

Application Development for Mobile and Ubiquitous Computing

Peer-to-peer Whiteboard First Presentation

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10/30/2009

Application Scenario

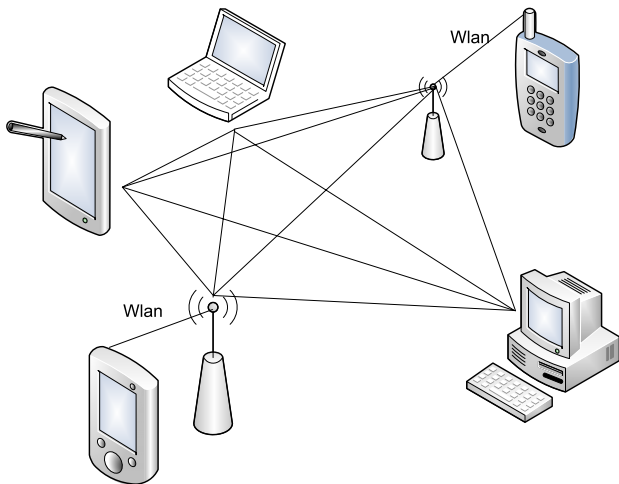
- Whiteboard with vector-graphics-support
 - share and/or save quick notes, sketches
 - distributed meetings
 - e-learning
- useable with wide range of devices
 - normal PC (Windows, Linux)
 - Tablet PC (Windows, Linux)
 - Laptop, Netbook
 - PDA (Windows Mobile)
- peer-to-peer-based (robustness)

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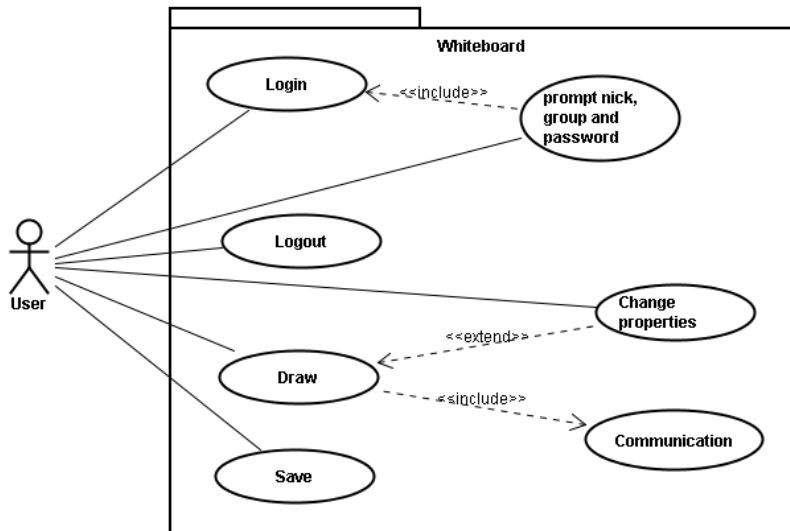
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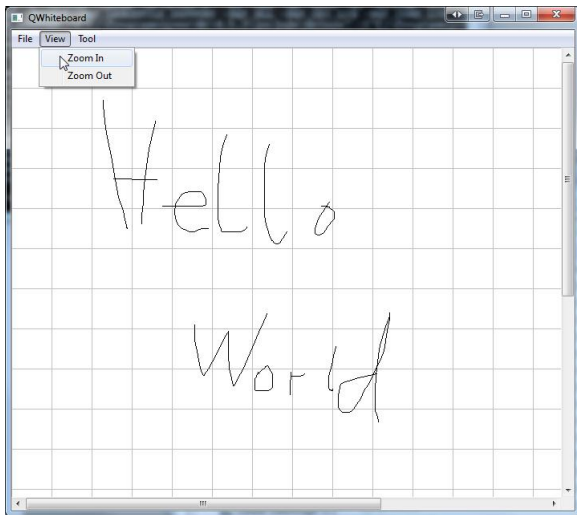
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Use-Cases



Mockup



Technologies

- Qt
 - cross platform C++ library
 - many modules: Core, GUI, Database, XML,...
 - Windows, Linux, Mac, Windows CE, embedded Linux, soon: Symbian, Maemo
 - LGPL, proprietary
 - sample applications built with Qt: Google Earth, Photoshop Album, KDE, Skype, VLC
- JXTA (Juxtapose)
 - open source peer-to-peer protocol
 - C/C++/C# Java

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Challenges

- different screen sizes
- Bandwidth, Latency
- Disconnections
- Heterogeneity
- Performance (vector graphics)
- Consistency

Work plan

- 1 port jxta-c to Windows Mobile
- 2 built a simple p2p-prototyp (e.g. chat-application with jxta and Qt)
- 3 built a single-user-whiteboard with Qt
- 4 extend whiteboard with p2p-capabilities