Efficient Quality Assurance in User Acceptance Testing

Do you know the hidden risks in your software packages?
What is the Cost of a total Breakdown of your Business per Hour?

Did you ever ask yourself what standstill of your business for one hour costs? Often 5-, 6- or even 7-digit amounts accumulate very quickly, not to mention the damaged image.

The focal point here is on the business relevant workplaces. Worst-case scenarios, where everything shuts down, happen just as well as partial breakdowns and occur more often than one likes to think. No enterprise likes to talk about worst-case scenarios (the super-meltdown).

Often, when core-business critical workplaces refuse to work properly, the reason is incompatibility between individual applications. Specifically such workplaces should be tested for potentially occurring conflicts before a software rollout.

Whether financial businesses, civil services or industries and manufacturing trades, any enterprise runs business critical workplaces which have to work reliably in any situation. This is a controllable risk, provided these systems are subjected to an adequate quality assurance.

You should not have to consider how to deal with the follow-up costs of a breakdown. You should rather get informed how to prevent such a risk.

Examples of conflict scenarios (anonymised):

**SAP GUI and Adobe Reader**

The application SAP GUI and the PDF-Viewer Adobe Reader install in similar folder structures an Active Component Framework (ACF) for displaying PDFs, which are shown embedded in the Microsoft Internet Explorer.

When rolling out the SAP GUI, the ACF-component has to be rolled out again subsequently. Otherwise, SAP GUI doesn’t work properly.

**AutoCAD and Active X Controls**

AutoCAD 2011 LT requires specific security settings for implementing Active X Controls in the system. If they haven’t been previously set in the target system, the functional range of Active X does not match the requirements and AutoCAD cannot be installed on rollout.

**Oracle Hyperion Smart View in Windows networks**

Oracle’s Hyperion Smart View is a Microsoft-Office-Plugin connecting Oracle’s Enterprise Performance Management to Excel. When used, the Plugin writes data into the Windows user profile (Roaming Profile in an Active Directory). When logging in on another workplace without Smart View in the same network, the synchronization returns from the Roaming Profile different data than expected which leads to an application error.

**Sony Sound Forge Audio Studio and Active Directory**

Sony’s Sound Forge Audio Studio requires access to registry branches and folder structures in the system for licensing the product. If the target system resides in an Active Directory, thus having only restricted user rights, the accesses required for the licensing will be denied. After the rollout, the application will not be operational on the system.
Do you know the hidden Risks in your Software Packages?

Professional packaging services and tools provide “application readiness” functionality for an abstract environment. A closer look reveals that it’s in fact a “package readiness” which is only one part of the complete QA process for a specific client workplace.

To assure the error-free functionality and high availability of a workplace following measures are necessary:

• Interoperability of all applications and packages on a specific workplace (it may be an already predefined or flexible on-demand workplace). What happens at runtime?
• Integrity of workplaces - Is the rollout safe and are the target systems still controllable?
• Which changes applies the application to the system at runtime - and what happens when „first startup“ does „a little more configuring“?

• Executing tests and allowing for original and proprietary installer - repackaging and thereby modifying is not desired?
• Are resource conflicts, dependencies and runtime conflicts on the specific workplace excluded?

To address these issues testing requires a combination of special QA methods namely dynamic analysis (physical test) and runtime-monitoring. The product suite QtestBASE is the only tool supporting 100% QA for workplaces by using the unique Fingerprint-Technology. Only a gapless documentation of all the system changes (High Definition Fingerprint) combined with an Expert System provides a quick evaluation of risks for the given workplace.

It’s good when you know what you are rolling out.
Quality Assurance for business-critical applications

QA is an elemental and integral part of your software distribution

The Quality Assurance of workplaces protects your packaging and rollout processes from unpleasant surprises. Problems appearing only in the target environment cause high follow-up costs and damage to image. Only an independent quality assurance covering the transfer points package readiness or rollout readiness can provide a binding security.

