SAP Solution Manager – Test Workbench

Testing of SAP-centric Solutions

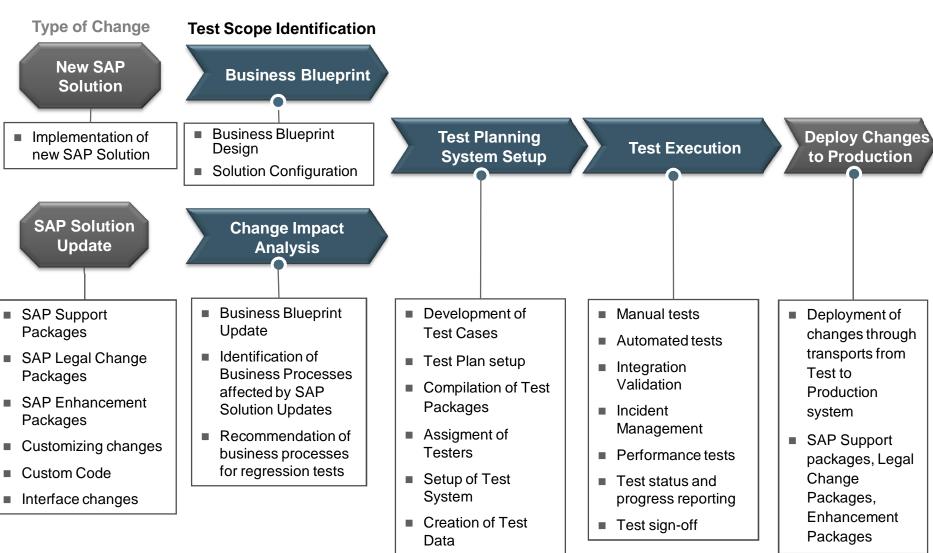


Application Lifecycle Management Active Global Support (AGS) SAP AG



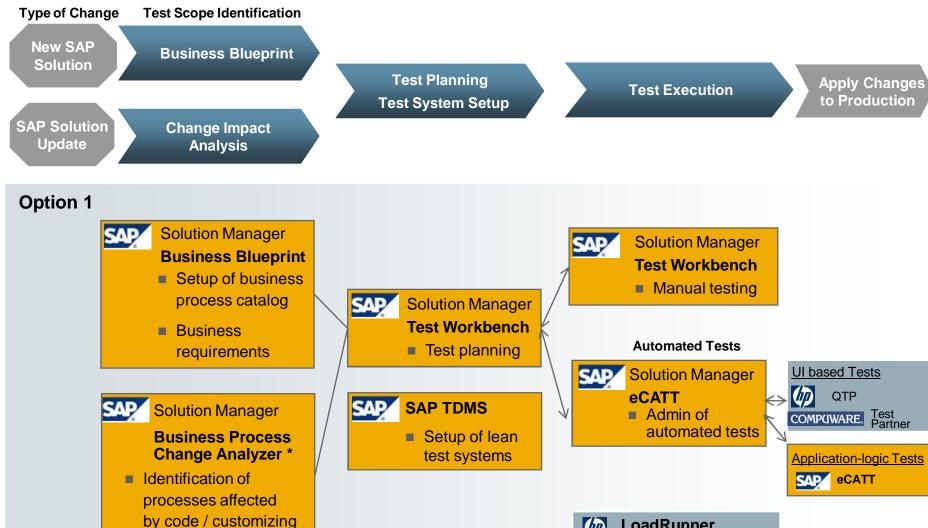
E2E Integration Testing of SAP Solutions Test Process embedded in the SAP Application Lifecycle





E2E Integration Testing of SAP Solutions Options for SAP Customers





changes

LoadRunner

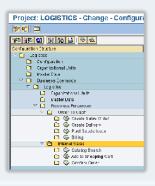
Performance Tests

Test Planning, Execution and Reporting



Test Planning

Business Blueprint with assigned Test Cases





Test Scope Identification

- Blueprint for new Solution
- Change Impact Analysis for Solution Update

Test Coverage check

- Test Case review and creation of missing test cases
- Test Case Assignment Report
- Sign-Off of Test Scope

Generate Test Plans and Packages for selected Test Cases



Assign Tester to Test Package

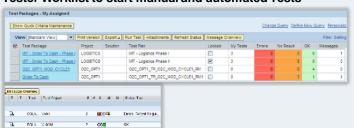
V 4 D / V B D B B B Transco Peter	
Tast Plan, Fackages, and Tastar Assigned	A Tester Names
Si	
▼ SpiCinterThiSchn	
40 ES E=.1	A IESIERJI
Martin (Martin)	ANTERNIES 12
Ø ∮TEBTERD3	AN TESTER 33

Test Planning

- Select Test Cases for specific Phases (Test Plan)
- Distribute Test Cases to Testers (Test Package)
- Define Test Workflow (Sequences)

