



## **Using CTS+ for SAP HANA**

What to consider for upgrades to SAP HANA SPS08

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You can use CTS+ to transport SAP HANA objects. This was first possible with SAP HANA SPS04. Change Recording was introduced in SAP HANA SPS 07. Starting with SAP HANA SPS08, you can also transport Changes via CTS+.

Additional configurations or changes to your existing configurations might be required if you upgrade your system.

We would like to give you an overview about important changes in the different releases. In this document, we will focus on an upgrade of your system to SAP HANA SPS08 as this upgrade requires configuration changes and contains changes to the process of transporting with CTS+.

This document does not replace the configuration guides for CTS+ for SAP HANA. The guides for the different releases are available on SCN: <http://scn.sap.com/docs/DOC-8576#HANA>.

In this document, we assume that you know what CTS+, SAP HANA Application Lifecycle Management (HALM) and Change Recording in SAP HANA are. The details are not explained in this document. If you need more details on this, refer to a detailed introduction to SAP HANA Application Lifecycle Management provided on saphana.com: <http://www.saphana.com/docs/DOC-4668>.

## 1 WHAT IS NEW IN WHICH SPS?

- SAP HANA SPS04
  - You can for the first time use an automatic import into an SAP HANA system via CTS+.
  - On the export side (SAP HANA Studio), you have to use an export to a file system and then attach the file manually to a transport request in CTS+.
- SAP HANA SPS05
  - You can attach a delivery unit to a transport request in the SAP HANA Studio.
  - Connection to the CTS+ communication system has to be configured in each SAP HANA Studio (by each developer).
- SAP HANA SPS06
  - An option to centrally configure connection to CTS+ Communication System is available.
- SAP HANA SPS07
  - Change Recording is introduced in the SAP HANA Studio. A Change contains a list of changed objects and the user IDs who worked on these objects (Contributors).
  - Change Recording is available for the SAP HANA stand-alone transport option, only.
- SAP HANA SPS08 Revision 80
  - Change Recording is now also integrated into SAP HANA Application Lifecycle Management (HALM).
  - Changes can be transported via CTS+ only if HALM is used for the export.
  - Configuration of CTS+ communication system is moved to HALM.
  - Users who export SAP HANA objects (/in Studio or HALM) have to have access to the CTS+ System as well.
- SAP HANA SPS08 Revision 81 and up
  - Changes can be transported via CTS+ if the SAP HANA Studio is used, as well.

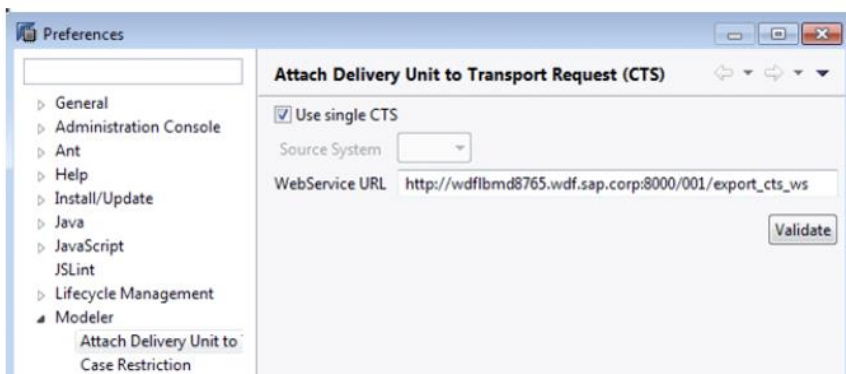
Looking at this list, you can see that there are different upgrades where you can switch on new functionality. And that there are configuration changes required when you switch SAP HANA SPS08. In the following chapters, the required changes for SAP HANA SPS08 are described.

## 2 UPGRADE TO SAP HANA SPS08 REVISION 80

In SAP HANA SPS08 Revision 80, CTS+ is integrated in HALM. Transports can be started in there. In this release, you have to differentiate whether you transport via the studio or via HALM. This has implications on the configuration changes that are required.

### 2.1 If you transport via SAP HANA Studio

In previous versions, the connection to the CTS+ system was set in the preferences of the SAP HANA Studio (either per system or one CTS+ system for all systems that you are working with in your SAP HANA Studio):



This configuration option is still available and can be used in SAP HANA SPS08 Revision 80.

