

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.
Example	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.
Example	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: <ul style="list-style-type: none">- 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

Table of Contents

1	General Overview.....	6
2	Before you Start	7
3	Restrictions and Limitations	9
3.1	Important Disclaimers on Legal Aspects	9
4	Overview	10
4.1	Logon	11
4.2	Dashboards	11
4.3	Working Set	13
4.4	Visualization	15
5	Operations.....	18
5.1	Performing Operations on Systems	19
5.2	Performing Operations on Single Instances	23
6	Provisioning	26
6.1	Copy System.....	27
6.2	System Clone (Synchronized clone)	31
6.3	System Refresh (Storage based).....	35
6.4	Refresh System (Restore based).....	39
6.5	Destroy System	43
6.6	Provisioning Templates	45
7	SAP HANA Near Zero Downtime Takeover	48
7.1	SAP HANA NZDM Takeover	49
7.2	SAP HANA Failback	51
8	SAP HANA Near Zero Downtime Maintenance (nZDM)	53
8.1	Configure System Replication	54
8.2	SAP HANA Near Zero Downtime Maintenance	57
8.3	SAP HANA Near Zero Downtime Maintenance on Primary Tier	60
9	Automation Studio.....	63
9.1	Operation Template	64
9.2	Custom Process	67
10	Authorization	74
11	Extensibility	75
11.1	Custom Navigation Pane Entries (Custom Tabs).....	76
11.2	Custom Links	78

12	Characteristics for Landscape Entities	82
12.1	Characteristics.....	83
13	Personalize User Interface	88
13.1	Personalize - General Settings	89
13.2	Personalize - Page Management.....	90
13.3	Personalize - Working Set	91
13.4	Reset Personalization [optional]	94
14	Feedback.....	95

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

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

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.

4 Overview

Scenario


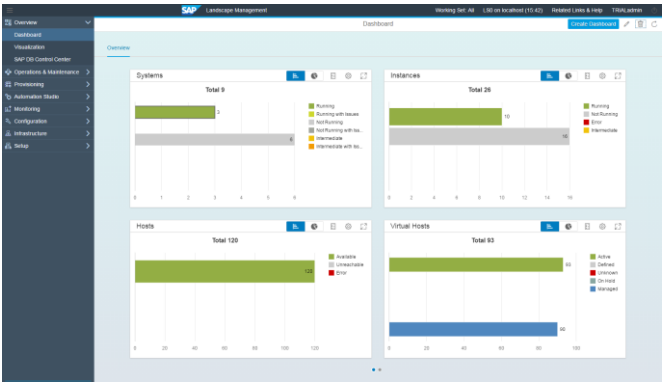

You want to get an overview about the current system landscape and its status. Therefore you logon to your SAP Landscape Management system and check the standard dashboards to get a first impression about the status of your system landscape. Afterwards you learn how to create customizable dashboards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

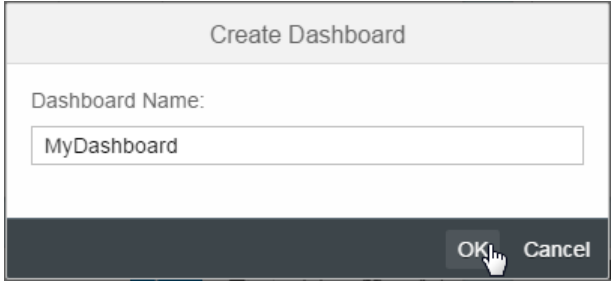

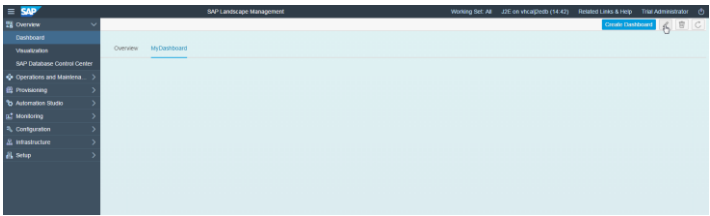

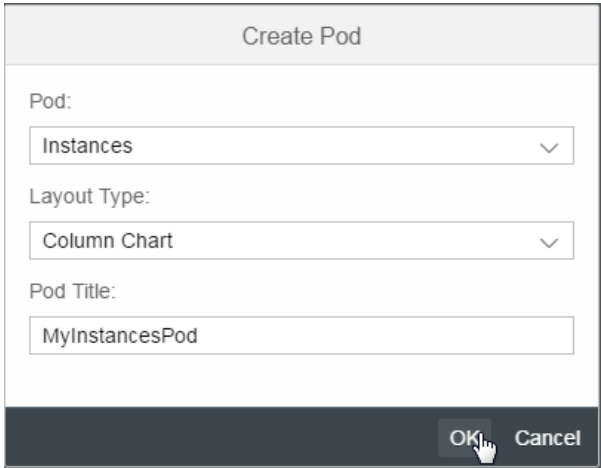
- Dashboards provide a real-time overview of the current landscape state, show running operations, and display diagnostic messages.
For more information, see SAP Help Portal at:
http://help.sap.com/static/saphelp_lamaent30/en/0c/584cebf2043cfb3a35095207d6750/frameset.htm
- Landscape Visualization provides 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

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

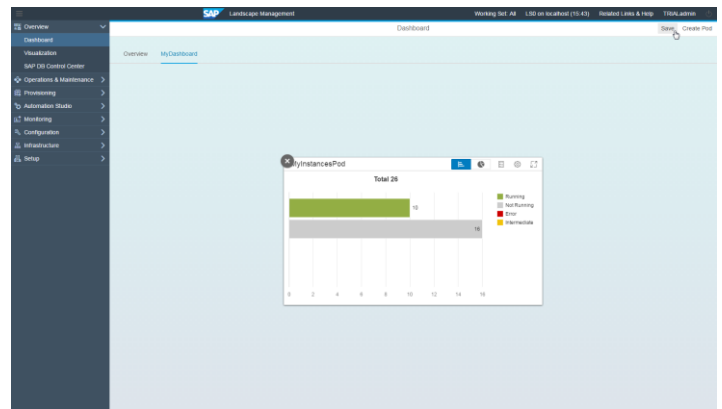
Explanation	Screenshots
<h3>4.1 Logon</h3>	
<ol style="list-style-type: none"> 1. Open a browser and connect to <a href="http://<IPAddressOfYourInstance>:50000/lama">http://<IPAddressOfYourInstance>:50000/lama 2. Enter logon credentials: User: TRIALadmin Password: Trial2016 3. Choose <i>Log On</i>. 	
<h3>4.2 Dashboards</h3>	
<p>After logon you are redirected to the standard startup screen <i>Overview</i> → <i>Dashboard</i>.</p> <p>Note</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"> 1. To create a new dashboard, choose <i>Create Dashboard</i> in the upper right of the window. 	

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

Explanation

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

Screenshots



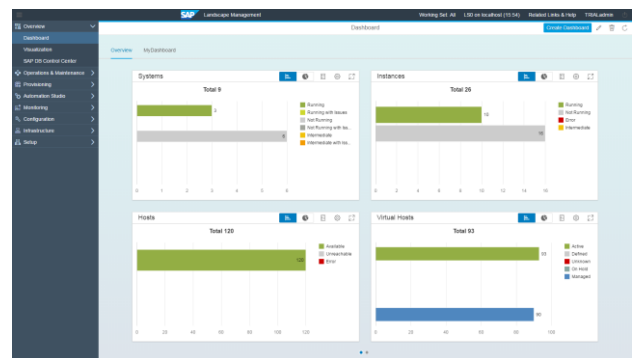
Now you see the information that the dashboard was saved.

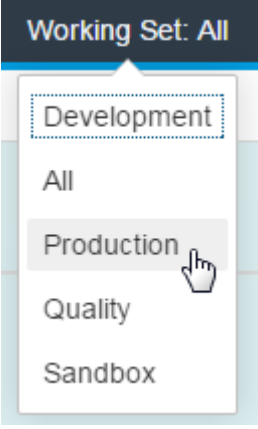
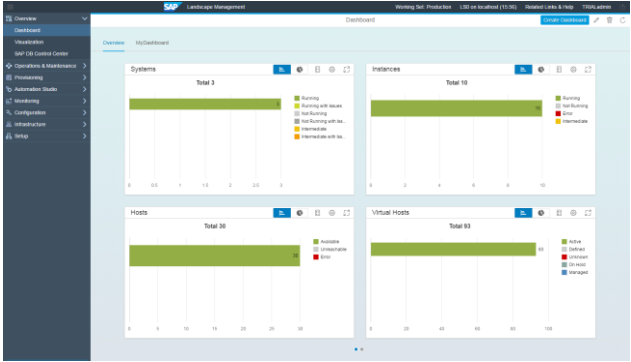
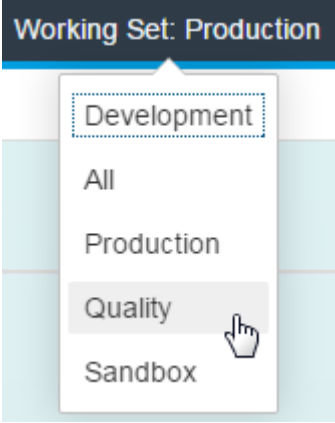
The current dashboard is updated successfully.

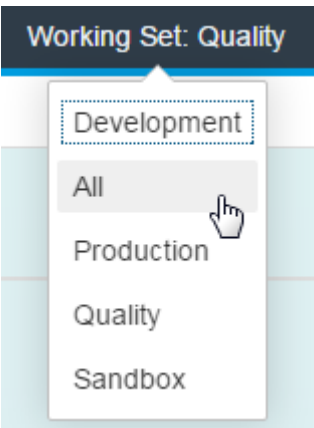
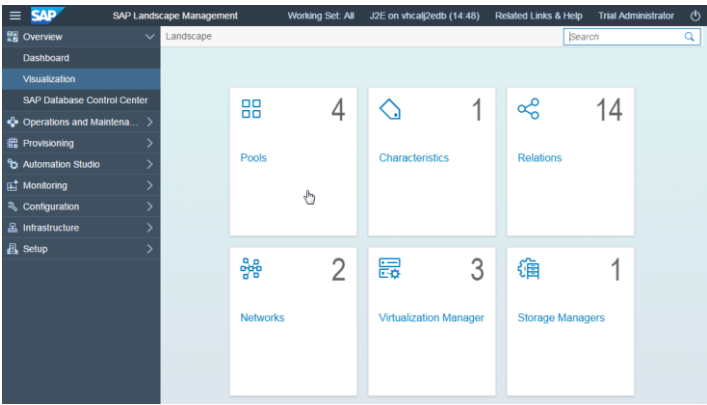
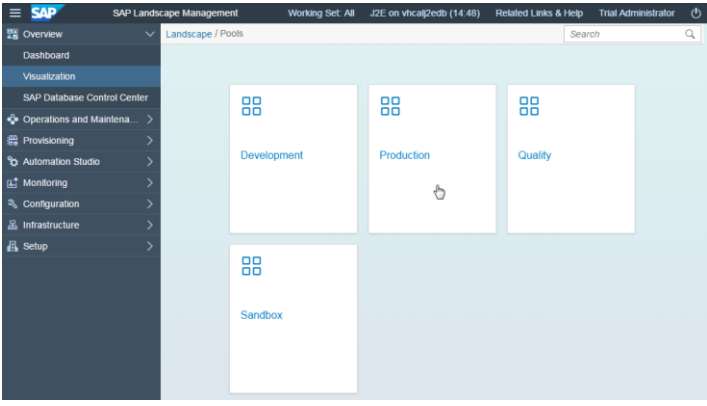
4.3 Working Set

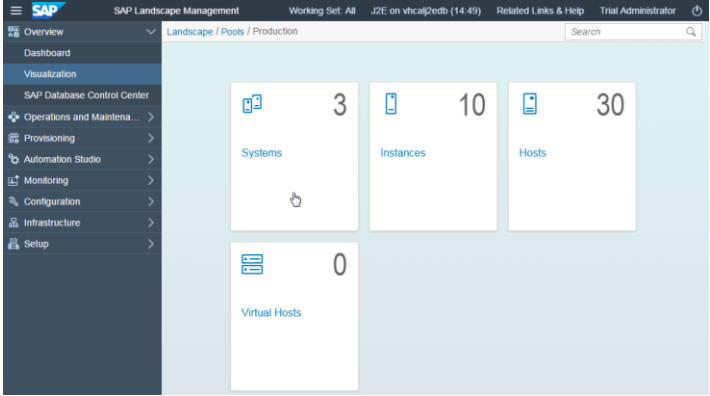
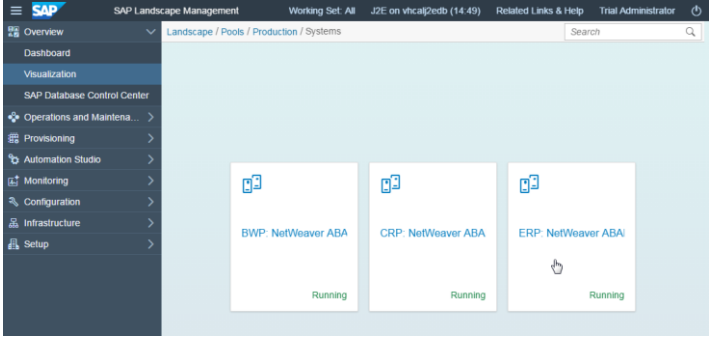
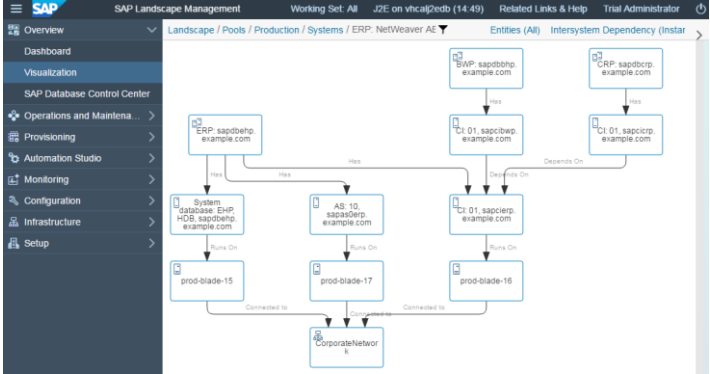
The Working Set is a possibility to personalize the personal view dependent on the needs.

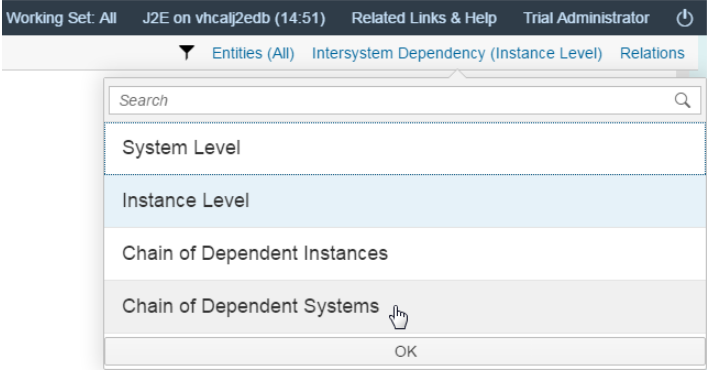
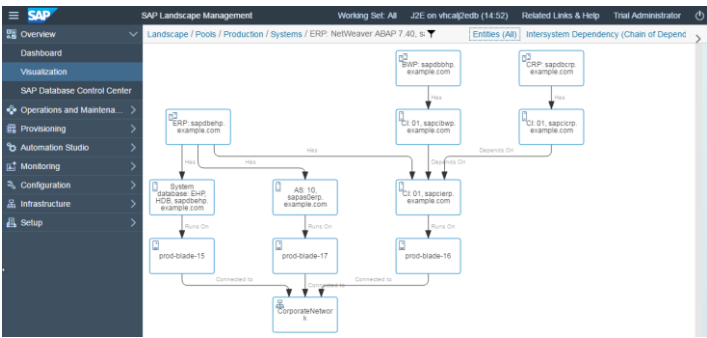
- Navigate to **Overview** → **Dashboard** and select the **Overview** dashboard



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>Note 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>	
<h2>4.4 Visualization</h2>	
<p>1. Navigate to <i>Overview</i> > <i>Visualization</i>.</p> <p>2. Select <i>Pools</i>.</p>	
<p>3. Move your mouse pointer over the <i>Production</i> tile.</p> <p>A hover menu displays a summary of the details.</p> <p>4. Click on the <i>Production</i> pool tile to display the details.</p> <p>Note</p> <p>If not all four tiles are displayed, please ensure that the Working Set was set to All (for more</p>	

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

Explanation	Screenshots
<p>9. Select <i>Intersystem Dependency (Instance Level)</i>.</p> <p>10. Select <i>Chain of Dependent Systems</i>.</p>	 <p>The screenshot shows the SAP Landscape Management (SLM) interface. The top navigation bar includes 'Working Set: All', 'J2E on vhcslj2edb (14:51)', 'Related Links & Help', and 'Trial Administrator'. The main menu on the left has 'Entities (All)', 'Intersystem Dependency (Instance Level)', and 'Relations'. The 'Intersystem Dependency (Instance Level)' view is active, showing a search bar and a list of options: 'System Level', 'Instance Level', 'Chain of Dependent Instances', and 'Chain of Dependent Systems'. The 'Chain of Dependent Systems' option is highlighted, and an 'OK' button is visible at the bottom right.</p>
<p>Now you see a graphical representation that BWP and CRP dependent on the system ERP.</p>	 <p>The screenshot shows the SAP Landscape Management (SLM) interface with a graphical representation of system dependencies. The left sidebar shows the 'Overview' section. The main area displays a dependency graph with nodes representing different systems and their relationships. The nodes include 'ERP: sapdbwp.example.com', 'AS: 10: sapdbwp.example.com', 'CRP: sapdbwp.example.com', 'prod-blade-15', 'prod-blade-17', and 'prod-blade-16'. The graph shows dependencies between these systems, with arrows indicating the direction of the dependencies. The 'ERP' system is at the top, and it depends on the 'AS' and 'CRP' systems. The 'AS' and 'CRP' systems depend on the 'prod-blade' systems. The 'prod-blade' systems are connected to the 'CorporateNetwork' at the bottom.</p>

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.

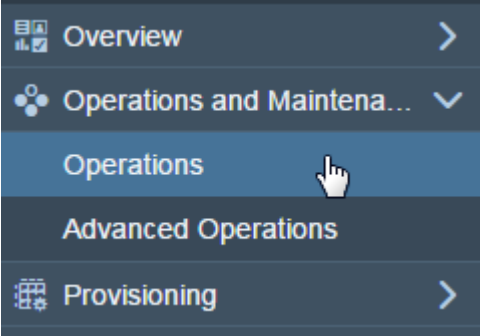
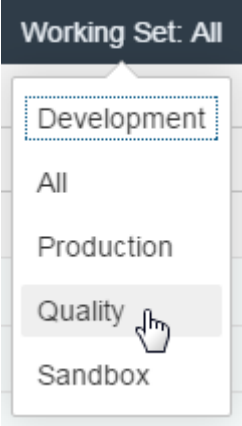
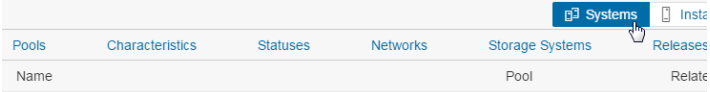

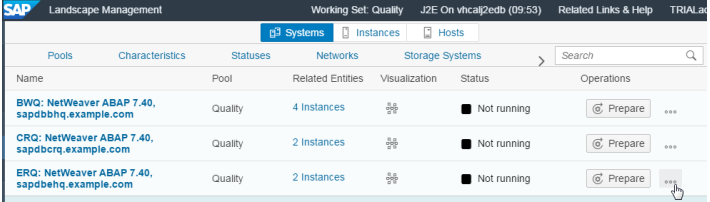
For more information, see SAP Help Portal at:

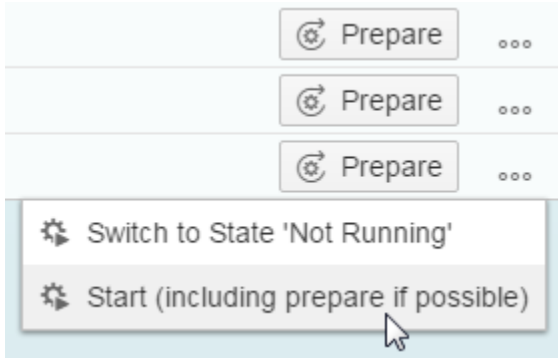

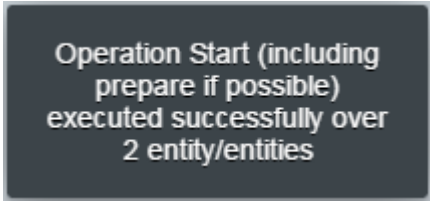
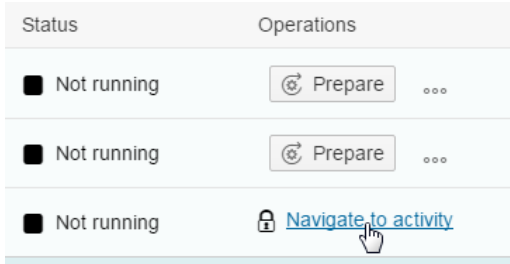
http://help.sap.com/static/saphelp_lamaent30/en/4e/01c00d2cc95639e10000000a42189e/frameset.htm

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>	
1. Choose <i>Operations and Maintenance > Operations</i> .	
2. If not already selected change the Working Set to <i>Quality</i> (for more information, see chapter '4.3 Working Set').	
3. If not already selected choose Systems.	
4. Choose  in the line <i>ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com</i>	

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>Note</p> <p>In case you cannot see this button choose ... 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

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.

