

# **SAP Landscape Management 3.0 SP1 (preconfigured solution)**



# Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

# Document History

Version	Date	Change
1.0	2015-01-15	Initial Version
2.0	2015-09-15	Update
2.1	2015-10-15	Update
3.0	2016-11-30	Updates for Landscape Management 3.0 SP1: - Added Working Set - Added HANA replication chapter - Added HANA NZDM Maintenance chapter - Changes due to UI5 - Added Operation template chapter - Added Custom process chapter - some minor changes
3.01	2016-11-30	Update

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# 1 General Overview

With SAP Landscape Management software, you can simplify and automate the management and operations of your SAP systems and landscapes running on traditional or virtual infrastructures and increase your business agility.

Below an overview of the main scenarios that are available with the Enterprise Edition of SAP Landscape Management (LaMa):

For SAP LaMa - you can find more details here:

<http://go.sap.com/product/technology-platform/landscape-management.html>

For more information, see:

[https://uacp2.hana.ondemand.com/viewer/p/SAP\\_LANDSCAPE\\_MANAGEMENT\\_ENTERPRISE?q=landscape%20managemen%20enterprise&state=DRAFT,TEST,PRODUCTION&format=standard,html,pdf,others](https://uacp2.hana.ondemand.com/viewer/p/SAP_LANDSCAPE_MANAGEMENT_ENTERPRISE?q=landscape%20managemen%20enterprise&state=DRAFT,TEST,PRODUCTION&format=standard,html,pdf,others)

## 2 Before you Start

The Trial Appliance is provided with the following initial configuration:

- In the SAP Landscape Management Trial Appliance you are able to manage several SAP systems and perform certain tasks with them. The configured example landscape consists of the following components:
  - Managing system
    - SAP Landscape Management 3.0 SP1 based on SAP NetWeaver Java 7.50 SP4
  - Managed systems by SAP Landscape Management
    - SAP ERP systems on HANA single-node with SAP SIDs `ERP`, `ERQ`, and `ERD`
    - SAP CRM systems on Sybase ASE with SAP SIDs `CRP`, `CRQ`, and `CRD`
    - SAP BW systems on HANA single-node replicated with SAP SIDs `BWP`, `BWQ`, and `BWD`
    - SAP systems `ERP`, `CRP`, and `BWP` grouped in a pool called *Production*, whereby the systems `CRP` and `BWP` are dependent on the availability of system `ERP`. These systems are already started.
    - SAP systems `ERQ`, `CRQ`, and `BWQ` grouped in a pool called *Quality*, whereby the systems `CRQ` and `BWQ` are dependent on the availability of system `ERQ`. These systems are stopped at the beginning.
    - SAP systems `ERD`, `CRD`, and `BWD` grouped in a pool called *Development*, whereby the systems `CRD` and `BWD` are dependent on the availability of system `ERD`. These systems are stopped at the beginning.
    - An empty pool called *Sandbox* with no SAP systems in the initial setting
    - Bare-Metal Server Hardware grouped in the pool *Production*
    - Virtual Management Software\*\* (Virtual Managers)
    - Virtual Machines (host) grouped in the pools *Quality*, *Development* and *Sandbox*
    - Storage system for all available pools
    - All managed hardware and software components are simulated by a special simulator, which is only used for SAP-internal purposes. This simulator behaves like real SAP systems would, but not fully. Due to this known limitation most but not all functionality offered by SAP Landscape Management can be tested in this Trial Appliance.
  - There are users with different permissions configured to experience different authorizations: Change these passwords as soon as possible.
    - Logon ID: *TRIALadmin*
      - The initial password for this user is `Trial2016` (unless it was changed).
      - NetWeaver Group: `LVM_SUPERADMIN`
      - Permission to display and operate systems of all pools and change nearly everything
      - Top level pages: all
    - Logon ID: *TRIALoperator*
      - The initial password for this user is `Trial2016` (unless it was changed).
      - NetWeaver Group: `LVM_OPERATOR`
      - Permission to display and operate systems of pools *Quality*, *Development* and *Sandbox*
      - Top level pages: Overview, Operations, Monitoring
    - Logon ID: *TRIALreadonly*

- 
- The initial password for this user is **Trial2016** (unless it was changed).
  - NetWeaver Group: LVM\_READONLY
  - Permission to display systems of all pools
  - Top level pages: Overview, Monitoring
  - Logon ID: *Administrator*
    - The initial password for this user is **<Password entered during creation of this instance>**
    - NetWeaver Group: Administrator
    - Permission of Administrator
    - Top level pages: all
  - The scenarios described in this document can be executed with all browsers supported by SAP NetWeaver 7.50 (see [Product Availability Matrix](#)) and SAPUI5 (see [SAP Note 1716423](#)):
    - Microsoft Internet Explorer
      - Internet Explorer 10 Desktop
      - Internet Explorer 11 Desktop
    - Firefox
      - Firefox Extended Support Release Cycle
      - Firefox Rapid Release Cycle
    - Apple Safari
      - Safari 7
      - Safari 8
      - Safari on MACOS
    - Google Chrome
      - Chrome Release Cycle

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## 3 Restrictions and Limitations

### 3.1 Important Disclaimers on Legal Aspects

The used simulator software component is for internal use and testing purposes only. Its content is subject to change without notice, and SAP does not warrant that it is error-free. SAP MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

Any software coding and/or code lines / strings ("Code") included are only examples and are not intended to be used in any productive system environment. The Code is only intended to better explain and visualize the features of the SAP Landscape Management. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code.

No part of this software component may be copied or transmitted in any form or for any purpose without the express permission of SAP SE. The information contained herein may be changed without prior notice.

Nothing herein should be construed as constituting an additional warranty.

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# 4 Overview

## Scenario

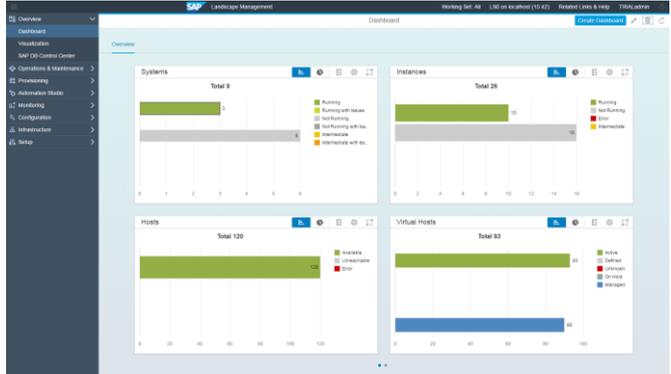
You want to get an overview about the current system landscape and its status. Therefore you logon to your SAP Landscape Management system and check the standard dashboards to get a first impression about the status of your system landscape. Afterwards you learn how to create customizable dashboards and pods and how to get a high-level overview of your landscape using landscape visualization.

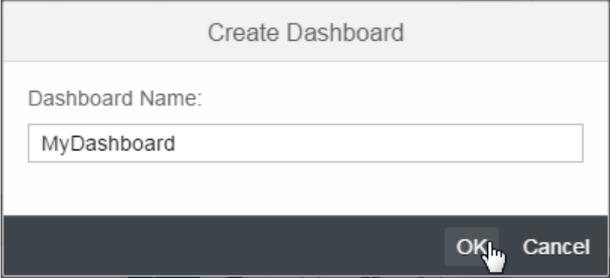
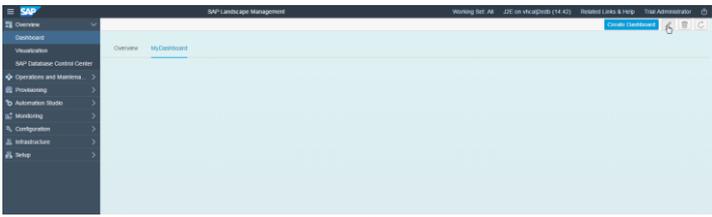
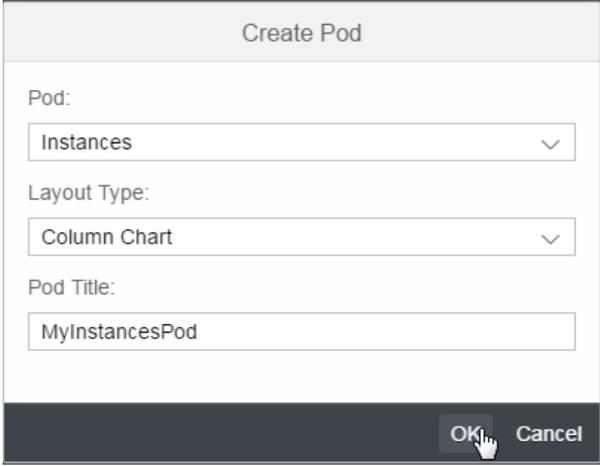
- Dashboards provide a real-time overview of the current landscape state, show running operations, and display diagnostic messages.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_lamaent30/en/0c/584cebf2043cfb3a35095207d6750/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/0c/584cebf2043cfb3a35095207d6750/frameset.htm)
- Landscape Visualization provides a complete landscape view across infrastructure layers and helps you understanding the relationship between the landscape entities.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_lamaent30/en/b5/d16eca35844f77b117cc12402ab4cf/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/b5/d16eca35844f77b117cc12402ab4cf/frameset.htm)

## Description

- You logon to SAP Landscape Management trial system.
- You get a general idea of the system.
- You create new dashboards and pods.
- You visualize the landscape.

## Scenario Steps

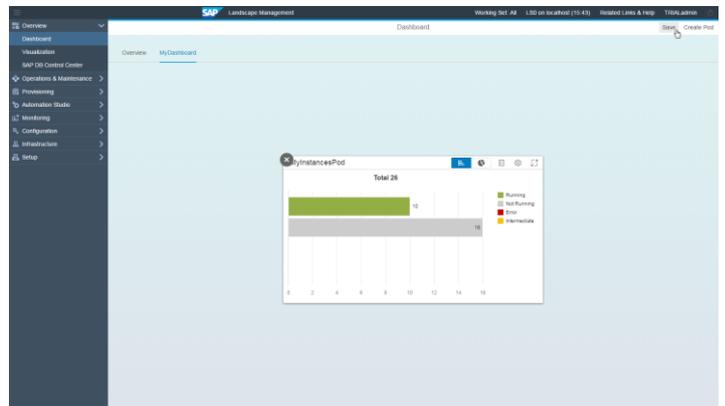
Explanation	Screenshots
<h3>4.1 Logon</h3>	
<ol style="list-style-type: none"> <li>1. Open a browser and connect to <a href="http://&lt;IPAddressOfYourInstance&gt;:50000/lama">http://&lt;IPAddressOfYourInstance&gt;:50000/lama</a></li> <li>2. Enter logon credentials:            User: <b>TRIALadmin</b>            Password: <b>Trial2016</b></li> <li>3. Choose <i>Log On</i>.</li> </ol>	
<h3>4.2 Dashboards</h3>	
<p>After logon you are redirected to the standard startup screen <i>Overview</i> → <i>Dashboard</i>.</p> <p><b>i Note</b></p> <p>Numbers and the status of systems in all screenshots can differ.</p> <p>The startup screen can be personalized, what is explained in chapter 13 'Personalize User Interface'</p>	
<ol style="list-style-type: none"> <li>1. To create a new dashboard, choose <i>Create Dashboard</i> in the upper right of the window.</li> </ol>	

Explanation	Screenshots
<p>2. In the dialog box <i>Create Dashboard</i>, provide the following values:</p> <ul style="list-style-type: none"> <li>o Dashboard Name : <b>MyDashboard</b></li> </ul> <p>3. Choose <i>OK</i>.</p>	
<p>You can now start adding pods to the newly created dashboard.</p> <p>4. Choose the <i>pencil icon</i> for editing the Dashboard in the upper right.</p>	
<p>5. To create a new pod, choose <i>Create Pod</i> in the upper right.</p>	
<p>6. In the dialog box <i>Create Pod</i>, provide the following values:</p> <ul style="list-style-type: none"> <li>o Pod: <b>Instances</b></li> <li>o Layout Type: <b>Column Chart</b></li> <li>o Pod Title: <b>MyInstancesPod</b></li> </ul> <p>7. Choose <i>OK</i>.</p>	

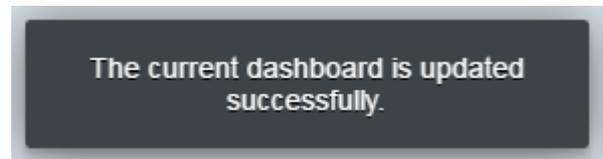
## Explanation

- To save the new pod, choose **Save** in the upper right.

## Screenshots



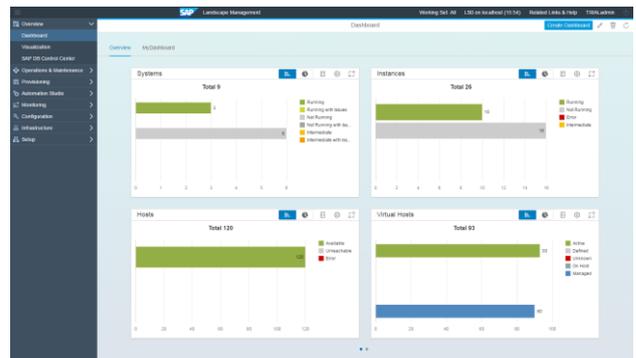
Now you see the information that the dashboard was saved.

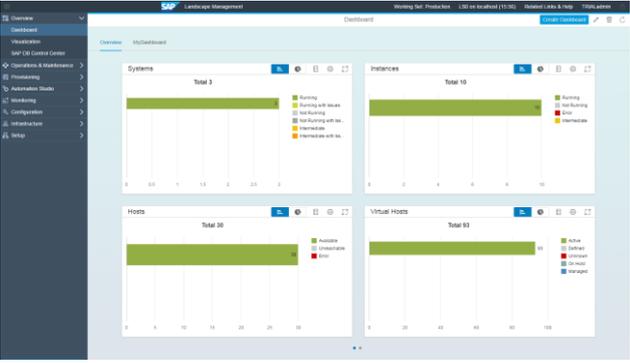
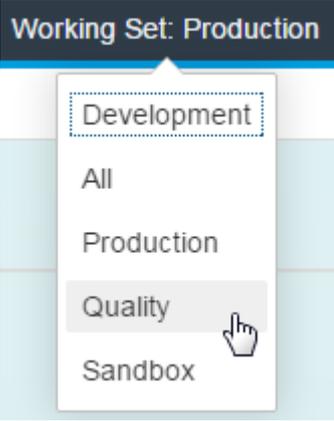


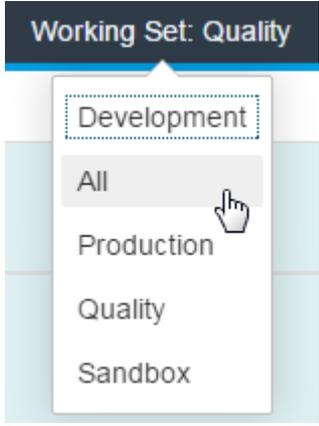
## 4.3 Working Set

The Working Set is a possibility to personalize the personal view dependent on the needs.

- Navigate to **Overview** → **Dashboard** and select the **Overview** dashboard

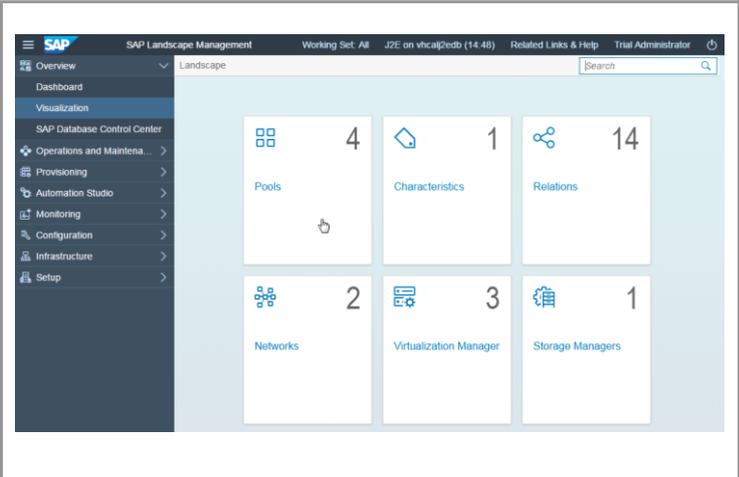


Explanation	Screenshots
<p>2. In the upper right corner select from the <i>Working Set</i> dropdown list: <i>Production</i></p>	
<p>Now you see that the view shows only the systems in the <i>Production</i> pool.</p> <p><b>Note</b> In chapter '13.3 Personalize ' you will configure the Working Sets.</p>	
<p>3. Optional step: Choose another <i>Working Set</i> from the dropdown list.</p>	

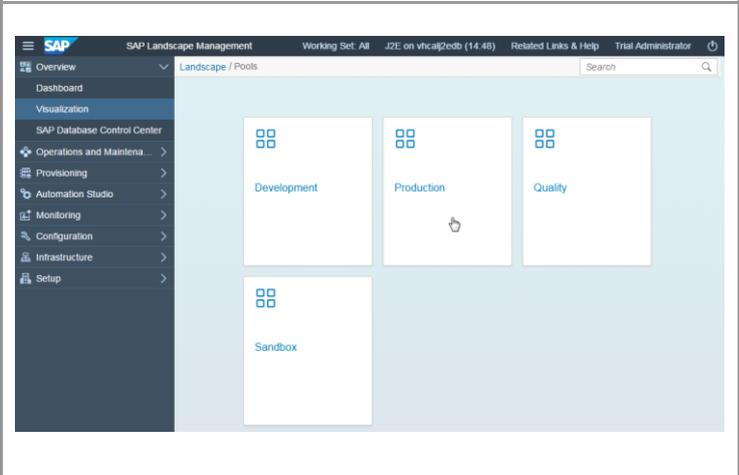
Explanation	Screenshots
<p>4. When you are done, please choose the <i>Working Set</i> named <i>All</i> the dropdown list.</p>	

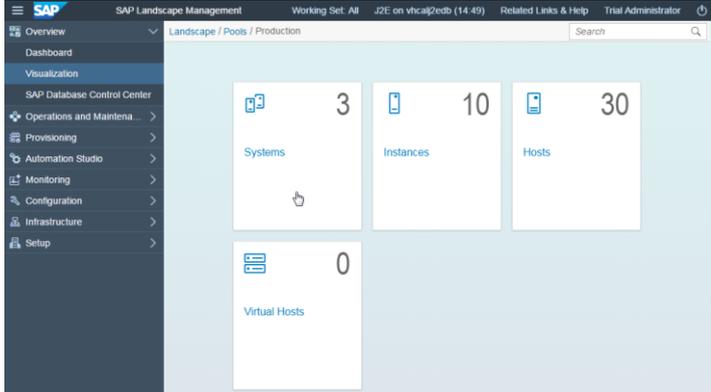
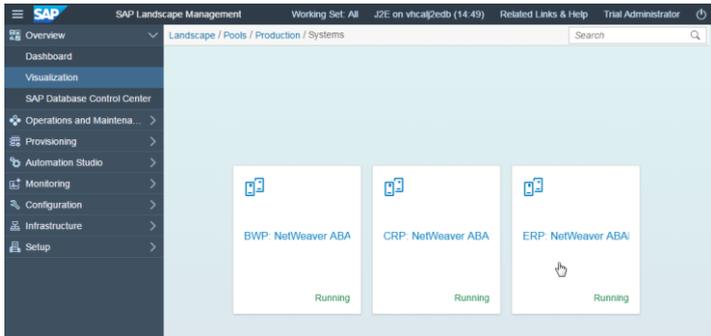
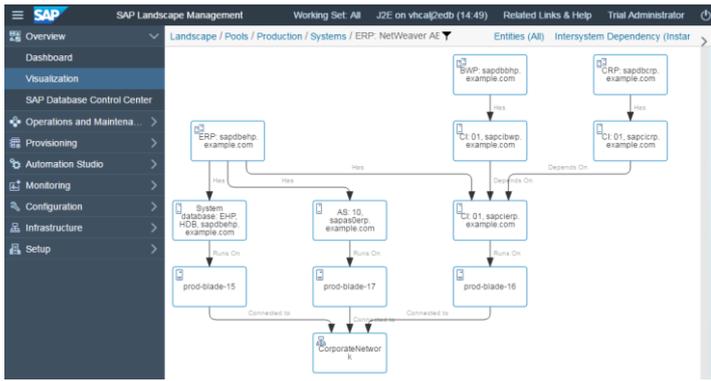
## 4.4 Visualization

1. Navigate to *Overview* > *Visualization*.
2. Select *Pools*.



3. Move your mouse pointer over the *Production* tile.  
A hover menu displays a summary of the details.
  4. Click on the *Production* pool tile to display the details.
- i** Note
- If not all four tiles are displayed, please ensure that the Working Set was set to All (for more

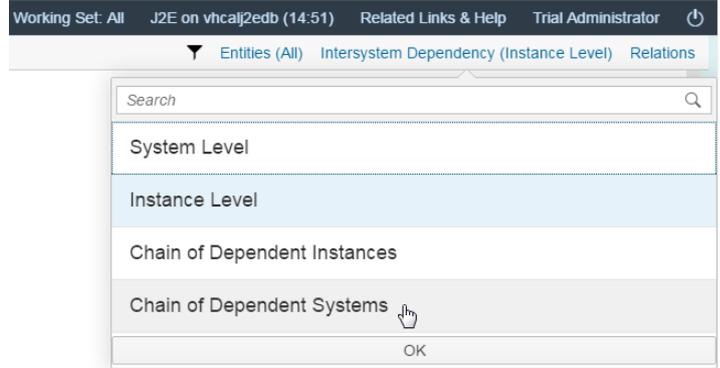


Explanation	Screenshots
<p>information, see chapter '4.3 Working Set').</p>	
<p>5. Move your mouse pointer over the <i>Systems</i> tile.</p> <p>A hover menu displays a summary of the details.</p> <p>6. Click on the <i>Systems</i> tile to display the details.</p>	
<p>Now you see all the systems that belong to the <i>Production</i> pool (i.e. systems ERP, BWP and CRP).</p> <p>7. Move your mouse pointer over the system <i>ERP</i> tile.</p> <p>A hover menu displays a summary of the details.</p> <p>8. Click on the <i>ERP</i> tile to display the details.</p>	
<p>Now you see a graphical representation of the CRP, BWP and ERP systems in a hierarchal view. It displays all the associated instances and its relationship with other entities in the landscape.</p> <p><b>Note</b></p> <p>You can use zoom in/out using the wheel of your mouse.</p>	

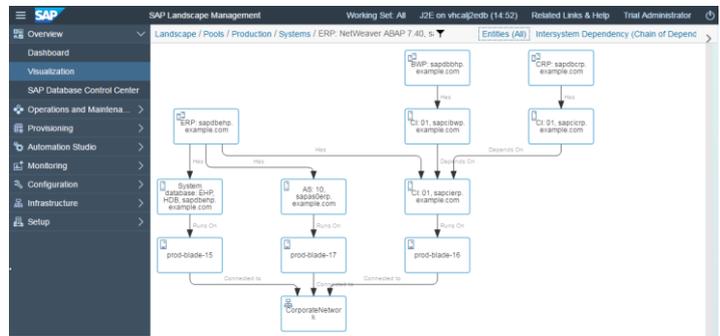
Explanation

- 9. Select *Intersystem Dependency (Instance Level)*.
- 10. Select *Chain of Dependent Systems*.

Screenshots



Now you see a graphical representation that BWP and CRP dependent on the system ERP.



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# 5 Operations

## Scenario

In the following exercise you will learn how to perform operations on single systems as well as on a single instances of a system (including associated instances). Additionally, you will learn how to monitor the execution status of operations that are triggered using SAP Landscape Management.

Operations help you to perform start, stop, and relocate operations on specific systems. You can also perform mass-operations on virtual resources or virtual machines such as deactivate, suspend, or migrate.

For more information, see SAP Help Portal at:

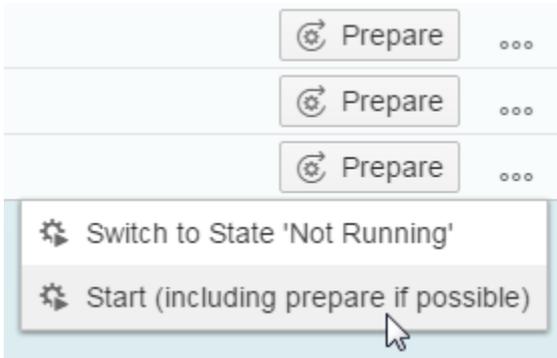
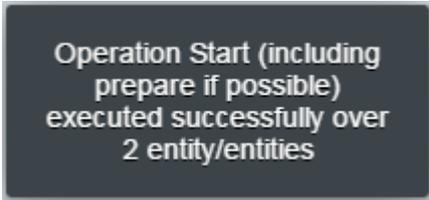
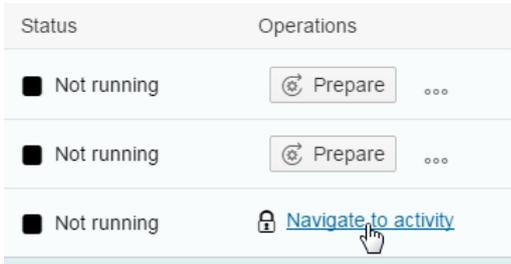
[http://help.sap.com/static/saphelp\\_lamaent30/en/4e/01c00d2cc95639e1000000a42189e/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/4e/01c00d2cc95639e1000000a42189e/frameset.htm)

## Description

- You start systems from pool *Quality*.
- You start a system instance by instance (System: CRD).
- You monitor the status of systems.
- You monitor the execution status of operations.

## Scenario Steps

Explanation	Screenshots																								
<h3>5.1 Performing Operations on Systems</h3>																									
<p>1. Choose <i>Operations and Maintenance &gt; Operations</i>.</p>																									
<p>2. If not already selected change the Working Set to <i>Quality</i> (for more information, see chapter '4.3 Working Set').</p>																									
<p>3. If not already selected choose <i>Systems</i>.</p>																									
<p>4. Choose  in the line <i>ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</i></p>	 <table border="1" data-bbox="791 1727 1501 1928"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BWQ: NetWeaver ABAP 7.40, sapdbbmq.example.com</td> <td>Quality</td> <td>4 Instances</td> <td></td> <td>Not running</td> <td> Prepare ...</td> </tr> <tr> <td>CRQ: NetWeaver ABAP 7.40, sapdbrq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td>Not running</td> <td> Prepare ...</td> </tr> <tr> <td>ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td>Not running</td> <td> Prepare ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BWQ: NetWeaver ABAP 7.40, sapdbbmq.example.com	Quality	4 Instances		Not running	Prepare ...	CRQ: NetWeaver ABAP 7.40, sapdbrq.example.com	Quality	2 Instances		Not running	Prepare ...	ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		Not running	Prepare ...
Name	Pool	Related Entities	Visualization	Status	Operations																				
BWQ: NetWeaver ABAP 7.40, sapdbbmq.example.com	Quality	4 Instances		Not running	Prepare ...																				
CRQ: NetWeaver ABAP 7.40, sapdbrq.example.com	Quality	2 Instances		Not running	Prepare ...																				
ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		Not running	Prepare ...																				

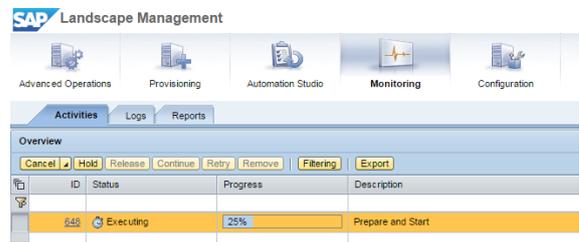
Explanation	Screenshots
<p>5. Choose <i>Start (including prepare if possible)</i>.</p>	
<p>6. Choose <i>Start (including prepare if possible)</i>.</p> <p><b>Note</b></p> <p>In case you cannot see this button choose <b>...</b> and afterwards <i>Start (including prepare if possible)</i>.</p>	
<p>Now you see the information that the operation <i>Start (including prepare if possible)</i> was executed on the two instances of this system.</p>	
<p>The system is starting.</p> <p>7. Choose <i>Navigate to activity</i>.</p>	

Explanation

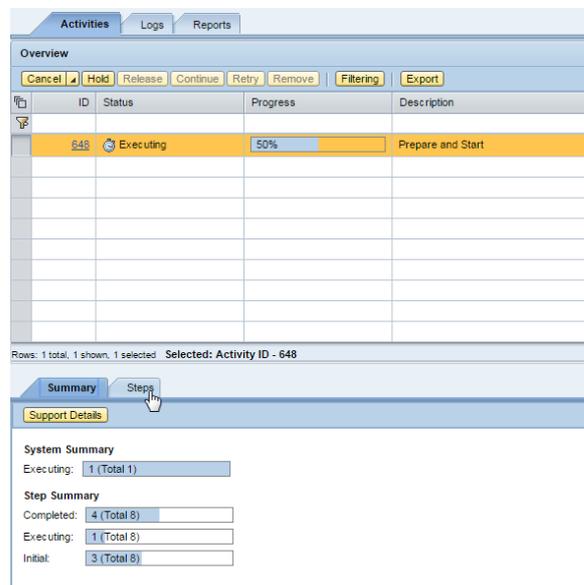
Screenshots

Once you choose on *Navigate to activity link*, a new browser tab/window is opened and you are automatically directed to the *Activities* screen where you can monitor the execution status of the start operation.

- Wait until the system is started and the activity is in Status *Completed*.



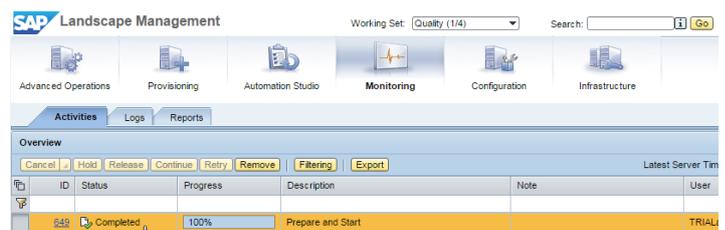
To monitor the progress of operations steps select the table *Steps*.