➔ Recommendation

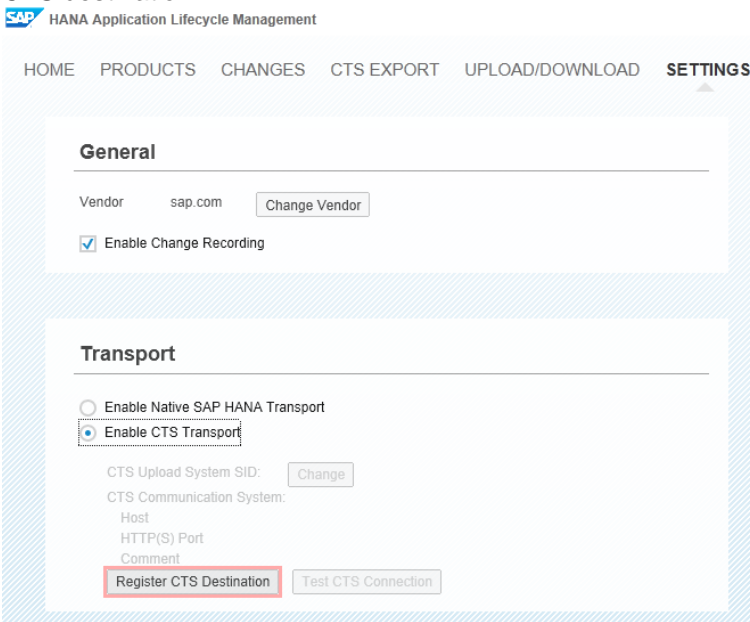
If you start with CTS+ in SAP HANA SPS08 Revision 80, we recommend that you configure CTS+ in HALM as described in the guide on SCN: <https://scn.sap.com/docs/DOC-55997>. You should use HALM for transporting your SAP HANA objects. Read carefully through the chapter 9. *Using SAP HANA with CTS* of this guide to learn about the consequences for transporting via the studio in this version.

**i** Note

There is one big difference for the two transport options: if you transport via the SAP HANA Studio, you are asked to enter a user for the CTS system when you export the delivery unit. If you transport via HALM, the user that is logged on to HALM has to have access rights to the CTS system, as well. A transport request for this user will be taken (a new one can be created or an existing one can be used – depends on the configuration in CTS).

**2.2 If you transport via HALM**

In SAP HANA SPS08, CTS+ is integrated into HALM. You can use HALM for transporting Products, Delivery Units or Changes. To be able to use the transport in HALM, you have to *Enable CTS Transport* and fill in a CTS destination in HALM.



The configuration steps that are required before you can use HALM are described in the How To–Guide on SCN: <https://scn.sap.com/docs/DOC-55997>. Chapter 8 *Configuring the SAP HANA Source Systems* shows the details about what has to be done to connect the SAP HANA system with the CTS system.

 Important

If you use basic authentication, transporting with HALM requires that the user IDs of the users who execute an export exist both on the SAP HANA system and on the CTS system in exactly the same writing. You cannot set a user in HALM for the CTS system during the export process. The transport request is created for the user who is logged in into HALM. User IDs in ABAP can only consist of 12 characters.

In any case, the user has to have access to both systems.

### 2.3 If you use Change Recording

HALM supports both, the transport of Changes and of Delivery Units. In SAP HANA SPS07, it was only possible to transport Changes via HALM directly without CTS+ integration. This has been changed in SPS08. You can now also transport Changes with CTS+. This requires that you use HALM for transporting. The SAP HANA Studio in SAP HANA SPS08 Revision 80 does not support the transport of Changes.

 Important

If you use Change Recording and transport Changes, do not mix the transport of Changes in HALM with the transport of delivery units in the studio in Revision 80. This will cause – most probably unwanted – up- and downgrades as with HALM you transport the objects in the state of the released change, with the studio, you will transport the active version of a delivery unit. Refer to the chapter 9. *Using SAP HANA with CTS* of the How To-guide <https://scn.sap.com/docs/DOC-55997> for details.