Test Execution

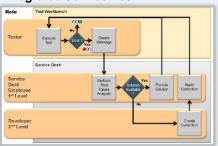
Tester Worklist to start manual and automated Tests



Key Capabilities

- Predefined Test Systems
- E-Mail notification via Workflow
- Status and Result Documentation

Integrated Service Desk



Test Reporting

000



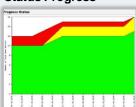
Role based Capabilities:

- Status Reporting (Realtime & BI)
- Messages Reporting (Realtime & BI)
- Test Progress (BI)

Status Analysis



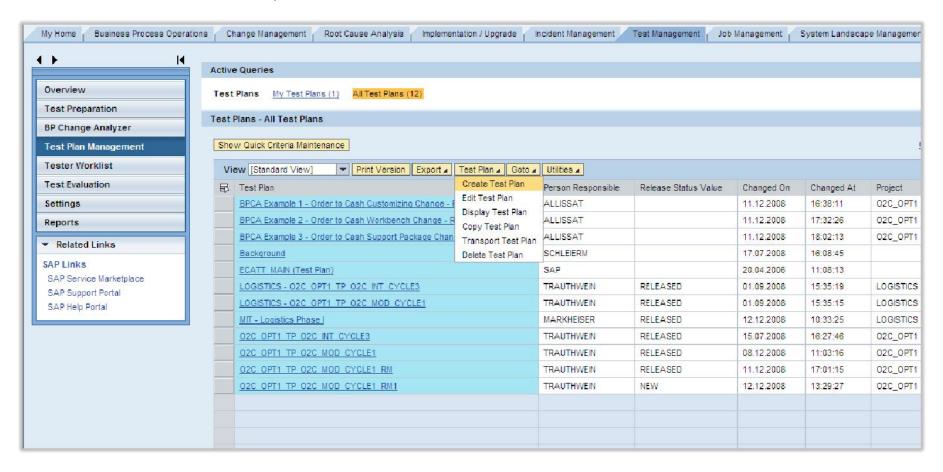
Status Progress



Test Workbench - Test Planning Quick Access via Test Management Work Center



- Intuitive navigation to access Test Plan and Test Packages and related features
- Standard Queries All Test Plans / My Test Plans to list all or only own Test Plans
- Users can create their own queries can be defined based on various selection criteria



Test Workbench - Test Planning Challenges in Test Planning





Challenges:

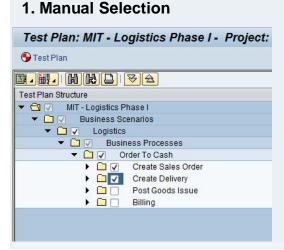
- High volume of Processes and Test Cases to be managed
- Different variants of same Business Process may need to be reflected in Test Planning
- Different Type of Tests may require different Test Case selection
 - Unit Test
 - Integration Test
 - Regression Test
 - Automated Test
 - ...
- How to find the right Test Cases for Test to be planned ?

SAP Approach:

- Classification of Business Processes and Test Cases via Attributes
- These Attributes can be used in Test Case selection when generating Test Plans
- Business Process Change Analyzer* which allows automated risk based Test Plan Generation

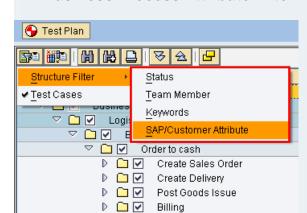
Test Workbench - Test Planning 4 Options to generate Test Plans





Individual selection of Test Cases based on Business Process Structure

Benefit: High flexibility



2. Business Process Attribute Filter

Allows to filter Test Cases based on

Business Process Attributes like

- Status
- Team Members
- Keywords
- SAP/Customer Attributes

Benefit: Useful for high volume processing

3. Test Case Attribute Filter

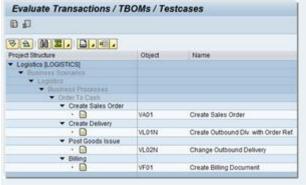


Allows to filter on Test Cases Attributes like:

- Test Case Type
- Search Terms
- Priority
- Status assigned to the individual Test Case

Benefit: Useful for high volume processing

4. Business Process Change Analyzer



Automated selection of Test Cases based on Change Impact Analysis performed with the Business Process Change Analyzer

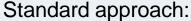
Benefit: Less Test Planning effort, Reduced Risk

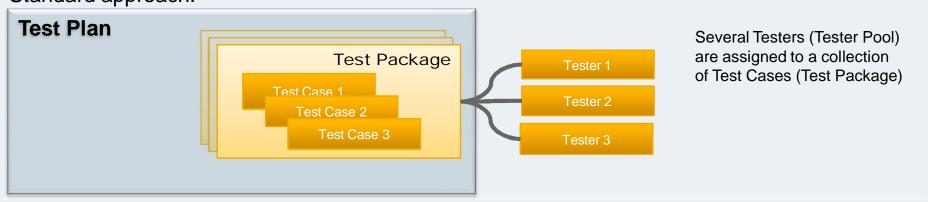
Benefits:

