



Introduction to the Eclipse Communication Framework (ECF)

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Agenda



- **Background and Value**
- **Introductory Demos**
- **ECF For Plug-in Developers**
 - **Demos**
- **ECF Extensibility**
 - **Demos**
- **API Summary**
- **What's Next?**
- **Conclusion**

Background



- **What is ECF?**
 - **To put it simply, a framework to create distributed based applications and tools within Eclipse**

The Value



- **For Eclipse Users**
 - **Team Communications**
 - **IM, Chat, File Sharing, VOIP, etc**
 - **Multiple Protocols/Services**
 - **Google Talk/XMPP, Yahoo, MSN, Skype, etc.**
 - **Interoperable with other clients**

The Value

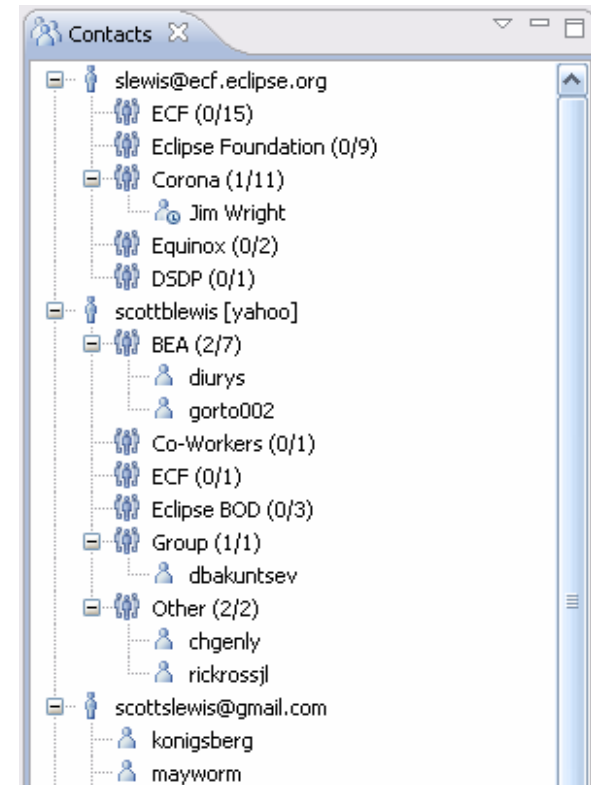


- **For Plugin Developers**
 - **Open APIs**
 - **Presence/IM, File Transfer, Discovery, VOIP**
 - **Extensible**
 - **Support for Open (or closed) Services and Protocols**
 - **Eclipse, RCP, eRCP, Servers**



Demo: Contacts

- Contacts List/IM
 - Links in Chat
 - File Transfer
- IRC/Group Chat
 - Chat Bot (KOS-MOS)
- Integration with Eclipse
 - URL sharing
 - Others: Mylyn, Debug, Shared Editing

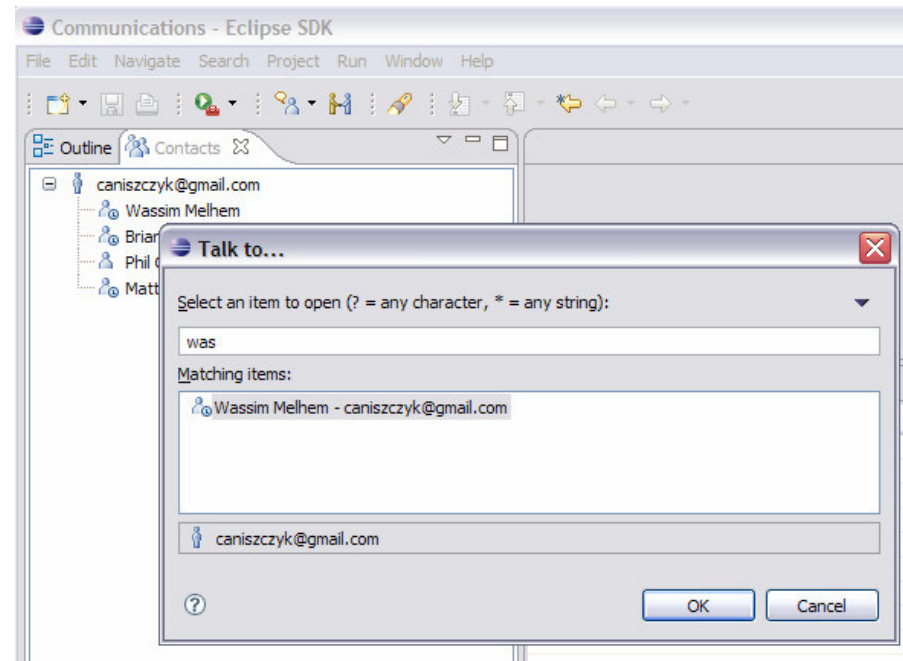




Demo: Contacts Searching

- Quick Access to Contacts

Navigate	
Go Into	
Go To	
Quick Context View	Ctrl+Alt+Shift+Right
Open Resource...	Ctrl+Shift+R
Open Task...	Ctrl+F12
Activate Task...	Ctrl+F9
Deactivate Task	Ctrl+Shift+F9
Open Contact	Ctrl+Shift+P
Show In	Alt+Shift+W
Next	Ctrl+,
Previous	Ctrl+,
Last Edit Location	Ctrl+Q
Back	Alt+Left
Forward	Alt+Right