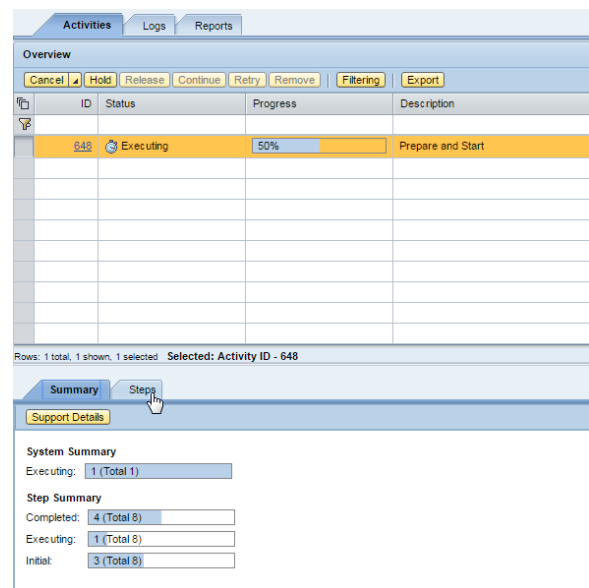
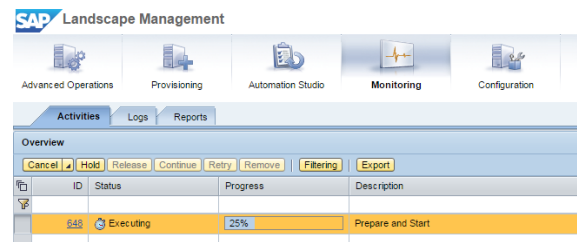
- Wait until the system is started and the activity is in Status [Completed](#).

To monitor the progress of operations steps select the table [Steps](#).

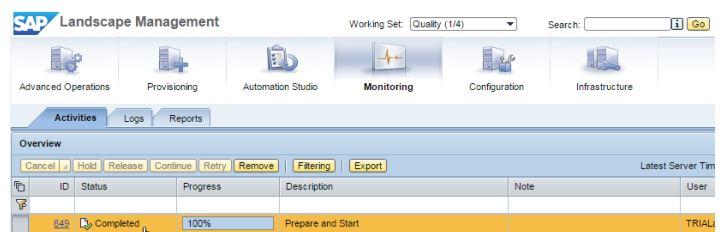
Now you see the progress under the column [Status](#).

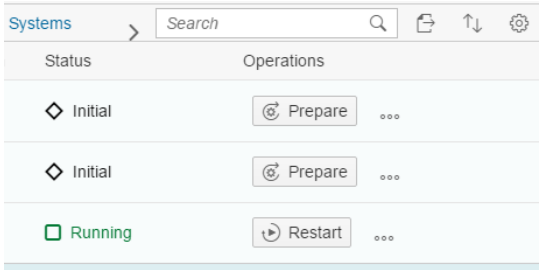
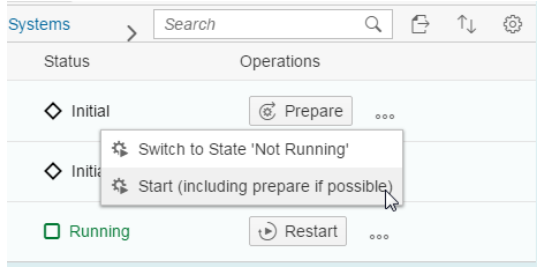
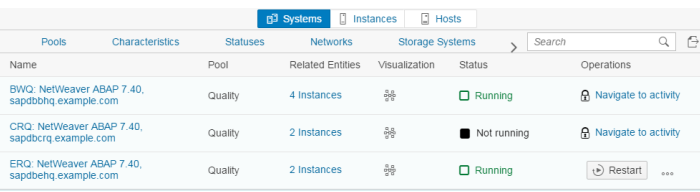
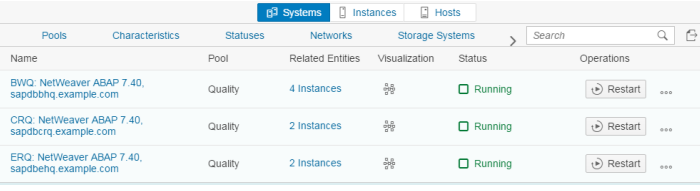
When activity is in status [Completed](#) switch back to the other browser tab/window.

Screenshots



Summary Steps									
Support Details									
Completed									
ID	Successor IDs	Predecessor IDs	Hook for ID	Status	Step Time	Duration	Operation	Instance/Virtual Element	
1	3,7,8			Completed	0:14	1:00	Prepare	EHO_Central_Instance (ABAP) 01_10	
2	4,5,6			Completed	0:14	1:00	Prepare	EHO_System_database (ABAP) 01_10	
3	7,8	1 1		Completed	1:14	0:39	Create Firewall Rules	EHO_Central_Instance (ABAP) 01_10	
4	5,6	2 2		Completed	1:15	0:39	Create Firewall Rules	EHO_System_database (ABAP) 01_10	
5	6	2,4 6		Executing	1:59	0:27	Create Firewall Rules	EHO_System_database (ABAP) 01_10	
6	7,8	2,4,5		Scheduled			Start	EHO_System_database (ABAP) 01_10	
7	8	1,3,6 8		Scheduled			Create Firewall Rules	EHO_Central_Instance (ABAP) 01_10	
8		1,3,6,7		Scheduled			Start	EHO_Central_Instance (ABAP) 01_10	

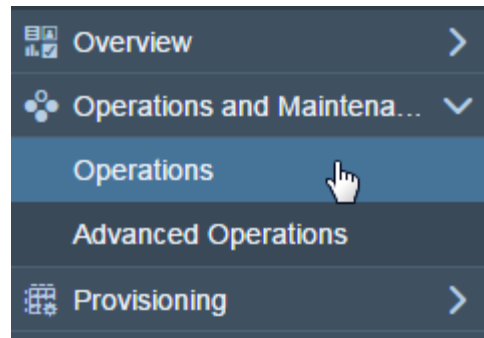


Explanation	Screenshots
SAP system ERQ is now in status <i>Running</i> .	
9. Start the SAP systems <i>BWQ: NetWeaver ABAP 7.40, sapdbbhq.example.com</i> and <i>CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com</i> the in the same way.	
The Systems <i>BWQ</i> and <i>CRQ</i> are starting now. Their status is changing from "Not Running" to "Intermediate" and afterwards to "Running".	
The Systems are finally in status Running.	

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*

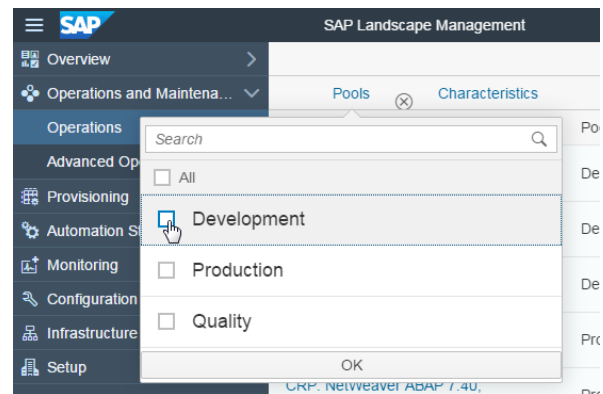


11. Choose *Pools* node and select *Development*.




Note

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

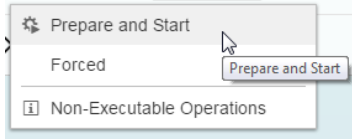

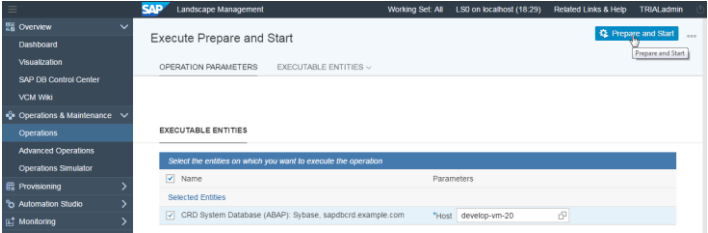
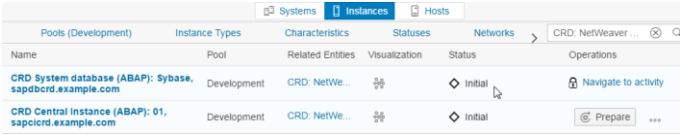


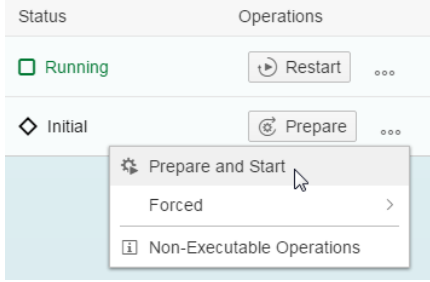
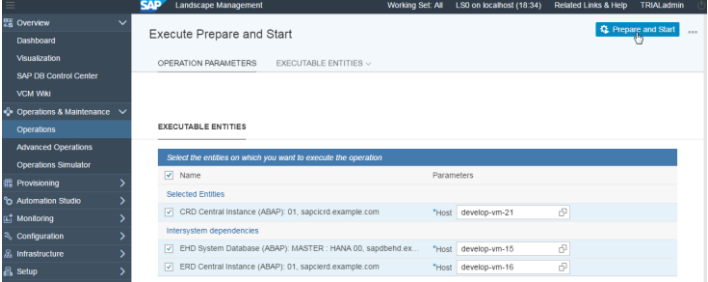


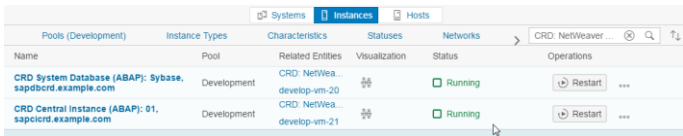
12. Choose *2 Instances* in the line *CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com*.

Name	Pool	Related Entities
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

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, sapci01.example.com	Development	CRD: NetWe...		◇ Initial		Prepare	

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

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><tr><th colspan="5">Pools (Development)</th></tr><tr><th colspan="2">Instance Types</th><th>Characteristics</th><th>Statuses</th><th>Networks</th></tr><tr><th>Name</th><th>Pool</th><th>Related Entities</th><th>Visualization</th><th>Status</th></tr><tr><td>CRD System Database (ABAP): Sybase, sapdbcrd.example.com</td><td>Development</td><td>CRD: NetWea... develop-vm-20</td><td>Running</td><td>Restart</td></tr><tr><td>CRD Central Instance (ABAP): 01, sapcrd.example.com</td><td>Development</td><td>CRD: NetWea... develop-vm-21</td><td>Running</td><td>Restart</td></tr></table>	Pools (Development)					Instance Types		Characteristics	Statuses	Networks	Name	Pool	Related Entities	Visualization	Status	CRD System Database (ABAP): Sybase, sapdbcrd.example.com	Development	CRD: NetWea... develop-vm-20	Running	Restart	CRD Central Instance (ABAP): 01, sapcrd.example.com	Development	CRD: NetWea... develop-vm-21	Running	Restart
Pools (Development)																										
Instance Types		Characteristics	Statuses	Networks																						
Name	Pool	Related Entities	Visualization	Status																						
CRD System Database (ABAP): Sybase, sapdbcrd.example.com	Development	CRD: NetWea... develop-vm-20	Running	Restart																						
CRD Central Instance (ABAP): 01, sapcrd.example.com	Development	CRD: NetWea... develop-vm-21	Running	Restart																						

6 Provisioning

Scenario

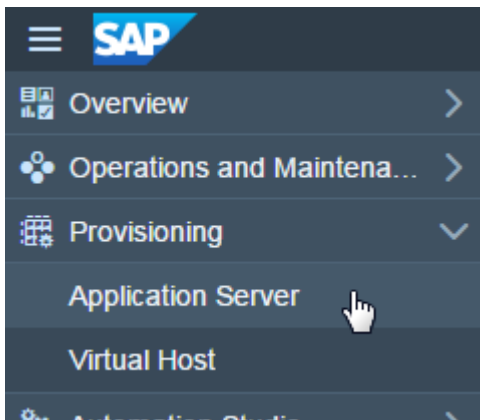
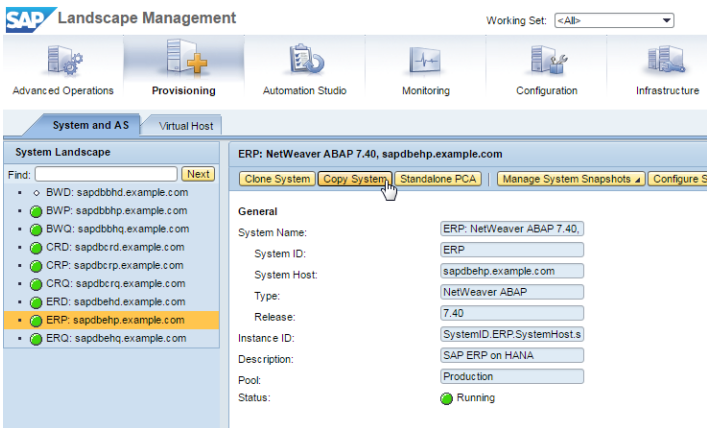
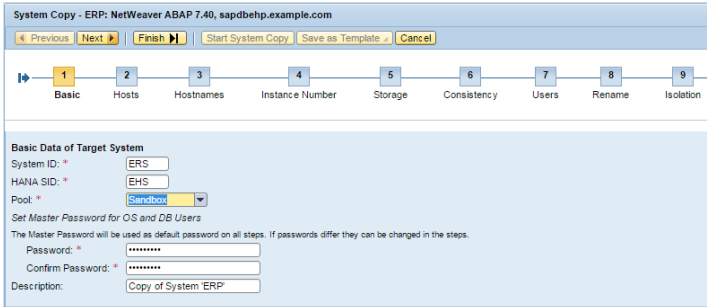
In the following exercise you will learn how to perform automated tasks for an SAP system using a provisioning process and how to monitor the execution status of the system copy operation.

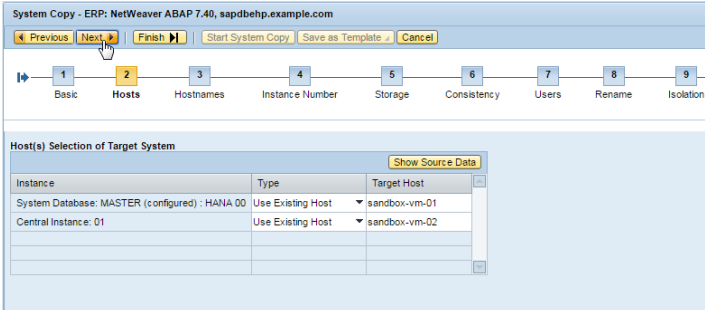
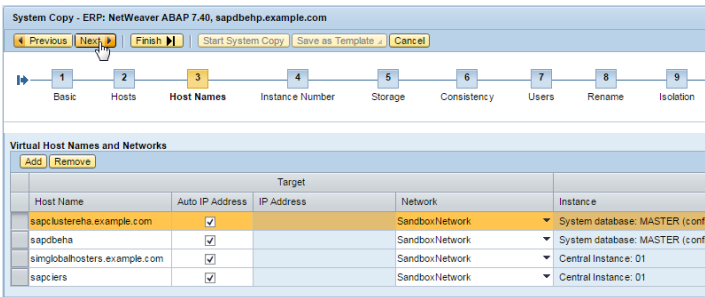
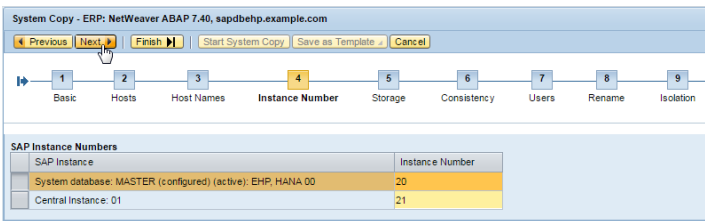
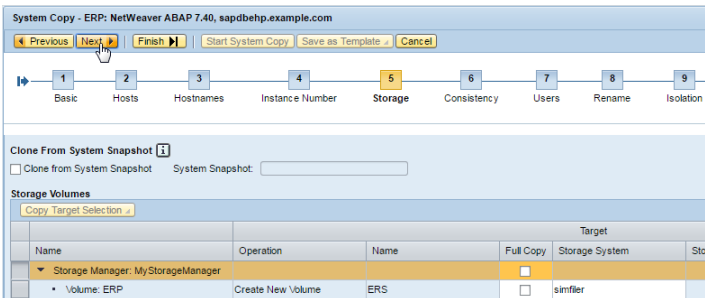
- **System Copy:** System copy helps you to create a duplicate of an existing system with a different host name and a unique SAP SID.
For more information, see SAP Help Portal at:
http://help.sap.com/static/saphelp_lamaent30/en/bf/87fac514b549c190ff319863157f90/frameset.htm
- **Synchronized SystemClone:** 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_lamaent30/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>	
<ol style="list-style-type: none"> 1. Navigate to <i>Provisioning</i> > <i>Application Server</i>. 	
<p>A new browser window/tab will be opened.</p> <ol style="list-style-type: none"> 2. In the system selector on the left side select system ERP: sapdbehp.example.com. 3. Choose <i>Copy System</i>. 	
<ol style="list-style-type: none"> 4. On the <i>Basic</i> step screen, enter the following values: <ul style="list-style-type: none"> System ID: ERS HANA SID: EHS Pool: Sandbox Password: Walldorf1 5. Choose <i>Next</i> and proceed with the next step. 	

Explanation	Screenshots																									
6. On the <i>Hosts</i> step screen, keep the default values and choose <i>Next</i> and proceed with the next step.	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com</p> <p>Previous Next Finish Start System Copy Save as Template Cancel</p> <p>1 Basic 2 Hosts 3 Hostnames 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation</p> <p>Host(s) Selection of Target System</p> <table><tr><th>Instance</th><th>Type</th><th>Target Host</th></tr><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></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																								
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>System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com</p> <p>Previous Next Finish Start System Copy Save as Template Cancel</p> <p>1 Basic 2 Hosts 3 Host Names 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation</p> <p>Virtual Host Names and Networks</p> <p>Add Remove</p> <table><tr><th>Host Name</th><th>Auto IP Address</th><th>IP Address</th><th>Network</th><th>Instance</th></tr><tr><td>sapclustereha.example.com</td><td><input checked="" type="checkbox"/></td><td></td><td>SandboxNetwork</td><td>System database: MASTER (confi</td></tr><tr><td>sapdbeha</td><td><input checked="" type="checkbox"/></td><td></td><td>SandboxNetwork</td><td>System database: MASTER (confi</td></tr><tr><td>singlobalhosters.example.com</td><td><input checked="" type="checkbox"/></td><td></td><td>SandboxNetwork</td><td>Central Instance: 01</td></tr><tr><td>sapciers</td><td><input checked="" type="checkbox"/></td><td></td><td>SandboxNetwork</td><td>Central Instance: 01</td></tr></table>	Host Name	Auto IP Address	IP Address	Network	Instance	sapclustereha.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi	sapdbeha	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi	singlobalhosters.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01	sapciers	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01
Host Name	Auto IP Address	IP Address	Network	Instance																						
sapclustereha.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi																						
sapdbeha	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (confi																						
singlobalhosters.example.com	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01																						
sapciers	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01																						
8. Optional step: On the <i>Instance Number</i> step screen, enter the following values: <ul style="list-style-type: none">System database: 20Central Instance: 21 9. Choose <i>Next</i> and proceed with the next step.	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com</p> <p>Previous Next Finish Start System Copy Save as Template Cancel</p> <p>1 Basic 2 Hosts 3 Host Names 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation</p> <p>SAP Instance Numbers</p> <table><tr><th>SAP Instance</th><th>Instance Number</th></tr><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></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																									
10. On the <i>Storage</i> step screen, keep the default values and choose <i>Next</i> and proceed with the next step.	 <p>System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com</p> <p>Previous Next Finish Start System Copy Save as Template Cancel</p> <p>1 Basic 2 Hosts 3 Hostnames 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation</p> <p>Clone From System Snapshot ⓘ</p> <p><input type="checkbox"/> Clone from System Snapshot System Snapshot: <input type="text"/></p> <p>Storage Volumes</p> <p>Copy Target Selection</p> <table><tr><th>Name</th><th>Operation</th><th>Name</th><th>Full Copy</th><th>Storage System</th><th>Sto</th></tr><tr><td>Storage Manager: MyStorageManager</td><td></td><td></td><td><input type="checkbox"/></td><td></td><td></td></tr><tr><td>Volume: ERP</td><td>Create New Volume</td><td>ERS</td><td><input type="checkbox"/></td><td>simflr</td><td></td></tr></table>	Name	Operation	Name	Full Copy	Storage System	Sto	Storage Manager: MyStorageManager			<input type="checkbox"/>			Volume: ERP	Create New Volume	ERS	<input type="checkbox"/>	simflr								
Name	Operation	Name	Full Copy	Storage System	Sto																					
Storage Manager: MyStorageManager			<input type="checkbox"/>																							
Volume: ERP	Create New Volume	ERS	<input type="checkbox"/>	simflr																						

Explanation

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

Screenshots

System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com

Previous Next Finish Start System Copy Save as Template Cancel

1 Basic 2 Hosts 3 Hostnames 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation

Database Consistency

☐ Online: Backup / Suspend IO Mode 90
☐ Offline: Stop and Restart System
☐ Offline: Database already stopped
☐ Database was stopped during system snapshot

Scheduled Execution of Cloning Step

☐ Schedule execution of cloning step
 Execution Date (UTC):
 Execution Time (UTC):
 Latest Server Time (UTC):

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

System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com

Previous Next Finish Start System Copy Save as Template Cancel

1 Basic 2 Hosts 3 Hostnames 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation

User and Group Management

User Id	User Name	Target	User
ehsadm	ehsadm		
erpadm	erpadm		

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

System Copy - ERP: NetWeaver ABAP 7.40, sapdbhp.example.com

Previous Next Finish Start System Copy Save as Template Cancel

1 Basic 2 Hosts 3 Host Names 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation

Provisioning Release Configuration for System

Host	Release Configuration	Release Version
sandbox-vm-02	Default Release Configuration for copy/refresh 7.x (7.X - Linux)	Product release version not yet retrieved

Source database credentials

Password for Source <sid>adm: *****
 Password for Source HANA SYSTEM User: *****

Additional parameters

ABAP Database Schema:
 Sapmnt Path: *
 New Password for Schema user: *
 Confirm New Password for Schema: *
 New Password for SYSTEM User: *
 Confirm New Password for SYSTEM: *
 Installation Path for HANA: *
 Path to HANA Data Volumes:
 Path to HANA Data Backups:
 Path to HANA Log Volumes:
 Path to HANA Log Backups:

Execute Prerequisite Checker

Explanation

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

Screenshots

System Copy - ERP: NetWeaver ABAP 7.40, sapdbbhp.example.com

Previous Next Finish Start System Copy Save as Template Cancel

1 Basic 2 Hosts 3 Host Names 4 Instance Number 5 Storage 6 Consistency 7 Users 8 Rename 9 Isolation

Define allowed outgoing connections for system isolation

Add Remove Read Connections Of: Source Host Host Name: sandbox-vm-02 Get Connections

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 type="checkbox"/>	Allow communication to host (simfler) on all ports
Port	Any host name	nfs	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (nfs)
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)

Unfence target system after system copy/refresh

Specify whether the target system is unfenced after the system copy/refresh activity. After the unfencing, all outgoing communication of the target system is allowed.

