

How To... Set Up and Use the CTS+ in a Portal Environment

Applicable Releases:

SAP NetWeaver 7.0 SPS 13 / 14

IT Practice

Unified Life-Cycle Management

IT Scenario:

Software Life-Cycle Management

Version 1.1

June 2008

© Copyright 2008 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, Informix, i5/OS, POWER, POWER5, OpenPower and PowerPC are trademarks or registered trademarks of IBM Corporation.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

MaxDB is a trademark of MySQL AB, Sweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice.

These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

These materials are provided "as is" without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

SAP shall not be liable for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials.

SAP does not warrant the accuracy or completeness of the information, text, graphics, links or other items contained within these materials. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third party web pages nor provide any warranty whatsoever relating to third party web pages.

SAP NetWeaver "How-to" Guides are intended to simplify the product implementation. While specific product features and procedures typically are explained in a practical business context, it is not implied that those features and procedures are the only approach in solving a specific business problem using SAP NetWeaver. Should you wish to receive additional information, clarification or support, please refer to SAP Consulting.

Any software coding and/or code lines / strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended better explain and visualize the syntax and phrasing rules of certain coding. 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, except if such damages were caused by SAP intentionally or grossly negligent.

Disclaimer

Some components of this product are based on Java™. Any code change in these components may cause unpredictable and severe malfunctions and is therefore expressly prohibited, as is any decompilation of these components.

Any Java™ Source Code delivered with this product is only to be used by SAP's Support Services and may not be modified or altered in any way.

Document History

Document Version	Description
1.10	Changes in chapter Prerequisites
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
< Example text >	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons





Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

Table of Contents

- 1. **Business Scenario**..... 1
- 2. **Background Information**..... 2
- 3. **Prerequisites** 2
- 4. **Step-by-Step Procedure**..... 4
 - 4.1 **Configure the Transport**..... 4
 - 4.1.1 **Configuring the CTS Deploy Web Service**..... 5
 - 4.1.2 **Configuring the Transport Organizer Web UI** 5
 - 4.1.3 **Configuring the Transport Landscape** 6
 - 4.1.4 **Defining Transport Routes**..... 7
 - 4.1.5 **Configuring the Destination Service on your Development Portal** 8
 - 4.1.6 **Defining a transport strategy**..... 9
 - 4.2 **Connecting the Transport System with the Portal** 9
 - 4.2.1 **Creating a System** 10
 - 4.2.2 **Create CTS_BROWSER iView**..... 10

1. Business Scenario

The functions of the Change and Transport System (CTS) have been enhanced to enable the transport of non-ABAP objects.

This guide tells you how to use the additional functions of the SAP NetWeaver Change and Transport System (CTS+, enhanced CTS) in your SAP NetWeaver Portal landscape on NW 7.0 SPS 14 and contains remarks on differences for SPS 13.

Non-ABAP objects can be attached to transport request. In the portal use case deployment takes place using the Software Deployment Manager (SDM). The transport routes have to be defined in the transport system.

CTS+ also provides capabilities for transporting PI objects, J2EE developments, and for enriching transportation using the NWDI, for example. Refer to the appropriate guides if you use these systems.

CTS+ enables the transportation of non-ABAP objects using the ABAP transport system. It does not provide all ABAP Workbench features. In particular, it does not provide an automated change recording.

In SAP NetWeaver 7.0 SPS 14, the following transport mechanisms of the SAP NetWeaver Portal (usage Type EP and EP Core) provide a tight integration of CTS+:

- Package Export Editor
- Export of KM configurations
- Export of KM documents (via the new transport tool which has been introduced with SAP NetWeaver SPS 13)

Note

In SPS 13, the tight integration is available for the Package Export Editor only, not for KM. In SPS 13, KM Documents that have been exported via the new transport tool can be attached manually to a transport request. KM configurations can only be transported starting with SPS 14.

CAUTION

KM documents are not imported directly to the repositories of KM. The file containing the documents has to be imported from the import queue of KM. read http://help.sap.com/saphelp_nw70/helpdata/EN/46/7786c59c5759d9e10000000a1553f6/frameset.htm for details on importing KM documents

CAUTION

KM configurations are imported directly. KM configurations might require a system restart. Schedule the import of KM configurations carefully. There is no check available whether a restart is required. See http://help.sap.com/saphelp_nw70/helpdata/EN/e1/029c414c79b25fe10000000a1550b0/frameset.htm for details.