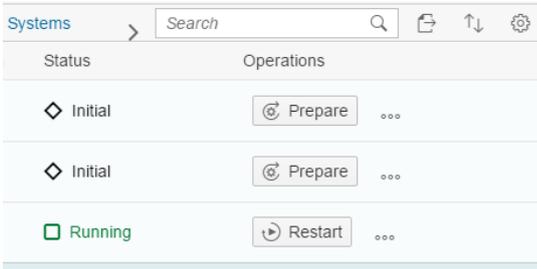
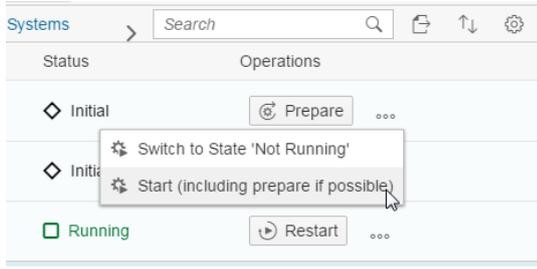
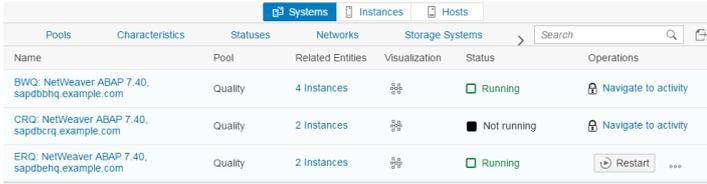
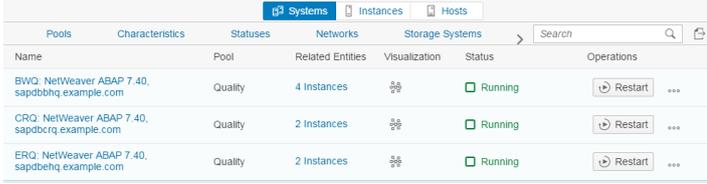


Now you see the progress under the column *Status*.

ID	Seq	Upper IDs	Predecessor IDs	Hook for ID	Status	Step Time	Duration	Operation	Instance/Virtual Element
1	3.7.5				Completed	0:14	1:00	Prepare	ERD_Central_Instance_eLABAP_01_18
2	4.5.6				Completed	0:14	1:00	Prepare	ERD_System_database_eLABAP_MAS
3	7.5	1	1		Completed	1:14	0:39	Create Firewall Rules	ERD_System_database_eLABAP_01_18
4	5.6	2	2		Completed	1:15	0:39	Create Firewall Rules	ERD_System_database_eLABAP_MAS
5	6	2,4	6		Executing	1:59	0:27	Create Firewall Rules	ERD_System_database_eLABAP_MAS
6	7.5	2,4,5			Scheduled			Start	ERD_System_database_eLABAP_MAS
7	8	1,3,6	8		Scheduled			Create Firewall Rules	ERD_Central_Instance_eLABAP_01_18
8	13.6.7				Scheduled			Start	ERD_Central_Instance_eLABAP_01_18

When activity is in status *Completed* switch back to the other browser tab/window.



Explanation	Screenshots																								
<p>SAP system ERQ is now in status <i>Running</i>.</p>	 <p>The screenshot shows a table with columns 'Status' and 'Operations'. The first two rows are 'Initial' with a 'Prepare' button. The third row is 'Running' with a 'Restart' button.</p>																								
<p>9. Start the SAP systems <i>BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com</i> and <i>CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com</i> the in the same way.</p>	 <p>The screenshot shows the same table as above. A context menu is open over the 'Initial' status of the second and third rows, with options: 'Switch to State 'Not Running'' and 'Start (including prepare if possible)'.</p>																								
<p>The Systems <i>BWQ</i> and <i>CRQ</i> are starting now. Their status is changing from "Not Running" to "Intermediate" and afterwards to "Running".</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com</td> <td>Quality</td> <td>4 Instances</td> <td></td> <td><span style="color: green;">■</span> Running</td> <td><a href="#">Navigate to activity</a></td> </tr> <tr> <td>CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td><span style="color: black;">■</span> Not running</td> <td><a href="#">Navigate to activity</a></td> </tr> <tr> <td>ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td><span style="color: green;">■</span> Running</td> <td><a href="#">Restart</a> ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com	Quality	4 Instances		<span style="color: green;">■</span> Running	<a href="#">Navigate to activity</a>	CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com	Quality	2 Instances		<span style="color: black;">■</span> Not running	<a href="#">Navigate to activity</a>	ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...
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CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com	Quality	2 Instances		<span style="color: black;">■</span> Not running	<a href="#">Navigate to activity</a>																				
ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...																				
<p>The Systems are finally in status <i>Running</i>.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com</td> <td>Quality</td> <td>4 Instances</td> <td></td> <td><span style="color: green;">■</span> Running</td> <td><a href="#">Restart</a> ...</td> </tr> <tr> <td>CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td><span style="color: green;">■</span> Running</td> <td><a href="#">Restart</a> ...</td> </tr> <tr> <td>ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</td> <td>Quality</td> <td>2 Instances</td> <td></td> <td><span style="color: green;">■</span> Running</td> <td><a href="#">Restart</a> ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com	Quality	4 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...	CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com	Quality	2 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...	ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...
Name	Pool	Related Entities	Visualization	Status	Operations																				
BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com	Quality	4 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...																				
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ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com	Quality	2 Instances		<span style="color: green;">■</span> Running	<a href="#">Restart</a> ...																				

## 5.2 Performing Operations on Single Instances

Continue on the screen where you ended chapter 5.1 Performing Operations on Systems.

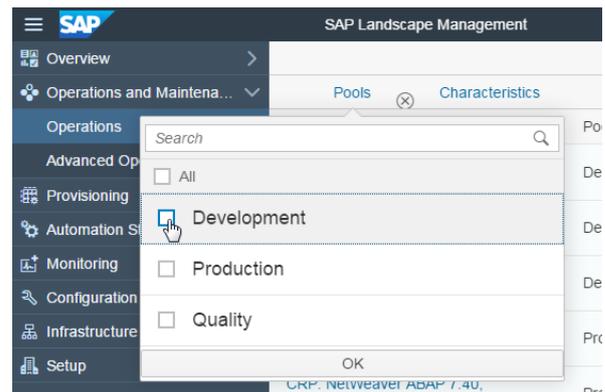
10. Choose *Operations and Maintenance > Operations*



11. Choose *Pools* node and select *Development*.

### Note

In case you cannot select *Development* in the *Pools* node, select the Working Set *All*.

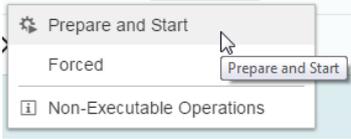
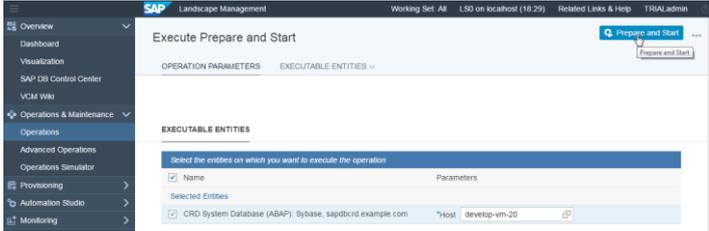
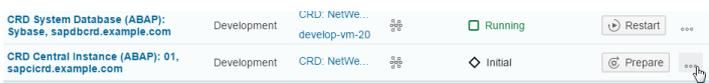
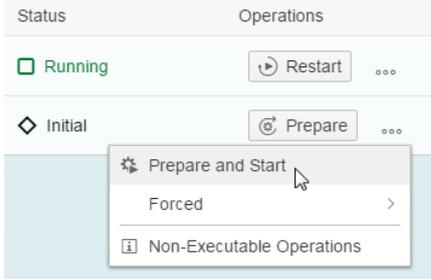
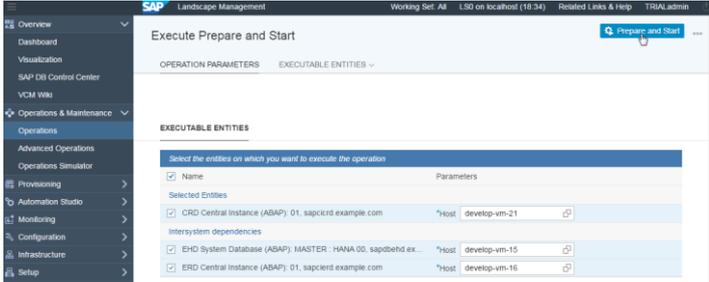


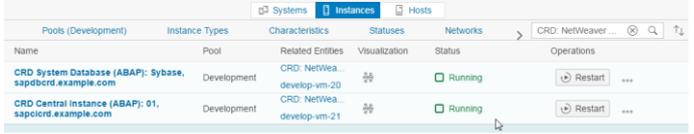
12. Choose *2 Instances* in the line *CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com*.

Name	Pool	Related Entities
<b>BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com</b>	Development	4 Instances
<b>CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com</b>	Development	<a href="#">2 Instances</a>
<b>ERD: NetWeaver ABAP 7.40, sapdbehd.example.com</b>	Development	2 Instances

13. Choose  in the line *CRD System Database (ABAP): Sybase, sapdbcrd.example.com*

CRD System Database (ABAP): Sybase, sapdbcrd.example.com	Development	CRD: NetWe...		◇ Initial	 Prepare	
CRD Central Instance (ABAP): 01, sapcicrd.example.com	Development	CRD: NetWe...		◇ Initial	 Prepare	

Explanation	Screenshots
<p>14. Choose <i>Prepare and Start</i></p>	
<p>15. Choose <i>Prepare and Start</i></p> <p><b>Note</b></p> <p>In case you cannot see this button choose <b>...</b> and afterwards <i>Prepare and Start</i>.</p>	
<p>The System database for CRD is turning to status Running.</p>	
<p>Wait for the System database for CRD is in status Running.</p> <p>16. Choose <b>...</b> in the line <i>CRD Central Instance (ABAP): 01, sapcicrd.example.com</i></p>	
<p>17. Choose <i>Prepare and Start</i></p>	
<p>18. Choose <i>Prepare and Start</i>.</p> <p><b>Note</b></p> <p>In normal ways the <i>CRD Central Instance</i> would immediately start.</p> <p>As written in the beginning of this document the system landscape of this</p>	

Explanation	Screenshots																		
<p>trial appliance has an Intersystem Dependency configured, that requires the <i>ERD Central Instance</i> to be running before <i>CRD Central Instance</i> can be started.</p> <p>Due to the fact that this <i>ERD Central Instance</i> is currently stopped, it is selected to be started as well.</p>																			
<p>Wait until the <i>CRD Central Instance</i> is in status <i>Running</i>.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>CRD System Database (ABAP): Sybase, sapdbord.example.com</td> <td>Development</td> <td>CRD: NetWea... develop-vm-20</td> <td>🔗</td> <td>Running</td> <td>Restart ...</td> </tr> <tr> <td>CRD Central Instance (ABAP): 01, sapciord.example.com</td> <td>Development</td> <td>CRD: NetWea... develop-vm-21</td> <td>🔗</td> <td>Running</td> <td>Restart ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	CRD System Database (ABAP): Sybase, sapdbord.example.com	Development	CRD: NetWea... develop-vm-20	🔗	Running	Restart ...	CRD Central Instance (ABAP): 01, sapciord.example.com	Development	CRD: NetWea... develop-vm-21	🔗	Running	Restart ...
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CRD Central Instance (ABAP): 01, sapciord.example.com	Development	CRD: NetWea... develop-vm-21	🔗	Running	Restart ...														

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# 6 Provisioning

## Scenario

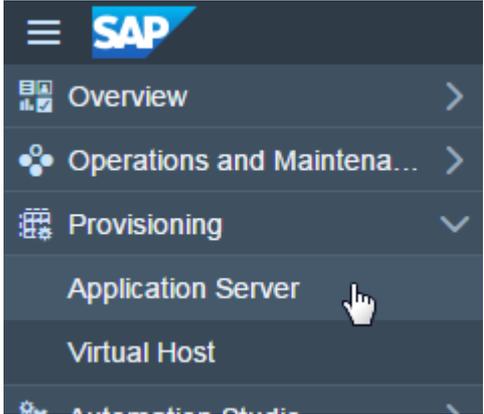
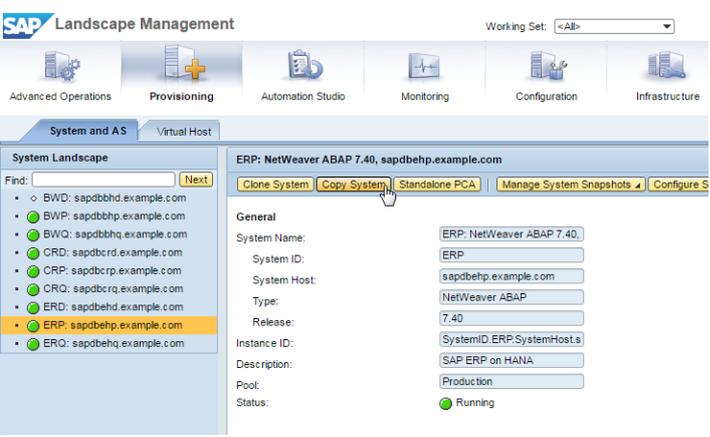
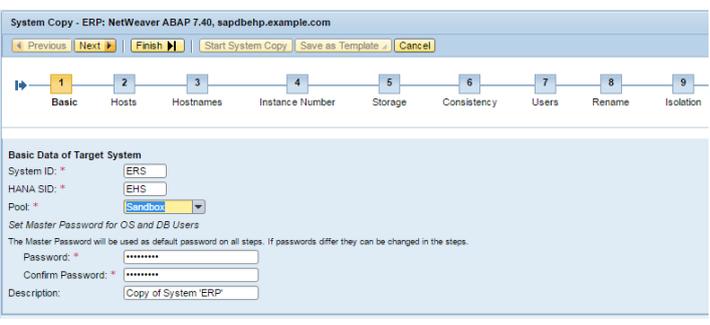
In the following exercise you will learn how to perform automated tasks for an SAP system using a provisioning process and how to monitor the execution status of the system copy operation.

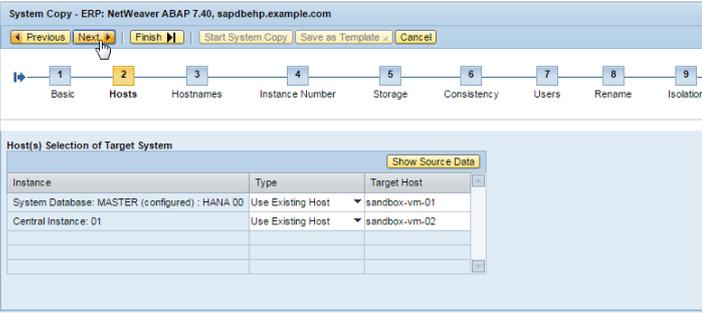
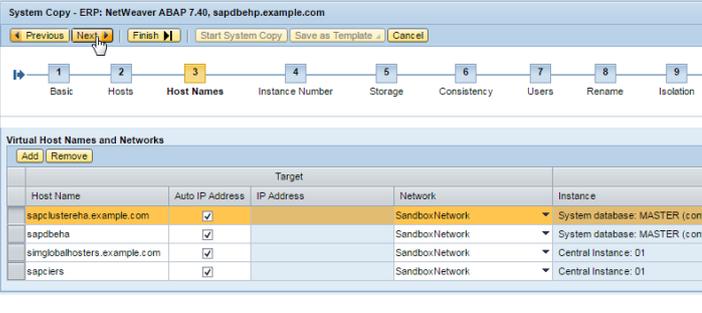
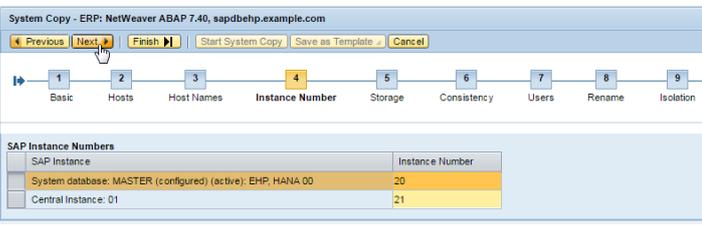
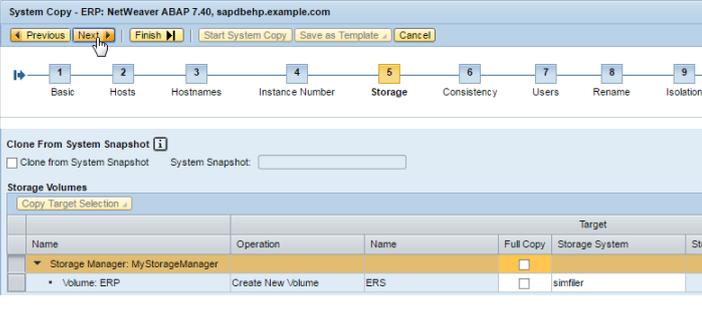
- **System Copy:** System copy helps you to create a duplicate of an existing system with a different host name and a unique SAP SID.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_jamaent30/en/bf/87fac514b549c190ff319863157f90/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/bf/87fac514b549c190ff319863157f90/frameset.htm)
- **Synchronized SystemClone:** Custom provisioning enables you to use your own replication technology to clone your source system and replaces the *Storage* step of the clone/copy workflow.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_jamaent30/en/cb/40c4af19c74ee4a716a1cb421ab8bd/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/cb/40c4af19c74ee4a716a1cb421ab8bd/frameset.htm)
- **Refresh:** Renew a formerly done System Copy to a current state (storage-based and restore-based).
- **Destroy Clone:** Delete a System that is not required anymore.

## Description

- You copy system `ERP` from Production pool to `ERS` in the Sandbox pool.
- You clone system `ERQ` from Quality pool to `ERQclone` in the Sandbox pool.
- You do a storage-based refresh system `ERS` from Sandbox pool.
- You do a restore-based refresh system `ERQ` from Sandbox pool.
- You destroy system `ERS` from Sandbox pool.
- You create a Template for a system copy `CRQ` from Quality pool to Sandbox pool `CRS`.
- You monitor the execution status of the operations.

## Scenario Steps

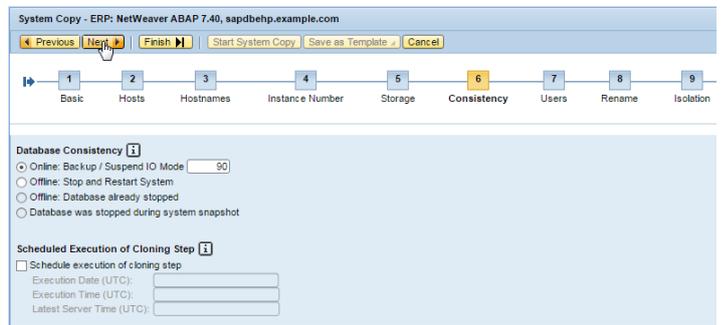
Explanation	Screenshots
<h3>6.1 Copy System</h3>	
<p>1. Navigate to <i>Provisioning &gt; Application Server</i>.</p>	
<p>A new browser window/tab will be opened.</p> <p>2. In the system selector on the left side select system ERP: sapdbehp.example.com.</p> <p>3. Choose <i>Copy System</i>.</p>	
<p>4. On the <i>Basic</i> step screen, enter the following values:</p> <ul style="list-style-type: none"> <li>○ System ID: <b>ERS</b></li> <li>○ HANA SID: <b>EHS</b></li> <li>○ Pool: <b>Sandbox</b></li> <li>○ Password: <b>Walldorf1</b></li> </ul> <p>5. Choose <i>Next</i> and proceed with the next step.</p>	

Explanation	Screenshots																									
<p>6. On the <i>Hosts</i> step screen, keep the default values and choose <i>Next</i> and proceed with the next step.</p>	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbep.example.com</p> <p>Host(s) Selection of Target System</p> <table border="1"> <thead> <tr> <th>Instance</th> <th>Type</th> <th>Target Host</th> </tr> </thead> <tbody> <tr> <td>System Database: MASTER (configured) : HANA 00</td> <td>Use Existing Host</td> <td>sandbox-vm-01</td> </tr> <tr> <td>Central Instance: 01</td> <td>Use Existing Host</td> <td>sandbox-vm-02</td> </tr> </tbody> </table>	Instance	Type	Target Host	System Database: MASTER (configured) : HANA 00	Use Existing Host	sandbox-vm-01	Central Instance: 01	Use Existing Host	sandbox-vm-02																
Instance	Type	Target Host																								
System Database: MASTER (configured) : HANA 00	Use Existing Host	sandbox-vm-01																								
Central Instance: 01	Use Existing Host	sandbox-vm-02																								
<p>7. On the <i>Host Names</i> step screen, keep the default values and choose <i>Next</i> and proceed with the next step.</p>	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbep.example.com</p> <p>Virtual Host Names and Networks</p> <table border="1"> <thead> <tr> <th>Host Name</th> <th>Auto IP Address</th> <th>IP Address</th> <th>Network</th> <th>Instance</th> </tr> </thead> <tbody> <tr> <td>sapckustereha.example.com</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>System database: MASTER (confi</td> </tr> <tr> <td>sapdbepha</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>System database: MASTER (confi</td> </tr> <tr> <td>simglobalhosters.example.com</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>Central Instance: 01</td> </tr> <tr> <td>sapckiers</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>Central Instance: 01</td> </tr> </tbody> </table>	Host Name	Auto IP Address	IP Address	Network	Instance	sapckustereha.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi	sapdbepha	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi	simglobalhosters.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01	sapckiers	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01
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simglobalhosters.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01																						
sapckiers	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01																						
<p>8. Optional step: On the <i>Instance Number</i> step screen, enter the following values:</p> <ul style="list-style-type: none"> <li>○ System database: <b>20</b></li> <li>○ Central Instance: <b>21</b></li> </ul> <p>9. Choose <i>Next</i> and proceed with the next step.</p>	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbep.example.com</p> <p>SAP Instance Numbers</p> <table border="1"> <thead> <tr> <th>SAP Instance</th> <th>Instance Number</th> </tr> </thead> <tbody> <tr> <td>System database: MASTER (configured) (active): EHP, HANA 00</td> <td>20</td> </tr> <tr> <td>Central Instance: 01</td> <td>21</td> </tr> </tbody> </table>	SAP Instance	Instance Number	System database: MASTER (configured) (active): EHP, HANA 00	20	Central Instance: 01	21																			
SAP Instance	Instance Number																									
System database: MASTER (configured) (active): EHP, HANA 00	20																									
Central Instance: 01	21																									
<p>10. On the <i>Storage</i> step screen, keep the default values and choose <i>Next</i> and proceed with the next step.</p>	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbep.example.com</p> <p>Storage Volumes</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Operation</th> <th>Name</th> <th>Full Copy</th> <th>Storage System</th> <th>Sto</th> </tr> </thead> <tbody> <tr> <td colspan="6">Storage Manager: MyStorageManager</td> </tr> <tr> <td>Volume: ERP</td> <td>Create New Volume</td> <td>ERS</td> <td><input type="checkbox"/></td> <td>simfler</td> <td></td> </tr> </tbody> </table>	Name	Operation	Name	Full Copy	Storage System	Sto	Storage Manager: MyStorageManager						Volume: ERP	Create New Volume	ERS	<input type="checkbox"/>	simfler								
Name	Operation	Name	Full Copy	Storage System	Sto																					
Storage Manager: MyStorageManager																										
Volume: ERP	Create New Volume	ERS	<input type="checkbox"/>	simfler																						

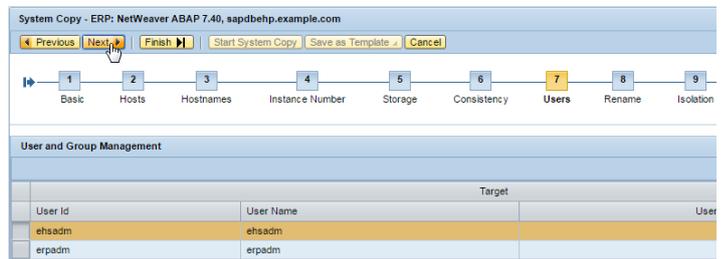
Explanation

11. On the *Consistency* step screen, keep the default values and choose *Next* and proceed with the next step.

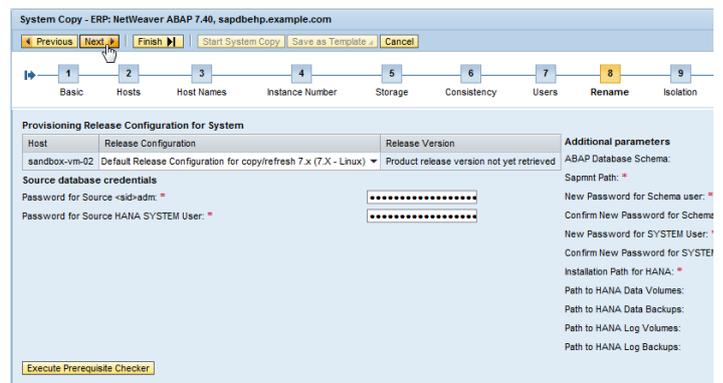
Screenshots



12. On the *Users* step screen, keep the default values and choose *Next* and proceed with the next step.



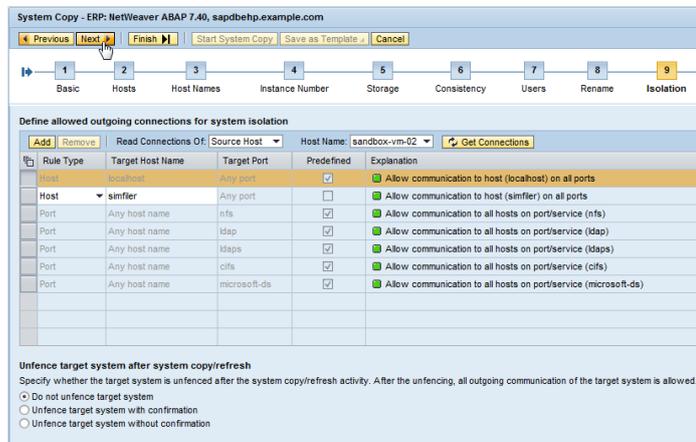
13. On the *Rename* step screen, keep the default values and choose *Next* and proceed with the next step.



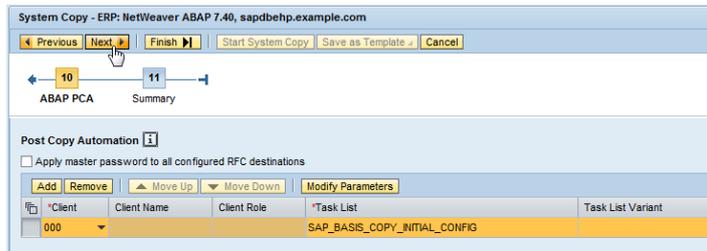
Explanation

Screenshots

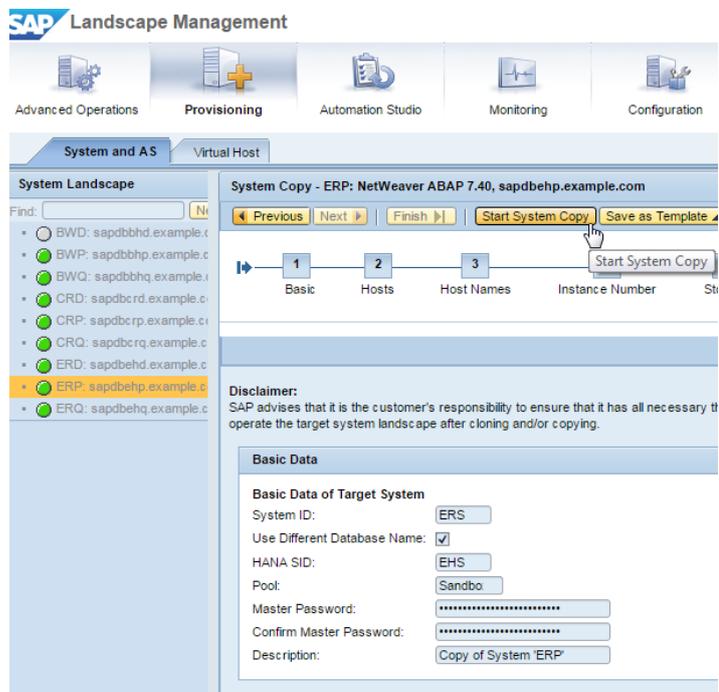
14. On the *Isolation* step screen, keep the default values and choose *Next* and proceed with the next step.



15. On the *ABAP PCA* step screen, keep the default values and choose *Next* and proceed with the next step.



16. On the *Summary* step screen choose *Start System Copy* to trigger the operation.



## Explanation

Once you trigger the operation, you are automatically re-directed to the [Activities](#) screen where you can monitor the execution status of the system copy operation.

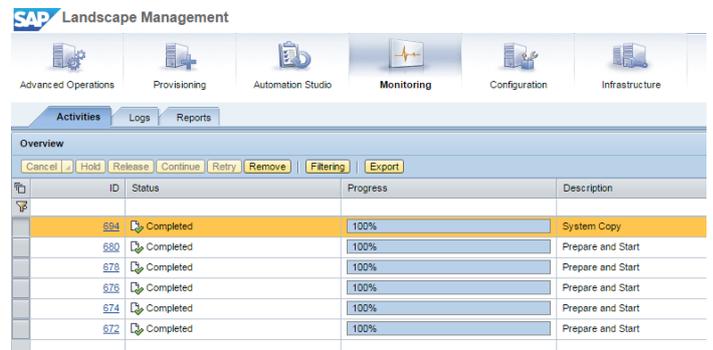
- Wait for the activity to be Completed.

### Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.

- Optional step: When selecting the activity-row, the [Summary](#) is shown in a tab below. When selecting the tab [Steps](#) all steps of this activity are displayed.

## Screenshots

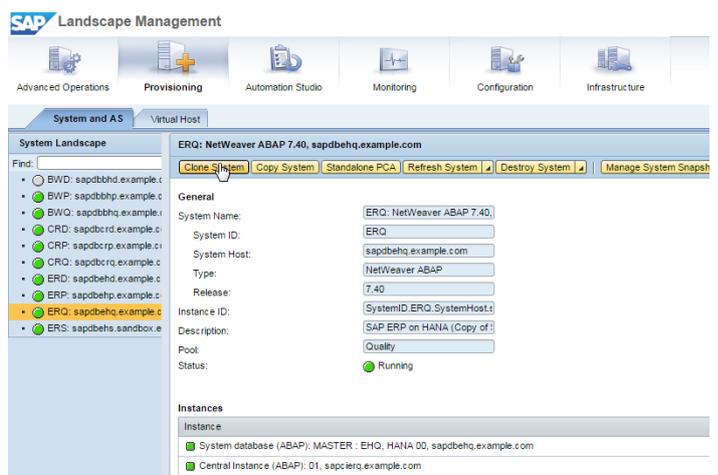


The screenshot shows the SAP Landscape Management interface with the 'Activities' tab selected. The 'Overview' section displays a table of activities. The first row is highlighted in yellow, indicating it is selected.