☐ Do not unfence target system

☐ Unfence target system with confirmation

☐ Unfence target system without confirmation

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

System Copy - ERP: NetWeaver ABAP 7.40, sapdbbhp.example.com

Previous Next Finish Start System Copy Save as Template Cancel

10 ABAP PCA 11 Summary

Post Copy Automation 1

☐ Apply master password to all configured RFC destinations

Add Remove Move Up Move Down Modify Parameters

Client	Client Name	Client Role	Task List	Task List Variant
000			SAP_BASIS_COPY_INITIAL_CONFIG	

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

SAP Landscape Management

Advanced Operations Provisioning Automation Studio Monitoring Configuration

System and AS Virtual Host

System Landscape

Find: BWD: sapdbbhd.example.c BWP: sapdbbhp.example.c BWQ: sapdbbhq.example.c CRD: sapdbcrd.example.c CRP: sapdbcrp.example.c CRQ: sapdbcrq.example.c ERD: sapdbehd.example.c ERP: sapdbbhp.example.c ERQ: sapdbbhq.example.c

System Copy - ERP: NetWeaver ABAP 7.40, sapdbbhp.example.com

Previous Next Finish Start System Copy Save as Template

1 Basic 2 Hosts 3 Host Names Instance Number Start System Copy

Disclaimer:

SAP advises that it is the customer's responsibility to ensure that it has all necessary to operate the target system landscape after cloning and/or copying.

Basic Data

Basic Data of Target System

System ID: ERS

Use Different Database Name: ☒

HANA SID: EHS

Pool: Sandbo

Master Password:

Confirm Master Password:

Description: Copy of System 'ERP'

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.

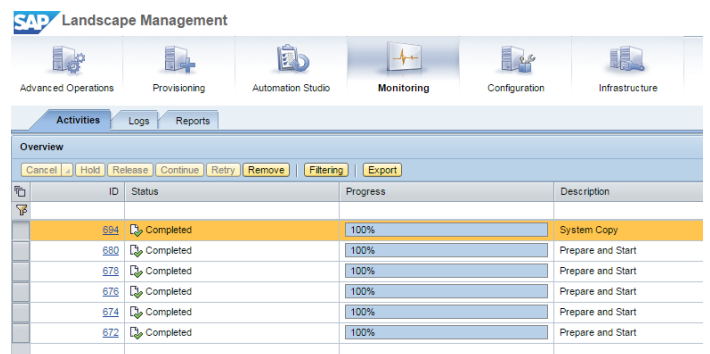
17. Wait for the activity to be Completed.

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.

18. 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

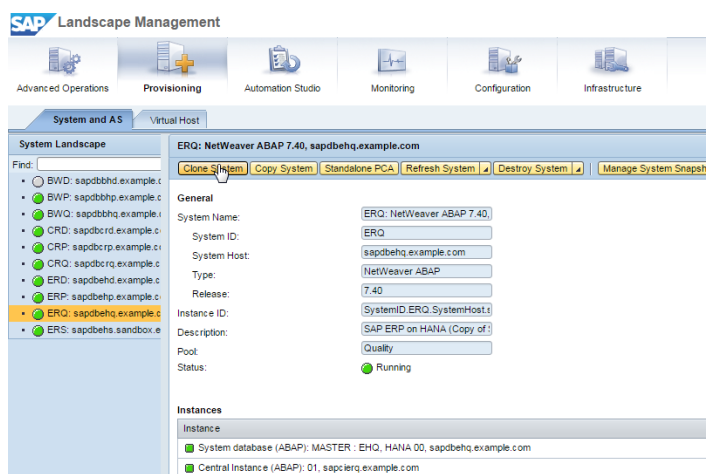


The screenshot shows the SAP Landscape Management interface. The top navigation bar includes tabs for Advanced Operations, Provisioning, Automation Studio, Monitoring, Configuration, and Infrastructure. The 'Activities' tab is selected, showing a table of activities. The table has columns for ID, Status, Progress, and Description. The first row is highlighted in orange, indicating it is the selected activity.


ID	Status	Progress	Description
694	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)

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



The screenshot shows the SAP Landscape Management interface. The top navigation bar includes tabs for Advanced Operations, Provisioning, Automation Studio, Monitoring, Configuration, and Infrastructure. The 'Provisioning' tab is selected, showing the 'System and AS' view. The left pane shows a list of systems, with 'ERQ: sapdbehq.example.com' selected. The right pane shows the details for the selected system, including a 'Clone System' button.

System Landscape	Virtual Host
Find:	ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com
<ul style="list-style-type: none"> • BWID: sapdbbhd.example.com • BWIP: sapdbbhp.example.com • BWQ: sapdbbhd.example.com • CRP: sapdbcrp.example.com • CRQ: sapdbcrq.example.com • ERD: sapdbehd.example.com • ERP: sapdbehp.example.com • ERQ: sapdbehq.example.com • ERS: sapdbehs.example.com 	<p>Clone System Copy System Standalone PCA Refresh System Destroy System Manage System Snapshot</p> <p>General</p> <p>System Name: ERQ: NetWeaver ABAP 7.40</p> <p>System ID: ERQ</p> <p>System Host: sapdbehq.example.com</p> <p>Type: NetWeaver ABAP</p> <p>Release: 7.40</p> <p>Instance ID: SystemID.ERQ.SystemHost.s</p> <p>Description: SAP ERP on HANA (Copy of)</p> <p>Pool: Quality</p> <p>Status:  Running</p> <p>Instances</p> <p>Instance</p> <ul style="list-style-type: none"> • System database (ABAP): MASTER : ERQ, HANA 00, sapdbehq.example.com • Central Instance (ABAP): 01, sapdbcrq.example.com

Explanation	Screenshots
<p>4. On the <i>Basic</i> step screen, provide the following values:</p> <ul style="list-style-type: none"> Pool: Sandbox <p>5. Choose <i>Next</i> and proceed with the next step.</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>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>	

Explanation

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

Screenshots

System Cloning - ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com

Previous Next Finish Start System Cloning Save as Template Cancel

1 Basic 2 Hosts 3 Host Names 4 Storage 5 Consistency 6 Isolation 7 Summary

Clone from system snapshot *i*

☐ Clone from System Snapshot:

Storage Volumes

Copy Target Selection

Name	Operation	Name	Full Copy	Storage Sys
Storage Manager: MyStorageManager			<input type="checkbox"/>	
Volume: ERQ	Create New Volume	ERQ_clone	<input type="checkbox"/>	simflir

Storage Manager Details

Label: MyStorageManager

Vendor: SAP

Product: Simulated Storage

Version: 1.0

Custom Cloning Properties

Name	Value	Type	Mandatory	Description
booleanKey	<input type="checkbox"/>	Boolean	<input type="checkbox"/>	boolean
stringKey		String	<input type="checkbox"/>	stringSecure
doubleKey	-1	Decimal Number	<input type="checkbox"/>	double
intKey	-1	Integer	<input type="checkbox"/>	int
longKey	-1	Integer	<input type="checkbox"/>	long
urlKey		URL	<input type="checkbox"/>	url
valueArrayKey	Edit Values	String Array	<input type="checkbox"/>	stringValueArr
valueSetKey	value2	String	<input type="checkbox"/>	stringValueSet

Monitoring Time: 2015-01-28 15:24:54 UTC [Monitoring Data](#)

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

System Cloning - ERQ: NetWeaver ABAP 7.40, sapdbehq.example.com

Previous Next Finish Start System Cloning Save as Template Cancel

1 Basic 2 Hosts 3 Host Names 4 Storage 5 Consistency 6 Isolation 7 Summary

Database Consistency *i*

☒ Online: Backup/Suspend IO Mode Timeout [seconds]: 90

☐ Offline: Stop and Restart System

☐ Offline: Database already stopped

☐ Database was stopped during system snapshot

Scheduled Execution of Cloning Step *i*

☐ Schedule execution of cloning step

Execution Date (UTC):

Execution Time (UTC):

Latest Server Time (UTC):

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

Scheduled Execution of Cloning Step *i*

☒ Schedule execution of cloning step

Execution Date (UTC): 11/07/2016

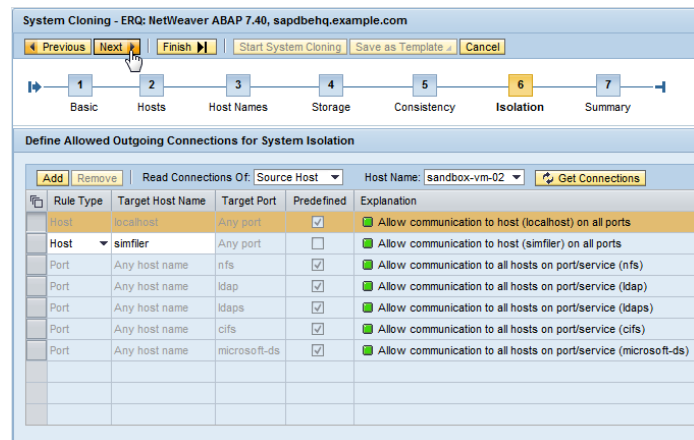
Execution Time (UTC): 11:28:33 AM

Latest Server Time (UTC): 11:13:15 AM

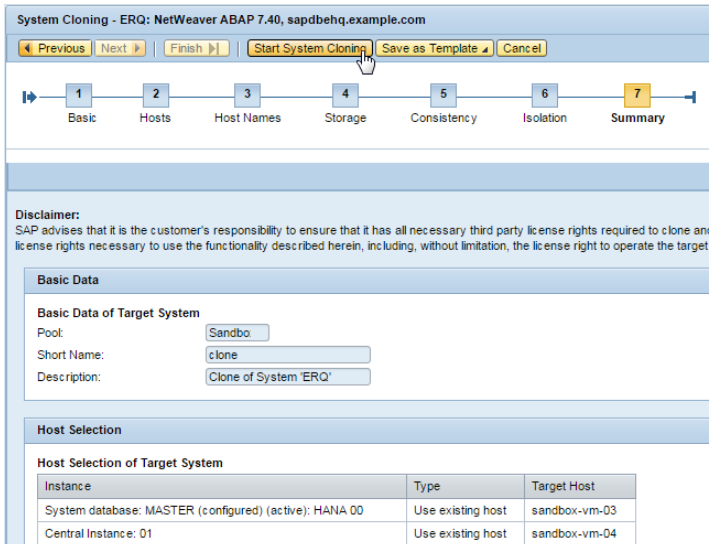
Explanation

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

Screenshots

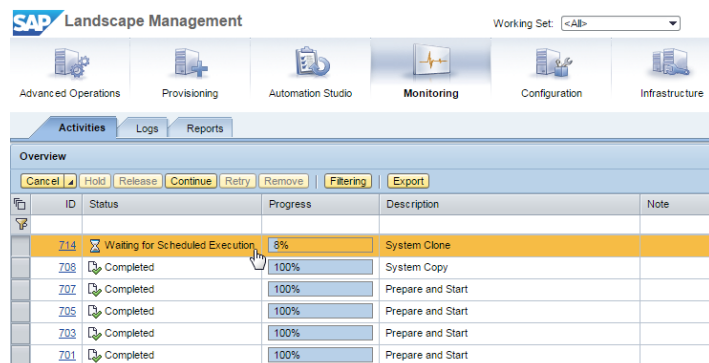


14. On the *Summary* step screen, choose *Start System Cloning* to trigger the operation.



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.



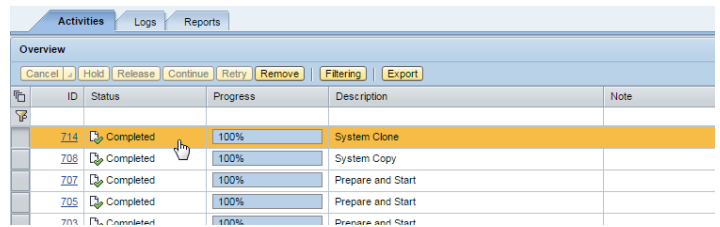
Explanation

- Optional step: 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.

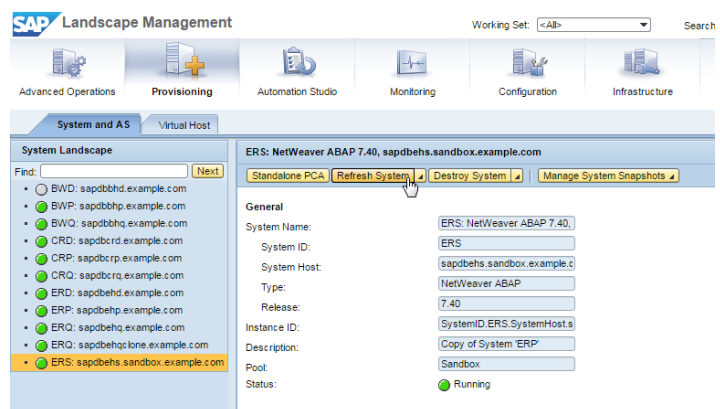
Screenshots



ID	Status	Progress	Description	Note
714	Completed	100%	System Clone	
708	Completed	100%	System Copy	
707	Completed	100%	Prepare and Start	
705	Completed	100%	Prepare and Start	
704	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> Search

Advanced Operations Provisioning Automation Studio Monitoring Configuration Infrastructure

System and AS Virtual Host

System Landscape

Find: [] [Next]

- BWD: sapdbbhd.example.com
- BWP: sapdbbhp.example.com
- CRD: sapdbcrd.example.com
- CRP: sapdbcrp.example.com
- CRQ: sapdbcrq.example.com
- ERD: sapdbehd.example.com
- ERP: sapdbehp.example.com
- ERQ: sapdbehq.example.com
- ERQ: sapdbehq.lone.example.com
- ERS: sapdbehs.sandbox.example.com

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

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

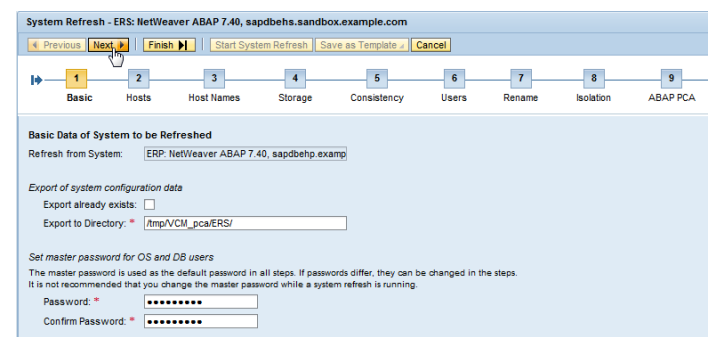
Instance ID: SystemID ERS: SystemHost.s

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

Previous Next Finish Start System Refresh Save as Template Cancel

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
<p>6. On the Hosts step screen, keep the default values.</p> <p>7. Choose Next and proceed with the next step.</p>	
<p>8. On the Host Names step screen, keep the default values.</p> <p>9. Choose Next and proceed with the next step.</p>	
<p>10. On the Storage step screen, keep the default values.</p> <p>11. Choose Next and proceed with the next step.</p>	
<p>12. On the Consistency step screen, keep the default values.</p> <p>13. Choose Next and proceed with the next step.</p>	

Explanation

14. On the [Users](#) step screen keep the default values.
15. Choose [Next](#) and proceed with the next step.

Screenshots

User ID	User Name	Password
ehsadm	ehsadm	*****
ersadm	ersadm	*****

16. On the [Rename](#) step screen keep the default values.
17. Choose [Next](#) and proceed with the next step.

Provisioning Release Configuration for System

Host	Release Configuration	Release Version
sandbox-vm-02	Default Release Configuration fo...	Product release version not yet retrieved

Source database credentials

Password for Source <sid>adm: *

Password for Source HANA SYSTEM User: *

Additional Parameters

ABAP Database Schema: *

Sapmnt Path: *

New Password for Schema user: *

Confirm New Password for Schema user: *

New Password for SYSTEM User: *

Confirm New Password for SYSTEM User: *

HANA Listen Interface: *

SAP HANA System Usage: *

Installation Path for HANA: *

Path to HANA Data Volumes: *

Path to HANA Data Backups: *

Path to HANA Log Volumes: *

Path to HANA Log Backups: *

18. On the [Isolation](#) step screen keep the default values.
19. Choose [Next](#) and proceed with the next step.

Define allowed outgoing connections for system isolation

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	simlifier	Any port	<input type="checkbox"/>	Allow communication to host (simlifier) on all ports
Port	Any host name	nfs	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (nfs)
Port	Any host name	ldap	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (ldap)
Port	Any host name	idaps	<input checked="" type="checkbox"/>	Allow communication to all hosts on port/service (idaps)
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)

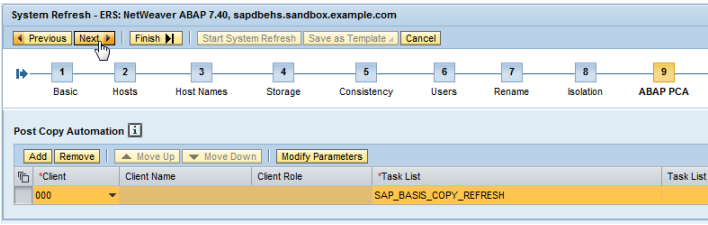
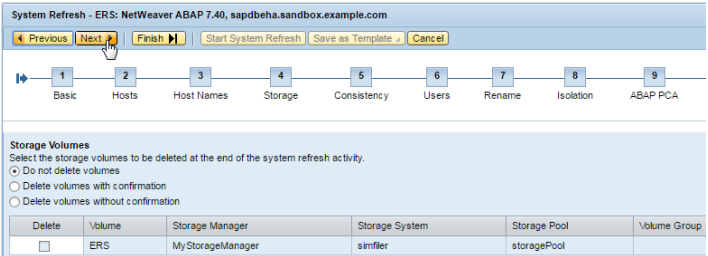
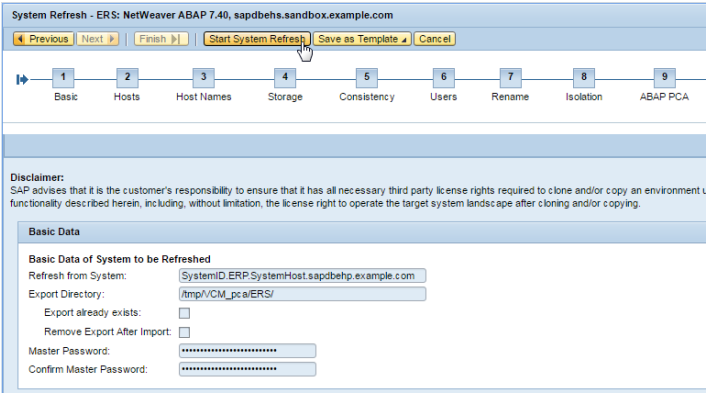
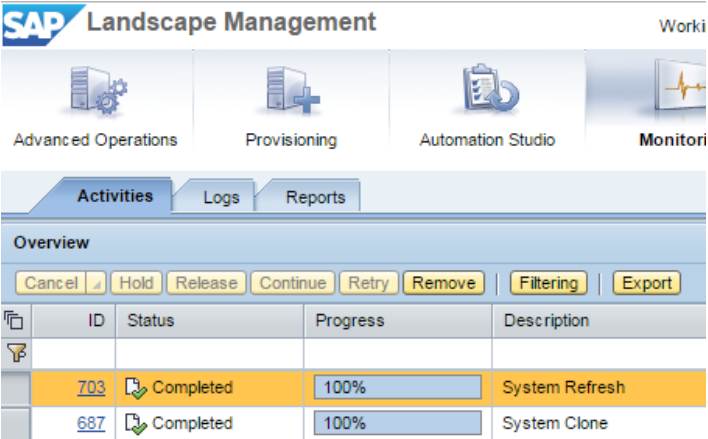
Unfence target system after system copy/refresh

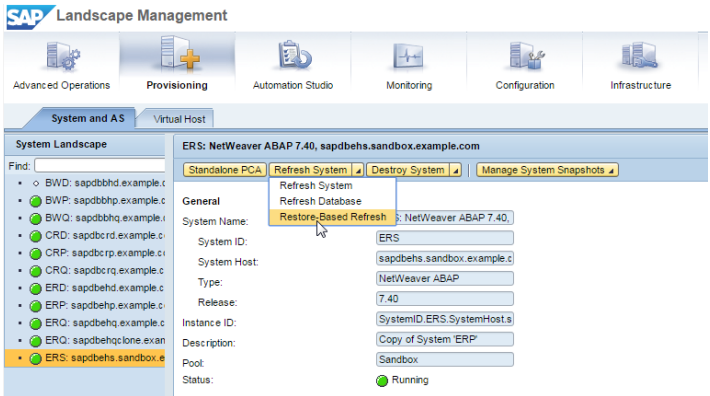
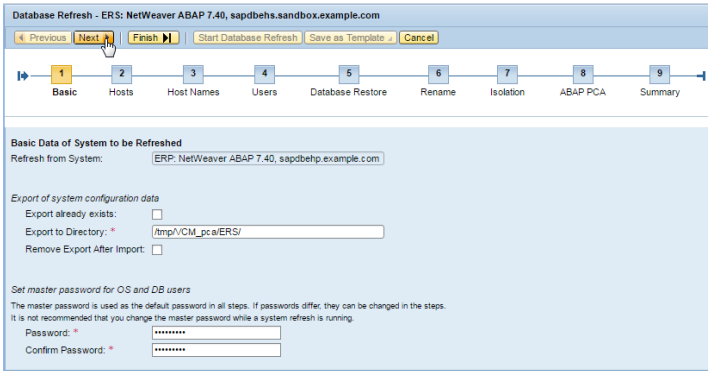
Specify whether the target system is unfenced after the system copy/refresh activity. After the unfencing, all outgoing communication of the target system is al

