

Productivity tool for cost savings



QUALITY KIT

by SYSOPEN DIGIA

QualityKit by SysOpen Digia is a solution for automated test creation, execution and management designed for the Symbian smartphone environment. Quality Kit is a market-proven tool for test automation. It enables high quality end to end delivery and provides data for successful product development.

- End to end automated testing solution
- Average productivity gain: 40%
- Average UI test automation ratio: 70%

Productivity tool for cost savings

QualityKit is a unique test automation solution which has been designed to fit into modern application development process. QualityKit users range from smartphone manufacturers, system integrators to software vendors. QualityKit is most versatile to enable end to end test automation throughout smartphone and application development.

Market-proven solution

QualityKit is the result of over 6 years of continuous development, and is currently widely deployed and used within the Symbian eco-system. This enables SysOpen Digia to provide and develop a solid solution based both on our experience and from our large customer base feedback. Today QualityKit users range from smartphone manufacturers, system Integrators and to ISVs.

Typical use

- Integrated in Test Driven Development environment
- Embedded and designed for Agile Methodologies
- Adding quality to code creation, on unit and module level
- Automated regression testing
- Automated functional testing
- Automated integration testing, fully embedded with regular build process

Adaptive solution

QualityKit is the only commercial solution which can follow Symbian bi-weekly release mode and to deliver consistent working solution. At the same time, regular feature development has made QualityKit a first class solution, while a wide array of services has been build around QualityKit.

How does it work?

Quality Kit is a tool designed for easy test creation and automated test execution. Quality Kit supports unit and module testing through software APIs as well application and functionalities testing through the user interface.

QualityKit brings the added benefit of embedding testing with regular, automated build process, which greatly improves the productivity.

Finally, QualityKit can be used for prototype development as it supports a large variety of connection types and all latest UIQ and Series 60 SDK.

QualityKit focuses on delivering

CONTROL

- To increase visibility of the quality status through automated reports which enables fact based risk management

UNIFORM DEVELOPMENT PRACTISES

- To enable measurability and comparability between projects, allowing developers to concentrate on a specific problem domain

AUTOMATED TESTING ENVIRONMENT

- To facilitate fast test creation for automated test runs and removes the need for manual regression testing

Tool and process to maximize productivity

Test automation tools are one step towards quality improvement. This is the reason why QualityKit has been designed for modern development processes, such as Agile and Test Driven Development.

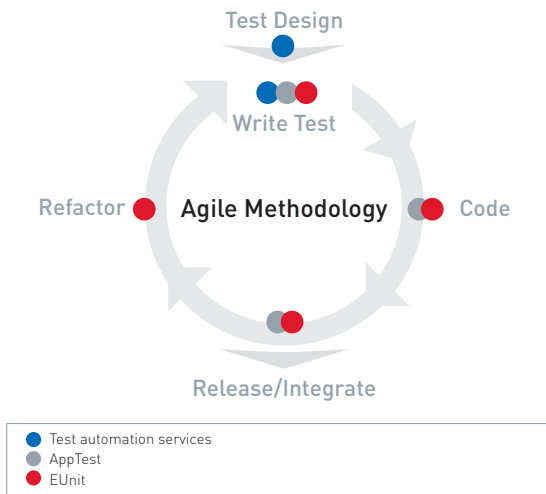
When applying Agile Methodology, QualityKit can be used at every stage of a sprint.

Alternatively, QualityKit can be used for checking the match between the application delivery and the functional specifications.

Finally QualityKit can fully be embedded in automated build process, with the command line version.

When embedded, code compilation, build creation, test cycle execution and report creation are fully automated. Reports provide pass rate, code coverage and comprehensive logging information.

After each build the logging can find the exact cause of failure.



Real Time Metrics is the key success factor

QualityKit provides real time informative reports. These metrics focus either on a single test run or track record history of several test runs.

These enable better controllability and visibility of project development, allowing an improved fact-based risk project management.

Complete test automation tool solution to fit demanding development processes

FAST FACTS FOR DEVELOPERS	
Automated test case creation	Focus on code creation
Ease bug tracking	Simplify debugging
Real time Quality metrics	Help prioritizing tasks

FAST FACTS FOR TEST ENGINEERS	
Automated test case creation	Focus on test plan
Generic Symbian based UI tool	High reusability
Wizard-based test creation	Lower maintenance effort

