Release.
- Purpose: to be focused on the needs of all mobile developers, with no preference given to any particular operating system or programming language
- Intends to remove the artificial barriers of Linux and Java that were present in the TmL and MTJ projects, in order to provide a home for all Eclipse mobile developers
- Inherits components from latest versions of TmL, MTJ and Pulsar projects
- The *move and rename* of TmL into Sequoyah was proposed in September 2009 and was approved in December 2009.
- Sequoyah contains contributions from several mobile and embedded developers
- The goal of the project is to provide support for development of mobile applications on the Eclipse IDE

Features



- Project plan with milestones and detailed deliverables available on project web site (<http://www.eclipse.org/projects/project-plan.php?projectid=dsdp.sequoyah>)
- Components:
 - Device framework
 - Responsible for providing an extensible platform to support mobile devices and their services
 - VNC Protocol
 - An implementation of RFB protocol to support the visualization of frame buffer content
 - VNC Viewer
 - Contains the libraries and plug-ins responsible for providing VNC connectivity
 - Localization
 - Responsible for providing extensible support for any mobile application to be adapted for a specific region or language by adding locale-specific components and translating text
 - SDK Discovery
 - Enables easy management of Software Development Kits (SDKs) from within Eclipse Pulsar
 - Release Engineering (Releng)
 - Provides frameworks to do the builds and run automated tests

Project Health



- Codebase
 - Active codebase with 5 committers from 3 companies working on features
 - Motorola / Eldorado
 - Nokia
 - Wind River
 - Development is iterative and based on the Eclipse milestone schedule
- Testing
 - Examples use Sequoyah components
 - Manual Tests are part of generated builds
 - JUnit test cases integrated with the build process
- Adoption
 - Some components are used in commercial products

Non-Code Aspects



- User documentation and tutorials
 - End-user documentation available in the website and wiki pages:
 - <http://www.eclipse.org/sequoyah/documentation/>
 - <http://wiki.eclipse.org/Sequoyah>
 - Slide decks presented at [EclipseCon 2010](#) are available from the conference page
 - Older samples and tutorial available from the website and wiki pages

- Current implementation is in US English. Code uses NLS Standard for retrieving strings and formatting numbers
 - Bundles submitted to Babel project for Helios and are 100% complete as of May 2010

API Status



- [Eclipse Quality Standards](http://wiki.eclipse.org/Eclipse_Quality) (http://wiki.eclipse.org/Eclipse_Quality)
 - IP due diligence as per the [Eclipse IP Policy](#) and other Eclipse processes [\[5\]](#), [\[6\]](#), [\[7\]](#), [\[8\]](#)
 - IPzilla bugs [#3065](#), [#3066](#) and [#3273](#)
- APIs (http://wiki.eclipse.org/Eclipse_Quality)
 - Specifications: incomplete
 - Test suites: basic unit tests available; there are sample components that use them
 - Implementation: complete within the scope of the current specifications
 - Clients: some components are used in commercial products. No Eclipse projects depend on Sequoyah APIs
 - Support promise: within the scope of the current specifications
- /proc tools component will not be included in 1.0 release
 - To be migrated to Linux Tools project - ongoing
- Signing and permissions scanner components will not be included in 1.0 release
 - Migrated from MTJ, they still need some refinements that we couldn't implement due to time constraints

Architectural Issues



- Basic unit tests under development
 - (https://bugs.eclipse.org/bugs/show_bug.cgi?id=243511)

- GUI code is separate from core code using MVC concepts. This allows Sequoyah adopters to use the core components while maintaining their own user interfaces if they choose to do so.