☐ Do not unfence target system

☐ Unfence target system with confirmation

☐ Unfence target system without confirmation

Explanation	Screenshots
<p>20. On the <i>ABAP PCA</i> step screen keep the default values.</p> <p>21. Choose <i>Next</i> and proceed with the next step.</p>	
<p>22. On the <i>Delete Storage Volumes</i> step screen keep the default values.</p> <p>23. Choose <i>Next</i> and proceed with the next step.</p>	
<p>24. On the <i>Summary</i> step screen, choose <i>Start System Refresh</i> to trigger the operation.</p>	
<p>Once you trigger the operation, you are automatically re-directed to the <i>Activities</i> screen where you can monitor the execution status of the system refresh operation.</p> <p>25. Wait for the activity to be Completed.</p> <p>Note</p> <p>This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the</p>	

Explanation	Screenshots
involved storage systems and the size of the SAP system.	
<h2>6.4 Refresh System (Restore based)</h2>	
<p>Note</p> <p>The activity before must be in status Completed before this chapter can be executed.</p>	
<ol style="list-style-type: none"> Navigate to <i>Provisioning</i> > <i>System and AS</i>. In the system selector on the left side select system ERS: sapdbehs.sandbox.example.com Choose <i>Refresh System</i> > <i>Restore-Based Refresh</i>. <p>Note</p> <p>The activity Restore-Based Refresh is offered for HANA-based systems only.</p>	 <p>The screenshot shows the SAP Landscape Management interface. Under the 'System and AS' tab, the system 'ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com' is selected. The 'Refresh System' menu is open, and 'Restore-Based Refresh' is highlighted. The system details on the right show it is a NetWeaver ABAP 7.40 system with status 'Running'.</p>
<ol style="list-style-type: none"> On the <i>Basic</i> step screen, enter the following values: <ul style="list-style-type: none"> Password: Walldorf1 (and confirm) Choose <i>Next</i> and proceed with the next step. 	 <p>The screenshot shows the 'Database Refresh' wizard for system ERS: NetWeaver ABAP 7.40. The 'Basic' step is active. The 'Refresh from System' is set to 'ERP: NetWeaver ABAP 7.40, sapdbehp.example.com'. The 'Export of system configuration data' section has 'Export already exists' unchecked and 'Export to Directory' set to '/tmp/VCN_pc.a/ERS/'. The 'Set master password for OS and DB users' section shows the password 'Walldorf1' entered and confirmed.</p>

Explanation

Screenshots

6. On the *Hosts* step screen, keep the default values.

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

Instance	Type	Target Host
System database: MASTER (configured) (active): HANA 00	Use existing host	▼ sandbox-vm-01
Central Instance: 01	Use existing host	▼ sandbox-vm-02

8. On the *Host Names* step screen, keep the default values.

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

Host Name	Auto IP Address	IP Address	Network	Instance
sapdbehs.sandbox.exa...	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (configured) (active): HANA 00
sapdbehs.sandbox.exa...	<input checked="" type="checkbox"/>		SandboxNetwork	System database: MASTER (configured) (active): HANA 00
sapciers.sandbox.exam...	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01
sapciers.sandbox.exam...	<input checked="" type="checkbox"/>		SandboxNetwork	Central Instance: 01

10. On the *Users* step screen, keep the default values.

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

User ID	User Name	User already exists
ehsadm	ehsadm	<input checked="" type="checkbox"/>
ersadm	ersadm	<input checked="" type="checkbox"/>

Group Name	Primary	Group ID	Create
oper	<input type="radio"/>	oper	<input type="checkbox"/>
dba	<input type="radio"/>	dba	<input type="checkbox"/>
sapsys	<input checked="" type="radio"/>	sapsys	<input type="checkbox"/>
sdba	<input type="radio"/>	sdba	<input type="checkbox"/>

12. On the *Database Restore* step screen, choose the following values:

Select Backup to be used for Restore:

<Choose the first entry in the dropdownlist>

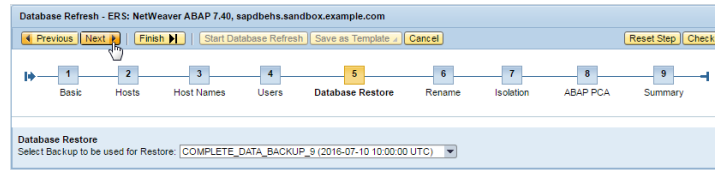
Select Backup to be used for Restore:

- COMPLETE_DATA_BACKUP_9 (2016-07-10 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_8 (2016-07-09 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_7 (2016-07-08 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_6 (2016-07-07 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_5 (2016-07-06 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_4 (2016-07-05 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_3 (2016-07-04 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_2 (2016-07-03 10:00:00 UTC)
- COMPLETE_DATA_BACKUP_1 (2016-07-02 10:00:00 UTC)

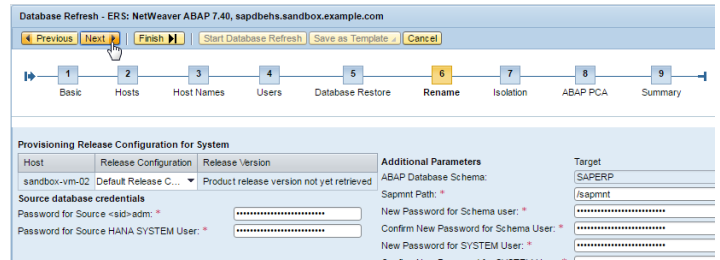
Explanation

Screenshots

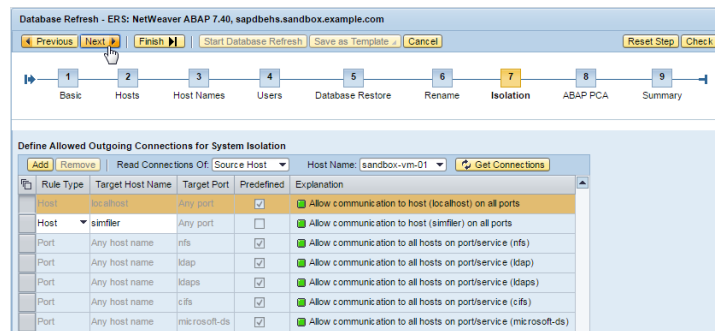
13. Choose **Next** and proceed with the next step.



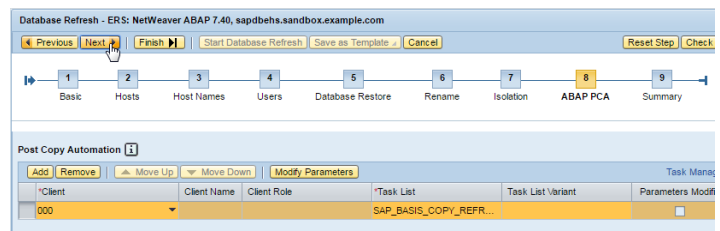
14. On the **Rename** step screen, keep the default values.
15. Choose **Next** and proceed with the next step.



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



18. On the **ABAP PCA** step screen, keep the default values.
19. Choose **Next** and proceed with the next step.



Explanation

Screenshots

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

Database Refresh - ERS: NetWeaver ABAP 7.40, sapdbeh.sandbox.example.com

Previous Next Finish Start Database Refresh Save as Template Cancel

1 Basic 2 Hosts 3 Host Names 4 Users 5 Database Restore 6 Rename 7 Isolation 8 ABAP PCA 9 Summary

Basic Data

Basic Data of System to be Refreshed

Refresh from System: SystemID.ERP.SystemHost.sapidbeh.example.com

Export Directory: /tmp/v/CM_pca/ERS/

Export already exists: ☐

Remove Export After Import: ☐

Master Password:

Confirm Master Password:

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.

1 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.

SAP Landscape Management

Working Set: <AB>

Advanced Operations Provisioning Automation Studio Monitoring Configuration Infrastructure

Activities Logs Reports

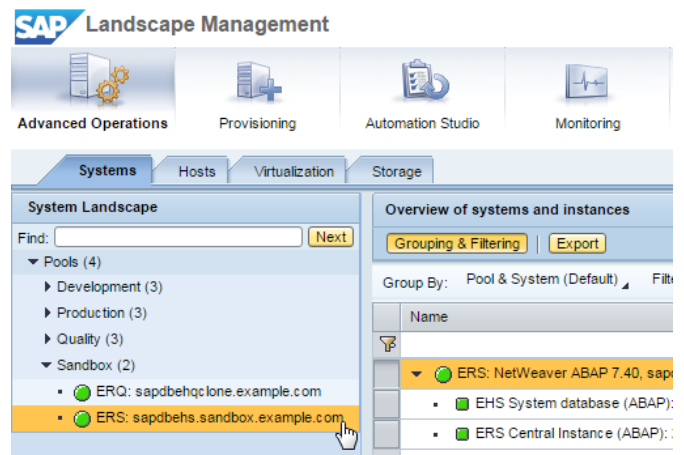
Overview

Cancel Hold Release Continue Retry Remove Filtering Export

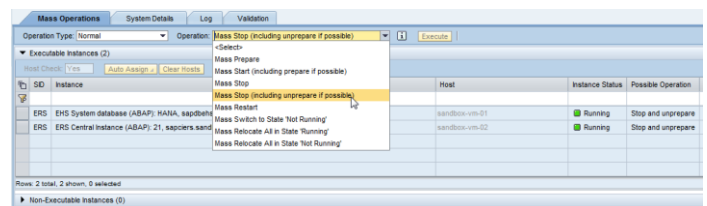
ID	Status	Progress	Description	Note
750	Completed	100%	Database Refresh	
757	Completed	100%	Database Refresh	
758	Completed	100%	System Clone	


6.5 Destroy System

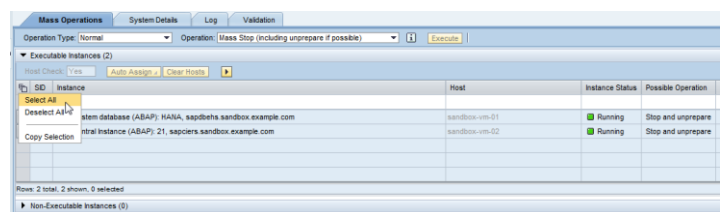
- Stop and unprepare the system
ERS: sapdbehs.sandbox.examp
le.com
in the *Sandbox* pool before this
system can be destroyed.
22. Navigate to *Advanced Operations > Systems*
 23. Expand the *Sandbox* in the System Landscape on the left side.
 24. Select and expand the system
ERS: sapdbehs.sandbox.ex
ample.com



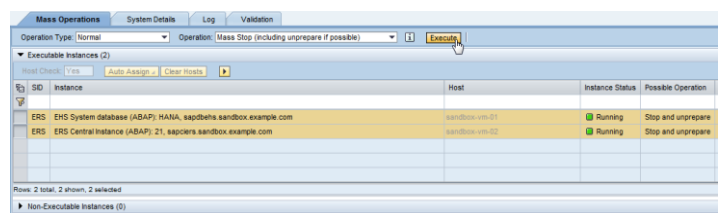
- Below this table you see a table
named *Mass Operations* where
all 2 instances of this instance are
listed in the list of *Executable
Instances*.
25. To stop these instances, ensure
that the Operation *Mass Stop
(including unprepare if possible)*
is selected.



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



28. Choose *Execute*.
- Wait until the system ERS is stopped
and unprepared.



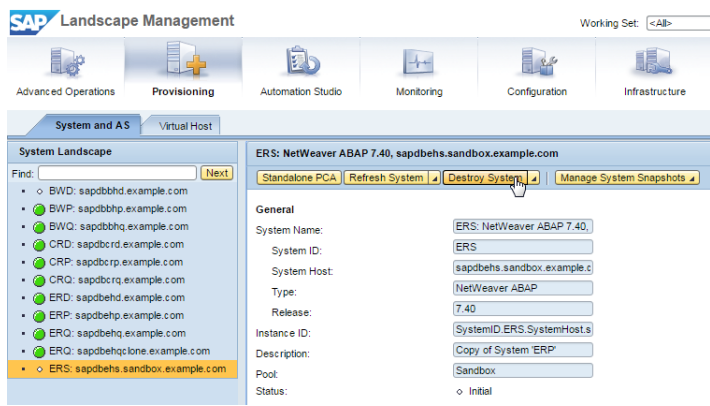
Explanation

Screenshots

29. Navigate to *Provisioning > System and AS*

30. In the system selector on the left side select ERS: sapdbehs.sandbox.example.com

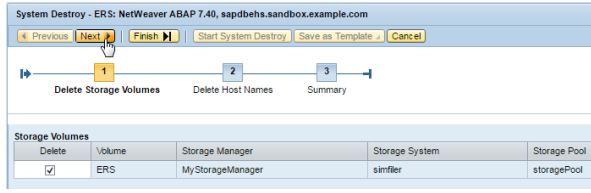
31. Choose *Destroy System*.



The screenshot shows the SAP Landscape Management interface. At the top, there are tabs for Advanced Operations, Provisioning, Automation Studio, Monitoring, Configuration, and Infrastructure. The 'Provisioning' tab is selected. Below this, there are two sub-tabs: 'System and AS' and 'Virtual Host'. The 'System and AS' sub-tab is active. On the left, under 'System Landscape', there is a search bar and a list of systems. The system 'ERS: sapdbehs.sandbox.example.com' is selected. On the right, the details for this system are shown, including System Name, System ID, System Host, Type, Release, Instance ID, Description, Pool, and Status. The 'Destroy System' button is highlighted.

32. On the *Delete Storage Volumes* step screen keep the default values.

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

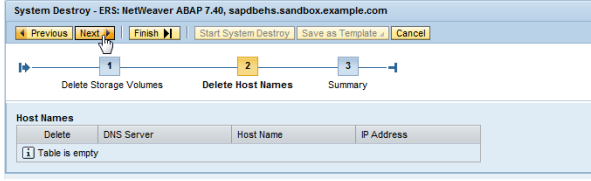


The screenshot shows the 'System Destroy' wizard for the system 'ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com'. The wizard has three steps: 1. Delete Storage Volumes, 2. Delete Host Names, and 3. Summary. Step 1 is currently active. Below the progress bar, there is a table for 'Storage Volumes' with columns: Delete, Volume, Storage Manager, Storage System, and Storage Pool. The 'Delete' column has a checkbox checked for the volume 'ERS'.

Delete	Volume	Storage Manager	Storage System	Storage Pool
<input checked="" type="checkbox"/>	ERS	MyStorageManager	simfler	storagePool

34. On the *Delete Host Names* step screen keep the default values.

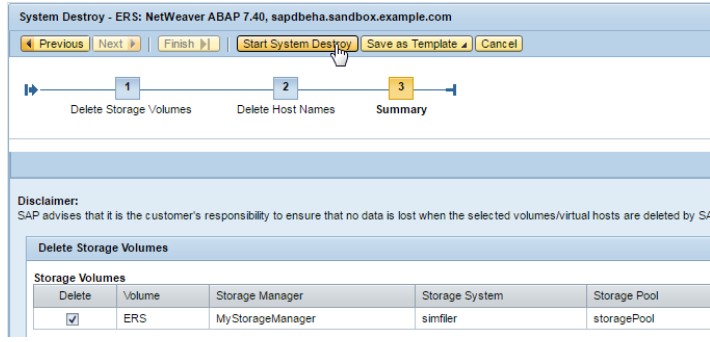
35. Choose *Next* and proceed with the next step.



The screenshot shows the 'System Destroy' wizard for the system 'ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com'. The wizard has three steps: 1. Delete Storage Volumes, 2. Delete Host Names, and 3. Summary. Step 2 is currently active. Below the progress bar, there is a table for 'Host Names' with columns: Delete, DNS Server, Host Name, and IP Address. The table is empty, and a message 'Table is empty' is displayed.

Delete	DNS Server	Host Name	IP Address
Table is empty			

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



The screenshot shows the 'System Destroy' wizard for the system 'ERS: NetWeaver ABAP 7.40, sapdbehs.sandbox.example.com'. The wizard has three steps: 1. Delete Storage Volumes, 2. Delete Host Names, and 3. Summary. Step 3 is currently active. Below the progress bar, there is a disclaimer and a table for 'Storage Volumes' with columns: Delete, Volume, Storage Manager, Storage System, and Storage Pool. The 'Delete' column has a checkbox checked for the volume 'ERS'.

Disclaimer:
SAP advises that it is the customer's responsibility to ensure that no data is lost when the selected volumes/virtual hosts are deleted by SA

Delete	Volume	Storage Manager	Storage System	Storage Pool
<input checked="" type="checkbox"/>	ERS	MyStorageManager	simfler	storagePool

Explanation

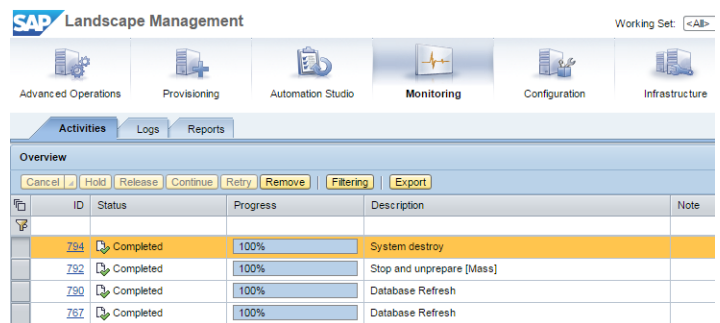
Once you trigger the operation, you are automatically re-directed to the [Activities](#) screen where you can monitor the execution status of the system destroy operation.

37. 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.

Screenshots



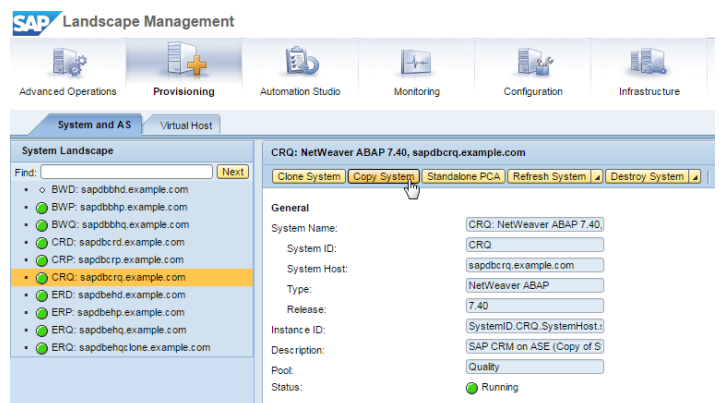
The screenshot shows the SAP Landscape Management interface. The top navigation bar includes 'Advanced Operations', 'Provisioning', 'Automation Studio', 'Monitoring', 'Configuration', and 'Infrastructure'. The 'Activities' tab is selected, showing a table of activities. The table has columns for ID, Status, Progress, Description, and Note. The activities listed are:

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

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

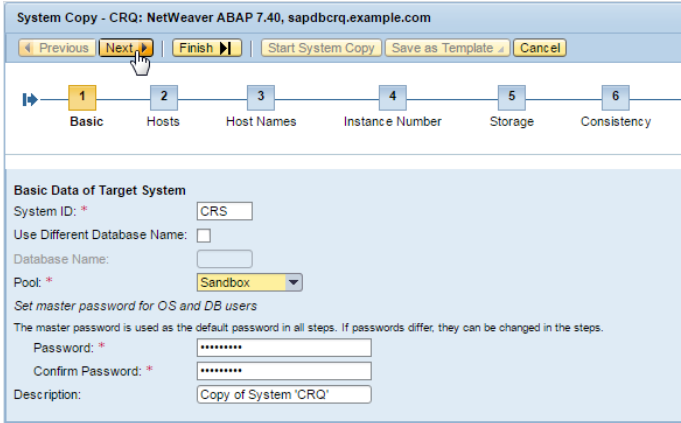
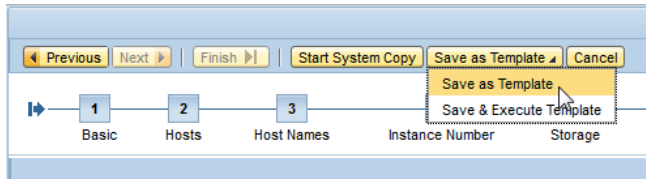
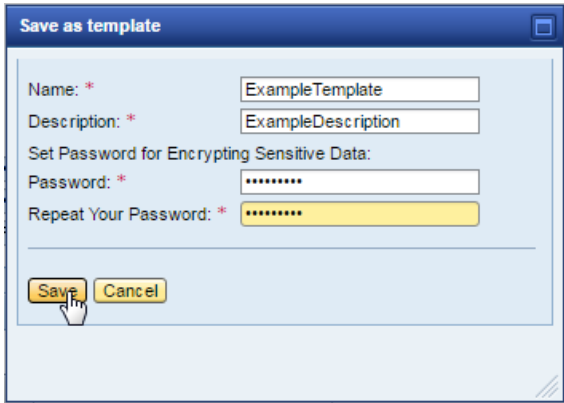
6.6 Provisioning Templates

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



The screenshot shows the SAP Landscape Management interface. The top navigation bar includes 'Advanced Operations', 'Provisioning', 'Automation Studio', 'Monitoring', 'Configuration', and 'Infrastructure'. The 'Provisioning' tab is selected, showing a 'System Landscape' view. The 'System and AS' tab is active, displaying a list of systems. The system 'CRQ: sapdbcrq.example.com' is selected. The 'Copy System' button is highlighted. The right pane shows the details for the selected system, including the 'General' tab with fields for System Name, System ID, System Host, Type, Release, Instance ID, Description, Pool, and Status.