End-to-end testing solution

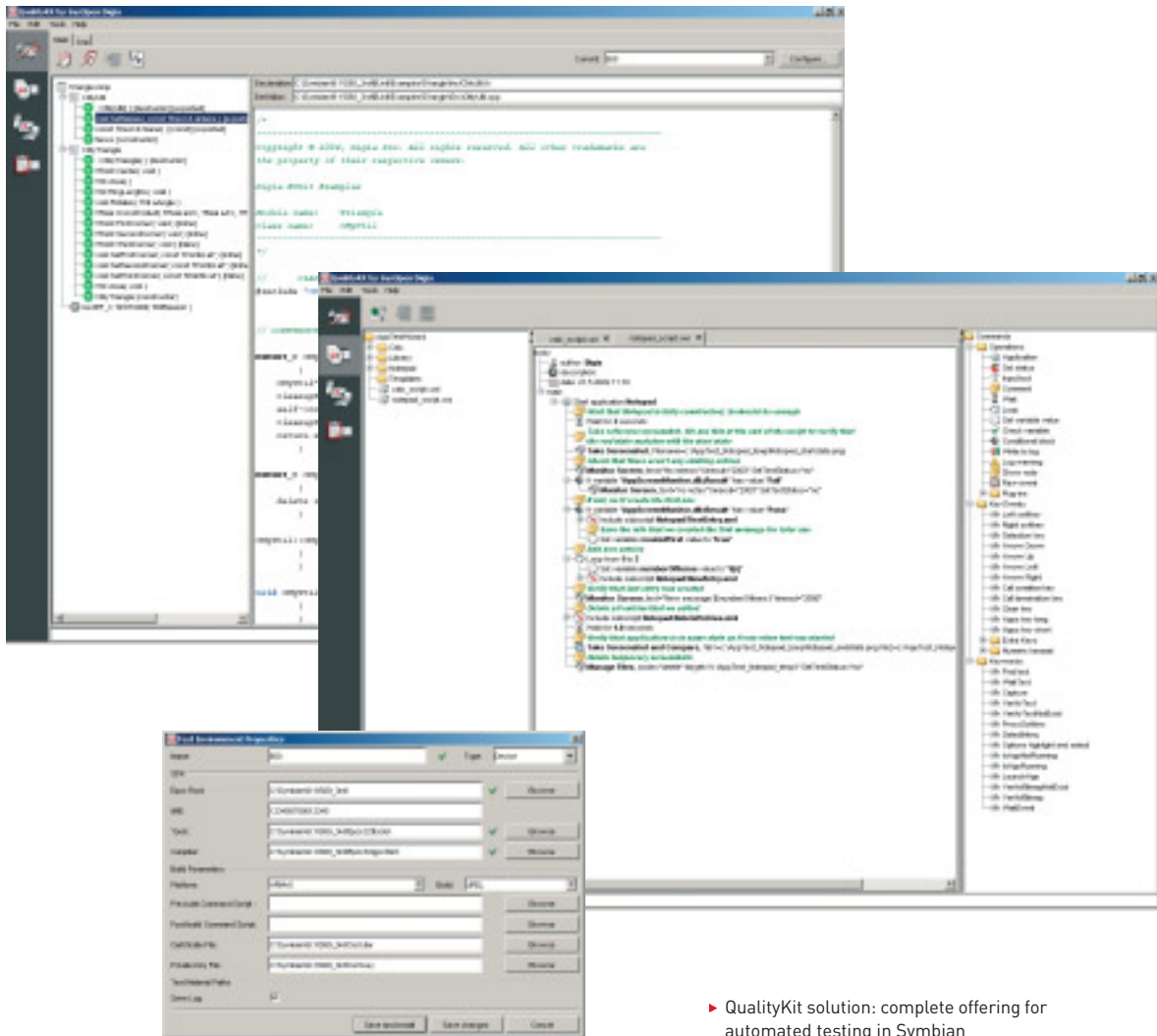
QualityKit is a unique tool to create, execute and manage the test from an end-to-end perspective.

QualityKit is used from early development stage (unit and module testing), up to the moment when application layout and behaviour need to be verified on a device.

All testing functions are accessible from a single tool, increasing the ease of use.

- Phone/server connection (MMS/SMS) testing enabled
- Localisation support
- 3rd party DLLs plug-in support
- Support for conditional scripting

QualityKit screenshots



- ▶ QualityKit solution: complete offering for automated testing in Symbian environment

Key features

QUALITYKIT

- Symbian Platform Security (EKA 2) support
 - Test cases can be executed in several devices simultaneously
- Connection types:
- USB Cable
 - TCP/IP
 - Bluetooth
 - UART
- Installation in ROM
 - XML based test report format

APPTTEST PRO - User interface/functionality testing

- UI-based test case creation
 - Key word test case creation approach
 - Dynamic navigation
 - Multiple validation methods
 - UI and/or APIs verification level
 - Record/play functionality
 - Bitmap comparison
 - Text recognition
 - Image capture and comparison
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EUNIT PRO - Unit and module testing

- Advanced test creation wizard
 - Test skeletons from source code
 - Test path creation
 - Automated stub and adapter creation
 - Command line support
 - Multiple test environment support
 - Test parameter support
 - Setting item for resource checking level
 - Extension API
 - Free text print anywhere from test code
 - Memory allocation testing
 - Decorator handling
 - Automated memory leak detection
 - Test monitoring separated from test execution
 - Two test monitoring environments
 - Panic, Exception and Leave handling
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Successful smartphone program development:

- Supports all SDKs releases (bi-weekly compatibility is maintained).
- Integration of automated test execution with building process

Successful application development:

- Increases quality while reducing product development iteration cycle
- Access to a mature, supported and recognized solution

Symbian Signed pre-certification tool distributed by Symbian is based on QualityKit technology.
Proven Productivity gain: 85%

"Best quality on inc. 1 ever, Vast Unit testing with EUnit tool, increased work satisfaction and especially enhanced quality".

Source: F-Secure, Agile ITEA Newsletter 02/2005

SYSOPENDIGIA

SysOpen Digia Plc is a modern and agile complete end-to-end software house that specialises in integrated ICT solutions, smartphone and mobile R&D, outsourcing and telecom products and services. The company is based in Finland, operating globally and employing over 1100 professionals. SysOpen Digia is listed on the Main List of the Helsinki Exchanges.

www.sysopendigia.com