



# Embedded Rich Client Platform (eRCP) 1.0 Release Review

September 11, 2006



# Introduction: eRCP 1.0 Release Review

- eRCP Project
  - Original project proposal submitted by IBM, Nokia, Motorola
  - Original code contributions from IBM and Nokia
- Major Milestones and Previous Releases
  - Project approved (11/5/2004)
  - eSWT specification completed (4/25/2005)
  - eSWT function complete build available (7/25/2005)
  - eRCP functionality complete with eUpdate available (3/14/2006)
  - eRCP moved to DSDP (7/19/2006)
  - Three platforms: Win32, WM200X, Series 80



## Features - eSWT

- eSWT is a GUI toolkit for embedded devices
- Can run stand-alone from other eRCP pieces
- Capable of running on J2ME CLDC profile
- eSWT Core
  - Basic widgets
  - The minimal set for Rich Client Apps
- eSWT Expanded
  - Additional widgets for more capable devices
  - Browser, Layouts, Dialogs
- eSWT Mobile Extensions
  - Widgets and function particularly for mobile devices
  - Handle different input mechanisms
  - Handle small/varied screen sizes



## Features – eRCP

- **eJFace:** a set of classes which extend eSWT to enable eRCP applications to integrate with an eRCP workbench, and provide more complex widgets like MVC oriented viewers
- **Core Runtime:** the Eclipse Core which provides OSGI and Extension Point Framework support
- **eWorkbench:** A UI framework which supports multiple cooperative eRCP applications, and a generic Workbench which manages launching and display of eRCP applications
- **eUpdate:** a simplified API and interface for dynamically updating device software
- **MicroXML:** smaller, faster implementation of SAX and DOM API



# Documentation

- The Release 1.0 JavaDoc is provided in zip form
- Several “How To” documents are provided to show how eSWT is used in application development via the Eclipse IDE
- An eSWT Programmer’s Guide is provided to explain how widgets are used, device adaptation principles and tips for writing binary portable embedded applications
- The eRCP web site is kept up to date with latest documents
- Able to take advantage of existing developer knowledge since we use familiar API and programming models



# APIs

- All eRCP and eSWT Core and Expanded APIs are existing SWT and desktop RCP APIs
- eSWT Mobile Extensions APIs are new, but very much in the same form as existing SWT APIs
- All APIs are defined in spec projects that have been compiled into a single downloadable JavaDoc zip file
- A test suite is provided to confirm spec compliance and 3 platform implementations confirms portability
- There are several projects using eSWT including the eSWT Demo App which utilizes almost every eSWT widget
- Have achieved application binary compatibility across multiple platforms



## Architectural Issues

- eRCP has periodically taken in functional specifications from desktop RCP and will continue to do so for future releases to keep projects in sync
- eSWT APIs are intrinsically extensible since their purpose is to provide UI function to a wide variety of applications and application models rather than serving any particular application/application model
- eSWT was partitioned into three pieces to facilitate use on low end devices that may not want all function in one lump

# End-of-Life



None, this is the first release of eRCP.



## Defect Statistics (9/4/2006)

- 24 Open reports (no P1 and P2)
  - 1 critical
  - 1 major
  - 18 normal
  - 3 minor
  - 1 enhancement
- 267 reports resolved for 1.0



## Supported Standards

- There are no official eSWT standards. However, SWT has been a well known API for many years. Any API in the eSWT subset follows the same specification of that API in SWT.
- OSGi
  - Inherited from desktop
- JME CLDC 1.0 (eSWT only)
- JME CDC 1.0



# Schedule

## **Planned schedule:**

- High Level Design complete – 10/8/2004
- Specification complete – 2/7/2005
- Test Suite Complete – 5/24/2005
- Implementations functionally complete – 7/5/2005

## **Actual schedule:**

- High level Design complete – 1/12/2005
- Specification complete - 4/25/2005
- Test Suite Complete – 6/28/2005
- eSWT Implementations functionally complete – 7/25/2005
- eRCP functionality complete - 3/14/2006



## Process

- The eSWT design and specification were developed in concert among IBM, Motorola, and Nokia committers, using the newsgroup and weekly conference calls to hash out design issues.
- After the specification was completed, bugzilla was used to track all changes to the spec and code.
- The newsgroup was the primary communication mechanism for development activities.
- A mailing list was established and used for conducting committer voting.

# Community



- Active newsgroup
- Presentations at EclipseCon 2005 and EclipseCon 2006  
(<http://www.eclipsecon.org/2005/sessions.php#eRCP>)  
(<http://www.eclipsecon.org/2006/Sub.do?id=174>)
- Front page article on eclipsezone.com  
(<http://www.eclipsezone.com/articles/ercp-interview>)
- EclipseWorld 2006 session  
([http://www.eclipseworld.net/friday\\_am.htm](http://www.eclipseworld.net/friday_am.htm))
- DeveloperWorks article –” Explore Eclipse's embedded Rich Client Platform” (<http://www-128.ibm.com/developerworks/library/os-ecl-rcp/index.html>)
- Eclipse Review magazine article – “Eclipse on Cell Phones”



# IP Issues

As per the [Eclipse IP Policy](#), the project verifies that:

- ... that the about files and use licenses are in place
- ... 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
- ... that all significant contributions have been reviewed by the Foundation's legal staff
- ... third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff
- ... that all contribution questionnaires have been completed
- ... the "provider" field of each plug-in is set to "eclipse.org"
- ... the "copyright" field of each plug-in is set to the copyright owner



# IP Log

- Committers with active code
  - mrogalski
  - jrobbins
  - lkues
  - ploats
  - eliu
  - mdlavin
  - jcarroll
  - uliu
  - mcheng
  - phsiao
  - pkrief
  - srauch
  - yyou
  - fphilippe
  - gercan
  - ehsu
  - jchen
- **Developers**
  - There are no non-committer contributions
- **Third Party Software**

NAME/VERSION	LOCATION	LICENSE	USAGE
libJPEG release 6b	eswt-exp.dll	un-named	use of unmodified object



# Project Plan

- eRCP plans to have its next release inline with the Europa release.
- eRCP may elect to deliver additional maintenance, tech preview, or off-cycle releases in addition to the above.



# Thank you

And please provide feedback...

- [https://bugs.eclipse.org/bugs/enter\\_bug.cgi?product=ERCP](https://bugs.eclipse.org/bugs/enter_bug.cgi?product=ERCP)
- <news://news.eclipse.org/eclipse.dsdp.ercp>
- [dsdp-ercp-dev@eclipse.org](mailto:dsdp-ercp-dev@eclipse.org)