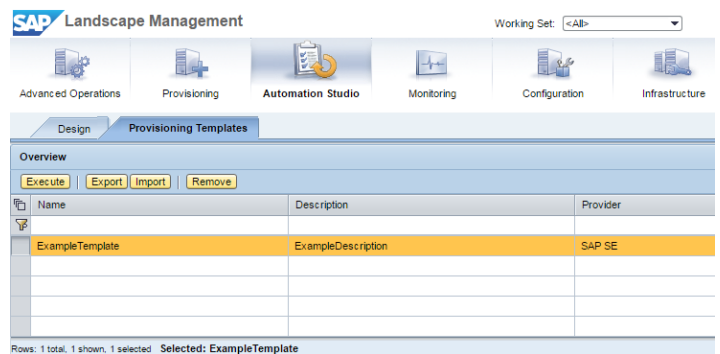
System Landscape	CRQ: NetWeaver ABAP 7.40, sapdbcrq.example.com
Find: <input type="text"/> Next	Clone System Copy System Standalone PCA Refresh System Destroy System
<ul style="list-style-type: none"> • BWD: sapdbbhd.example.com • BWI: sapdbbhp.example.com • BWQ: sapdbbhq.example.com • CRD: sapdbcrd.example.com • CRP: sapdbcrp.example.com • CRQ: sapdbcrq.example.com • ERD: sapdbehd.example.com • ERP: sapdbehp.example.com • ERQ: sapdbehq.example.com • ERQ: sapdbehqclone.example.com 	<p>General</p> <p>System Name: CRQ: NetWeaver ABAP 7.40</p> <p>System ID: CRQ</p> <p>System Host: sapdbcrq.example.com</p> <p>Type: NetWeaver ABAP</p> <p>Release: 7.40</p> <p>Instance ID: [SystemID CRQ.SystemHost]</p> <p>Description: SAP CRM on ASE (Copy of S)</p> <p>Pool: Quality</p> <p>Status: ● Running</p>

Explanation	Screenshots
<p>42. On the <i>Basic</i> step screen, enter the following values:</p> <ul style="list-style-type: none"> System ID: CRS Pool: Sandbox Password: Walldorf1 (and confirm) <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"> Name: ExampleTemplate Description: ExampleDescription Password: Walldorf1 (and confirm) <p>47. Choose <i>Save</i> and proceed with the next step.</p>	

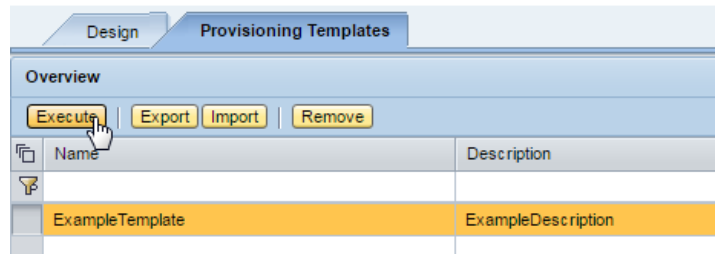
Explanation

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

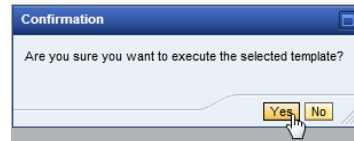
Screenshots



48. Select the corresponding line in the table and choose [Execute](#).



49. Choose [Yes](#).

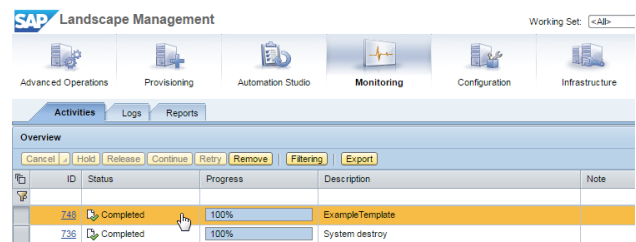


Once you trigger the operation, you are automatically re-directed to the [Activities](#) screen where you can monitor the execution status of the system copy operation.

50. Wait for the activity to be Completed.

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.

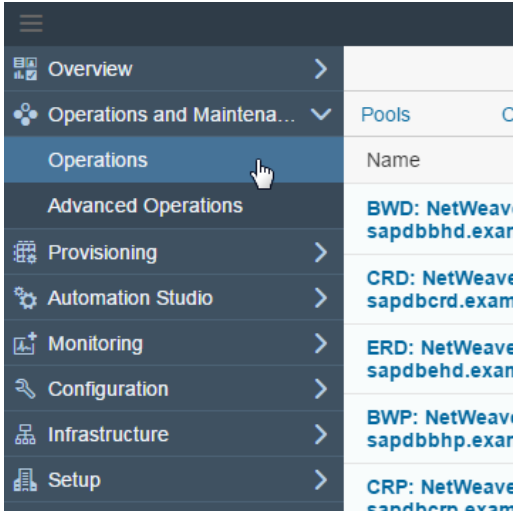

In the following exercise you will learn how to perform Takeover-operations on SAP HANA instances.

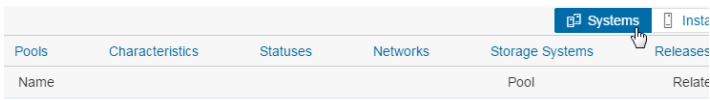
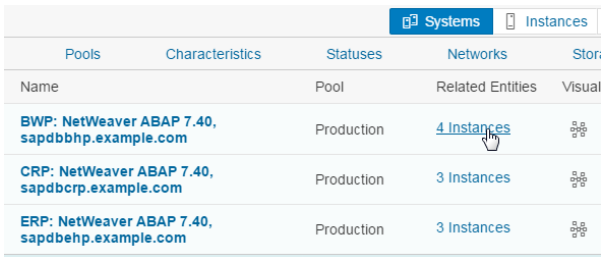

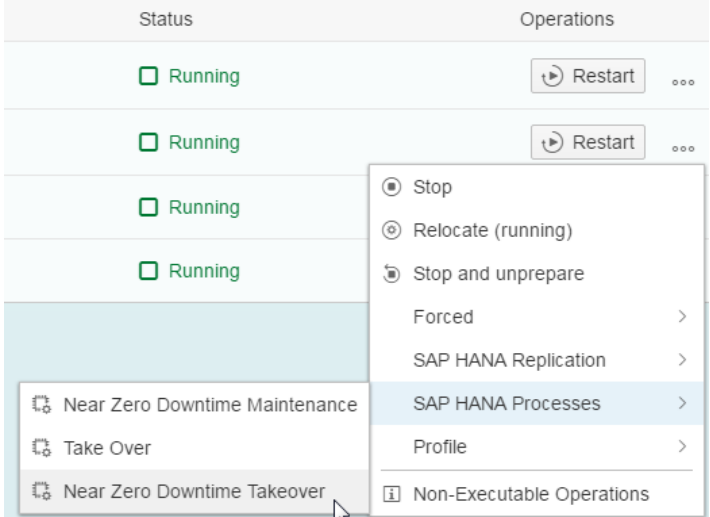
For more information, see SAP Help Portal at:

http://help.sap.com/static/saphelp_lamaent30/en/bb/ca099ce73c42d99596375389b0b0e1/frameset.htm

Description

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

Explanation	Screenshots
<h2>7.1 SAP HANA NZDM Takeover</h2>	
<p>The Guide "How to Perform System Replication for SAP HANA" is available via: http://scn.sap.com/docs/DOC-47702</p>	
<ol style="list-style-type: none"> Open <a href="http://<IPAddressOfYourInstance>:50000/lama">http://<IPAddressOfYourInstance>:50000/lama Choose <i>Operations and Maintenance > Operations</i>. 	
<ol style="list-style-type: none"> Choose Working Set <i>Production</i> (for more information, see chapter '4.3 Working Set'). 	

Explanation	Screenshots
4. If not already selected choose Systems.	
5. Choose <i>4 Instances</i> in the line <i>BWP: NetWeaver ABAP 7.40, sapdbbhp.example.com</i> .	
6. Choose <i>...</i> in the line <i>BHP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhprepl.example.com</i> .	
7. Choose <i>SAP HANA Processes > Near Zero Downtime Takeover</i> .	

Explanation

Screenshots

8. Choose *Execute*.

The screenshot shows a dialog titled "Execute Near Zero Downtime Takeover" with "Execute" and "Cancel" buttons. Below is a "DIAGRAM" showing a flow: "Wait for Active Replication" (dashed box) leads to "Wait for Preloading of Tables" and "Set SRTAKEOVER Key". Both lead to "Wait for Primary to be up". On the right, a sidebar shows "Wait for Active Replication" and a list of "EXECUTABLE ENTITIES" with columns "Name" and "BHP System database (A...".

9. Choose *OK*.

The screenshot shows a "Confirm" dialog box with the text "Are you sure that you want to execute this custom process?". It has "OK" and "Cancel" buttons. The "OK" button is highlighted with a mouse cursor.

Afterwards you are redirected to the screen *Operations and Maintenance > Operations*.

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, sapdbbhp.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

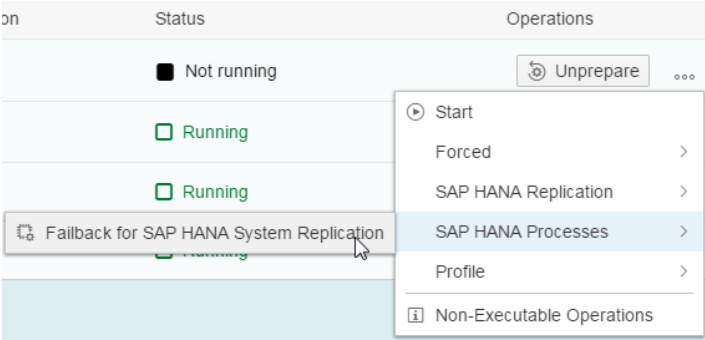
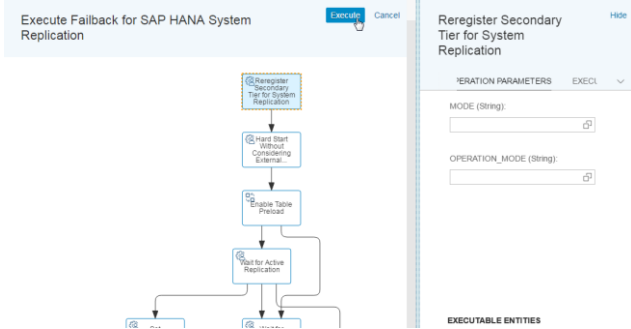
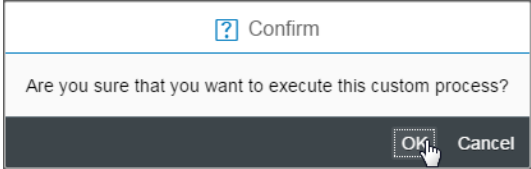
Wait for the primary SAP HANA instance is stopped and the former secondary SAP HANA instance has now the DB role primary.

7.2 SAP HANA Failback

Continue on the screen where you ended chapter 7.1 SAP HANA NZDM Takeover.

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

BWP: NetWeaver ...						Operations
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	Unprepare	
BHP System database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-26		Running	Restart	
BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	Restart	
BWP AS Instance (ABAP): 10, sapas0bwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running	Restart	

Explanation	Screenshots																														
2. Choose <i>SAP HANA Processes > Failback for SAP HANA System Replication</i> .																															
3. Choose <i>Execute</i> .																															
4. Choose <i>OK</i> .																															
Afterwards you are redirected to the screen <i>Operations and Maintenance > Operations</i> .																															
Wait for all instances of this system are started and is in status Running.	<table><tr><th>Name</th><th>Pool</th><th>Related Entities</th><th>Visualization</th><th>Status</th><th>Operations</th></tr><tr><td>BWP 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> Restart ...</td></tr><tr><td>BWP 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> Restart ...</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> Restart ...</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><td> Restart ...</td></tr></table>	Name	Pool	Related Entities	Visualization	Status	Operations	BWP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Running	Restart ...	BWP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhp.repl.example.com	Production	BWP: NetWeav... prod-blade-26		Running	Restart ...	BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	Restart ...	BWP AS Instance (ABAP): 10, sapas0bwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running	Restart ...
Name	Pool	Related Entities	Visualization	Status	Operations																										
BWP System Database (ABAP): Primary (Tier 1) MASTER (active): HANA 00, sapdbbhp.example.com	Production	BWP: NetWeav... prod-blade-25		Running	Restart ...																										
BWP System Database (ABAP): Secondary (Tier 2) MASTER : HANA 00, sapdbbhp.repl.example.com	Production	BWP: NetWeav... prod-blade-26		Running	Restart ...																										
BWP Central Instance (ABAP): 01, sapcibwp.example.com	Production	BWP: NetWeav... prod-blade-27		Running	Restart ...																										
BWP AS Instance (ABAP): 10, sapas0bwp.example.com	Production	BWP: NetWeav... prod-blade-28		Running	Restart ...																										

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:

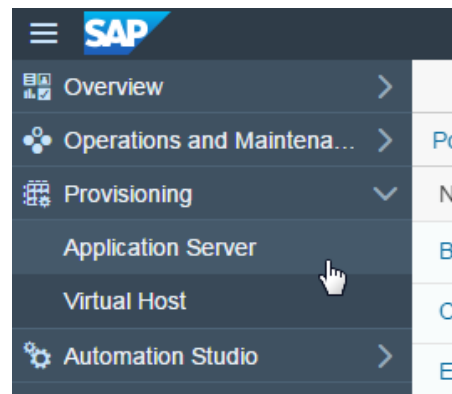
http://help.sap.com/static/saphelp_lamaent30/en/de/cb0795d8a44831804732254f14fcc3/frameset.htm

Description

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

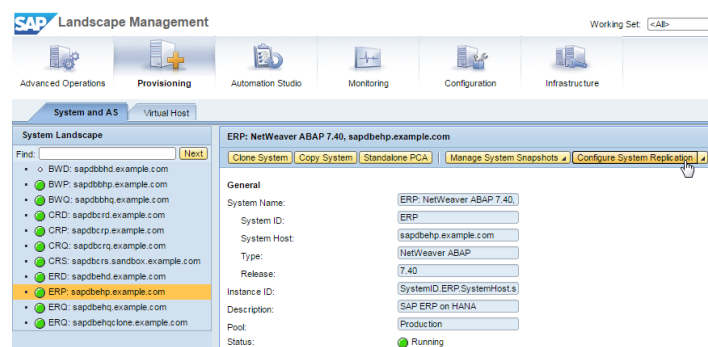
8.1 Configure System Replication

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

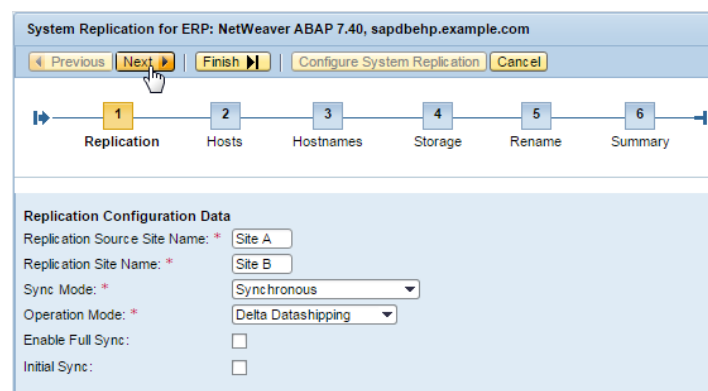


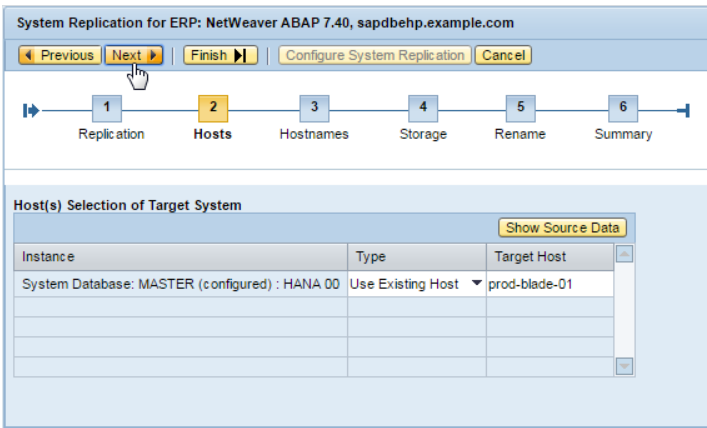
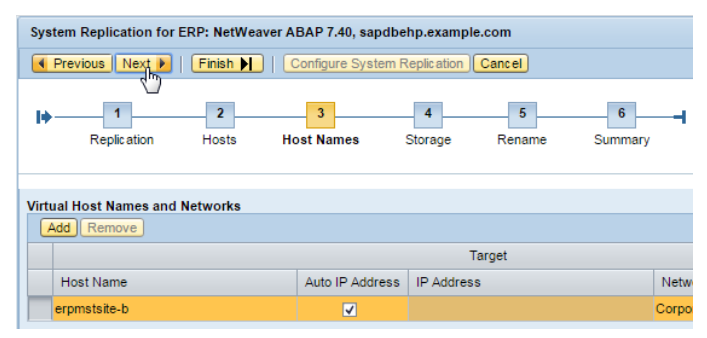
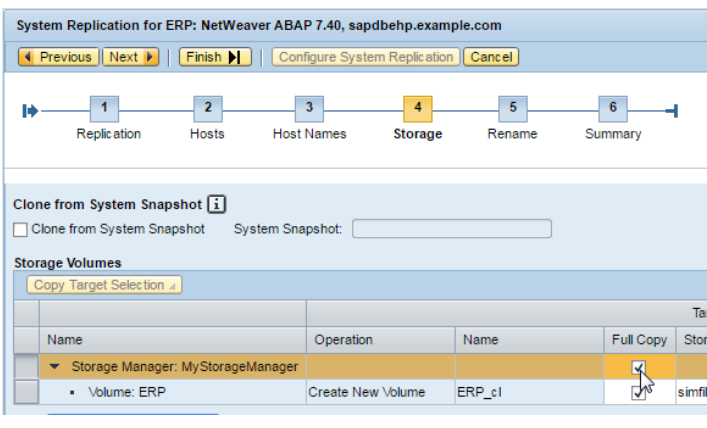
In another browser window you see the configuration.

3. Choose *ERP: NetWeaver ABAP 7.40, sapdbhep.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>Host(s) Selection of Target System</p> <table><tr><th>Instance</th><th>Type</th><th>Target Host</th></tr><tr><td>System Database: MASTER (configured) : HANA 00</td><td>Use Existing Host</td><td>prod-blade-01</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></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>Virtual Host Names and Networks</p> <table><tr><th>Host Name</th><th>Auto IP Address</th><th>IP Address</th><th>Netw</th></tr><tr><td>erpmsite-b</td><td><input checked="" type="checkbox"/></td><td></td><td>Corpo</td></tr></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">Full Copy: checked	 <p>Storage Volumes</p> <table><tr><th>Name</th><th>Operation</th><th>Name</th><th>Full Copy</th><th>Stor</th></tr><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>simfil</td></tr></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"/>	simfil
Name	Operation	Name	Full Copy	Stor												
Storage Manager: MyStorageManager			<input checked="" type="checkbox"/>													
Volume: ERP	Create New Volume	ERP_cl	<input checked="" type="checkbox"/>	simfil												

Explanation	Screenshots
10. Choose Next and proceed with the next step.	
11. On the Rename screen, enter the values: <ul style="list-style-type: none"> ○ Password for source <sid>adm: Walldorf1 ○ 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

- Wait for the activity to be Completed.

Note

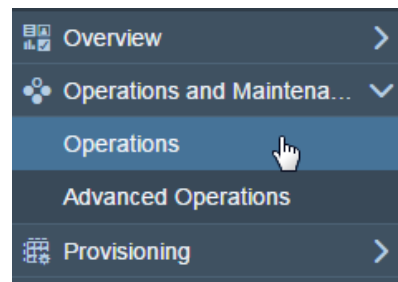
This activity is simulated. In productive use the duration of this activity depends heavily on the performance and capabilities of the involved storage systems and the size of the SAP system.

Screenshots

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').

