SAP Solution Manager 7.2 – Test Suite
Test data provisioning for manual tests

Solution Management, DBS, SAP SE
February 2018
Agenda

1. SAP Solution Manager 7.2 – Test Suite
2. Test data for manual tests of type *Test Document*
3. Test data for manual tests of type *Test Steps* (Focused Build)
4. Test data identification, planning, validation and provisioning via partner tool DTD
5. Test Data Container – Alternatives to create TDCs
6. More Information
SAP Solution Manager 7.2 Test Suite
SAP Solution Manager - Test Suite
A full-blown application for manual / automated testing and change impact analysis

**Functional Scope**
- Manual and automated functional tests
- Automated change impact analysis of maintenance activities for test scope optimization of regression tests
- New requirements triggering semi-automated test planning for user acceptance tests and functional integration tests
- High degree of test automation possible
- Supports agile development approach within requirements-to-deploy process through Focused Build for SAP Solution Manager
- Seemlessly integrated with SAP Solution Manager Process Management, Solution Documentation, ChaRM, ITSM, …

**SAP and non-SAP Solutions**
- SAP Business Suite
- SAP S/4HANA (On-Premise, Cloud Edition)
- Non-SAP applications (On-Premise, Cloud)

**Integration**
- Test system refresh
- Partner: test data identification, validation and provisioning
- Partner: test automation tools

**Single Source of Truth**
- All related information in 1 central SAP Solution Manager system
- No complex data replications

The Test Suite of SAP Solution Manager 7.2 is a comprehensive test solution fitting the needs for the vast majority of SAP customers
SAP Solution Manager – Test Suite
Capabilities

Solution Documentation
- Executable Library
- Process Step Library
- Business Processes

Change Impact Analysis
- Scope and Effort Analyzer (SEA)

Test Cases
- Manual Tests
- Automated Tests

Test Plan Management
- Test Plan
- Test Packages
- Test Sequences
- Tester assignment

Test Execution
- Manual Test Execution
- Automated Test Execution
- Defect Management

Test Suite Analytics
- Gap reports
- Status reports
- Progress reports
- Dashboard

Test Data
- SAP TDMS
  - Lean test system setup and refresh
- Test Data Container (TDC)
  - Test data storage for manual and automated tests
- DeceSoft DTD (test data identification, validation and provisioning)

Test Automation Framework
- SAP Test Suite - CBTA (Component Based Test Automation)
  - MicroFocus UFT
  - WorkSoft Certify
  - Tricentis Tosca
  - other 3rd party

Supported UI technologies by CBTA: SAPGUI, WD-ABAP, CRM Web-Client, SAPUI5, Fiori, …
Partner test tools: SAP and non-SAP UI technologies
SAP Solution Manager - Test Suite
Test Suite for SAP S/4HANA

- SAP Solution Manager 7.2 – Process Management will be used to import SAP Best Practices and document business processes used in S/4HANA (On-premise or Cloud edition)

- SAP Solution Manager 7.2 – Test Suite will be used for manual and automated tests of implemented or changed business processes for all functional test types

- Business Processes are acticated from SAP Best Practices and / or customer defined process implementation

- Business Processes are based on SAP standard software and optional custom code, modifications and integrated partner apps


- Business Processes are activated from SAP Best Practices plus limited extension options

- Business Processes are based on SAP standard software and optional extensions using white-listed APIs and partner apps