- Sequoyah inherited components from:
 - TmL 0.4
 - MTJ 1.0.1
 - Pulsar 1.0.1

Tool Usability



- Localization component includes a string editor which is based on a JFace table editor
- The project provides VNC viewer functionality inside an Eclipse view. The interactions of the view are defined by the VNC protocol
- The SDK Discovery component, based on the P2 Discovery Catalog Viewer, provides two operations: SDK install and uninstall
- User interactions provided by Sequoyah elements (e.g. property editors, preference pages, wizards, etc.) all use Eclipse SWT controls and/or JFace components in a manner consistent with Eclipse UI Guidelines

End-of-Life



- [Ramp-down policy](#) for Sequoyah 0.5 is available at
 - http://wiki.eclipse.org/Sequoyah/Ramp_down
- For Sequoyah 1.0, no APIs are deprecated.

Bugzilla



- 206 bugs currently resolved or closed as of May 2010
- 9 open bugs, some of them work items for future releases
 - 4 inherited from TmL
 - 4 related to Pulsar
- 0 P1 and P2 bugs currently open
- 0 bugs of any severity of types == blocker, critical, or major
- Main bugs categories
 - bug fix
 - feature improvements
- No bugs with external patches applied

Standards



- Although the [Remote Frame Buffer protocol](http://www.realvnc.com/docs/rfbproto.pdf) is not an RFC, it is widely used. Sequoyah uses versions 3.3 and 3.8 of the protocol. (<http://www.realvnc.com/docs/rfbproto.pdf>)

UI Usability



- All resources in Sequoyah 1.0 release are provided in US English. All strings are stored and numeric formats are created according to Eclipse guidelines.
- All plugins store strings and other localizable resources inside bundles. Bundles were submitted to the Babel project for localization at the Helios M7 milestone and are 100% complete.
- Accessibility is not the focus of this release
- Sequoyah provides no changes to the Section 508 compliance available in the Eclipse project as a whole

Schedule



- 0.5 (internal release) released on 19 March 2010
- 1.0 to be released with Helios train on 23 June 2010

Open Source Rules of Engagement



- Open and Transparent
 - Open requirement calls every two weeks since April 2007, with breaks only for major holidays and EclipseCon
 - Agendas and access numbers are posted prior to calls and meeting minutes are posted afterward
 - Discussion of technical issues and project goals are conducted on public mailing lists (sequoyah-dev and mobile-iwg)
- Project uses Eclipsepedia for distribution of project information
 - Project/Milestone plans maintained on the project wiki
 - Major meeting minutes posted on the project wiki
 - Other meeting minutes posted to the mailing list
- Latest status updated to the community through RSS and Latest News in the website

Communities



- Commercial adoption
 - Sequoyah components are currently being used in Motorola MOTODEV Studio product
 - No other commercial adoption confirmed

- New members added to project in 2010
 - 3 code committers added
 - Marcel Gorri (Instituto Eldorado)
 - David Dubrow (Nokia)
 - Doug Schaeffer (Wind River)

Communities cont'd



- Good activity on sequoyah-dev mailing list
- All work accounted for on Bugzilla
- Bi-weekly open phone calls since April 2007, with announcements to mailing list several days prior
- PR/Evangelism
 - EclipseCon 2007 – 1 talk (1 10-min short talk)
 - EclipseCon 2008 – 2 talks (1 1-hr long talk, 1 10-min short talk)
 - EclipseCon 2009 – 3 talks (1 2-hr tutorial, 1 1-hr long talk, 1 10-min short talk)
 - EclipseCon 2010 – 2 talks (1 standard talk, 1 panel)
 - LinuxWorld 2008 – Long talk
 - Linux Foundation Consumer Electronics Forum 2009 – Long Talk
 - Individual recruiting activities

IP Issues



Per Eclipse IP Policy, the project leadership verifies that ...