ID	Status	Progress	Description
684	Completed	100%	System Copy
680	Completed	100%	Prepare and Start
678	Completed	100%	Prepare and Start
676	Completed	100%	Prepare and Start
674	Completed	100%	Prepare and Start
672	Completed	100%	Prepare and Start

## 6.2 System Clone (Synchronized clone)

- Navigate to [Provisioning](#) > [System and AS](#)
- In the system selector on the left side select system ERQ: sapdbehq.example.com
- Choose [Clone System](#).



The screenshot shows the SAP Landscape Management interface with the 'System and AS' tab selected. The 'System Landscape' section displays a list of systems, with 'ERQ: sapdbehq.example.com' selected. The 'Virtual Host' section shows details for the selected system.

**System Landscape**

Find:

ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com

Clone System Copy System Standalone PCA Refresh System Destroy System Manage System Snapshot

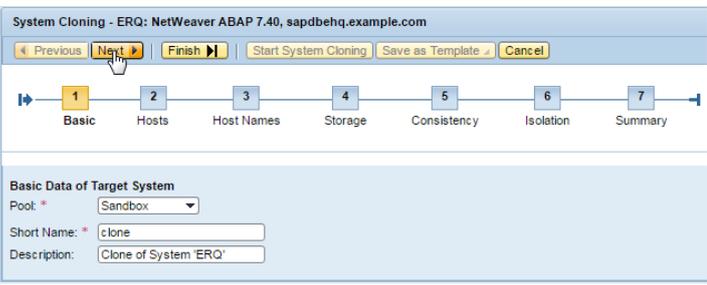
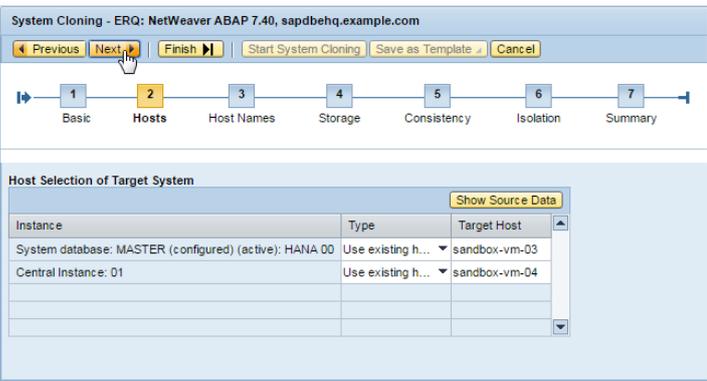
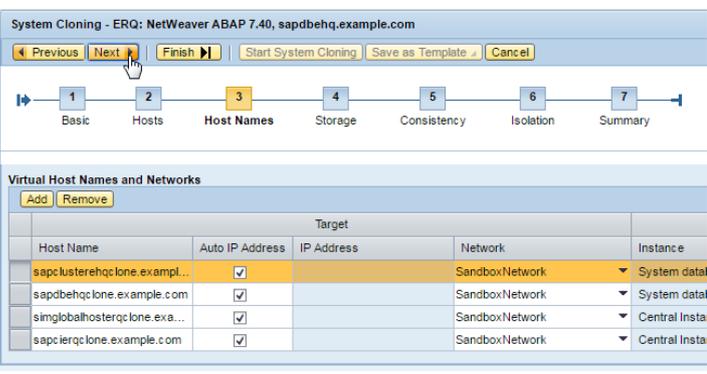
**General**

System Name: ERQ: NetWeaver ABAP 7.40  
 System ID: ERQ  
 System Host: sapdbehq.example.com  
 Type: NetWeaver ABAP  
 Release: 7.40  
 Instance ID: SystemID.ERQ.SystemHost  
 Description: SAP ERP on HANA (Copy of)  
 Pool: Quality  
 Status: ● Running

**Instances**

Instance

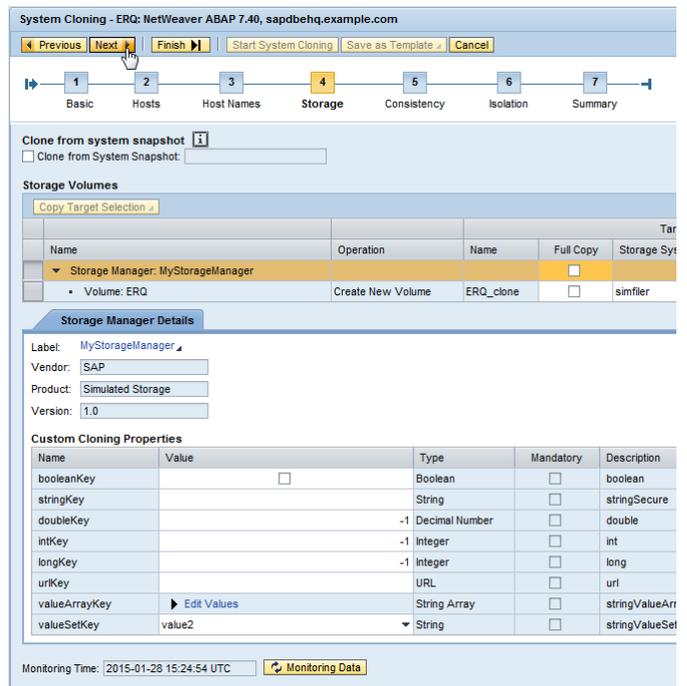
- System database (ABAP): MASTER : EHQ, HANA 00, sapdbehq.example.com
- Central Instance (ABAP): 01, sapcierq.example.com

Explanation	Screenshots																									
<p>4. On the <i>Basic</i> step screen, provide the following values:</p> <ul style="list-style-type: none"> <li>Pool: <b>Sandbox</b></li> </ul> <p>5. Choose <i>Next</i> and proceed with the next step.</p>	 <p>System Cloning - ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</p> <p>Basic Data of Target System</p> <p>Pool: * Sandbox</p> <p>Short Name: * clone</p> <p>Description: Clone of System 'ERQ'</p>																									
<p>6. On the <i>Hosts</i> step screen keep the default values and choose <i>Next</i> and proceed with the next step.</p>	 <p>System Cloning - ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</p> <p>Host Selection of Target System</p> <table border="1"> <thead> <tr> <th>Instance</th> <th>Type</th> <th>Target Host</th> </tr> </thead> <tbody> <tr> <td>System database: MASTER (configured) (active): HANA 00</td> <td>Use existing h...</td> <td>sandbox-vm-03</td> </tr> <tr> <td>Central Instance: 01</td> <td>Use existing h...</td> <td>sandbox-vm-04</td> </tr> </tbody> </table>	Instance	Type	Target Host	System database: MASTER (configured) (active): HANA 00	Use existing h...	sandbox-vm-03	Central Instance: 01	Use existing h...	sandbox-vm-04																
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<p>7. On the <i>Host Names</i> step screen keep the default values and choose <i>Next</i> and proceed with the next step.</p>	 <p>System Cloning - ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</p> <p>Virtual Host Names and Networks</p> <table border="1"> <thead> <tr> <th>Host Name</th> <th>Auto IP Address</th> <th>IP Address</th> <th>Network</th> <th>Instance</th> </tr> </thead> <tbody> <tr> <td>sapclustererq:clone.exempl...</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>System data</td> </tr> <tr> <td>sapdbehq:clone.example.com</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>System data</td> </tr> <tr> <td>simglobalhosterq:clone.exa...</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>Central Insta</td> </tr> <tr> <td>sapclierq:clone.example.com</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>SandboxNetwork</td> <td>Central Insta</td> </tr> </tbody> </table>	Host Name	Auto IP Address	IP Address	Network	Instance	sapclustererq:clone.exempl...	<input checked="" type="checkbox"/>		SandboxNetwork	System data	sapdbehq:clone.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	System data	simglobalhosterq:clone.exa...	<input checked="" type="checkbox"/>		SandboxNetwork	Central Insta	sapclierq:clone.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Insta
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sapclustererq:clone.exempl...	<input checked="" type="checkbox"/>		SandboxNetwork	System data																						
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simglobalhosterq:clone.exa...	<input checked="" type="checkbox"/>		SandboxNetwork	Central Insta																						
sapclierq:clone.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Insta																						

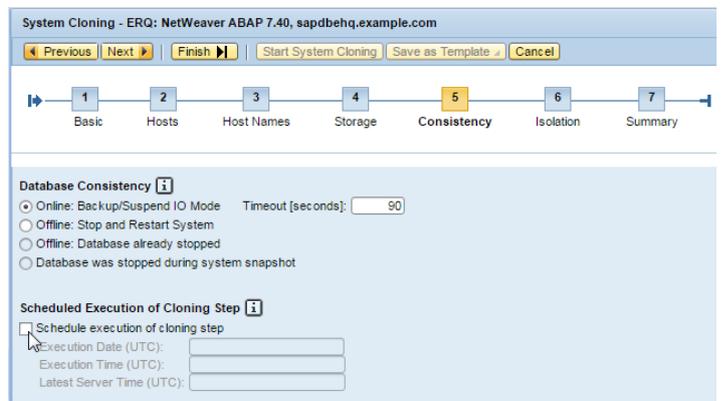
Explanation

Screenshots

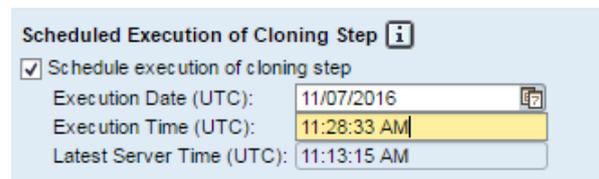
- On the *Storage* step screen keep the default values and choose *Next* and proceed with the next step.



- On the *Consistency* step screen, select leave the part Database consistency unchanged.
- Check *Schedule execution of cloning step*.



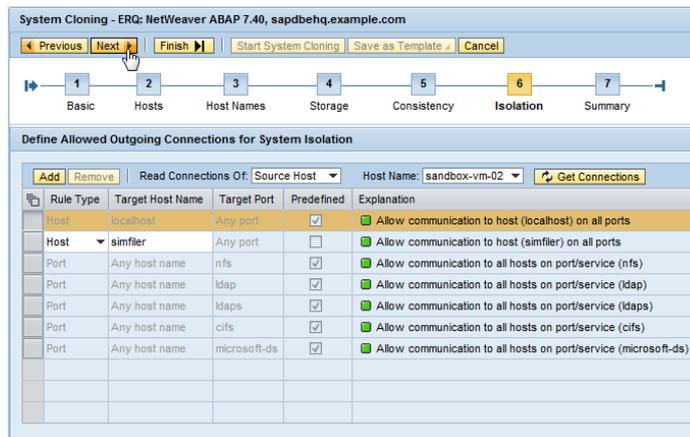
- Enter as scheduled "Execution Time (UTC)" a time around 15 minutes in future ("Latest Server Time" plus 15 minutes).
- Choose *Next* and proceed with the next step.



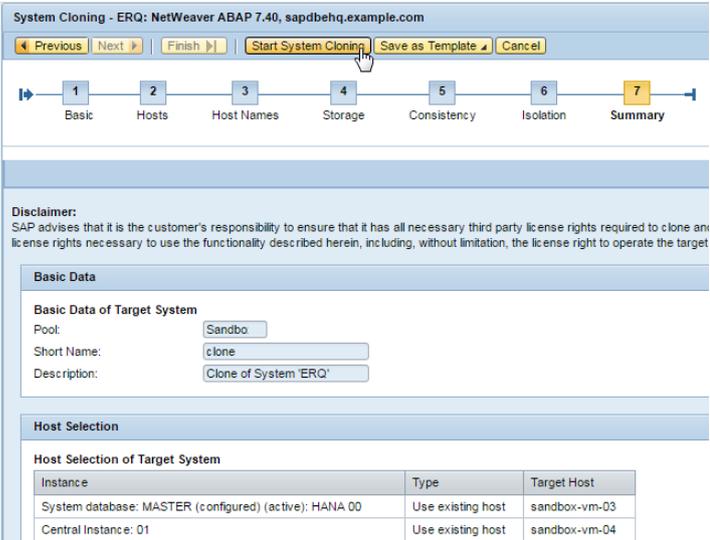
Explanation

Screenshots

13. On the *Isolation* step screen keep the default values and choose *Next* and proceed with the next step.

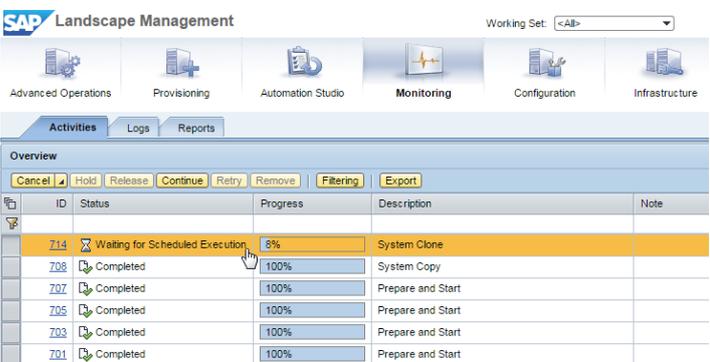


14. On the *Summary* step screen, choose *Start System Cloning* to trigger the operation.



Once you trigger the operation, you are automatically re-directed to the *Activities* screen where you can monitor the execution status of the system copy operation.

The Activity will be in Status *Waiting for Scheduled Execution* until the entered execution time is reached.



Explanation

Screenshots

- Optional step: Wait for the activity to be Completed.

**i** Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.

ID	Status	Progress	Description	Note
Z14	Completed	100%	System Clone	
Z08	Completed	100%	System Copy	
Z07	Completed	100%	Prepare and Start	
Z05	Completed	100%	Prepare and Start	
Z04	Completed	100%	Prepare and Start	

### 6.3 System Refresh (Storage based)

- Navigate to *Provisioning > System and AS*.
- In the system selector on the left side select system ERS: sapdbehs.sandbox.example.com
- Choose *Refresh System*.

**SAP Landscape Management**

Working Set: <All>

System Landscape

ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com

Find: [ ] [Next]

- BWD: sapdbbhd.example.com
- BWP: sapdbbhp.example.com
- BWQ: sapdbbhq.example.com
- CRD: sapdbbrd.example.com
- CRP: sapdbbrp.example.com
- CRQ: sapdbbrq.example.com
- ERD: sapdbehd.example.com
- ERP: sapdbehp.example.com
- ERQ: sapdbehq.example.com
- ERS: sapdbehs.sandbox.example.com

Actions: Standalone PCA, Refresh System, Destroy System, Manage System Snapshots

**General**

System Name: ERS: NetWeaver ABAP 7.40  
 System ID: ERS  
 System Host: sapdbehs.sandbox.example.com  
 Type: NetWeaver ABAP  
 Release: 7.40  
 Instance ID: SystemID.ERS.SystemHost.s  
 Description: Copy of System 'ERP'  
 Pool: Sandbox  
 Status: Running

- On the *Basic* step screen, enter the following values:
  - Password: **walldorf1** (and confirm)
- Choose *Next* and proceed with the next step.

System Refresh - ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com

Navigation: Previous, Next, Finish, Start System Refresh, Save as Template, Cancel

Progress: 1 Basic, 2 Hosts, 3 Host Names, 4 Storage, 5 Consistency, 6 Users, 7 Rename, 8 Isolation, 9 ABAP PCA

Basic Data of System to be Refreshed

Refresh from System: ERP: NetWeaver ABAP 7.40, sapdbehp.examp

Export of system configuration data

Export already exists:

Export to Directory: /tmp/VCM\_pca/ERS/

Set master password for OS and DB users

The master password is used as the default password in all steps. If passwords differ, they can be changed in the steps. It is not recommended that you change the master password while a system refresh is running.

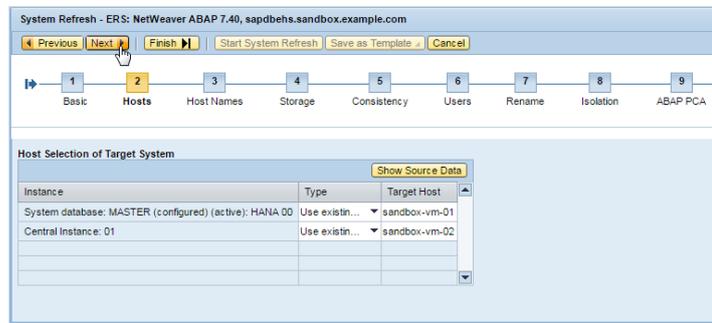
Password: \* [ ]

Confirm Password: \* [ ]

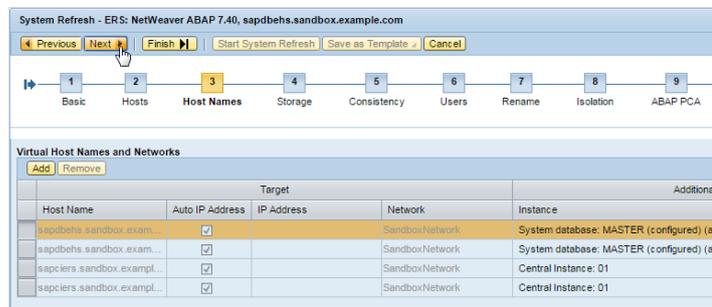
Explanation

Screenshots

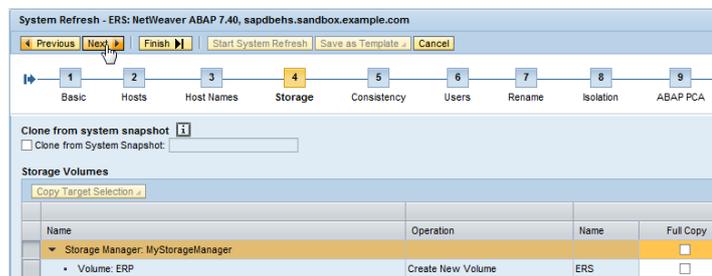
6. On the *Hosts* step screen, keep the default values.
7. Choose *Next* and proceed with the next step.



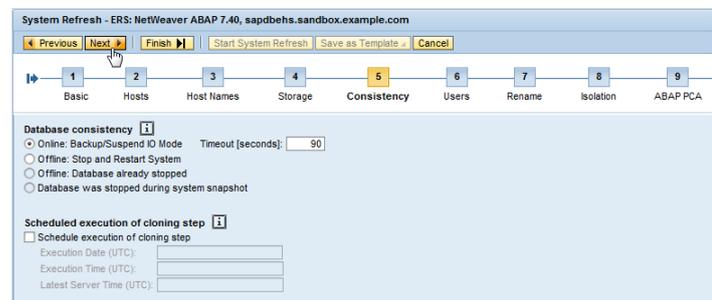
8. On the *Host Names* step screen, keep the default values.
9. Choose *Next* and proceed with the next step.



10. On the *Storage* step screen, keep the default values.
11. Choose *Next* and proceed with the next step.



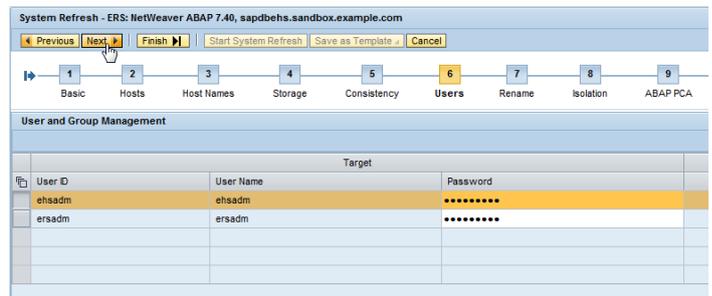
12. On the *Consistency* step screen, keep the default values.
13. Choose *Next* and proceed with the next step.



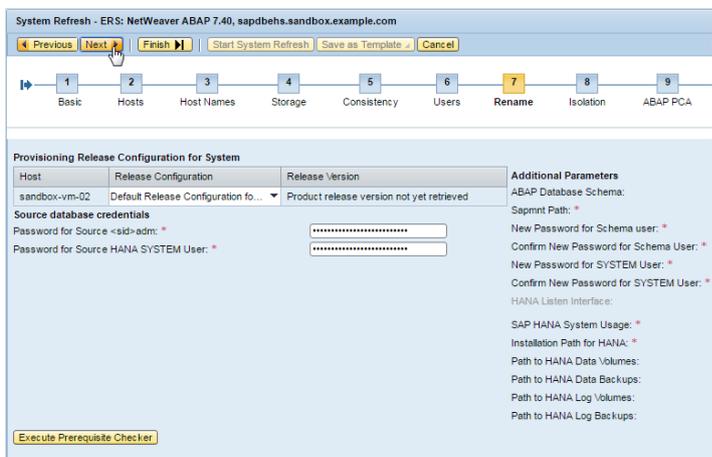
Explanation

- 14. On the *Users* step screen keep the default values.
- 15. Choose *Next* and proceed with the next step.

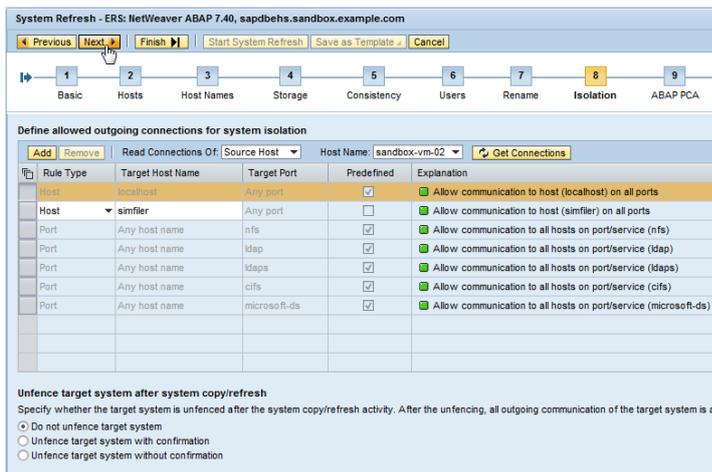
Screenshots



- 16. On the *Rename* step screen keep the default values.
- 17. Choose *Next* and proceed with the next step.



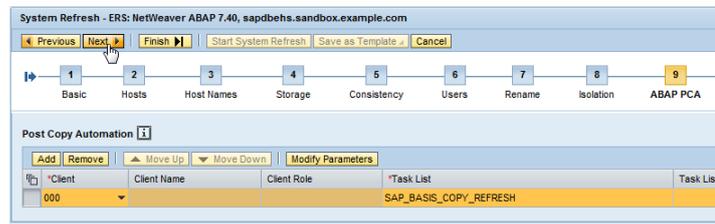
- 18. On the *Isolation* step screen keep the default values.
- 19. Choose *Next* and proceed with the next step.



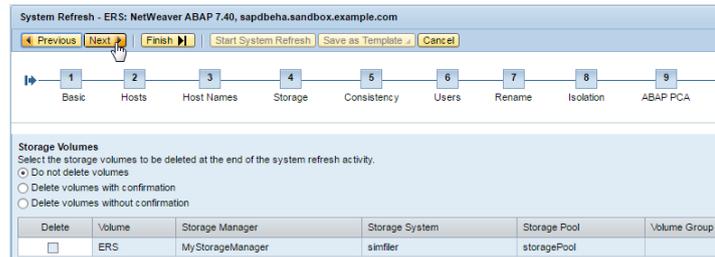
Explanation

Screenshots

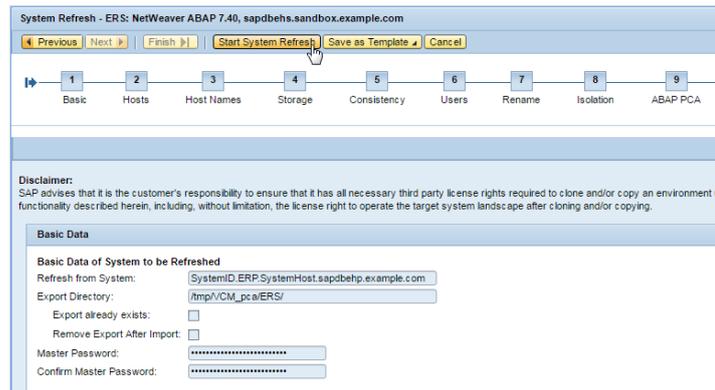
- 20. On the *ABAP PCA* step screen keep the default values.
- 21. Choose *Next* and proceed with the next step.



- 22. On the *Delete Storage Volumes* step screen keep the default values.
- 23. Choose *Next* and proceed with the next step.



- 24. On the *Summary* step screen, choose *Start System Refresh* to trigger the operation.

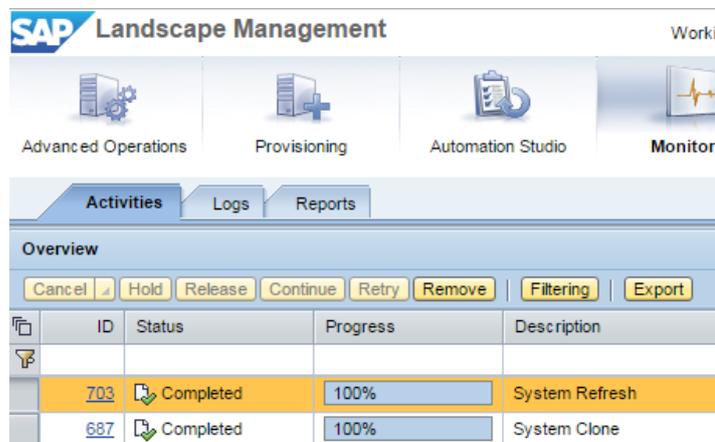


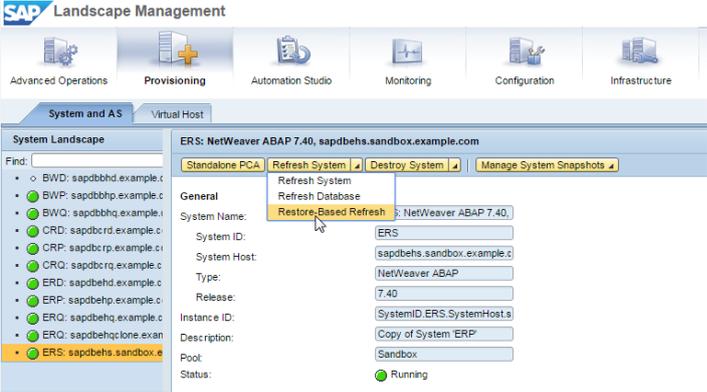
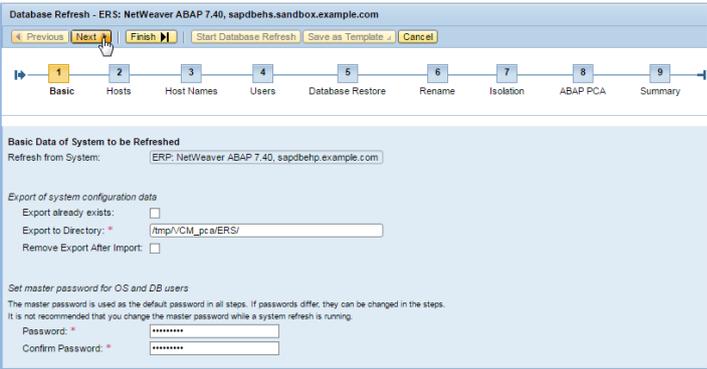
Once you trigger the operation, you are automatically re-directed to the *Activities* screen where you can monitor the execution status of the system refresh operation.

- 25. Wait for the activity to be Completed.

**Note**

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the

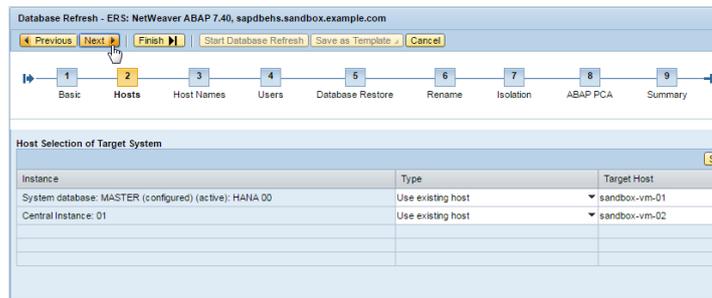


Explanation	Screenshots
involved storage systems and the size of the SAP system.	
<h2>6.4 Refresh System (Restore based)</h2>	
<p><b>i</b> Note</p> <p>The activity before must be in status Completed before this chapter can be executed.</p>	
<ol style="list-style-type: none"> <li>1. Navigate to <i>Provisioning &gt; System and AS</i>.</li> <li>2. In the system selector on the left side select system ERS: sapdbehs.sandbox.example.com</li> <li>3. Choose <i>Refresh System &gt; Restore-Based Refresh</i>.</li> </ol> <p><b>i</b> Note</p> <p>The activity Restore-Based Refresh is offered for HANA-based systems only.</p>	
<ol style="list-style-type: none"> <li>4. On the <i>Basic</i> step screen, enter the following values: <ul style="list-style-type: none"> <li>o Password: <b>Walldorf1</b> (and confirm)</li> </ul> </li> <li>5. Choose <i>Next</i> and proceed with the next step.</li> </ol>	

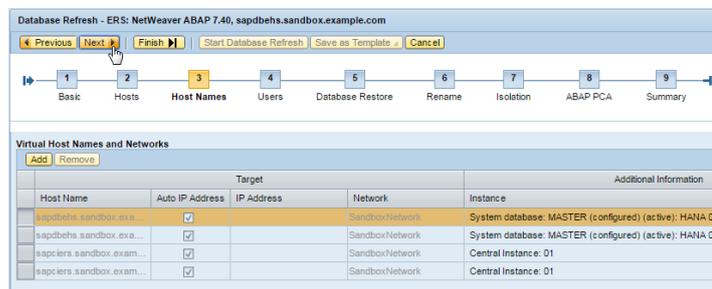
Explanation

Screenshots

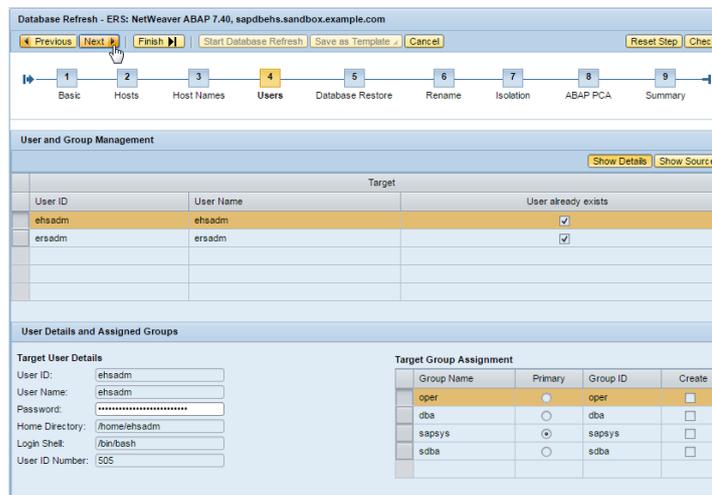
6. On the *Hosts* step screen, keep the default values.
7. Choose *Next* and proceed with the next step.



