

Developing applications using Embedded Rich Client Platform (eRCP)

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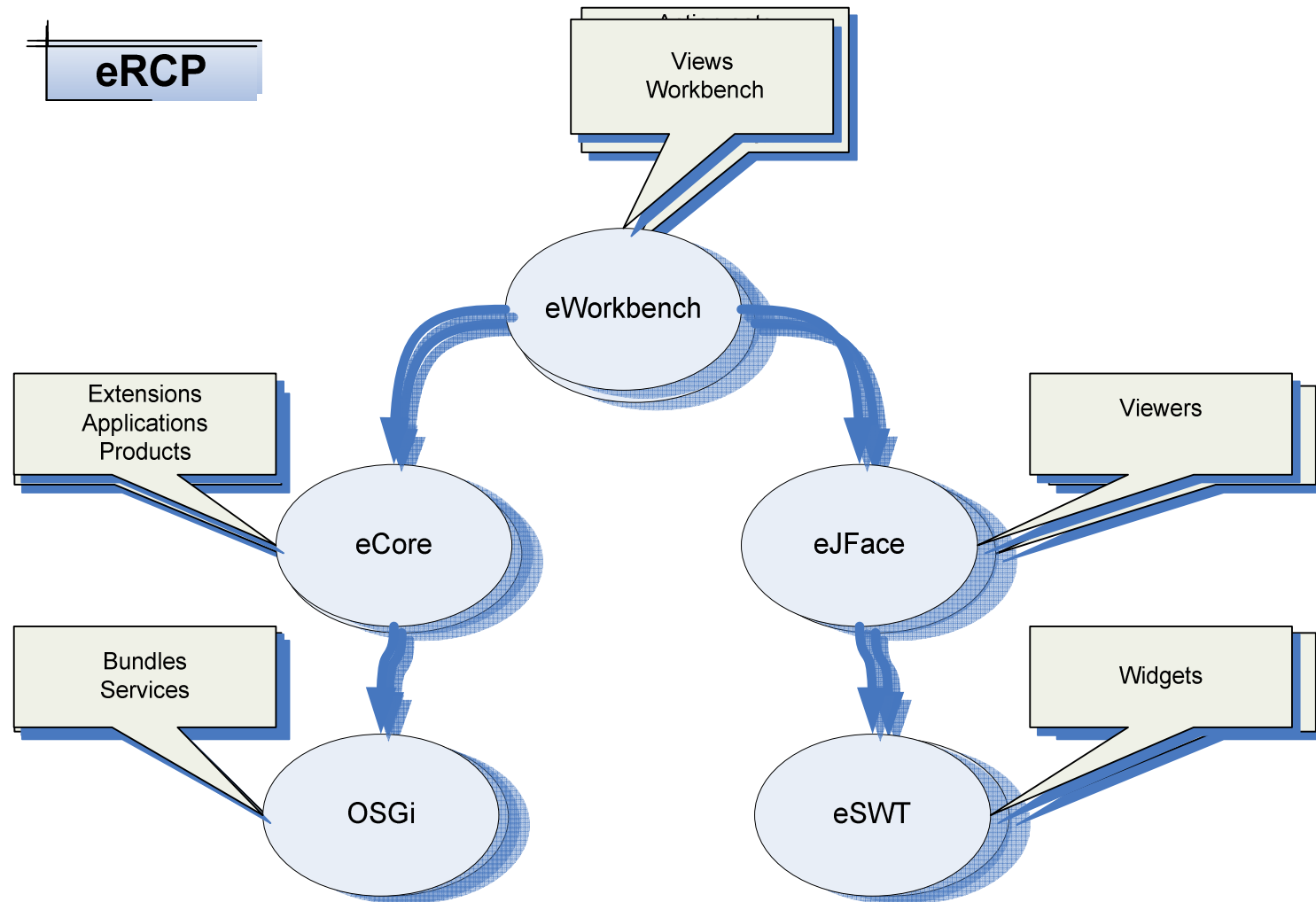
What is eRCP

- eRCP is an embedded version of the Rich Client Platform
- Project was launched by Nokia, IBM and Motorola
- Utilizes same standard OSGi Service Platform
- Reduces RCP size and functionality to fit on devices
- Pushes requirements/patches back to core components
 - Enable running core components on JME CDC/Foundation Profile
 - Keep dependencies in check
- Adds components to enable application binary compatibility across a range of devices

