



digia Realizer

Digia Realizer is the first task model driven design tool and platform for creating business-critical internet applications. Through this new development paradigm, Realizer enables crystallising early-stage concepts through interactive web prototypes and provides a comprehensive development environment to turn these ideas into robust web applications.

New opportunities include rapid production of interactive web user interfaces and, embedded communication tools that enhance stakeholder communication and help find the right system requirements early in the project life cycle.

Simulations involve end users and stakeholders effectively in the design process and help steer projects right into their target. Realizer links prototypes with a robust technical architecture and supports efficient converting of early-stage concepts into deployed applications.

Realizer enables straightforward adaptation of applications to the capabilities of browsers in mobile, PDA and PC devices. Mobile services no longer require separate implementation projects. Rather, with minor specialisation efforts, a single project results in a web application that is genuinely usable for all internet users, whatever device they are using.

Efficient and intelligible software specification

Textual documents, slides, UML charts and other traditional means of software analysis are inadequate means for communication between customers, suppliers and other stakeholders: up to 70 per cent of post-implementation change requests can be traced back to misunderstood requirements¹.

Business analysts and end users are not necessarily experts on software specification methods, and this makes it difficult for them to contribute to the gathering of software requirements. Projects are too often budgeted, scheduled and started based on wrong assumptions, and it is then hard to mend their course.

Realizer enables rapid production of interactive browser-based user interfaces to help communicating early-stage concept ideas and software specification. Used in project meetings or online – from web – the user interfaces allow interest groups to observe and use the system almost as if it were the real thing. Experiences from using the seemingly ready application eliminate communication gaps and provide immediate understanding of the consequences of using the system on a daily basis.

Discovering the right requirements early in the project life cycle entails reaching the necessary people and gives them concrete artefacts for good-quality feedback. Embedded communication tools enable context-specific comments and discussions right on top the user interface, and this does not require software specification skills.

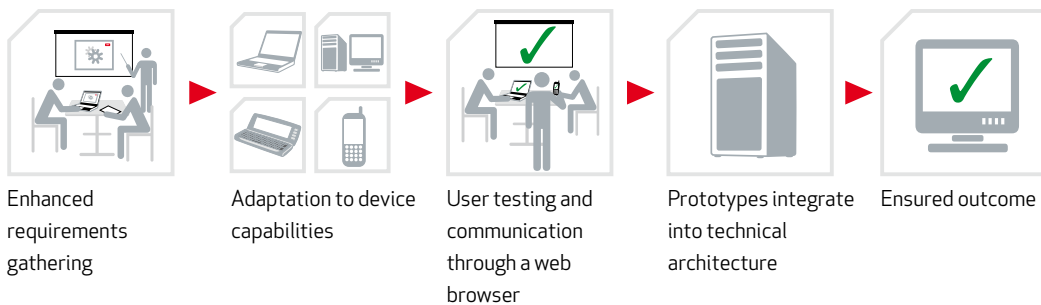
The basis of Realizer's user interface design - task modelling - supports task flow specifications without acknowledging their visual appearance in various user interfaces. This enables solving a traditionally challenging problem of developing genuinely multi-device internet applications.

Task modelling provides a cost-efficient method of designing user interfaces for very dissimilar displays, by using common design elements. Realizer automatically recognises users' terminal type and adapts content and features to match its capabilities.

From analysis to implementation

Proceeding from a conceptual user interface to a technical IT system usually imposes a gap. In other words, technical user interface development is usually started from the beginning when the prototype has been ascertained to be of sufficient quality. This raises the threshold for comprehensive testing of user interface functionality and imposes defective features that must be corrected after implementation.

Realizer's architecture is based on task models, which makes UI prototypes technically compatible with the programmable background layer. This means that at the start of the implementation stage, the user interface prototypes get incrementally integrated with the technical system architecture, instead of them being discarded. This makes the transition from analysis to implementation easier, increases productivity and makes ensuring user experience more manageable, even in fast-paced projects.



► Figure 1: User interface simulations help steer projects to the right direction from the start.

¹ Forrester Research Report: Show, Don't Tell: How High-Fidelity Prototyping Tools Improve Requirements Gathering

Ways to use Realizer

Realizer is suitable for many purposes, such as:

- Rapid crystallisation of new ideas with interactive web user interfaces
- Collaboration and requirements gathering with partners and end users globally
- Creation of multi-device, browser-based and business critical systems
- Enhancement of information system analysis
- Agile user testing using real end user devices, in real working environment
- Utilisation of existing SOA services on new types of devices

Benefits of Realizer

Improved communication and requirements gathering

- Web-based user interface simulations and embedded communication tools help reaching all necessary people and quicken the process of gathering the right system requirements
- Feedback on user interfaces published online can be collected from the field reliably, regardless of location, in actual work situations and utilising the users' own devices
- Enhanced stakeholder communication facilitates well-founded go/no-go decisions based on feedback from partners and end users
- Accurate simulations enable early-stage planning for marketing and training material, as well as estimates for the necessary budget and schedule for technical implementation

Ensured interest group and end user commitment

- Interest groups are effectively involved in the design process, which lessens change resistance and decreases the number of change requests after implementation
- Efforts put into usability and visual appearance will not be "lost along the way" but will instead be automatically included in the deployed system

Incremental progress from a concept to a robust technical outcome

- Realizer projects eliminate disposable prototypes. Early-stage interactive prototypes grow incrementally into a technical user interface, which reduces total costs
- Realizer's model-driven architecture ensures fast development times and robust outcome; graphically produced user interfaces directly embed into solid architectural run-time engine
- A ready-made interface for connecting user interface with backend layer makes application logic programming faster and easier

Management of development and product lifespan

- Realizer integrates software analysis elements into a more understandable and manageable entity, the parts of which are tightly integrated with each other and navigable in a graphical development environment
- Changes to the system are easily managed and seamlessly reflected on all types of devices

All services are easy-to-use with all internet devices

- User interfaces can be adapted to the requirements of various types of devices in a cost-efficient manner without losing control of the system's manageability
- New applications can be used on all devices equipped with a web browser in accordance with each device's capacity
- A user interface for a simple mobile application can be composed in less than one hour

Ready-made architectural services

- Realizer is a comprehensive J2EE application platform for business-critical applications
- Ready-made service interfaces and mechanisms are available for connecting to various kinds of legacy systems, for example to existing SOA services, in a straightforward manner



digia

Further information:

Antti Martikainen, Product Manager
E-mail: antti.martikainen@digia.com
GSM: +358 40 550 7174

Digia delivers information and communication technology solutions worldwide. Our strength in smart mobile devices and real-time information systems enable a mobile life. Our clients are entities who want to capitalise on digital information in their business. New technologies, well thought usability and modern service channels enables real time access for correct information or services through their computer, a mobile handset or any other digital device. We are based in the Nordic countries, operating globally and employing over 1,200 professionals. We are listed on the OMX Nordic Exchange Helsinki (DIG1V).

www.digia.com