

White Paper How to execute tests using SAP Solution Manager

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Theo has an IT education to bachelor level, and has obtained a master's degree in Business Administration.

He has worked for over 25 years on IT projects carrying out various roles from programmer to project manager.

In the last 15 years he has participated in various large SAP implementations. For the last 10 years he has been implementing SAP Solution Manager as a tool to support SAP Projects and SAP Application Management. SAP Solution Manager is a tool to support IT processes, as part of Application Lifecycle Management.

In several ways, both the implementation and maintenance of IT applications can be supported. SAP Solution Manager can also be used to support testing processes.

Figure 1 shows an overview of SAP Solution Manager. The red box highlights the testing functionality, which covers Test Management and Test Execution.

SAP Solution Manager 7.1

Integrated IT management for the new innovations



Figure 1 – SAP Solution Manager 7.1 (©SAP 2014)

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This paper will mainly demonstrate how test execution can be supported using SAP Solution Manager, and aims to answer the following problems:

- 1. How to start tests
- 2. How to update status of tests
- 3. How to record Test Results
- 4. How to create Test Defects

Introduction

Before we go into more detail on the activities to set up tests in SAP Solution Manager, you will get an overview of the Test Management module in SAP Solution Manager. See figure 2 from SAP.



From left to right you see how you start with creating test cases, and end with test case execution:

- 1. "Collection of test cases": in SAP Solution Manager you can use transaction SOLAR02 to create and store test cases to a business process structure, for a specific project.
- "Selection of test cases for a test phase": when creating a Test Plan, a selection is made out of the created test cases for a specific project (test scope).
- 3. "Assignment of test packages to testers": all test cases need to be divided over one or more test packages. To every test package one or more tester(s) can be assigned, who should take care of test execution.
- 4. *"Test Execution"*: the test cases assigned to the Test Plan are executed one by one, by the assigned testers.

In this paper, we will discuss how to support test execution in more detail, which is related to activity 4 as described above.

How to Start Tests

In SAP Solution Manager the transaction SM_Workcenter is used for Test Execution.

Test Cases will be shown in your Tester Worklist, in case below prerequisites have been met with:

- Test Cases have been added to a Test Package (scoping)
- Test Package has been assigned to you
- Test Plan has been released

Below you can see an example of what a tester sees when accessing the Tester Worklist in transaction SM_Workcenter. The red boxes show where to find Test Plans, Test Packages and Test Cases on the screen.



A test can be started by:

- Selecting a Test Case, and click on the 'Run' button
- Or clicking on the hyperlink of a specific Test Case

A new browser window will be opened, where the Test Case can be executed. In this window several actions can be performed to support Test Execution:

- Open the Test Case contents, to see how the tests need to be executed
- Maintain the status of a Test Case
- Record Test Results, to store evidence of the tests executed
- Create Test Defects

The following sections of this paper expand on and give more details for these points.

How to Update Status of Tests

Below is an example Test Case, stored as an MS Word document in SAP Solution Manager. In the "Test Note" tab, the tester finds instructions for how to execute the test in the yellow area shown.

Manual Test Case					
Test Case M 2001-8000359 Title Pos-blanage Popet Accounting Deplay/Reporting Author Douglas Andro Daveglo	Her.	Teni (Bjort) Type OOTTest Specification	Priority litedum	Test Bystem DIIS010	н
Test Bote Test Package Attackments(0)					
Statt Depay Deete New Anthones Text Data/Sty # Text Step Description 1-61 Description K004, Select create in	denul ade.				
hyd de trype ber of the norm of the state of the					
Expected result: internal order created. Observed result: metral order status shown as created. Metral Order					
Text Case Step # Text Step Securition 542 Citik as Setiment Rule and under setiment sizes. For Internal Octiens setting to a card center in to CO-PA, create wroter of settiment rules.					
Ener the Colopsy Input the within et inclusions as appropriate and closs new.					
Expected result: Settlement rules created.					
Observed result					

As part of a certain test, one or more Test Cases need to be executed. In large tests, even hundreds, or thousands of Test Cases can be in scope.

By maintaining a Test Case status, a tester can see easily if a test still needs to be executed or not. In addition, Test Management can obtain a quick overview of testing progress, and take action in case said progress is behind schedule.