# Most Common Vendors for SAP-Centric Test Management

<table>
<thead>
<tr>
<th>Functional Test Organization</th>
<th>SAP Solution Manager</th>
<th>Micro Focus*</th>
<th>Other vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Tests</td>
<td>Test Suite</td>
<td>Application Lifecycle Management (ALM)</td>
<td>Tricentis Tosca Testsuite</td>
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<tr>
<td>Analytics and Reporting</td>
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<table>
<thead>
<tr>
<th>Change Impact Analysis</th>
<th>Scope and Effort Analyzer (SEA)</th>
<th>Worksoft Certify Tricentis Tosca Test Automation</th>
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<tbody>
<tr>
<td>Business Process Change Analyzer (BPCA)</td>
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<table>
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<tr>
<th>Automated Tests</th>
<th>Component-based Test Automation (CBTA)</th>
<th>Unified Functional Testing (UFT)</th>
</tr>
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<tbody>
<tr>
<td>Test Automation Framework</td>
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<table>
<thead>
<tr>
<th>Mobile Testing</th>
<th>Mobile Center</th>
<th>Perfecto Mobile</th>
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<tbody>
<tr>
<td>Test Data Provisioning</td>
<td>DeceSoft Test Data (DTD)</td>
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<tr>
<td>Load and Performance Tests</td>
<td>LoadRunner</td>
<td>Worksoft Performance</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Security Tests</th>
<th>Fortify</th>
<th></th>
</tr>
</thead>
</table>

**Legend**

- **SAP Solution Manager and complementing tools**
- **Alternative products with overlapping functionality to SAP Solution Manager (requires additional integration and on-going data replication)**

* Former software division of Hewlett Packard Enterprise is now part of Micro Focus
SAP Solution Manager 7.2 – Test Suite
Delivers all you need

✔ On-premise, Cloud, Hybrid: Supports functional tests for on premise, cloud and hybrid solutions
✔ All under one Roof: no integration setup and ongoing data replication required
✔ Integration: seamless integrates with project management, process management, change and release management, defect and incident management, custom code management
✔ Requirements to Deploy: Supports waterfall and agile development approaches, including Enterprise DevOps
✔ Manual Tests: Easy to use manual tests for business users
✔ Automated Tests: for all SAP and non-SAP processes – certified integration of market-leading partner test tools for test planning, execution and reporting
✔ Test Data: semi-automatically identify, validate and provide suitable test data for all tests
✔ Change Impact Analysis: reduce test scope based on software changes and smart calculations
✔ Test Planning: automatically proposes test plan fitting the needs of the upcoming test cycle
✔ Analytics: automatically provides full transparency of test status and test progress for all involved parties
Test Data provisioning for manual tests of type Test Document
Test Preparation
Test Case assignment to Solution Documentation

Solution Documentation

• Documentation of Business Processes, Process Steps and Executables (Transactions, Reports, Fiori Apps, …)
• Assignment of Test Cases (manual, automated) to Executables, Process Steps or Business Processes

Changes with SAP Solution Manager 7.2

• Executable Library generated from assigned managed systems
• Test Case (manual, automated) assignment at any level in Executable Library, Process Step Library, Business Processes
• New attribute „Assignment Type“ with values „additive“ or „exclusive“ to enable use of already assigned test cases assigned to library nodes for Business Processes
Test Preparation
Creation of manual Tests

Creation of Manual Tests

- Definition of manual test scripts based on document templates
- Assignment to Executables, Process Steps or Business Processes

Changes with SAP Solution Manager 7.2

- Test Case types for manual test reduced to „Test Document“
- New attribute „Test Classification“, e.g. Single Functional Test, UAT, Integration Test, Regression Test
Test Preparation
Creation of manual Tests

**Test Case Template**

- Define test case templates for SFT and FIT

- Assign TC template to Solution in Solution Administration

**Test Case**

- Describe the test activities and test exit criteria

- Alt: leverage functional specs and user stories

**Test Classification**

- Assign attribute Test Classification (SFT, UAT, FIT, RT) during TC assignment to SolDoc

- Smart filtering during Test Plan generation

**Test Data**

- No test data inside the test case - too much maintenance effort!