The general documentation for CTS+ can be found at <http://help.sap.com> (refer to the section entitled '[Background Information](#)' for additional information and links).

This guide describes the functionality and steps that you have to do based on SPS 14 (both in the portal and in the TMS system). Some chapters – where the configuration is different – also provide notes on how things are working in SPS 13.

This guide does not describe all the configurations in detail, but it shows the necessary steps and contains the links to the appropriate sections of the documentation on <http://help.sap.com>.

The SP stack levels mentioned in this guide refer to the SP stacks of SAP NetWeaver. Please keep in mind that SP stack levels for SAP Solution Manager are different and do not contain the same functionality as an SP stack for SAP NetWeaver. Please take a look at the basis release and SP stack of SAP NetWeaver that your Solution Manager is using. If you are using the Change Request Management of the Solution Manager, some of the features described below are not available.

2. Background Information

Documentation on non-ABAP Transports in the Change and Transport System

http://help.sap.com/saphelp_nw70/helpdata/en/45/EC25370FDC3481E10000000A1553F6/frameset.htm

Configuring TMS:

http://help.sap.com/saphelp_nw70/helpdata/en/44/b4a09a7acc11d1899e0000e829fbbd/frameset.htm

Release Note on transporting Portal Content (epa-files) via CTS+:

http://help.sap.com/saphelp_nw70/helpdata/en/b6/d4cf196c774447bc66c7ad9c4d9841/frameset.htm

Release Note on KM Transports via CTS+:

http://help.sap.com/saphelp_nw70/helpdata/en/47/1c36bd433912b7e10000000a1553f7/frameset.htm

SAP Solution Manager 4.0 offers change request management. For more information, go to the following address at <http://help.sap.com>

http://help.sap.com/saphelp_sm40/helpdata/en/0c/5b2160f6fa4b83a3674a210b1cdeb0/frameset.htm

For more information on the SAP Solution Manager in general, use the following link:

http://help.sap.com/saphelp_sm40/helpdata/en/45/51fbdbd4941803e10000000a1553f7/frameset.htm

SAP Notes:

- [1003674](#) Central Note on enhanced CTS
- [1146170](#) CTS+: Changes from NW 7.0 SP13 -> NW 7.0 SP14
- [1155884](#) CTS+, configuration 'close coupling': Troubleshooting guide
- [517484](#) Inactive Services in the Internet Communication Framework

3. Prerequisites

- You need an SAP NetWeaver AS Java and an SAP NetWeaver AS ABAP. We recommend that you use the SAP Solution Manager. The system's Support Package Stack must be NetWeaver 7.0 (2004s) SPS13 or higher. This system acts as the CTS+ domain controller and manages the transport requests. We recommend that you use a system which has SAP NetWeaver 7.0 SPS 14 installed.
- The development portals that are part of the transport route(s) need to have SAP NetWeaver 7.0 SPS 14 or higher installed to be able to use all the options described in this guide.

Transporting portal content (epa-files) in general is possible from SAP NetWeaver 04 SPS 9 onwards – but then there is no tight integration of CTS+ into the Package Export Editor available.

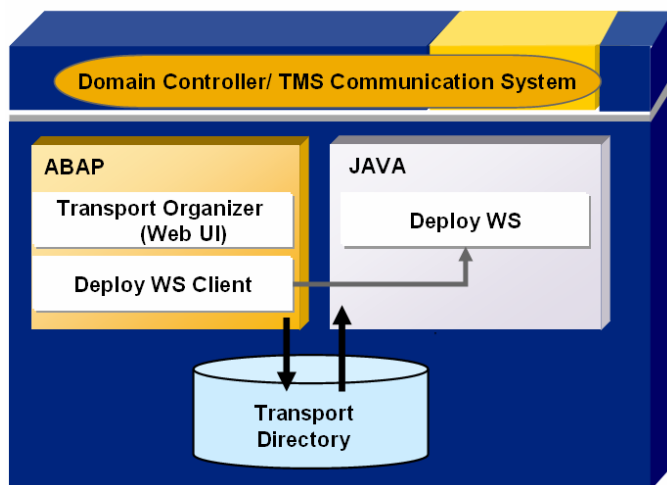
- To be able to perform the configuration steps below, you require full administration privileges both for the CTS+ system and for the portal assigned to your user.