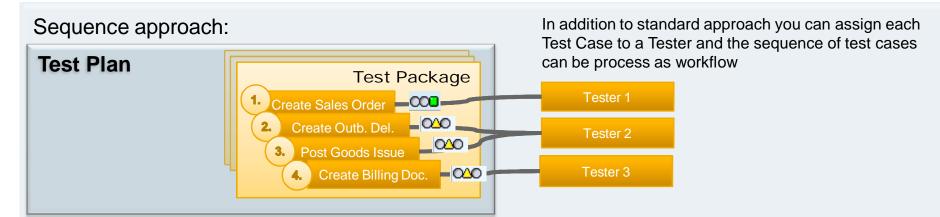
 Provides flexibility and efficiency regarding Test Planning for different Test Types: Unit Test, Module, Process and Scenario Integration Tests / Manual and Automated Tests / Ad-hoc Test based on business criteria or Change Impact Analysis

Test Workbench - Test Planning Workflow support for Test Execution via Test Sequences









Example: As soon Test Case 1 has been processed successfully by Tester 1, Tester 2 will be notified by E-Mail that Test Case 2 is ready to be tested

Benefit:

Less coordination effort during complex scenario tests and accelerated test execution

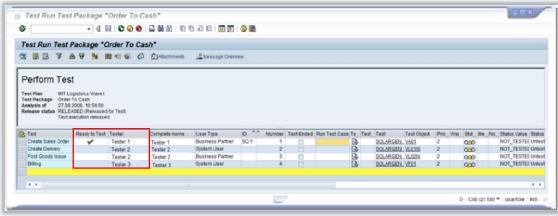
Test Workbench - Test Execution Test workflow with Sequences



Tester 1



Worklist of Tester 1 on assigned Test Package



Test 1 set to Status 'OK'

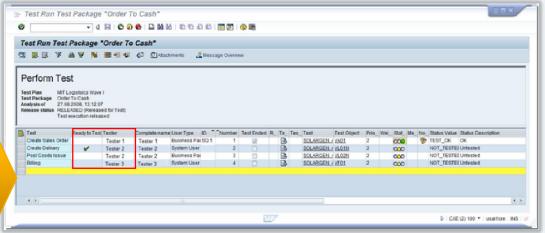
Tester 2



E-Mail notification



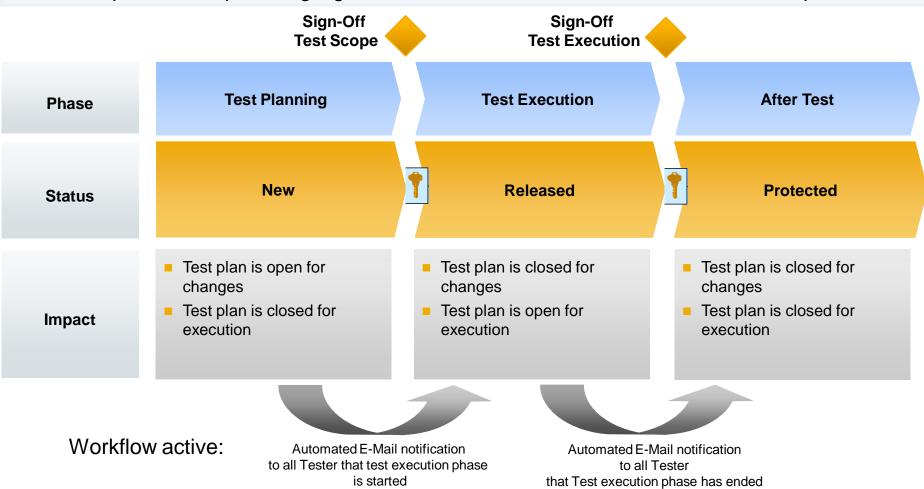
Worklist of Tester 2 after Tester 1 is finished



Test Workbench - Test Planning Release Status Schema for Test Plans



Simplified example to highlight the benefit of Release Status Schema for test plans



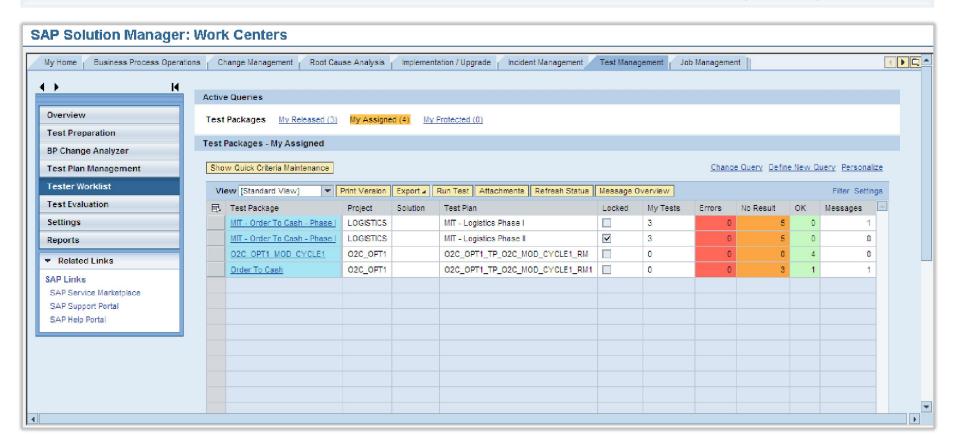
Benefit:

