AGENDA
DeceSoft – add-on products for SAP Solution Manager

Product Overview

DTD - DeceSoft Test Data

DBP - DeceSoft Business Process

DTA - DeceSoft Transport Analysis

Who we are
DeceSoft Product Overview
Product Overview
Add-on products for SAP Solution Manager

**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

DeceSoft is an SAP Focused Solutions Circle partner
Product Pricing
Add-on products for SAP Solution Manager

<table>
<thead>
<tr>
<th>Product</th>
<th>Pricing Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Data</td>
<td>DTD</td>
</tr>
<tr>
<td></td>
<td>• 50k EUR for base package including 1 managed system</td>
</tr>
<tr>
<td></td>
<td>• 20k EUR for every additional managed system</td>
</tr>
<tr>
<td></td>
<td>• Unlimited number of users</td>
</tr>
<tr>
<td>Business Process Variants</td>
<td>DBP</td>
</tr>
<tr>
<td></td>
<td>• 25k EUR</td>
</tr>
<tr>
<td></td>
<td>• Unlimited number of managed systems</td>
</tr>
<tr>
<td></td>
<td>• Unlimited number of users</td>
</tr>
<tr>
<td>Transport Analysis</td>
<td>DTA</td>
</tr>
<tr>
<td></td>
<td>• 15k EUR</td>
</tr>
<tr>
<td></td>
<td>• Unlimited number of managed systems</td>
</tr>
<tr>
<td></td>
<td>• Unlimited number of users</td>
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</table>

DeceSoft is an SAP Focused Solutions Circle partner
DeceSoft Test Data (DTD)

Identification, validation and provisioning of test data for manual / automated tests
How do you identify and provide test data that shall be used by manual testers and test automation tools?
DeceSoft DTD identifies and validates data from your SAP systems - suitable to test your business transactions.
Functionality
DeceSoft Test Data (DTD)

Test Data Identification
Generic approach to plan and derive test data for manual and automated tests

Test Data Validation
Validation of test data for any SAP system. Checks allowed field combinations and availability of important entities like material in stock

Usage Analytics
Fast analysis of large amounts of posted documents to understand posting patterns of org. units, ABC ranking of used field combinations and test data generation

Test Data Provisioning
Make validated test data available to your testers and automated test tools through MS Excel files or push to SAP Solution Manager Test Data Container (TDC)
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: 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
Plan and Identify Test Data

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 derive data from available business documents of executed business transactions

0. SAP system contains many documents of posted business transactions

1. DTD supports 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

<table>
<thead>
<tr>
<th>#</th>
<th>Plan Status</th>
<th>Origin</th>
<th>System</th>
<th>Sales Document</th>
<th>Sales Doc. Type</th>
<th>Sold-to party</th>
<th>Division</th>
<th>Sales Org.</th>
<th>Dist. Channel</th>
<th>Order quantity</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reference</td>
<td>ER1/800</td>
<td>11828</td>
<td></td>
<td>OR</td>
<td>1000</td>
<td>0</td>
<td>00905</td>
<td>10</td>
<td>1,600,000</td>
<td>NGL-CN6P-1HW</td>
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<td></td>
<td>RO</td>
<td>1390</td>
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<td>P-109</td>
</tr>
<tr>
<td>3</td>
<td>Reference</td>
<td>ER1/800</td>
<td>4979</td>
<td></td>
<td>OR</td>
<td>1175</td>
<td>0</td>
<td>1900</td>
<td>12</td>
<td>5,000</td>
<td>M-01</td>
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</tbody>
</table>
Plan and Identify Test Data

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>

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

Automatic
- Automatic derivation of fields with interdependencies – generic approach

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

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

Test Data
- Automatic generation of test data from ABC analysis

Drilldown customer, material group, ...

Test Data generation
Test Data Validation

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
Test Data Validation

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

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

Advanced Validations with custom specific check rules via DTD Enhancement Spot

SAP QAS + DeceSoft plug-in

DTD enhancement spot (BADI)
Method: check data
• ...  
• Call Function ‘BAPI_MATERIAL_AVAILABILITY’
• ...  
• <customer specific 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
Test Data Provisioning

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

Manual Tests

• **MS Excel**: DTD download of validated test data into MS Excel and assign to test case – for all manual testing tools from SAP and partners

Automated Tests

• **TDC**: DTD push of validated test data into Test Data Container (TDC) of SAP Solution Manager

• **MS Excel**: DTD download of validated test data to MS Excel and subsequent upload for all test automation tools (CBTA, SAP TAO, HP ALM, Micro Focus ALM, Tricentis Tosca, ...)

Test Data Repository
Test Data Provisioning for SAP Solution Manager

Use Case 1: Automated Tests - Test Suite - SAP Solution Manager

Automated tests fail less often due to incorrect test data and identify application errors.

