Embedded Rich Client Platform (eRCP) 1.1 Release Review

July 25, 2007

Introduction: eRCP 1.1 Release Review

- eRCP Project
  - Original project proposal submitted by IBM, Nokia, Motorola
  - Original code contributions from IBM and Nokia
  - New committer from ProSyst

- Major Milestones and Previous Releases
  - Technology Project approved (11/5/2004)
  - eRCP moved to DSDP (7/19/2006)
  - eRCP 1.0 released (9/21/2006)
  - eRCP 1.0.1 released (1/4/2007)
  - eRCP 1.0.2 released (4/27/2007) – added WinCE 5 support

eRCP 1.1 Release Review | © 2007 by Mark Rogalski, made available under the EPL v1.0

Basic Features

- **Core Runtime:** the Eclipse Core which provides OSGI and Extension Point Framework support

- **eSWT:** Rich UI API, a subset of desktop SWT

- **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

- **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

Supported Platforms

- **Windows Mobile 2003** PPC & Phone Edition
- **Windows Mobile 5** PPC & Phone Edition
- **Windows Mobile 6** Classic and Professional
- **WinCE 5 Professional**
- **Windows Desktop** (2000, XP)
- **Nokia S80**

New Features in eRCP 1.1

- New platforms: Windows Mobile 6 Classic and Professional

- Currency with Eclipse 3.3

- eSWT

    - Windows Mobile 5 & 6 softkey support

    - New SystemTray capability

    - Bug fixes and improvements

Features not included

- Additional eSWT support for multiple displays has been discussed, but this was too late to include in this release

- Additional accessibility support has been requested, but was too late to include in this release

Non-Code Aspects

- The complete eRCP 1.1 JavaDoc is provided in zip form
- Programming guides and "How To" documents are provided on the eRCP website
- Translation of the runtimes is provided for 10 languages
  - English
  - Spanish
  - Italian
  - French
  - Brazilian Portuguese
  - German
  - Japanese
  - Traditional Chinese
  - Simplified Chinese
  - Korean

APIs

- All eRCP base platform and eSWT 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. Few changes for eRCP 1.1

- An eSWT 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 synchronized base platform components with desktop RCP and will continue to do so for future releases to keep projects in sync. Our goal is to do this within 2 months of major RCP releases.

- 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

Tool Usability

- Eclipse IDE can be used to develop applications for eRCP

- Eclipse Eco-System is also producing tools
  - Instantiations is producing a commercial visual editor tool for eSWT

End-of-Life

- S80 Runtime will still be downloadable but not updated or supported

  - S80 devices are no longer sold by Nokia

  - S60 Runtime compatible with eRCP 1.1 will be contributed and released in several months when Nokia releases the SDK needed to compile it

Defect Statistics (as of 7/11/2007)

- 21 Open reports
  - 1 blocking (being addressed)
  - 4 major   (being addressed)
  - 13 normal
  - 1 minor
  - 2 enhancement
- 21 reports resolved since for 1.0.2

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

UI Usability

- The only application interface in eRCP is for Application Manager (eUpdate). This interface is designed for devices so already takes into account small screens and different input mechanisms.

- eRCP Application Manager and demo apps are translated into 10 languages and enabled for other languages including bi-di

Schedule

Planned schedule:
- eRCP 1.1 release on 7/18/2007

Actual schedule:
- eRCP 1.1 release on 8/1/2007 due to Release Review schedule

Community

- Committers
    - Active newsgroup, mailing list, and bugzilla

- Users
    - 7000 Downloads this year
    - Feedback from ProSyst, SAP and other users

- Adopters
    - IBM   – Lotus Expeditor for Device is based on eRCP
    - Nokia   – Nokia eRCP with independent implementation of OSGi
    - ProSyst   – Independent implementation of OSGi
    - Sony Ericsson – Independent implementation of eSWT
    - Sprint   – Specifying support for eRCP in Mobile Java Service Platform

Community (Continued)

- Presentations at EclipseCon 2005, 2006, 2007
  (http://www.eclipsecon.org/2005/sessions.php#eRCP)
  (http://www.eclipsecon.org/2006/Sub.do?id=174)
  (http://eclipsezilla.eclipsecon.org/php/attachment.php?bugid=3688)
- Front page article on eclipsezone.com
  (http://www.eclipsezone.com/articles/ercp-interview)
- EclipseWorld 2006 session

  (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, see
  https://dev.eclipse.org/ipzilla/show_bug.cgi?id=337
- ... 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

Project Log

- ## Committers
  - Mark Rogalski
  - Jim Robbins
  - Phil Loats
  - Erxiang Liu
  - Uriel Liu
  - Michael Cheng
  - Philippe Krief
  - Ken Walker
  - Aleksi Uotila
  - Yu You
  - Frederic Philippe

  - Romain Bailly
  - Franck Leveau
  - Bertrand Boudaud
  - Auli Joki
  - Petru Motrescu
  - Jussi Suistomaa
  - Gorkem Ercan
  - Eric Hsu
  - Julian Chen
  - Daniel Su
  - Danail Nachev

- ## Developers
  There are no non-committer contributions

- ## Third Party Software

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

This log can be found at http://www.eclipse.org/ercp/project-log.html

IP Speak-Up-Now

- The EMO explicitly asks during the Release Review if any Member would like to assert that this release infringes their IP rights. If so, the EMO and the project will follow the Eclipse IP Policy in discussions with that Member.

Project Plan

- Contribution of eSWT for Nokia S60
    - Date not set, but expected within 3 months

- Contribution of eSWT for GTK
    - Date not set, dependent on legal clearance

- Possibly building runtime for Windows Mobile Smartphones
    - Dependent on availability of a CDC JVM for smartphones

Thank you

Bugzilla entry for commenting on this Release Review:

- https://bugs.eclipse.org/bugs/show_bug.cgi?id=196726

And please provide on-going feedback…

- https://bugs.eclipse.org/bugs/enter_bug.cgi?product=ERCP

- news://news.eclipse.org/eclipse.dsdp.ercp

- dsdp-ercp-dev@eclipse.org