4. Step-by-Step Procedure

4.1 Configure the Transport

You have to configure your CTS+ system (on both stacks) and your development portal to be able to use CTS+. This chapter helps you with these configurations. It provides a step by step guide. Each steps leads to the required documentation on help.sap.com

CTS+ System

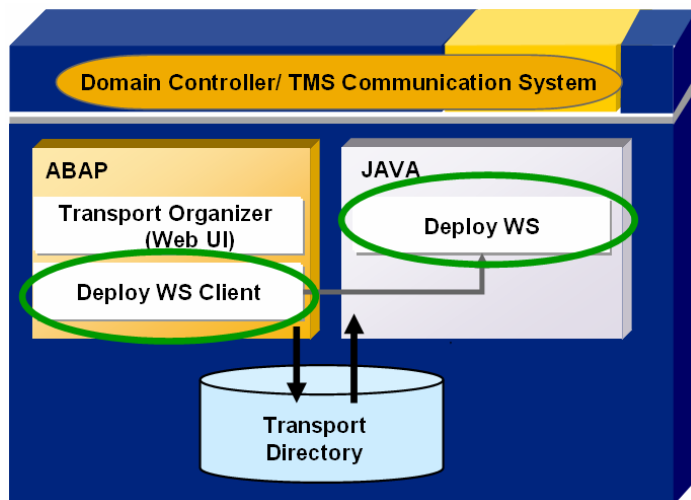


Sample Portal Landscape



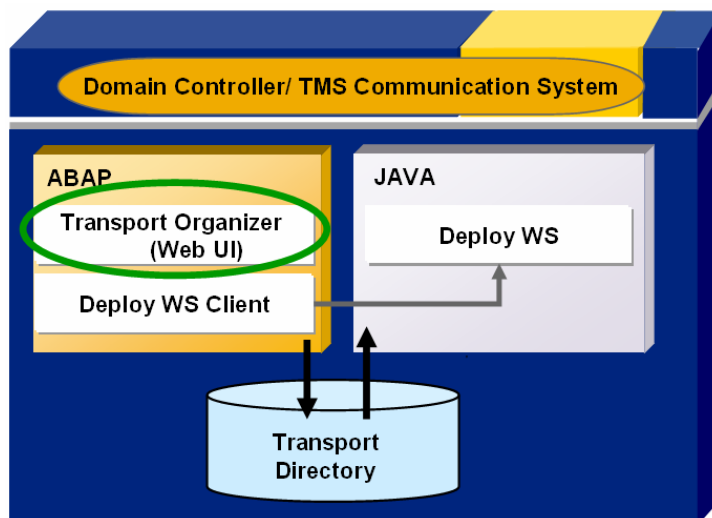
You have to carry out the following configuration steps in the SAP NetWeaver 7.0 SPS14 system that you want to use for performing the transports.

4.1.1 Configuring the CTS Deploy Web Service



http://help.sap.com/saphelp_nw70/helpdata/en/45/f9f02cf3e41ecce1000000a1553f7/frameset.htm.

4.1.2 Configuring the Transport Organizer Web UI



SPS 13 / 14 provides an ABAP Web Dynpro application (CTS_BROWSER) that you have to use to create transport orders and attach objects. You have to carry out certain configuration steps to run and use this application.

http://help.sap.com/saphelp_nw70/helpdata/en/ea/6213584a3f49119eccd7d739e55d5d/frameset.htm

You can either activate the services now or at the end of the configuration.

If you receive error messages when running this application later on or if you don't want to activate all ICF services read the error messages carefully and activate the services named within the error messages via transaction SICF at the end of the configuration.

The following image shows the Transport Organizer Web UI.