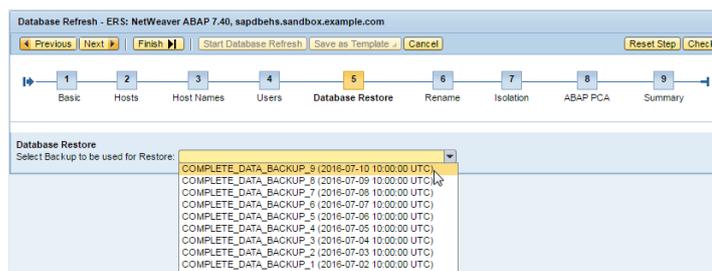
8. On the *Host Names* step screen, keep the default values.
9. Choose *Next* and proceed with the next step.

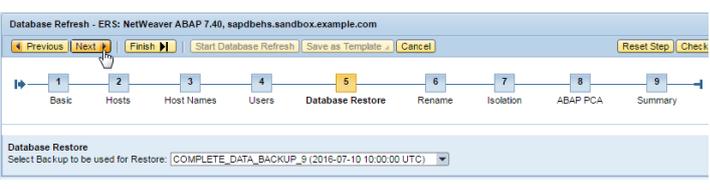
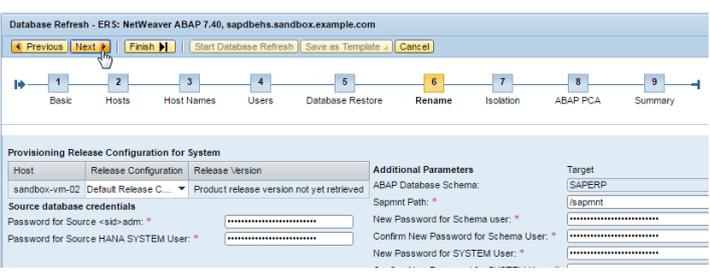
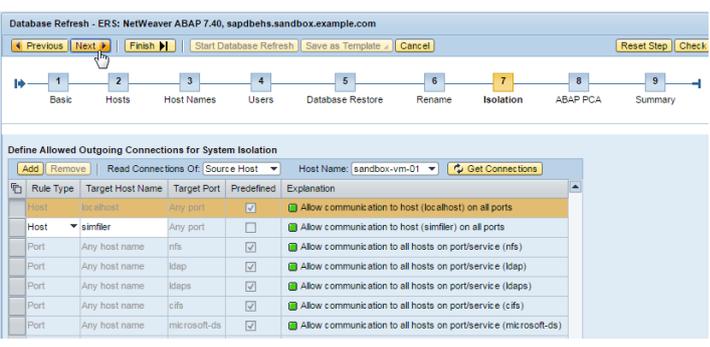
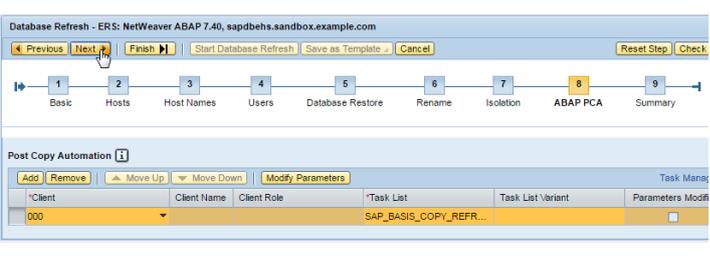


10. On the *Users* step screen, keep the default values.
11. Choose *Next* and proceed with the next step.



12. On the *Database Restore* step screen, choose the following values:
  - o Select Backup to be used for Restore:
    - <Choose the first entry in the dropdownlist>

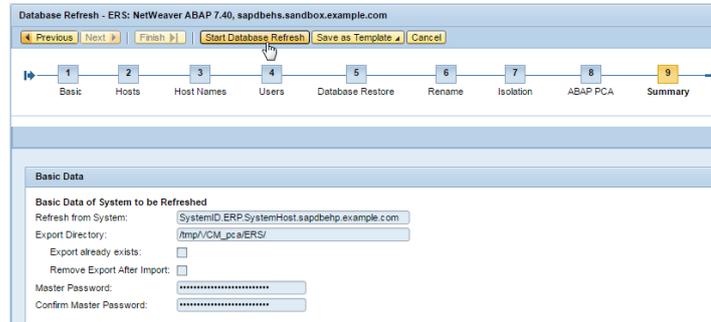


Explanation	Screenshots																																								
<p>13. Choose <i>Next</i> and proceed with the next step.</p>																																									
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<p>16. On the <i>Isolation</i> step screen, keep the default values.</p> <p>17. Choose <i>Next</i> and proceed with the next step.</p>	 <table border="1" data-bbox="790 1086 1500 1276"> <thead> <tr> <th>Rule Type</th> <th>Target Host Name</th> <th>Target Port</th> <th>Predefined</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>Host</td> <td>localhost</td> <td>Any port</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to host (localhost) on all ports</td> </tr> <tr> <td>Host</td> <td>simfler</td> <td>Any port</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to host (simfler) on all ports</td> </tr> <tr> <td>Port</td> <td>Any host name</td> <td>ifs</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to all hosts on port/service (ifs)</td> </tr> <tr> <td>Port</td> <td>Any host name</td> <td>ldap</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to all hosts on port/service (ldap)</td> </tr> <tr> <td>Port</td> <td>Any host name</td> <td>ldaps</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to all hosts on port/service (ldaps)</td> </tr> <tr> <td>Port</td> <td>Any host name</td> <td>cifs</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to all hosts on port/service (cifs)</td> </tr> <tr> <td>Port</td> <td>Any host name</td> <td>microsoft-ds</td> <td><input checked="" type="checkbox"/></td> <td>Allow communication to all hosts on port/service (microsoft-ds)</td> </tr> </tbody> </table>	Rule Type	Target Host Name	Target Port	Predefined	Explanation	Host	localhost	Any port	<input checked="" type="checkbox"/>	Allow communication to host (localhost) on all ports	Host	simfler	Any port	<input checked="" type="checkbox"/>	Allow communication to host (simfler) on all ports	Port	Any host name	ifs	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (ifs)	Port	Any host name	ldap	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (ldap)	Port	Any host name	ldaps	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (ldaps)	Port	Any host name	cifs	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (cifs)	Port	Any host name	microsoft-ds	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (microsoft-ds)
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Host	simfler	Any port	<input checked="" type="checkbox"/>	Allow communication to host (simfler) on all ports																																					
Port	Any host name	ifs	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (ifs)																																					
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<p>18. On the <i>ABAP PCA</i> step screen, keep the default values.</p> <p>19. Choose <i>Next</i> and proceed with the next step.</p>	 <table border="1" data-bbox="790 1489 1500 1590"> <thead> <tr> <th>Client</th> <th>Client Name</th> <th>Client Role</th> <th>Task List</th> <th>Task List Variant</th> <th>Parameters Modified</th> </tr> </thead> <tbody> <tr> <td>000</td> <td></td> <td></td> <td>SAP_BASIS_COPY_REFR...</td> <td></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Client	Client Name	Client Role	Task List	Task List Variant	Parameters Modified	000			SAP_BASIS_COPY_REFR...		<input type="checkbox"/>																												
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000			SAP_BASIS_COPY_REFR...		<input type="checkbox"/>																																				

## Explanation

20. On the *Summary* step screen, choose *Start System Refresh* to trigger the operation.

## Screenshots

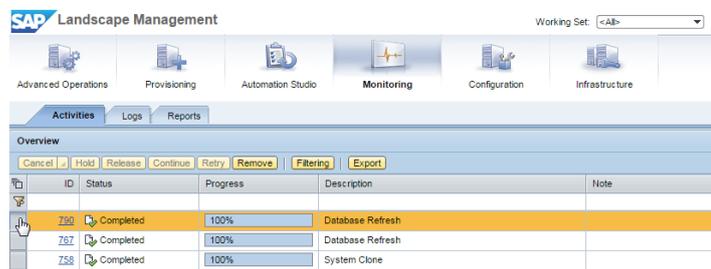


Once you trigger the operation, you are automatically re-directed to the *Activities* screen where you can monitor the execution status of the system refresh operation.

21. Wait for the activity to be Completed.

### Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.



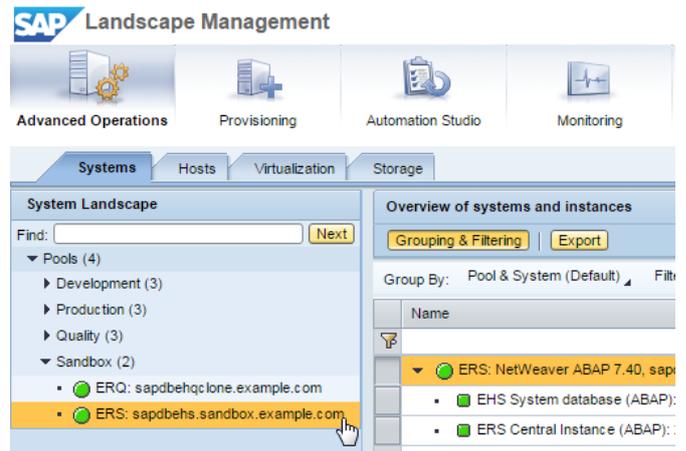
## 6.5 Destroy System

Stop and unprepare the system  
ERS: sapdbehs.sandbox.examp  
le.com  
in the *Sandbox* pool before this  
system can be destroyed.

22. Navigate to *Advanced  
Operations > Systems*

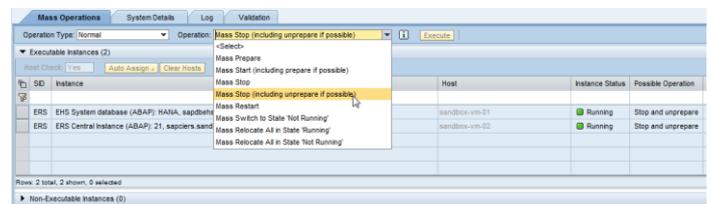
23. Expand the *Sandbox* in the  
System Landscape on the left  
side.

24. Select and expand the system  
ERS: sapdbehs.sandbox.ex  
ample.com



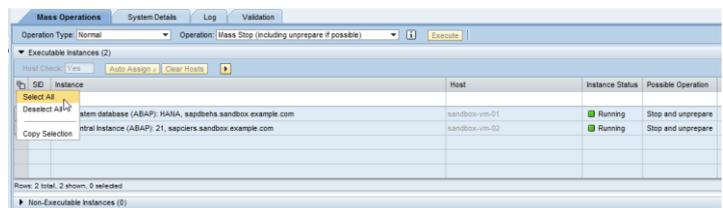
Below this table you see a table  
named *Mass Operations* where  
all 2 instances of this instance are  
listed in the list of *Executable  
Instances*.

25. To stop these instances, ensure  
that the Operation *Mass Stop  
(including unprepare if possible)*  
is selected.



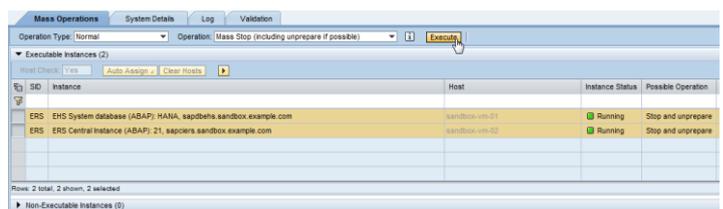
26. Choose the  icon.

27. Choose *Select All* from the  
dropdown menu.



28. Choose *Execute*.

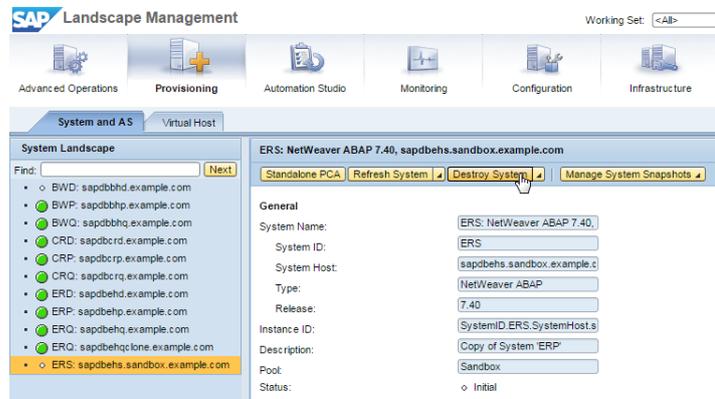
Wait until the system ERS is stopped  
and unprepared.



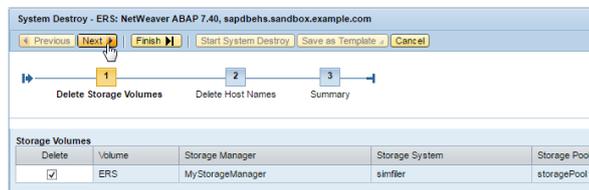
Explanation

Screenshots

- 29. Navigate to *Provisioning* > *System and AS*
- 30. In the system selector on the left side select ERS: sapdbehs.sandbox.example.com
- 31. Choose *Destroy System*.



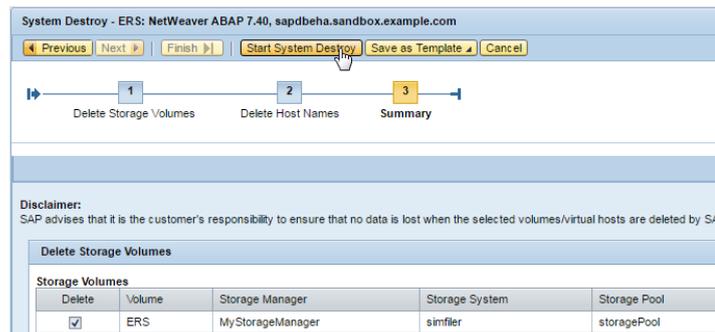
- 32. On the *Delete Storage Volumes* step screen keep the default values.
- 33. Choose *Next* and proceed with the next step.



- 34. On the *Delete Host Names* step screen keep the default values.
- 35. Choose *Next* and proceed with the next step.



- 36. On the Summary step screen, choose *Start System Destroy* to trigger the operation.



### Explanation

Once you trigger the operation, you are automatically re-directed to the [Activities](#) screen where you can monitor the execution status of the system destroy operation.

- Wait for the activity to be Completed.

#### **i** Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.

### Screenshots

ID	Status	Progress	Description	Note
794	Completed	100%	System destroy	
792	Completed	100%	Stop and unprepare [Mass]	
790	Completed	100%	Database Refresh	
767	Completed	100%	Database Refresh	

- Optional step: If you like to destroy the **ERQclone** as well than execute this chapter for ERQ: sapdbehqclone.example.com.

## 6.6 Provisioning Templates

- Navigate to [Provisioning > System and AS](#)
- In the system selector on the left side select CRQ: sapdbcrq.example.com
- Choose [Copy System](#).

**System Landscape**

- Find:  **Next**
- o BWD: sapdbhd.example.com
  - BWP: sapdbhp.example.com
  - BWQ: sapdbhq.example.com
  - CRD: sapdbcrd.example.com
  - CRP: sapdbcrp.example.com
  - **CRQ: sapdbcrq.example.com**
  - ERD: sapdbhd.example.com
  - ERP: sapdbhp.example.com
  - ERQ: sapdbhq.example.com
  - ERQ: sapdbhqclone.example.com

**CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com**

**General**

System Name: CRQ: NetWeaver ABAP 7.40

System ID: CRQ

System Host: sapdbcrq.example.com

Type: NetWeaver ABAP

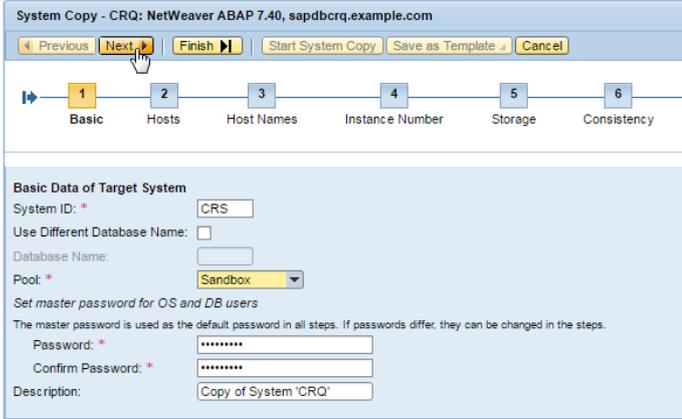
Release: 7.40

Instance ID: SystemID:CRQ.SystemHost

Description: SAP CRM on ASE (Copy of S)

Pool: Quality

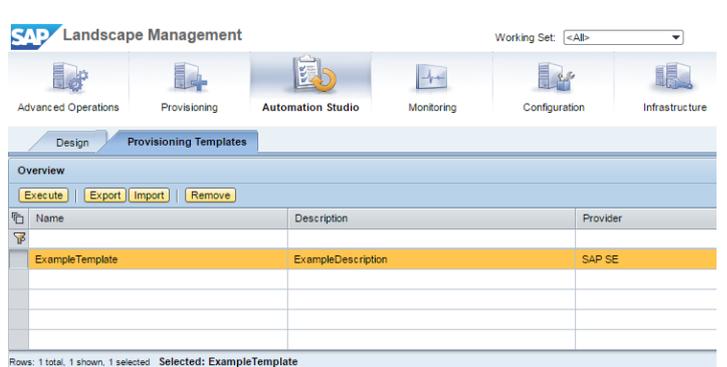
Status: ● Running

Explanation	Screenshots
<p>42. On the <i>Basic</i> step screen, enter the following values:</p> <ul style="list-style-type: none"> <li>○ System ID: <b>CRS</b></li> <li>○ Pool: <b>Sandbox</b></li> <li>○ Password: <b>Walldorf1</b> (and confirm)</li> </ul> <p>43. Choose <i>Next</i> and proceed with the next step.</p>	
<p>44. Execute the steps as described in chapter '6.1 Copy System' including step 15.</p>	
<p>45. On the Summary step screen, choose <i>Save as Template</i> to trigger the operation.</p>	
<p>46. On the upcoming popup enter the following values:</p> <ul style="list-style-type: none"> <li>○ Name: <b>ExampleTemplate</b></li> <li>○ Description: <b>ExampleDescription</b></li> <li>○ Password: <b>Walldorf1</b> (and confirm)</li> </ul> <p>47. Choose <i>Save</i> and proceed with the next step.</p>	

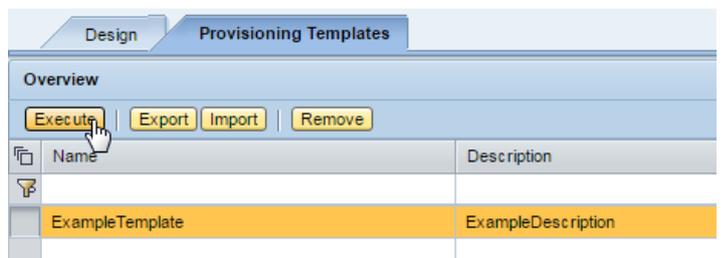
Explanation

Screenshots

Once you save the template, you are automatically re-directed to *Automation Studio -> Provisioning Templates* screen and there is now a new entry.



48. Select the corresponding line in the table and choose *Execute*.



49. Choose *Yes*.

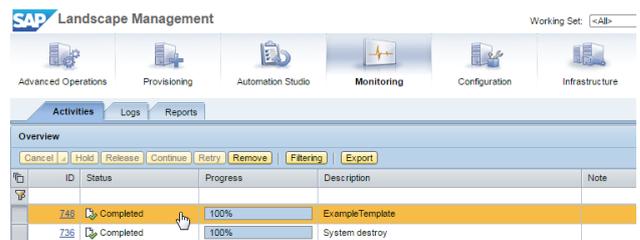


Once you trigger the operation, you are automatically re-directed to the *Activities* screen where you can monitor the execution status of the system copy operation.

50. Wait for the activity to be Completed.

**i** Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.



---

# 7 SAP HANA Near Zero Downtime Takeover

## Scenario

If your primary system is not available, due to a disaster or planned downtime for example, and you have decided to fail over to the secondary system, you can perform a takeover on your secondary node with near Zero Downtime.

In the following exercise you will learn how to perform Takeover-operations on SAP HANA instances.

For more information, see SAP Help Portal at:

[http://help.sap.com/static/saphelp\\_lamaent30/en/bb/ca099ce73c42d99596375389b0b0e1/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/bb/ca099ce73c42d99596375389b0b0e1/frameset.htm)

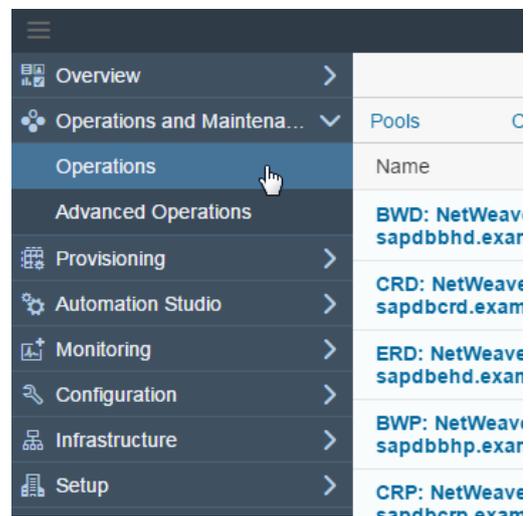
## Description

- You perform a HANA Near Zero Downtime Takeover operation.
- You monitor the status of systems.

## 7.1 SAP HANA NZDM Takeover

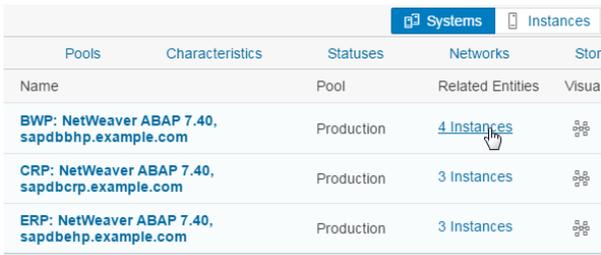
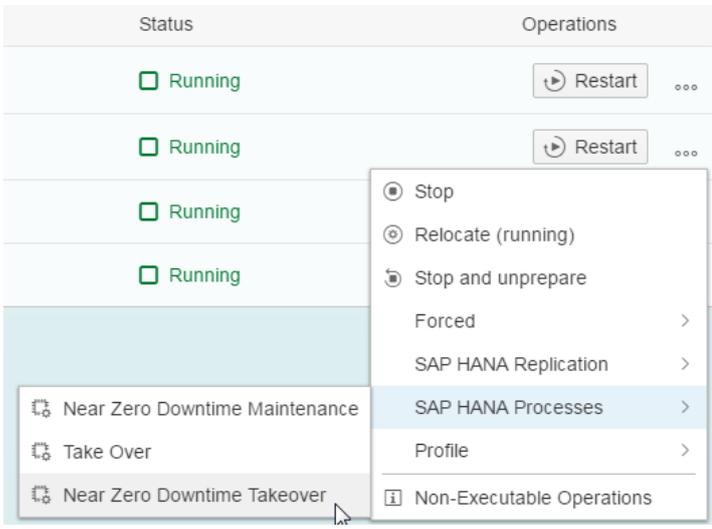
The Guide "How to Perform System Replication for SAP HANA" is available via:  
<http://scn.sap.com/docs/DOC-47702>

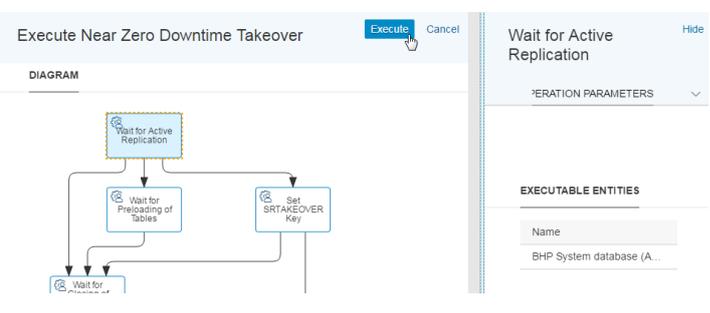
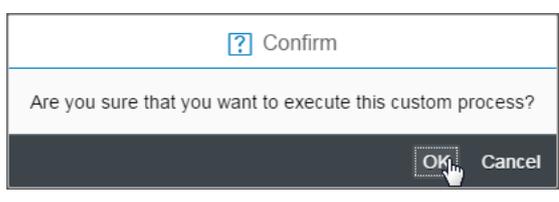
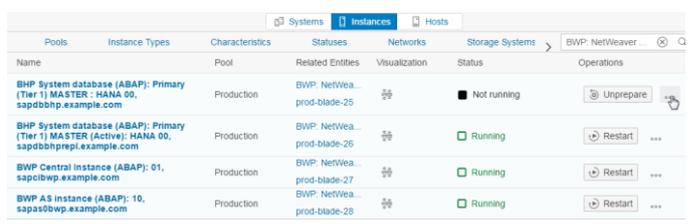
1. Open  
<http://<IPAddressOfYourInstance>:50000/lama>
2. Choose *Operations and Maintenance > Operations*.