Allows phased approach with Q-Gates and Sign Off with electronic signature to meet legal requirements

Test Workbench - Test Execution Test Management Work Center: Tester Worklist



- Tester Worklist Quick Access to your Test Packages and related features
- For the Tester all assigned Test Packages appear directly in the Work Center
- Standard Queries My Released, My Assigned and My Protected available
- Useful information about Test Status, Release Status of Test Plan and corresponding messages listed

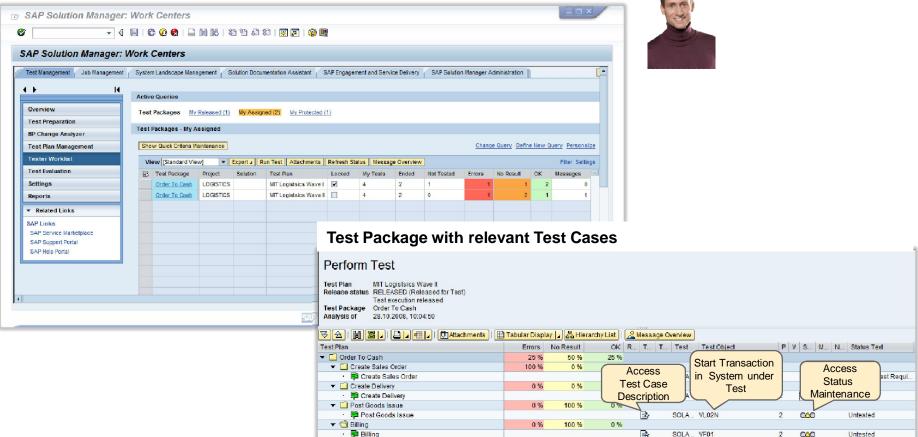


Test Workbench - Test Execution

Tester Worklist: Entry point to execute manual and automated Tests



Assigned Test Packages appear in the Worklist of the Tester



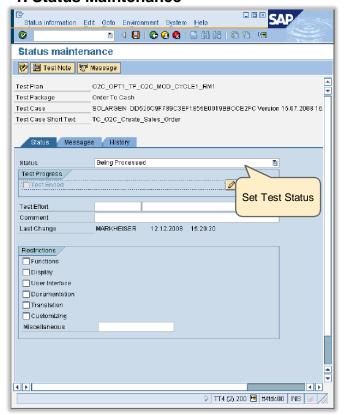
Benefit:

- Direct access to the Test Cases
- Direct access to relevant Transaction in Test system
- Direct access to Test Result Documentation: Set Status, Create Test Note, Create Defect Message if needed
- Access to results data of predecessor test which may be needed for current test

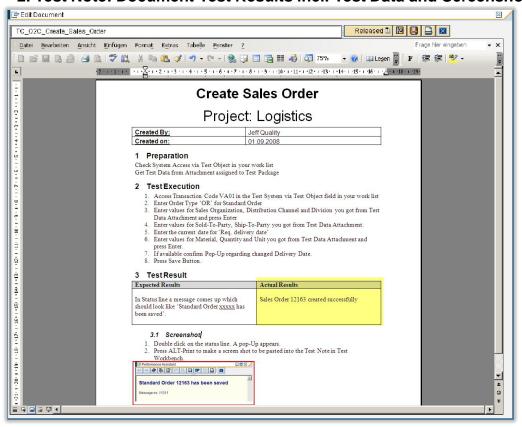
Test Workbench - Test Execution Documentation of Test Results