Transport Organizer

Requests for system EPD

Owner: OTODEMO | Status: Modifiable

Create Request | Set as standard request | Attach Object | Release | Delete | Refresh | Number of lines: 10

Requests	Description	Owner
EPDK90000P	GENERATED REQUEST	OTODEMO
EPDK90000N	Demo Transport	OTODEMO

Row 1 of 2

EPDK90000P - GENERATED REQUEST

Properties | Attributes | Object List

Details

Save | Change Owner

Description: * GENERATED REQUEST

Project:

Target System: EPQ

Source Client: 001

Owner: OTODEMO

State: Modifiable

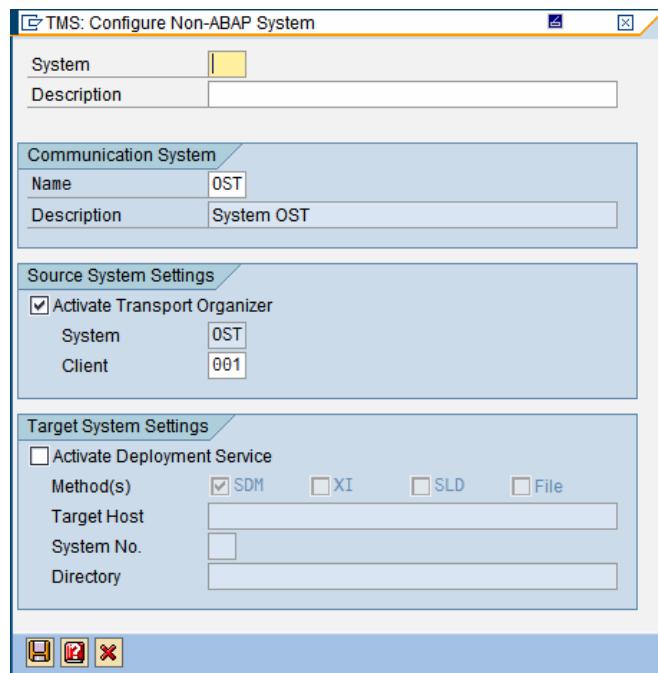
Last change: 18.04.2008 10:30:46

4.1.3 Configuring the Transport Landscape

Create the systems of your portal landscape as non-ABAP systems in TMS. Use their SID to provide a clear understanding of the transport routes to the portal administrators who are using the Transport Organizer Web UI from within the portal. If you are not able to use the SID auf the portal when creating the system in transaction STMS, you must use the parameter `CTS_SYSTEM_MAPPING` and provide the real SID of the portal as value if you want to use close coupling in the Package Export Editor of the Portal.

http://help.sap.com/saphelp_nw70/helpdata/en/45/f64a3dbc1a04a9e1000000a114a6b/frameset.htm

Define your portal development system as source system. You therefore have to select the option 'Activate Transport Organizer'.



All portal users which are allowed to perform exports in the Package Export Editor of the portal have to exist in the client of the CTS+ system that you are using for these transports. These users should have the following authorizations: S_ICF, S_RFC, S_CTS_ADMI, S_DATASET and S_TRANSPRT. (Create a new role with these authorizations - please have a look into <https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/00246ec1-dec5-2a10-58b9-e111c091c00b> if you would like to know how this needs to be configured)

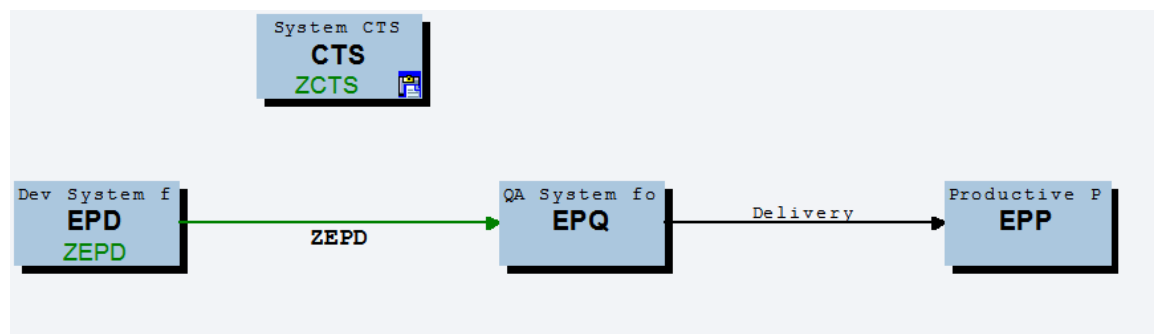
Define the following systems of your portal landscape as target systems by selecting the option 'activate deployment service'. Choose the option 'SDM' as Method(s).

