

## OMS Interface for SAP (BC-XOM)

### System Description

4.4.1

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SEAL Systems

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# 1 Introduction

OMS interface	<p>The OMS interface of SAP offers the possibility, to connect external Ausgabemanagementsystems (OMSOutput Management System) like PLOSSYS Output Engine (PLOSSYS 5) to the spool administration system of SAP. This interface includes the following functionality:</p> <ul style="list-style-type: none"> <li>• Output assignment from SAP Any listings, business papers and forms can be transferred from SAP as via a SAP printer to the external Ausgabemanagementsystem for output.</li> <li>• specify job reply The processing of the transfer to the Ausgabemanagementsystem up to the output of the listings/business papers/forms can be tracked in the SAP system.</li> <li>• device reply The status of the output devices and device queues can be tracked in the SAP system.</li> </ul>
purpose	<p>This documentation describes the connection of PLOSSYS Output Engine as external Ausgabemanagementsystem to the SAP system, as well as the usage of the OMS interface for the display of reply messages about the output progress.</p>
target group	<p>The documentation is intended for use by the Technical Project Managers at SEAL Systems, responsible for the installation and configuration of the connection and activation of the reply messages, and all administrators who want get an overview of this topic.</p>
integration PLOSSYS netdome	<p>The connection of PLOSSYS netdome is described up to version 4.3.0 of this documentation.</p>
in this chapter	<p>This chapter deals with the following topics:</p> <ul style="list-style-type: none"> <li>→ <i>Conventions in this Documentation</i>, Page 7</li> <li>→ <i>Activate the Retrace of your Viewing Path in PDF</i>, Page 8</li> <li>→ <i>Overview</i>, Page 10</li> <li>→ <i>Overview of Contents</i>, Page 11</li> </ul>

## Conventions in this Documentation

The path information given in this documentation is relative to the installation directory of the output system. This is usually the home directory of the `plossys` user. The path information is indicated in Windows notation only in most cases. This corresponds to the Linux directory structures unless noted otherwise.

path specification

The following table lists the typographical conventions employed in this documentation.

typography

Typographical Convention	Meaning
Conso <code>las</code>	File names, paths, commands, menu items, keywords, special values, short scripts and examples
<i>Conso<code>las</code></i>	Parameters; variables that have to be replaced by current values


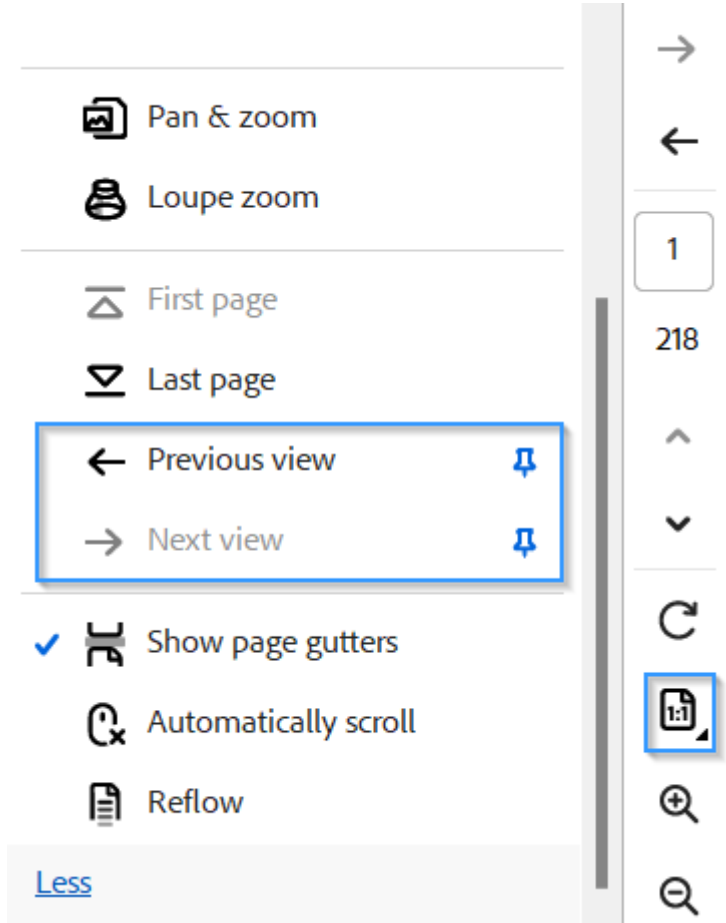
## Activate the Retrace of your Viewing Path in PDF

### description

Adobe Reader provides buttons to retrace your viewing path of PDF pages that you viewed earlier. This makes reading easier and helps to keep the central theme.

### instructions, as of Adobe Acrobat Pro 2024

This is how you activate the buttons for retracing your viewing path in the PDF documentation as of Adobe Acrobat 2024:

Step	Action
1	In the lower part of the right side menu, click on the black arrow on the symbol for the magnification factor  .
2	<p>Scroll down to the Other tools section and activate the two menu items:</p> <ul style="list-style-type: none"> <li>• Previous View</li> <li>• Next View</li> </ul> 

### result

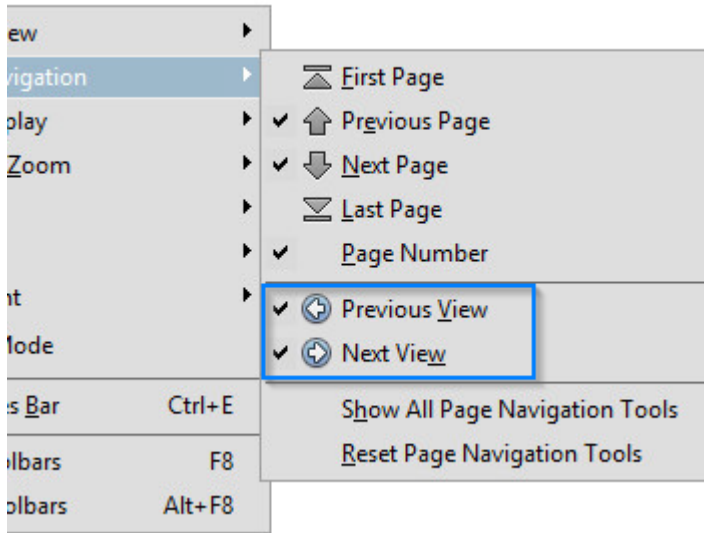
The icons for jumping to the previous/next view are displayed in the right side menu.

## Activate the Retrace of your Viewing Path in PDF,

Continuation

This is how you activate the buttons for retracing your viewing path in the PDF documentation as of Adobe Reader 10:

instructions, as  
of Adobe Reader  
10

Step	Action
1	<p>Activate the following options via the menu:</p> <ul style="list-style-type: none"> <li>View - Show/Hide - Toolbar Items - Page Navigation Show Tools</li> <li>Previous View: Activate</li> <li>Next View: Activate</li> </ul> 

Adobe Reader offers the following buttons to allow you jumping forward and backward in the document while showing pages you viewed in the reverse order that you viewed them:

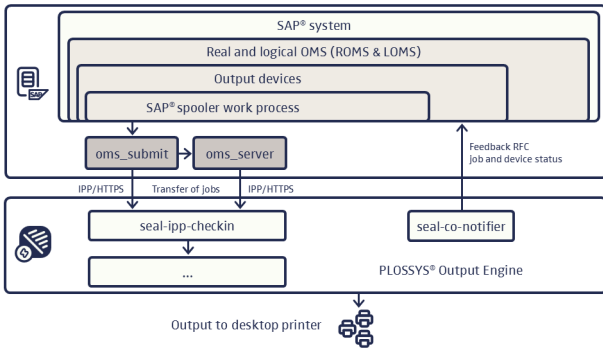
result



# Overview

overview - components

The following illustration gives an overview over the components and correlations of OMS-Anschluss an SAP (BC-XOM):



## Overview of Contents

This documentation has two parts: a description and a reference. The first part describes the functionality and the installation process using figures, step-by-step-procedures and explanatory texts. The second part serves as a detailed reference guide, containing configuration settings, keywords etcetera.

structure

The description deals with the following topics:

description

→ *Requirements*, Page 13

This chapter describes the requirements which must be fulfilled for the installation and usage.

→ *Installation - PLOSSYS Output Engine (PLOSSYS 5)*, Page 17

This chapter explains the necessary installation steps that must be carried out in PLOSSYS Output Engine (PLOSSYS 5).

→ *Installation - SAP*, Page 23

This chapter explains the required installation steps on the SAP system.

→ *Functionality of BC-XOM OMS Interface*, Page 53

This chapter describes the functionality provided by BC-XOM OMS Interface.

→ *Extended Configuration*, Page 58

This chapter explains additional settings.

→ *Information and Troubleshooting*, Page 74

This chapter deals with the various possibilities to get an overview over the processing and output status. This includes the description of the log files and the directory monitoring.

→ *Background Knowledge*, Page 97

This chapter provides insider know-how of the internal processes, which is not required for the standard usage but helpful for a better understanding.

The reference contains the following chapters:

reference

→ *Configuration Files - Reference*, Page 113

This chapter explains the meaning of the single configuration files.

→ *Programs*, Page 134

This chapter contains information about the implemented programs, their parameters and processes

changes

→ *Changes*, Page 141

This chapter describes the most important changes for each released module version.

## Overview of Contents, Continuation

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lists

At the end of the documentation, a bibliography, terminology list, abbreviation list, and index are included.

## 2 Requirements

---

This chapter describes the requirements which must be fulfilled for installation and usage. introduction

---

This chapter deals with the following topics: in this chapter

→ *Supported Platforms and Hardware Requirements*, Page 14

→ *SEAL Systems Modules*, Page 15

→ *SAP System - Version, Access and Authorizations*, Page 16

## Supported Platforms and Hardware Requirements

---

platform and hardware - SEAL Systems

The currently from SEAL Systems supported platforms and hardware requirements are described on the following website of SEAL Systems:

<https://www.sealsystems.com/service-support/computer-equipment/>

---

supported platforms - BC-XOM OMS Interface

BC-XOM OMS Interface is supported on the following platforms:

- Windows Server 2022/2019/2016
- Linux (SLES, RHEL) - all versions not yet discontinued
- PowerPC (PPC)
- zLinux (IBM/s390x)
- UNIX (HP-UX, AIX)

For HP-UX, only unencrypted IPP, not IPPS is supported.

## SEAL Systems Modules

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SEAL Systems requires the subsequent modules from BC-XOM OMS Interface: modules of SEAL Systems

- PLOSSYS Output Engine (PLOSSYS 5) 7.0.0 or newer

## SAP System - Version, Access and Authorizations

---

- requirement
- The following requirements must be fulfilled in the context of the SAP system:
- SAP system as of release 4.7

### 3 Installation - PLOSSYS Output Engine (PLOSSYS 5)

---

This chapter explains the necessary installation steps that must be carried out in PLOSSYS Output Engine (PLOSSYS 5). introduction

---

Before the installation please consider the requirements, which need to be fulfilled: requirement

→ *Requirements*, Page 13

---

This chapter deals with the following topics: in this chapter

→ *Maintain SAP System Data on the OM Server*, Page 18

→ *Install and Configure the SAPGOF Converter*, Page 19

→ *Activate the Program for Device Status Reply*, Page 20

→ *Activate the Transfer via IPP/IPPS*, Page 21

→ *Start PLOSSYS Output Engine (PLOSSYS 5)*, Page 22

## Maintain SAP System Data on the OM Server

**description** Connection data for the SAP systems must be maintained on the OM server.

**instructions** This is how you maintain the SAP system data on the OM server:

Step	Action
1	Logon on the OM server.
2	Install SAP NetWeaver RFC in this directory: <ul style="list-style-type: none"> <li>Windows: C:\Program Files\SAP\nwrfcsdk\</li> <li>Linux: /usr/local/nwrfcsdk/</li> </ul>
3	For Windows, add the program path to the PATH variable: <ul style="list-style-type: none"> <li>;C:\Program Files\SAP\nwrfcsdk\lib</li> </ul>
4	Enter the SAP data in: <ul style="list-style-type: none"> <li>sapnwrfc.ini</li> </ul>
5	Restart the following service: <ul style="list-style-type: none"> <li>seal-co-notifier</li> </ul>



**further information**

You may find more information about the configuration of PLOSSYS Output Engine (PLOSSYS 5) at [OUTNGN\_TEC]:


- SAP Spool on Windows
- SAP Spool on Linux

## Install and Configure the SAPGOF Converter

The generic output format, SAPGOF (SAP Generic Output Format), is SAPGOF used when ABAP lists or OTF forms are output in SAP. The `sapgofu2pdf` converter interprets the SAPGOF file and converts the PDF file into a PDF file according to the settings in the configuration file.

description

Information on installing and configuring the SAPGOF converter can be found in [SAPGOF\_TEC].

 further information

You may find further information about the configuration of PLOSSYS Output Engine (PLOSSYS 5) at [OUTNGN\_TEC]:

- SAP Spool on Windows
- SAP Spool on Linux

## Activate the Program for Device Status Reply

---

description	It is not necessary to activate the device status notifications in PLOSSYS Output Engine (PLOSSYS 5).
-------------	---

## Activate the Transfer via IPP/IPPS


In PLOSSYS Output Engine (PLOSSYS 5), the `seal-ipp-checkin` service accepts jobs via IPP or IPPS. By default, the service uses port 631 and IPP. Port 443 is used for IPPS. description

This is how you activate IPPS for the `seal-ipp-checkin` service: instructions

Step	Action
1	Logon on the OM server.
2	Change the <code>SERVICE_URL</code> environment key for <code>seal-ipp-checkin</code> service: <ul style="list-style-type: none"> <li>• for IPPS: <code>ipps://:443</code></li> <li>• for IPP and IPPS: <code>ipp://:631 ipps://:443</code></li> </ul> In Consul, you find the environment key at: <ul style="list-style-type: none"> <li>• <code>dc/home/env/service/checkin/tag/ipp/SERVICE_URL</code></li> </ul>
3	Restart the service <code>seal-ipp-checkin</code> . If you have changed the value via Consul, the service is restarted automatically.

You may find further information in [OUTNGN\_TEC].

- Consul
- Change IPP Checkin to IPPS

 further information

## Start PLOSSYS Output Engine (PLOSSYS 5)

**description** For the data exchange between PLOSSYS Output Engine (PLOSSYS 5) and SAP, services must be started on the output management system. If output is to be sent to multiple output management systems, the services must be started on each of these output management systems.

**instructions** This is how you activate the required services in PLOSSYS Output Engine (PLOSSYS 5):

Step	Action
1	<ul style="list-style-type: none"><li>• Window: Open a command prompt or PowerShell.</li><li>• Linux: Open the shell or console.</li></ul>
2	Start PLOSSYS Output Engine (PLOSSYS 5) via: <code>plossys service start</code>
3	Check the correct start of PLOSSYS Output Engine (PLOSSYS 5) with: <code>plossys service status</code>

## 4 Installation - SAP

---

This chapter explains the required installation steps on the SAP system.

introduction

---

Before the installation please consider the requirements, which need to be fulfilled:

requirement

→ *Requirements*, Page 13

→ *Installation - PLOSSYS Output Engine (PLOSSYS 5)*, Page 17

---

This chapter deals with the following topics:

in this chapter

→ *Provide files*, Page 25

→ *Linux - Install via rpm Installation Package*, Page 24

→ *Assign the Required Authorizations*, Page 26

→ *Establish the OMS on the SAP System*, Page 29

→ *Start oms\_server on the SAP System*, Page 85

→ *Start and Test Execution*, Page 50

## 4.1 Linux - Install via rpm Installation Package

relevant for These steps are only relevant for SAP systems under Linux.

description An rpm installation package is available for SAP systems under Linux.

instructions This is how you install the rpm installation package:

Step	Action
1	<p>As the admin user root on the SAP system, run the following command:</p> <pre>rpm -i ./PackageName</pre> <p>e. g. rpm -i ./sap-oms-3.3.2.1-107.x86_64.rpm</p>

result The result of the installation includes:

files

- The required files are copied.

user/group seal

- The group seal and the user seal for operation have been created:
  - The seal user is assigned to the seal group.
  - The seal user owns the /opt/seal/seal-sap-oms/data directory and its subdirectories. Only the seal user has write access to these subdirectories.

oms\_serveras  
service

- The oms\_server service is set up:
  - Installation directory: /opt/seal/seal-sap-oms
  - The service is started when the Linux server is started and is configured to restart automatically in case of problems.
  - Control of the service with:
 

```
Start: systemctl start seal-sap-oms.service
Status: systemctl status seal-sap-oms.service
Stop: systemctl stop seal-sap-oms.service
```

## 4.2 Provide files

---

These steps are not relevant for SAP systems under Linux. irrelevant for  
→ *Linux - Install via rpm Installation Package, Page 24*

---

In order to be able to use BC-XOM OMS Interface, some files must be provided for the SAP system. The use of a high-availability share is recommended for this to ensure reliability. description

---

If the deployment cannot be done via network shares, the files must be copied to the SAP system. The directory structure specified on delivery must be retained on the SAP system! alternative

---

The following directories and files must be provided for the SAP system. required files

- server\sapserv\bin\_winnt5\ for Windows
- server\sapserv\bin\_linux223\ for Linux
- server\sapserv\conf\
- server\sapserv\oms\_start.sh for Linux

## 4.3 Assign the Required Authorizations

required permissions - Linux On SAP systems under Linux, the user running SAP, generally the sapadm user, must have the following permissions:

- Execute the oms\_submit command
- Creating files in the /opt/seal/seal-sap-oms/data directory

The user must be assigned to the seal group.

required authorizations - SAP user The following authorizations must be assigned for the SAP user which is used for BC-XOM OMS Interface:

- Authorization RFC calls
- Authorization XMI Interface
- Authorization for spool devices

example role SEAL Systems delivers example roles with the required authorizations without restriction. For BC-XOM OMS Interface, the composite role /seal/role\_ext is relevant, containing the following single roles:

- /seal/role\_ext\_rfc
- /seal/role\_ext\_xmi
- /seal/role\_ext\_xom



further information

[SAP\_AUTH\_TEC] describes the general authorizations required for SEAL Systems applications and their installations on SAP. You can use the roles and the authorization profiles listed there and provided by SEAL Systems as templates for customizations.

use example role This is how you use the example role:

Step	Action
1	→ <i>Customize the Example Role, Page 27</i>
2	→ <i>Assign a Role, Page 28</i>

## Customize the Example Role


These steps are only required if you want to assign a role with restricted authorizations but not the example role without restrictions to the system user who is used for BC-XOM OMS Interface.

required if

You have loaded the role via `_seal_role_ext.sap` into the SAP system.

requirement

[SAP\_AUTH\_TEC] describes how to load roles.

 further information

This is how you adapt the example roles for BC-XOM OMS Interface:

instructions

Step	Action
1	Start the transaction: <code>pfcg</code> .
2	Select the <code>/seal/role_ext</code> role and copy it.
3	Customize the copied role in the Authorizations tab with: Change Authorization Data
4	Save and generate the role.