- Link Test Data Container (or xlsx) to Test Plan or Test Package
Test Preparation
Test Data Provisioning for Manual Tests and Automated Tests

Provisioning of Test Data

- Provisioning of static test data for manual and automated tests via SAP Solution Manager Test Suite
- Identification, planning, validation and provisioning of test data*
- Analysis of posting patterns in various Org Units to derive suitable test data*

Changes with SAP Solution Manager 7.2

- No changes

* via integrated partner product DeceSoft Test Data (DTD)
Test Case assignment to Solution Documentation

Test Case: Order to Cash V1 - Standard

Solution Documentation

Test Case (Test Document)

Business Process Order to Cash (O2C)

Variant 1: Standard Order

1. Test Case Header Information
   - Test Name: Test Document
   - Test Description: Test Document
   - Test Document:
     - Test Case (Test Document)

2. Test Execution
   - Business Processes: Order to Cash
   - System: SAP ERP 6.0, 7.0, 6.1, 7.0, 6.1, 7.0, 6.1, 7.0, 6.1, 7.0, 6.1
   - Test Scenarios:
     - Create Quotation
     - Create Sales Order
     - Create Delivery
     - Create Invoicing
     - Create Cash Receipt

3. Test Data
   - Test Data Source:
     - Test Data Consumer (TDC): E_ORDER_TO_CASH (see Test Data Consumer Manual for Test Execution)

Process 1: Create Quotation with T-Codes V2A1

- Create Quotation using T-Codes V2A1
- Save Quotation
- Create Sales Order
- Save Sales Order
- Create Delivery
- Save Delivery
- Create Invoicing
- Sales order is credit checked and accepted. Test scenario will be processed.

Test Execution and result documentation:
- Test Scenario: Order to Cash (O2C)
- Test Data Consumer: Test Data Consumer Manual for Test Execution
- Test Scenario: Create Quotation with T-Codes V2A1
- Test Data Consumer: Test Data Consumer Manual for Test Execution

Process 2: Create Sales Order with T-Codes V2A1

- Create Sales Order using T-Codes V2A1
- Save Sales Order
- Create Delivery
- Save Delivery
- Create Invoicing
- Sales order is credit checked and accepted. Test scenario will be processed.

Test Execution and result documentation:
- Test Scenario: Order to Cash (O2C)
- Test Data Consumer: Test Data Consumer Manual for Test Execution
- Test Scenario: Create Sales Order with T-Codes V2A1
- Test Data Consumer: Test Data Consumer Manual for Test Execution
## Test Data

### Test Data Container – Parameters

**TDC example: Z_Order_to_Cash**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Parameter Value</th>
<th>Parameter Reference</th>
<th>Target System</th>
<th>ABAP T</th>
<th>Length</th>
<th>Dec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP_1</td>
<td>Quotation</td>
<td>Quotation</td>
<td></td>
<td>C</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L QUOT DOC TY</td>
<td>Sales Document Type</td>
<td>QT</td>
<td>AUART</td>
<td>C</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L SALES ORG</td>
<td>Sales Organization</td>
<td>1000</td>
<td>VKORG</td>
<td>C</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L DISTRIBUTION</td>
<td>Distribution Channel</td>
<td>10</td>
<td>VTWEG</td>
<td>C</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L DIVISION</td>
<td>Division</td>
<td>10</td>
<td>SPART</td>
<td>C</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L SOLD TO PAR</td>
<td>Sold-to party</td>
<td>1000</td>
<td>KUNAG</td>
<td>C</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L SHIP TO PARTY</td>
<td>Ship-to party</td>
<td>1000</td>
<td>KUNWE</td>
<td>C</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L Po NUMBER</td>
<td>Customer purchase order num</td>
<td>1234</td>
<td>BSTKD</td>
<td>C</td>
<td>35</td>
<td></td>
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<tr>
<td>L Po DATE</td>
<td>Customer purchase order date</td>
<td>01.11.2017</td>
<td>BSTKD</td>
<td>D</td>
<td>8</td>
<td></td>
<td></td>
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<tr>
<td>L VALID TO</td>
<td>Date until which bid/quot. is valid</td>
<td>31.12.9999</td>
<td>BN0D</td>
<td>D</td>
<td>8</td>
<td></td>
<td></td>
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<tr>
<td>L MATERIAL</td>
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<td>MATHE</td>
<td>C</td>
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<td>L QUANTITY</td>
<td>Cumulative Order Quantity in S</td>
<td>1</td>
<td>KUNWE</td>
<td>C</td>
<td>10</td>
<td></td>
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<tr>
<td>RESULT_1</td>
<td>Result Quotation No</td>
<td>20000136</td>
<td></td>
<td>C</td>
<td>10</td>
<td></td>
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<tr>
<td>STEP_2</td>
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<td>Sales Order</td>
<td></td>
<td>C</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L SALES_DOC T</td>
<td>Sales Document Type</td>
<td>OR</td>
<td>AUART</td>
<td>C</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESULT_2</td>
<td>Result Sales Order No</td>
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<td>C</td>
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<tr>
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<td>Delivery</td>
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<td>C</td>
<td>15</td>
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<td></td>
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<tr>
<td>L SHIPPING POINT</td>
<td>Shipping Point/Receiving Point</td>
<td>1000</td>
<td>VSTEL</td>
<td>C</td>
<td>4</td>
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<tr>
<td>RESULT_3</td>
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<td>C</td>
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<td>C</td>
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<td>L WAREHOUSE</td>
<td>Warehouse Number / Warehouse</td>
<td>010</td>
<td>LGNUM</td>
<td>C</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L PLANT</td>
<td>Plant</td>
<td>1000</td>
<td>WERKS_D</td>
<td>C</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESULT_4</td>
<td>Result Transfer Order No</td>
<td>3571</td>
<td></td>
<td>C</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Test Data
Test Data Container – Variants (= test data records)