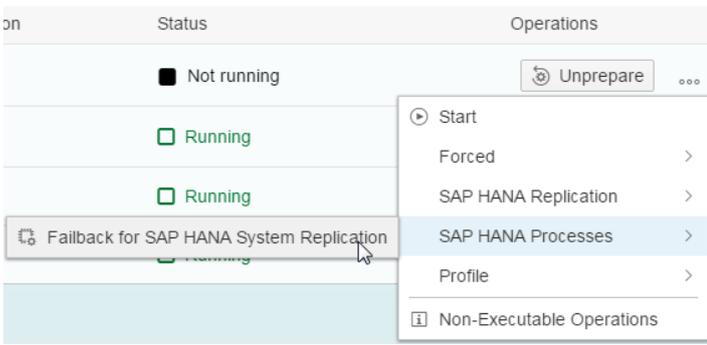
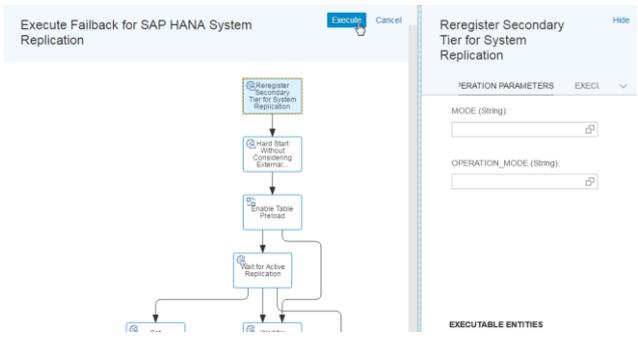
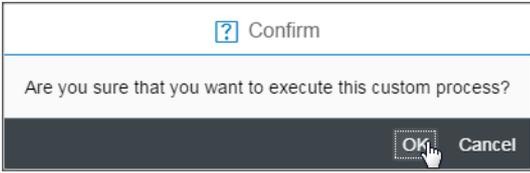


3. Choose Working Set *Production* (for more information, see chapter '4.3 Working Set').



Explanation	Screenshots																														
<p>4. If not already selected choose Systems.</p>																															
<p>5. Choose 4 Instances in the line <i>BWP: NetWeaver ABAP 7.40, sapdbbhp.example.com</i>.</p>																															
<p>6. Choose  in the line <i>BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhprepl.example.com</i>.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com</td> <td>Production</td> <td>BWP: NetWeaver ... prod-blade-25</td> <td></td> <td><input type="checkbox"/> Running</td> <td> Restart ...</td> </tr> <tr> <td>BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhprepl.example.com</td> <td>Production</td> <td>BWP: NetWeaver ... prod-blade-26</td> <td></td> <td><input type="checkbox"/> Running</td> <td> Restart ...</td> </tr> <tr> <td>BWP Central Instance (ABAP): 01, sapdbwps.example.com</td> <td>Production</td> <td>BWP: NetWeaver ... prod-blade-27</td> <td></td> <td><input type="checkbox"/> Running</td> <td> Restart ...</td> </tr> <tr> <td>BWP AS Instance (ABAP): 10, sapdbwps.example.com</td> <td>Production</td> <td>BWP: NetWeaver ... prod-blade-28</td> <td></td> <td><input type="checkbox"/> Running</td> <td> Restart ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeaver ... prod-blade-25		<input type="checkbox"/> Running	Restart ...	BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhprepl.example.com	Production	BWP: NetWeaver ... prod-blade-26		<input type="checkbox"/> Running	Restart ...	BWP Central Instance (ABAP): 01, sapdbwps.example.com	Production	BWP: NetWeaver ... prod-blade-27		<input type="checkbox"/> Running	Restart ...	BWP AS Instance (ABAP): 10, sapdbwps.example.com	Production	BWP: NetWeaver ... prod-blade-28		<input type="checkbox"/> Running	Restart ...
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BWP Central Instance (ABAP): 01, sapdbwps.example.com	Production	BWP: NetWeaver ... prod-blade-27		<input type="checkbox"/> Running	Restart ...																										
BWP AS Instance (ABAP): 10, sapdbwps.example.com	Production	BWP: NetWeaver ... prod-blade-28		<input type="checkbox"/> Running	Restart ...																										
<p>7. Choose SAP HANA Processes &gt; Near Zero Downtime Takeover.</p>	 <table border="1"> <thead> <tr> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Running</td> <td> Restart ...</td> </tr> <tr> <td><input checked="" type="checkbox"/> Running</td> <td> Restart ...</td> </tr> <tr> <td><input checked="" type="checkbox"/> Running</td> <td> <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Stop</li> <li><input type="radio"/> Relocate (running)</li> <li><input type="radio"/> Stop and unprepare</li> <li>Forced &gt;</li> <li>SAP HANA Replication &gt;</li> <li><b>SAP HANA Processes &gt;</b></li> <li>Profile &gt;</li> <li><input type="checkbox"/> Non-Executable Operations</li> </ul> </td> </tr> <tr> <td><input checked="" type="checkbox"/> Running</td> <td> <ul style="list-style-type: none"> <li> Near Zero Downtime Maintenance</li> <li> Take Over</li> <li> Near Zero Downtime Takeover</li> </ul> </td> </tr> </tbody> </table>	Status	Operations	<input checked="" type="checkbox"/> Running	Restart ...	<input checked="" type="checkbox"/> Running	Restart ...	<input checked="" type="checkbox"/> Running	<ul style="list-style-type: none"> <li><input checked="" type="radio"/> Stop</li> <li><input type="radio"/> Relocate (running)</li> <li><input type="radio"/> Stop and unprepare</li> <li>Forced &gt;</li> <li>SAP HANA Replication &gt;</li> <li><b>SAP HANA Processes &gt;</b></li> <li>Profile &gt;</li> <li><input type="checkbox"/> Non-Executable Operations</li> </ul>	<input checked="" type="checkbox"/> Running	<ul style="list-style-type: none"> <li> Near Zero Downtime Maintenance</li> <li> Take Over</li> <li> Near Zero Downtime Takeover</li> </ul>																				
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<input checked="" type="checkbox"/> Running	<ul style="list-style-type: none"> <li> Near Zero Downtime Maintenance</li> <li> Take Over</li> <li> Near Zero Downtime Takeover</li> </ul>																														

Explanation	Screenshots																									
<p>8. Choose <i>Execute</i>.</p>																										
<p>9. Choose <i>OK</i>.</p>																										
<p>Afterwards you are redirected to the screen <i>Operations and Maintenance &gt; Operations</i>.</p> <p>Wait for the primary SAP HANA instance is stopped and the former secondary SAP HANA instance has now the DB role primary.</p>	<table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>BHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbbhp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-25</td> <td></td> <td>Not Running</td> </tr> <tr> <td>BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhprepl.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-26</td> <td></td> <td>Running</td> </tr> <tr> <td>BWP Central Instance (ABAP): 01, sapcibwp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-27</td> <td></td> <td>Running</td> </tr> <tr> <td>BWP AS Instance (ABAP): 10, sapas0bwp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-28</td> <td></td> <td>Running</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	BHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Not Running	BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhprepl.example.com	Production	BWP: NetWeav... prod-blade-26		Running	BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	BWP AS Instance (ABAP): 10, sapas0bwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running
Name	Pool	Related Entities	Visualization	Status																						
BHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Not Running																						
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BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running																						
BWP AS Instance (ABAP): 10, sapas0bwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running																						
<h2>7.2 SAP HANA Failback</h2>																										
<p>Continue on the screen where you ended chapter 7.1 SAP HANA NZDM Takeover.</p> <p>1. Choose  in the line <i>BHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbbhp.example.com</i>.</p>																										

Explanation	Screenshots																														
<p>2. Choose <i>SAP HANA Processes</i> &gt; <i>Failback for SAP HANA System Replication</i>.</p>																															
<p>3. Choose <i>Execute</i>.</p>																															
<p>4. Choose <i>OK</i>.</p>																															
<p>Afterwards you are redirected to the screen <i>Operations and Maintenance &gt; Operations</i>.</p> <p>Wait for all instances of this system are started and is in status Running.</p>	<table border="1" data-bbox="673 1429 1380 1601"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-25</td> <td></td> <td>Running</td> <td> ...</td> </tr> <tr> <td>BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhp.repl.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-26</td> <td></td> <td>Running</td> <td> ...</td> </tr> <tr> <td>BWP Central Instance (ABAP): 01, sapcibwp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-27</td> <td></td> <td>Running</td> <td> ...</td> </tr> <tr> <td>BWP AS Instance (ABAP): 10, sapasobwp.example.com</td> <td>Production</td> <td>BWP: NetWeav... prod-blade-28</td> <td></td> <td>Running</td> <td> ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Running	...	BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhp.repl.example.com	Production	BWP: NetWeav... prod-blade-26		Running	...	BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	...	BWP AS Instance (ABAP): 10, sapasobwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running	...
Name	Pool	Related Entities	Visualization	Status	Operations																										
BHP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Running	...																										
BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhp.repl.example.com	Production	BWP: NetWeav... prod-blade-26		Running	...																										
BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	...																										
BWP AS Instance (ABAP): 10, sapasobwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running	...																										

---

## 8 SAP HANA Near Zero Downtime Maintenance (nZDM)

### Scenario

To reduce the downtime of an SAP HANA system you perform a near zero Downtime maintenance operation. You stop, unregister, register, and start the replication tiers.

In the following exercise you will learn how to perform maintenance-operations on SAP HANA instances.

For more information, see SAP Help Portal at:

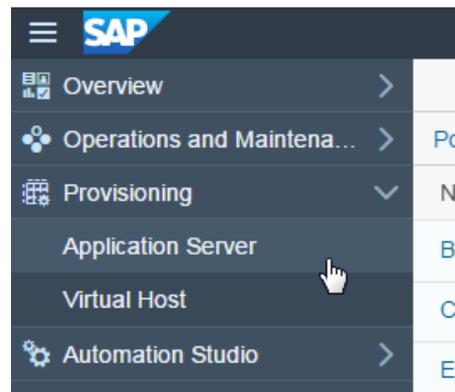
[http://help.sap.com/static/saphelp\\_lamaent30/en/de/cb0795d8a44831804732254f14fcc3/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/de/cb0795d8a44831804732254f14fcc3/frameset.htm)

### Description

- You perform HANA Near Zero Downtime Maintenance operations.
- You monitor the status of systems.

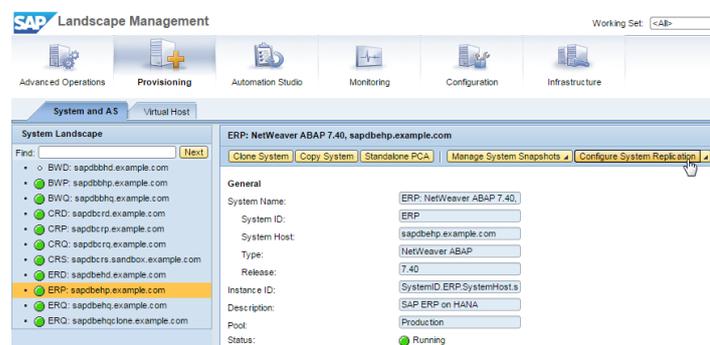
## 8.1 Configure System Replication

1. Open <http://<IPAddressOfYourInstance>:50000/lama>.
2. Choose *Provisioning* > *Application Server*.

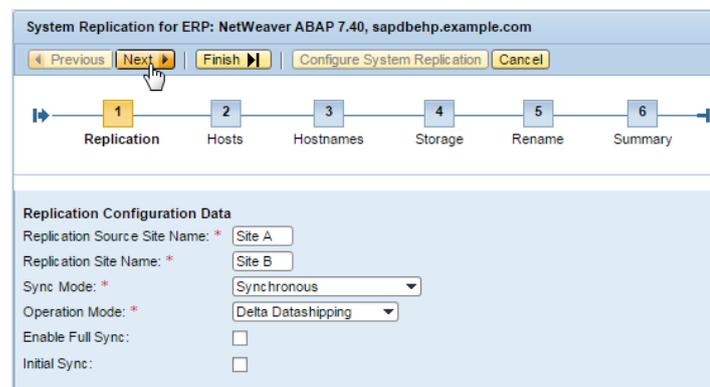


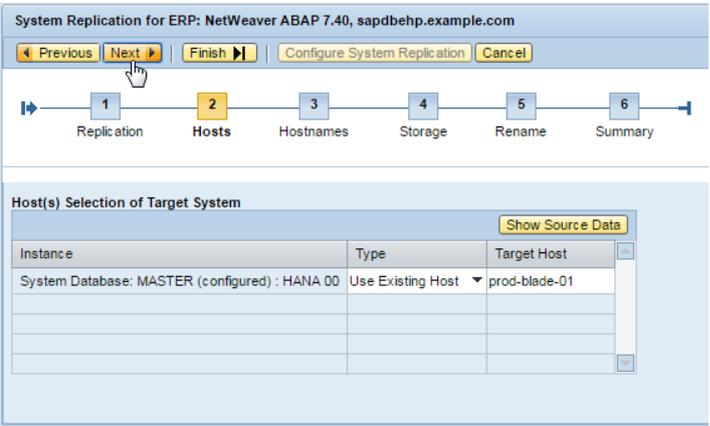
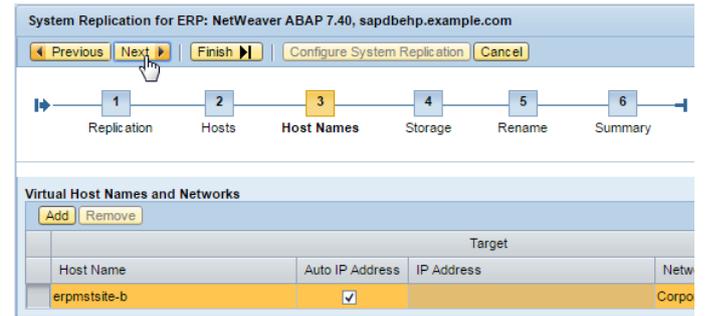
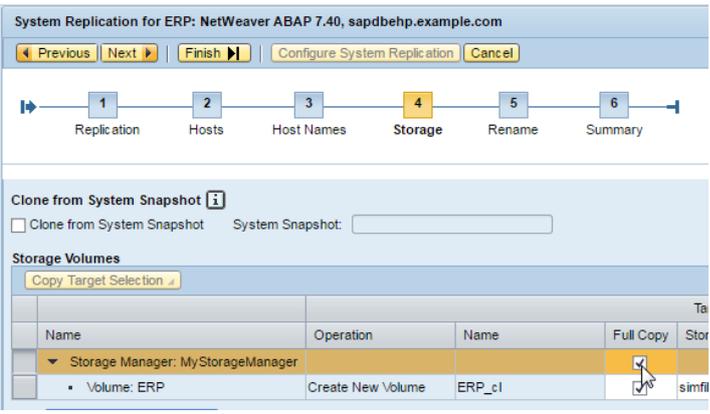
In another browser window you see the configuration.

3. Choose *ERP: NetWeaver ABAP 7.40, sapdbehp.example.com*.
4. Choose *Configure System Replication*.



5. On the *Replication* step screen, enter the following values:
  - Replication Source Site Name: **Site A**
  - Replication Site Name: **Site B**
  - Sync Mode: **Synchronous**
  - Operation Mode: **Delta Datashipping**
  - Enable Full Sync: **unchecked**
  - Initial Sync: **unchecked**

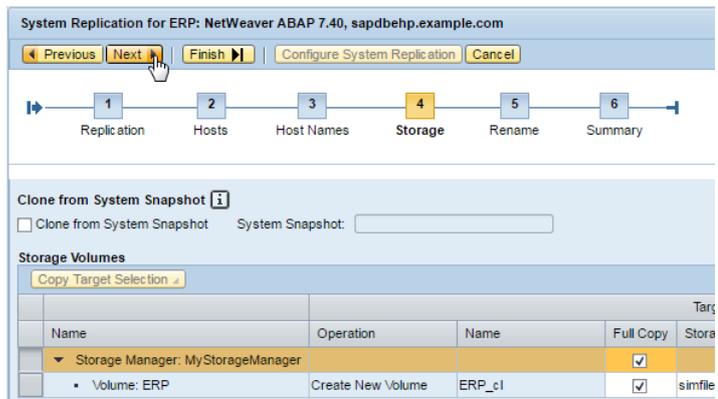


Explanation	Screenshots															
6. Choose <i>Next</i> and proceed with the next step.																
7. On the <i>Hosts</i> step screen and choose <i>Next</i> and proceed with the next step.	 <p>System Replication for ERP: NetWeaver ABAP 7.40, sapdbehp.example.com</p> <p>Navigation: Previous   <b>Next</b>   Finish   Configure System Replication   Cancel</p> <p>Progress: 1 (Replication)   <b>2 (Hosts)</b>   3 (Hostnames)   4 (Storage)   5 (Rename)   6 (Summary)</p> <p>Host(s) Selection of Target System</p> <table border="1"> <thead> <tr> <th>Instance</th> <th>Type</th> <th>Target Host</th> </tr> </thead> <tbody> <tr> <td>System Database: MASTER (configured) : HANA 00</td> <td>Use Existing Host</td> <td>prod-blade-01</td> </tr> </tbody> </table>	Instance	Type	Target Host	System Database: MASTER (configured) : HANA 00	Use Existing Host	prod-blade-01									
Instance	Type	Target Host														
System Database: MASTER (configured) : HANA 00	Use Existing Host	prod-blade-01														
8. On the <i>Host Names</i> step screen and choose <i>Next</i> and proceed with the next step.	 <p>System Replication for ERP: NetWeaver ABAP 7.40, sapdbehp.example.com</p> <p>Navigation: Previous   <b>Next</b>   Finish   Configure System Replication   Cancel</p> <p>Progress: 1 (Replication)   2 (Hosts)   <b>3 (Host Names)</b>   4 (Storage)   5 (Rename)   6 (Summary)</p> <p>Virtual Host Names and Networks</p> <table border="1"> <thead> <tr> <th>Host Name</th> <th>Auto IP Address</th> <th>IP Address</th> <th>Netw</th> </tr> </thead> <tbody> <tr> <td>erpmsite-b</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>Corpo</td> </tr> </tbody> </table>	Host Name	Auto IP Address	IP Address	Netw	erpmsite-b	<input checked="" type="checkbox"/>		Corpo							
Host Name	Auto IP Address	IP Address	Netw													
erpmsite-b	<input checked="" type="checkbox"/>		Corpo													
9. On the <i>Storage</i> step screen, enter the following values: <ul style="list-style-type: none"> <li>Full Copy: <b>checked</b></li> </ul>	 <p>System Replication for ERP: NetWeaver ABAP 7.40, sapdbehp.example.com</p> <p>Navigation: Previous   Next   <b>Finish</b>   Configure System Replication   Cancel</p> <p>Progress: 1 (Replication)   2 (Hosts)   3 (Host Names)   <b>4 (Storage)</b>   5 (Rename)   6 (Summary)</p> <p>Clone from System Snapshot <sup>i</sup></p> <p><input type="checkbox"/> Clone from System Snapshot System Snapshot: <input type="text"/></p> <p>Storage Volumes</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Operation</th> <th>Name</th> <th>Full Copy</th> <th>Stor</th> </tr> </thead> <tbody> <tr> <td>Storage Manager: MyStorageManager</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>Volume: ERP</td> <td>Create New Volume</td> <td>ERP_cl</td> <td><input checked="" type="checkbox"/></td> <td>simpl</td> </tr> </tbody> </table>	Name	Operation	Name	Full Copy	Stor	Storage Manager: MyStorageManager			<input checked="" type="checkbox"/>		Volume: ERP	Create New Volume	ERP_cl	<input checked="" type="checkbox"/>	simpl
Name	Operation	Name	Full Copy	Stor												
Storage Manager: MyStorageManager			<input checked="" type="checkbox"/>													
Volume: ERP	Create New Volume	ERP_cl	<input checked="" type="checkbox"/>	simpl												

Explanation

Screenshots

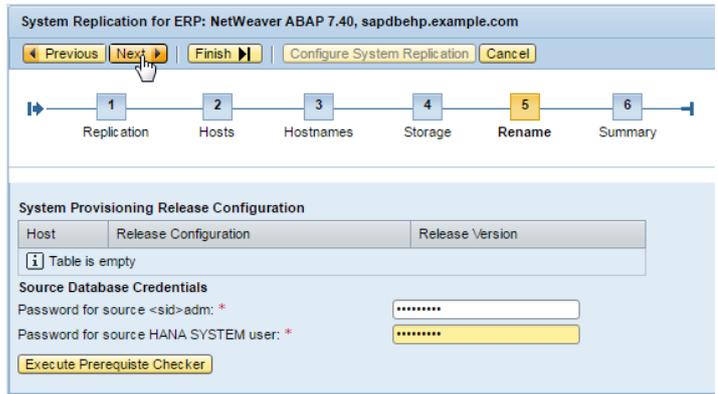
10. Choose *Next* and proceed with the next step.



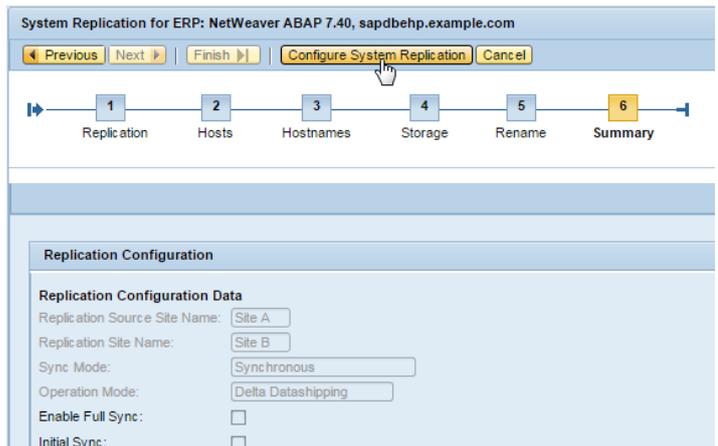
11. On the *Rename* screen, enter the values:

- o Password for source <sid>adm: **Walldorf1**
- o Password for source HANA SYSTEM user: **Walldorf1**

12. Choose *Next*.



13. On the *Summary* screen, choose *Configure System Replication*.



Once you trigger the operation, you are automatically re-directed to the *Activities* screen where you can monitor the execution status of the system copy operation.

Explanation

Screenshots

- Wait for the activity to be Completed.

**i** Note

This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.

ID	Status	Progress	Description
829	Completed	100%	Create System Replication
821	Completed	100%	Fallback for SAP HANA System Replication
781	Completed	100%	Near Zero Downtime Takeover
748	Completed	100%	ExampleTemplate
736	Completed	100%	System destroy

## 8.2 SAP HANA Near Zero Downtime Maintenance

- Open <http://<IPAddressOfYourInstance>:50000/lama>.
- Choose *Operations and Maintenance > Operations*.
- If not already selected change the Working Set back to *All* (for more information, see chapter '4.3 Working Set').

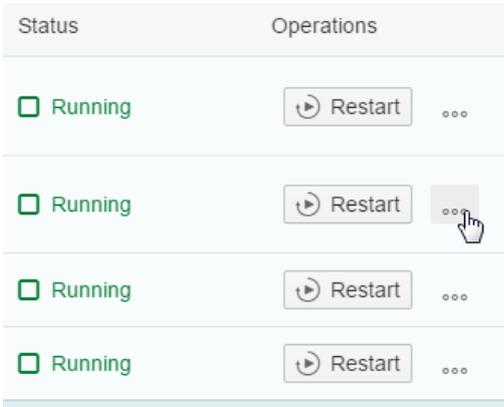
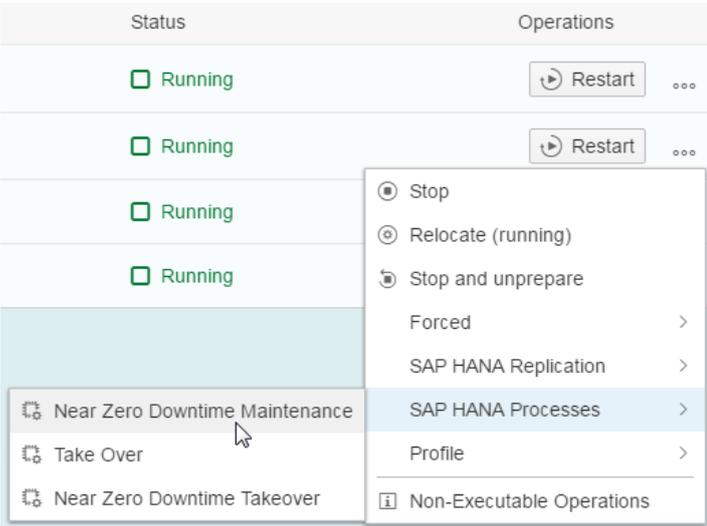
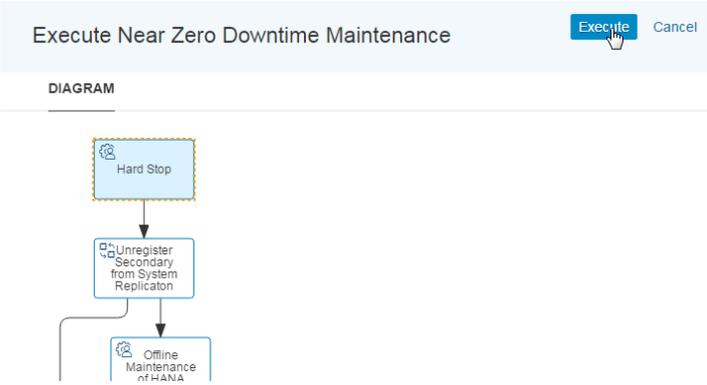


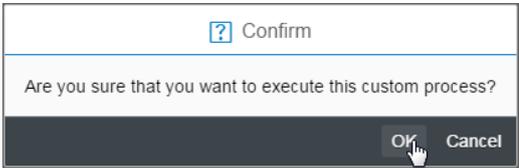
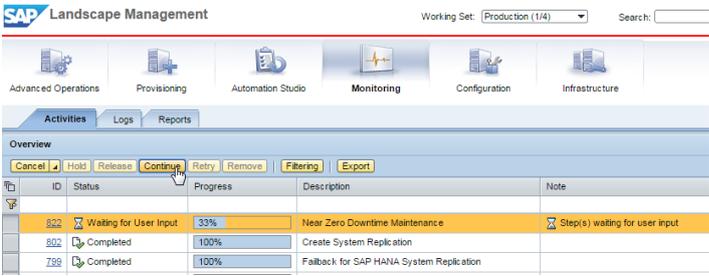
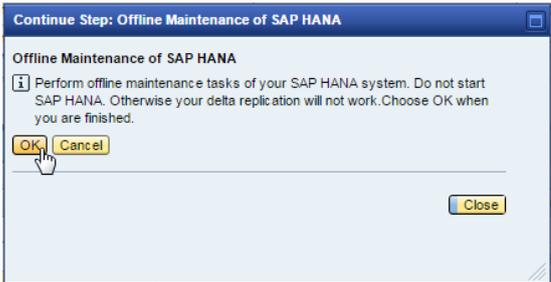
- If not already selected choose Systems.

Name	Pool	Release

- Choose *4 Instances* in the line *ERP: NetWeaver ABAP 7.40, sapdbehp.example.com*.

Name	Pool	Related Entities	Visual
BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com	Development	4 Instances	
CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com	Development	2 Instances	
ERD: NetWeaver ABAP 7.40, sapdbehd.example.com	Development	2 Instances	
BWP: NetWeaver ABAP 7.40, sapdbbhp.example.com	Production	4 Instances	
CRP: NetWeaver ABAP 7.40, sapdbcrp.example.com	Production	3 Instances	
ERP: NetWeaver ABAP 7.40, sapdbehp.example.com	Production	4 Instances	

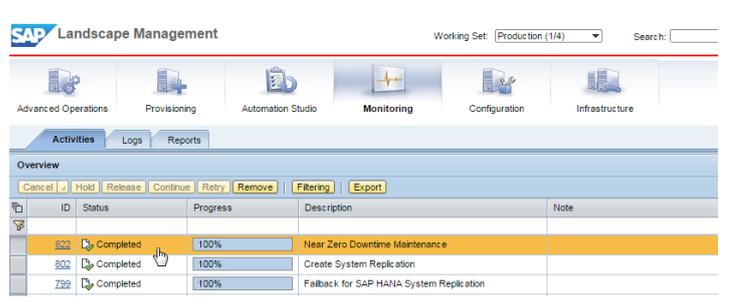
Explanation	Screenshots
<p>6. Choose  in the line <i>EHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, erpmstsite-b.example.com</i>.</p>	 <p>The screenshot shows a table with two columns: 'Status' and 'Operations'. There are four rows, each with a green 'Running' status and a 'Restart' button. The second row's 'Operations' column also contains a three-dot menu icon, which is highlighted by a mouse cursor.</p>
<p>7. Choose <i>SAP HANA Processes &gt; Near Zero Downtime Maintenance</i>.</p>	 <p>The screenshot shows the 'SAP HANA Processes' menu. The 'Near Zero Downtime Maintenance' option is selected and highlighted. Other options include 'Stop', 'Relocate (running)', 'Stop and unprepare', 'Forced', 'SAP HANA Replication', 'Profile', and 'Non-Executable Operations'.</p>
<p>8. Choose <i>Execute</i>.</p>	 <p>The screenshot shows the 'Execute Near Zero Downtime Maintenance' dialog box. It features an 'Execute' button and a 'Cancel' button. Below the buttons is a 'DIAGRAM' section showing a flowchart with three steps: 'Hard Stop', 'Unregister Secondary from System Replicator', and 'Offline Maintenance of HANA'.</p>

Explanation	Screenshots
<p>9. Choose <i>OK</i>.</p>	 <p>A dialog box titled "Confirm" with a question mark icon. The text inside asks: "Are you sure that you want to execute this custom process?". At the bottom right, there are two buttons: "OK" and "Cancel". A mouse cursor is pointing at the "OK" button.</p>
<p>Afterwards you are redirected to the screen <i>Operations and Maintenance &gt; Operations</i>.</p> <p>10. Choose <i>Navigate to activity</i>.</p>	 <p>A screenshot of the SAP Landscape Management "Operations" screen. It shows a table with columns: Name, Pool, Related Entities, Visualization, Status, and Operations. The table lists several instances, including "EHP System database (ABAP): Primary" and "EHP System database (ABAP): Secondary". The "Secondary" instance has a status of "Not running" and a "Navigate to activity" button.</p>
<p>Afterwards you are redirected to the screen <i>Monitoring &gt; Activities</i>.</p> <p>The process will run until the step where the Maintenance can be done, and will wait for User input to continue.</p> <p>Wait until the activity is in status Waiting for user input.</p> <p>In your case we just go on with the next steps.</p> <p>11. Select <i>Continue</i>.</p>	 <p>A screenshot of the SAP Landscape Management "Monitoring" screen. It shows an "Overview" section with a table of activities. The table has columns: ID, Status, Progress, Description, and Note. One activity is highlighted in yellow: ID 822, Status "Waiting for User Input", Progress 33%, Description "Near Zero Downtime Maintenance", and Note "Step(s) waiting for user input". Above the table, there are buttons for "Cancel", "Hold", "Release", "Continue", "Retry", "Remove", "Filtering", and "Export". A mouse cursor is pointing at the "Continue" button.</p>
<p>12. Choose <i>OK</i>.</p>	 <p>A dialog box titled "Continue Step: Offline Maintenance of SAP HANA". The main title is "Offline Maintenance of SAP HANA". The text inside says: "Perform offline maintenance tasks of your SAP HANA system. Do not start SAP HANA. Otherwise your delta replication will not work. Choose OK when you are finished." At the bottom left, there are "OK" and "Cancel" buttons. A mouse cursor is pointing at the "OK" button. At the bottom right, there is a "Close" button.</p>

Explanation

Screenshots

13. Wait for the activity to be Completed.



### 8.3 SAP HANA Near Zero Downtime Maintenance on Primary Tier

14. Choose *Operations and Maintenance > Operations*.

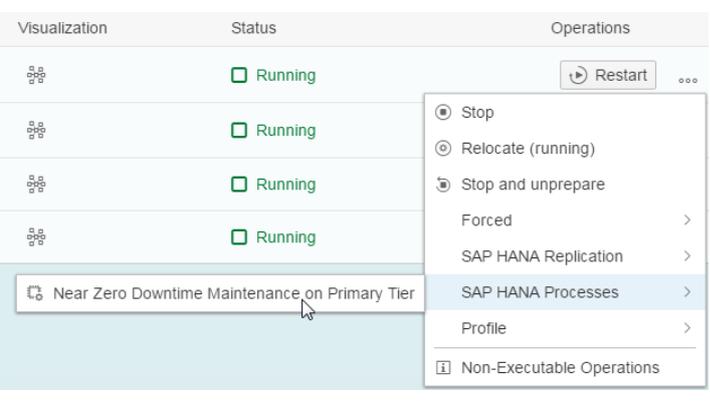
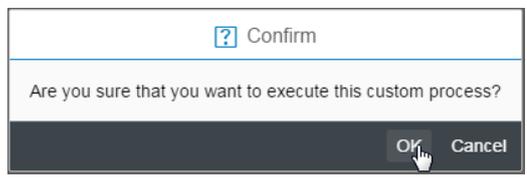
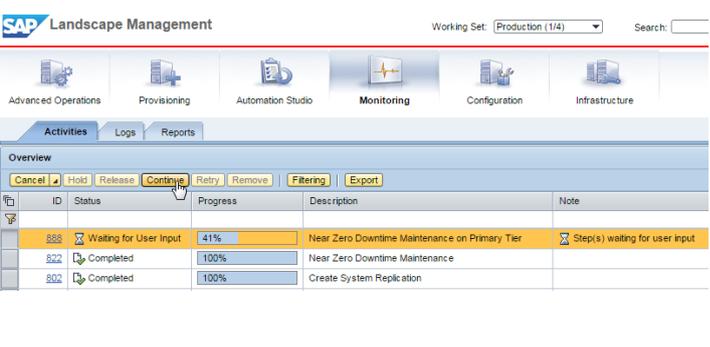


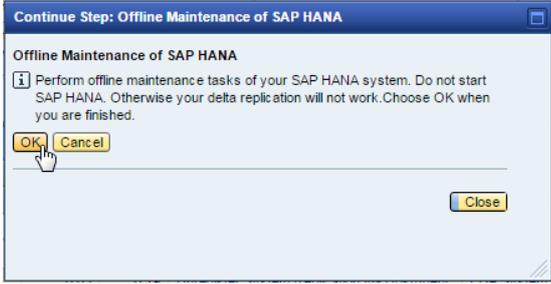
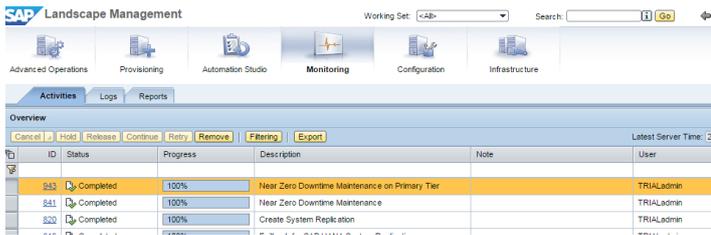
15. Choose 4 Instances in the line *ERP: NetWeaver ABAP 7.40, sapdbehp.example.com*.