According to Chris Jackson (Technical Lead of Windows Application Experience SWAT Team at Microsoft)¹ the need of QA can be calculated with the following formula. You should test your workplaces if this condition is true:

\[ \text{Cost}_{\text{Failure}} \times \text{Probability}_{\text{Failure}} > \text{Cost}_{\text{Testing}} \]

The interconnectivity of complex application life cycle and release management processes frequently implies that different platform technologies (desktop client, cloud, virtualization, etc), different service providers or distributed service areas. In the end only the fact counts that your business critical workplaces are on all the service levels.

The Quality Assurance of workplaces requires the test methods for various constellations of workplace systems. The interoperability of all the components (platforms, patches, packages, applications, etc.) as well as the integrity of the workplace before and after the installation must be assured. The implementation of this may range from On Demand Software Libraries to highly specialized individual workplaces. This kind of quality assurance becomes manageable and effective only in a combination of physical testing and runtime monitoring with a powerful expert system (knowledge base), providing you with an integrated and enduring corporate workplace management.

The product suite QtestBASE addresses these requirements by delivering you the required workflow and tools.

Quality Assurance is reassuring.

Quality Assurance inside User Acceptance Testing for standard applications

User Acceptance Testing (UAT) as the interconnection point between packaging and rollout processes is the key moment for ensuring quality in the application management.

**Best Practice UAT**

To reduce the costs for quality assurance, measures are assigned more and more to the packaging or User Acceptance Testing. QA within UAT offers this:

- Evidence of function for delivery & acceptance
- Test of complete workplaces
- Installation & runtime test of the applications
- Logging & Documentation

QtestBASE allows to execute the QA during the UAT preparation without considerable additional costs. The application fingerprint technology and the comprehensive reporting enables you to quickly analyse occurring conflicts.

Why a qualified UAT is recommended

QA on the level of entire workplaces allows you to save pre-deployment-tests later, as quality assurance may early verify business-critical applications in their target environment.

Naturally, QA can be build as independant process for certain criticality.

The product suite QtestBASE addresses these requirements by delivering you the required workflow and tools.

Would you like to be responsible for packages that are not assured for quality?
QtestBASE is the professional System inside the QA Process to ensure Workplaces

The product name QtestBASE was coined from „quality“, „test“ and „database“. The product provides a workflow optimized quality analysis of software installations within User Acceptance Testing (UAT) or as standalone process, which are usually embedded in packaging and rollout processes or in between them, according to the overall requirements of Quality Assurance (QA).

The historized repository is an essential basic component of the expert system. To perform the analysis actively and flexibly a Self Learning system is used.

QtestBASE is based on Glass Box Testing and Dynamic Analysis. By using our revolutionary QtestAGENT technology the quality of any software packages, patches or hotfixes can be assured completely.

QtestSTUDIO

Basic QtestBASE module. Contains the essential core functionality for the user interface.

QtestAGENT

Portable agent software to monitor all the applied changes during software installation or uninstallation process.

QtestENGINE

Server-based job management for automated application compatibility analyses.

QtestFLOW

Workflow module for integration into overlaying workflow systems and custom processes.

QtestXPERT

Self learning expert system to support the test engineer in application interoperability conflict analyses.

QtestMON

Modul for monitoring physical and virtual applications during runtime.
Functionality

Completeness
- Complete workplace-test
- Support for all installation formats
- Patches, hotfixes and OS-updates are supported
- 100% QA-coverage

Automation
- Fully automated creation of Application Fingerprints
- Automation of installation-processes
- Monitoring of all changes to the system (installation, runtime, uninstallation)

Distributed Workflow
- Supporting Application Management (Compatibility Assessment, QA, UAT)
- Workflow oriented interface incl. ticketing
- Interface to third party systems

Analysis & Report
- Fast assessment of results and conflict analysis
- QA-documentation and -proof
- Extensive reporting (App2App Conflict-Matrix)

Pre-Filled Repository
- Selflearning expert system to support the user
- Reduction of test efforts
- Continuous updates of new Application Fingerprints by the QtestBASE lab.
Mentopolis CSC GmbH

15 years practical application of QA processes in telecommunication, finance & administration.
10 years of expertise in QA tool design & development.

Awakened your Interest?

Our product managers Mr. Abdus Salam and Mr. Markus Woitzik will be pleased to answer your enquiries or to give you a non-binding detailed presentation of QtestBASE.

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