Demo: Connect via Hyperlink

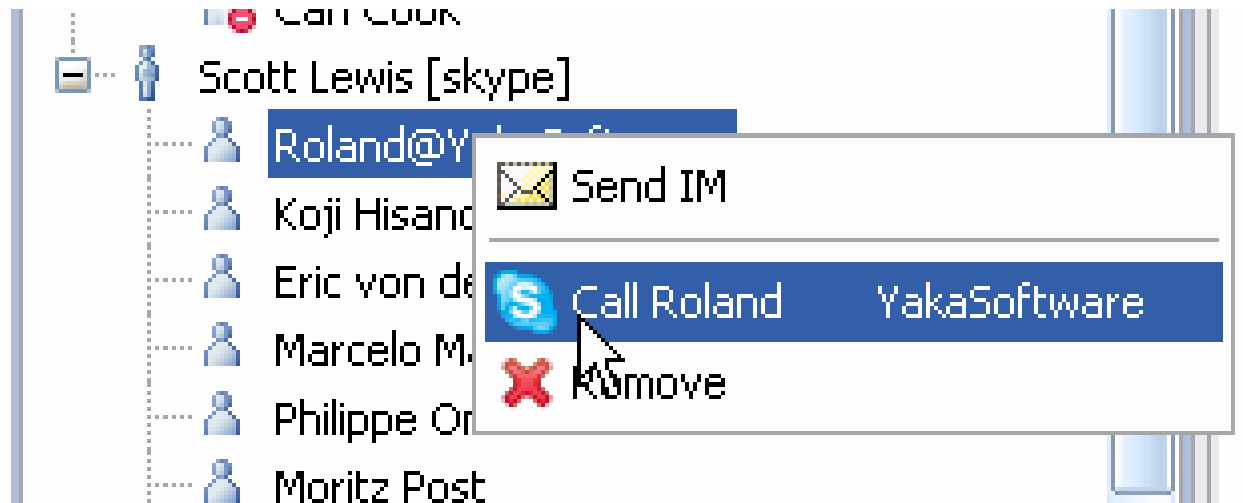


- **Communication Links in Documents**
 - **Text and Source**
 - **IM – Direct Connection with User**
 - **Chat – Join Group**



Demo: Skype & VOIP

- IM/Chat Features
- Skype Calling



Demo: Generic Server



- **Starting as an IApplication**
 - **AppGenericServer**

Demo: Dynamic Service Discovery



- **Zeroconf Implementation**
- **Discovery Using other Mechanisms/Protocols**
 - **JXTA**
 - **UpnP**
 - **Others**

ECF For Plugin Developers



- **Open and Extensible APIs**
- **Provider Architecture for Multiple Protocol Support**
- **Adapter Pattern for Types of Communication**

ECF Container



- **Core ECF Interface: IContainer**
 - **Represents session**
 - **Adapters for communication:**
Icontainer.getAdapter(<interface>);

Demo: Presence API



- **IContainerManager to get all containers**
- **Find containers that implement presence API adapter**
- **Use adapter!**
- **Example:**
`ShowAllRostersContribution`

Demo: Presence API



- **Example**

- `ShowSelectedRosterContribution`

Demo: Adding Items to Contacts View



- **Adding IActions to Contacts**
 - `RosterEntryContribution1,`
`RosterEntryContribution2`

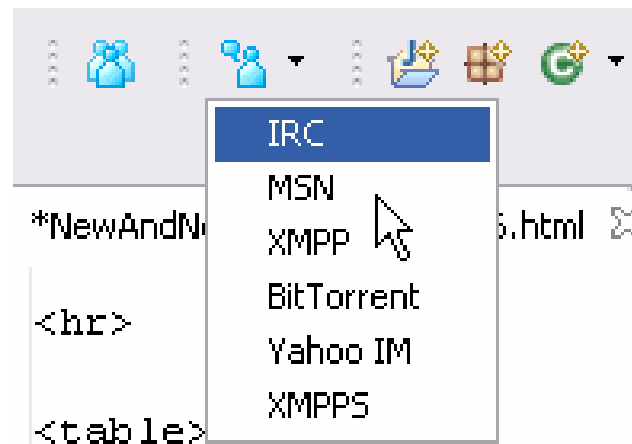
Demo: Drag and Drop Support

- `org.eclipse.ecf.presence.ui.rosterViewerDropTarget`
- `RosterEntryDropTarget`



ECF Extensibility

- OSGI Services, Extension Points and API
- New providers (impl)
 - Yahoo, Skype, JMS, others (JXTA), etc.



Demo: Adding providers



• **Trivial Provider**

- **IContainer**
- **Namespace**

Demo: RCP App



- **Sudoku**

- **Integrated with ECF Buddy List**

Summary: APIs



- http://wiki.eclipse.org/ECF_API_Docs
- **Datashare**
- **Presence/IM/Chat**
- **File Transfer**
- **Discovery**
- **VOIP**
- **Remote OSGi Services**

What's Next?



- **Ganymede Roadmap**

- http://wiki.eclipse.org/ECF_Ganymede_Roadmap

- **Community Driven Approach:**

- **More UI Features**
- **VOIP: Skype, Jingle, Asterisk, SIP**
- **Integration with Mylyn/Other Tools**
- **Pending Contributions/Efforts**
 - **Shared Editing**
 - **ShareCode/Java Searching**
 - **Bulletin Board Client**
 - **BugDay Bugs**

Conclusion



- **ECF is a growing project**
 - Easily add communications support to your applications
 - Many providers
- **Webpage**
 - <http://www.eclipse.org/ecf>
- **Newsgroups**
 - eclipse.technology.ecf
- **Always look for Contributors!!!**
 - <http://wiki.eclipse.org/BugDay>
 - Query bugs for keyword 'bugday'

Resources



- **ECF Project Home Page:**

- <http://www.eclipse.org/ecf>

- **ECF Plugins (anon CVS):**

- **dev.eclipse.org**

- **/cvsroot/technology/org.eclipse.ecf/examples/plugins**

- `org.eclipse.ecf.examples.webinar`

- `org.eclipse.ecf.examples.provider.trivial`