 Recommendation

We recommend that in SAP HANA SPS8 Revision 80 you use HALM for executing transports if both your studio and your server are using this version.

## 3 UPGRADE TO SAP HANA SPS08 REVISION 81 AND UP

 Important

In SAP HANA SPS08 Revision 81, each transport mechanism requires that the user that is logged on to HALM has access rights to the CTS system, as well (the user IDs of the users who execute an export have to exist both on the SAP HANA system and on the CTS system in exactly the same writing in case of basic authentication User IDs in ABAP can only consist of 12 characters.). You cannot set a user for the CTS system during the export process. The transport request is created for the user who is logged in.

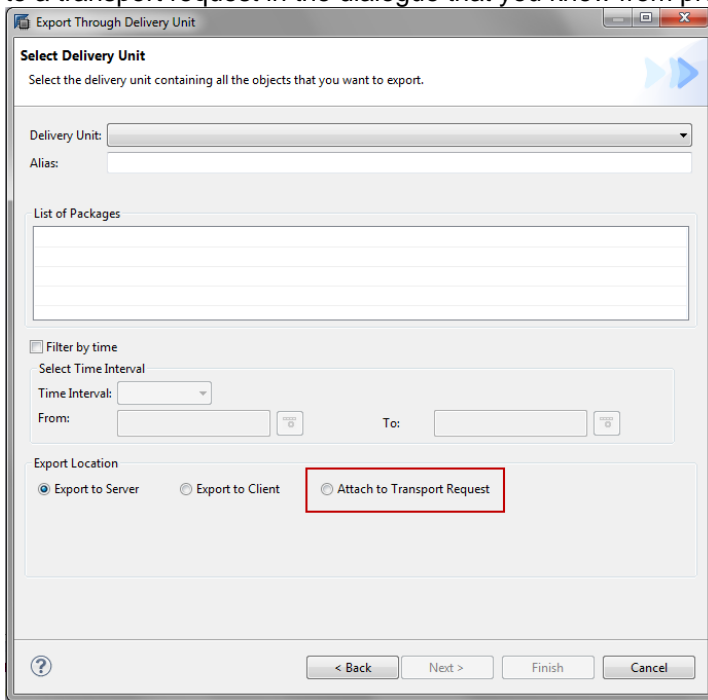
### 3.1 If you transport via SAP HANA Studio

Starting with SAP HANA SPS08 Revision 81, you can also transport Changes via the studio.

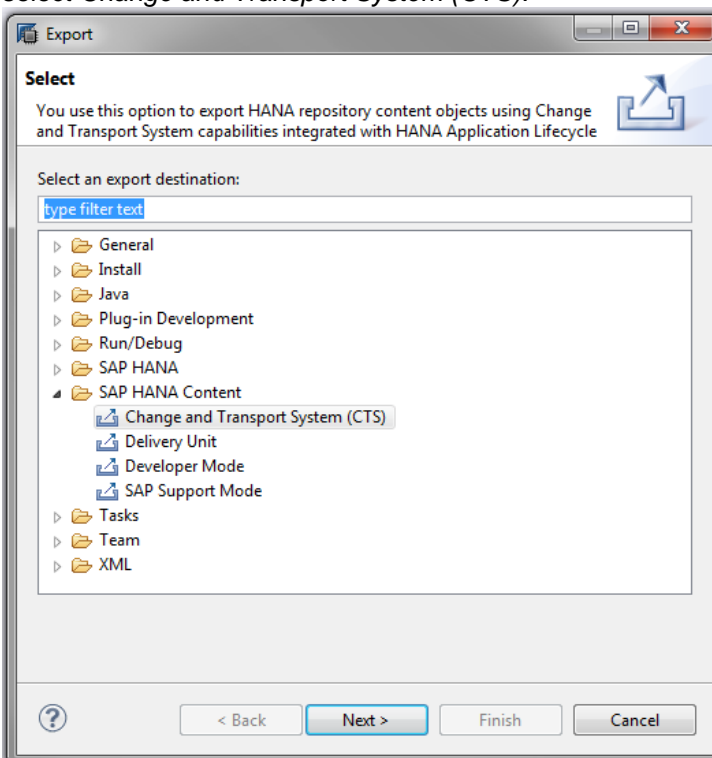
 Note

You can still use the SAP HANA Studio on SPS08 Revision 81 to transport delivery units for older versions of SAP HANA servers. The studio will recognize this and offer the option to attach a delivery unit

to a transport request in the dialogue that you know from previous releases.