## Assign a Role

**description** The example role or the modified role will be assigned to the system user who is used for BC-XOM OMS Interface.

**instructions** This is how you assign the role to the system user for BC-XOM OMS Interface:

Step	Action
1	Start the transaction: su01
2	Select the user who is specified as USER in the following file on the output management system: <ul style="list-style-type: none"><li>Windows: %ProgramData%SEAL Systems\config\sapnwrfc.ini</li><li>Linux: /opt/seal/etc/sapnwrfc.ini</li></ul>
3	Switch to the Role tab.
4	Enter the desired role.



hint

The authorizations specified for a user can be displayed with the su56 transaction.

## 4.4 Establish the OMS on the SAP System

This chapter deals with the following topics:

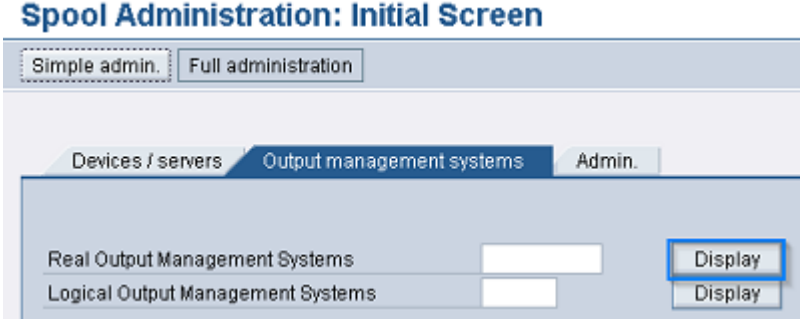
in this chapter

- *Open the Configuration for ROMS on the SAP System*, Page 30
- *Establish Real OMS on the SAP System*, Page 31
- *OMS Configuration - Possible Values*, Page 34
- *Open the Configuration for LOMS on the SAP System*, Page 36
- *Establish Logical OMS on the SAP System*, Page 37
- *Specify Commands*, Page 39
- *Assign Device Profile File (XDC File)*, Page 41
- *Establish an Output Device on the SAP System*, Page 43

## Open the Configuration for ROMS on the SAP System

### instructions


This is how you open the configuration of the real output management systems (ROMS) on the SAP system:

Step	Action
1	Start the transaction: spad
2	Click Extended Administration / Full Administration.
3	Select the Output management systems tab.
4	Click Display at Real Output Management Systems: 

## Establish Real OMS on the SAP System



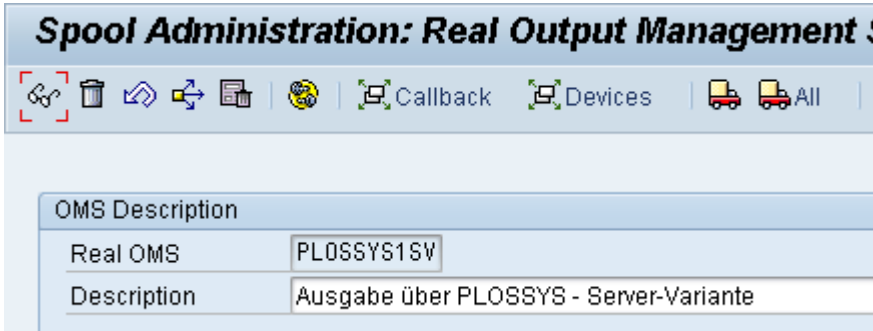
This is how you create a real output management system:

create ROMS

Step	Action
1	→ <i>Open the Configuration for ROMS on the SAP System, Page 30</i>
2	Switch to the change mode.
3	Create a new real OMS with  (Create Shift+F1).

This is how you specify the properties for the new real output management system:



specify ROMS

Step	Action
1	→ <i>Open the Configuration for ROMS on the SAP System, Page 30</i>
2	Select the required output management system.
3	<p>Enter in the OMS Description section:</p> <ul style="list-style-type: none"> <li>Real OMS: Name of the OMS   Example:                      PLOSSYS1SV</li> <li>Description: Descriptive text for OMS   Example:                      Output via PLOSSYS - Server Variant</li> </ul>  <p>The screenshot shows the 'Spool Administration: Real Output Management S' window. It features a toolbar with icons for navigation and actions. Below the toolbar, there is an 'OMS Description' section with two input fields: 'Real OMS' containing 'PLOSSYS1SV' and 'Description' containing 'Ausgabe über PLOSSYS - Server-Variante'.</p>

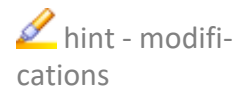
## Establish Real OMS on the SAP System, Continuation

Step	Action												
4	<p>Enter in the OMS Attributes section:</p> <ul style="list-style-type: none"> <li>• Tasking:               <ul style="list-style-type: none"> <li>• Command line: Activated</li> </ul> </li> <li>• Job Status:               <ul style="list-style-type: none"> <li>• Query: Activated if job status desired</li> <li>• Deletable: Activated if jobs are to be deleted</li> <li>• Callback: Activated for job reply</li> </ul> </li> <li>• Device Status:               <ul style="list-style-type: none"> <li>• Queue query: Activated, if device status is desired</li> <li>• Callback: Activated for device reply</li> </ul> </li> <li>• OMS Configuration:               <p>Connection data to the external output management system For further explanations, refer to: → <i>OMS Configuration - Possible Values</i>, Page 34</p> </li> </ul> <div data-bbox="531 936 1358 1330" style="border: 1px solid gray; padding: 5px;"> <p><b>OMS Attributes</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Tasking</th> <th style="width: 33%;">Job Status</th> <th style="width: 33%;">Device Status</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Command line <input type="checkbox"/> RFC server</td> <td><input type="checkbox"/> Query <input type="checkbox"/> Deletable <input type="checkbox"/> Polling <input checked="" type="checkbox"/> Callback</td> <td><input type="checkbox"/> Queue query <input checked="" type="checkbox"/> Callback</td> </tr> <tr> <td>Host Spool Attribute Record</td> <td></td> <td></td> </tr> <tr> <td>OMS Configuration</td> <td colspan="2">PLOSSYSHTTPS</td> </tr> </tbody> </table> </div>	Tasking	Job Status	Device Status	<input checked="" type="checkbox"/> Command line <input type="checkbox"/> RFC server	<input type="checkbox"/> Query <input type="checkbox"/> Deletable <input type="checkbox"/> Polling <input checked="" type="checkbox"/> Callback	<input type="checkbox"/> Queue query <input checked="" type="checkbox"/> Callback	Host Spool Attribute Record			OMS Configuration	PLOSSYSHTTPS	
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Host Spool Attribute Record													
OMS Configuration	PLOSSYSHTTPS												

## Establish Real OMS on the SAP System, Continuation

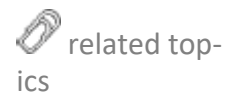
Step	Action												
5	<p>Enter in the SAP Configuration section:</p> <ul style="list-style-type: none"> <li>Initialization Instance: Empty or initial SAP system for callbacks if the initialization command can only be executed by one specific host</li> <li>Reconfiguration Request: Time interval for reconfiguration event, see the following note:</li> </ul> <p> Example - Linux:</p> <div data-bbox="331 763 1211 958" style="border: 1px solid #ccc; padding: 5px;"> <p>SAP Configuration</p> <table border="1"> <tr> <td>Initialization Instance</td> <td>ROESAP005_W74_01</td> </tr> <tr> <td>Initialization Command</td> <td></td> </tr> <tr> <td>Reconfiguration Request</td> <td>60 Sec <input checked="" type="checkbox"/> Reconfiguration Re</td> </tr> </table> </div> <p> Example - Windows:</p> <div data-bbox="331 1070 1211 1265" style="border: 1px solid #ccc; padding: 5px;"> <p>SAP Configuration</p> <table border="1"> <tr> <td>Initialization Instance</td> <td>ROESAP005_W74_01</td> </tr> <tr> <td>Initialization Command</td> <td></td> </tr> <tr> <td>Reconfiguration Request</td> <td>60 Sec <input checked="" type="checkbox"/> Reconfiguration Re</td> </tr> </table> </div>	Initialization Instance	ROESAP005_W74_01	Initialization Command		Reconfiguration Request	60 Sec <input checked="" type="checkbox"/> Reconfiguration Re	Initialization Instance	ROESAP005_W74_01	Initialization Command		Reconfiguration Request	60 Sec <input checked="" type="checkbox"/> Reconfiguration Re
Initialization Instance	ROESAP005_W74_01												
Initialization Command													
Reconfiguration Request	60 Sec <input checked="" type="checkbox"/> Reconfiguration Re												
Initialization Instance	ROESAP005_W74_01												
Initialization Command													
Reconfiguration Request	60 Sec <input checked="" type="checkbox"/> Reconfiguration Re												

Changes in the SAP configuration are automatically transferred to the output management system.






In addition, a time-controlled retransmission to the output management can be activated.

→ *Specify Amount and Interval of the Replies, Page 70*



## OMS Configuration - Possible Values

with and without oms_server	<p>You have the following possibilities for transferring the data to the external output management system:</p> <ul style="list-style-type: none"> <li>• Transfer with oms_submit and oms_server This variant is particularly suitable for high performance rates. It is fail-safe and fast. → <i>Provide Reliability</i>, Page 64 → <i>Establish Load Balancing</i>, Page 66</li> <li>• Transfer only with oms_submit</li> </ul>
requirement for variant with oms_server	<p>Requirement for the variant with oms_server: → <i>Start oms_server on the SAP System</i>, Page 85</p>
values at OMS Configuration	<p>You specify the desired variant at the configuration of the ROMS at OMS Configuration:</p> <ul style="list-style-type: none"> <li>• Transfer with oms_submit and oms_server without https ipp <ul style="list-style-type: none"> <li>• empty If the item is empty, the value of OMS_CONFIGURATION (oms_submit.cfg, [OMS_SUBMIT] section) is used. Default is the name PLOSSYS.</li> <li>• output system The name of the specified output management system must be listed in the [OUTPUT_SYSTEMS] section in oms_server.cfg and specified in detail in a separate section.  Note - Transmission type: Whether transmission is unencrypted via IPP or encrypted via IPPS is defined via the pipeline name in the section of the output management system in the oms_server.cfg file.</li> </ul> </li> <li>• <i>HostPort Pipe</i></li> <li>• Transfer only with oms_submit: with https ipp <ul style="list-style-type: none"> <li>• <i>HostPort Pipehttps</i> (with IPP Service - encrypted, HTTPS), default <i>Port</i>: 443</li> <li>• <i>HostPort Pipeipp</i> (with IPP Service - unencrypted), default <i>Port</i>: 631</li> </ul> </li> </ul>
 hint - no pipe name	If the pipe name is not set, PLOSSYS is used as default.
 Caution - requirement for https/ipp	<p>Requirement for the transfer via IPP Service: → <i>Activate the Transfer via IPP/IPPS</i>, Page 21</p>

## OMS Configuration - Possible Values, Continuation


---

Transfer only with oms\_submit with IPP Service - encrypted:

SEALSRV1 443 HTTPS:

OMS Configuration

10.100.53.32 443 HTTPS


 example 1 -  
only with oms\_  
submit

---

Transfer with oms\_server: PLOSSYSHTTPS:


OMS Configuration

PLOSSYSHTTPS

 example 2 -  
with oms\_server

---


If a common directory is used due to demonstration and test purposes and no files of SEAL Systems are copied to the SAP system, https | ipp must not be set!

 hint - demon-  
stration and test  
purposes

---

→ oms\_submit.cfg - Configuration, Page 114

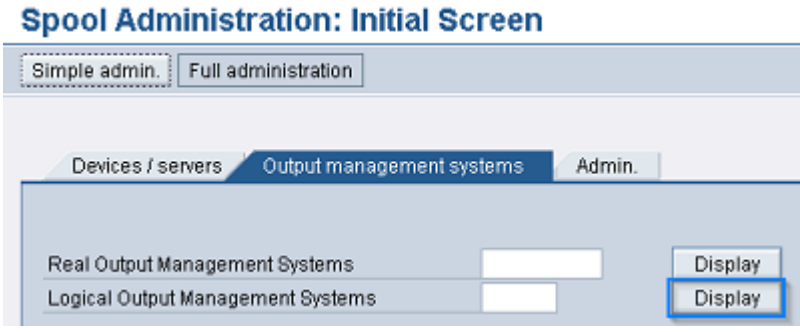
→ oms\_server.cfg - Configuration, Page 121

 related top-  
ics

## Open the Configuration for LOMS on the SAP System

### instructions


This is how you open the configuration for logical output management systems (LOMS) on the SAP system:

Step	Action
1	Start the transaction: spad.
2	Click Extended Administration / Full Administration.
3	Select the Output management systems tab.
4	Click Display at Logical Output Management Systems: 

## Establish Logical OMS on the SAP System



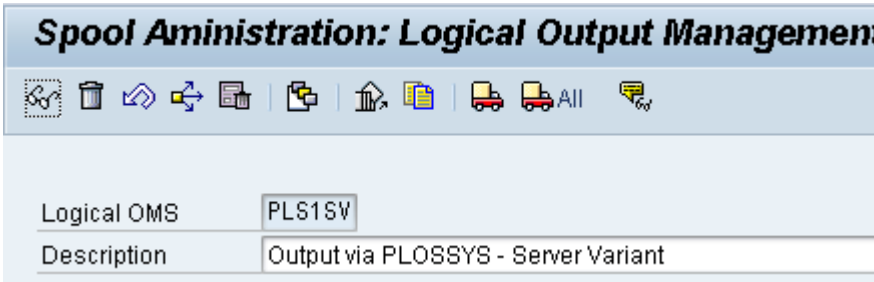

This is how you create a logical output management system:

create LOMS


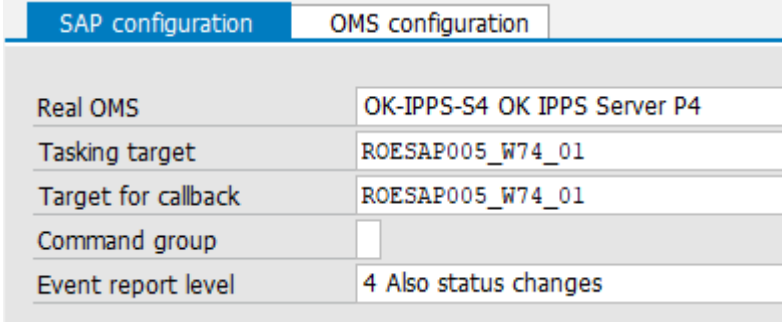
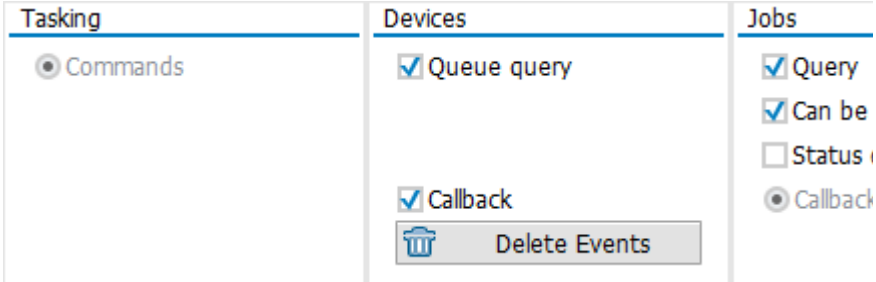


Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Switch to the change mode.
3	Create a new logical OMS with  (Create Shift F1).

This is how you specify the properties for the new logical output management system:

establish LOMS

Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Select the required output management system.
3	<p>Enter:</p> <ul style="list-style-type: none"> <li>Logical OMS: Name of the OMS   Example: PLS1SV</li> <li>Description: Descriptive text for OMS   Example:                      Output via PLOSSYS - Server Variant</li> </ul> 
4	Save the settings  (Save Strg+S).