4.1.4 Defining Transport Routes

http://help.sap.com/saphelp_nw70/helpdata/en/44/b4a2a27acc11d1899e0000e829fbbd/frameset.htm

Create one standard transport layer (this is the default), not two separated ones for SAP- and custom transports as you might know it from configuring transport routes for ABAP systems.

Use client independent transport routes.



Note

As of SAP NetWeaver 7.0 SPS 13, the transport route does not start with the CTS+ system (this was required for SPS 12 only). You configure the transport route beginning with the real source system ID.

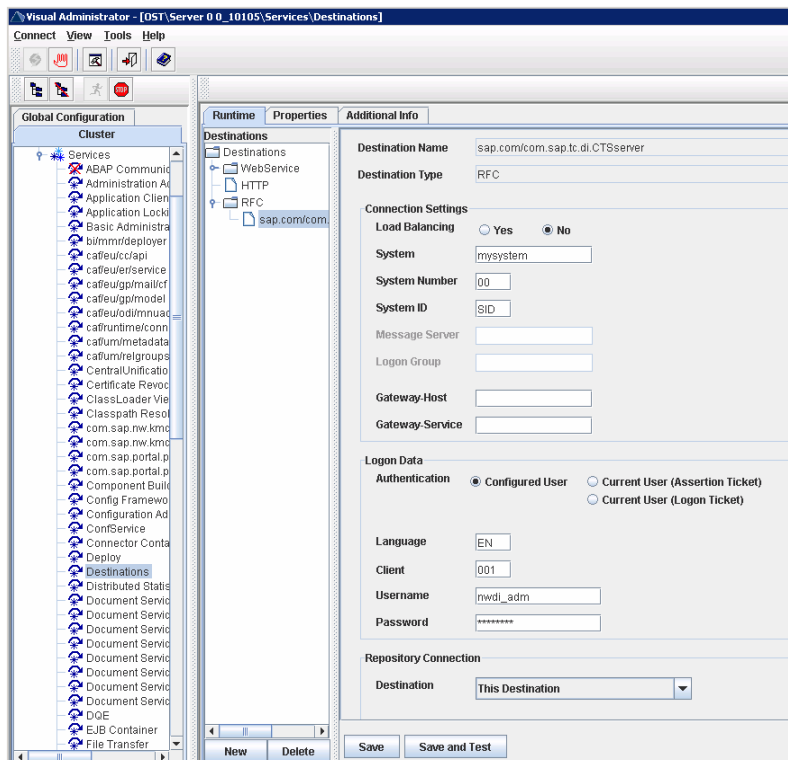
4.1.5 Configuring the Destination Service on your Development Portal

http://help.sap.com/saphelp_nw70/helpdata/en/37/dd368da16f476fad78ca8b51f9b75c/frameset.htm

Note

If you are using SPS 13, please have a look into the SPS 13 documentation to learn how to configure this connection. The Destination Service in the Visual Administrator is not available with SPS 13. You have to use the Configuration Adapter.

