Peerclipse: Tool Awareness in Local Communities

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Abstract. Motivated by our research in the field of Eclipse users, we want to present our idea of Peerclipse – an Eclipse plug-in to support tool awareness and tool sharing in local communities, which are using Eclipse for software development.

Grounded Design of Peerclipse

Eclipse is a good example for a highly flexible contemporary software system. It is based on an "everything is a plug-in"-philosophy and can be radically tailored by adding some of the thousands of additional components available on the Internet. Therefore, the user has the opportunity to adapt the software to the needs of his local working context. Unfortunately it is very difficult to keep track of the available components. In the CoEUD[1] research project we investigated how people use Eclipse as their daily working environment in Software companies. One of the key findings showed that, when the need for a new tool arose, suitable recommendations regarding tool selection, installation, and configuration were sought out from co-workers who also found themselves in similar working contexts. We especially could observe this in environments where software

[1] http://www.coeud.org/

development was organized in agile teams. People did trust in their co-workers advice much more than in recommendations found on the Internet.

We therefore follow Mackay (1990), Kahler (2001) and our own observations, and suggest that tailoring support for tools like Eclipse should mirror the cooperative aspect of the users working environment.

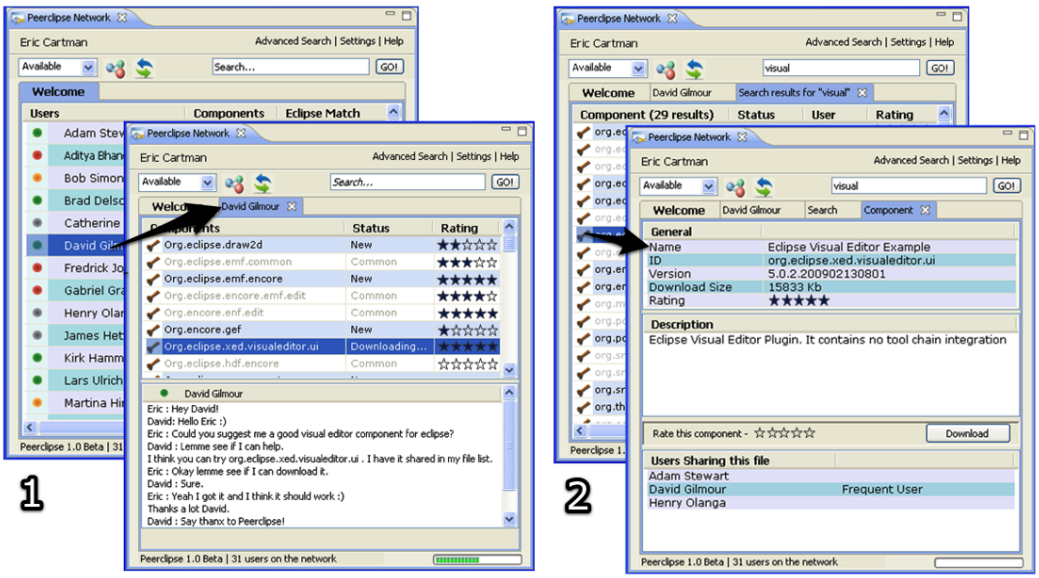

Figure 1. The Peerclipse User Interface.

Our empirical study has sensitized our design, demonstrating that tool awareness is an important issue. However there are often constraints that hinder an organic awareness, but should be supported by an appropriate technical infrastructure. Figure 1 presents first snapshots of the JXTA Peer-to-Peer based Peerclipse plug-in for Eclipse. It gives a good impression of how awareness support for tools used by co-workers could be integrated into Eclipse. It allows ad-hoc, Peer-to-Peer browsing, search and sharing of tools, used within the team. The team can be seen as a repository of tools in use and people with experience using these tools.

Scenario 1 (see Figure 1) shows Peerclipse, as the user Eric is searching for an appropriate user to look up for a desired component. In getting aware of his co-worker David, Eric starts to study David's configuration in detail. Scenario 2 (see Figure 1) illustrates a reverse activity of first searching the component and then looking up at the component's profile prior downloading it.

References

Kahler, H. (2001). Supporting collaborative tailoring. Roskilde, Roskilde University, Denmark.

Mackay, W. E. (1990). Users and customizable Software: A Co-Adaptive Phenomenon. Boston, MIT.