## Establish Logical OMS on the SAP System, Continuation

Step	Action
5	<p>Enter in the SAP Configuration section:</p> <ul style="list-style-type: none"> <li>Real OMS: Real OMS from → <i>Establish Real OMS on the SAP System, Page 31</i></li> <li>Tasking target: SAP system for assignment</li> <li>Target for callback: SAP system to which the replies are transferred</li> </ul> <p> Caution - item in sapnwrfc.ini: The item must be identical with the item in sapnwrfc.ini.</p> <ul style="list-style-type: none"> <li>Event Report Level: Amount of job replies</li> </ul>  <p>The screenshot shows the 'SAP configuration' tab selected. The 'OMS configuration' section is active. The fields are: Real OMS (OK-IPPS-S4 OK IPPS Server P4), Tasking target (ROESAP005_W74_01), Target for callback (ROESAP005_W74_01), Command group (empty), and Event report level (4 Also status changes).</p>
6	<p>Enter in the SAP Configuration section:</p> <ul style="list-style-type: none"> <li>Section Devices: Queue query: Activated, if device status is desired Callback: Activated for device reply</li> <li>Section Jobs: Query: Activated if job status desired Deletable: Activated if jobs are to be deleted</li> </ul>  <p>The screenshot shows three sections: 'Tasking' with 'Commands' selected; 'Devices' with 'Queue query' and 'Callback' checked, and a 'Delete Events' button; and 'Jobs' with 'Query' and 'Can be' checked, 'Status' unchecked, and 'Callback' selected.</p>
7	Save the settings  (Save Strg+S).
8	Define the commands to be executed with  (Commands F6): → <i>Specify Commands, Page 39</i>

## Specify Commands

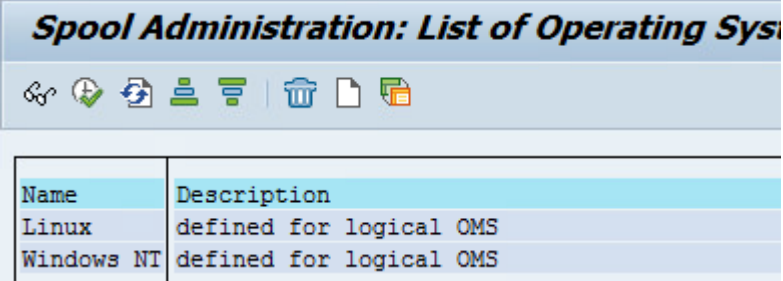


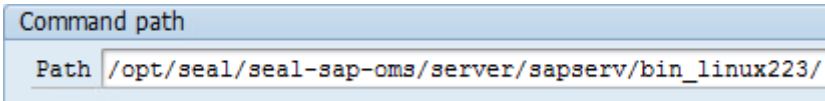

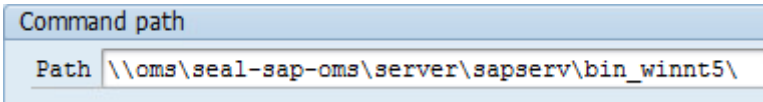
You have executed the last step of:

requirements





→ *Establish Logical OMS on the SAP System, Page 37*


This is how you specify the commands:

instructions

Step	Action						
1	<p>Activate the desired operating system or create it:</p>  <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Linux</td> <td>defined for logical OMS</td> </tr> <tr> <td>Windows NT</td> <td>defined for logical OMS</td> </tr> </tbody> </table>	Name	Description	Linux	defined for logical OMS	Windows NT	defined for logical OMS
Name	Description						
Linux	defined for logical OMS						
Windows NT	defined for logical OMS						
2	<p>Enter:</p> <ul style="list-style-type: none"> <li>Initialization Command: Name of the directory name, on which the executable program is located from the point of the SAP server On a Windows system directory names with drive letter or UNC path specifications are possible.</li> </ul> <p> <b>Caution - Windows - path specification with \ at the end:</b> The path specification must end with a “\”. The path specification must not include blanks, because this is not supported by SAP. From the perspective of the SAP server, the path specification must be correct. This is especially important in the context of the usage of drive letters, under which the directories must be connected.</p> <p> <b>Example - Linux:</b> /opt/seal/seal-sap-oms/server/sapserv/bin_linux223/  </p> <p> <b>Example - Windows:</b> \\bcxom\oms\server\sapserv\bin_winnt5\ oder s:\oms\server\sapserv\bin_winnt5\  </p>						

## Specify Commands, Continuation

Step	Action																								
3	<p>Enter in the OMS commands section:</p> <ul style="list-style-type: none"> <li>Submit: Program for assignment with standard parameters: oms_submit[.exe .sh] "&amp;C" "&amp;E1" "&amp;E2" "&amp;E3" "&amp;E4" "&amp;EG" "&amp;EI" "&amp;Es" "&amp;F" "&amp;M" "&amp;m" "&amp;o" "&amp;P" "&amp;Y" "&amp;c" "&amp;E1" "&amp;Er"-cfgfile</li> </ul> <p> Caution - dependencies: The parameters “&amp;E1” and “&amp;Er” must be specified for PLOSSYS Output Engine (PLOSSYS 5). The parameter list must match the information in oms_submit.cfg.</p> <p> Caution - UNIX/Linux: Use oms_submit.sh instead of oms_submit on UNIX/Linux in order to ensure that the required shared libraries are found.</p> <p> Example - Linux:</p> <table border="1" data-bbox="528 976 1398 1249"> <thead> <tr> <th colspan="2">OMS commands</th> </tr> </thead> <tbody> <tr> <td>Submit</td> <td>oms_submit.sh "&amp;C" "&amp;E1" "&amp;E2" "&amp;E3" "&amp;E4"</td> </tr> <tr> <td>Polling</td> <td></td> </tr> <tr> <td>Queue query</td> <td></td> </tr> <tr> <td>Job cancel</td> <td></td> </tr> <tr> <td>Job query</td> <td></td> </tr> </tbody> </table> <p> Example - Windows:</p> <table border="1" data-bbox="528 1357 1398 1630"> <thead> <tr> <th colspan="2">OMS commands</th> </tr> </thead> <tbody> <tr> <td>Submit</td> <td>oms_submit.exe "&amp;C" "&amp;E1" "&amp;E2" "&amp;E3" "&amp;E4"</td> </tr> <tr> <td>Polling</td> <td></td> </tr> <tr> <td>Queue query</td> <td></td> </tr> <tr> <td>Job cancel</td> <td></td> </tr> <tr> <td>Job query</td> <td></td> </tr> </tbody> </table>	OMS commands		Submit	oms_submit.sh "&C" "&E1" "&E2" "&E3" "&E4"	Polling		Queue query		Job cancel		Job query		OMS commands		Submit	oms_submit.exe "&C" "&E1" "&E2" "&E3" "&E4"	Polling		Queue query		Job cancel		Job query	
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Queue query																									
Job cancel																									
Job query																									

 related topics

- oms\_submit - Transfer Additional Parameter, Page 60
- oms\_submit - Assignment, Page 135

## Assign Device Profile File (XDC File)

These steps are only required if you want to support ADS forms.

require for ADS forms

At the output of SAPscript or Smart Form forms via SAP spool SAP transfers on OTF file with the relevant control parameters, for instance tray information for each page, to the output management system.

description

At the output of ADS forms SAP transfers a PDF file without control parameters to the output management system by default.










In order to transfer control parameters, a device profile file has to be assigned and a PostScript file has to be passed.

This is how you assign a device profile file:

instructions

Step	Action
1	Copy the SAP device type for the OTF output, for instance SAPGOFU, and extend the copied device type to the desired control information, for instance tray selection.
2	Start the transaction: sa38
3	Execute the following program: Program: rspo0022

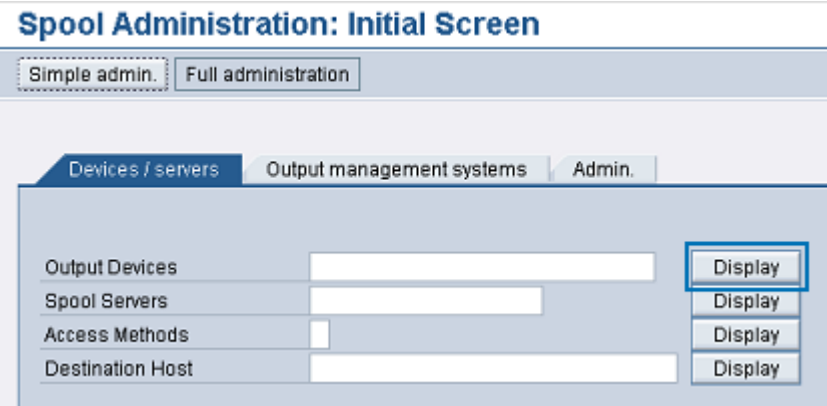

## Assign Device Profile File (XDC File), Continuation

Step	Action																																																									
4	<p>Assign the modified device type from step 1:</p> <ul style="list-style-type: none"> <li>XDC Name: ps_plain.xdc</li> <li>Type: ps</li> </ul> <p> Example:</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Report für XDC-Zuordnung</b></p> <p>XDC Admin. </p> <p>Zuordnung eines XDC-Dateinamens zu einem SAP-Gerätetyp (obere Tabelle) Wenn einem Gerätetyp kein XDC-Name zugeordnet wurde, wird die Standard-</p> <p>   </p> <p>Aktuell definierte Zuordnungen Gerätetyp zu XDC-Name</p> <table border="1"> <thead> <tr> <th>Gerätetyp</th> <th>Druckersprache</th> <th>XDC-Name (...)</th> <th>Ty...</th> <th>XDC-Name (Farbe)</th> <th>Typ Farb-X</th> </tr> </thead> <tbody> <tr> <td>ZSAPGOF</td> <td>Rohdaten</td> <td>ps_plain.xdc</td> <td>ps</td> <td>ps_plain.xdc</td> <td>ps</td> </tr> </tbody> </table> <p style="text-align: center;">&lt; &gt;</p> <p> </p> <p>Standard-Zuordnung Druckersprache zu XDC-Name</p> <table border="1"> <thead> <tr> <th>Druckersprache</th> <th>XDC-Name (...)</th> <th>Ty...</th> <th>XDC-Name (Farbe)</th> <th>Typ Farb-</th> </tr> </thead> <tbody> <tr> <td>Default für PCL</td> <td>hppcl5e.xdc</td> <td>pcl</td> <td>hppcl5c.xdc</td> <td>pcl</td> </tr> <tr> <td>Default für PDF</td> <td>acrobat6.xdc</td> <td>pdf</td> <td>acrobat6.xdc</td> <td>pdf</td> </tr> <tr> <td>Default für Postscript</td> <td>ps_plain.xdc</td> <td>ps</td> <td>ps_plain.xdc</td> <td>ps</td> </tr> <tr> <td>Default für Prescribe</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Default für ZPL (203 DPI)</td> <td>zpl203.xdc</td> <td>zpl</td> <td>zpl203.xdc</td> <td>zpl</td> </tr> <tr> <td>Default für ZPL (300 DPI)</td> <td>zpl300.xdc</td> <td>zpl</td> <td>zpl300.xdc</td> <td>zpl</td> </tr> <tr> <td>Default Rohdaten-Gerätetyp</td> <td>ps_plain.xdc</td> <td>ps</td> <td>ps_plain.xdc</td> <td>ps</td> </tr> <tr> <td>Default SAPWIN-Gerätetyp</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p> <b>Hint - standard assignment:</b> Alternatively you may assign the values mentioned above at the standard assignment for the printer language Default Raw Data Device Type.</p> </div>	Gerätetyp	Druckersprache	XDC-Name (...)	Ty...	XDC-Name (Farbe)	Typ Farb-X	ZSAPGOF	Rohdaten	ps_plain.xdc	ps	ps_plain.xdc	ps	Druckersprache	XDC-Name (...)	Ty...	XDC-Name (Farbe)	Typ Farb-	Default für PCL	hppcl5e.xdc	pcl	hppcl5c.xdc	pcl	Default für PDF	acrobat6.xdc	pdf	acrobat6.xdc	pdf	Default für Postscript	ps_plain.xdc	ps	ps_plain.xdc	ps	Default für Prescribe					Default für ZPL (203 DPI)	zpl203.xdc	zpl	zpl203.xdc	zpl	Default für ZPL (300 DPI)	zpl300.xdc	zpl	zpl300.xdc	zpl	Default Rohdaten-Gerätetyp	ps_plain.xdc	ps	ps_plain.xdc	ps	Default SAPWIN-Gerätetyp				
Gerätetyp	Druckersprache	XDC-Name (...)	Ty...	XDC-Name (Farbe)	Typ Farb-X																																																					
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Druckersprache	XDC-Name (...)	Ty...	XDC-Name (Farbe)	Typ Farb-																																																						
Default für PCL	hppcl5e.xdc	pcl	hppcl5c.xdc	pcl																																																						
Default für PDF	acrobat6.xdc	pdf	acrobat6.xdc	pdf																																																						
Default für Postscript	ps_plain.xdc	ps	ps_plain.xdc	ps																																																						
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Default für ZPL (203 DPI)	zpl203.xdc	zpl	zpl203.xdc	zpl																																																						
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Default Rohdaten-Gerätetyp	ps_plain.xdc	ps	ps_plain.xdc	ps																																																						
Default SAPWIN-Gerätetyp																																																										

## Establish an Output Device on the SAP System


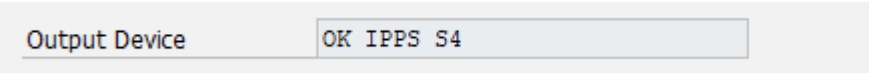
This is how you create an output device:

create output device


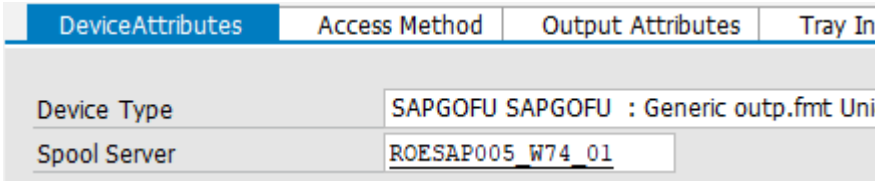


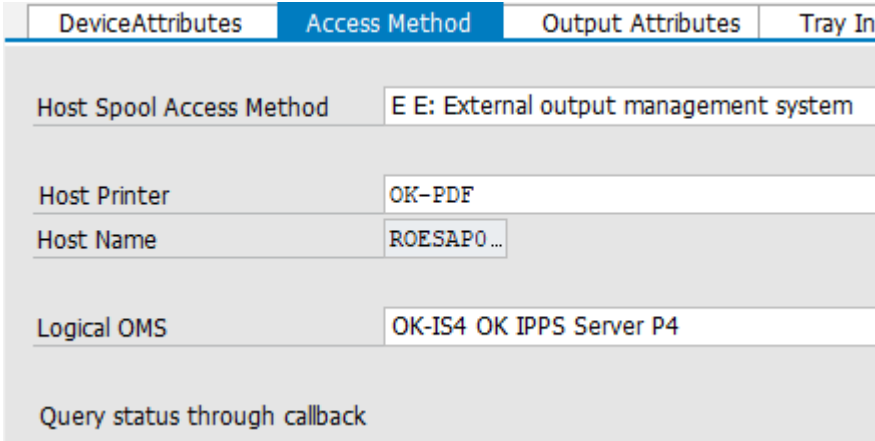

Step	Action
1	Start the transaction: spad.
2	Click Extended Administration / Full Administration.
3	Select the Devices / servers tab.
4	Click Display at Output Devices: 
5	Switch to the change mode.
6	Create a new output device with  (Create Shift+F1) a new output device.

This is how you specify the properties for the new output device:

install output device

Step	Action
1	Enter: <ul style="list-style-type: none"> <li>Output Device: Name of the output device</li> <li>Short Name: Unique shortcut</li> </ul> <p> Example: OK IPPS S4 (short name: OKI04)</p> 

## Establish an Output Device on the SAP System, Continuation

Step	Action
2	<p>Enter in the Device Attributes tab:</p> <ul style="list-style-type: none"> <li>Device Type: Type of the output device</li> </ul> <p> Example: SAPGOFU: Generic output format Unicode 1.1 for the Unicode SAPGOF output</p>  <p> Hint - SAPGOF: Alternatively, you may use SAPGOF: Generic output format ASCII if you do not have any Unicode requirements with special Asian fonts.</p> <p> Caution - only one device type: You must use the same device type for all output devices!</p> <ul style="list-style-type: none"> <li>Spool Server: SAP server</li> </ul>
3	<p>Enter in the Access Method tab:</p> <ul style="list-style-type: none"> <li>Host Spool Access Method: E E: External output management system</li> <li>Host printer: Name of the PLOSSYS output device</li> <li>Logical OMS: Logical OMS</li> </ul> 
4	<p>Save the settings  (Save Strg+S).</p>

## 4.5 Start oms\_server on the SAP System

---

These steps are only required if you selected the variant with oms\_server (without https|ipp as the last option) at the configuration of ROMS at OMS Configuration. required if

→ *OMS Configuration - Possible Values*, Page 34

If the SAP system runs on Linux, you can skip this chapter if you used the rpm installation package:

→ *Linux - Install via rpm Installation Package*, Page 24

---

You have provided the files required by oms\_server for the SAP system oms\_server: requirement

→ *Provide files*, Page 25

---

For the assignment with oms\_server, on the SAP system oms\_server must be started. You have the following alternatives: description

- Direct start on the SAP system
- Start on the output management system  
You can use the AT command (Windows) or cronjobs (UNIX, crontab) to establish the start at the system start.

---

This chapter deals with the following topics: in this chapter

→ *Define External Commandos on the SAP System*, Page 86

→ *Establish a Direct Start on the SAP System*, Page 88

---


You can check a successful start of oms\_server on the SAP system on the basis of the following issues: result

- The process is listed in the task manager.
- A lock file with the process ID exists in the data\sysstat directory.
- The oms\_server.log log file exists in the data\log directory:  
→ *Start PLOSSYS Output Engine (PLOSSYS 5)*, Page 22

## Define External Commandos on the SAP System


instructions

This is how you define the required external commands on the SAP system:

Step	Action																				
1	Start one of the following transactions: sm49 or sm69																				
2	<p>Define the external command for starting oms_server:</p> <ul style="list-style-type: none"> <li>Command - Command Name: ZOMSSERVER_ON</li> <li>For Windows: <ul style="list-style-type: none"> <li>Definition - Operation System Command: powershell</li> <li>Definition - Parameters for Operating System Command: <pre>-Command Start-Process -WindowStyle Hidden -File-Path \\bcxom\oms_server\server\sapserv\bin_winnt5\oms_server.exe</pre> </li> </ul> </li> <li>Otherwise: <ul style="list-style-type: none"> <li>Definition - Operation System Command: <pre>oms_server.sh</pre>with absolute path specification </li> </ul> </li> </ul> <p> <b>Caution - UNIX/Linux:</b> On UNIX/Linux, use oms_server.sh instead of oms_server to ensure that the required shared libraries are found.</p> <ul style="list-style-type: none"> <li>Definition - Parameter: Empty</li> </ul> <p>From the perspective of the SAP server, the path specifications must be correct.</p> <table border="1"> <tbody> <tr> <td>Ci</td> <td>ZOMSSERVER_KILL</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Stop-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_OFF</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Start-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_ON</td> <td>Windows NT</td> <td>powershell</td> <td>-Command Start-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_STATUS</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Get-Proces</td> </tr> </tbody> </table>	Ci	ZOMSSERVER_KILL	WINDOWS NT	powershell	-Command Stop-Proce	Ci	ZOMSSERVER_OFF	WINDOWS NT	powershell	-Command Start-Proce	Ci	ZOMSSERVER_ON	Windows NT	powershell	-Command Start-Proce	Ci	ZOMSSERVER_STATUS	WINDOWS NT	powershell	-Command Get-Proces
Ci	ZOMSSERVER_KILL	WINDOWS NT	powershell	-Command Stop-Proce																	
Ci	ZOMSSERVER_OFF	WINDOWS NT	powershell	-Command Start-Proce																	
Ci	ZOMSSERVER_ON	Windows NT	powershell	-Command Start-Proce																	
Ci	ZOMSSERVER_STATUS	WINDOWS NT	powershell	-Command Get-Proces																	