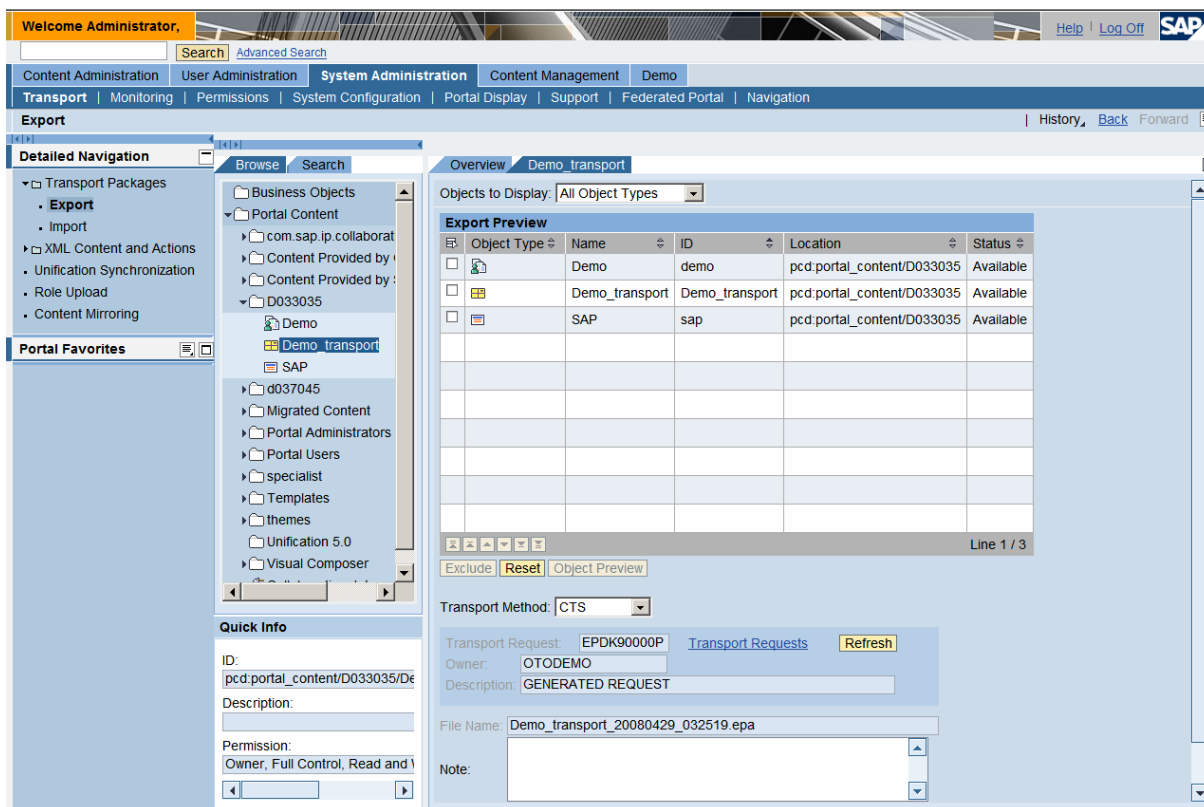
Make sure that Single Sign On between the CTS+ System and the development portal is working fine.



If you need to use user mapping because the user IDs are not the same in your portal as in your CTS-system, please have a look at note [1003674](#) and install the attached correction on top of SPS 14 or 15 and use the parameter **WBO_USR_MAP_STRATEGY**.

You are now ready to use the CTS+ in your portal environment.

In the Package Export Editor of SPS 14, you'll find the option **CTS** as *Transport Method*. This is the pre-selected value if CTS is configured in the Destination Service. The link 'Transport Requests' opens up the Transport Organizer Web UI in a new window. You can create a new Transport Request or choose an existing one as the default request which should be used for the current export. If you changed something, you would have to click on 'refresh' afterwards.



The screenshot shows the SAP Portal Administration interface. The top navigation bar includes 'Content Administration', 'User Administration', 'System Administration', 'Content Management', and 'Demo'. The 'Export' tool is active, showing a 'Detailed Navigation' tree on the left with 'Export' selected. The main area displays an 'Export Preview' table with the following data:

Object Type	Name	ID	Location	Status
	Demo	demo	pcd.portal_content/D033035	Available
	Demo_transport	Demo_transport	pcd.portal_content/D033035	Available
	SAP	sap	pcd.portal_content/D033035	Available

Below the table, the 'Transport Method' is set to 'CTS'. The 'Transport Request' form shows the following details:

- Transport Request: EPDK90000P
- Owner: OTODEMO
- Description: GENERATED REQUEST
- File Name: Demo_transport_20080429_032519.epa

Note

With SPS 13, the link 'Transport Requests' is not available. Please have a look at the chapter ['Creating Portal Content'](#) to learn about possible options.

The following sections contain an example of how to integrate the features provided by the CTS+ into your portal. This might help working with the CTS+ without needing to swap between different systems.

4.1.6 Defining a transport strategy

You can choose how and when transport requests shall be created or released. One option is to let the system create transport requests and release them automatically; the other is to force the user to create a transport order. Please have a look at

http://help.sap.com/saphelp_nw70/helpdata/en/62/117d0cb40145d6bfc655dac7deb9c1/frameset.htm to learn about the options and how to configure them.

4.2 Connecting the Transport System with the Portal

In SPS 13, the Package Export Editor provides a direct integration of CTS+. With SPS 14, the transport tools for KM documents and KM configurations offer this integration as well. You have the option to create transport request or attach the exported objects to an existing transport order.