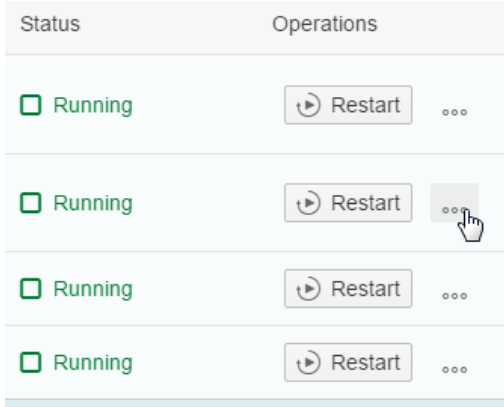
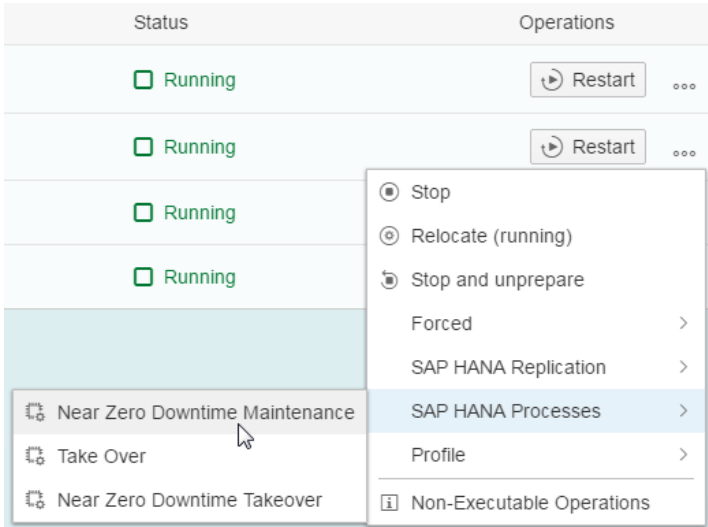
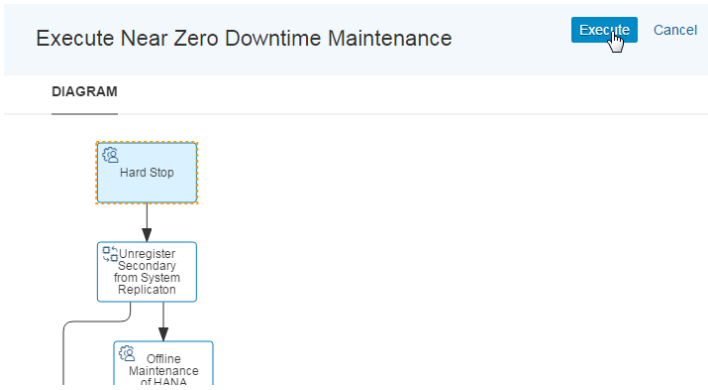


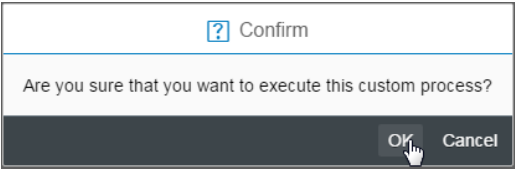

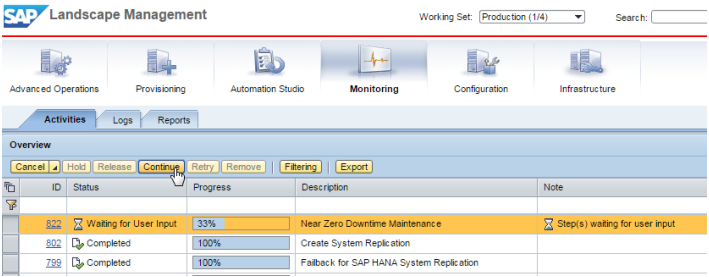
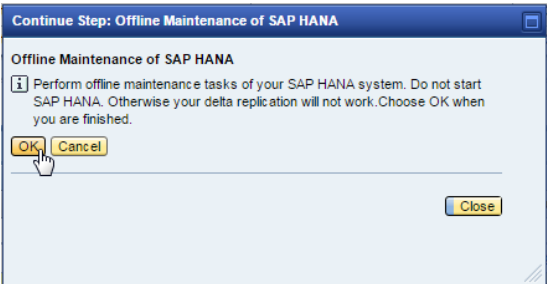
- If not already selected choose Systems.

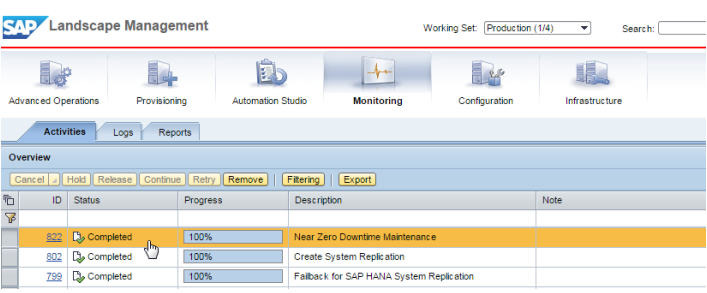
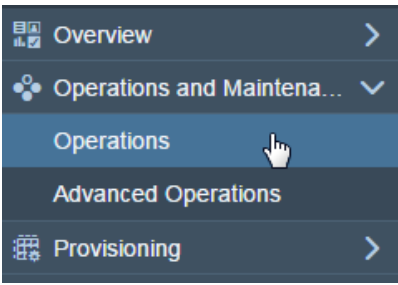
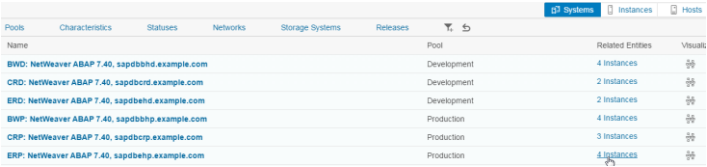

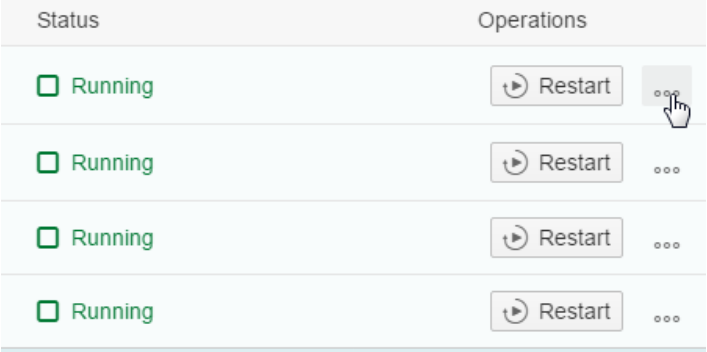
Name	Pool	Release

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

Name	Pool	Related Entities	Visualize
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										
6. Choose ... in the line <i>EHP System Database (ABAP): Secondary (Tier 2) MASTER: HANA 00, erpmstsite-b.example.com</i> .	 <table border="1"> <thead> <tr> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> </tbody> </table>	Status	Operations	<input type="checkbox"/> Running	Restart ...	<input type="checkbox"/> Running	Restart ...	<input type="checkbox"/> Running	Restart ...	<input type="checkbox"/> Running	Restart ...
Status	Operations										
<input type="checkbox"/> Running	Restart ...										
<input type="checkbox"/> Running	Restart ...										
<input type="checkbox"/> Running	Restart ...										
<input type="checkbox"/> Running	Restart ...										
7. Choose <i>SAP HANA Processes > Near Zero Downtime Maintenance</i> .	 <table border="1"> <thead> <tr> <th>Status</th> <th>Operations</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> <tr> <td><input type="checkbox"/> Running</td> <td>Restart ...</td> </tr> <tr> <td><input type="checkbox"/> Running</td> <td> <ul style="list-style-type: none"> Stop Relocate (running) Stop and unprepare Forced > SAP HANA Replication > SAP HANA Processes > Profile > Non-Executable Operations </td> </tr> <tr> <td colspan="2"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Near Zero Downtime Maintenance Take Over Near Zero Downtime Takeover </td> </tr> </tbody> </table>	Status	Operations	<input type="checkbox"/> Running	Restart ...	<input type="checkbox"/> Running	Restart ...	<input type="checkbox"/> Running	<ul style="list-style-type: none"> Stop Relocate (running) Stop and unprepare Forced > SAP HANA Replication > SAP HANA Processes > Profile > Non-Executable Operations 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Near Zero Downtime Maintenance Take Over Near Zero Downtime Takeover 	
Status	Operations										
<input type="checkbox"/> Running	Restart ...										
<input type="checkbox"/> Running	Restart ...										
<input type="checkbox"/> Running	<ul style="list-style-type: none"> Stop Relocate (running) Stop and unprepare Forced > SAP HANA Replication > SAP HANA Processes > Profile > Non-Executable Operations 										
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Near Zero Downtime Maintenance Take Over Near Zero Downtime Takeover 											
8. Choose <i>Execute</i> .	 <p>Execute Near Zero Downtime Maintenance [Execute] [Cancel]</p> <p>DIAGRAM</p> <pre> graph TD A[Hard Stop] --> B[Unregister Secondary from System Replicator] B --> C[Offline Maintenance of HANA] </pre>										

Explanation	Screenshots
9. Choose <i>OK</i> .	 <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 > Operations</i>.</p> <p>10. Choose <i>Navigate to activity</i>.</p>	 <p>A screenshot of the "Operations and Maintenance" screen, specifically the "Operations" tab. It displays a table with columns: Name, Pool, Related Entities, Visualization, Status, and Operations. The table lists several SAP instances, including the Primary and Secondary HANA databases and ERP instances. The "Status" column shows "Running" for most instances. The "Operations" column contains buttons like "Restart" and "Navigate to activity". A mouse cursor is hovering over the "Navigate to activity" button for the Secondary HANA database instance.</p>
<p>Afterwards you are redirected to the screen <i>Monitoring > 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" interface, specifically the "Monitoring" > "Activities" screen. The "Working Set" is set to "Production (1/4)". The "Overview" section shows a table with columns: ID, Status, Progress, Description, and Note. The table lists several activities, including "Near Zero Downtime Maintenance" which is currently in "Waiting for User Input" status with 33% progress. Other activities like "Create System Replication" and "Failback for SAP HANA System Replication" are completed. The "Continue" button in the "Activities" toolbar is highlighted with a mouse cursor.</p>
12. Choose <i>OK</i> .	 <p>A dialog box titled "Continue Step: Offline Maintenance of SAP HANA". The text inside says: "Offline Maintenance of SAP HANA. 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.	
<h2>8.3 SAP HANA Near Zero Downtime Maintenance on Primary Tier</h2>	
14. Choose <i>Operations and Maintenance > Operations</i> .	
15. Choose <i>4 Instances</i> in the line <i>ERP: NetWeaver ABAP 7.40, sapdbehp.example.com</i> .	
16. Choose  in the line <i>EHP System Database (ABAP): Primary (Tier 1) MASTER : HANA 00, sapdbehp.example.com</i> .	

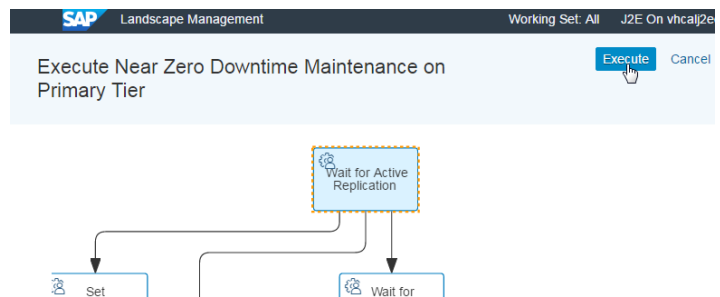
Explanation

Screenshots

17. Choose [SAP HANA Processes](#) > [Near Zero Maintenance on Primary Tier](#).

Visualization	Status	Operations
	<input type="checkbox"/> Running	Restart ...
	<input type="checkbox"/> Running	Stop
	<input type="checkbox"/> Running	Relocate (running)
	<input type="checkbox"/> Running	Stop and unprepare
Near Zero Downtime Maintenance on Primary Tier		<div> <div>Forced</div> <div>SAP HANA Replication</div> <div>SAP HANA Processes</div> <div>Profile</div> <div>Non-Executable Operations</div> </div>

18. Choose [Execute](#).



19. Choose [OK](#).

Confirm

Are you sure that you want to execute this custom process?

OK
 Cancel

Afterwards you are redirected to the screen [Operations and Maintenance](#) > [Operations](#).

20. Choose [Navigate to activity](#).


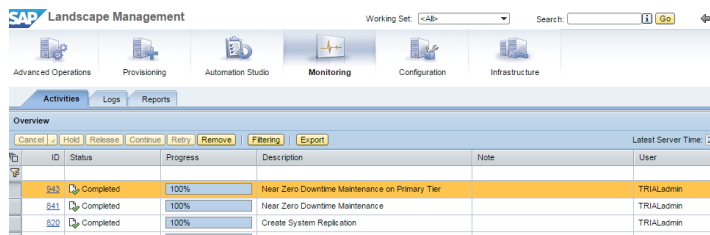
Name	Pool	Related Entities	Visualization	Status	Operations
ERP System database (ABAP): Primary (Tier 1) MASTER: HANA 00, sapdberp.example.com	Production	ERP: NetWeaver A... prod-blade-15		<input type="checkbox"/> Not running	Navigate to activity
ERP System database (ABAP): Primary (Tier 1) MASTER (Active): HANA 00, erpmstsite-0.example.com	Production	ERP: NetWeaver A... prod-blade-01		<input type="checkbox"/> Running	Navigate to activity
ERP Central Instance (ABAP): 01, sapclerp.example.com	Production	ERP: NetWeaver A... prod-blade-16		<input type="checkbox"/> Running	Navigate to activity
ERP AS Instance (ABAP): 10, sapas0erp.example.com	Production	ERP: NetWeaver A... prod-blade-17		<input type="checkbox"/> Running	Restart ...

Afterwards you are redirected to the screen [Monitoring](#) > [Activities](#).

The process will run until the step where the Maintenance can be done, and will wait for User input to continue.

Wait until the activity is in status Waiting for user input.

SAP Landscape Management					
Working Set: Production (1/4)			Search:		
Advanced Operations	Provisioning	Automation Studio	Monitoring	Configuration	Infrastructure
Activities Logs Reports					
Overview					
<div> Cancel Hold Release Continue Retry Remove Filtering Export </div>					
ID	Status	Progress	Description	Note	
800	Waiting for User Input	41%	Near Zero Downtime Maintenance on Primary Tier	Steps waiting for user input	
802	Completed	100%	Near Zero Downtime Maintenance		
803	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><tr><th>ID</th><th>Status</th><th>Progress</th><th>Description</th><th>Note</th><th>User</th></tr><tr><td>583</td><td>Completed</td><td>100%</td><td>Near Zero Downtime Maintenance on Primary Tier</td><td></td><td>TRIALadmin</td></tr><tr><td>581</td><td>Completed</td><td>100%</td><td>Near Zero Downtime Maintenance</td><td></td><td>TRIALadmin</td></tr><tr><td>520</td><td>Completed</td><td>100%</td><td>Create System Replication</td><td></td><td>TRIALadmin</td></tr></table>	ID	Status	Progress	Description	Note	User	583	Completed	100%	Near Zero Downtime Maintenance on Primary Tier		TRIALadmin	581	Completed	100%	Near Zero Downtime Maintenance		TRIALadmin	520	Completed	100%	Create System Replication		TRIALadmin
ID	Status	Progress	Description	Note	User																				
583	Completed	100%	Near Zero Downtime Maintenance on Primary Tier		TRIALadmin																				
581	Completed	100%	Near Zero Downtime Maintenance		TRIALadmin																				
520	Completed	100%	Create System Replication		TRIALadmin																				

9 Automation Studio

Scenario

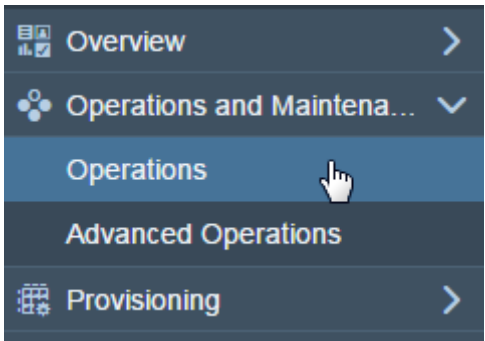


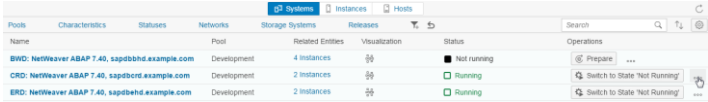
In the following exercise you will learn how to create operation templates and schedule their execution. Afterwards you want to create a custom process and execute it.

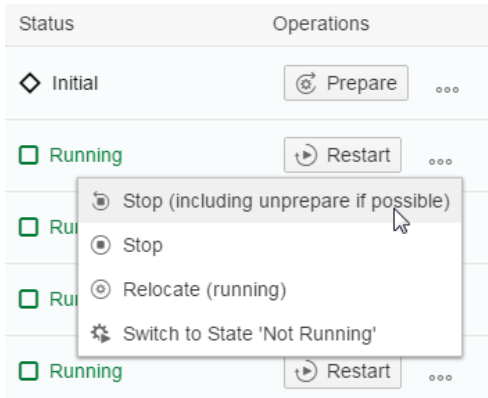
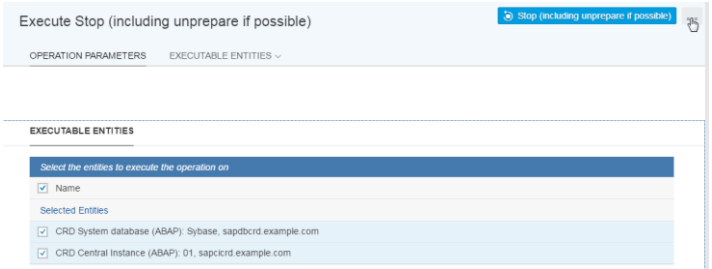
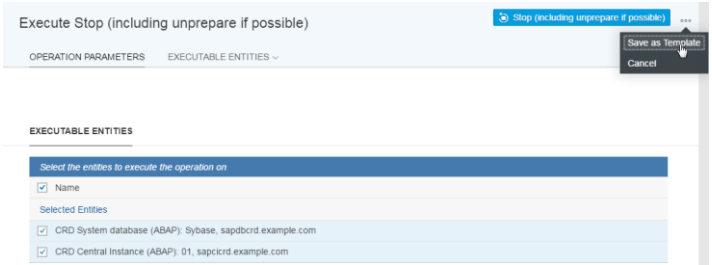
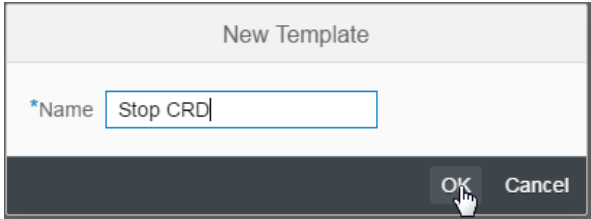
- Operation templates provide the possibility to automate and schedule operations.
For more information, see SAP Help Portal at:
http://help.sap.com/static/saphelp_lamaent30/en/70/75bd286b964dc4b6a70c56f884ca4b/frameset.htm
- Custom processes provides a complete landscape view across infrastructure layers 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

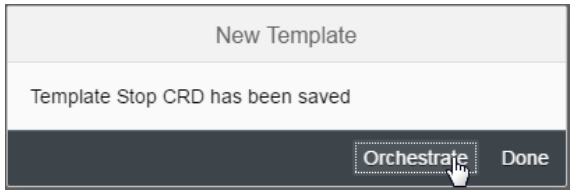
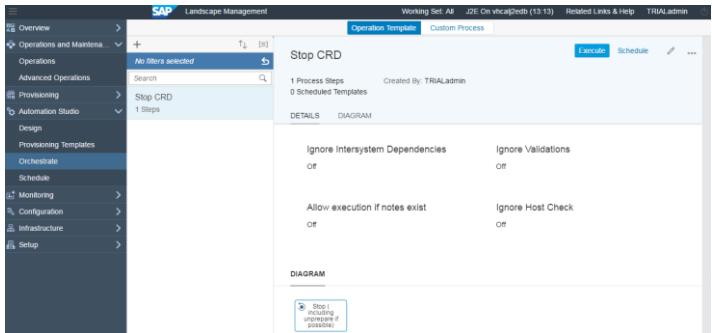

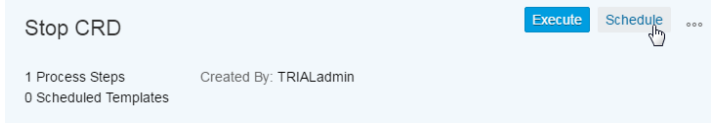
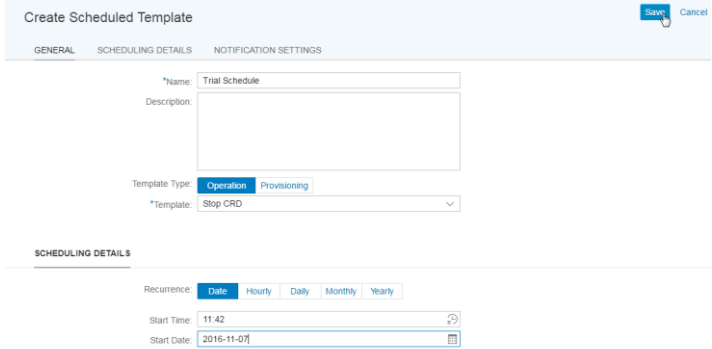
Description

- 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>	
1. Choose <i>Operations and Maintenance</i> > <i>Operations</i> .	
2. If not already selected change the Working Set to <i>All</i> (for more information, see chapter '4.3 Working Set').	
3. Choose  in the line <i>CRD</i> : <i>NetWeaver ABAP 7.40, sapdbcrd.example.com</i>	

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

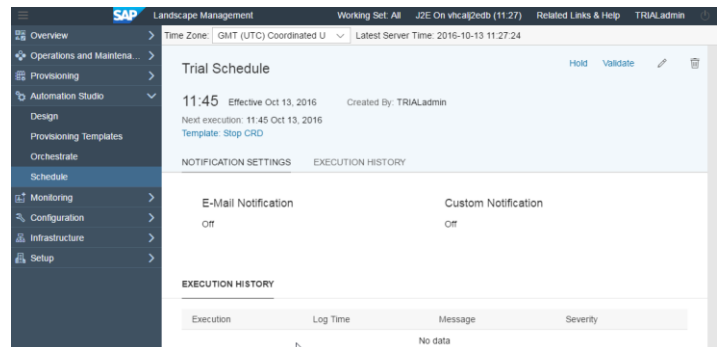
Explanation	Screenshots
<p>9. In the dialog box <i>New Template</i>, choose <i>Orchestrate</i>.</p>	
<p>Afterwards you are redirected to the screen <i>Automation Studio > Orchestrate</i>.</p>	
<p>10. Choose <i>Schedule</i> in the upper right.</p> <p>Note</p> <p>In case Schedule is not displayed, select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

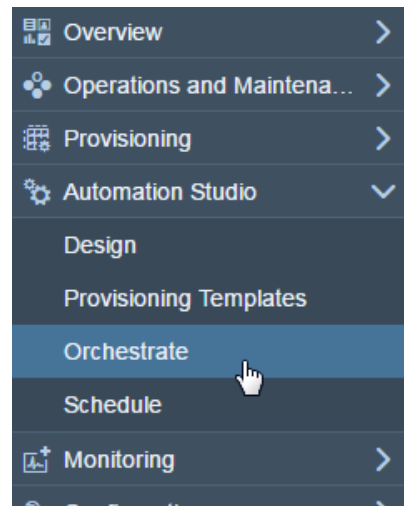
- Optional step: Wait until the scheduled time is reached and the template is executed successfully.