## Define External Commandos on the SAP System,

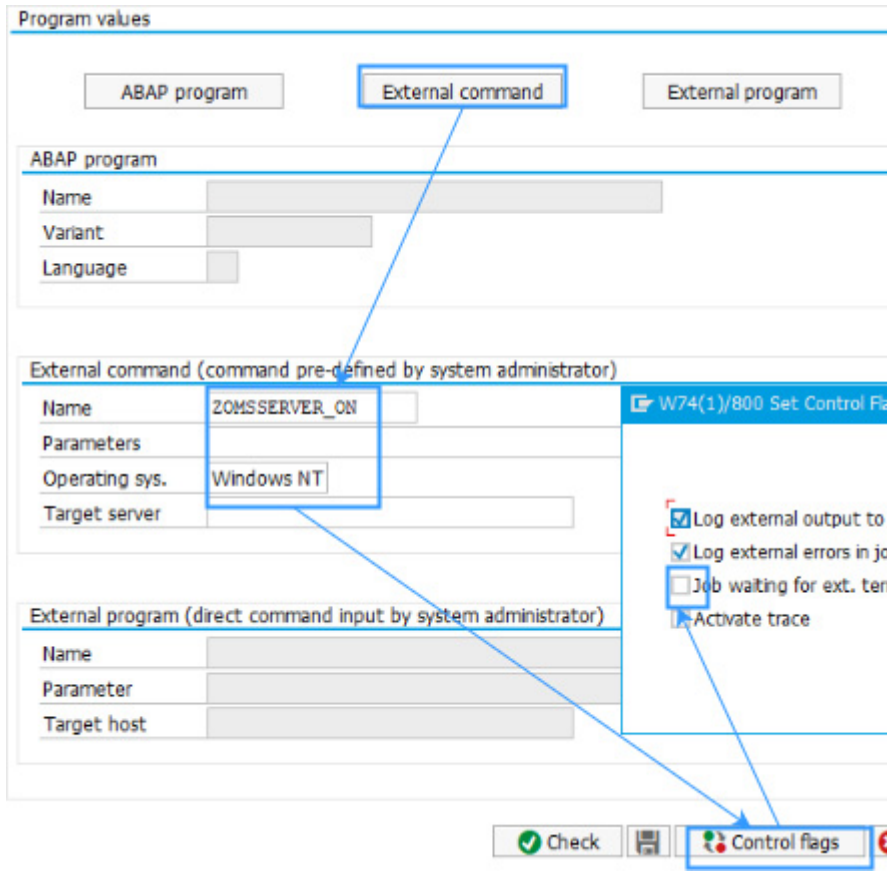
Continuation

Step	Action
3	<p>As in step 2, define the external command for stopping oms_server:</p> <ul style="list-style-type: none"> <li>• Command - Command Name: ZOMSSERVER_OFF</li> <li>• For Windows: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: powershell</li> <li>• Definition - Parameters for Operating System Command: <ul style="list-style-type: none"> <li>Alternative 1: <pre>-Command Stop-Process -Name oms_server -Force</pre> </li> <li>Alternative 2: <pre>-Command Start-Process -FilePath \\bcxom\oms_server\server\sapserv\bin_winnt5\oms_server.exe -ArgumentList -kill</pre> </li> </ul> </li> </ul> </li> <li>• Otherwise: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: <pre>oms_server.sh</pre>with absolute path specification </li> </ul> </li> </ul> <p> <b>Caution - UNIX/Linux:</b> On UNIX/Linux, use oms_server.sh instead of oms_server to ensure that the required shared libraries are found.</p> <ul style="list-style-type: none"> <li>• Definition - Parameter: -kill</li> </ul>
4	<p>As in step 2, define the external command for the status query of oms_server:</p> <ul style="list-style-type: none"> <li>• Command - Command Name: ZOMSSERVER_STATUS</li> <li>• For Windows: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: powershell</li> <li>• Definition - Parameters for Operating System Command: <pre>-Command Get-Process oms_server</pre> </li> </ul> </li> <li>• Otherwise: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: ps</li> </ul> </li> </ul>

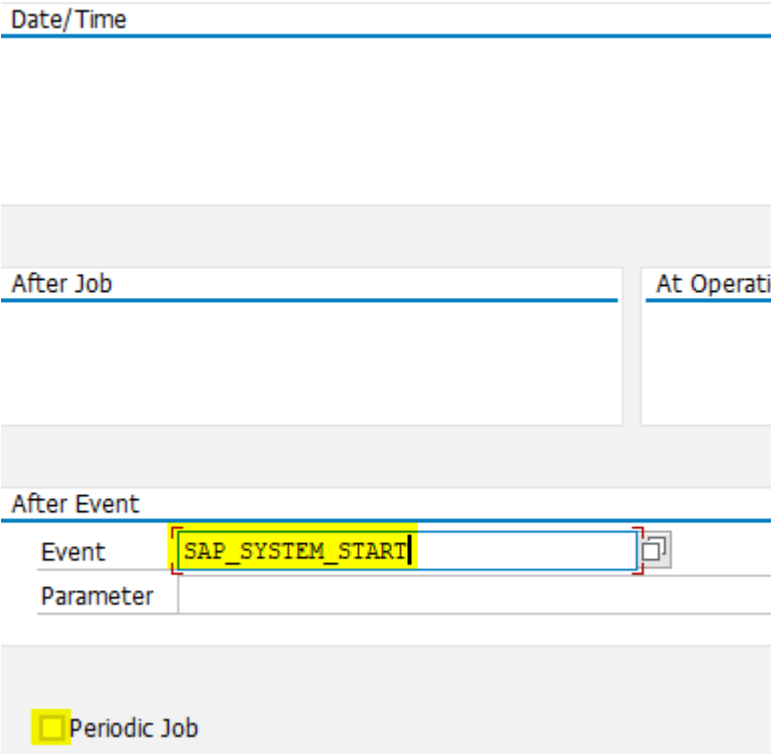
## Establish a Direct Start on the SAP System

instructions

This is how you configure the direct start on the SAP system:

Step	Action
1	<p>Use the sm36 transaction to configure the start command as a periodic batch. Enter in the Start Condition tab, for instance:</p> <ul style="list-style-type: none"> <li>• Date/Time - Scheduled start: 6:00 am</li> <li>• Periodic Job: Activate</li> <li>• Period Values: 15 minutes (example) Time interval, in which the command is to be executed periodically, to ensure that oms_server runs permanently</li> </ul>
2	<p>Switch to the Step tab and enter:</p> <ul style="list-style-type: none"> <li>• External Command- Name: Command from → <i>Define External Commandos on the SAP System, Page 86 (step 2)</i></li> <li>• External Command - Operating system: Windows NT</li> <li>• Control Flags - Job waiting for external termination: Deactivate</li> </ul> 

## Establish a Direct Start on the SAP System, Continuation

Step	Action
3	<p>Use the sm36 transaction to configure the command of step 2 as a singular batch job at system start, for example:</p> <p>Start Condition:</p> <ul style="list-style-type: none"> <li>• After Event - Event: SAP_SYSTEM_START</li> <li>• Periodic Job: Deactivate</li> </ul> <p>Step: As in step 2</p> <ul style="list-style-type: none"> <li>• External command- Name: Command of step 2</li> <li>• External Command - Operating system: Windows NT</li> <li>• Control Flags - Job waiting for external termination: Deactivate</li> </ul>  <p>The screenshot shows the SAP sm36 transaction interface. The 'After Event' section is highlighted in yellow. The 'Event' field contains 'SAP_SYSTEM_START'. The 'Periodic Job' checkbox is also highlighted in yellow. Other sections like 'Date/Time', 'After Job', and 'At Operati' are visible but not highlighted.</p>

## 4.6 Start and Test Execution

---

requirement → *Establish the OMS on the SAP System*, Page 29  
→ *Start PLOSSYS Output Engine (PLOSSYS 5)*, Page 22

---

in this chapter This chapter deals with the following topics:  
→ *Transfer SAP-Configuration*, Page 51  
→ *Test the Assignment and Status Actualization*, Page 52

## Transfer SAP-Configuration

The external Ausgabemanagementsystem is started: requirement


→ *Start PLOSSYS Output Engine (PLOSSYS 5), Page 22*

The ROMS and LOMS are established:

→ *Establish the OMS on the SAP System, Page 29*

The settings of the real and logical Ausgabemanagementsystems on the SAP system are transferred to the database of the Ausgabemanagementsystem. description

This is how you transfer the SAP configuration to the external Ausgabemanagementsystem: instructions

Step	Action
1	→ <i>Open the Configuration for ROMS on the SAP System, Page 30</i>
2	Select the required Ausgabemanagementsystem.
3	Transfer the SAP configuration with the icon  (Status Ctrl+F3).
4	Repeat the steps 2 to 3 for each real Ausgabemanagementsystem.

[SAP\_PRINT\_MANUAL] includes further information about the functions of the SAP spool system. There, the activation of the OMS reconfiguration is described in detail.



## Test the Assignment and Status Actualization

### requirement

The external output management system is started.

→ *Start PLOSSYS Output Engine (PLOSSYS 5), Page 22*

The ROMS and LOMS are established:

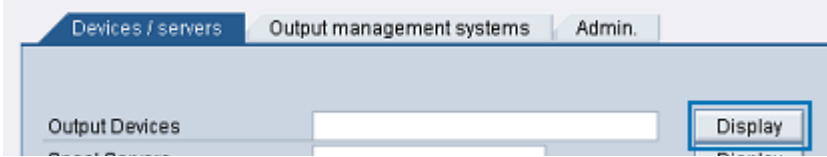

→ *Establish the OMS on the SAP System, Page 29*

### example

For testing the assignment and display of the current job status you can output the list of the external output devices, for example.

### instructions

This is how you test the assignment and the status display by means of printing the list of the external output devices:

Step	Action
1	Start the transaction: spad
2	Click Extended Administration / Full Administration.
3	Select the Devices / servers tab.
4	Click Display at Output Devices: 
5	Output the list of the output devices via the output device established before with:  (Print Ctrl+P) or System→List→Print

### related topics

→ *Check Process - Advisable Actions, Page 83*

## 5 Functionality of BC-XOM OMS Interface

---

This chapter describes the functionality provided by BC-XOM OMS Interface. introduction

---

This chapter deals with the following topics: in this chapter

→ *Create Output Job*, Page 54

→ *Display Job Reply*, Page 55


→ *Display Queue/Device Replies*, Page 57

## Create Output Job

**description** A spool request and an output job is created and output via the output management system.

**requirement** The following requirements have to be fulfilled:  
→ *Installation - SAP, Page 23*

**instructions** This is how you create an output job and output the job via an external output management system:

Step	Action
1	Start the output with  (Print Strg+P).
2	Select one of the configured output devices. → <i>Establish an Output Device on the SAP System, Page 43</i>


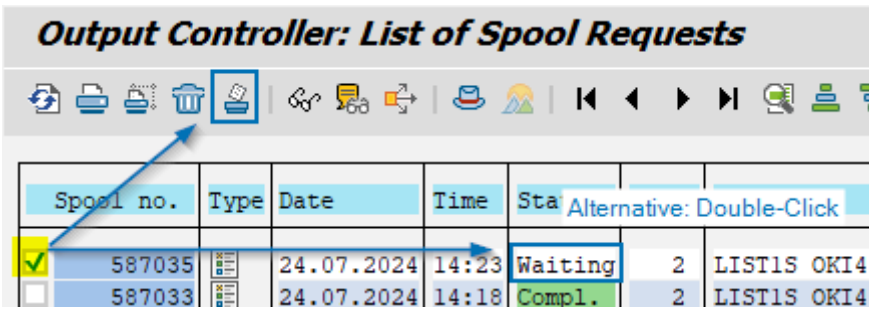

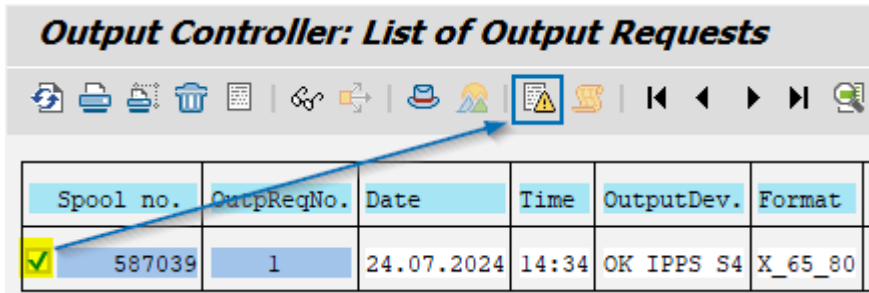
## Display Job Reply

The job history with the information about the separate processing steps of the output job in the SAP system and on the external output management system is displayed. description


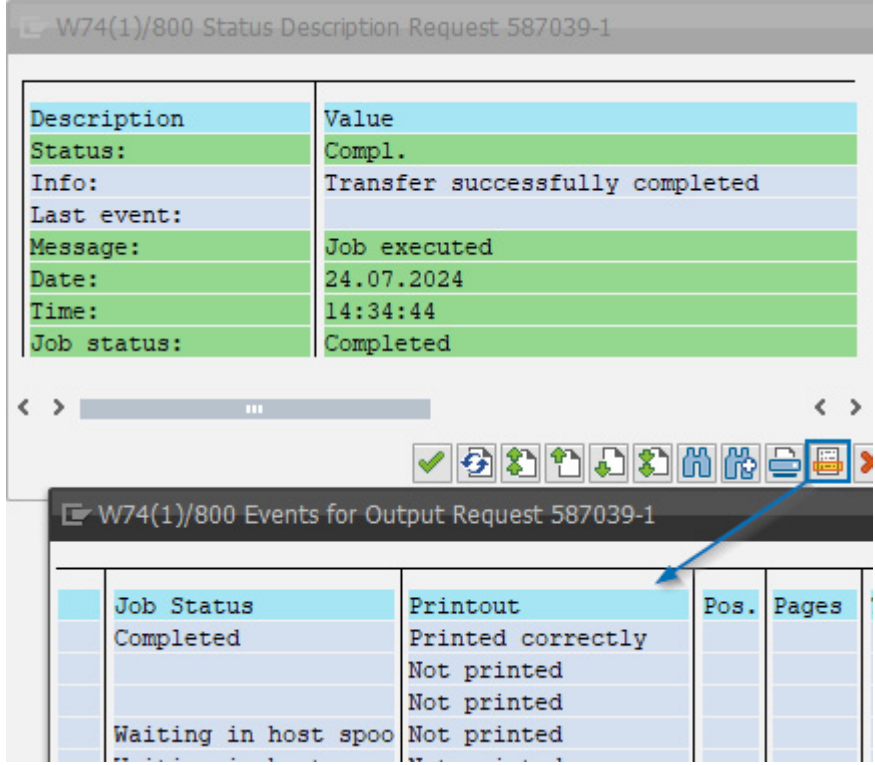
The following requirements have to be fulfilled: requirement


- Callback at Job Status must be activated for the real OMS:  
→ *Establish Real OMS on the SAP System, Page 31*
- Callback at Jobs must be activated for the logical OMS:  
→ *Establish Logical OMS on the SAP System, Page 37*

This is how you display the job history: instructions

Step	Action																		
1	Start the transaction: sp01																		
2	<p>Select the desired spool requests and switch to the list of output jobs with  (Output requests F5) or double-click in the Status column:</p>  <table border="1"> <thead> <tr> <th>Spool no.</th> <th>Type</th> <th>Date</th> <th>Time</th> <th>Sta</th> <th>Alternative: Double-Click</th> </tr> </thead> <tbody> <tr> <td>587035</td> <td></td> <td>24.07.2024</td> <td>14:23</td> <td>Waiting</td> <td>2 LIST1S OKI4</td> </tr> <tr> <td>587033</td> <td></td> <td>24.07.2024</td> <td>14:18</td> <td>Compl.</td> <td>2 LIST1S OKI4</td> </tr> </tbody> </table>	Spool no.	Type	Date	Time	Sta	Alternative: Double-Click	587035		24.07.2024	14:23	Waiting	2 LIST1S OKI4	587033		24.07.2024	14:18	Compl.	2 LIST1S OKI4
Spool no.	Type	Date	Time	Sta	Alternative: Double-Click														
587035		24.07.2024	14:23	Waiting	2 LIST1S OKI4														
587033		24.07.2024	14:18	Compl.	2 LIST1S OKI4														
3	<p>Select the output job and display the status with  (Output request status Shift+Ctrl+0) or double-click in the Status text column:</p>  <table border="1"> <thead> <tr> <th>Spool no.</th> <th>OutpReqNo.</th> <th>Date</th> <th>Time</th> <th>OutputDev.</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>587039</td> <td>1</td> <td>24.07.2024</td> <td>14:34</td> <td>OK IPPS S4</td> <td>X_65_80</td> </tr> </tbody> </table>	Spool no.	OutpReqNo.	Date	Time	OutputDev.	Format	587039	1	24.07.2024	14:34	OK IPPS S4	X_65_80						
Spool no.	OutpReqNo.	Date	Time	OutputDev.	Format														
587039	1	24.07.2024	14:34	OK IPPS S4	X_65_80														

## Display Job Reply, Continuation

Step	Action																																				
4	<p>Display the information about the separate processing steps with  (Events F5):</p>  <p>The screenshot displays two tables. The first table, titled 'W74(1)/800 Status Description Request 587039-1', has the following data:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Status:</td> <td>Compl.</td> </tr> <tr> <td>Info:</td> <td>Transfer successfully completed</td> </tr> <tr> <td>Last event:</td> <td></td> </tr> <tr> <td>Message:</td> <td>Job executed</td> </tr> <tr> <td>Date:</td> <td>24.07.2024</td> </tr> <tr> <td>Time:</td> <td>14:34:44</td> </tr> <tr> <td>Job status:</td> <td>Completed</td> </tr> </tbody> </table> <p>The second table, titled 'W74(1)/800 Events for Output Request 587039-1', has the following data:</p> <table border="1"> <thead> <tr> <th>Job Status</th> <th>Printout</th> <th>Pos.</th> <th>Pages</th> </tr> </thead> <tbody> <tr> <td>Completed</td> <td>Printed correctly</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Not printed</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Not printed</td> <td></td> <td></td> </tr> <tr> <td>Waiting in host spoo</td> <td>Not printed</td> <td></td> <td></td> </tr> </tbody> </table>	Description	Value	Status:	Compl.	Info:	Transfer successfully completed	Last event:		Message:	Job executed	Date:	24.07.2024	Time:	14:34:44	Job status:	Completed	Job Status	Printout	Pos.	Pages	Completed	Printed correctly				Not printed				Not printed			Waiting in host spoo	Not printed		
Description	Value																																				
Status:	Compl.																																				
Info:	Transfer successfully completed																																				
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Time:	14:34:44																																				
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	Not printed																																				
Waiting in host spoo	Not printed																																				

 related topics

→ *Status Information - Activate or Deactivate Replies*, Page 69

→ *Check Process - Advisable Actions*, Page 83

## Display Queue/Device Replies

The queue/device history is displayed.

description

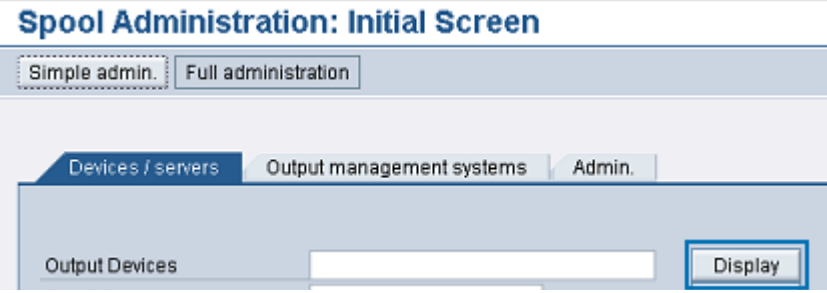

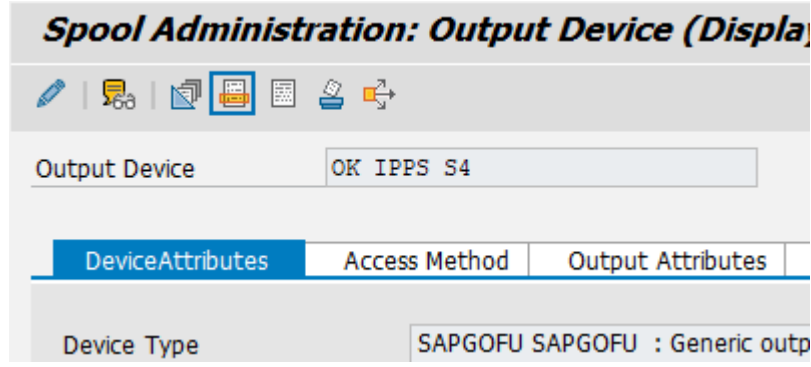
The following requirements have to be fulfilled:

requirement


- Callback at Devices must be activated for the real OMS:  
→ *Establish Real OMS on the SAP System, Page 31*
- Callback at Devices must be activated for the logical OMS:  
→ *Establish Logical OMS on the SAP System, Page 37*

This is how you display the queue/device history:

instructions

Step	Action
1	Start the transaction: spad
2	Click: Extended Administration / Full Administration
3	Select the Devices / Servers tab.
4	Click Display at Output Devices: 
5	Select the desired output device.
6	Display the information about the separate processing steps with  (Events Shift + F7): 

→ *Specify Amount and Interval of the Replies, Page 70*

 related topics

## 6 Extended Configuration

---

introduction This chapter explains additional settings.

