

Rambutan

Requirements Management Tool
for Busy System Analysts

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Agenda

- Product Overview
- Sample Screens
- Architecture Overview
- Product Demonstration
- Q & A

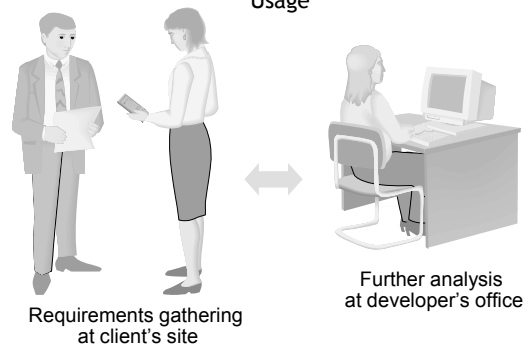
Product Overview

Statement of Purpose

Providing facilities to collect and organize natural-language requirements immediately as they are being uttered by the stakeholders.

Product Overview

Usage



Product Overview

Competitive Advantages

- Handheld application (for PDAs)
- Desktop companion
- Multi-platform
- Pattern-based design
- XML-based document format (RQML)
- Methodology-agnostic
- Open-source license

Product Overview

Current State

- Handheld and Desktop applications:
 - Natural-language requirements collection
 - Single user
 - Java desktop application
 - SuperWaba handheld application
 - Supports PalmOS and PocketPC
 - Limited functionality
- Immediate next phase:
 - Traceability functions
 - Seamless data transfer (desktop conduits)

Product Overview

Future Developments

- Collaborative Document editing
 - ▶ Edits requirements document simultaneously
 - ▶ Client/Server environment
 - ▶ Discussion/Messaging facilities
 - ▶ Scheduling tools
 - ▶ Collaborative decision-making tools
- On-line multi faceted RM system
 - ▶ Hybrid UI (GUI, web, WAP, mobile applets)
 - ▶ Provide access to external stakeholders

Screenshots

Handheld Application

- Document List
 - ▶ Displays requirements documents available in device
 - ▶ Tap on New to create a document
 - ▶ Tap on document name to modify a document



Screenshots

Handheld Application

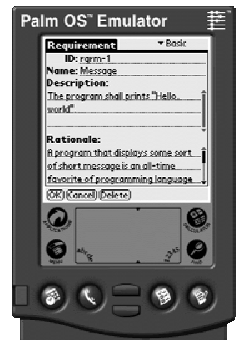
- Element List
 - ▶ Displays requirement entries of a certain type in a document
 - ▶ Tap on New to create an entry
 - ▶ Tap on an element name to modify the element
 - ▶ Tap on Close to return to document list
 - ▶ Tap on Delete to remove the document
- Requirement types:
 - ▶ requirement, stakeholder, assumption, issue, use case, project, taxonomy, context, lexicon



Screenshots

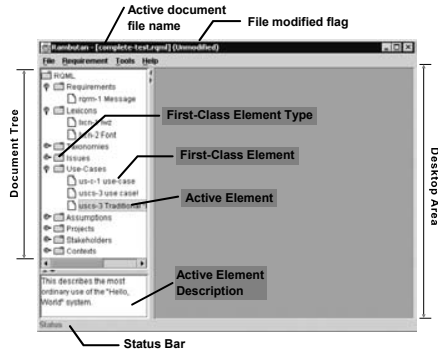
Handheld Application

- Element Edit
 - ▶ Modifies a requirement entry
 - ▶ Consists of multiple screens, selectable via a drop-down list in the upper right
 - ▶ Different requirement types each has its own set of editor screens



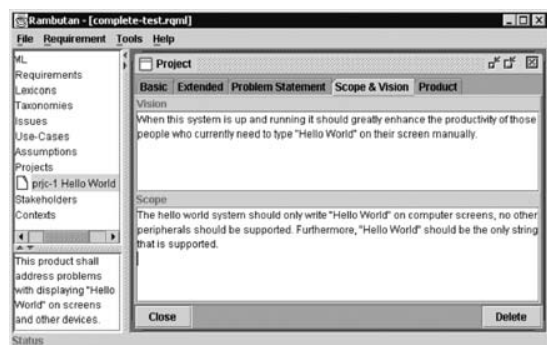
Screenshots

Desktop Application

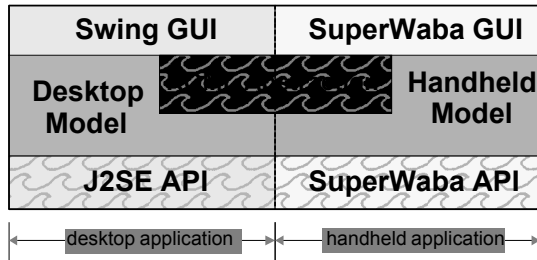


Screenshots

Desktop Application



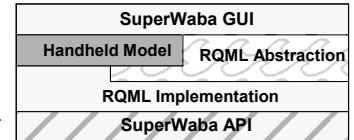
Architecture Overview



Architecture Overview

Handheld Application

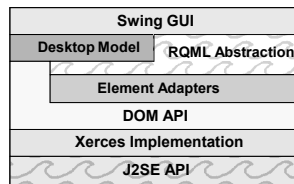
- Two-layered application
 - User Interface layer
 - Data layer
- Quasi-MVC architecture
 - UI layer: view and controller
 - Data layer: model
- Shared component: RQML Abstraction
- Stores data in proprietary format



Architecture Overview

Desktop Application

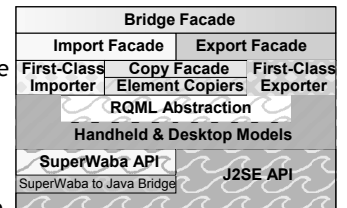
- Two layered application
 - User Interface layer
 - Data layer
- XML-based data format
 - RQML Abstraction (data model)
 - Adapts RQML to DOM
 - Xerces' implementation of DOM
- Swing's Separable Model Architecture
 - UI layer: Swing-derived classes
 - Data layer: adapters for Swing's model



Architecture Overview

Data Conversion Component

- Located in the desktop application
- Converts data between the two applications
- Several layers of facade classes
- Runs the handheld's data model code in the desktop application



Product Demonstration

- Create document in desktop
- Add requirement entries in desktop
- Transfer data to handheld
- Modify entries in handheld

Thank You

Questions?