Screenshots

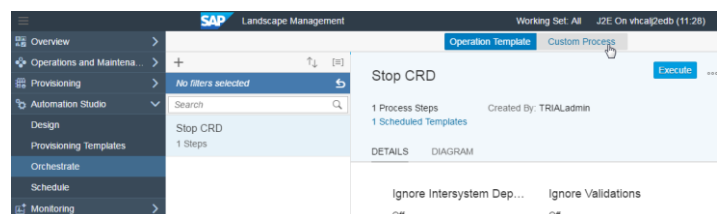


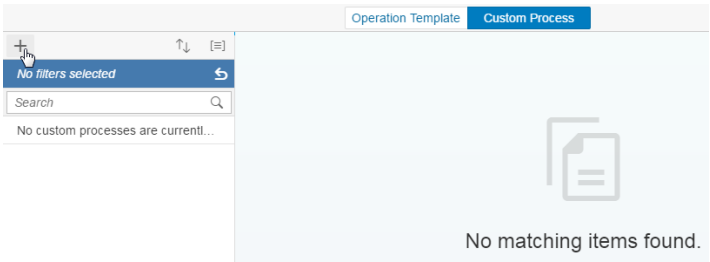
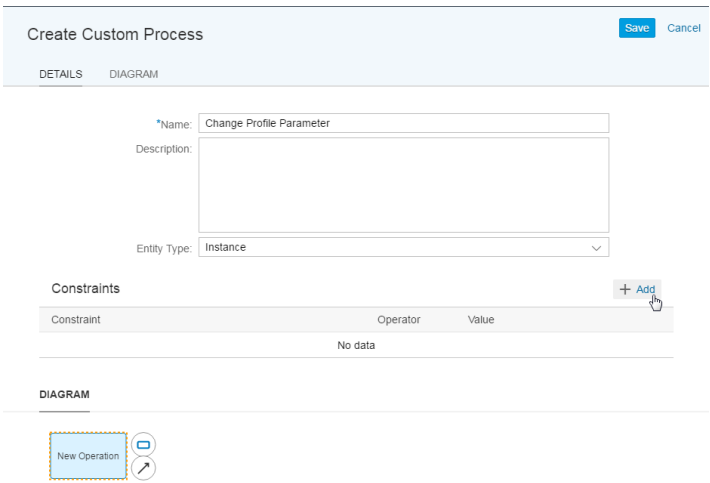

9.2 Custom Process

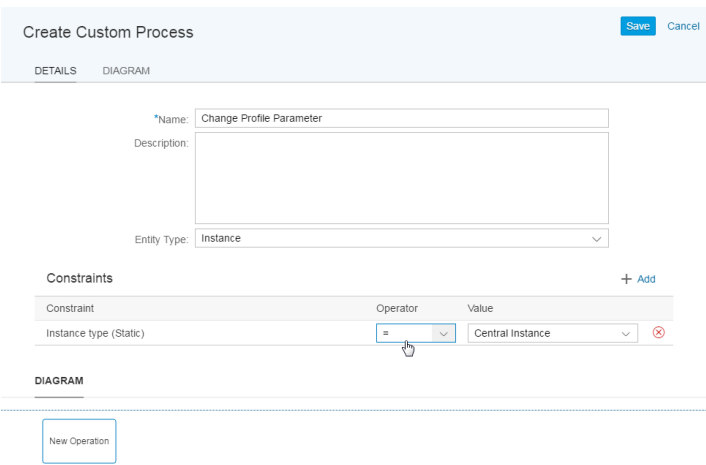
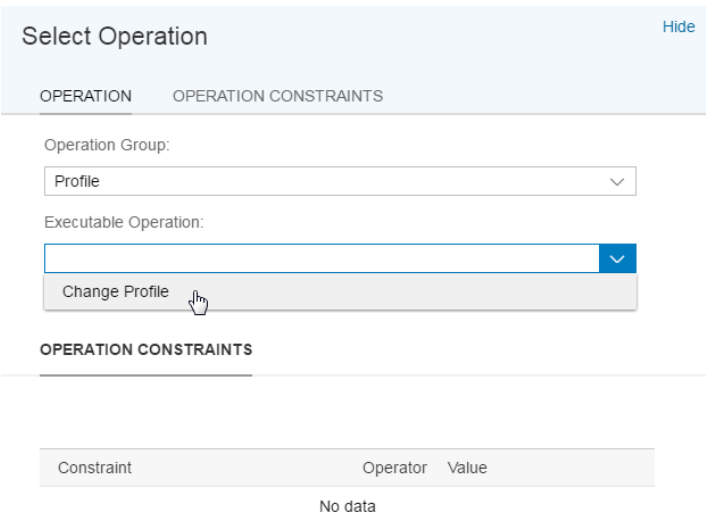
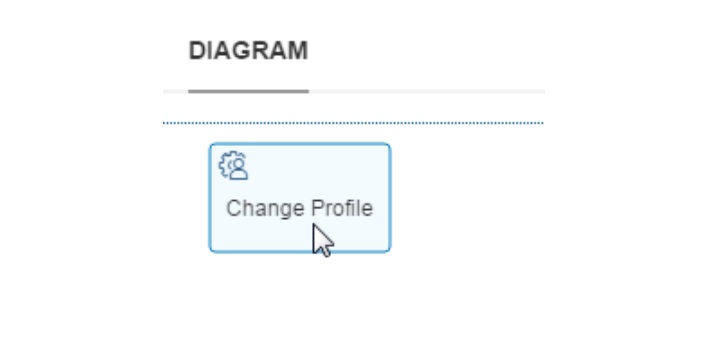
- Choose *Automation Studio > Orchestrate*.



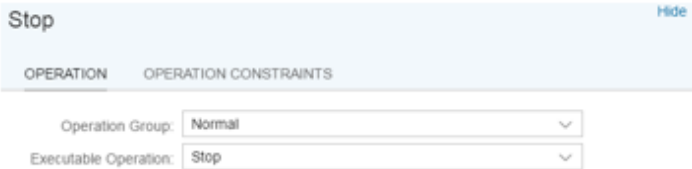

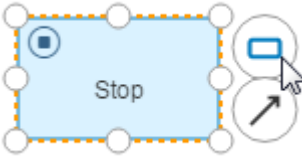
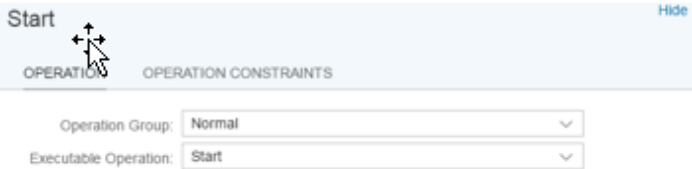


- Choose *Custom Process* in the upper middle.



Explanation	Screenshots
<p>3. Choose the + sign to create a new Custom Process.</p>	
<p>4. Change the following values:</p> <ul style="list-style-type: none"> Name: Change Profile Parameter Entity Type: Instance <p>5. Choose Add.</p>	
<p>6. In the dialog box Select Constraint Type, search for the following value:</p> <ul style="list-style-type: none"> Search: Instance type (Static) <p>7. Choose that line.</p>	

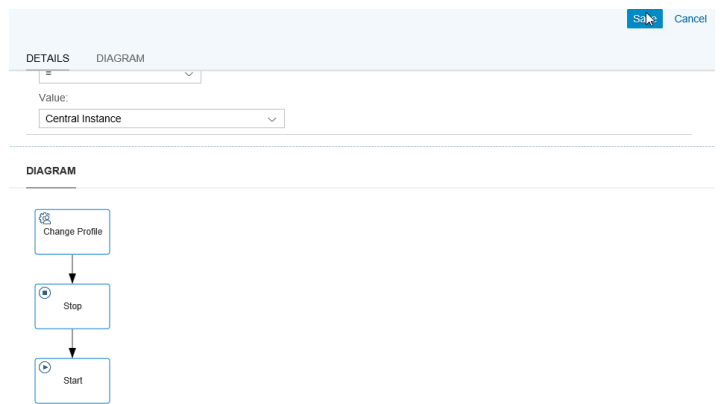
Explanation	Screenshots
<p>8. Change the following values:</p> <ul style="list-style-type: none"> Operator: = Value: Central Instance 	 <p>The screenshot shows the 'Create Custom Process' window with the 'DETAILS' tab selected. The 'Name' field contains 'Change Profile Parameter'. The 'Entity Type' dropdown is set to 'Instance'. Below, the 'Constraints' table has one row with 'Instance type (Static)' as the constraint, '=' as the operator, and 'Central Instance' as the value. A hand cursor is pointing at the '=' operator.</p>
<p>9. Change the following values the Operation details:</p> <ul style="list-style-type: none"> Operation Group: Profile Executable Operation: Change Profile 	 <p>The screenshot shows the 'Select Operation' window with the 'OPERATION' tab selected. The 'Operation Group' dropdown is set to 'Profile'. The 'Executable Operation' dropdown is set to 'Change Profile', and a hand cursor is pointing at it. Below, the 'OPERATION CONSTRAINTS' table is empty, showing 'No data'.</p>
<p>10. Make sure the operation Change Profile is selected.</p>	 <p>The screenshot shows the 'DIAGRAM' view. A box labeled 'Change Profile' with a gear icon is highlighted, and a hand cursor is pointing at it.</p>

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

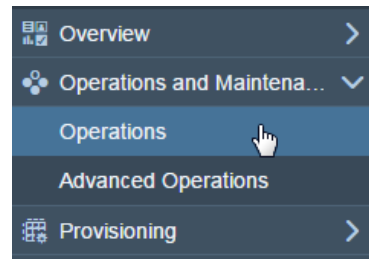
Explanation

Screenshots

16. Choose *Save*.



17. Choose *Operations and Maintenance > Operations*.

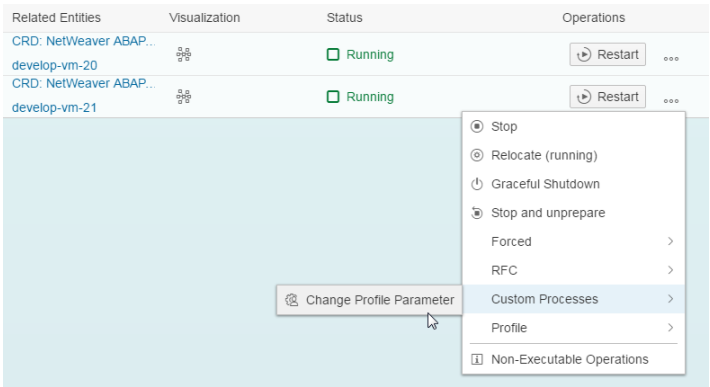
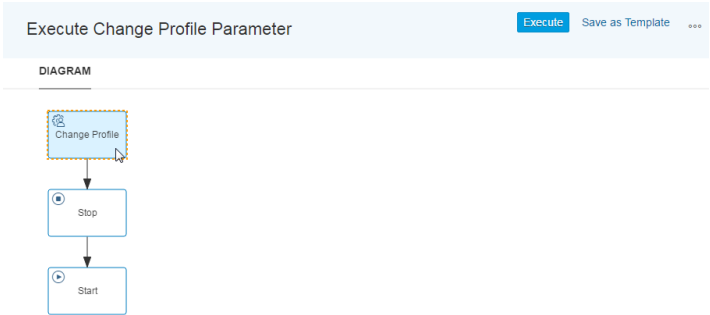
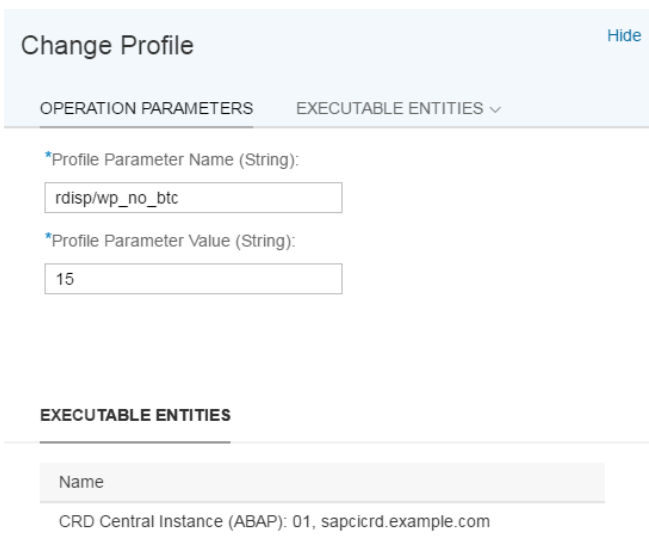


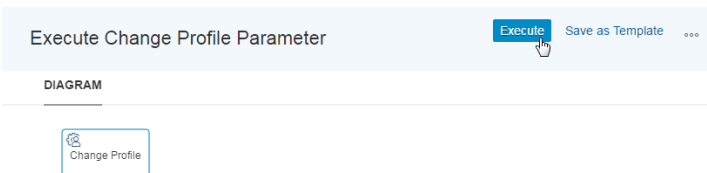
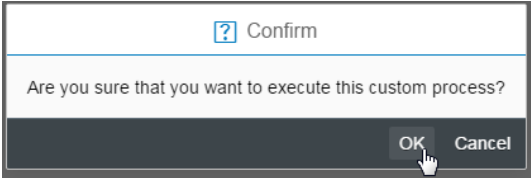
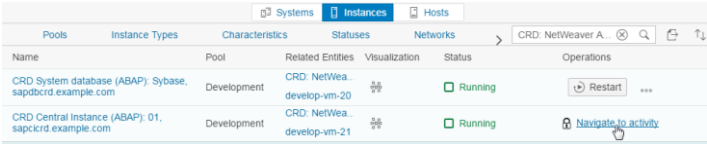
18. Choose *2 Instances* in the line *CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com*.

Systems						
Pools	Characteristics	Statuses	Networks	Storage Systems	Releases	Search
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, sapdbehd.example.com	Development	2 Instances	🔗	Running	Restart	...

19. Choose *...* in the line *CRD Central Instance (ABAP): 01, sapcicrd.example.com*

Instances						
Pools	Instance Types	Characteristics	Statuses	Networks	Storage Systems	CRD: NetWeaver A...
Name	Pool	Related Entities	Visualization	Status	Operations	
CRD System database (ABAP): Sybase, sapdbcrd.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	...

Explanation	Screenshots
<p>20. Choose <i>Custom Processes</i> > <i>Change Profile Parameter</i>.</p>	
<p>21. Choose <i>Change Profile</i>.</p>	
<p>22. Change the following values the Operation details:</p> <ul style="list-style-type: none"> Profile Parameter Name (String): rdisp/wp_no_btc Profile Parameter Value (String): 15 <p>Note</p> <p>This chosen profile parameter is just an example. You can use any String.</p>	

Explanation	Screenshots
23. Choose <i>Execute</i> .	
24. Choose <i>OK</i> .	
<p>The custom operation is executed.</p> <p>25. Optional step: Choose <i>Navigate to activity</i>.</p>	

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_lamaent30/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.

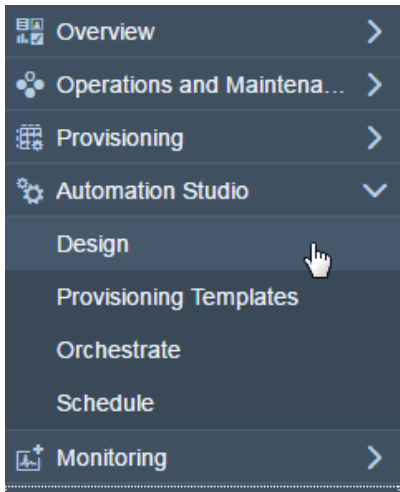
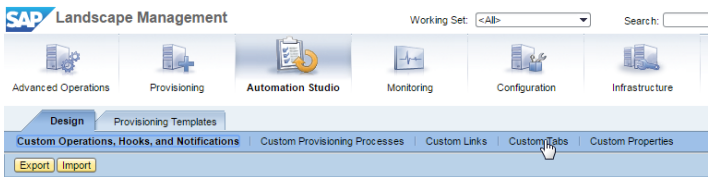
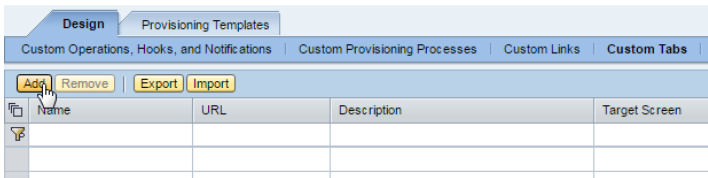
By using the features described in this section, you will verify how simple it is to create Custom Navigation Pane Entries and custom links.

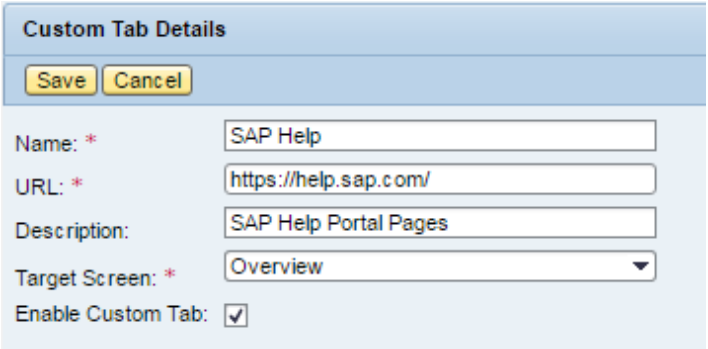
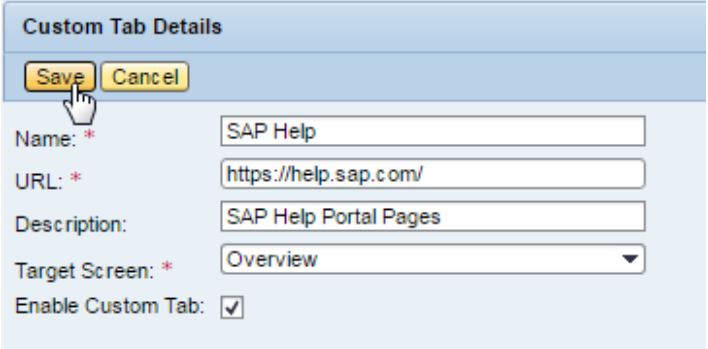
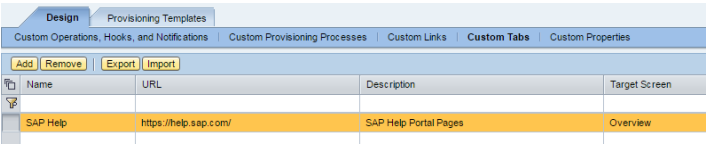
- Custom Navigation Pane Entries (Custom Tabs) help you view external applications or files within SAP Landscape Management.
For more information, see SAP Help Portal at:
http://help.sap.com/static/saphelp_lamaent30/en/36/c226476db84f8495947c13b57f8382/frameset.htm
- Custom Links help you invoke/launch external applications or custom URLs from SAP Landscape Management.
For more information, see SAP Help Portal at:
http://help.sap.com/static/saphelp_lamaent30/en/4e/03ea877b3721e8e10000000a42189e/frameset.htm


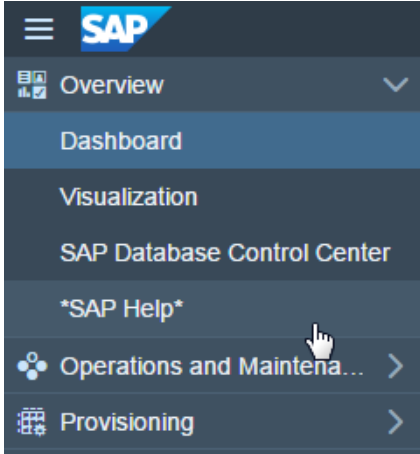
Description

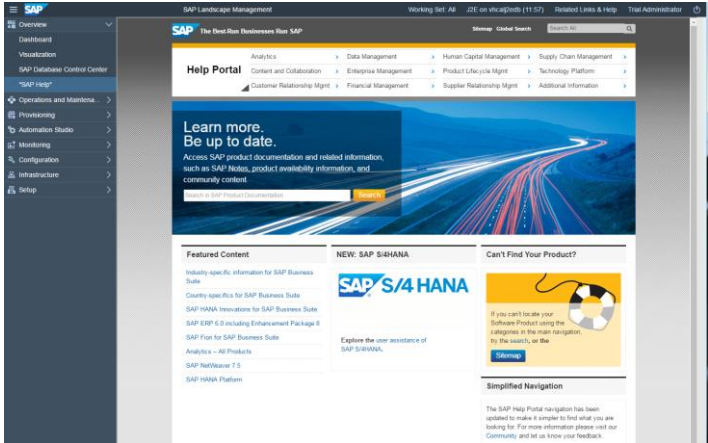
- You create Custom Navigation Pane Entries (Custom Tabs).
- You create custom links.

Scenario Steps

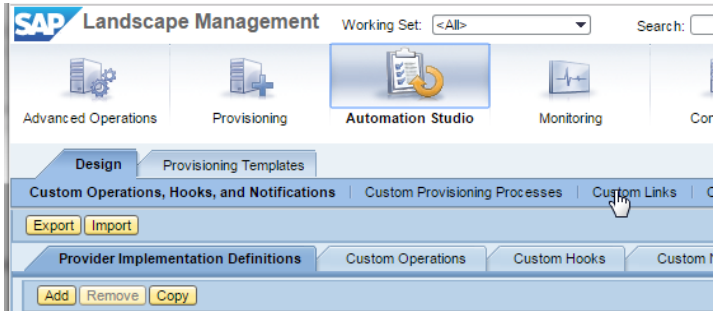
Explanation	Screenshots
<h3>11.1 Custom Navigation Pane Entries (Custom Tabs)</h3>	
<p>For the following steps please ensure that you are logged in as user TRIALadmin.</p> <ol style="list-style-type: none"> 1. Choose <i>Automation Studio</i> > <i>Design</i>. 	
<p>For the following steps please ensure that you are logged in as user TRIALadmin.</p> <ol style="list-style-type: none"> 2. Choose <i>Custom Tabs</i>. 	
<ol style="list-style-type: none"> 3. Choose <i>Add</i>. <p>Note</p> <p>In case the <i>Add</i> is not selectable, please ensure that you are logged in as TRIALadmin.</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"> Name: SAP Help URL: https://help.sap.com/ Description: SAP Help Portal Pages Target Screen: Overview Enable Custom Tab: Checked <p>i 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>i 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>i 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>	

Explanation	Screenshots
<p>The changes take effect when you login the next time or when you refresh your browser session manually.</p> <ol style="list-style-type: none"> Logoff and Login -or- refresh your browser session by either pressing F5 or choose the refresh browser button  on the title bar. Navigate to Overview > SAP Help. 	