---

in this chapter This chapter deals with the following topics:

- *Assignment - Additional Options*, Page 59
- *Assignment with oms\_server - Activation of Additional Functions*, Page 62
- *Reply Messages - Modifications*, Page 68

## 6.1 Assignment - Additional Options

---

This chapter deals with the following topics:

in this chapter


→ *oms\_submit* - *Transfer Additional Parameter*, Page 60

→ *oms\_submit* - *Activate the Reading of the Configuration*, Page 61

## oms\_submit - Transfer Additional Parameter

### instructions

This is how you pass additional SAP parameters, which are not supported per default, to oms\_submit:

Step	Action
1	Open the report to specify the commands of the LOMS: → <i>Specify Commands</i> , Page 39
2	At the oms_submit call, add the required SAP data as "&xxx" parameters.
3	Activate the reading of the configuration file: → <i>oms_submit - Activate the Reading of the Configuration</i> , Page 61
4	Copy the modified call from the customizing of the real OMS into oms_submit.cfg, [OMS_SUBMIT] section, PARAMETER item: → <i>oms_submit.cfg - Configuration</i> , Page 114  Hint - mapping: According to this setting oms_submit decides which SAP parameter is passed on a certain call position.



related topics

→ *Available SAP Parameters*, Page 103

## oms\_submit - Activate the Reading of the Configuration


If you want to pass other parameters to `oms_submit` or change settings in the configuration file of `oms_submit`, you must activate the reading of the configuration file. description

This is how you activate the reading of the `oms_submit.cfg` configuration file: instructions

Step	Action
1	Open the report to specify the commands of the LOMS: → <i>Specify Commands</i> , Page 39
2	Enter in the OMS commands section at Submit as last parameter: -cfgfile

→ *Usage of oms\_submit*, Page 136

→ *oms\_submit.cfg - Configuration*, Page 114

 related topics

## 6.2 Assignment with oms\_server - Activation of Additional Functions

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in this chapter

This chapter deals with the following topics:

- *Modify the Repetition of the Assignment*, Page 63
- *Provide Reliability*, Page 64
- *Establish Load Balancing*, Page 66


## Modify the Repetition of the Assignment

This chapter is only relevant if you have selected the variant with oms\_server (without https|ipp as the last option) when configuring the ROMS at OMS Configuration. only if


→ *OMS Configuration - Possible Values*, Page 34

If oms\_server is used for the transfer based on IPP Service parallel threads repeat the failed assignment in the case of an erroneous transfer until it is successful. The time interval between the repeat attempts as well as the maximum waiting time and number of repeat attempts can be configured. description

This is how you modify the repeat attempts for erroneous transfers: instructions


Step	Action
1	On the SAP system, open the following file in an editor: server\sapserv\conf\oms_server.cfg
2	Enter the time interval after which an erroneous transfer is to be repeated: [OMS_SERVER_PARAMETERS] RETRY_WAIT_TIME 600 (in seconds)
3	Enter the maximum time and number of repeat attempts for an erroneous transfer: [OMS_SERVER_PARAMETERS] MAX_RETRY_TIME 48 (in hours) MAX_RETRIES 10  Hint - abort with error: As soon as the maximum time or number of repeat attempts is reached, the job is terminated with an error and deleted.

→ *oms\_server.cfg - Configuration*, Page 121

 related topics



## Provide Reliability

**only if** This chapter is only relevant if you have selected the variant with `oms_server` (without `https|ipp` as the last option) when configuring the ROMS at OMS Configuration.  
→ *OMS Configuration - Possible Values, Page 34*

 **Hint - combination** The configuration of systems to provide reliability can be combined with the configuration to provide load balancing in any way.

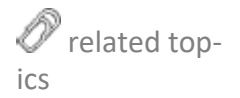
**description** If `oms_server` is used for transfer, reliability can be provided. Different output management systems are defined which are used if the desired output management system cannot be addressed temporarily. The systems are contacted one by one in the order of the specified priority until a transfer to a system is possible.

**instructions** This is how you provide reliability for systems:

Step	Action
1	In the customizing of the real output management system, enter in the OMS Attributes section: <ul style="list-style-type: none"> <li>OMS Configuration: empty or <i>OutputSystem</i> → <i>Establish Real OMS on the SAP System, Page 31</i></li> </ul>
2	On the SAP system, open the following file in an editor: <code>server\sapserv\conf\oms_server.cfg</code>
3	Enter the name of the system from step 1, for example: [OUTPUT_SYSTEMS] PLOSSYS1SV
4	Add a new section with the name of the system from step 1. There, define the desired systems, which shall be contacted alternatively in the case of a failure, with different priorities. <p> Example - transfer via IPP service - encrypted [PLOSSYSHTTPS] 1 plsipp1 443 HTTPS 20 plsipp2 443 HTTPS 99 plsipp3 443 HTTPS</p> <p> Example - transfer via IPP service - encrypted [PLOSSYSHTTPS] 1 plsipp1 631 IPP 20 plsipp2 631 IPP 99 plsipp3 631 IPP</p>
5	Check the values for maximum number and time of repetition retries in case of errors: → <i>Modify the Repetition of the Assignment, Page 63</i>

## Provide Reliability, Continuation


- 
- *Establish Load Balancing*, Page 66
  - *oms\_server.cfg - Configuration*, Page 121



## Establish Load Balancing

only if This chapter is only relevant if you have selected the variant with `oms_server` (without `https|ipp` as the last option) when configuring the ROMS at OMS Configuration.



→ *OMS Configuration - Possible Values, Page 34*

 Hint - combination

The configuration of systems to provide reliability can be combined with the configuration to provide load balancing in any way.

description If `oms_server` is used for transfer, load balancing can be provided. Different output management systems are defined, which can process the job equivalently to the desired output management system. The job is transferred to the system with the least load.

instructions This is how you establish systems for load balancing:


Step	Action
1	In the customizing of the real output management system, enter in the OMS Attributes section: <ul style="list-style-type: none"> <li>• OMS Configuration: <code>empty oroutput system</code></li> </ul> → <i>Establish Real OMS on the SAP System, Page 31</i>
2	On the SAP system, open the following file in an editor: <code>server\sapserv\conf\oms_server.cfg</code>
3	Enter the name of the system from step 1, for example: [OUTPUT_SYSTEMS] PLOSSYS2
4	Add a new section with the name of the system from step 1. There, define the desired systems, which could be used for processing the job to provide load balancing, with the same priority. <p> Example - transfer via IPP service - encrypted</p> <pre>[PLOSSYSHTTPS] 1 plsipp1 443 HTTPS 1 plsipp2 443 HTTPS 1 plsipp3 443 HTTPS</pre> <p> Example - transfer via IPP Service - unencrypted</p> <pre>[PLOSSYSHTTPS] 1 plsipp1 631 IPP 1 plsipp2 631 IPP 1 plsipp3 631 IPP</pre>

## Establish Load Balancing, Continuation

Step	Action
5	Ensure that load balancing is activated. oms_server.cfg, section [OMS_SERVER_PARAMETERS]: LB_ROUND_ROBIN Y SERVER_EXCLUSIVE_TO_USER_TIME 0 USER_EXCLUSIVE_TO_SERVER_TIME 0
6	To ensure the output in the correct order of jobs of one user to one output device, specify a period in which all jobs for this output device are passed to the same server. oms_server.cfg, section [OMS_SERVER_PARAMETERS]: QUEUE_EXCLUSIVE_TO_SERVER_TIME 10

→ *Provide Reliability*, Page 64

→ *oms\_server.cfg - Configuration*, Page 121

 related topics

## 6.3 Reply Messages - Modifications

in this chapter

This chapter deals with the following topics:

- *Status Information - Activate or Deactivate Replies*, Page 69
- *Specify Amount and Interval of the Replies*, Page 70
- *Specify SAP System (LOMS) as Reply Target*, Page 73

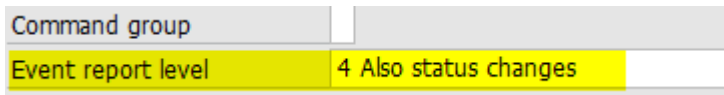
## Status Information - Activate or Deactivate Replies

The event report level determines which responses are to be sent to SAP.


description

This is how you adjust the event report level:

instructions


Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Select the required output management system.
3	Specify in the SAP configuration tab: Event Report Level: amount of job replies Default: 1 

More status information to be sent will increase the communication cost between the external output management system and the SAP system for each job!

 Hint - system load

→ *oms\_submit.cfg - Configuration, Page 114*

→ *Specify Amount and Interval of the Replies, Page 70*

 related topics

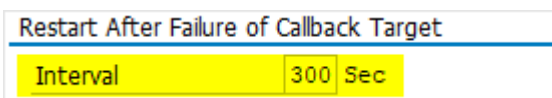
## Specify Amount and Interval of the Replies

**only if** The settings described in this chapter are only evaluated for replies of BC-XOM OMS Interface.

**overview** In the context of replies, you can specify the following settings when customizing the LOMS and ROMS in the SAP system:

- In general
- Waiting time until the next repetition of an erroneous reply
- Reply of the job status
- Waiting time until the next job reply
- Number of the combined job replies prior to the transfer to the SAP system
- Amount of job replies
- Reply of the device status
- Waiting time until the next device reply
- Number of the combined device replies prior to the transfer to the SAP system

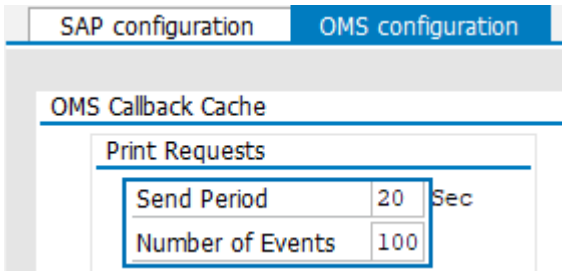
**specify waiting time at erroneous replies** This is how you specify the waiting time until the next repetition of an erroneous reply:

Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Select the required output management system.
3	Specify in the OMS configuration tab: Restart After Failure of Callback Target <ul style="list-style-type: none"> <li>• Interval: Waiting time in seconds, for example 300 Defines the waiting time until the next repetition, if the transfer of the reply was erroneous.</li> </ul> 

**specify job reply** This is how you specify the settings for the job replies:

Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Select the required output management system.

## Specify Amount and Interval of the Replies, Continuation

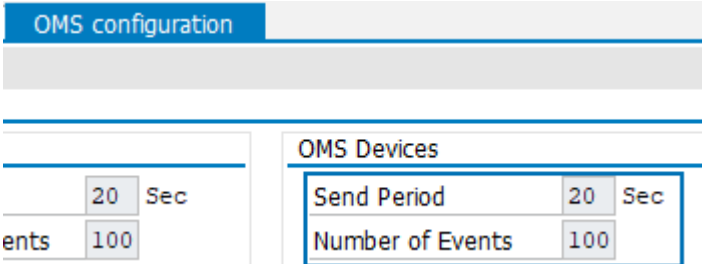
Step	Action
3	<p>Specify in the OMS configuration tab:</p> <p>OMS Callback Cache - Print Requests</p> <ul style="list-style-type: none"> <li>Send Period: Time in seconds, for example 20 Specifies the time in seconds to be waited after processing the current job replies, before the directory is searched again. Default: 20</li> <li>Number of Events: Number of the combined job replies, for example 100. The value determines, how many messages are combined, before they are transferred back to the SAP system. Maximum: 499 Default: 100</li> </ul> 
4	<p>Specify in the SAP configuration tab:</p> <p>Event Report Level: amount of job replies Default: 1</p>


This is how you specify the settings for the device replies:

specify device reply

Step	Action
1	→ <i>Open the Configuration for LOMS on the SAP System, Page 36</i>
2	Select the required output management system.

## Specify Amount and Interval of the Replies, Continuation

Step	Action
3	<p>Specify in the OMS configuration tab:</p> <p>OMS Callback Cache - OMS Devices</p> <ul style="list-style-type: none"> <li>Send Period: Time in seconds, for example 20 Specifies the time in seconds to be waited after processing the current device replies, before the directory is searched again. Default: 20</li> <li>Number of Events: Number of the combined device replies, for example 100. The value determines, how many messages are combined, before they are transferred back to the SAP system. Maximum: 499 Default: 100</li> </ul> 

 related topics

→ *Status Information - Activate or Deactivate Replies*, Page 69

## Specify SAP System (LOMS) as Reply Target

---


By default, the reply is sent to the SAP system that is in the output job.

description

If the SAP system specified in the job cannot be reached, the SAP system that is specified at `SAP` configuration for the Logical OMS (LOMS) on the SAP system as the `Target` for `Callback` will be used as reply target.

---

→ *Establish Logical OMS on the SAP System, Page 37*

 related topics

## 7 Information and Troubleshooting

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introduction This chapter deals with the various possibilities to get an overview over the processing and output status. This includes the description of the log files and the directory monitoring.

---

in this chapter This chapter deals with the following topics:

- *Log and Trace Files on the SAP System*, Page 75
- *Check Process - Advisable Actions*, Page 83
- *Start oms\_server on the SAP System*, Page 85
- *Typical Error Situations*, Page 90

## 7.1 Log and Trace Files on the SAP System

---

When assigning via SAP spool, the programs of SEAL Systems create log files. You can install a directory monitoring for the directories containing the log files. You can easily view the log files via the directory monitoring on the SAP system.

log files

---

Additionally, SAP spool creates a trace file, which can be viewed also.

trace file

---

This chapter deals with the following topics:

in this chapter

→ *Establish Directory Monitoring on the SAP System*, Page 76

→ *View Log File on the SAP System*, Page 79

→ *Activate and View the Trace File of SAP Spool*, Page 81

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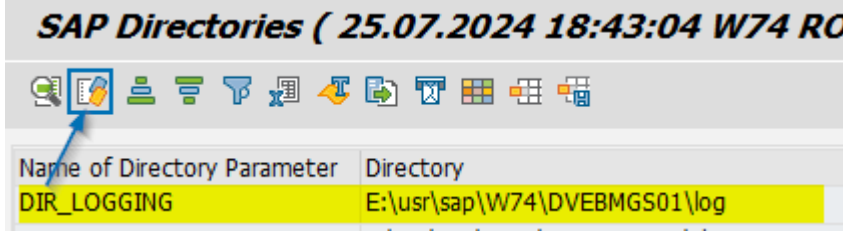
The rz15 transaction displays the table containing the XMI communication data.

 hint - rz15

## Establish Directory Monitoring on the SAP System














**description** You can monitor the directories within SAP with the a111 transaction.

**instructions** This is how you establish the directory monitoring:

Step	Action				
1	Start the transaction: a111				
2	<p>Select one of the directories, for example DIR_LOGGING and click  (Configure Shift + F1):</p>  <table border="1"> <thead> <tr> <th>Name of Directory Parameter</th> <th>Directory</th> </tr> </thead> <tbody> <tr> <td>DIR_LOGGING</td> <td>E:\usr\sap\W74\DVEBMGS01\log</td> </tr> </tbody> </table>	Name of Directory Parameter	Directory	DIR_LOGGING	E:\usr\sap\W74\DVEBMGS01\log
Name of Directory Parameter	Directory				
DIR_LOGGING	E:\usr\sap\W74\DVEBMGS01\log				

## Establish Directory Monitoring on the SAP System,

Continuation

Step	Action														
3	<p>Specify the desired directories and save the settings:</p> <ul style="list-style-type: none"> <li>Directory containing log files: Directory Name: <i>InstalLDirectory\data\log</i> Parameter Name: ZDIR_OMS_LOG</li> <li>Directory containing the lock files: Directory Name: <i>InstalLDirectory\data\sysstat</i> Parameter Name: ZDIR_OMS_LCK</li> <li>Directory containing oms_server: (only relevant for the variant with oms_server) Directory Name: <i>InstalLDirectory\data\oms</i> Parameter Name: ZDIR_OMS</li> </ul> <p> Example:</p> <div data-bbox="331 909 1204 1653" style="border: 1px solid gray; padding: 5px;"> <p><b>User-Defined Directories</b></p> <p> </p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Name of Directory Parameter</td> <td>ZDIR_OMS_LOG</td> </tr> <tr> <td>Directory Name</td> <td>c:\seal_bcxom\oms_server\data\lo</td> </tr> <tr> <td>Valid for Server Name</td> <td>all</td> </tr> </table> <p><b>SAP-Directories ( 27.07.2010 11:58:12 T6A sapt60</b></p> <p> Configure         </p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Name of Directory Parameter</th> <th>Directory</th> </tr> </thead> <tbody> <tr> <td>ZDIR_OMS_LOG</td> <td>c:\seal_bcxom\oms_server\data\log</td> </tr> <tr> <td>ZDIR_OMS</td> <td>c:\seal_bcxom\oms_server\data\oms</td> </tr> <tr> <td>ZDIR_OMS_LCK</td> <td>c:\seal_bcxom\oms_server\data\syssta</td> </tr> </tbody> </table> </div>	Name of Directory Parameter	ZDIR_OMS_LOG	Directory Name	c:\seal_bcxom\oms_server\data\lo	Valid for Server Name	all	Name of Directory Parameter	Directory	ZDIR_OMS_LOG	c:\seal_bcxom\oms_server\data\log	ZDIR_OMS	c:\seal_bcxom\oms_server\data\oms	ZDIR_OMS_LCK	c:\seal_bcxom\oms_server\data\syssta
Name of Directory Parameter	ZDIR_OMS_LOG														
Directory Name	c:\seal_bcxom\oms_server\data\lo														
Valid for Server Name	all														
Name of Directory Parameter	Directory														
ZDIR_OMS_LOG	c:\seal_bcxom\oms_server\data\log														
ZDIR_OMS	c:\seal_bcxom\oms_server\data\oms														
ZDIR_OMS_LCK	c:\seal_bcxom\oms_server\data\syssta														