1. Status Maintenance



2. Test Note: Document Test Results incl. Test Data and Screenshot

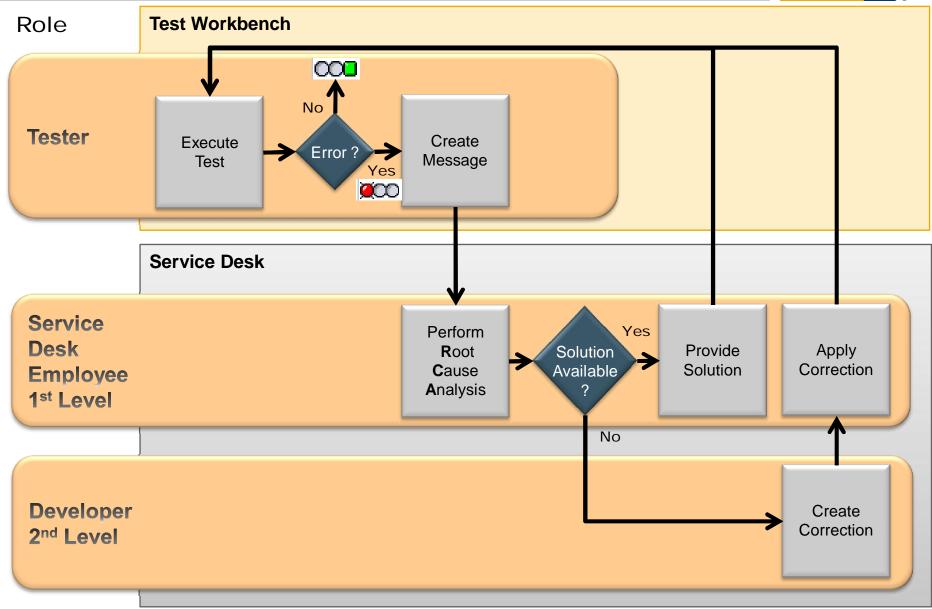


Benefit:

- Transparency and Traceability about Test Results
- Meet legal requirements via Digital Signature
- Test Case Description can be used as template for Test Note
- Test Note can be used to handover Result Data to be used for subsequent Tests

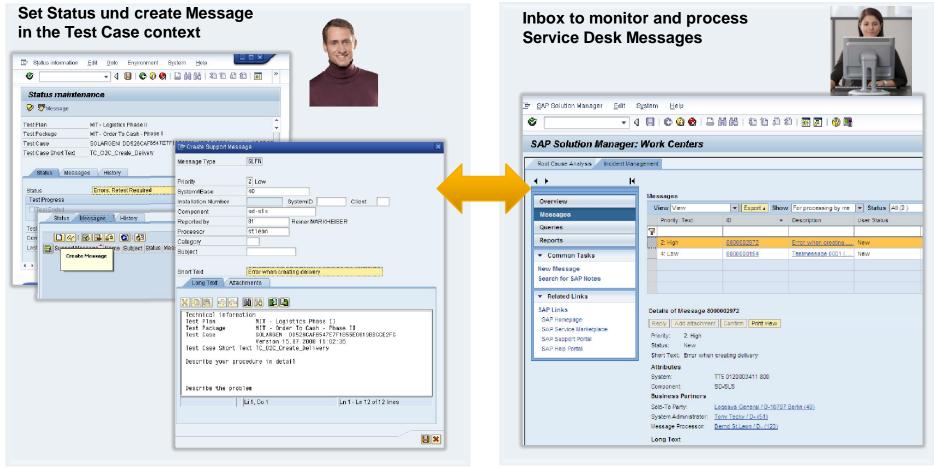
Test Workbench - Test Execution Typical process to report test related errors





Test Workbench - Test Execution Integration with Service Desk





Benefit:

- Allows you to use similar support processes already established for other support areas
- Smooth collaboration between different parties e.g. Tester, Service Desk (1st level), Developer (2nd level)
- Allows to Report on test related messages and their status within Test Workbench
- Enhanced traceability regarding Test Errors and efficient follow-up

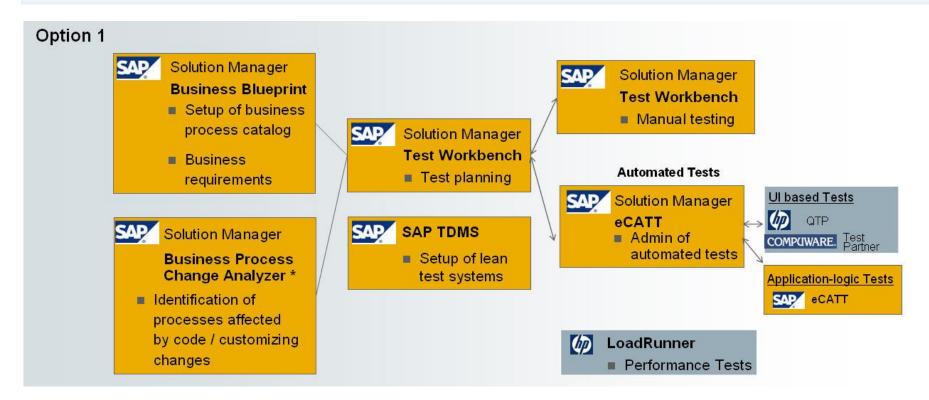
Test Workbench - Test Execution Automated Testing integrated into Test Workbench