Name	Pool	Related Entities	Visuals
BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com	Development	4 Instances	
CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com	Development	2 Instances	
ERD: NetWeaver ABAP 7.40, sapdbhd.example.com	Development	2 Instances	
BWP: NetWeaver ABAP 7.40, sapdbbhp.example.com	Production	4 Instances	
CRP: NetWeaver ABAP 7.40, sapdbcrp.example.com	Production	3 Instances	
ERP: NetWeaver ABAP 7.40, sapdbehp.example.com	Production	4 Instances	

16. Choose in the line *EHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbehp.example.com*.

Status	Operations
<input type="checkbox"/> Running	Restart
<input type="checkbox"/> Running	Restart ...
<input type="checkbox"/> Running	Restart ...
<input type="checkbox"/> Running	Restart ...

Explanation	Screenshots																														
<p>17. Choose <i>SAP HANA Processes</i> &gt; <i>Near Zero Maintenance on Primary Tier</i>.</p>																															
<p>18. Choose <i>Execute</i>.</p>																															
<p>19. Choose <i>OK</i>.</p>																															
<p>Afterwards you are redirected to the screen <i>Operations and Maintenance</i> &gt; <i>Operations</i>.</p> <p>20. Choose <i>Navigate to activity</i>.</p>	 <table border="1" data-bbox="790 1411 1500 1601"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>EHP System database (ABAP): Primary (Tier 1) MASTER: HANA 00, sapdshp.example.com</td> <td>Production</td> <td>ERP: NetWeaver A... prod-blade-15</td> <td>☞</td> <td>■ Not running</td> <td>Navigate to activity</td> </tr> <tr> <td>EHP System database (ABAP): Primary (Tier 1) MASTER (Active): HANA 00, erpmstsite-0.example.com</td> <td>Production</td> <td>ERP: NetWeaver A... prod-blade-01</td> <td>☞</td> <td>□ Running</td> <td>Navigate to activity</td> </tr> <tr> <td>ERP Central Instance (ABAP): 01, sapclerp.example.com</td> <td>Production</td> <td>ERP: NetWeaver A... prod-blade-16</td> <td>☞</td> <td>□ Running</td> <td>Navigate to activity</td> </tr> <tr> <td>ERP AS Instance (ABAP): 10, sapas0erp.example.com</td> <td>Production</td> <td>ERP: NetWeaver A... prod-blade-17</td> <td>☞</td> <td>□ Running</td> <td>Restart ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	EHP System database (ABAP): Primary (Tier 1) MASTER: HANA 00, sapdshp.example.com	Production	ERP: NetWeaver A... prod-blade-15	☞	■ Not running	Navigate to activity	EHP System database (ABAP): Primary (Tier 1) MASTER (Active): HANA 00, erpmstsite-0.example.com	Production	ERP: NetWeaver A... prod-blade-01	☞	□ Running	Navigate to activity	ERP Central Instance (ABAP): 01, sapclerp.example.com	Production	ERP: NetWeaver A... prod-blade-16	☞	□ Running	Navigate to activity	ERP AS Instance (ABAP): 10, sapas0erp.example.com	Production	ERP: NetWeaver A... prod-blade-17	☞	□ Running	Restart ...
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ERP Central Instance (ABAP): 01, sapclerp.example.com	Production	ERP: NetWeaver A... prod-blade-16	☞	□ Running	Navigate to activity																										
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<p>Afterwards you are redirected to the screen <i>Monitoring</i> &gt; <i>Activities</i>.</p> <p>The process will run until the step where the Maintenance can be done, and will wait for User input to continue.</p> <p>Wait until the activity is in status <i>Waiting for user input</i>.</p>	 <table border="1" data-bbox="790 1635 1500 1982"> <thead> <tr> <th>ID</th> <th>Status</th> <th>Progress</th> <th>Description</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>800</td> <td>Waiting for User Input</td> <td>41%</td> <td>Near Zero Downtime Maintenance on Primary Tier</td> <td>Steps waiting for user input</td> </tr> <tr> <td>822</td> <td>Completed</td> <td>100%</td> <td>Near Zero Downtime Maintenance</td> <td></td> </tr> <tr> <td>802</td> <td>Completed</td> <td>100%</td> <td>Create System Replication</td> <td></td> </tr> </tbody> </table>	ID	Status	Progress	Description	Note	800	Waiting for User Input	41%	Near Zero Downtime Maintenance on Primary Tier	Steps waiting for user input	822	Completed	100%	Near Zero Downtime Maintenance		802	Completed	100%	Create System Replication											
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802	Completed	100%	Create System Replication																												

Explanation	Screenshots																								
<p>In your case we just go on with the next steps.</p> <p>21. When you finished the maintenance work select the line.</p> <p>22. Choose <i>Continue</i>.</p>																									
<p>23. Choose <i>OK</i>.</p>																									
<p>Wait until the activity is in status Completed.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Status</th> <th>Progress</th> <th>Description</th> <th>Note</th> <th>User</th> </tr> </thead> <tbody> <tr> <td>S43</td> <td>Completed</td> <td>100%</td> <td>Near Zero Downtime Maintenance on Primary Tier</td> <td></td> <td>TRIALAdmin</td> </tr> <tr> <td>S41</td> <td>Completed</td> <td>100%</td> <td>Near Zero Downtime Maintenance</td> <td></td> <td>TRIALAdmin</td> </tr> <tr> <td>S20</td> <td>Completed</td> <td>100%</td> <td>Create System Replication</td> <td></td> <td>TRIALAdmin</td> </tr> </tbody> </table>	ID	Status	Progress	Description	Note	User	S43	Completed	100%	Near Zero Downtime Maintenance on Primary Tier		TRIALAdmin	S41	Completed	100%	Near Zero Downtime Maintenance		TRIALAdmin	S20	Completed	100%	Create System Replication		TRIALAdmin
ID	Status	Progress	Description	Note	User																				
S43	Completed	100%	Near Zero Downtime Maintenance on Primary Tier		TRIALAdmin																				
S41	Completed	100%	Near Zero Downtime Maintenance		TRIALAdmin																				
S20	Completed	100%	Create System Replication		TRIALAdmin																				

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## 9 Automation Studio

### Scenario

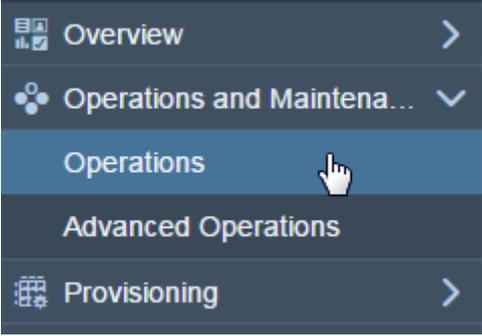
In the following exercise you will learn how to create operation templates and schedule their execution. Afterwards you want to create a custom process and execute it.

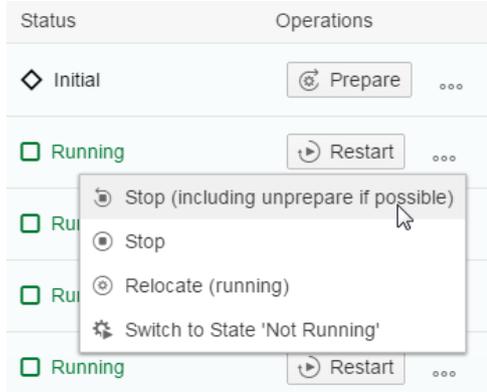
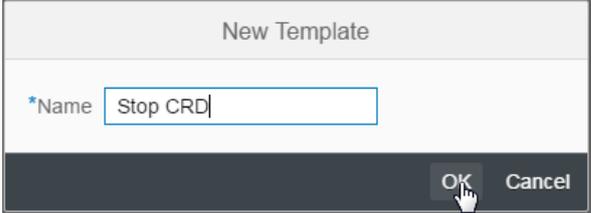
- Operation templates provide the possibility to automate and schedule operations.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_lamaent30/en/70/75bd286b964dc4b6a70c56f884ca4b/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/70/75bd286b964dc4b6a70c56f884ca4b/frameset.htm)
- Custom processes provides a complete landscape view across infrastructure layers and helps you understanding the relationship between the landscape entities.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_lamaent30/en/47/4f306b54ba42ef8074e89fe5e506ad/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/47/4f306b54ba42ef8074e89fe5e506ad/frameset.htm)

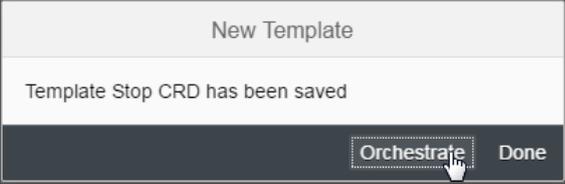
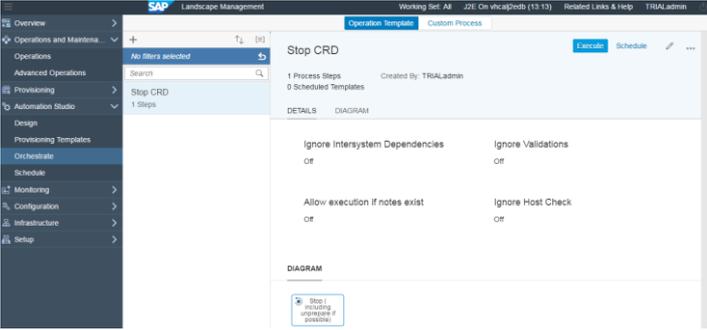
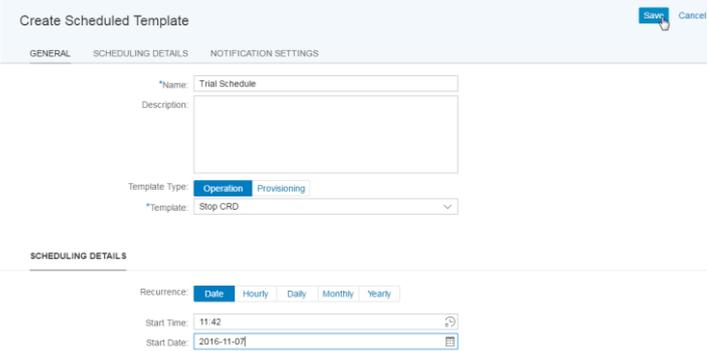
### Description

- You create an operation template and schedule it.
- You create a custom process and execute it.

## Scenario Steps

Explanation	Screenshots																																				
<h3>9.1 Operation Template</h3>																																					
<p>1. Choose <i>Operations and Maintenance &gt; Operations</i>.</p>																																					
<p>2. If not already selected change the Working Set to <i>All</i> (for more information, see chapter '4.3 Working Set').</p>																																					
<p>3. Choose  in the line <i>CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com</i></p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Characteristics</th> <th>Statuses</th> <th>Networks</th> <th>Storage Systems</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BWD: NetWeaver ABAP 7.40, sapdbhd.example.com</td> <td></td> <td></td> <td></td> <td></td> <td>4 Instances</td> <td>🔍</td> <td>■ Not running</td> <td>⌘ Prepare ...</td> </tr> <tr> <td>CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com</td> <td></td> <td></td> <td></td> <td></td> <td>2 Instances</td> <td>🔍</td> <td>🟢 Running</td> <td>🔍 Switch to State 'Not Running'</td> </tr> <tr> <td>ERD: NetWeaver ABAP 7.40, sapdbhd.example.com</td> <td></td> <td></td> <td></td> <td></td> <td>2 Instances</td> <td>🔍</td> <td>🟢 Running</td> <td>🔍 Switch to State 'Not Running' ...</td> </tr> </tbody> </table>	Name	Characteristics	Statuses	Networks	Storage Systems	Related Entities	Visualization	Status	Operations	BWD: NetWeaver ABAP 7.40, sapdbhd.example.com					4 Instances	🔍	■ Not running	⌘ Prepare ...	CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com					2 Instances	🔍	🟢 Running	🔍 Switch to State 'Not Running'	ERD: NetWeaver ABAP 7.40, sapdbhd.example.com					2 Instances	🔍	🟢 Running	🔍 Switch to State 'Not Running' ...
Name	Characteristics	Statuses	Networks	Storage Systems	Related Entities	Visualization	Status	Operations																													
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ERD: NetWeaver ABAP 7.40, sapdbhd.example.com					2 Instances	🔍	🟢 Running	🔍 Switch to State 'Not Running' ...																													

Explanation	Screenshots
<p>4. Choose <i>Stop (including unprepare if possible)</i>.</p>	
<p>5. Choose <b>...</b> in the upper right.</p>	
<p>6. Choose <i>Save as Template</i>.</p>	
<p>7. In the dialog box <i>New Template</i>, provide the following values:</p> <ul style="list-style-type: none"> <li>o Name: <b>Stop CRD</b></li> </ul> <p>8. Choose <i>OK</i>.</p>	

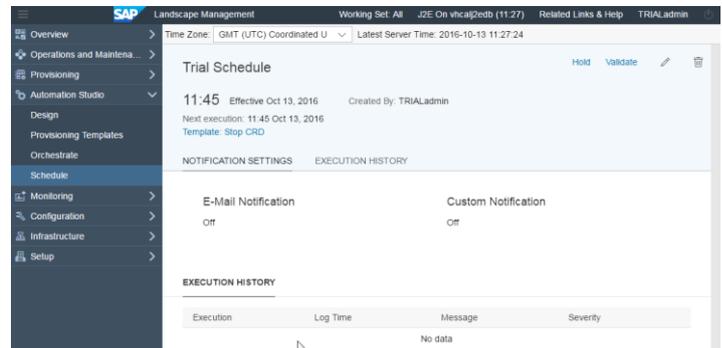
Explanation	Screenshots
<p>9. In the dialog box <i>New Template</i>, choose <i>Orchestrate</i>.</p>	
<p>Afterwards you are redirected to the screen <i>Automation Studio &gt; Orchestrate</i>.</p>	
<p>10. Choose <i>Schedule</i> in the upper right.</p> <p><b>i</b> Note</p> <p>In case <i>Schedule</i> is not displayed, select the <b>...</b> before.</p>	
<p>11. Change the following values:</p> <ul style="list-style-type: none"> <li>Name: <b>Trial Schedule</b></li> </ul> <p>12. Choose <i>Save</i>.</p> <p><b>i</b> Note</p> <p>The Template is automatically selected.</p>	

### Explanation

Afterwards the Operation Template is scheduled and you are redirected to the screen *Automation Studio > Schedule*.

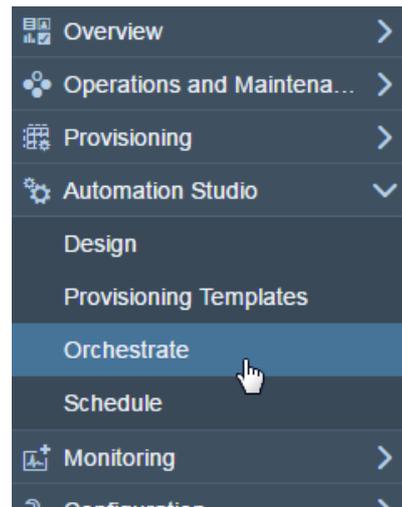
- Optional step: Wait until the scheduled time is reached and the template is executed successfully.

### Screenshots

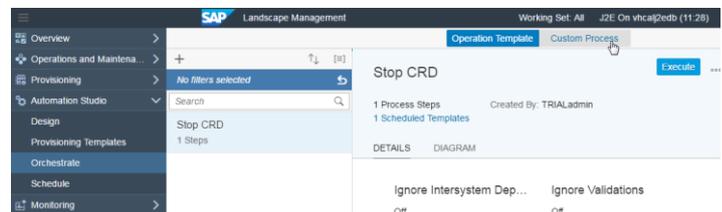


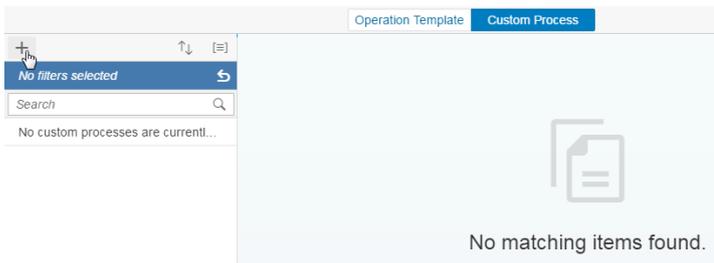
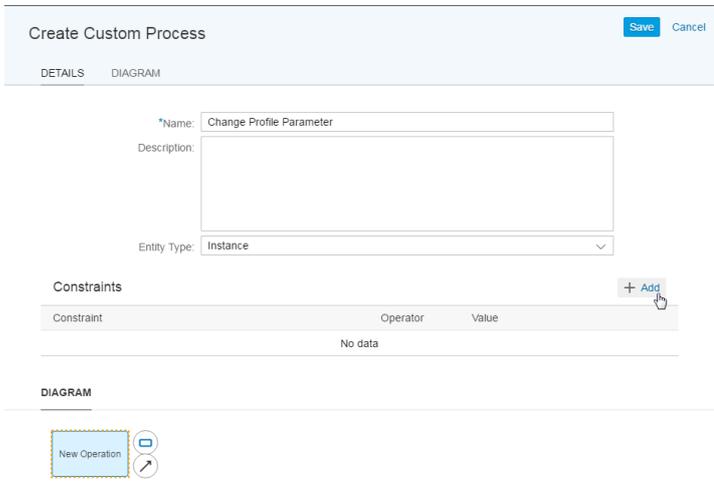
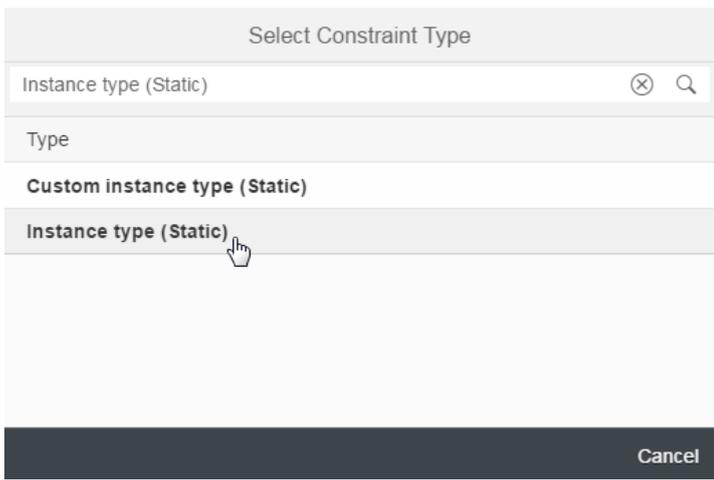
## 9.2 Custom Process

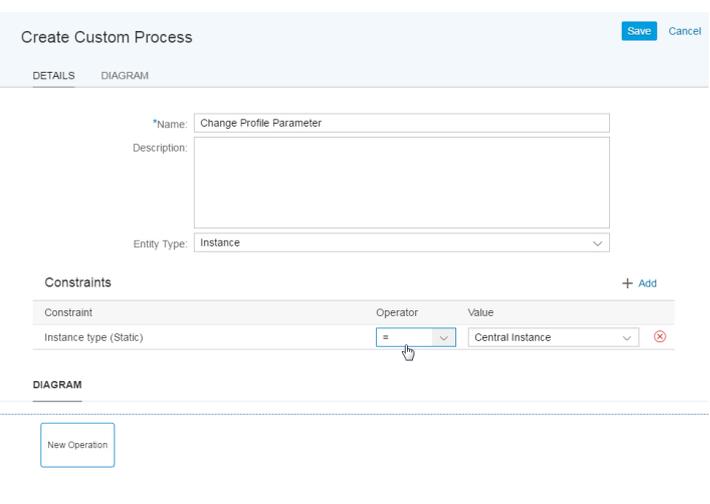
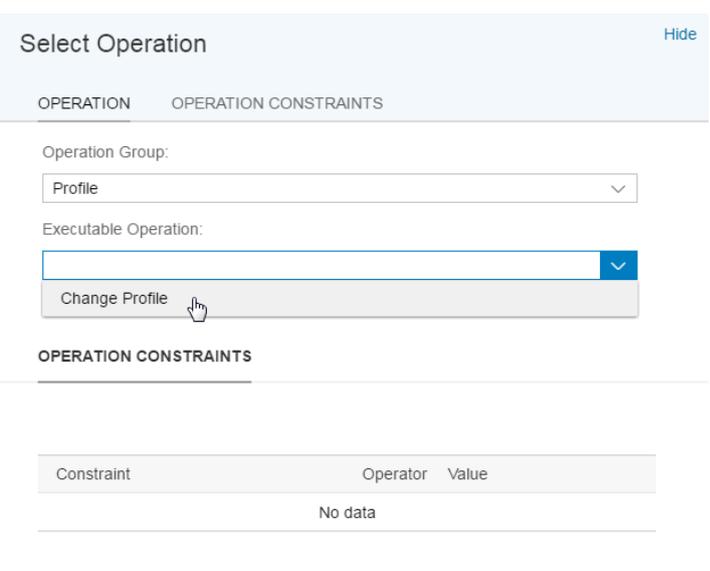
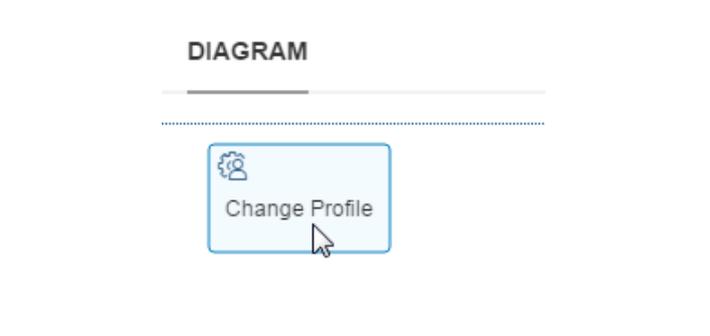
- Choose *Automation Studio > Orchestrate*.

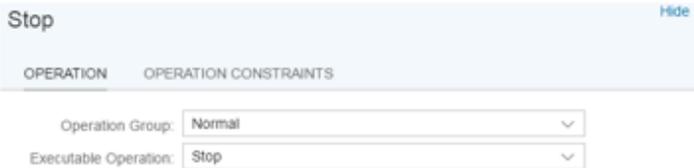


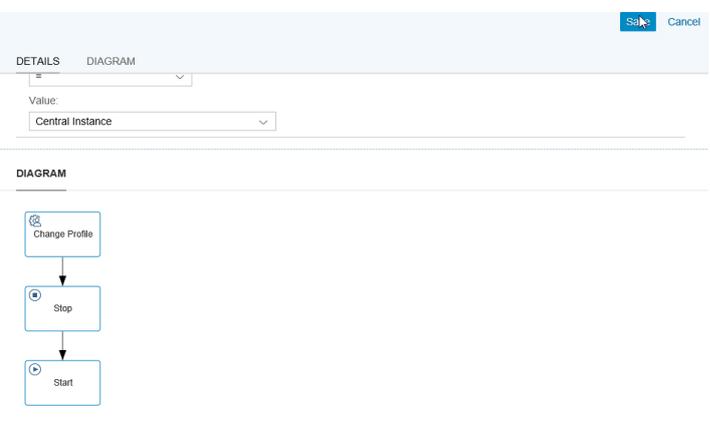
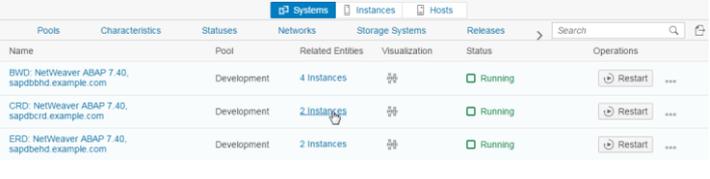
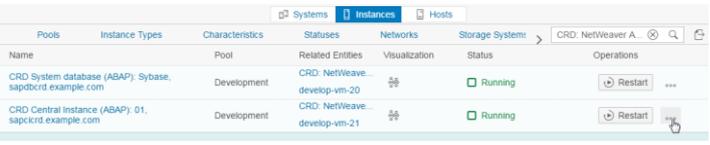
- Choose *Custom Process* in the upper middle.

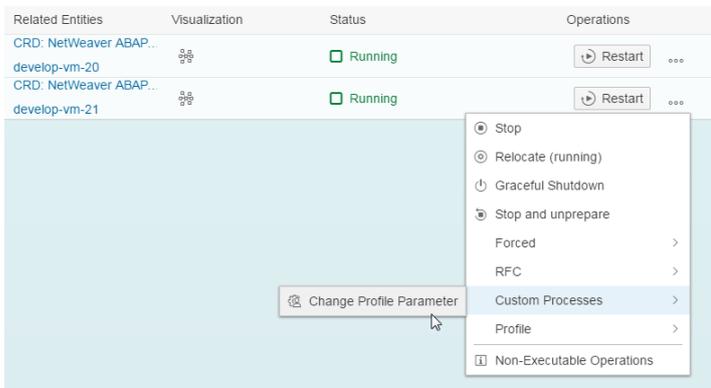
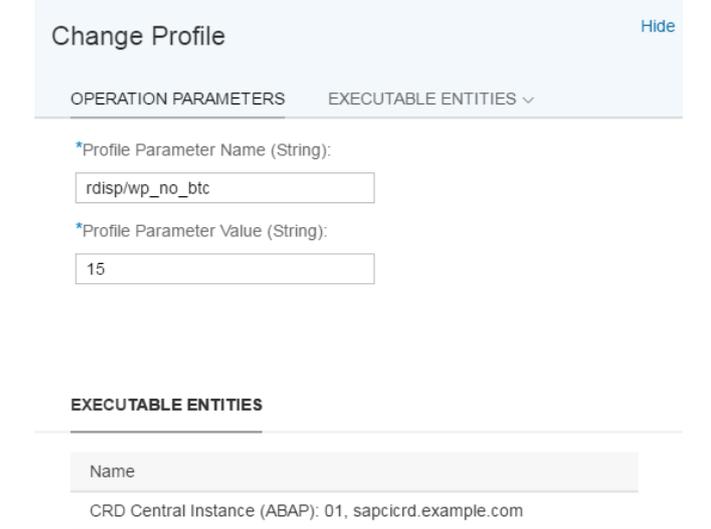


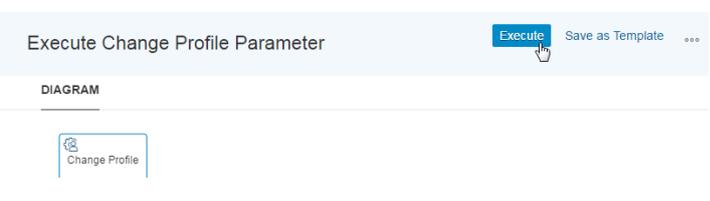
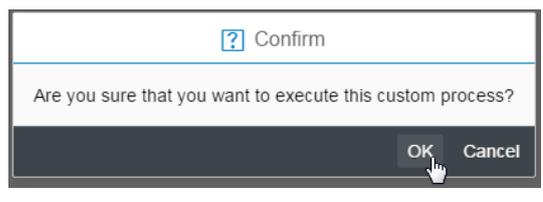
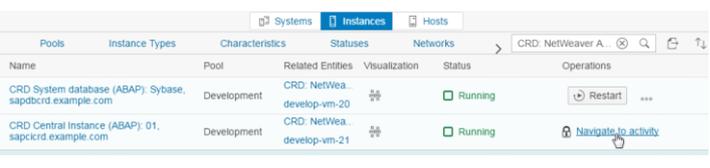
Explanation	Screenshots
<p>3. Choose the + sign to create a new Custom Process.</p>	 <p>The screenshot shows a window titled 'Operation Template' with a sub-tab 'Custom Process'. On the left, there is a list with a '+ Add' button at the top. The list contains the text 'No filters selected', a search bar, and 'No custom processes are current...'. On the right, a large area displays 'No matching items found.' with a document icon.</p>
<p>4. Change the following values:</p> <ul style="list-style-type: none"> <li>○ Name: <b>Change Profile Parameter</b></li> <li>○ Entity Type: <b>Instance</b></li> </ul> <p>5. Choose <i>Add</i>.</p>	 <p>The screenshot shows the 'Create Custom Process' dialog box. It has tabs for 'DETAILS' and 'DIAGRAM'. In the 'DETAILS' tab, there are fields for '*Name:' (filled with 'Change Profile Parameter'), 'Description:', and 'Entity Type:' (set to 'Instance'). Below these is a 'Constraints' section with a '+ Add' button and a table with columns 'Constraint', 'Operator', and 'Value'. The 'DIAGRAM' tab shows a 'New Operation' button and a diagram icon.</p>
<p>6. In the dialog box <i>Select Constraint Type</i>, search for the following value:</p> <ul style="list-style-type: none"> <li>○ Search: <b>Instance type (Static)</b></li> </ul> <p>7. Choose that line.</p>	 <p>The screenshot shows the 'Select Constraint Type' dialog box. It has a search bar at the top with 'Instance type (Static)' entered. Below the search bar, there is a list of constraint types. The first item is 'Instance type (Static)', which is highlighted and has a mouse cursor over it. At the bottom right, there is a 'Cancel' button.</p>

Explanation	Screenshots						
<p>8. Change the following values:</p> <ul style="list-style-type: none"> <li>○ Operator: =</li> <li>○ Value: <b>Central Instance</b></li> </ul>	 <p><b>Create Custom Process</b> [Save] [Cancel]</p> <p>DETAILS DIAGRAM</p> <p>*Name: Change Profile Parameter</p> <p>Description:</p> <p>Entity Type: Instance</p> <p>Constraints <span style="float: right;">+ Add</span></p> <table border="1"> <thead> <tr> <th>Constraint</th> <th>Operator</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Instance type (Static)</td> <td>=</td> <td>Central Instance</td> </tr> </tbody> </table> <p>DIAGRAM</p> <p>New Operation</p>	Constraint	Operator	Value	Instance type (Static)	=	Central Instance
Constraint	Operator	Value					
Instance type (Static)	=	Central Instance					
<p>9. Change the following values the Operation details:</p> <ul style="list-style-type: none"> <li>○ Operation Group: <b>Profile</b></li> <li>○ Executable Operation: <b>Change Profile</b></li> </ul>	 <p><b>Select Operation</b> [Hide]</p> <p>OPERATION OPERATION CONSTRAINTS</p> <p>Operation Group: Profile</p> <p>Executable Operation: Change Profile</p> <p>OPERATION CONSTRAINTS</p> <table border="1"> <thead> <tr> <th>Constraint</th> <th>Operator</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">No data</td> </tr> </tbody> </table>	Constraint	Operator	Value	No data		
Constraint	Operator	Value					
No data							
<p>10. Make sure the operation Change Profile is selected.</p>	 <p><b>DIAGRAM</b></p> <p>Change Profile</p>						

Explanation	Screenshots
<p>11. Choose the  sign to create a new operation.</p>	<p style="text-align: center;"><b>DIAGRAM</b></p> <hr/> 
<p>12. Change the following values the Operation details:</p> <ul style="list-style-type: none"> <li>○ Operation Group: <b>Normal</b></li> <li>○ Executable Operation: <b>Stop</b></li> </ul>	
<p>13. Choose the operation by clicking on it.</p> <p>14. Choose the  sign to create a new operation.</p>	
<p>15. Change the following values the Operation details:</p> <ul style="list-style-type: none"> <li>○ Operation Group: <b>Normal</b></li> <li>○ Executable Operation: <b>Start</b></li> </ul>	

Explanation	Screenshots																								
<p>16. Choose <i>Save</i>.</p>																									
<p>17. Choose <i>Operations and Maintenance &gt; Operations</i>.</p>																									
<p>18. Choose <i>2 Instances</i> in the line <i>CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com</i>.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com</td> <td>Development</td> <td>4 Instances</td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> <tr> <td>CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com</td> <td>Development</td> <td>2 Instances</td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> <tr> <td>ERD: NetWeaver ABAP 7.40, sapdbend.example.com</td> <td>Development</td> <td>2 Instances</td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com	Development	4 Instances		Running	Restart ...	CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com	Development	2 Instances		Running	Restart ...	ERD: NetWeaver ABAP 7.40, sapdbend.example.com	Development	2 Instances		Running	Restart ...
Name	Pool	Related Entities	Visualization	Status	Operations																				
BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com	Development	4 Instances		Running	Restart ...																				
CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com	Development	2 Instances		Running	Restart ...																				
ERD: NetWeaver ABAP 7.40, sapdbend.example.com	Development	2 Instances		Running	Restart ...																				
<p>19. Choose <i>...</i> in the line <i>CRD Central Instance (ABAP): 01, sapcicrd.example.com</i></p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Instance Types</th> <th>Characteristics</th> <th>Statuses</th> <th>Networks</th> <th>Storage System</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>CRD System database (ABAP): Sybase, sapdcird.example.com</td> <td>Development</td> <td>CRD: NetWeave... develop-vm-20</td> <td></td> <td></td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> <tr> <td>CRD Central Instance (ABAP): 01, sapcicrd.example.com</td> <td>Development</td> <td>CRD: NetWeave... develop-vm-21</td> <td></td> <td></td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> </tbody> </table>	Name	Instance Types	Characteristics	Statuses	Networks	Storage System	Status	Operations	CRD System database (ABAP): Sybase, sapdcird.example.com	Development	CRD: NetWeave... develop-vm-20				Running	Restart ...	CRD Central Instance (ABAP): 01, sapcicrd.example.com	Development	CRD: NetWeave... develop-vm-21				Running	Restart ...
Name	Instance Types	Characteristics	Statuses	Networks	Storage System	Status	Operations																		
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CRD Central Instance (ABAP): 01, sapcicrd.example.com	Development	CRD: NetWeave... develop-vm-21				Running	Restart ...																		