You can change the standard directories mentioned in the last instruction via the `-logfile` parameter of each program. If you used this possibility for the commands while establishing the OMS on the SAP system, you must specify the changed directories for directory monitoring.

other directories

→ *Specify Commands*, Page 39

→ *Programs*, Page 134

## Establish Directory Monitoring on the SAP System,

Continuation

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related topics

→ *View Log File on the SAP System, Page 79*

## View Log File on the SAP System


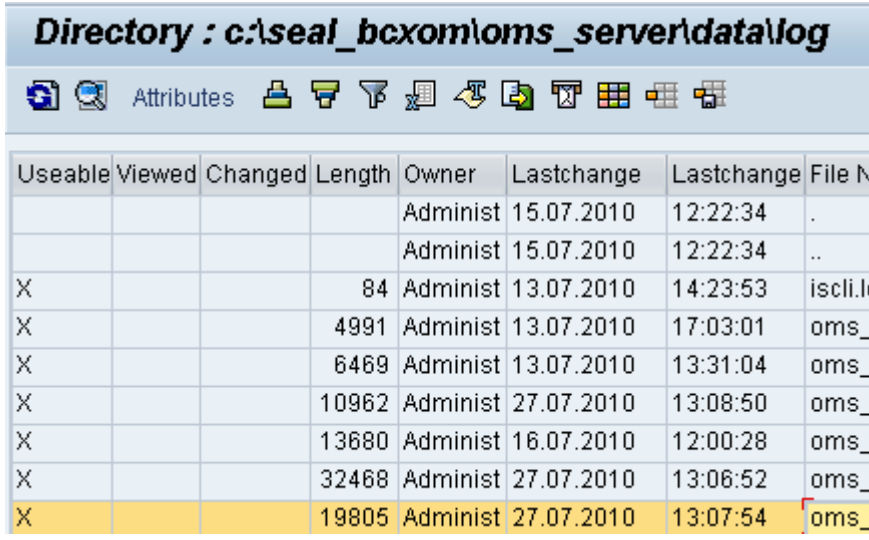

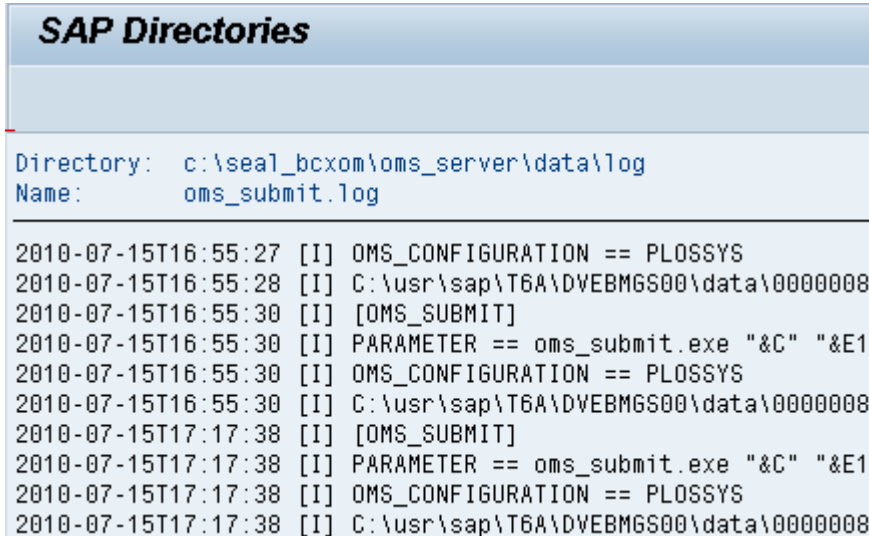
You have established the device monitoring.

requirement

→ *Establish Directory Monitoring on the SAP System, Page 76*

This is how you view the log files on the SAP system:

instructions

Step	Action																																																																																
1	Start the transaction: a111																																																																																
2	<p>Double-click the desired directory, for example ZDIR_OMS_LOG, to open the list of the log files:</p> <p> Example</p>  <p><b>Directory : c:\seal_bcxom\oms_server\data\log</b></p> <table border="1"> <thead> <tr> <th>Useable</th> <th>Viewed</th> <th>Changed</th> <th>Length</th> <th>Owner</th> <th>Lastchange</th> <th>Lastchange</th> <th>File N</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>Administ</td> <td>15.07.2010</td> <td>12:22:34</td> <td>.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Administ</td> <td>15.07.2010</td> <td>12:22:34</td> <td>..</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>84</td> <td>Administ</td> <td>13.07.2010</td> <td>14:23:53</td> <td>iscli.lc</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>4991</td> <td>Administ</td> <td>13.07.2010</td> <td>17:03:01</td> <td>oms_</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>6469</td> <td>Administ</td> <td>13.07.2010</td> <td>13:31:04</td> <td>oms_</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>10962</td> <td>Administ</td> <td>27.07.2010</td> <td>13:08:50</td> <td>oms_</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>13680</td> <td>Administ</td> <td>16.07.2010</td> <td>12:00:28</td> <td>oms_</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>32468</td> <td>Administ</td> <td>27.07.2010</td> <td>13:06:52</td> <td>oms_</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td>19805</td> <td>Administ</td> <td>27.07.2010</td> <td>13:07:54</td> <td>oms_</td> </tr> </tbody> </table>	Useable	Viewed	Changed	Length	Owner	Lastchange	Lastchange	File N					Administ	15.07.2010	12:22:34	.					Administ	15.07.2010	12:22:34	..	X			84	Administ	13.07.2010	14:23:53	iscli.lc	X			4991	Administ	13.07.2010	17:03:01	oms_	X			6469	Administ	13.07.2010	13:31:04	oms_	X			10962	Administ	27.07.2010	13:08:50	oms_	X			13680	Administ	16.07.2010	12:00:28	oms_	X			32468	Administ	27.07.2010	13:06:52	oms_	X			19805	Administ	27.07.2010	13:07:54	oms_
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3	<p>View the desired log file with a double-click:</p> <p> Example</p>  <p><b>SAP Directories</b></p> <p>Directory: c:\seal_bcxom\oms_server\data\log Name: oms_submit.log</p> <pre> 2010-07-15T16:55:27 [I] OMS_CONFIGURATION == PLOSSYS 2010-07-15T16:55:28 [I] C:\usr\sap\T6A\DVEBMGS00\data\0000008\ 2010-07-15T16:55:30 [I] [OMS_SUBMIT] 2010-07-15T16:55:30 [I] PARAMETER == oms_submit.exe "&amp;C" "&amp;E1' 2010-07-15T16:55:30 [I] OMS_CONFIGURATION == PLOSSYS 2010-07-15T16:55:30 [I] C:\usr\sap\T6A\DVEBMGS00\data\0000008\ 2010-07-15T17:17:38 [I] [OMS_SUBMIT] 2010-07-15T17:17:38 [I] PARAMETER == oms_submit.exe "&amp;C" "&amp;E1' 2010-07-15T17:17:38 [I] OMS_CONFIGURATION == PLOSSYS 2010-07-15T17:17:38 [I] C:\usr\sap\T6A\DVEBMGS00\data\0000008\                 </pre>																																																																																

## View Log File on the SAP System, Continuation

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### log level

You can change the log level via the `-loglevel` parameter of each program. Enter the parameter for the commands while establishing the OMS on the SAP system:


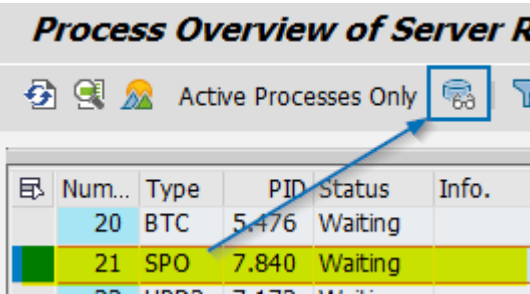
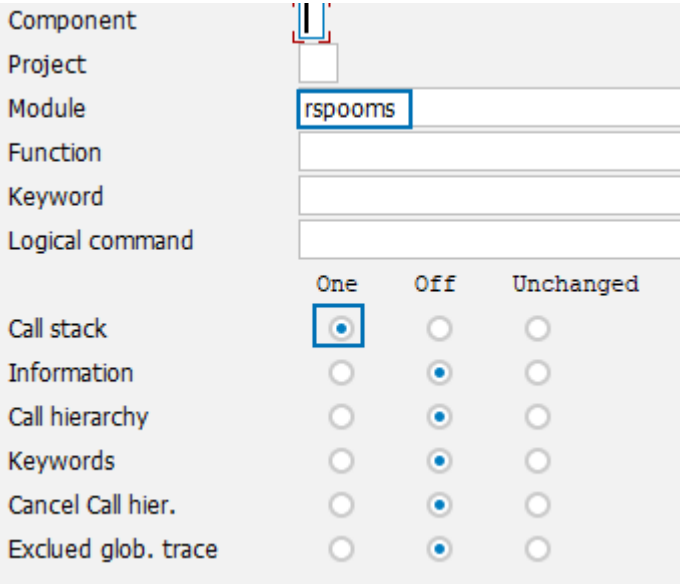
→ *Specify Commands*, Page 39

→ *Programs*, Page 134


## Activate and View the Trace File of SAP Spool

This is how you activate the tracing and view the trace file of SAP spool:

[instructions](#)

Step	Action
1	Start the transaction: sm50
2	<p>Select the process with the SPO type and view the trace file via  (Current Ctrl+Shift+F8):</p> 
3	<p>Activate the tracing with:</p> <p>Edit - Function Trace - Current Process</p> <ul style="list-style-type: none"> <li>Module: rspooms</li> <li>Call Stack: One activated</li> </ul> 

## Activate and View the Trace File of SAP Spool, Continuation

Step	Action																				
4	<p>Specify the trace level with:</p> <p>Edit - Active Components</p> <ul style="list-style-type: none"> <li>Trace Level: &gt; 0, for example 2</li> <li>Components - (S) Print: activated</li> </ul> <div data-bbox="523 562 1289 1279" style="border: 1px solid #ccc; padding: 5px;"> <p><b>Component Trace</b></p> <hr/> <p>Work Process <input type="text" value="21"/></p> <p>Trace Level <input type="text" value="2"/></p> <p><b>Components</b></p> <hr/> <table border="0"> <tr> <td><input type="checkbox"/> (M) Task handler</td> <td><input type="checkbox"/> (L) Batch</td> </tr> <tr> <td><input type="checkbox"/> (A) ABAP processor</td> <td><input type="checkbox"/> (B) Database</td> </tr> <tr> <td><input type="checkbox"/> (Y) Screen processor</td> <td><input type="checkbox"/> (C) Database (DBSL)</td> </tr> <tr> <td><input type="checkbox"/> (R) Rolling</td> <td><input type="checkbox"/> (P) Paging</td> </tr> <tr> <td><input type="checkbox"/> (E) Lock Management</td> <td><input type="checkbox"/> (D) Dialog Processor</td> </tr> <tr> <td><input checked="" type="checkbox"/> (S) Print</td> <td><input type="checkbox"/> (I) IPC</td> </tr> <tr> <td><input type="checkbox"/> (N) Security</td> <td><input type="checkbox"/> (X) Extended memory</td> </tr> <tr> <td><input type="checkbox"/> (T) Debugging system</td> <td><input type="checkbox"/> (G) Language Support</td> </tr> <tr> <td><input type="checkbox"/> (J) VM Container</td> <td><input type="checkbox"/> (W) WebGui</td> </tr> <tr> <td><input type="checkbox"/> (H) ICF</td> <td></td> </tr> </table> </div> <p> <b>Hint - trace level:</b> You can set the trace level within the view of the trace file with: Edit - Function Trace - Current Process</p>	<input type="checkbox"/> (M) Task handler	<input type="checkbox"/> (L) Batch	<input type="checkbox"/> (A) ABAP processor	<input type="checkbox"/> (B) Database	<input type="checkbox"/> (Y) Screen processor	<input type="checkbox"/> (C) Database (DBSL)	<input type="checkbox"/> (R) Rolling	<input type="checkbox"/> (P) Paging	<input type="checkbox"/> (E) Lock Management	<input type="checkbox"/> (D) Dialog Processor	<input checked="" type="checkbox"/> (S) Print	<input type="checkbox"/> (I) IPC	<input type="checkbox"/> (N) Security	<input type="checkbox"/> (X) Extended memory	<input type="checkbox"/> (T) Debugging system	<input type="checkbox"/> (G) Language Support	<input type="checkbox"/> (J) VM Container	<input type="checkbox"/> (W) WebGui	<input type="checkbox"/> (H) ICF	
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<input type="checkbox"/> (H) ICF																					



## 7.2 Check Process - Advisable Actions


This is how you check the possible reasons in the case of error step by step:

instructions

Step	Action
1	<p>Refresh and check the status of the output job in sp01 on the SAP system:</p> <ul style="list-style-type: none"> <li>• The Proc. or Printing status indicates that the job has been successfully transferred from SAP spool to the programs of SEAL Systems. Continue the check with step2.</li> <li>• If the status is Error (unknown in OMS) check whether oms_server is correctly started on the SAP system.</li> <li>• For other error status texts check the trace file of sp01: → <i>Activate and View the Trace File of SAP Spool, Page 81</i></li> </ul>
2	<p>If the job has been successfully transferred to the programs of SEAL Systems, check the correct transfer to the external output management system in the log files of oms_submit/oms_server on the SAP system:</p> <p>→ <i>View Log File on the SAP System, Page 79</i></p>
3	<p>If the log file does not exist or the files are not transferred to the external output management system, the following reasons are possible:</p> <ul style="list-style-type: none"> <li>• oms_server does not run (assignment with OMS Server) Check if the oms_server.lock lock file exists, the process ID in this file is valid and the file is not older than 10 seconds. The restart of oms_server while the server is running is possible without any problem.</li> <li>• Wrong directory specification Check if the path is correct, a '\ ' or '/' exists at the end and if the executable oms_submit program exists in the relevant directory: → <i>Specify Commands, Page 39</i> Copy the path for example with cut&amp;paste and call oms_submit-version on the SAP system. As result the version of oms_submit must be displayed, otherwise the directory path is not correct.</li> <li>• Missing permission If the directory path is correct, enter the oms_submit command with a log file including the absolute path as -logfile parameter and ensure that you have the correct write permissions. In this log file you may find further information about missing authorizations.</li> </ul>

## Check Process - Advisable Actions, Continuation

Step	Action
4	<p>If the job has been transferred correctly to the external output management system, check in XXX output system whether the output devices have started.</p> <p>With PLOSSYS Administrator:</p> <ul style="list-style-type: none"> <li>All available printers are listed in the printer tab of PLOSSYS Administrator.</li> </ul> <p>With PLOSSYS CLI:</p> <ul style="list-style-type: none"> <li><code>plossys printer show</code> shows all printers.</li> <li><code>plossys printer show &lt;printer_name_1&gt; &lt;printer_name_2&gt;</code> shows specific printers.</li> <li><code>plossys printer check &lt;connection_list&gt;</code> can be used to test the connection to specific IPP printers.</li> </ul> <p> Reference</p> <p>More information is available in [OUTNGN_TEC], Use Cases, Administrate the Printers.</p>
5	<p>If the job has been output on the OM server, use the job log to check whether the confirmation was sent to the SAP system.</p> <pre>15:24:12.265 [I] Send SAP job notifications                 Application: seal-co-notifier                 Host: p5-win-112</pre> <p> Hint - log file:</p> <p>You can download the log file in the job tab of PLOSSYS Administrator via the context menu of the job.</p>

 related topics

→ *Typical Error Situations*, Page 90

## 7.3 Start oms\_server on the SAP System

---

These steps are only required if you selected the variant with oms\_server (without https|ipp as the last option) at the configuration of ROMS at OMS Configuration. required if

→ *OMS Configuration - Possible Values, Page 34*

If the SAP system runs on Linux, you can skip this chapter if you used the rpm installation package:

→ *Linux - Install via rpm Installation Package, Page 24*

---

You have provided the files required for oms\_server for the SAP system oms\_server: requirement

→ *Provide files, Page 25*

---

For the assignment with oms\_server, oms\_server must be started on the SAP system. You have the following alternatives: description

- Direct start on the SAP system
- Start on the output management system  
You can use the AT command (Windows) or cronjobs (UNIX, crontab) to establish the start at the system start. On a Windows systems you can use SEALService from SEAL Systems alternatively. The subsequent chapters focus on the configuration with SEALService.