As soon as both the studio and the server are upgraded to SAP HANA SPS08 Revision 81 or up, the option to attach a delivery unit to a transport request is gone. After having chosen *Export* you now have to directly select *Change and Transport System (CTS)*.



This will open up the respective HALM page inside your studio. Prerequisite for this is that CTS is configured in HALM. Otherwise the HOME screen of HALM will show up.

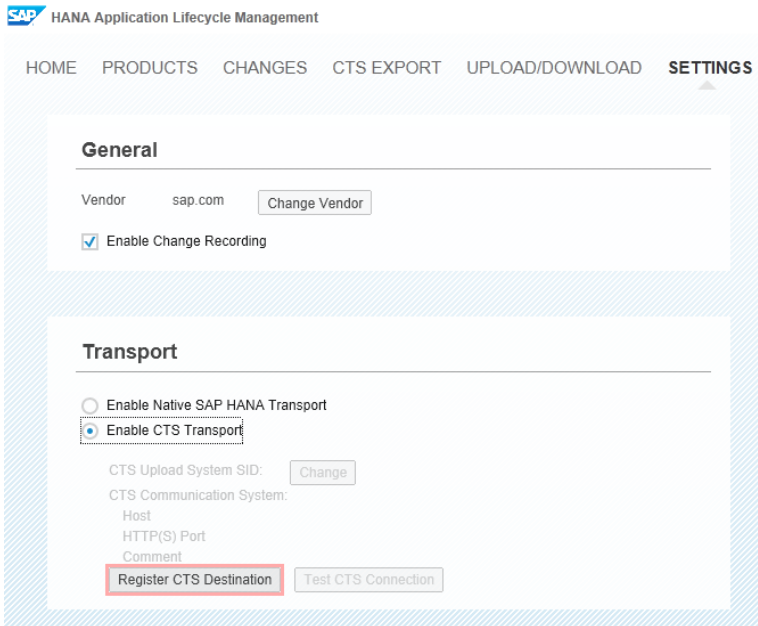
### 3.2 If you transport via HALM

**i** Note

This chapter is relevant only if you upgrade to SAP HANA SPS08 Revision 81 from an older SPS. If you have already installed SAP HANA SPS08 Revision 80, the topics described in this chapter might already have been considered.

In SAP HANA SPS08, CTS+ is integrated into HALM. You can use HALM for transporting Products, Delivery Units or Changes.

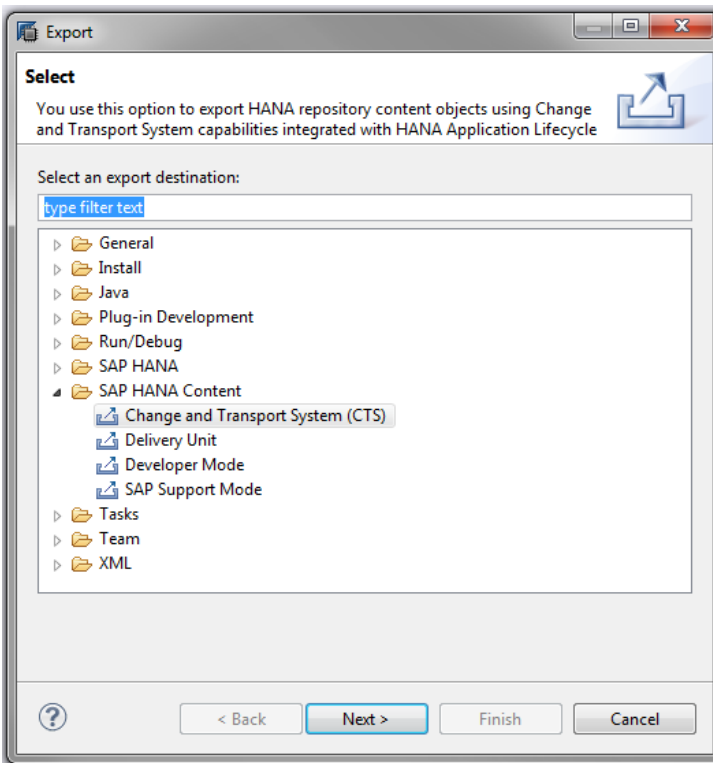
You have to maintain a CTS destination in HALM.