**TDC example: Z_Order_to_Cash**

<table>
<thead>
<tr>
<th>Variant</th>
<th>Description</th>
<th>STEP_1</th>
<th>L_QUOT_DOC_TYPE</th>
<th>L_SALES_ORG</th>
<th>L_DISTRIBUTION_CHANNEL</th>
<th>L_DIVISION</th>
<th>L_SOLD_TO_PARTY</th>
<th>L_SHIP_TO_PARTY</th>
<th>L_PO_NUMBER</th>
<th>L_PO_DATE</th>
<th>L_VALID_TO</th>
<th>L_MATERIAL</th>
<th>L_QUANTITY</th>
<th>RESULT_1</th>
<th>STEP_1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECATTDDEFAULT</td>
<td></td>
<td>QT</td>
<td>1000</td>
<td>10</td>
<td>00</td>
<td>1000</td>
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<td>200000136</td>
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<tr>
<td>1</td>
<td>Test Q1 2015</td>
<td>Quotation</td>
<td>QT</td>
<td>1000</td>
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<td>1000</td>
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<td>Sales</td>
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<td>3</td>
<td>Test Q1 2015</td>
<td>Quotation</td>
<td>QT</td>
<td>1000</td>
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<td>Test Q1 2015</td>
<td>Quotation</td>
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<td>Sales</td>
<td>20000138</td>
<td>Sales</td>
<td></td>
</tr>
</tbody>
</table>

![Image of TDC example: Z_Order_to_Cash](image.png)
Test Plan Management
Test Plan – General Settings

Header Data

- **Test Plan ID:** FIT_REL2_MAINTENANCE
- **Description:** Functional Integration Tests Release 2 Maintenance
- **Person Responsible:** Marcus Wefers

Solution Documentation

- **Project:** Business Solution
- **Branch:** Maintenance
- **View:** Default View
- **System Role ID:** Quality Assurance System

Generation of Test Case Hierarchy from Solution Documentation

- **Last Successful Generation:** 30.11.2017 09:45:11
- **Last Update Start:** 30.11.2017 09:45:11

System Landscape

<table>
<thead>
<tr>
<th>Logical Component Group</th>
<th>Logical Component</th>
<th>SAP System ID</th>
<th>Client ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP S/4 HANA</td>
<td>Maintenance</td>
<td>Q44</td>
<td>002</td>
</tr>
<tr>
<td>SAP SOLMAN</td>
<td>Production</td>
<td>FBT</td>
<td>000</td>
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<tr>
<td>SAP ERP</td>
<td>Production</td>
<td>XUQ</td>
<td>800</td>
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<tr>
<td>SAP CRM</td>
<td>Production</td>
<td>YAZ</td>
<td>800</td>
</tr>
<tr>
<td>SAP SRM</td>
<td>Production</td>
<td>ESU</td>
<td>300</td>
</tr>
<tr>
<td>SAP_51_CLOUD</td>
<td>Production</td>
<td>CF1</td>
<td>000</td>
</tr>
</tbody>
</table>
## Test Plan Management