---

This chapter deals with the following topics: in this chapter

→ *Define External Commandos on the SAP System, Page 86*

→ *Establish a Direct Start on the SAP System, Page 88*

---


You can check a successful start of oms\_server on the SAP system on the basis of the following issues: result

- The process is listed in the task manager.
- A lock file with the process ID exists in the data\sysstat directory.
- The oms\_server.log log file exists in the data\log directory:  
→ *View Log File on the SAP System, Page 79*

## Define External Commandos on the SAP System


instructions

This is how you define the required external commands on the SAP system:

Step	Action																				
1	Start one of the following transactions: sm49 or sm69																				
2	<p>Define the external command for starting oms_server:</p> <ul style="list-style-type: none"> <li>Command - Command Name: ZOMSSERVER_ON</li> <li>For Windows: <ul style="list-style-type: none"> <li>Definition - Operation System Command: powershell</li> <li>Definition - Parameters for Operating System Command: <pre>-Command Start-Process -WindowStyle Hidden -File-Path \\bcxom\oms_server\server\sapserv\bin_winnt5\oms_server.exe</pre> </li> </ul> </li> <li>Otherwise: <ul style="list-style-type: none"> <li>Definition - Operation System Command: <pre>oms_server.sh</pre>with absolute path specification </li> </ul> </li> </ul> <p> <b>Caution - UNIX/Linux:</b> On UNIX/Linux, use oms_server.sh instead of oms_server to ensure that the required shared libraries are found.</p> <ul style="list-style-type: none"> <li>Definition - Parameter: Empty</li> </ul> <p>From the point of the SAP server, the path specification must be correct.</p> <table border="1"> <tbody> <tr> <td>Ci</td> <td>ZOMSSERVER_KILL</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Stop-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_OFF</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Start-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_ON</td> <td>Windows NT</td> <td>powershell</td> <td>-Command Start-Proce</td> </tr> <tr> <td>Ci</td> <td>ZOMSSERVER_STATUS</td> <td>WINDOWS NT</td> <td>powershell</td> <td>-Command Get-Proces</td> </tr> </tbody> </table>	Ci	ZOMSSERVER_KILL	WINDOWS NT	powershell	-Command Stop-Proce	Ci	ZOMSSERVER_OFF	WINDOWS NT	powershell	-Command Start-Proce	Ci	ZOMSSERVER_ON	Windows NT	powershell	-Command Start-Proce	Ci	ZOMSSERVER_STATUS	WINDOWS NT	powershell	-Command Get-Proces
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Ci	ZOMSSERVER_ON	Windows NT	powershell	-Command Start-Proce																	
Ci	ZOMSSERVER_STATUS	WINDOWS NT	powershell	-Command Get-Proces																	

## Define External Commandos on the SAP System,

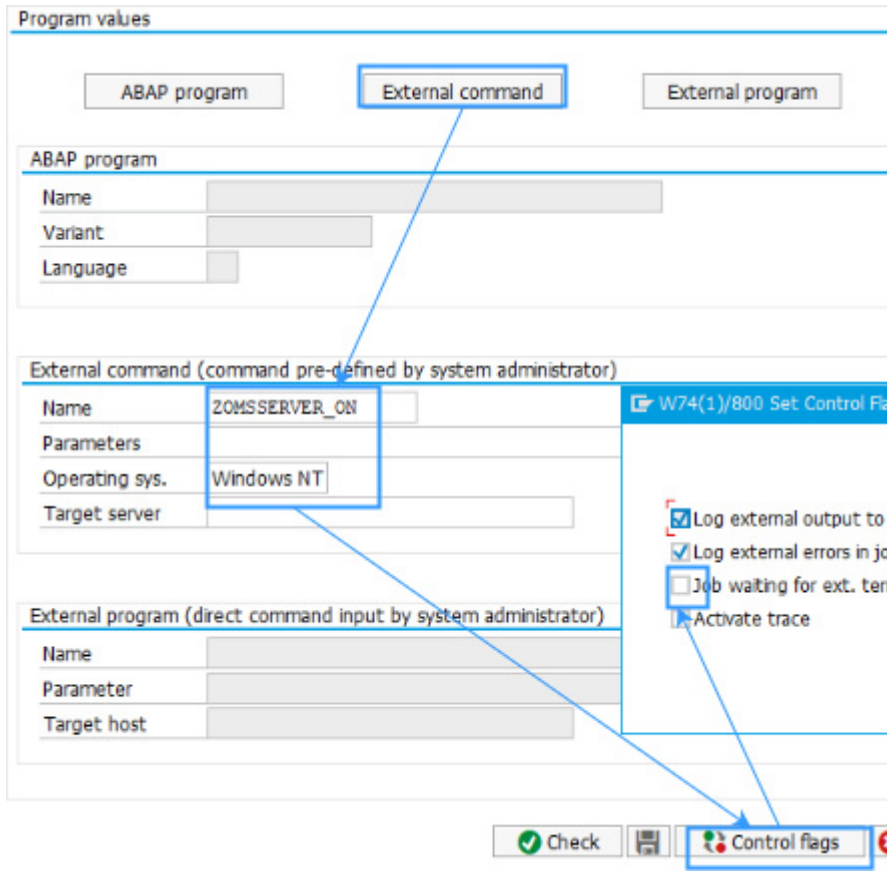
Continuation

Step	Action
3	<p>As in step 2, define the external command for stopping oms_server:</p> <ul style="list-style-type: none"> <li>• Command - Command Name: ZOMSSERVER_OFF</li> <li>• For Windows: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: powershell</li> <li>• Definition - Parameters for Operating System Command: <ul style="list-style-type: none"> <li>Alternative 1: <ul style="list-style-type: none"> <li>-Command Stop-Process -Name oms_server -Force</li> </ul> </li> <li>Alternative 2: <ul style="list-style-type: none"> <li>-Command Start-Process -FilePath \\bcxom\oms_server\server\sapserv\bin_winnt5\oms_server.exe -ArgumentList -kill</li> </ul> </li> </ul> </li> </ul> </li> <li>• Otherwise: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: <ul style="list-style-type: none"> <li>oms_server.sh with absolute path specification</li> </ul> </li> </ul> </li> </ul> <p> <b>Caution - UNIX/Linux:</b> On UNIX/Linux, use oms_server.sh instead of oms_server to ensure that the required shared libraries are found.</p> <ul style="list-style-type: none"> <li>• Definition - Parameter: -kill</li> </ul>
4	<p>As in step 2, define the external command for the status query of oms_server:</p> <ul style="list-style-type: none"> <li>• Command - Command Name: ZOMSSERVER_STATUS</li> <li>• For Windows: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: powershell</li> <li>• Definition - Parameters for Operating System Command: <ul style="list-style-type: none"> <li>-Command Get-Process oms_server</li> </ul> </li> </ul> </li> <li>• Otherwise: <ul style="list-style-type: none"> <li>• Definition - Operation System Command: ps</li> </ul> </li> </ul>

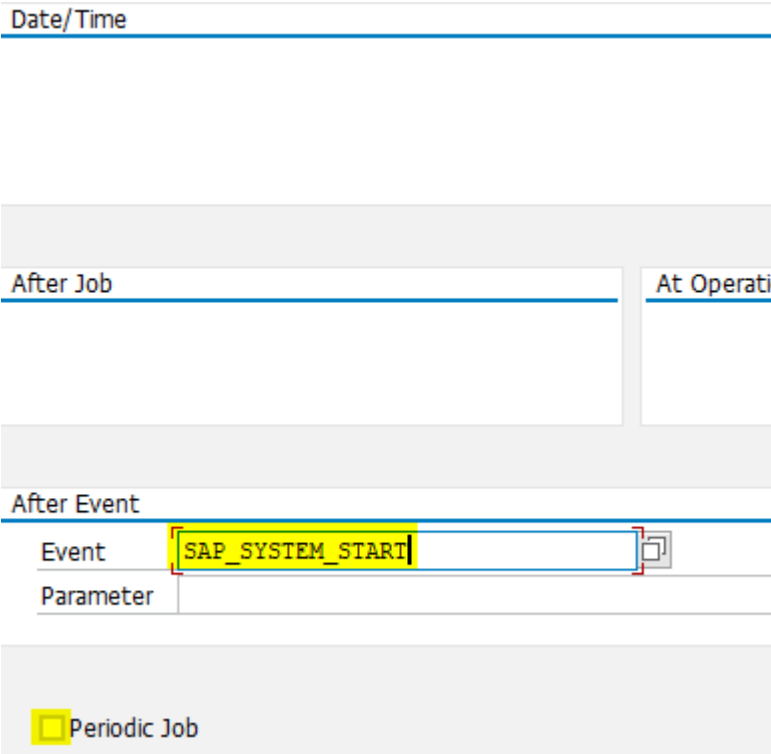
## Establish a Direct Start on the SAP System

instructions

This is how you configure the direct start on the SAP system:

Step	Action
1	<p>Use the sm36 transaction to configure the start command as a periodic batch. Enter in the Start Condition tab, for instance:</p> <ul style="list-style-type: none"> <li>• Date/Time - Scheduled start: 6:00 am</li> <li>• Periodic Job: Activate</li> <li>• Period Values: 15 minutes (example) Time interval, in which the command is to be executed periodically, to ensure that oms_server runs permanently</li> </ul>
2	<p>Switch to the Step tab and enter:</p> <ul style="list-style-type: none"> <li>• External Command- Name: Command from → <i>Define External Commandos on the SAP System, Page 86 (step 2)</i></li> <li>• External Command - Operating system: Windows NT</li> <li>• Control Flags - Job waiting for external termination: Deactivate</li> </ul> 

## Establish a Direct Start on the SAP System, Continuation

Step	Action
3	<p>Use the sm36 transaction to configure the command of step 2 as a singular batch job at system start, for example:</p> <p>Start Condition:</p> <ul style="list-style-type: none"> <li>• After Event - Event: SAP_SYSTEM_START</li> <li>• Periodic Job: Deactivate</li> </ul> <p>Step: As in step 2</p> <ul style="list-style-type: none"> <li>• External command- Name: Command of step 2</li> <li>• External Command - Operating system: Windows NT</li> <li>• Control Flags - Job waiting for external termination: Deactivate</li> </ul>  <p>The screenshot shows the configuration for a batch job in the SAP sm36 transaction. The 'Start Condition' section is expanded to 'After Event'. The 'Event' field is set to 'SAP_SYSTEM_START'. The 'Periodic Job' checkbox is unchecked. The 'Date/Time' field is empty. The 'After Job' and 'At Operati' fields are also visible.</p>

## 7.4 Typical Error Situations

typical problems  
and their solu-  
tions

The following table illustrates typical problems (P) and their approaches (A):

---

P:	oms_server does not start.
A:	<p>Check the privileges of the user, who calls oms_server. If the logging is activated, read and permissions for the directories containing the log files must be set.</p> <p>On a UNIX/Linux system a missing shared library may be the cause. The following call gives more information about required and found shared libraries:</p> <pre>ldd oms_server</pre> <p>Ensure on UNIX/Linux that you use oms_server.sh instead of oms_server and oms_submit.sh instead of oms_submit:</p> <p>→ <i>Specify Commands</i>, Page 39</p>

---

P:	No spool request is created.
A:	<p>One reason may be that all numbers of the number range that is defined for the spool IDs are already assigned. You have the following possibilities:</p> <p>→ <i>Delete Spool Requests</i>, Page 92</p> <p>→ <i>Enhance the Number Range of Spool Requests</i>, Page 93</p>

---

P:	Nothing arrives on the output management system.
A:	<p>One of the reason could be that the reading of the oms_submit.cfg configuration file is deactivated:</p> <p>→ <i>oms_submit - Activate the Reading of the Configuration</i>, Page 61</p> <p>Another reason may be that oms_server is not running:</p> <p>Check if the oms_server.lock lock file exists, the process ID in this file is valid and the file is not older than 10 seconds. If not restart oms_server in periodic time intervals (recommendation: 15 minutes):</p> <p>→ <i>Start oms_server on the SAP System</i>, Page 85</p> <p>The restart of oms_server while the server is running is possible without any problem.</p>

---

P:	The spool request has the status error (not printed) with the reference to the creation of a missing sheet.
A:	<p>Check if the file extension of SAP is set to otf:</p> <pre>oms_submit.cfg: [EXTENSION_MAPPING] #SourceExtension TargetExtension * otf</pre> <p>When assigning with oms_server the mapping must also be defined in oms_server.cfg.</p>


## Typical Error Situations, Continuation

- 
- P: There are delays at the transfer via IPP Service.
- A: → *Specify Timeout for Establishing a Connection to IPP Service, Page 94*
- 
- P: The assignment via IPP Service terminates with an error.
- A: For larger output jobs and poor connections, it can help to increase the timeout for the assignment via IPP Service:  
→ *Specify Timeout for Assignment via IPP Service, Page 95*
- 
- P: The assignment via IPP Service is blocked.
- A: The transfer gets stuck and does not recover:  
→ *Define Reaction to Blocked Transfer via IPP Service, Page 96*
- 
- P: The reply is sent to the wrong SAP system.
- A: The SAP system from the output job is used as the default for the reply. Alternatively, you can use the SAP system defined for the Logical OMS (LOMS):  
→ *Specify SAP System (LOMS) as Reply Target, Page 73*
-

## Delete Spool Requests

instructions

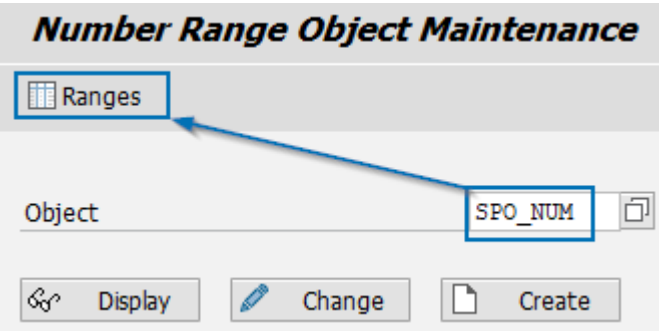
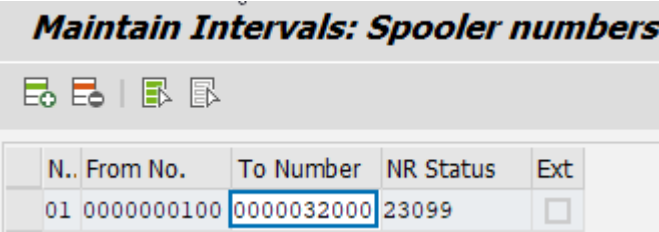
This is how you delete spool requests:

Step	Action
1	Start the transaction: spad
2	Select the Administration tab.
3	Click Delete Old Spool Requests.
4	Specify which spool requests are to be deleted and execute the deletion: 

## Enhance the Number Range of Spool Requests

This is how you enhance the number range of spool requests:

[instructions](#)

Step	Action										
1	Start the transaction: snro										
2	<p>Specify the object and switch to the number ranges: Object: SPO_NUM</p> 										
3	<p>Maintain the intervals and increase the interval with: To number</p>  <table border="1"> <thead> <tr> <th>N..</th> <th>From No.</th> <th>To Number</th> <th>NR Status</th> <th>Ext</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>0000000100</td> <td>0000032000</td> <td>23099</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	N..	From No.	To Number	NR Status	Ext	01	0000000100	0000032000	23099	<input type="checkbox"/>
N..	From No.	To Number	NR Status	Ext							
01	0000000100	0000032000	23099	<input type="checkbox"/>							


## Specify Timeout for Establishing a Connection to IPP Service

only if This chapter is only relevant for the transfer via IPP Service:  
→ *Activate the Transfer via IPP/IPPS*, Page 21

default If the IPP server is not available the connection retry is aborted after 3000 milliseconds. You may specify the period for this timeout.

instructions This is how you specify the period, after which the connection try to the IPP server is aborted:

Step	Action
1	<p>On the SAP system, open the following file via an editor: server\sapserv\conf\oms_submit.cfg</p> <p>Enter the desired period in milliseconds: [IPP]</p> <ul style="list-style-type: none"> <li>• IPP_CONNECT_TIMEOUT_MSECS 3000</li> </ul>
2	<p>Additionally at the assignment via oms_server:</p> <p>On the SAP system, open the following file via an editor: server\sapserv\conf\oms_server.cfg</p> <p>Enter the desired period in milliseconds: [OMS_SERVER_PARAMETERS]</p> <ul style="list-style-type: none"> <li>• IPP_CONNECT_TIMEOUT_MSECS 3000</li> </ul>

 related topics

→ *oms\_submit.cfg - Configuration*, Page 114

→ *oms\_server.cfg - Configuration*, Page 121

## Specify Timeout for Assignment via IPP Service

This chapter is only relevant for the transfer via IPP Service: only if


→ *Activate the Transfer via IPP/IPPS*, Page 21

If the IPP server does not respond during assignment via IPP Service after 60 seconds (default), the transfer is interpreted as erroneous and the usual error handling (failover, retry) is performed. You may specify the period for this timeout. default

This is how you specify the time period after which the assignment via IPP Service is canceled if the IPP server does not respond: instructions

Step	Action
1	On the SAP system, open the following file via an editor: server\sapserv\conf\oms_server.cfg Enter the desired period in seconds: [OMS_SERVER_PARAMETERS] <ul style="list-style-type: none"><li>• TRANSFER_TIMEOUT_SECONDS 120</li></ul>

→ *oms\_server.cfg - Configuration*, Page 121

 related topics

## Define Reaction to Blocked Transfer via IPP Service

only if This chapter is only relevant for the transfer via IPP Service:

→ *Activate the Transfer via IPP/IPPS*, Page 21

default If the IPP server does not respond during assignment via IPP Service after the configured timeout (`TRANSFER_TIMEOUT_SECONDS`) the transfer is interpreted as erroneous and the usual error handling (failover, retry) is performed (default). You can configure an alternative reaction.

instructions This is how you specify the reaction to blocked assignment via IPP Service:

Step	Action
1	<p>On the SAP system, open the following file via an editor:  <code>server\sapserv\conf\oms_server.cfg</code></p> <p>Enter the desired reaction:</p> <pre>[OMS_SERVER_PARAMETERS]</pre> <ul style="list-style-type: none"> <li>• <code>TRANSFER_TIMEOUT_ACTION:</code> <ul style="list-style-type: none"> <li>• <code>none</code> (default)  <code>oms_server</code> continues to wait for the end of the transfer thread. Subsequent jobs to the same destination are blocked as a result.</li> <li>• <code>continue</code>  The hanging thread continues to run. The next job to the same destination is started.</li> <li>• <code>terminate</code>  <code>oms_server</code> waits for all current transfer threads and then ends with an error message.  <code>oms_server</code> must be restarted for example with <code>systemctl</code> or <code>cron</code>. With an rpm installation under Linux, a restart is set up via <code>systemctl</code>.</li> </ul> </li> </ul>



related topics

→ *oms\_server.cfg - Configuration*, Page 121

## 8 Background Knowledge

---

This chapter provides insider know-how of the internal processes, which is not required for the standard usage but helpful for a better understanding. introduction

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This chapter deals with the following topics: in this chapter

→ *Assignment*, Page 98

→ *Reply*, Page 106

## 8.1 Assignment

---

in this chapter

This chapter deals with the following topics:

→ *Process of Assignment*, Page 99


→ *Process of Advanced Assignment via oms\_server*, Page 100

→ *Available SAP Parameters*, Page 103

## Process of Assignment

This is how the assignment is executed on the SAP system:

assignment with  
oms\_submit

Level	Processing
1	When printing SAP, spool calls oms_submit which is configured in: LOMS - Commands - Submit → <i>Specify Commands</i> , Page 39
2	The oms_submit program reads the default header file without any checks, if the file exists: server\sapserv\conf\oms_submit.hed
3	The defaults of level 1 are supplemented by the &* parameters which are transferred by SAP. Additionally, the following header items are added: <ul style="list-style-type: none"> <li>• SAP_OMS_FILE_FORMAT=OTF if CHECK_FORMAT Y (oms_submit.cfg: [OMS_SUBMIT]) and it is an SAP list or OTF file.</li> </ul>  Hint - SAP parameters and header items: How the individual &* parameters are mapped to header items, is described in → <i>Available SAP Parameters</i> , Page 103.
4	The external output management system is specified by the &E4 SAP parameter and passed as \$SAP_OMS_S_ROMSFLAGS in the header. The &E4 SAP parameter contains the data of the OMS configuration: → <i>OMS Configuration - Possible Values</i> , Page 34
5	At the assignment via oms_server (without https ipp) oms_server executes further steps: → <i>Process of Advanced Assignment via oms_server</i> , Page 100