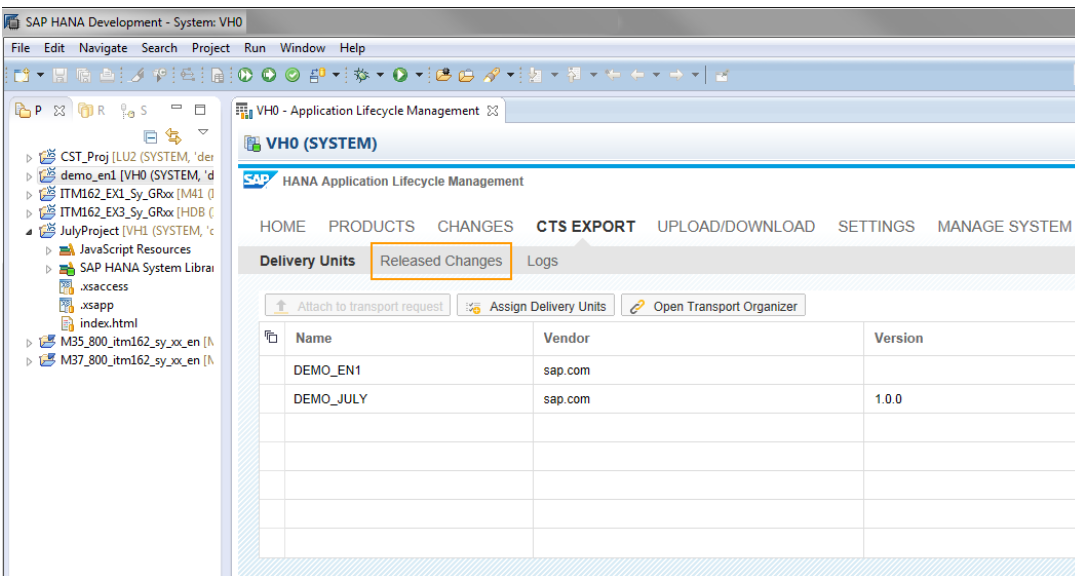
The configuration steps that are required before you can use HALM are described in the How To–Guide on SCN: <https://scn.sap.com/docs/DOC-55997>. Chapter 8 *Configuring the SAP HANA Source Systems* describes what has to be done to connect the SAP HANA system with the CTS system.

### 3.3 If you use Change Recording

In SAP HANA SPS08 Revision 81, you can also start the transport of Changes via CTS+ from the studio. Start an export either from within the SAP HANA Development Perspective or from the Modeler Perspective and then choose *SAP HANA Content* → *Change and Transport System (CTS)*.



This will open up HALM inside your studio. The menu entry for CTS Export will be the active one. If Change Recording is enabled, you can then switch to *Released Changes* and export Changes.





#### 4 HOW TO PROCEED WHEN UPGRADING

We have now seen that in SAP HANA SPS08 Revision 80 and 81, there is new functionality available which requires some configuration changes. In this chapter, we will take a look on what could be the best order for upgrading or SAP HANA environment – the SAP HANA server and the studio on the local PCs. The following steps should be taken into consideration.

1. We recommend that you first upgrade the SAP HANA Studio. A newer version of the studio supports older server versions. The studio recognizes the version of the respective server. If your server is still on SAP HANA SPS7 or below, you can use the option to attach a delivery unit to a transport request when exporting.
2. Plan a date for upgrading the servers.
3. Inform your studio users about the changes they can expect concerning the transport, let them know if Change Recording is now in use and tell them, when the changes are available.
4. After that, you should update your SAP HANA server landscape and adapt the CTS+ configuration.
5. Inform your studio users again that the changes are now live and let them know how the export now works. As soon as you try to start an export for a server which uses Revision 81, the option to attach a delivery unit to a transport request is removed.

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