Automated tests are seemlessly integrated into Test Workbench

Benefits

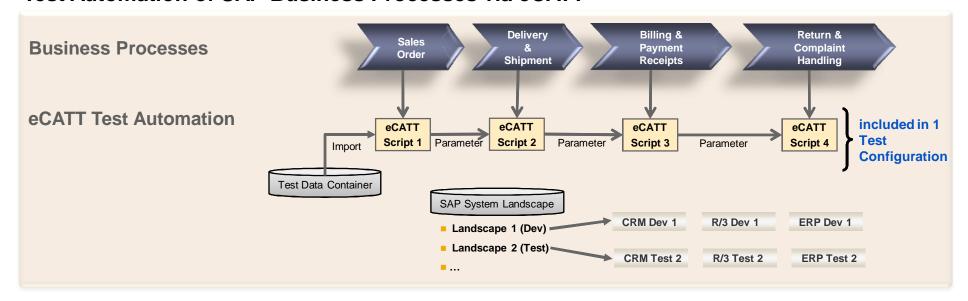
- Test planning for manual and automated test cases within same environment
- Test execution for manual and automated test cases via Work Center "Test Management"
- Test reporting for all types of tests within single environment



Test Execution eCATT Test Automation



Test Automation of SAP Business Processes via eCATT



Strengths

- Testing of complex business process scenarios like Order-to-Cash and Procure-to-Pay
- Advanced functionality to test backend business logic (function modules, SOA services, test result verification at SAP table / database level, ...)
- Central definition via SAP Test Workbench combined with execution in distributed systems
- Central repository for test data

Invista



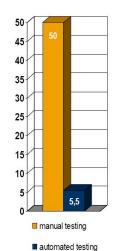


Additional ROI resulting from the deployment of the eCATT scripts in the Support Package upgrade test

- → Saving 45 days or approx. 90%!!!
 - No key user involved in this test!
 - Detection of errors in business critical processes
 - Detection of errors in printing program

"With our eCATT scripts, the involvement of key users in the Support Package upgrade test could be entirely avoided."

Lothar Hafner, INVISTA Cluster Lead



"The test automation gives us security: if the scripts run without any errors we can be sure that our business critical processes run properly and we can minimize the risk."

Lothar Hafner, INVISTA Cluster Lead

"With the help of the structures within the SAP Test Workbench we were able to train the employees of the application provider along our business processes and to assess the quality of their progress. The saving effect was enormous, however, difficult to quantify.

Lothar Hafner, INVISTA Cluster Lead



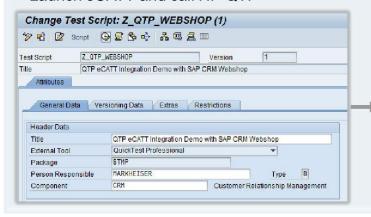
Test Execution

Automated Tests for non-SAPGUI using eCATT & HP QTP



Test Design

Launch eCATT and call HP QTP



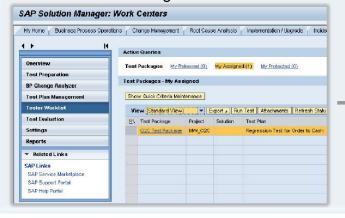
Record non-SAPGUI application via HP QTP + save script within eCATT



Test Execution

Work Center "Test Management"

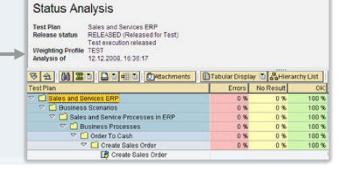
→ User executes assigned Tester Worklist



- Test Worklist: Execution of eCATT Test Configuration
- eCATT executes HP QTP script
- QTP scripts executes non-SAPGUI application
- eCATT & QTP Test logs

Test Workbench: Test result reporting

- Manual tests
- Automated eCATT / HP QTP tests



Test Workbench - Test Reporting

Integrated Reporting for Test Results, Test Progress and Messages





Test Coordinator



Quality Manager



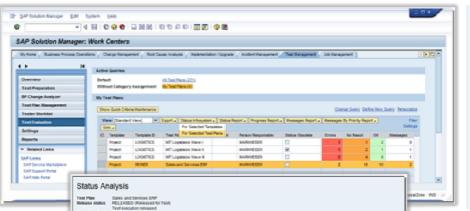
Project Lead



CIO



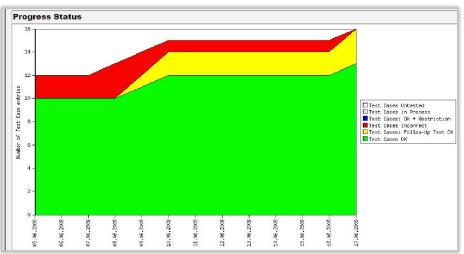
Steering Committee



Different Roles require different views and granularity on Test Status, Defects messages and Test Progress.