Explanation	Screenshots
<p>20. Choose <i>Custom Processes</i> &gt; <i>Change Profile Parameter</i>.</p>	 <p>The screenshot shows a table with columns: Related Entities, Visualization, Status, and Operations. Two entities are listed: 'develop-vm-20' and 'develop-vm-21', both with status 'Running'. A context menu is open over the 'Change Profile Parameter' button, showing options: Stop, Relocate (running), Graceful Shutdown, Stop and unprepare, Forced, RFC, Custom Processes (highlighted), Profile, and Non-Executable Operations.</p>
<p>21. Choose <i>Change Profile</i>.</p>	 <p>The screenshot shows the 'Execute Change Profile Parameter' workflow. It consists of three steps: 'Change Profile' (highlighted with a dashed box), 'Stop', and 'Start', connected by downward arrows.</p>
<p>22. Change the following values the Operation details:</p> <ul style="list-style-type: none"> <li>○ Profile Parameter Name (String): <b>rdisp/wp_no_btc</b></li> <li>○ Profile Parameter Value (String): <b>15</b></li> </ul> <p><b>Note</b></p> <p>This chosen profile parameter is just an example. You can use any String.</p>	 <p>The screenshot shows the 'Change Profile' configuration screen. It has tabs for 'OPERATION PARAMETERS' and 'EXECUTABLE ENTITIES'. Under 'OPERATION PARAMETERS', there are two fields: '*Profile Parameter Name (String):' with value 'rdisp/wp_no_btc' and '*Profile Parameter Value (String):' with value '15'. Under 'EXECUTABLE ENTITIES', there is a table with one entry: 'Name' is 'CRD Central Instance (ABAP): 01, sapicrd.example.com'.</p>

Explanation	Screenshots																		
<p>23. Choose <i>Execute</i>.</p>	 <p>The screenshot shows a dialog box titled "Execute Change Profile Parameter". At the top right, there are three buttons: "Execute" (highlighted with a mouse cursor), "Save as Template", and a three-dot menu icon. Below the title bar, the word "DIAGRAM" is displayed. Underneath, there is a single icon labeled "Change Profile".</p>																		
<p>24. Choose <i>OK</i>.</p>	 <p>The screenshot shows a "Confirm" dialog box with a question mark icon. The text inside reads "Are you sure that you want to execute this custom process?". At the bottom right, there are two buttons: "OK" (highlighted with a mouse cursor) and "Cancel".</p>																		
<p>The custom operation is executed. 25. Optional step: Choose <i>Navigate to activity</i>.</p>	 <p>The screenshot shows the SAP Landscape Management console interface. The "Instances" tab is selected. A table lists several instances. The row for "CRD Central Instance (ABAP): 01, sapcicrt.example.com" is highlighted, and the "Navigate to activity" button in the "Operations" column is being clicked by a mouse cursor.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Pool</th> <th>Related Entities</th> <th>Visualization</th> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td>CRD System database (ABAP): Sybase, sapdbcrt.example.com</td> <td>Development</td> <td>CRD: NetWea... develop-vm-20</td> <td></td> <td>Running</td> <td>Restart ...</td> </tr> <tr> <td>CRD Central Instance (ABAP): 01, sapcicrt.example.com</td> <td>Development</td> <td>CRD: NetWea... develop-vm-21</td> <td></td> <td>Running</td> <td>Navigate to activity</td> </tr> </tbody> </table>	Name	Pool	Related Entities	Visualization	Status	Operations	CRD System database (ABAP): Sybase, sapdbcrt.example.com	Development	CRD: NetWea... develop-vm-20		Running	Restart ...	CRD Central Instance (ABAP): 01, sapcicrt.example.com	Development	CRD: NetWea... develop-vm-21		Running	Navigate to activity
Name	Pool	Related Entities	Visualization	Status	Operations														
CRD System database (ABAP): Sybase, sapdbcrt.example.com	Development	CRD: NetWea... develop-vm-20		Running	Restart ...														
CRD Central Instance (ABAP): 01, sapcicrt.example.com	Development	CRD: NetWea... develop-vm-21		Running	Navigate to activity														

# 10 Authorization

## Scenario

In an organization several different groups need special authorizations to do their work. In this SAP Landscape Management system, the Advanced Authorization has been configured to give these groups the authorization that they require for their work.

There are several multiple users configured with different permissions to experience the mentioned differences:

- Logon ID: **TRIALadmin**
  - The initial password for this user is **Trial2016** (unless it was changed).
  - NetWeaver Group: LVM\_SUPERADMIN
  - Permission to display and operate systems of all pools and change nearly everything
  - Views: no restrictions
- Logon ID: **TRIALoperator**
  - The initial password for this user is **Trial2016** (unless it was changed).
  - NetWeaver Group: LVM\_OPERATOR
  - Permission to display and operate systems of pools Quality and Development
  - Views: Overview, Operations, Monitoring
- Logon ID: **TRIALreadonly**
  - The initial password for this user is **Trial2016** (unless it was changed).
  - NetWeaver Group: LVM\_READONLY
  - Permission to display systems of all pools
  - Views: Overview, Monitoring is visible
- Logon ID: **Administrator**
  - The initial password for this user is **<Password entered during creation of this instance>**
  - NetWeaver Group: Administrator
  - Permission of Administrator
  - Views: no restrictions

Herewith you can experience differences.

- For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_jamaent30/en/86/0c738e7a5e4e90b68700f1af37e951/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/86/0c738e7a5e4e90b68700f1af37e951/frameset.htm)

## Description

- Login with the users
  - TRIALadmin
  - TRIALoperator
  - TRIALreadonlyto experience the mentioned differences.

---

# 11 Extensibility

## Scenario

You extend the existing SAP Landscape Management operations and functionality to manage your own on SAP system landscape.

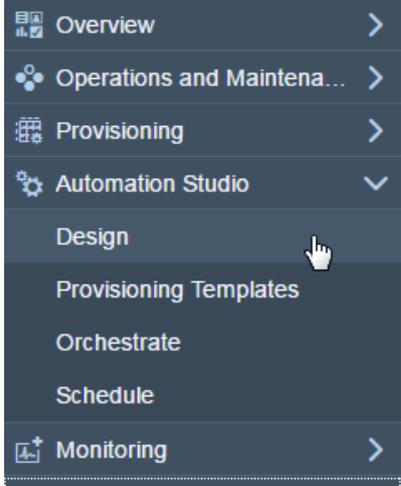
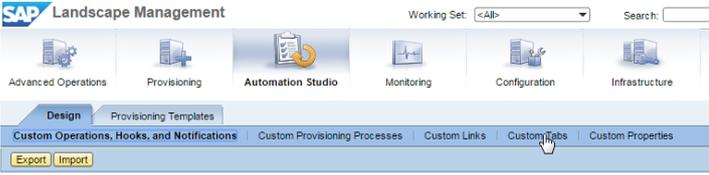
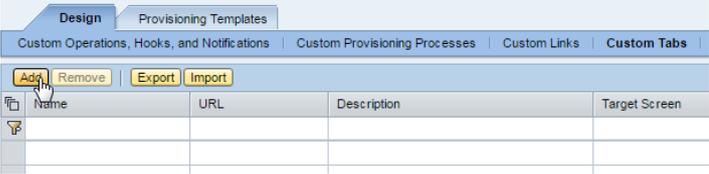
By using the features described in this section, you will verify how simple it is to create Custom Navigation Pane Entries and custom links.

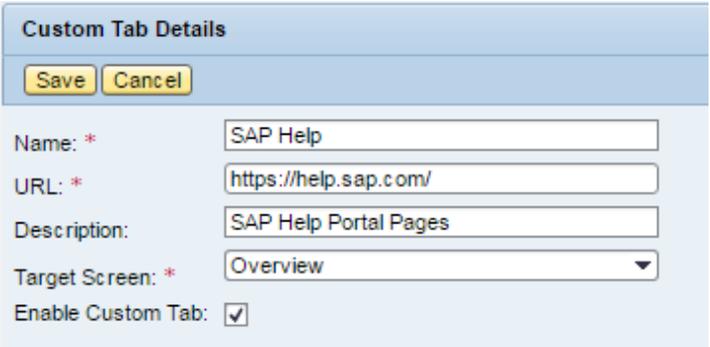
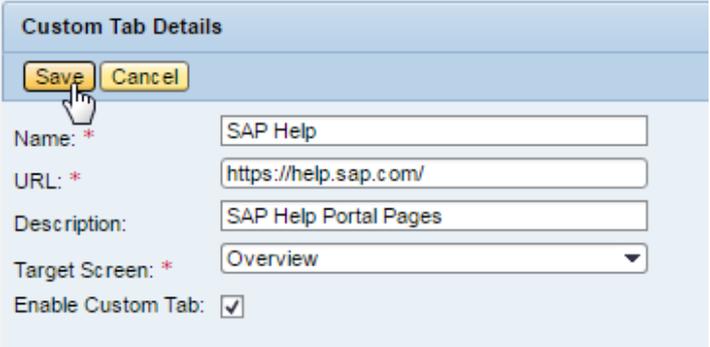
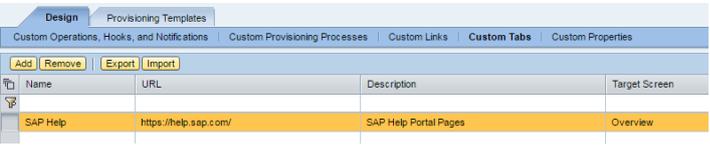
- Custom Navigation Pane Entries (Custom Tabs) help you view external applications or files within SAP Landscape Management.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_jamaent30/en/36/c226476db84f8495947c13b57f8382/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/36/c226476db84f8495947c13b57f8382/frameset.htm)
- Custom Links help you invoke/launch external applications or custom URLs from SAP Landscape Management.  
For more information, see SAP Help Portal at:  
[http://help.sap.com/static/saphelp\\_jamaent30/en/4e/03ea877b3721e8e10000000a42189e/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/4e/03ea877b3721e8e10000000a42189e/frameset.htm)

## Description

- You create Custom Navigation Pane Entries (Custom Tabs).
- You create custom links.

## Scenario Steps

Explanation	Screenshots
<h3>11.1 Custom Navigation Pane Entries (Custom Tabs)</h3>	
<p>For the following steps please ensure that you are logged in as user <b>TRIALadmin</b>.</p> <ol style="list-style-type: none"> <li>1. Choose <i>Automation Studio</i> &gt; <i>Design</i>.</li> </ol>	
<p>For the following steps please ensure that you are logged in as user <b>TRIALadmin</b>.</p> <ol style="list-style-type: none"> <li>2. Choose <i>Custom Tabs</i>.</li> </ol>	
<ol style="list-style-type: none"> <li>3. Choose <i>Add</i>.</li> </ol> <p><b>Note</b></p> <p>In case the <i>Add</i> is not selectable, please ensure that you are logged in as <b>TRIALadmin</b>.</p>	

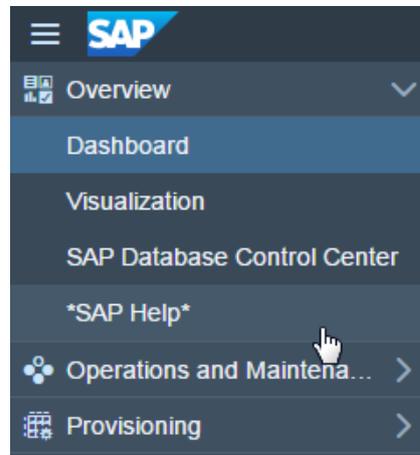
Explanation	Screenshots								
<p>You see the screen <i>Custom Tab Details</i>.</p> <p>4. Provide the following values:</p> <ul style="list-style-type: none"> <li>○ Name: <b>SAP Help</b></li> <li>○ URL: <b>https://help.sap.com/</b></li> <li>○ Description: <b>SAP Help Portal Pages</b></li> <li>○ Target Screen: <b>Overview</b></li> <li>○ Enable Custom Tab: <b>Checked</b></li> </ul> <p><b>i</b> Note</p> <p>The <i>Enable Custom Tab</i> checkbox is selected by default. If the checkbox is deselected, the custom tab is not visible in the specified target screen.</p>									
<p>5. Choose <i>Save</i>.</p> <p><b>i</b> Note</p> <p>You can create Custom tabs for any URL, which may be relevant for the daily work.</p>									
<p>You see the newly created custom tab in the table.</p> <p><b>i</b> Note</p> <p>The <i>Externally Provided</i> flag indicates that this custom tab is provided by a storage or virtualization manager and not created by the user. You cannot edit or remove externally provided custom tabs.</p>	 <table border="1" data-bbox="790 1590 1500 1668"> <thead> <tr> <th>Name</th> <th>URL</th> <th>Description</th> <th>Target Screen</th> </tr> </thead> <tbody> <tr> <td>SAP Help</td> <td>https://help.sap.com/</td> <td>SAP Help Portal Pages</td> <td>Overview</td> </tr> </tbody> </table>	Name	URL	Description	Target Screen	SAP Help	https://help.sap.com/	SAP Help Portal Pages	Overview
Name	URL	Description	Target Screen						
SAP Help	https://help.sap.com/	SAP Help Portal Pages	Overview						

Explanation

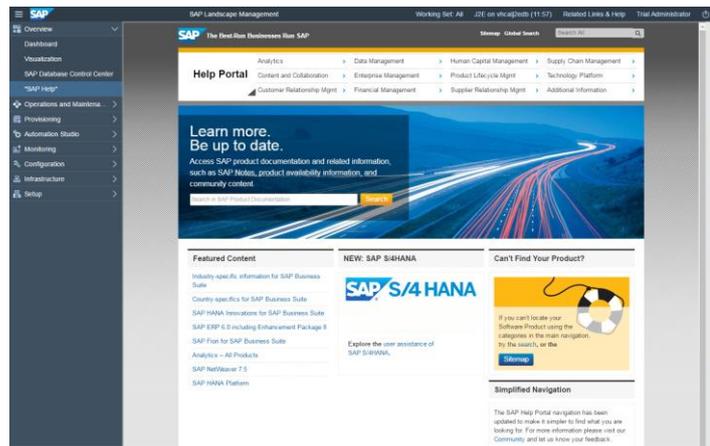
Screenshots

The changes take effect when you login the next time or when you refresh your browser session manually.

- 6. Logoff and Login -or- refresh your browser session by either pressing **F5** or choose the refresh browser button  on the title bar.
- 7. Navigate to *Overview* > *SAP Help*.



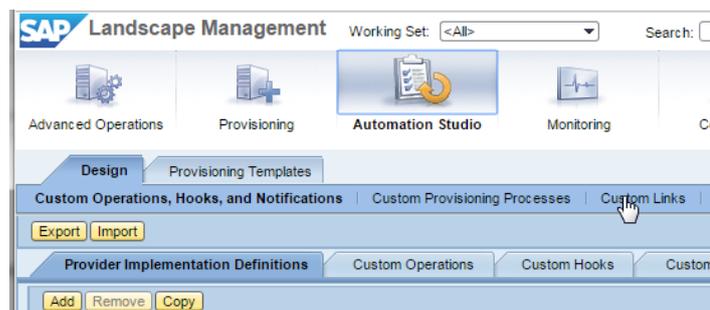
The changes take effect when you login the next time or when you refresh your browser session manually.



## 11.2 Custom Links

For the following steps please ensure that you are logged in as user **TRIALadmin**.

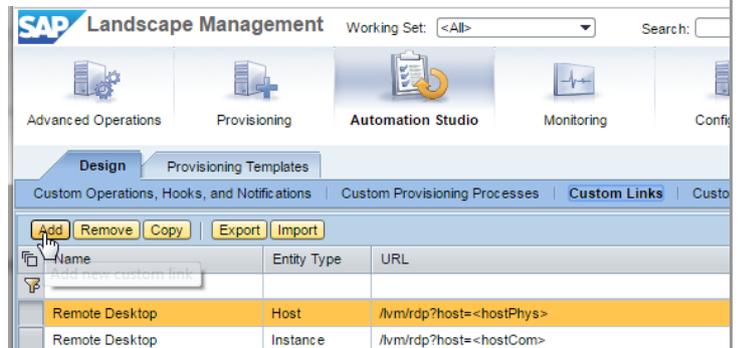
- 1. Navigate to *Automation Studio* → *Design* → *Custom Links*



Explanation

Screenshots

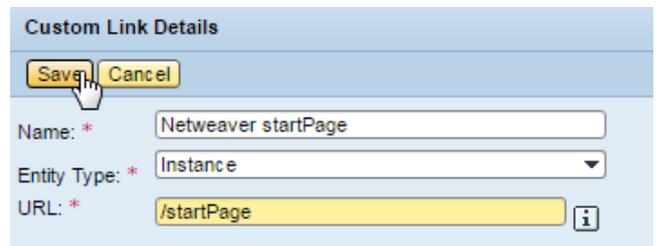
2. Choose *Add*.



3. You see the screen *Custom Link Details*.

Provide the following values:

- o Name: **NetWeaver startPage**
- o Entity Type: **Instance**
- o URL: **/startPage**



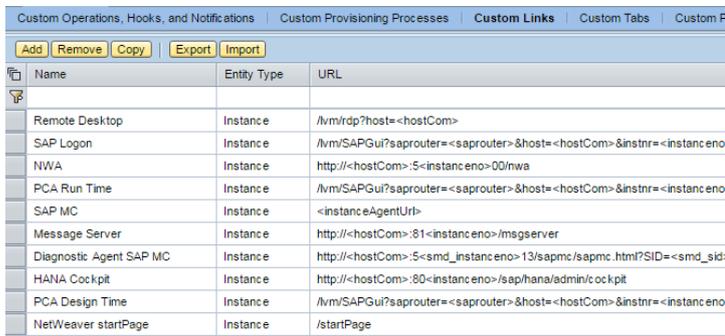
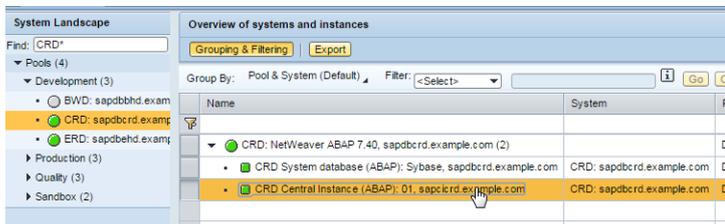
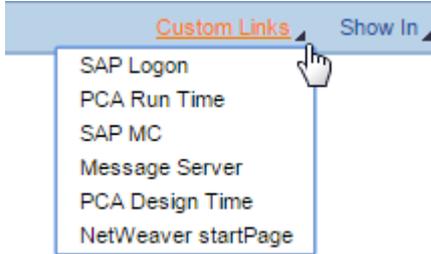
4. Choose *Save*.

**i** Note

You can create custom links for any URL, which may be relevant for the daily work.

This URL can contain a set of placeholders which are replaced by the appropriate value of the selected instance or host. Lists of placeholders is available when selecting the **i** icon.

It is possible to add constraints which define when and for which instances or hosts this link can be opened.

Explanation	Screenshots																																	
<p>Now you see the newly created custom link in the overview table.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Entity Type</th> <th>URL</th> </tr> </thead> <tbody> <tr> <td>Remote Desktop</td> <td>Instance</td> <td>/lvm/rdp?host=&lt;hostCom&gt;</td> </tr> <tr> <td>SAP Logon</td> <td>Instance</td> <td>/lvm/SAPGui?saprouter=&lt;saprouter&gt;&amp;host=&lt;hostCom&gt;&amp;instnr=&lt;instanceno&gt;</td> </tr> <tr> <td>NWA</td> <td>Instance</td> <td>http://&lt;hostCom&gt;:5&lt;instanceno&gt;00/nwa</td> </tr> <tr> <td>PCA Run Time</td> <td>Instance</td> <td>/lvm/SAPGui?saprouter=&lt;saprouter&gt;&amp;host=&lt;hostCom&gt;&amp;instnr=&lt;instanceno&gt;</td> </tr> <tr> <td>SAP MC</td> <td>Instance</td> <td>&lt;instanceAgentUrl&gt;</td> </tr> <tr> <td>Message Server</td> <td>Instance</td> <td>http://&lt;hostCom&gt;:81&lt;instanceno&gt;/msgserver</td> </tr> <tr> <td>Diagnostic Agent SAP MC</td> <td>Instance</td> <td>http://&lt;hostCom&gt;:5&lt;smd_instanceno&gt;13/sapmc/sapmc.html?SID=&lt;smd_sid&gt;</td> </tr> <tr> <td>HANA Cockpit</td> <td>Instance</td> <td>http://&lt;hostCom&gt;:80&lt;instanceno&gt;/sap/hana/admin/cockpit</td> </tr> <tr> <td>PCA Design Time</td> <td>Instance</td> <td>/lvm/SAPGui?saprouter=&lt;saprouter&gt;&amp;host=&lt;hostCom&gt;&amp;instnr=&lt;instanceno&gt;</td> </tr> <tr> <td>NetWeaver startPage</td> <td>Instance</td> <td>/startPage</td> </tr> </tbody> </table>	Name	Entity Type	URL	Remote Desktop	Instance	/lvm/rdp?host=<hostCom>	SAP Logon	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>	NWA	Instance	http://<hostCom>:5<instanceno>00/nwa	PCA Run Time	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>	SAP MC	Instance	<instanceAgentUrl>	Message Server	Instance	http://<hostCom>:81<instanceno>/msgserver	Diagnostic Agent SAP MC	Instance	http://<hostCom>:5<smd_instanceno>13/sapmc/sapmc.html?SID=<smd_sid>	HANA Cockpit	Instance	http://<hostCom>:80<instanceno>/sap/hana/admin/cockpit	PCA Design Time	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>	NetWeaver startPage	Instance	/startPage
Name	Entity Type	URL																																
Remote Desktop	Instance	/lvm/rdp?host=<hostCom>																																
SAP Logon	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>																																
NWA	Instance	http://<hostCom>:5<instanceno>00/nwa																																
PCA Run Time	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>																																
SAP MC	Instance	<instanceAgentUrl>																																
Message Server	Instance	http://<hostCom>:81<instanceno>/msgserver																																
Diagnostic Agent SAP MC	Instance	http://<hostCom>:5<smd_instanceno>13/sapmc/sapmc.html?SID=<smd_sid>																																
HANA Cockpit	Instance	http://<hostCom>:80<instanceno>/sap/hana/admin/cockpit																																
PCA Design Time	Instance	/lvm/SAPGui?saprouter=<saprouter>&host=<hostCom>&instnr=<instanceno>																																
NetWeaver startPage	Instance	/startPage																																
<ol style="list-style-type: none"> <li>Navigate to <i>Advanced Operations</i> → <i>Systems</i>.</li> <li>Select the central instance for system CRD under the <i>Development</i> pool.</li> </ol>																																		
<p>On the same screen below, you see a tab <i>Instance Details</i>.</p> <ol style="list-style-type: none"> <li>Choose <i>Custom Links</i>.</li> <li>From the dropdown menu, select the newly created custom link called <i>NetWeaver startPage</i>.</li> </ol>																																		

## Explanation

The start page of Net Weaver opens in a new window.

### Note

Perhaps you need to check the PopUp-Blocker settings in your browser to enable this page to be displayed.

## Screenshots



## SAP NetWeaver Application Server Java

### SAP Library

SAP Library contains the complete documentation for SAP NetWeaver Appl

### SAP NetWeaver Administrator

A powerful administration, configuration and monitoring tool, which bundle

### System Information

System information provides administrators with an overview of the system

### Web Services Navigator

Web Services Navigator is a tool that gives you a short overview of a speci

### User Management

The user management administration console provides administrators with

### Web Dynpro

Web Dynpro is a User Interface technology available within the SAP NetW

### SAP Management Console

The SAP Management Console (applet version) offers administrative syste

### Services Registry

The Services Registry is a UDDI based registry that contains definitions of

### Information about Product Instances

This page lists the product instances on this server (requires administrator

### Application Server Java Troubleshooting Guide

The Troubleshooting Guide provides interactive step-by-step solutions to t

### EJB Explorer

This tool allows testing, exploring and execution of the business compone

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# 12 Characteristics for Landscape Entities

## Scenario

The characteristics in SAP Landscape Management allow you to define attributes for the entities in your landscape according to the needs of your company. Based on characteristics it is possible to group instances and hosts accordingly and make the mass operations easier to handle.

You can also assign different colors to each characteristic to improve the visualization in your landscape.

For more information, see SAP Help Portal at:

[http://help.sap.com/static/saphelp\\_lamaent30/en/4e/04577f545200aae10000000a42189e/frameset.htm](http://help.sap.com/static/saphelp_lamaent30/en/4e/04577f545200aae10000000a42189e/frameset.htm)

## Description

- You create customizable characteristics.

## Scenario Steps

Explanation

Screenshot

### 12.1 Characteristics

For the following steps please ensure that you are logged in as user **TRIALAdmin**.

1. Navigate to *Configuration* → *Characteristics*

SAP Landscape Management

Working Set: <All>

Advanced Operations Provisioning Automation Studio Monitoring Configuration Infrastruc

Pools Systems Hosts **Characteristics** Relations

Characteristics Overview

Edit Export Import

Add Remove

Name	Description	Show as Column	Cardinality	Hosts
Business Area	Business area	<input type="checkbox"/>	Single	<input type="checkbox"/>
Datacenter	Datacenter Location	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple	<input checked="" type="checkbox"/>
Service Group	Service Group	<input type="checkbox"/>	Single	<input type="checkbox"/>

2. In the Characteristics Overview table choose *Edit*.

SAP Landscape Management

Working Set: <All>

Advanced Operations Provisioning Automation Studio Monitoring Configuration Infrastruc

Pools Systems Hosts **Characteristics** Relations

Characteristics Overview

Edit Export Import

Add Remove

Name	Description	Show as Column	Cardinality	Hosts
Business Area	Business area	<input type="checkbox"/>	Single	<input type="checkbox"/>
Datacenter	Datacenter Location	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple	<input checked="" type="checkbox"/>
Service Group	Service Group	<input type="checkbox"/>	Single	<input type="checkbox"/>

3. In the Characteristics Overview table choose *Add*.

Characteristics Overview

Save Cancel Export Import

Certain attributes of characteristics can only be changed if no instances or hosts are assigned.