<p>The changes take effect when you login the next time or when you refresh your browser session manually.</p>	
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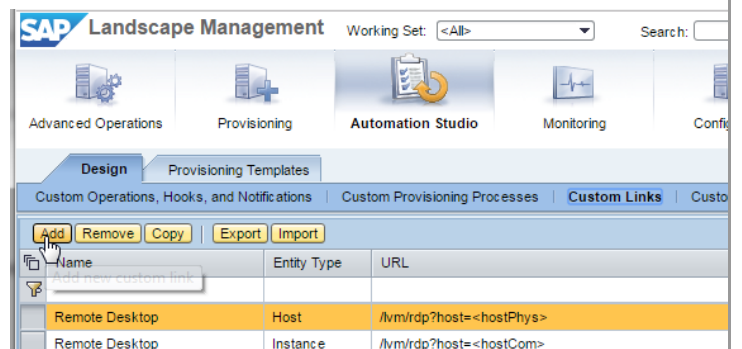
11.2 Custom Links

<p>For the following steps please ensure that you are logged in as user TRIALAdmin.</p> <ol style="list-style-type: none"> Navigate to Automation Studio → Design → Custom Links 	
---	--

Explanation

2. Choose **Add**.

Screenshots



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

Provide the following values:

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

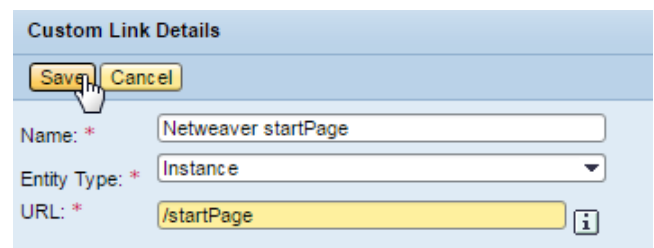
4. Choose **Save**.

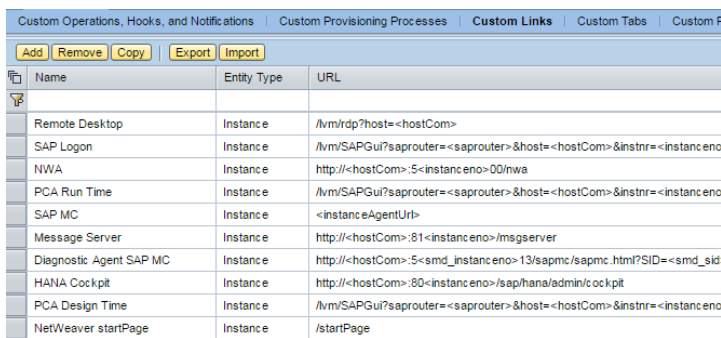
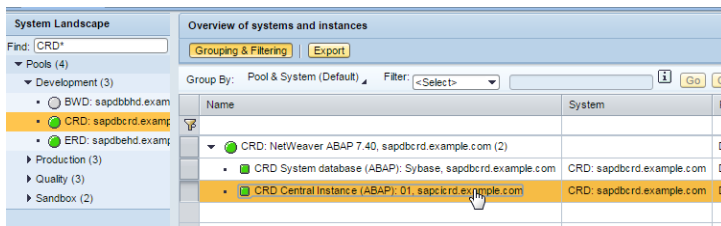
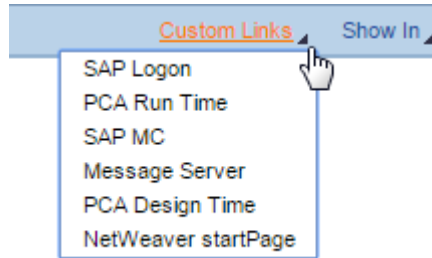
i Note

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
Now you see the newly created custom link in the overview table.	
<div>5. Navigate to <i>Advanced Operations</i> → <i>Systems</i>.</div> <div>6. Select the central instance for system CRD under the <i>Development</i> pool.</div>	
<div>On the same screen below, you see a tab <i>Instance Details</i>.</div> <div>7. Choose <i>Custom Links</i>.</div> <div>8. From the dropdown menu, select the newly created custom link called <i>NetWeaver startPage</i>.</div>	

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 Ap



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

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

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** Infrastructure

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** Infrastructure

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"/>
Color	Color coding for pool type	<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
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

8. Choose **Edit**.

Pools	Systems	Hosts	Characteristics	*SMP*
Characteristics Overview				
Edit Export Import				
Add Remove				
Name	Description	Show as Column		
Business Area	Business area	<input type="checkbox"/>		
Color	Color coding for pool type	<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

Add a new characteristic value

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**.

Pools 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.

SID	System	Color	Managed	AC-Enabled	Pool	Description
BWD	BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	SAP BW on HANA (Copy of System 'BWO')
CRD	CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	SAP CRM on ASE (Copy of System 'CRQ')
ERD	ERD: NetWeaver ABAP 7.40, sapdbehd.example.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	SAP ERP on HANA (Copy of System 'ERQ')

Rows: 9 total, 3 shown, 0 selected

Assign **Cancel**

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

Host	Color	Managed	AC-Enabled	Operational	Isolation-Ready	ACM-Managed	Pool	Network(s)	OS	OS Version	CPU Type
Copy Selection		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Dev*	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-03		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-04		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-05		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-06		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-07		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-08		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-09		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64

Rows: 80 total, 20 shown, 0 selected

Assign **Cancel**

17. Choose *Assign*.

Host	Color	Managed	AC-Enabled	Operational	Isolation-Ready	ACM-Managed	Pool	Network(s)	OS	OS Version	CPU Type
develop-vm-01		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-02		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-03		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-04		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-05		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-06		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-07		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-08		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-09		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64
develop-vm-10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DevelopmentPool	CorporateNetwork	Linux	SLES 11	X86_64

Rows: 80 total, 20 shown, 20 selected

Assign **Cancel**

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.

System	Host
BWD: NetWeaver ABAP 7.40, sapdbbhd.example.com	develop-vm-01
CRD: NetWeaver ABAP 7.40, sapdbcrd.example.com	develop-vm-02
ERD: NetWeaver ABAP 7.40, sapdbehd.example.com	develop-vm-03

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 (SLM) interface. The top navigation bar includes icons for Overview, Operations, Provisioning, Automation, Monitoring, Configuration, and Infrastructure. Below this, a secondary navigation bar shows tabs for Systems, Hosts, Virtualization, and Storage. The main content area is divided into two panels. The left panel, titled 'System Landscape', contains a search bar and a tree view of pools: DevelopmentPool (3), ProductionPool (3), QualityPool (3), and SandboxPool (2). The right panel, titled 'Overview of systems and instances', features a 'Grouping & Filtering' button and an 'Export' button. It displays a table of systems with columns for Name and Color. The table lists instances for DevelopmentPool, ProductionPool, and QualityPool, each with a unique color-coded status (DEV, PRD, 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, sapdbhd.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, sapdbhep.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_lamaent30/en/7c/66fc0614d74c3b9383d69e6e251f9d/frameset.htm

http://help.sap.com/static/saphelp_lamaent30/en/b5/03e8c76b85400991466099df84739d/frameset.htm

Description

- You personalize the user interface.

Scenario Steps

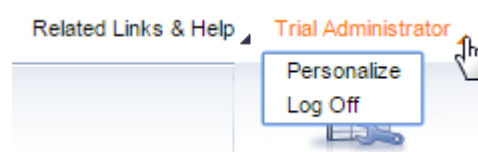
Explanation

Screenshot

13.1 Personalize - General Settings

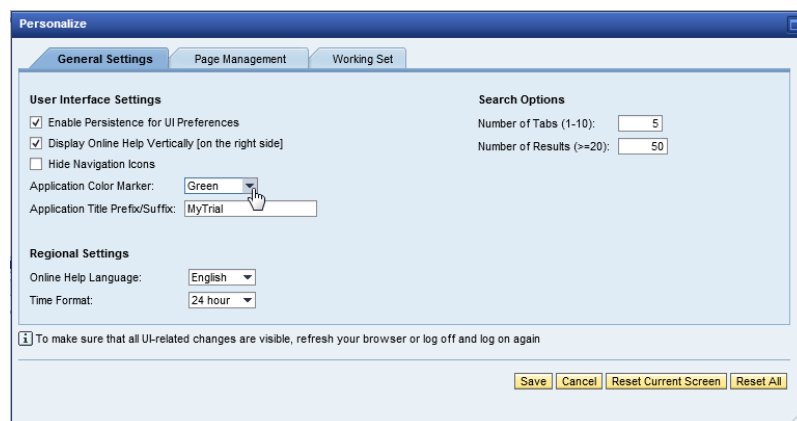
Continue on the screen where you ended chapter 12.1 Characteristics.

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

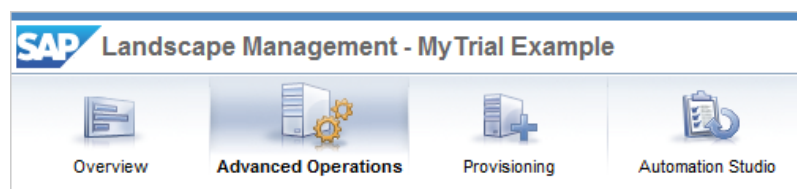


In the appearing dialog box you see several possible settings.

2. Select on the *General Settings* tab
3. Change the *Application Color Marker* to another color (eg. Blue).
4. Change the *Application Title Prefix/Suffix* (eg. MyTrial Example).
5. To save your settings, choose *Save*.



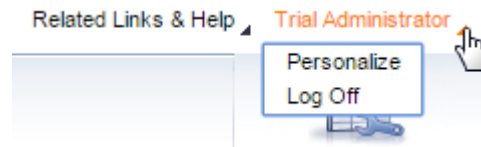
The Main screen is updated based on your values.



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.

The screenshot shows the 'Personalize' window with the 'Page Management' tab selected. The 'User Interface Settings' section includes checkboxes for 'Enable Persistence for UI Preferences' (checked), 'Display Online Help Vertically [on the right side]' (checked), and 'Hide Navigation Icons' (unchecked). There are dropdowns for 'Application Color Marker' (Blue) and 'Application Title Prefix/Suffix' (MyTrial Example). The 'Regional Settings' section includes dropdowns for 'Online Help Language' (English) and 'Time Format' (24 hour). The 'Search Options' section includes input fields for 'Number of Tabs (1-10):' (5) and 'Number of Results (>=20):' (50). At the bottom, there is a message: 'To make sure that all UI-related changes are visible, refresh your browser or log off and log on again' and buttons for 'Save', 'Cancel', 'Reset Current Screen', and 'Reset All'.

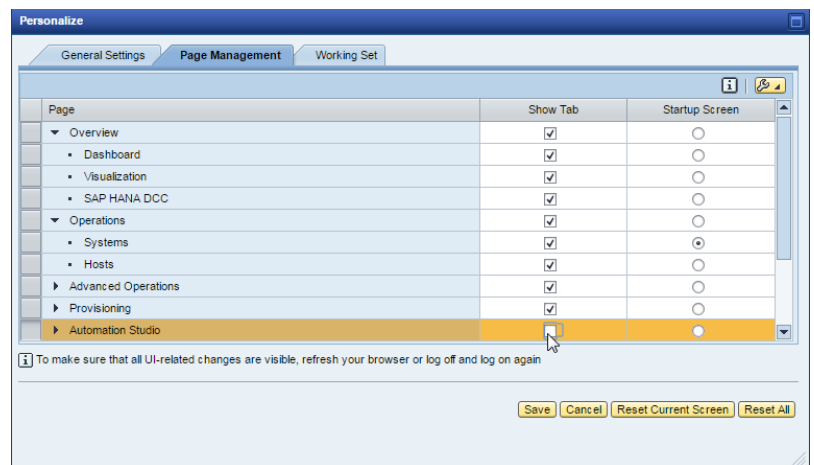
3. Expand the node for the *Operations* entry.
4. Select *Systems*.
5. Select the radio button *Startup Screen* for the Systems entry.


The screenshot shows the 'Personalize' window with the 'Page Management' tab selected. A tree view on the left shows the 'Operations' node expanded, with 'Systems' selected. The 'Show Tab' and 'Startup Screen' columns are visible. The 'Startup Screen' radio button for 'Systems' is selected. The table below shows the configuration for various pages.

Page	Show Tab	Startup Screen
Overview	<input checked="" type="checkbox"/>	<input type="radio"/>
Dashboard	<input checked="" type="checkbox"/>	<input type="radio"/>
Visualization	<input checked="" type="checkbox"/>	<input type="radio"/>
SAP HANA DCC	<input checked="" type="checkbox"/>	<input type="radio"/>
Operations	<input checked="" type="checkbox"/>	<input type="radio"/>
Systems	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>
Hosts	<input checked="" type="checkbox"/>	<input type="radio"/>
Advanced Operations	<input checked="" type="checkbox"/>	<input type="radio"/>
Provisioning	<input checked="" type="checkbox"/>	<input type="radio"/>
Automation Studio	<input checked="" type="checkbox"/>	<input type="radio"/>

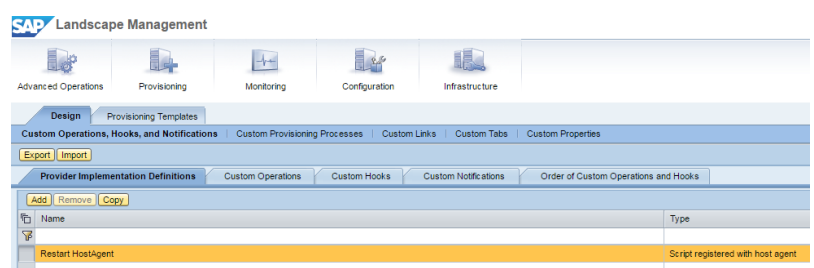
At the bottom, there is a message: 'To make sure that all UI-related changes are visible, refresh your browser or log off and log on again' and buttons for 'Save', 'Cancel', 'Reset Current Screen', and 'Reset All'.

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.

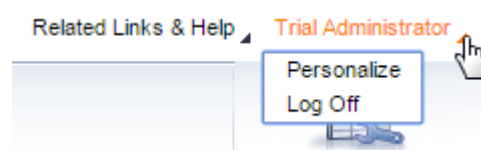
You will notice that the *Systems* tab under *Operations* is now your startup screen and the *Automation* tab from the main menu disappeared.



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.

The screenshot shows the 'Personalize' dialog box with the 'Working Set' tab selected. The 'User Interface Settings' section includes checkboxes for 'Enable Persistence for UI Preferences' (checked), 'Display Online Help Vertically [on the right side]' (checked), and 'Hide Navigation Icons' (unchecked). There is a dropdown for 'Application Color Marker' set to 'Blue' and a text field for 'Application Title Prefix/Suffix' containing 'MyTrial Example'. The 'Search Options' section has input fields for 'Number of Tabs (1-10):' set to '5' and 'Number of Results (>=20):' set to '50'. The 'Regional Settings' section has dropdowns for 'Online Help Language:' set to 'English' and 'Time Format:' set to '24 hour'. At the bottom, there is an information message: 'To make sure that all UI-related changes are visible, refresh your browser or log off and log on again'. Action buttons at the bottom right are 'Save', 'Cancel', 'Reset Current Screen', and 'Reset All'.

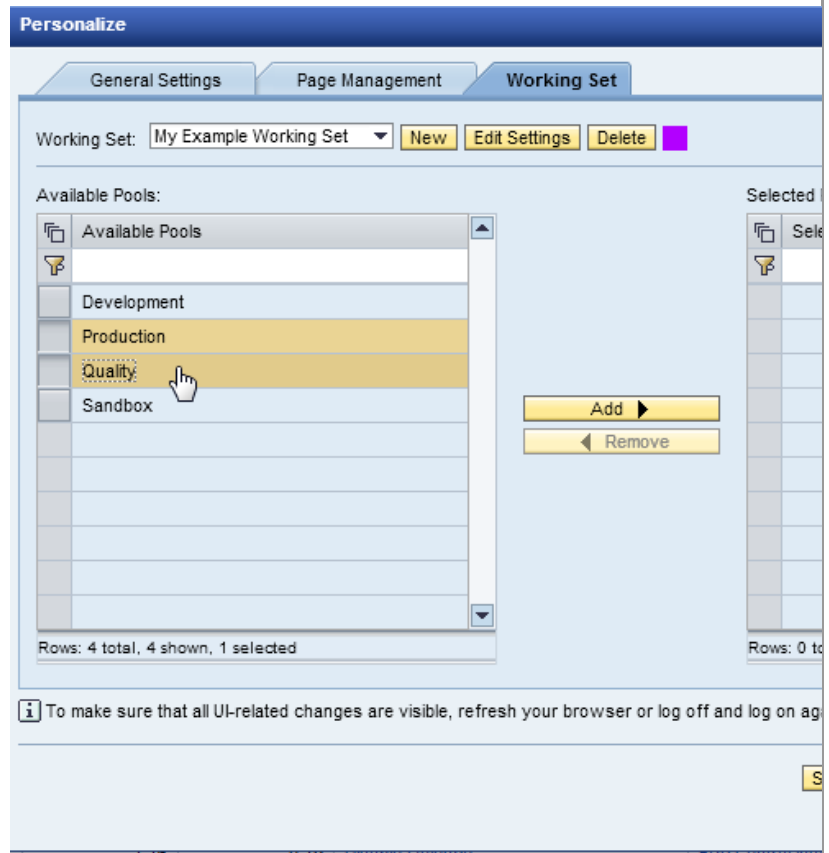
3. To create a new working set, choose *New*.

This screenshot shows the 'Working Set' tab in the 'Personalize' dialog. The 'Working Set:' dropdown is set to 'Production'. To its right are buttons for 'New', 'Edit Settings', and 'Delete'. Below these are two list boxes: 'Available Pools' on the left and 'Selected Pools' on the right. The 'Available Pools' list contains 'DevelopmentPool', 'QualityPool', and 'SandboxPool'. The 'Selected Pools' list contains 'ProductionPool'. Between the lists are 'Add' and 'Remove' buttons. At the bottom, an information message states: 'To make sure that all UI-related changes are visible, refresh your browser or log off and log on again'. Action buttons at the bottom right are 'Save', 'Cancel', 'Reset Current Screen', and 'Reset All'.

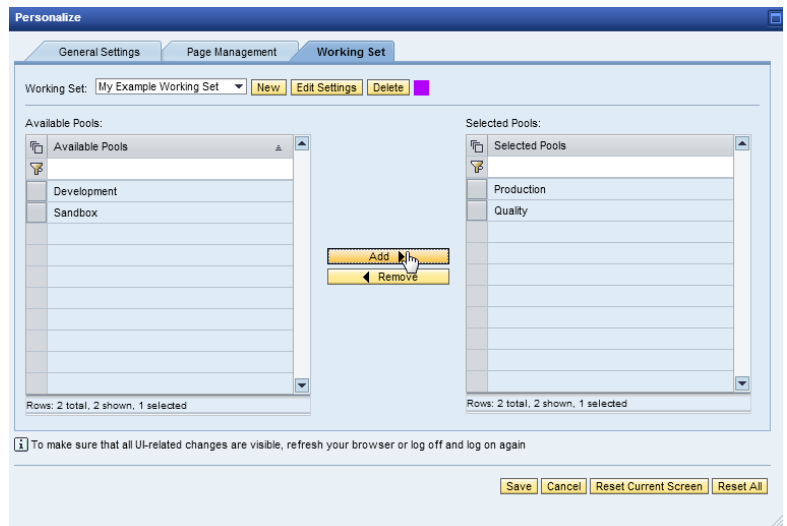
4. Enter a name for the new working set.
5. Choose a Color Assignment.
6. Choose *OK*.

The screenshot shows the 'New working set' dialog box. It has a text field for 'New Working Set Name:' containing 'My Example Working Set' and a dropdown for 'Color Assignment:' set to 'Purple'. At the bottom are 'OK' and 'Cancel' buttons. A mouse cursor is pointing at the 'OK' button.

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



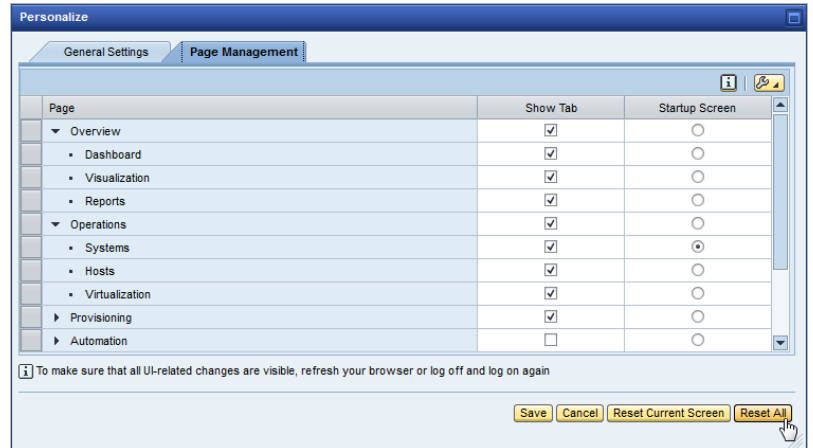
9. To save your settings, choose *Save*.



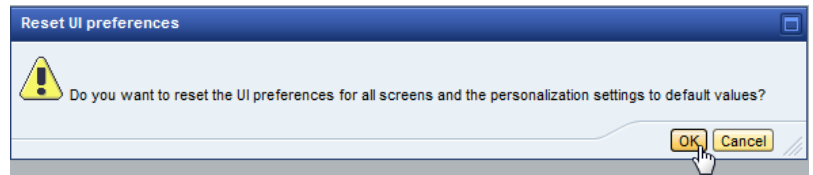
13.4 Reset Personalization [optional]

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

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