- ✓ ... the "about" files and user licenses are in place as per the Guidelines
- ✓ ... all contributions (code, documentation, images, etc) have been committed by individuals who are Members of the Foundation and are abiding by the Eclipse IP Policy (training through Committer HOWTO)
- ✓ ... 3rd party libraries have been documented in the release and reviewed by the Foundation's legal staff
- ✓ ... all contribution questionnaires have been completed
- ✓ ... the "provider" field of each plug-in is set to "Eclipse.org"
- ✓ ... the "copyright" of each plug-in is set to the copyright owner
- ✓ ... there are no 3rd party logos or fonts to be licensed under the EPL
- ✓ ... All jar packages contains "Incubation" label to indicate the currently project status

See the IP Log at

- http://www.eclipse.org/projects/ip_log.php?projectid=dsdp.sequoyah

Project Plan



- 1.0 on the Eclipse Helios train (23 June 2010)
- Project Plan available at
 - <http://www.eclipse.org/projects/project-plan.php?projectid=dsdp.sequoyah>

Roadmap



Description	Project(s) Related	Proposed Priority
Change "Run Configuration" in order to allow running the same application in more than one device at the same time. We could have multiple install operations as well.		1-High
Provide support to other localizable resources, such as images, sounds, videos and layouts.		1-High
Support to native window management (bring part of this solution from MOTODEV Studio to OSS)		1-High
Profiling and test support / TPTP integration	TPTP (http://www.eclipse.org/tptp/)	1-High
Implement multi-selection in the localization editor. Ex: delete 10 lines in a single operation (today we would need to perform 10 operations)		1-High
Extend Device Framework to allow "Automation of emulator proxy settings"		1-High
Provide support to flash-based applications (sth on Sequoyah side?)		1-High
Android NDK support	CDT (http://www.eclipse.org/cdt/)	1-High
Provide Web applications support	Blinki (http://www.eclipse.org/blinkii/)	1-High
Portability: write once, run in all devices. We can create a framework that provides abstract services, and our users can create device specific applications using such services. We can provide checkers in order to identify points that are not common among applications, such as the use of different native APIs.	Real-Time Software Components (RTSC) (http://www.eclipse.org/dsdp/rtsc/) NAB (http://www.eclipse.org/dsdp/nab/) DLTK (http://www.eclipse.org/dltk/)	2-Medium-High
In order to interact with all the proposed projects (id19), we can use IMP (IDE Meta-tooling Platform). We can create an intermediate language or components/architecture description using IMP	IMP (http://www.eclipse.org/imp/)	2-Medium-High
Provide a framework for test automation. A Java-based language and Editor (abstracts Java related syntax). This "language" includes screenshots as states and elements of actions for steps of tests. In the future this Editor can be visual. We recommend that this solution uses id27.	Device Anywhere (http://www.deviceanywhere.com) Sikuli (http://groups.csail.mit.edu/uid/sikuli/)	2-Medium-High
UI Design		2-Medium-High
We can provide some integration with Higgins in order to allow the user to deal with security aspects in their application	Higgins (http://www.eclipse.org/higgins/)	2-Medium-High

Committers



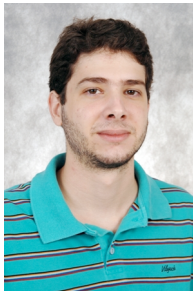
Eric Cloninger
Sequoyah Project Lead



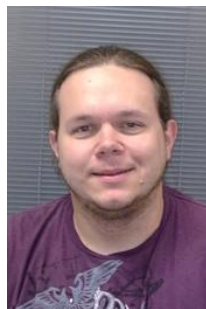
ELDORADO
EVOLUÇÃO TECNOLÓGICA

NOKIA
Connecting People

WIND RIVER



Daniel Franco



Daniel Pastore



Marcel Gorri



David Dubrow



Doug Schaefer

Contributors



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Project Resources



- Project web site:
 - <http://www.eclipse.org/sequoyah/>
- Project wiki:
 - <http://wiki.eclipse.org/Sequoyah>
- Regular phone meetings:
 - <http://wiki.eclipse.org/Sequoyah/PhoneMeetings>
- Developer mailing list:
 - <https://dev.eclipse.org/mailman/listinfo/sequoyah-dev>
 - sequoyah-dev@eclipse.org
- Downloads
 - <http://www.eclipse.org/sequoyah/downloads/>