### Test Plan – Test Case Selection

<table>
<thead>
<tr>
<th>Solution</th>
<th>Business Processes</th>
<th>Operational Processes</th>
<th>Order to Cash</th>
<th>Additive</th>
<th>End to end test not required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Order to Cash V1 - Standard</td>
<td>Additive</td>
<td>End to end test required</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Order to Cash V1 - Standard</td>
<td>Medium</td>
<td>FIT</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Test Plan Management
Test Plan – Test Data Sets

Here you can select the Test Data Containers that the testers shall use during test execution. You can choose different TDC per Test Package if needed.
Test Plan Management
Test Plan – Test Package

Test Plan with 1-n Test Packages

Test Package with assigned Test Data Container
Test Execution
Test Execution – Tester access via My Tasks - Tester Worklist

My Packages
- Released (0)
- Assigned (5)
- Protected (0)
- Ready to Test (0)

My Packages - Assigned

Show Quick Criteria Maintenance Query has been changed

View: [Standard View] Attachments Automatic Test Refresh Status Run Test Package Go to Print Version Expo

- Test Package ID
- Execution Forbidden
- Planned Start Date
- Planned End Date
- Priority

- Test Plan ID
- RT BPCA EH4 WITH EXCLUDE
  - ALL TEST CASES
  - 01.05.2016
  - 30.06.2016
- RT BPCA EH4 WITH EXCLUDE
  - PROCESS TESTS
  - 01.05.2016
  - 30.06.2016
- RT BPCA EH4 WITH EXCLUDE
  - SINGLE TESTS
  - 01.05.2016
  - 30.06.2016

- FIT REL2 MAINTENANCE
  - FIT REL 2 ALL MAINT
  - 15.03.2016
  - 15.06.2016
  - High

Test Package: FIT REL 2 ALL MAINT

Functional Integration Test Cases Release 2 All Maintenance

Standard Switch View Run Edit Status Defect Report Test Case Error Automatically Test Notes Overall

Test Case
- Solution Business Processes
- Operational Processes Order to Cash
  - Order to Cash V1 - Stand...

- Marcus Wefers
- 18.05.2016
Test Execution
Manual Test Execution (MTE) to view Test Case, view Test Data and launch Executable in QAS

User opens the test case to read the test instructions

User navigates via this Tab to the TDC
Test Execution

Manual Test Execution (MTE): Access to Test Data

User can open the TDC to get informed about suitable Test Data
Test Data provisioning for manual tests of type Test Steps (Focused Build)
Test Data provisioning for test case of type Test Steps
Step by Step approach

Test Preparation – see screenshots from the previous section of this presentation

1. Test cases of type Test Steps are available and assigned to Process Steps / Business Processes
2. Test Plan with selected test cases of type Test Steps
3. Test Plan with assigned Test Data Container
4. Test Packages with selected test cases and assigned manual testers

Test Execution

1. Test Execution by manual tester using application “My Test Executions”
2. User selects test case of type Test Step
3. and navigates to tab Test Data Sets
4. User starts the link and opens the Test Data Container to view the relevant test data
5. … and now can test in the QAS system …
Test Data provisioning for test case of type Test Steps

Test Execution

Step 1: Test Execution by manual tester using application “My Test Executions”
Test Data provisioning for test case of type Test Steps

Test Execution

Step 2: User selects test case of type Test Steps
Test Data provisioning for test case of type Test Steps

Test Execution

Step 3: User navigates to tab Test Data Sets
Test Data provisioning for test case of type Test Steps

Test Execution

Step 4: User starts the link and opens the Test Data Container to view the relevant test data
Test Data provisioning for test case of type Test Steps