Architecture

- OSGi underpinnings
- Applications and services run in the same JVM instance
- eRCP applications can be launched from a workbench or be integrated into the native desktop
- Deployable to a range of devices
 - Desktops, cell phones, handhelds, internet tablets etc.
 - eRCP applications can also run on RCP
- It is also possible to have stand-alone eSWT applications and MIDlets

Relating eRCP to RCP



eWorkbench

- Provides the main “container” for application views that are created by eRCP applications
- Responsible for managing the UI thread
- Applications and services run in the same JVM instance
 - Fewer resources than separate JVMs
 - Allows sharing of services
 - Enables variety of life cycle models
- eRCP applications are created as Eclipse plug-ins for the eWorkbench

Adding applications to eWorkbench

- Plug-ins intended to run in the eWorkbench are required to contribute extensions towards the following extension points
- `org.eclipse.ui.views`
 - This extension point allows applications to provide their views
- `org.eclipse.ercp.eworkbench.applications`
 - Introduces applications to eWorkbench
 - To accommodate with devices with multiple displays, it can have three types of views – Normal, Large and Status. Only the Normal view is required. Each view type is defined into separate **view** element

Introduction to eSWT

- Subset of SWT and additional mobile specific widgets
- Provides efficient, portable access to the user interface facilities of the operating system
- Consists of 3 packages
 - SWT subset divided into two
 - *core* package
 - *expanded* package
 - *mobile* package - new eSWT components defined for mobile world

Required development tools

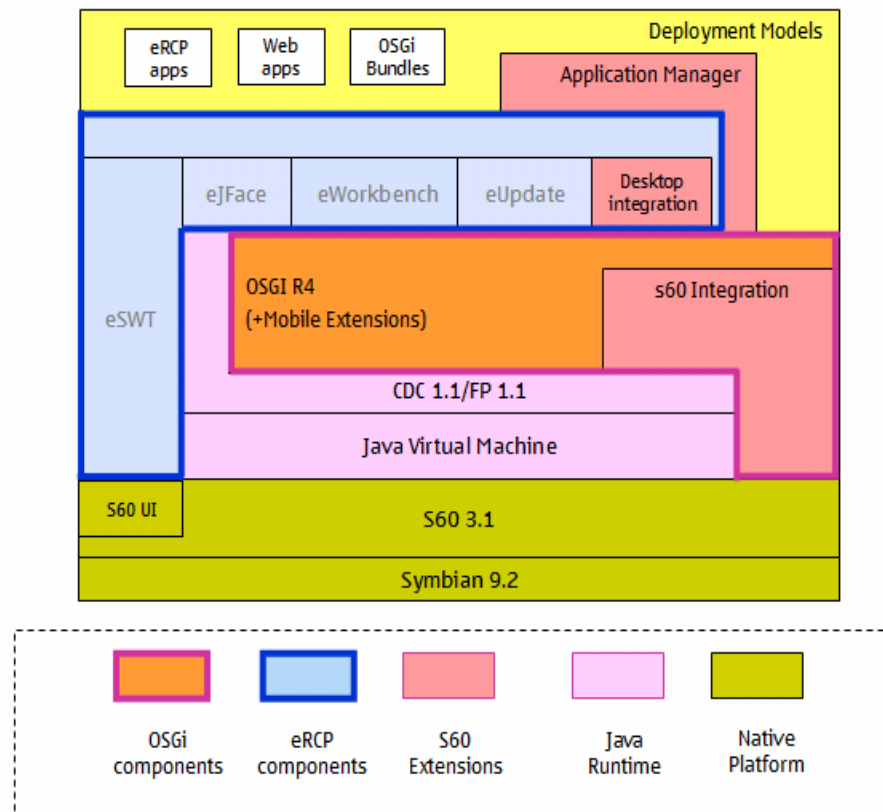
- Eclipse 3.3.1 with Plug-in development environment (PDE)
 - www.eclipse.org/downloads
- eRCP distribution for Windows Desktop
 - www.eclipse.org/ercp
- And a java runtime
 - <http://java.sun.com/javase/downloads/index.jsp>

Deployment to a real Device



Demo environment

- Seamless integration with the native S60 3.1 desktop environment.
- Application Manager integrates Eclipse eUpdate
- Includes complete OSGi R4 implementation including the Mobile extensions defined by the specification
 - Create servlet based local Web applications
- Supports Deployment Package model defined in OSGi R4



Conclusion

- eRCP brings the RCP paradigm to mobile devices
- Website
 - <http://www.eclipse.org/ercp>
- Newsgroups
 - <news://news.eclipse.org/eclipse.dsdp.ercp>
- Always looking for contributors!