Add Remove

Name	Description	Show as Column	Cardinality	Hosts
Business Area	Business area	<input type="checkbox"/>	Single	<input type="checkbox"/>
Datacenter	Datacenter Location	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple	<input checked="" type="checkbox"/>
Service Group	Service Group	<input type="checkbox"/>	Single	<input type="checkbox"/>

4. Provide the following values:

- o Name: **Color**
- o Description: **Color coding for pool type**

5. Select the following check boxes:

- o Show as Column
- o Hosts
- o Systems

**i** Note

Cardinality:

Single: assign entities to a single characteristic value

Multiple: assign entities to multiple characteristic values of the characteristic, choose Multiple.

6. Choose *Save*.

Characteristics Overview								
Save Cancel Export Import								
Certain attributes of characteristics can only be changed if no instances or hosts are assigned.								
Add Remove								
Name	Description	Show as Column	Cardinality	Hosts	Systems	Instances	Virtual Hosts	Virtual Host Providers
Business Area	Business area	<input type="checkbox"/>	Single	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Datacenter	Datacenter Location	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Service Group	Service Group	<input type="checkbox"/>	Single	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Color</b>	<b>Color coding for pool type</b>	<input checked="" type="checkbox"/>	Single	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now you will see the new entry in the Characteristic Overview table.

7. Choose the new entry line.

Characteristics Overview			
Edit Export Import			
Add Remove			
Name	Description	Show as Column	Cardinality
Business Area	Business area	<input type="checkbox"/>	Single
<b>Color</b>	<b>Color coding for pool type</b>	<input checked="" type="checkbox"/>	Single
Datacenter	Datacenter Location	<input type="checkbox"/>	Single
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple
Service Group	Service Group	<input type="checkbox"/>	Single

8. Choose *Edit*.

Characteristics Overview		
Edit Export Import		
Add Remove		
Name	Description	Show as Column
Business Area	Business area	<input type="checkbox"/>
<b>Color</b>	<b>Color coding for pool type</b>	<input checked="" type="checkbox"/>
Datacenter	Datacenter Location	<input type="checkbox"/>
Entity Usage	Entity usage	<input type="checkbox"/>
Service Group	Service Group	<input type="checkbox"/>

9. To enter new values, choose *Add* in the table below *Characteristic Values of Characteristic*.

**Characteristic Values of Characteristic**

Add Remove

Name	Description	Cell Color

10. Provide the following values for Development, Production and Quality pools as shown in the picture:

- Name
- Description
- Cell Color

**Characteristic Values of Characteristic**

Add Remove

Name	Description	Cell Color
DEV	Development Pool	Yellow
PRD	Production Pool	Green
QAS	Quality Pool	Orange
SND	Sandbox Pool	Purple

Rows: 4 total, 1 selected | Selected: DEV

11. Choose *Save*.

Pool Systems Hosts **Characteristics** \*SMP\*

**Characteristics Overview**

Save Cancel Export Import

Certain attributes of characteristics can only be changed if no instances or hosts are assigned.

Add Remove

Name	Description	Show as Column	Cardinality
Business Area	Business area	<input type="checkbox"/>	Single
Color	Color coding for pool type	<input checked="" type="checkbox"/>	Single
Datacenter	Datacenter Location	<input type="checkbox"/>	Single
Entity Usage	Entity usage	<input type="checkbox"/>	Multiple
Service Group	Service Group	<input type="checkbox"/>	Single

12. Select the newly created characteristic *DEV*.

13. To assign systems from the respective pools, choose *Assign*.

**Characteristic Values of Characteristic**

Add Remove

Name	Description	Cell Color
DEV	Development Pool	Yellow
PRD	Production Pool	Green
QAS	Quality Pool	Orange
SND	Sandbox Pool	Purple

Rows: 4 total, 1 selected | Selected: DEV

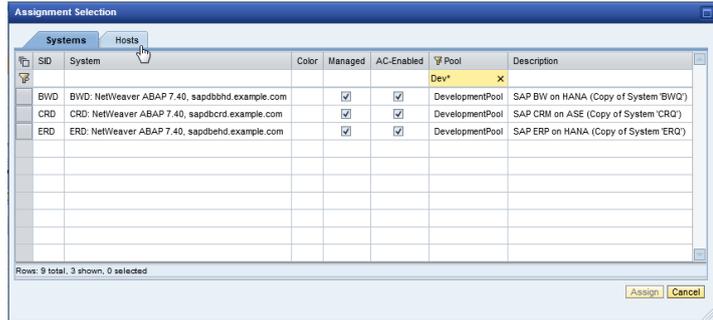
**Assigned Elements of Characteristic Value**

Assign Unassign Change Assignment

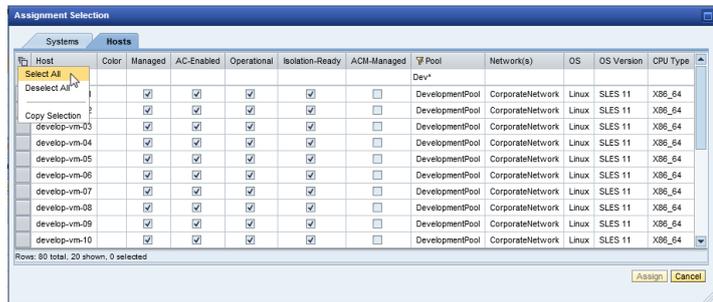
All assignments are performed implicitly and immediately; no explicit save is required.

System

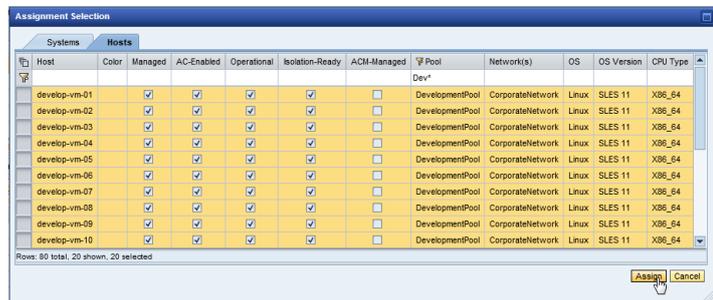
14. In the new dialog box, select all the systems in the *Development* pool (i.e. BWD, CRD and ERD) manually or via setting an appropriate filter for this pool.
15. Navigate to *Hosts* tab.



16. Select all the hosts in the *Development* pool (i.e. filter in column Pool for Development and choose *Select all*).

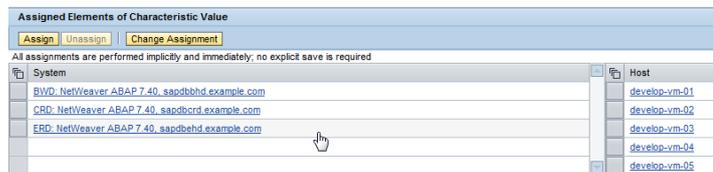


17. Choose *Assign*.



Now you see the assigned systems for the characteristic value "DEV" in the table below called "Assigned Elements of Characteristic Value".

18. Repeat steps (12) - (17) for the other two characteristic values "PRD" and "QAS" and "SND" accordingly.



19. Navigate to *Advanced Operations* → *Systems*.

20. Expand all the pools using the “Expand Node” button ▶

You see a new column with the new color coding defined for all the pools at the system level (as shown in the picture).

The screenshot displays the SAP Landscape Virtualization Management interface. The top navigation bar includes icons for Overview, Operations, Provisioning, Automation, Monitoring, Configuration, and Infrastructure. Below this, there are tabs for Systems, Hosts, Virtualization, and Storage. The main content area is divided into two panes. The left pane, titled 'System Landscape', shows a tree view with 'Pools (4)' expanded, listing DevelopmentPool (3), ProductionPool (3), QualityPool (3), and SandboxPool (2). The right pane, titled 'Overview of systems and instances', shows a table of instances with columns for Name and Color. The instances are grouped by pool and color-coded: DevelopmentPool (DEV), ProductionPool (PRD), and QualityPool (QAS). A status bar at the bottom indicates 'Pools: 4, Systems: 11, Instances: 30'.

Name	Color
DevelopmentPool (3)	
▶ BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com (4)	DEV
▶ CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com (2)	DEV
▶ ERD: NetWeaver ABAP 7.40, sapdbehd.example.com (2)	DEV
ProductionPool (3)	
▶ BWP: NetWeaver ABAP 7.40, sapdbbhp.example.com (4)	PRD
▶ CRP: NetWeaver ABAP 7.40, sapdbcrp.example.com (3)	PRD
▶ ERP: NetWeaver ABAP 7.40, sapdbehp.example.com (3)	PRD
QualityPool (3)	
▶ BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com (4)	QAS

---

# 13 Personalize User Interface

## Scenario

Personalization helps you adjusting basic settings in the SAP Landscape Management user interface according to your preferences.

For more information, see SAP Help Portal at:

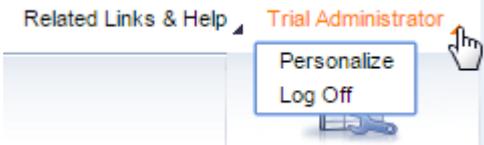
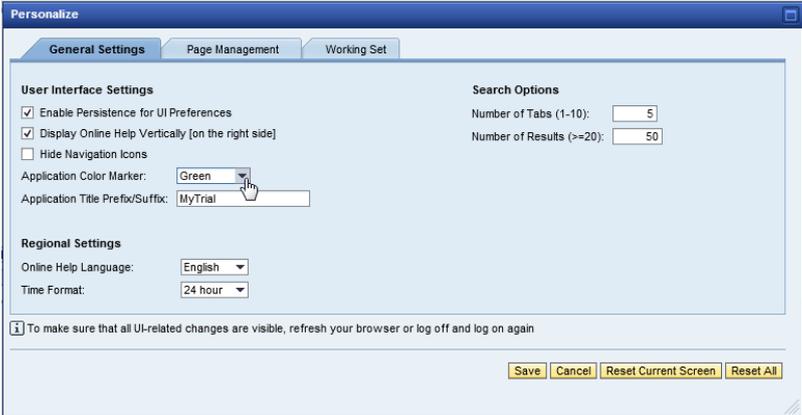
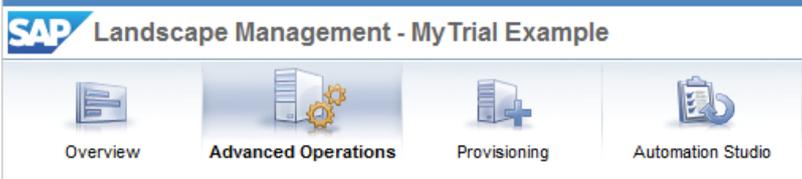
[http://help.sap.com/static/saphelp\\_jamaent30/en/7c/66fc0614d74c3b9383d69e6e251f9d/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/7c/66fc0614d74c3b9383d69e6e251f9d/frameset.htm)

[http://help.sap.com/static/saphelp\\_jamaent30/en/b5/03e8c76b85400991466099df84739d/frameset.htm](http://help.sap.com/static/saphelp_jamaent30/en/b5/03e8c76b85400991466099df84739d/frameset.htm)

## Description

- You personalize the user interface.

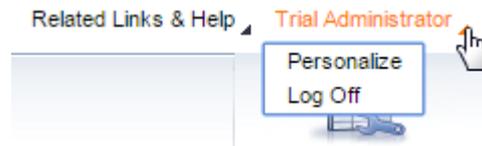
## Scenario Steps

Explanation	Screenshot
<h3>13.1 Personalize - General Settings</h3>	
<p>Continue on the screen where you ended chapter 12.1 Characteristics.</p> <ol style="list-style-type: none"> <li>In the Main menu in the top-right corner of the screen, choose <i>Trial Administrator</i> → <i>Personalize</i>.</li> </ol>	
<p>In the appearing dialog box you see several possible settings.</p> <ol style="list-style-type: none"> <li>Select on the <i>General Settings</i> tab</li> <li>Change the <i>Application Color Marker</i> to another color (eg. Blue).</li> <li>Change the <i>Application Title Prefix/Suffix</i> (eg. MyTrial Example).</li> <li>To save your settings, choose <i>Save</i>.</li> </ol>	
<p>The Main screen is updated based on your values.</p>	

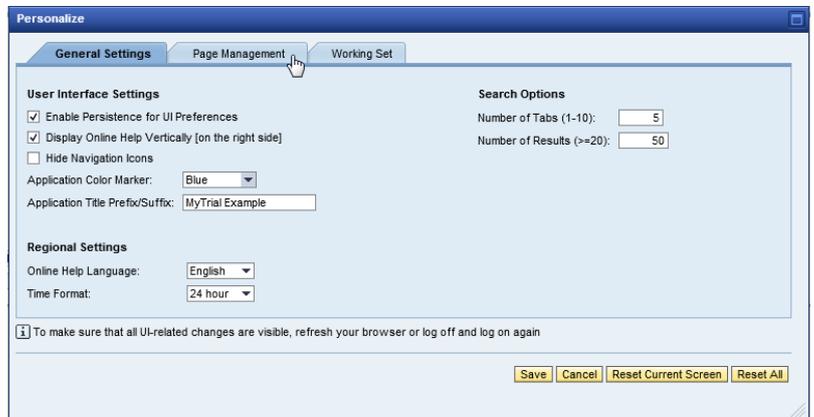
## 13.2 Personalize - Page Management

Continue on the screen where you ended chapter 13.1 Personalize - General Settings.

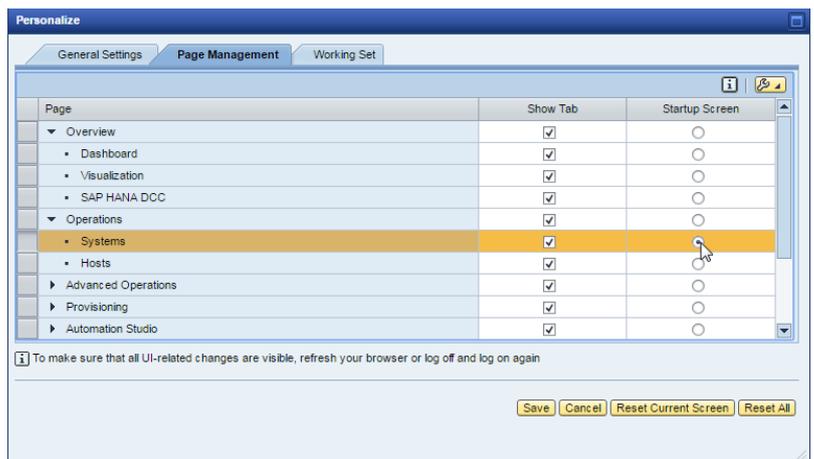
1. In the Main menu in the top-right corner of the screen, choose *Trial Administrator* → *Personalize*.



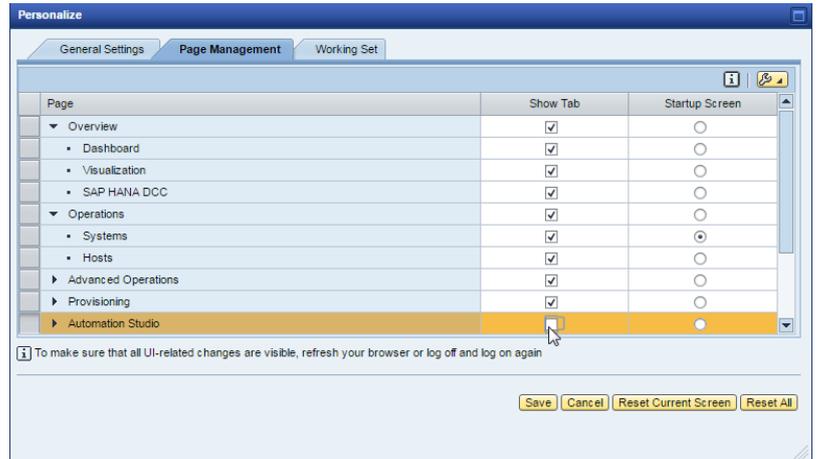
2. Navigate to *Page Management* tab.



3. Expand the node for the *Operations* entry.
4. Select *Systems*.
5. Select the radio button *Startup Screen* for the *Systems* entry.

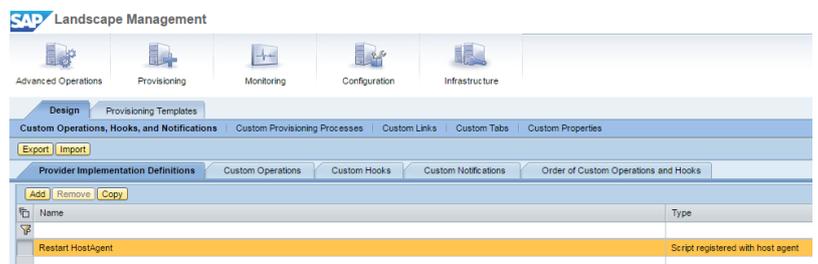


6. Select *Automation Studio*.
7. Deselect the checkbox *Show Tab*.
8. To save your settings, choose *Save*.



9. Refresh your browser session by pressing **F5** or use the refresh browser button  on the title bar for changes to take effect.

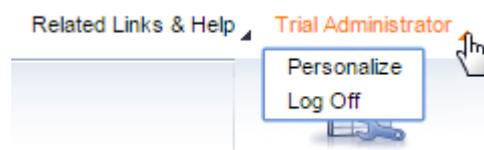
You will notice that the *Systems* tab under *Operations* is now your startup screen and the *Automation* tab from the main menu disappeared.



## 13.3 Personalize - Working Set

Continue on the screen where you ended chapter 13.2 Personalize - Page Management.

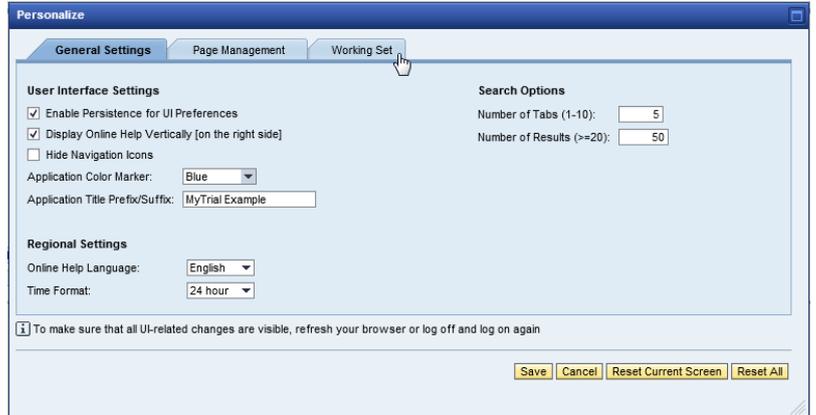
1. In the Main menu in the top-right corner of the screen, choose *Trial Administrator* → *Personalize*.



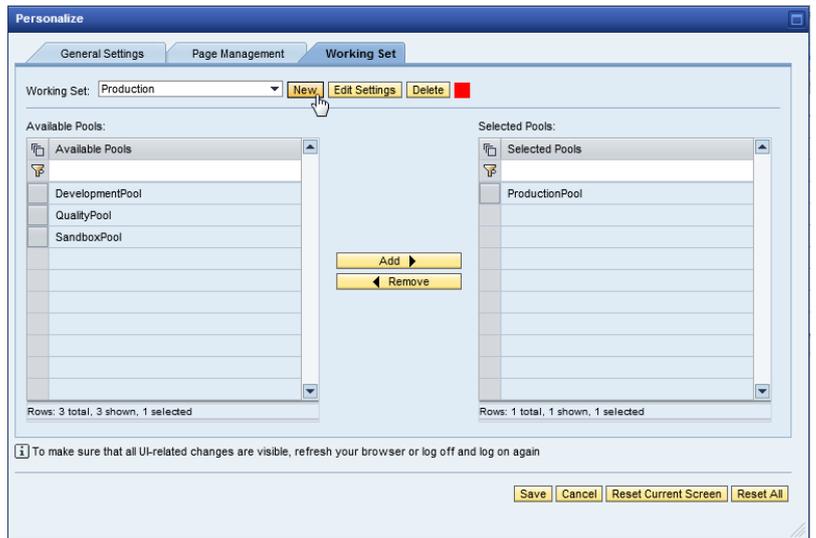
2. Navigate to *Working Set* tab.  
You can now modify the existing working set or create a new one.

**Note**

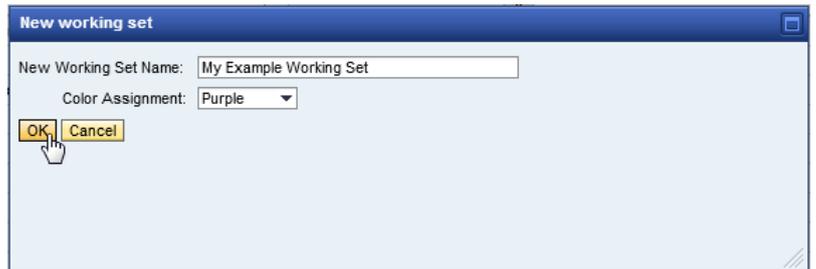
Only the pool(s) available for the user logged on are displayed.



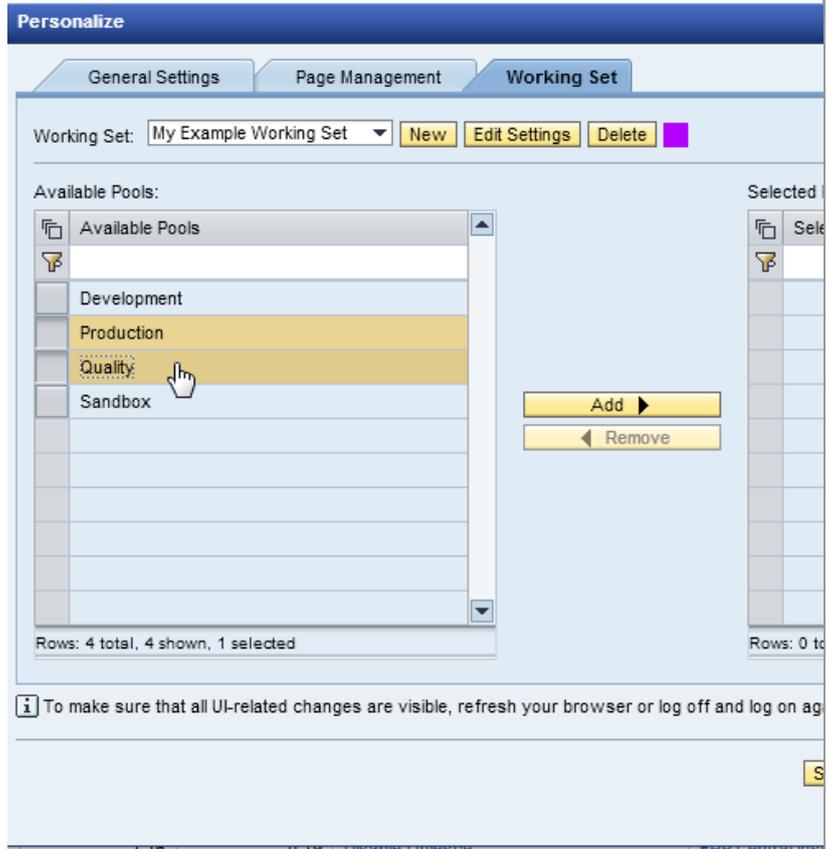
3. To create a new working set, choose *New*.



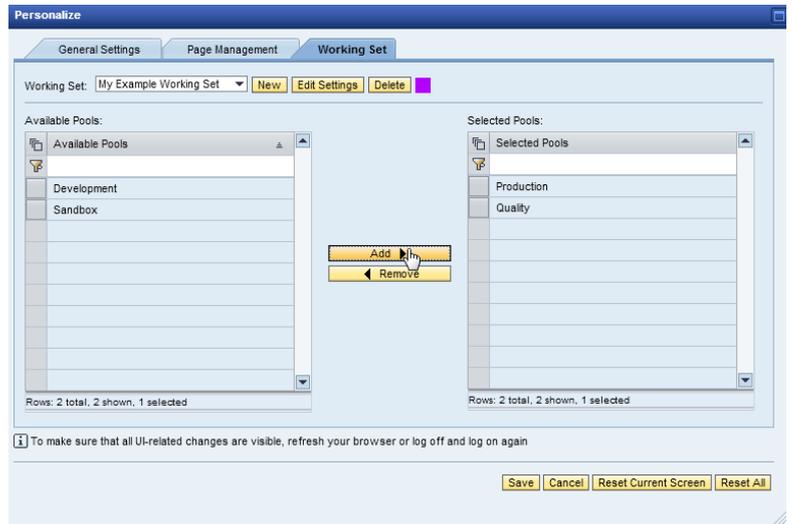
4. Enter a name for the new working set.  
5. Choose a Color Assignment.  
6. Choose *OK*.



7. Select one or more lines in the Available Pools table
8. Choose *Add*.



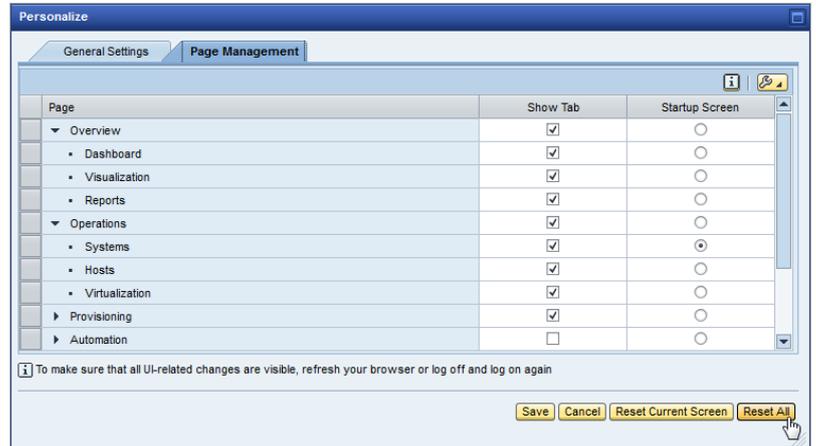
9. To save your settings, choose *Save*.



## 13.4 Reset Personalization [optional]

Optional step: If you like to reset the UI preferences, do the following:

1. In the Main menu in the top-right corner of the screen, choose *Trial Administrator* → *Personalize*.
2. Navigate to *Page Management* tab.
3. Choose *Reset All*.



4. To confirm your changes, choose *OK*.
5. Refresh your browser session by pressing **F5** for changes to take effect.



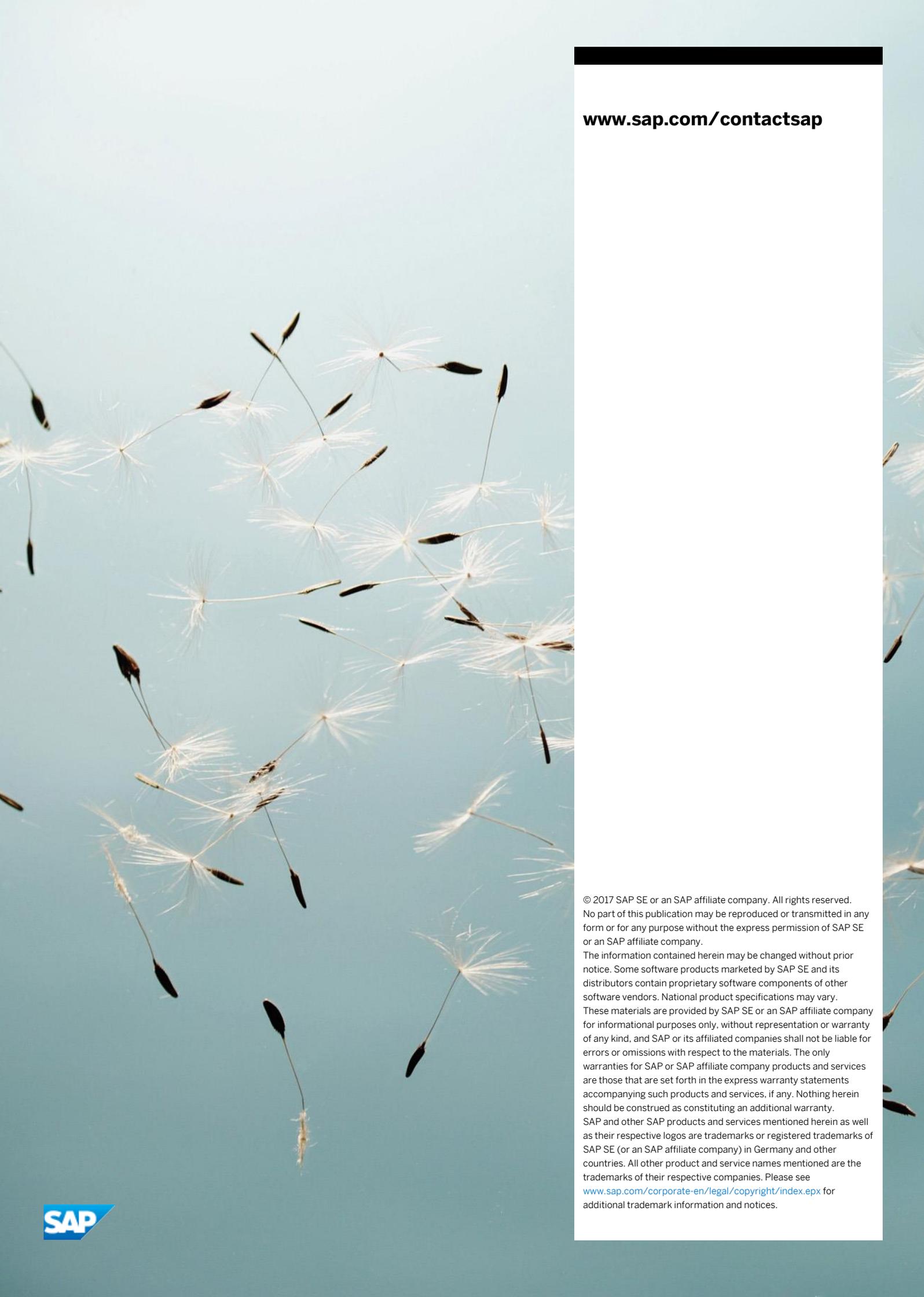
---

## 14 Feedback

Questions, problems and feedback can be sent via a customer message on component BC-VCM-VAP

In addition there is the Troubleshooting Guide:

<https://wiki.scn.sap.com/wiki/display/TechTSG/%28LVM%29+SAP+Landscape+Management>



[www.sap.com/contactsap](http://www.sap.com/contactsap)

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