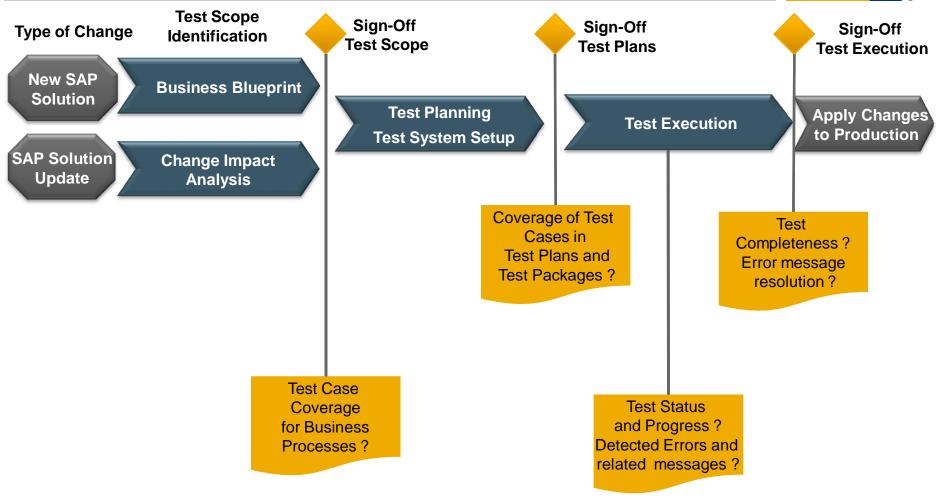
SAP Test Workbench offers:

- Suitable reporting capabilities for each role
- Different levels of entry (Project, Solution, Test Plan)
- Possibility to drill-down to single Test Cases and Defect Messages.
- Switch between absolute or percentage view
- New integrated SAP BI based graphical reports e.g. for Test Progress



Use Cases for Test Reporting in Test Process





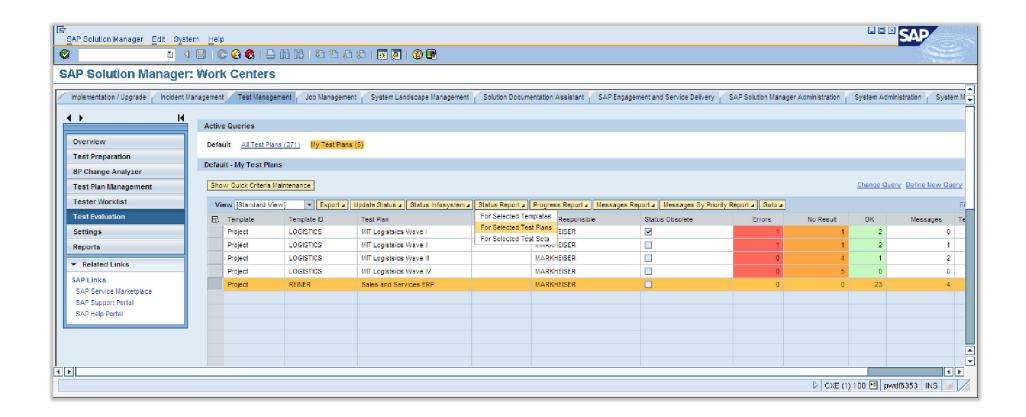
Test documentation due to legal requirements

Test Workbench - Test Reporting

Test Evaluation – Overview and access to several Reporting features



- Provides an overview on Test Status and related Messages
- Standard Queries All Test Plans / My Test Plans to list all or only own Test Plans
- User specific queries can be defined based on various selection criteria
- Allows to drill down to further details based on selected Project, Solution or Test Plan



Test Workbench - Test Reporting Capabilities supporting Test Preparation and Planning



Goal

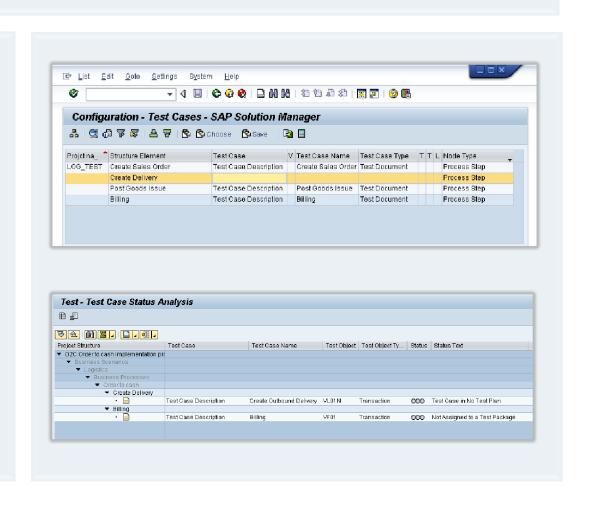
Check test case coverage for your Business Processes to support Sign-Off for Test Scope and Test Planning

Scope

- Reports assignment of Test Cases to process structure and potential gaps
- List of Test Cases without assignment to Test Plans or Test Packages
- Various selection criteria and filter available
 - Priority
 - Keywords
 - ...