It is also possible to use CTS+ for transporting Portal Content (epa-files) if your portal is not on SPS 13 or 14. You can start using CTS+ for portals which are on SAP NetWeaver 4.0 SPS 9. In this case, you won't find a direct integration of CTS+ functionality in the transporting tools. You would have to create a transport request via the Transport Organizer Web UI and attach the exported files via this UI as well.

In SPS 13, the export for KM documents does not provide a direct integration of CTS+. Nevertheless, you can attach the exported file to a transport request, manually.

The following chapters explain what could be done to provide an administrator with all the tools he needs for the uses ceases where the tight integration of CTS+ is not available.

4.2.1 Creating a System

Create a connection to your transport system as described on help.sap.com

http://help.sap.com/saphelp_nw70/helpdata/en/ec/0fe43d19734b5ae10000000a11405a/frameset.htm

Note

For SPS 13, you must create this system and should use 'CTS' as Alias. If this alias is not possible, open the Portal Content Studio. You would need to modify the parameter 'System Alias used by Change and Transport System Integration' of the Package Export Editor

(pcd:portal_content/com.sap.pct/admin.templates/iviews/editors/com.sap.portal.export).

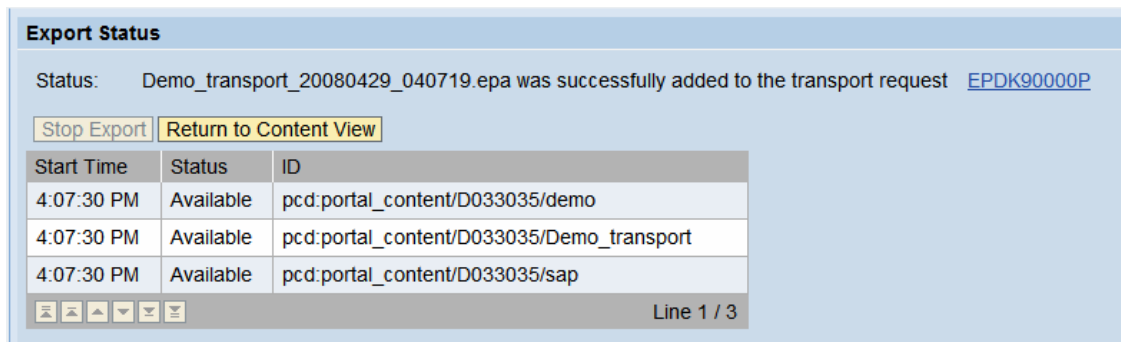
Please be aware that this is a modification.

Enable Single Sign on between the CTS+ system and your portal:

http://help.sap.com/saphelp_nw70/helpdata/en/4d/dd9b9ce80311d5995500508b6b8b11/frameset.htm

4.2.2 Create CTS_BROWSER iView

SPS 14 offers a link to the Transport Organizer Web UI after the epa-file has been attached successfully. You could use this link to release transport orders.



Export Status

Status: Demo_transport_20080429_040719.epa was successfully added to the transport request [EPDK90000P](#)

[Stop Export](#) [Return to Content View](#)

Start Time	Status	ID
4:07:30 PM	Available	pcd:portal_content/D033035/demo
4:07:30 PM	Available	pcd:portal_content/D033035/Demo_transport
4:07:30 PM	Available	pcd:portal_content/D033035/sap

Line 1 / 3

If you want to offer the option to release transport orders at any time without entering the Package Export Editor or if your portal is on any SPS lower than 14, you could create a new ABAP Web Dynpro iView which shows the `cts_browser` Application and add it to one of your existing roles for administrators.

Create an iView for a Web Dynpro ABAP Application

http://help.sap.com/saphelp_nw70/helpdata/en/1d/e4a34273f60b31e10000000a1550b0/frameset.htm.

Use `\sap` as namespace and `'cts_browser'` as Application Name. You can either integrate this iView into existing pages or roles in your portal or create new roles and assign them to users.

Note

As the Package Export Editor in SPS 13 does not provide the link to create a new transport request, you could add the iView as a related link to this page and configure the iView to open up in a new window. With this configuration, you can avoid to restart creating your epa-file by having to leave the package export editor to create a transport order. Use the role `pcd:portal_content/administrator/system_admin/system_admin_role` to do so.

www.sdn.sap.com/irj/sdn/howtoguides