**Test Automation Tools**
- SAP CBTA
- Micro Focus UFT (ex HP QTP)
- WorkSoft Certify
- Tricentis Tosca

**Execution of automated tests**
- Test Case 1: ok
- Test Case 2: ok
- Test Case 3: failed
- Test Case 4: ok
Test Data Provisioning for SAP Solution Manager

Use Case 2: Manual Tests - Test Suite - SAP Solution Manager

- Select validated test data
- Download to MS Excel or push into Test Data Container

Create Test Plan and select manual test cases
Assign MS Excel or Test Data Container to Test Plan

- Test Document (docx, xlsx, ...)
- Test Steps

- Improved efficiency of manual testers due to availability of correct test data

- Test Case 1: ok
- Test Case 2: ok
- Test Case 3: failed
- Test Case 4: ok
Test Data Provisioning for Micro Focus ALM

Use Case 3: Manual and Automated Tests – Micro Focus ALM (formerly HP ALM, HP QC)

- **DTD Test Data Repository**: Select validated test data and download to MS Excel.
- **Upload MS Excel file with test data to ALM.**
- **Define Test Set, select manual or automated cases and assign test data.**
- **Execution of manual / automated tests**
  - Improved efficiency of manual testers and automated tests, due to availability of correct test data.
  - **Test Automation Tools**
    - UFT Unified Functional Tests (formerly HP UFT, HP QTP)
    - SAP TAO
  - **Test Case Results**
    - ok Test Case 1
    - ok Test Case 2
    - failed Test Case 3
    - ok Test Case 4
Test Data Provisioning for Tricentis Tosca

Use Case 4: Manual and Automated Tests – Tosca Test Suite – Tricentis

DTD Test Data Repository

Select validated test data and download to MS Excel

Convert DTD Excel file with validated test data to Tosca Excel file format.

Tosca Excel templates can be leveraged.

Provide the path to the Excel file with the Tosca Excel DataSource Wizard.

Execution of manual / automated tests

Improved efficiency of manual testers and automated tests, due to availability of correct test data

ok  Test Case 1
ok  Test Case 2
failed Test Case 3
ok  Test Case 4
**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)**
Business Process Variants
DeceSoft DBP
Identification of Process Step Variants
DeceSoft Business Process (DBP)

1. DBP performs usage analytics of posted business transactions
2. Differentiation by user selected fields, e.g. order type
3. User selection of Top N variants
4. DBP creates Process Step Variants in SAP Solution Manager

Solution Documentation
- Solution
- Process Step Library
- Process Step Folder
  - PS Variant 1
  - PS Variant 2
  - ...
Customer Benefits
DeceSoft Business Process (DBP)

Fast and convenient analysis of posting patterns for any business unit, location, ...

Generic approach – works for all SAP and custom Executables

Fast documentation of most important Process Step variants in SAP Solution Manager

SAP ERP, SAP CRM, SAP S/4HANA, ...

Thousands / millions of posted documents with high variation in PRD (or pre-PRD) systems

DeceSoft DBP

High volume analysis of posted documents
Multi-dim. Analysis

Top N used Process Step variants

Solution
Process Step Library
Process Step Folder
PS Variant 1
PS Variant 2
...

Automated creation of Process Step variants in Solution Documentation
Transport Analysis

DeceSoft DTA
The Software Change and Regression Test Challenge

1. Are all transported SW changes covered by our available Regression Tests?
2. Which Test Cases need to be extended / created?
Identify software changes not covered by Regression Tests
DeceSoft Transport Analysis (DTA)

1. Identification of software changes included in Transports, but not covered by Regression Tests
2. Advanced changed code analysis in managed system (ERP, CRM, S/4…) for Includes and their FORM routines
3. Identification of Executables (SAP, custom code) impacted by changed SAP objects, but not covered by Regression Tests
Typical flow of Activities
DeceSoft Transport Analysis (DTA)

Prepare activities before Software Change
- Solution Documentation with Processes / Steps and Executables covered with BPCA TBOMs
- Regression Tests (RT) up-to-date and available for all mission critical Processes
- BPCA TBOMs generated via automated Regression Tests

Software Change Event
- Software changes (fixes, enhancements, new features) implemented in DEV system
- Transports (TR) or Transport of Copies (ToC) to Quality Assurance System (QAS)

DTA Transport Analysis
- Gap identification of changed objects included in TR /ToC, but not BPCA TBOMs
- Advanced gap identification in managed system for includes and new/changed/deleted FORM Routines
- Identification of Executables using of identified gap objects to provide guidance for Test Engineers

Take Action and close Gaps
- Test Engineers close gaps by extending test cases.
- Example: additional steps with navigation that use changed objects.
- Result: up-to-date Regression Tests
- Execute Regression Test Case and re-generate TBOMs
Customer Benefits
DeceSoft Transport Analysis (DTA)

- **Reduced Risk**: Reduced risk of PRD system issues due to incomplete Regression Tests
- **Efficient**: Fast and efficient way to identify changed objects not included in available regression tests
- **Automated**: Automated identification of transactions, reports, ... using changed objects not covered by RT
- **SAP and Custom**: Supports SAP and custom executables
DeceSoft

Who we are
Who we are

• DeceSoft GmbH is based in Germany and was founded in 2008
• DeceSoft has development facilities in various European countries
• The DeceSoft team has long-ranging experience with SAP Solutions
• Website and Whitepaper: www.decesoft.com
• E-Mail: info@decesoft.de
• Product video: https://www.youtube.com/watch?v=rlxecribh-8

DeceSoft Mission

Development of add-on software products that compliment and extend functionality provided by SAP Solutions to solve complex customer challenges
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