Test Execution

Step 5: … and now can test in the QAS system …
Test Data identification, planning, validation and provisioning with DeceSoft DTD
DeceSoft – an SAP Focused Solutions Circle Partner*

**Test Data**
- Test Data Identification
- Test Data Validation
- Test Data Provisioning
- for manual / automated tests
- **Usage Analytics** to understand posting patterns of business teams and TD provisioning

**Business Process Variants**
- High-volume analysis of posting patterns in managed systems
- Identification of process step variants
- Documentation of process step variants in SAP Solution Manager

**Transport Analysis**
- Analysis of software transports and code analysis in managed systems to check coverage of BPCA TBOMs
- Ensures software changes covered by regression tests

* Focused solutions circle partner: [https://support.sap.com/solution-manager/focused/focused-solutions-circle.html](https://support.sap.com/solution-manager/focused/focused-solutions-circle.html)

http://decesoft.com/
Plan and Identify Test Data – 4 Approaches

DeceSoft Test Data (DTD)

Online Planning with access to SAP system

Offline Planning (MS Excel) plus DTD online validation

Derive data from posted business documents

High volume usage analytics of posted business documents

DTD planning grid to identify / plan Test Data Records
Plan and Identify Test Data – Approach 1
DeceSoft Test Data (DTD)

Approach 1: Online planning

- User gets a table (like MS Excel) which allows data entry
- Value help from DTD integrated with managed system like SAP ERP test system allows seamless take over of valid data into planning grid
- DTD immediately shows whether field combinations are not valid
- Example VA01: Division, Sales Org, Distribution Channel
- Correct values via value help
- Online test data validation

- Value help to get valid data from connected SAP system
- Online data validation
Plan and Identify Test Data – Approach 2
DeceSoft Test Data (DTD)

Approach 2: Offline planning with MS Excel and DTD online validation

1. Download DTD test data DNA to generate MS Excel file
   MS Excel file includes column header with field texts

2. Offline planning of test data

3. File upload to DTD

4. Validation of test data against SAP system
Plan and Identify Test Data – Approach 3
DeceSoft Test Data (DTD)

Approach 3: derive data from available business documents of executed business transactions

0. SAP system contains many documents of posted business transactions

1. DTD supports the user to find posted documents with suitable data, e.g., launch of display transaction in SAP system

2. DTD fetches selected documents and extracts relevant data

3. DTD saves as new Test Data Records in DTD planning grid

Document 11828: Order Type OR, ...
Document 4969: Order Type RO, ...
Plan and Identify Test Data – Approach 4
DeceSoft Test Data (DTD)

Approach 4: Usage Analytics

Thousands / millions of posted documents

Usage Analysis for selected business transaction

<table>
<thead>
<tr>
<th>ABC</th>
<th>Order Type</th>
<th>Sales Org</th>
<th>Document Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>OR</td>
<td>5-01</td>
<td>1,500,000</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>5-02</td>
<td>800,000</td>
</tr>
<tr>
<td>B</td>
<td>...</td>
<td>...</td>
<td>75,000</td>
</tr>
<tr>
<td>C</td>
<td>...</td>
<td>...</td>
<td>50,000</td>
</tr>
</tbody>
</table>

Drilldown to analyze used field values of other entities of the business transaction

Test Data

Flexible selection of important fields per business transaction (Test Data DNA) – generic approach – no specific coding

Automatic derivation of fields with interdependencies – generic approach

Very fast retrieval of valid combinations from PRD systems with subsequent ABC usage analysis

Automatic generation of test data from ABC analysis

Generic

Automatic

Test Data

Fast

Drilldown
Validation of Test Data
DeceSoft Test Data (DTD)

Test Data Validation: check data validity against SAP systems such as DEV, QAS, Pre-PRD

- Online validation of each Test Data Record against selected SAP system
- Check of each field as well as field combinations
- Error messages explain reasons for failed validation
- SAP table entries can be checked via drill-down
- Validation reports allow fast correction of incorrect test data
- Custom-specific validation checks available via BADI
Validation of Test Data
DeceSoft Test Data (DTD)

Validation of test data against **multiple** SAP systems during test data planning