Benefits

Transparency during Test Scope
 Definition and Test Planning is key for reliable test results



Test Workbench - Test Reporting Status Info System



Goal

Check test status for current test phase and status of related messages Provide aggregated as well as detailed information

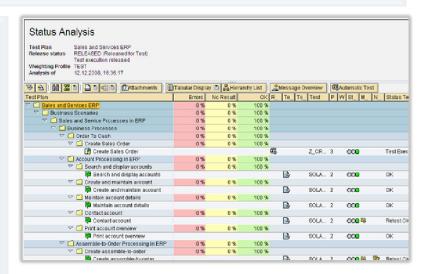
Scope

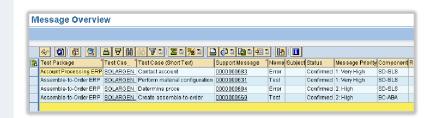
- Provide the latest test relevant information:
 - Test Status , Result Documentation
 - Defect Messages with Status and Priority
- Central entry point via Work Center Test Evaluation for selected
 - Template (Project / Solution)
 - Test Plan
- Aggregated views on different levels:
 - Template Structure (Project / Solution)
 - Test Plan, Test Packages

with the possibility to drill down to the single Test Cases

Benefit

Provides efficient and flexible way to get a snapshot about running or completed Test activities and related Messages. Decision support for Test Sign-Off





Test Workbench - Test Reporting Visualized Test Status Reporting based on SAP BI



Goal

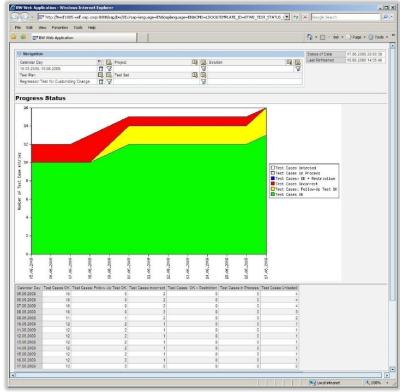
Provide state-of-the-art reporting - intuitive, flexible and extendable

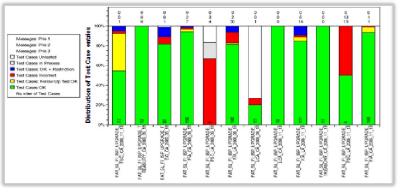
Scope

- Enable several to report earlier tests and visualize the test progress
- Complementation to the Status Info System
- Implemented Reports:
 - Test status over time
 - Test execution status and messages
 - Messages by Priority and Status
- Easy setup: no BI expertise necessary for standard reports
- Customer individual reports / dash boards can be built

Benefit

Provides efficient and flexible way to a visualize day to day Test Status and progress, Messages





Test Workbench - Test Reporting Test Report - Documenting Test Coverage and Results



Goal

Meet legal requirement regarding Test Documentation

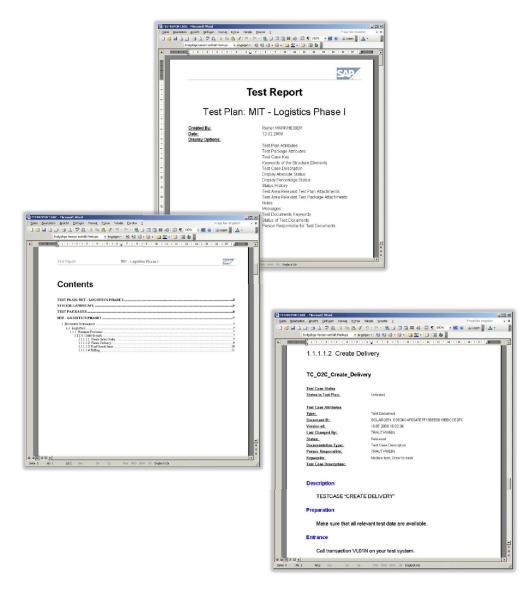
Scope

Provide all test related information in one document:

- Project / Solution
- Test Plan Responsible Person
- Test Plan Overall Results Status Percentage and absolute view
- Related Messages
- System(s) under Test
- Involved Processes
- Keywords
- Tester assignment
- Test Case Description incl. attributes
- Status history per Test Case

Benefit

Efficient solution to get prepared for external audits.



E.ON IS GmbH



"The integrated functions of SAP Solution
Manager have enabled us to streamline and
accelerate our test processes and thereby
significantly increase test management efficiency
in our upgrade projects to SAP ERP 6.0."

Bernd-Matthias Seele, Project Manager, E.ON IS

E.ON IS GMBH

IT Provider and Full Service Provider optimizes its test organization with SAP® Solution Manager

"Our employees were able to use the test functions after only one hour of training. This has contributed to a high level of acceptance among employees from the user departments."

Bernd-Matthias Seele, Project Manager, E.ON IS



Südwestfalen Energie und Wasser AG



"With SAP Solution Manager we can test system adjustments far more quickly than we used to be able to.

Test distribution, performance, checking, and validation are also a lot more transparent now."

Detlev Voss, Test Manager, Südwestfalen Energie und Wasser AG

Benefits

- Extensive overview of functions, interfaces, and whole IT solution landscape provides a sound foundation for decisions
- Modeled structures can be reused in future IT projects
- Standardized documentation serves as a basis for audits
- New test management system simplifies and shortens testing process
- Basis is established for automated tests
- Ease of use promotes employee buy-in
- Good work results were obtained with little training effort