Eclipse the Rich Client Platform

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Desktop OSGi Applications
What is the Eclipse Rich Client Platform

While the Eclipse Platform is designed to serve as an open tools platform, it is architected so that its components can be used to build just about any client application. The minimal set of plug-ins needed to build a rich client application is collectively known as the Rich Client Platform.

- A subset of the full Platform
- There are other subsets
Rich Client Platforms

• Pros:
  – Look good
  – Easy to use
  – Performant
  – Disconnected

• Cons:
  – Larger client
  – Deployment
  – Maintenance

Eclipse + OSGi = no Cons!
RCP Applications

- Wide range of use domains
  - Device management
  - Banking
  - Research
- Secret Sauce
What do these have to do with OSGi?

- Implemented on top of OSGi
- OSGi component architecture is key
- Bundles assembled into applications
Think beyond the device

- Server
- Neutron Beam Instruments
- Hand held
- Desktop
- Medical instruments
- Cars

Everything is a device
Focus on components
Components change the game

- Components enable composition
  - Isolate and insulate
  - Provide terminology for defining interaction
- NASA Maestro
  - Distributed development teams
  - Assemble applications/suites frequently and quickly
  - Control function availability
  - World-class features and function
Demo

- Developing an RCP application
- Kiosk
RCP Summary

- Rich set of functionality
  - Help, Update, COM/OLE, Reporting, …
- Pervasive Plug-in/Bundle architecture
- Extensible
- Scalable
  - Supports large products (e.g., RAD, Lotus Workplace)
  - Scales down to embedded devices (eRCP, JCL/Foundation)
- Customizable (see examples)
- Dynamic

OSGi-based Middleware for Applications
Reference Material

- RCP Book – [http://eclipsercp.org](http://eclipsercp.org)