<table>
<thead>
<tr>
<th>Record</th>
<th>Order Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OR</td>
<td>M-100</td>
</tr>
<tr>
<td>2</td>
<td>OR</td>
<td>M-200</td>
</tr>
<tr>
<td>3</td>
<td>AB</td>
<td>M-300</td>
</tr>
</tbody>
</table>

- Test Data validity can be checked against any selected SAP system
- DTD validation reports provide meaningful explanations and user guidance to correct the test data
Validation of Test Data
DeceSoft Test Data (DTD)

Advanced Validations with custom specific check rules via DTD Enhancement Spot

DTD enhancement spot (BADI)
  <Filter for Tables and Fields>
  Method: ...check data
  • ...
  • Call Function ‘BAPI_MATERIAL_AVAILABILITY’
  • Call Function ....
  • <validation logic>

SAP standard BAPIs

DTD Validation
• Mouse-over shows DTD standard and custom-defined validation errors
• Example: material in stock shortage
• DTD validation report lists all problems
• DTD test data generation via Usage Analytics with validations
Provide Test Data for manual and automated tests
DeceSoft Test Data (DTD)

DeceSoft DTD makes it easy to use validated test data in manual and automated tests

- DTD generated MS Excel files to be assigned to Test Plan / Test Package of SAP Solution Manager
- Push of test data to Test data Container (TDC) of SAP Solution Manager
- DTD generated MS Excel for all other Test Suites, e.g. HP ALM (now MicroFocus)

- Push of test data to Test Data Container (TDC) of SAP Solution Manager
- DTD generated MS Excel for all other Test Suites, e.g. HP ALM (now MicroFocus)
Test Data for manual Tests

Test data provisioning via MS Excel file for manual tests in SAP Solution Manager

Test data provisioning

DTD: download validated test data for next Test Cycle from DTD view Test Data Records

Test Suite:
Assign MS Excel file to Test Plan and Test Packages

Tester Worklist – Manual Test Execution
My Test Executions (Focused Build)

Tester can view validated test data via tab Attachments

Test Document
Test Steps
Test Data for manual and automated Tests
Test data provisioning via Test Data Container for manual / automated tests in SAP Solution Manager

1. **Test data provisioning**
   - DTD: transfer validated test data for next Test Cycle from DTD view Test Tool Transformation

2. **Test preparation**
   - Test Suite: Assign Test Data Container (TDC) to Test Plan and Test Packages

3. **Test execution**
   - Manual Tests: direct access to view test data in TDC from Manual Test Execution and My Test Executions
   - Automated Tests: Test Configurations linked to TDC to read test data automatically during test execution

- Manual Tests (Test Document, Test Steps)
- CBTA
- 3rd party test automation tools
# Customer Benefits

DeceSoft Test Data (DTD)

**Fast and efficient way to identify test data for functional tests of SAP business transactions**

**Sophisticated validation of test data to ensure correct test data before start of test cycles**

**Efficient way to understand how org.units post business transactions plus test data generation**

**Convenient Test Data provisioning via MS Excel or SAP Solution Manager (TDC)**

<table>
<thead>
<tr>
<th>Sales Doc. Type</th>
<th>Sold to party</th>
<th>Division</th>
<th>Sales Org.</th>
<th>Dial. Channel</th>
<th>Order quantity</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>1172</td>
<td>00</td>
<td>1000</td>
<td>10</td>
<td>140,000</td>
<td>P-1001</td>
</tr>
<tr>
<td>OR</td>
<td>2007</td>
<td>00</td>
<td>1000</td>
<td>10</td>
<td>1,000</td>
<td>P-08</td>
</tr>
<tr>
<td>CR</td>
<td>1000</td>
<td>01</td>
<td>1000</td>
<td>01</td>
<td>2,000</td>
<td>P-200</td>
</tr>
<tr>
<td>CR</td>
<td>2301</td>
<td>01</td>
<td>1000</td>
<td>01</td>
<td>1,000</td>
<td>P-100</td>
</tr>
</tbody>
</table>