The next list provides a typical example of Test Case status values, which can be changed in SAP Solution Manager by customizing to fit the requirements of your organization:

- 'Not started': test is not started.
- 'In Progress': test is being executed.
- 'To Be Retested': test is executed, but one or more defects have been found and retest is required.
- 'Test Completed': test is completed, without any defects.
- 'Test Completed (with Defects)': test is completed, with one or more defects.

Below is an example screen shot of how to change Test Case status values in SAP Solution Manager:

na Case lei ZOCT-0000356 Be Pos-Nanage Project Accounting Display/Reporting abor Gougla Andra Daviglio	Test Object Type OCT Test Specification	Priority Viedur		Text System Discore		
Start Execution Seve Cose TROM Trace: Create * Print						
		н				
Test Note Test Package Attachments(8)		Program				
Seve Display Delete Rew 2009butes		Test Status	Intested .		1	۵
State (report (control now) arrevant		Test Effort - Current Execution	Untested		Meute -	
nd Cese-Sizo # Test Sizo Devolution		Overall Test Effect	in Progress		Meute	
d1 Execute transaction KOD4. Select create internal order			Test Executed			
			housed at			00.00.00
1.41 Execute transaction KCO4. Select onese memoraloider hour order type:		Convert	Accepted Accepted with dataset			

How to Record Test Results

Test Results can be recorded in the "Test Note" tab, which is shown in the screenshots in the previous section. This can be done in different ways:

• Copy the Test Case contents into the Test Note, and enrich the contents with real test results. For example, screenshots can be taken and added into the Test Note.

• Only store real test results in the Test Note.

The storage of these test results can be used for different purposes, such as:

- Assessing the quality of tests executed;
- Using the information as part of test defects resolution.

How to Create Test Defects

The purpose of testing is to increase the quality of software before golive, hence reducing risks. Possible defects need to be registered, and resolved where possible, prior to go-live.

Below is an example from SAP Solution Manager, showing how to create a Test Defect. Note the two red arrows in the bottom right. Test Defects can be created in the "Messages" tab. After clicking on the "Create" button, the pop-up window appears as shown below.

The text shown in the "Details" field is populated automatically, so as to store the Test Plan information and Test Case where the defect was found.



When the defect has been stored, the defect can be seen in the same "Messages" tab.

After clicking on the defect number, a new browser window is opened showing the defect details.

An example is shown below.

•	Test Defect: 4100000083, Wrong error	
	🖫 Save Display 🗙 Cancel Confirm 📝 Edit 🍄 New New from Template 🗈 Create Follow-Up Auto C	on
Home	▼ Details 🛛 🖓 Edit	
Service Catalog	General Data	
Change Request Mgmt 🕨		
Search Knowledge Article	ID: 410000083	
-	Description:* Wrong error	
Service Operations	Reported by: Theo Kaathoven, Van	1
Master Data	Tester:: Theo Kaathoven, Van	
Create	Expert: AMX_SLA Mexico Alcon	
Change Request	Support Team:	
Change requeet	Test Manager:: TST_MNGR	1
Recent Items		
410000086 not ok	Processing Data	
410000083 Wrong err	Status: Created	
TEST DEFECTS	Created	۲.
410000031 Test 12Oct	Impact: Withdrawn	
410000072 Test 20 Nov	Recommended Priority: In Process	
	Assigned	

The red arrow in shows how to update a defect status value.

This following provides a typical example of Test Defect status values:

- 'New': defect has been newly created.
- 'In Progress': resolution of the defect is being looked into.
- 'To Be Retested': defect is resolved, and retest can take place.
- 'Confirmed': defect has been resolved, and retest was found successful.
- *Closed':* Test Manager agrees that defect can be closed. No more changes are possible in the defect.

These Test Defect status values can be used to satisfy needs on test management defects progress reporting.

Experts can also can see what defects still need to be resolved, and assigned to them. The arrow shows where a new status value can be set.

Conclusions

SAP Solution Manager can be used to support IT processes, and testing processes including test execution. In this paper we have covered the four key activities involved in test execution:

- 1. How to start tests
- 2. How to update status of tests
- 3. How to record Test Results
- 4. How to create Test Defects



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