**Test Data Records for Executable**

<table>
<thead>
<tr>
<th>Record</th>
<th>Other Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OR</td>
<td>M-500</td>
</tr>
<tr>
<td>2</td>
<td>CR</td>
<td>M-200</td>
</tr>
<tr>
<td>3</td>
<td>AB</td>
<td>M-300</td>
</tr>
</tbody>
</table>

**DTD Validation**

- AMERICAS
- EMEA
- APJ

DTD Test Data Repository

- Manual Tests
- Automated Tests
Alternatives to define Test Data Containers
Test Data Container – alternatives to create TDCs

Alternative 1: manual definition of TDC by Test Engineer

Alternative 1: manual TDC definition

• Test Engineer knows the business transaction and fields relevant for data input by manual tester
• Test Engineer defines TDC structure with transaction SECATT in SAP Solution Manager
• Test Engineer enters relevant test data (term: variants) or uses DeceSoft DTD to populate validated test data
• Note: assignment of txt file as test data is not recommended
Test Data Container – alternatives to create TDCs
Alternative 1: manual definition of TDC by Test Engineer

Step 1: Define TDC and set attributes like target system. Here: SAP ERP
Test Data Container – alternatives to create TDCs

Alternative 1: manual definition of TDC by Test Engineer

Step 2: Define TDC parameters

- Info: TDC parameters represent the fields which are later used by manual testers for data entry

- Recommendation: select parameter via Data Element of the required field.

- Example: data entry field “Sales Document type” → Data Element AUART

- Advantage: parameter description and technical field definition automatically available for TDC parameter
Test Data Container – alternatives to create TDCs

Alternative 1: manual definition of TDC by Test Engineer

Step 3: TDC ready to enter test data

- Manually or
- Upload of validated data from DTD
Test Data Container – alternatives to create TDCs

Alternative 2: automated definition of TDC via partner app

Alternative 2: automated TDC definition via partner application

- Test Engineer manages test data with DeceSoft DTD. Result: validated test data available for test execution
- Test Engineer uses DTD to automatically create a TDC which contains the required TDC parameters
- Test Engineer can populate TDC with test data from DTD via integrated push of test data
Test Data Container – alternatives to create TDCs

Alternative 2: automated definition of TDC via partner app

Step: TDC auto-generation via partner application DeceSoft DTD
Test Data Container – alternatives to create TDCs

Alternative 2: automated definition of TDC via partner app

Result: TDC ready to receive data

- Next step: select relevant data for test execution and transfer to TDC of SAP Solution Manager
SAP Solution Manager – Test Suite

More Information for Customers and Partners
Test Suite – more information for customers and partners

SAP Solution Manager WIKI – Test Suite

- Audience: customers and partners
- Positioning presentations
- How to configure and administration
- Tips and tricks
- Offline demos

SAP Solution Manager Learning Resources Overview
Build up your knowledge and skills

Available Learning Resources
From Interest to Expert Knowledge

- YouTube
- SAP Books
- SAP.com
- SAP Support Portal
- Media Center
- SAP Community
- SAP Demo Systems
- SAP ES Academy
- SAP Education
- SAP Help Portal

Management Competence (Introduction)
- Overview Videos
- Overview Publication
- Overview Information
- SAP Solution Manager Homepage (support.sap.com/solutionmanager)
- SAP Solution Manager Media Center
- Product Videos, System Demos, Tutorials

Core Competence (Key Value Chains)
- Focused Solutions
- Ready-to-run solutions for SAP Solution Manager

Expert Competence (Functional Areas)
- Expert Publication Monitoring and Operations with SAP Solution Manager
- Technical Documentation Supported languages, browsers, and databases
- Expert WIKIs Functional Areas Expert Content
- SAP Solution Manager Community Blogs & Questions
- System Landscapes Private Cloud System (CAL), Public Demo System, Internet Demo System
- Live Expert Sessions & e-Learnings Get empowered by the SAP Enterprise Support Academy
- Classroom Trainings Setup, configuration, and functional overview
- Product Documentation Application Help, Release Notes, Installation, Upgrade, and Security Guides