## Process of Advanced Assignment via oms\_server


same initial process Before oms\_server carries out the assignment, the following steps are executed:

→ *Process of Assignment*, Page 99

start - lock file At the start, oms\_server checks whether a oms\_server.lock lock file exists or not. The directory of the lock file is specified with -lckdir. If a lock file exists and contains a valid process ID, the current instance of oms\_server terminates itself, because the program shall be started only once. Otherwise a lock file with the current process ID is created and the access time is updated every 10 seconds.



incomplete output jobs At the start, error, wait and reply directories are searched for incomplete jobs. These are processed with priority.

process This is how oms\_server executes the advanced assignment on the SAP system as long as the lock file exists:

Level	Processing
1	The input directory is read: data\oms\input
2	<p>The job that is to be processed, is evaluated.</p> <p> Hint - sorting:</p> <p>If <i>_Number.FileExtension</i> (-seqproc parameter at oms_submit) is used as format of the job names they are sorted alphabetically and processed in the order of their assignment. In this case FUZZY_TIME has to be set to 0.</p> <p>If the job name uses a different format, the oldest job is processed. The age is evaluated by the date of the ready file.</p> <p>If several ready files have the same age or the age lies within a certain time interval, the jobs are alphabetically sorted and thus the processing sequence is defined. The time span is configured with:</p> <p>oms_server.cfg, section [OMS_SERVER_PARAMETERS]:</p> <p>FUZZY_TIME</p>
3	The job to be processed is moved into the directory for waiting jobs: data\oms\wait


## Process of Advanced Assignment via oms\_server,

Continuation

Level	Processing
4	<p>If a logical name is set as external output management system via \$SAP_OMS_S_ROMSFLAGS in the header, the explicitly used output management system is defined via [OUTPUT_SYSTEMS] in oms_server.cfg.</p> <p> Hint - load balancing/reliability: Load balancing and reliability can be realized via the specification of a logical name.</p>
5	<p>In the case of success, the job is moved into the directory for processed jobs:</p> <p>data\oms\input</p> <p> Hint - delete: The jobs in the directory for processed jobs are deleted after a configurable time interval:</p> <p>oms_server.cfg, section [OMS_SERVER_PARAMETERS]:</p> <p>DELETE_READY_WAIT_TIME</p>
6	<p>In the case of error, the job is moved into the directory of erroneous jobs:</p> <p>data\oms\error</p> <p>Background knowledge: Parallel threads perform the repetition in case of error. This increases the performance for jobs with successful assignment.</p>

## Process of Advanced Assignment via oms\_server,

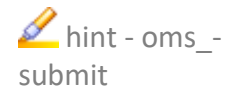
Continuation

Level	Processing
7	<p>The message about the success or error of the assignment is written into the notify file in the directory:</p> <p>data\oms\omsnotify</p> <p> Hint - volume of the assignment replies:</p> <p>The volume of the replies is configured with:</p> <p>oms_server.cfg, section [OMS_SERVER_PARAMETERS]:</p> <p>SAPNOTIFY</p> <p>As soon as SAPNOTIFY &gt; 0 is specified, the alternative oms_server_rfccm binary has to be started!</p> <p>The messages are transferred by oms_server to the SAP system, as soon as no jobs are waiting in the input directory for transmission. The following configuration settings are evaluated for the replies:</p> <p>oms_server.cfg, [OMSWATCHER] section</p> <p>oms_server.cfg, [STATUSCODES] section</p> <p>In the notify file, only status items with the identifier I for a successful assignment and w for the first not successful assignment attempt are used.</p>

## Available SAP Parameters



A list of the available SAP parameters can also be obtained via the following call:

```
oms_submit -p
```



The columns in the overview tables below have the following meaning:

legend

Column	Meaning
SAP Shortcut	<p>SAP data that can be specified as &amp;* parameter in the customizing of the logical OMS at the call of oms_submit.</p> <p> Caution - mandatory parameters: Mandatory parameters that must be specified are marked as mandatory in the table.</p> <p> Caution - quotation marks: It is advisable to quote all parameters in the customizing. However the available description space is not big enough. The SAP Shortcut column contains an explanation for which parameters quotation marks are strongly advisable because these parameters often contain blanks. These parameters are specified in quotation marks in the SAP Shortcut column. For all other parameters quotation marks should be used if there is enough space.</p>
header	<p>Identification with that the SAP data is written into the header</p> <p>The header is evaluated in the external output management system.</p>
Meaning	Contents of the SAP data

The following table provides an overview of the available SAP parameters that can be specified at the commands in the customizing of the LOMS:

overview

SAP Shortcut	header	Meaning
&C	\$ SAP_OMS_S_COPIES \$ PLS_PLOTCOPY	Number of copies
&c	\$ SAP_OMS_S_PAGES	Number of pages in the document
&D	\$ SAP_OMS_S_DIVISION	Department of the receiver
&d	\$ SAP_OMS_S_CATEGORY	Document category (as of kernel 4.6d)
&E1	\$ SAP_OMS_S_R3LOMSFLAGS	R/3 flags of the LOMS
&E2	\$ SAP_OMS_S_LOMSFLAGS	OMS flags of the LOMS
&E3	\$ SAP_OMS_S_R3ROMSFLAGS	R/3 flags of the ROMS

## Available SAP Parameters, Continuation

SAP Shortcut	header	Meaning
&E4	\$ SAP_OMS_S_ROMSFLAGS	OMS flags of the ROMS
&EA	\$ SAP_OMS_S_CALLBAMNT	Maximum number of buffered events
&EG (mandatory)	\$ SAP_OMS_S_RMGID	Reply group (RMG)
&EI(mandatory)	\$ SAP_OMS_S_SPOOLID \$ PLS_PLOTID \$ PLS_INTERNAL_ID	SAP spool ID
&E1 (Mandatory)	\$ SAP_OMS_S_LOMS	Name of the logical OMS
&EP	\$ SAP_OMS_S_FAXPERSON\$	Fax receiver (prospective enhancement)
&Er (Mandatory)	\$ SAP_OMS_S_ROMS	Name of the real OMS
&ES	\$ SAP_OMS_S_CALLBTRGT	SAP instance name for callback
&Es (mandatory)	\$ SAP_OMS_S_SAPSYSTEMID \$ SAP_OMS_S_DBLOCAT	SAP system ID ID of the calling NetWeaver system
&ET	\$ SAP_OMS_S_CALLBIV	Maximum buffer time for callback events
&F (mandatory)	\$ PLS_ORIG_NAME	Name of the file with the print data with path setting
&f	\$ SAP_OMS_S_FILE	Name of the file with the print data without path setting
&H/<x>/<y>	\$ SAP_OMS_S_CAPTION	<x> if the host spool title is desired <y> otherwise
&I	\$ SAP_OMS_S_JOBNAME_S	Internal job name
&J	\$ SAP_OMS_S_JOBNAME	Internal job name with DB ID
&L	\$ SAP_OMS_S_LAYOUT	format type
&l	\$ SAP_OMS_S_DRIVER	Printer driver (as of kernel 4.6d)
&M(mandatory)	\$ SAP_OMS_S_RQCLIENT	Client of the owner of the spool job
&m	\$ SAP_OMS_S_PJCLIENT	Client of the owner of the output job
&N	\$ SAP_OMS_S_SPOOLREQNO	Number of spool requests


## Available SAP Parameters, Continuation

SAP Shortcut	header	Meaning
&n	\$ SAP_OMS_S_SPOOLOUTNO	Number of output requests for spool requests
&O	\$ SAP_OMS_S_RQOWNER	SAP name of the owner of the spool job
&o(mandatory)	\$ SAP_OMS_S_PJOWNER \$ PLS_USERNAME	SAP name of the owner of the output job
&P (mandatory)	\$ SAP_OMS_S_DEVICE \$ PLS_PLOTTER	Name of the external output device
&p	\$ SAP_OMS_S_PATH	Path name of the output file
	\$ SAP_OMS_S_RECEIVER	Name of the receiver
&r	\$ SAP_OMS_S_PAGEAREA	Page area (as of kernel 4.6d)
&S	\$ SAP_OMS_S_SAPPRINTER	Name of the SAP output device
&s	\$ SAP_OMS_S_REQUESTNAME	Spool request name - suffix2
&T	\$ SAP_OMS_S_TITLE	Title
&t	\$ SAP_OMS_S_TELENUM	Fax number
&U	\$ SAP_OMS_S_HOSTTITLE	X = Host spool title page desired N = otherwise
&Y	\$ SAP_OMS_S_PRIORITY \$ PLS_PRIO(converted 1-9)	SAP priority (1=highest - 99= lowest)


The order of the parameters is optional, but must be identical in the configuration file and in spad. hint

If, in exceptional cases, no configuration file is read in, the default setting for the parameter sequence is: &C &E1 &E2 &E3 &E4 &EG &EI &Es &F &M &m &o &P &Y.

You can find more information on PLOSSYS order parameters in [PLOSSYS-  
\_PARAM\_TEC].

 further information

→ *Specify Commands*, Page 39

 related topics

## 8.2 Reply

---

in this chapter

This chapter deals with the following topics:

→ *Reply Process*, Page 107

→ *SAP Status - Reply Mapping*, Page 108

## Reply Process

This is how the replies are created on the OM server:

creation of the replies

Level	Processing
1	The PLOSSYS Output Engine generates all feedback signals. The seal-co-notifier Service filters these based on the SAP configuration and only reports the required ones back to SAP.

This is how the replies are transferred from the OM server to the SAP system:

transfer of the replies

Level	Processing
1	The time intervals are defined at the configuration of the LOMS/ROMS on the SAP system: → <i>Specify Amount and Interval of the Replies, Page 70</i>
2	SAP maps the number combination into a final status: → <i>SAP Status - Reply Mapping, Page 108</i>

The transferred replies of the external output management system are saved in the SAP system in the tspevjob table (transaction: se16).

background knowledge

## SAP Status - Reply Mapping

### overview

A detailed SAP status code consists of four integer values separated by commas:

- Job State
- Class Code
- Area Code
- Result Code

### job status - values

The job status can have the following values:

Job Status	Meaning
01	Preprocessing, formatting
02	In waiting loop
03	In process, i.e. printing
04	Ready, cannot be repeated
05	Ready but not saved in the OMS yet
06	Canceled
07	Lost (no job information available)
08	Unknown (probably wrong job ID)

### class code - values

The class code can have the following values:

Class Code	Meaning
01	Error
02	Problem that needs an interaction
03	Problem that needs no interaction
04	Information (no error)

### area code - values

The area code can have the following values:

Area Code	Meaning
01 / 09	Spooler / 2. value SWP internal
02	printing
03 / 11	Format / 2. value SWP internal
04 / 12	Connection / network / 2. value SWP internal
05	Others

## SAP Status - Reply Mapping, Continuation

The result code can have the following values:

result code - values

Result Code	Meaning
01	Correctly printed
02	Not printed
03	Partly printed
04	Probably printed
05	Output changed

These detailed status information are SAP internally combined to a SAP final status from 1 to 9:

SAP final status

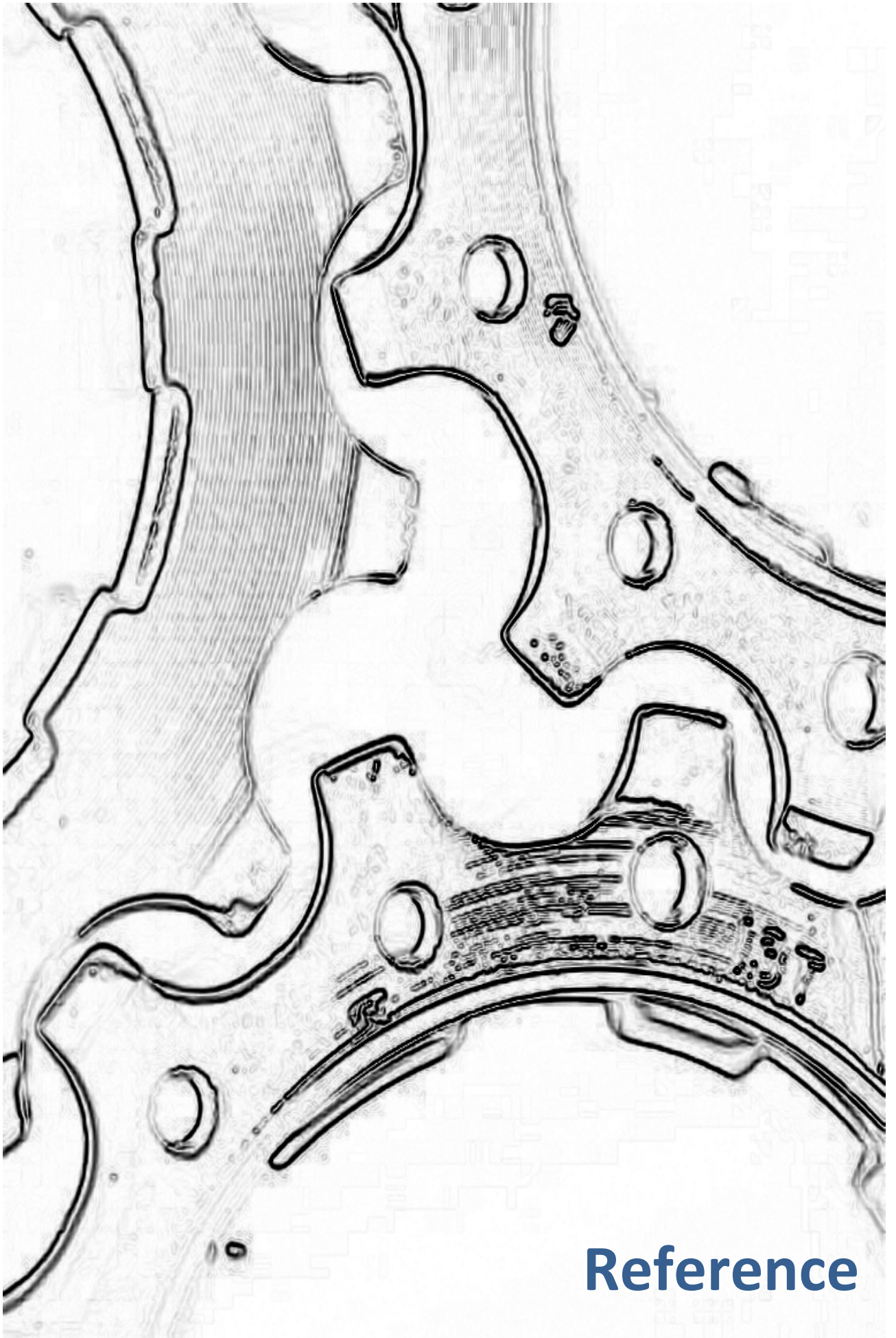
Class Code	Job Status	SAP Final Status
01, 02, 03	01, 02, 03	6 = Problem
01, 02, 03	04, 05, 06, 07, 08	8 = Error
04	01, 02	5 = In process
04	03	7 = Printing
04	04, 05	9 = Executed
04	06, 07, 08	8 = Error
Other		8 = Error

While setting the SAP final status, the following rules are valid and internally used by SAP:

priority

- The SAP final status types 0 to 5 can be only set in ascending order, that means, if a status is set higher, there is no possibility back.
- Within the SAP final status types 5 to 7 all crossings are possible, also for example the return from status 7 to status 5.
- If the SAP final status 8 or 9 is reached, no other status changes are possible any more. This means also that if a job has the error status it cannot be changed to the ready status afterwards.

## SAP Status - Reply Mapping, Continuation



**Reference**



## 9 Configuration Files - Reference

---

This chapter explains the meaning of the single configuration files.

introduction

---

This chapter deals with the following topics:

in this chapter

→ *oms\_submit.cfg* - Configuration, Page 114

→ *oms\_server.cfg* - Configuration, Page 121

## 9.1 oms\_submit.cfg - Configuration


---

introduction This chapter contains the reference information about the oms\_submit.cfg configuration file for the configuration of oms\_submit.


---

location The oms\_submit.cfg file is located in the following directory on the SAP system:  
server\sapserv\conf\oms\_submit.cfg


---

 Caution - usage This configuration file is only read if the -cfgfile option is explicitly specified after the SAP data at the start of oms\_submit! If this option is not specified, the defaults mentioned in the subsequent paragraphs are valid.

---

 hint - default In general, the defaults are sufficient and no further modifications are needed in oms\_submit.cfg.

---

 hint - %PLSROOT% If the environment variable %PLSROOT% is not defined, the value is evaluated by the directory name of the oms\_submit program. The directory where server\sapserv\bin\_xxx\oms\_submit is found as substructure is used as%PLSROOT%.

---



structure The configuration file contains the following sections:  
→ [DIRECTORIES] Section, Page 115  
→ [EXTENSION\_MAPPING] Section, Page 116  
→ [IPP] Section, Page 117  
→ [OMS\_SUBMIT] Section, Page 118

## [DIRECTORIES] Section


---

The section defines the target directories in the external output management system depending on the file extension and is irrelevant for PLOSSYS Output Engine. [contents](#)

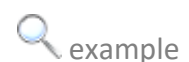
## [EXTENSION\_MAPPING] Section

contents	The section maps the source file extension in the SAP system to the target file extension in the external output management system.
parameters	The following section describes the available parameters in the [EXTENSION_MAPPING] section.
<i>SourceFileExtension</i>	<p>The source file extension in the SAP system is mapped to the target file extension in the external output management system. If * is specified as source file extension, the target file extension is valid for all source file extensions that are not explicitly specified.</p> <p>Only evaluated if oms_submit (with https ipp) without oms_server is used for the transfer!</p>
 hint - with or without oms_server	<p>If the job is transferred with or without oms_server depends on OMS_CONFIGURATION.</p> <p>The value is a string:</p> <ul style="list-style-type: none"> <li>• hpg1 Target file extension in the external output management system</li> <li>• * Source file extension is used as target file extension.</li> </ul> <p>Default: * OTF</p>
 example	<pre>[EXTENSION_MAPPING] #SourceExtension TargetExtension * otf</pre>



## [IPP] Section

The section defines the routing server for the transfer via IPP Service.	contents
The following section describes the available parameters in the [IPP] section.	parameters
<p>The parameter specifies the period in milliseconds, after which a connection retry is aborted if the IPP server is not available</p> <p>Only evaluated if oms_submit (with https ipp) without oms_server is used for the transfer!</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>3000 Time in milliseconds</li> </ul> <p>Default: 3000</p>	IPP_CONNECT_TIMEOUT_MSECS
<p>The parameter specifies if a routing server is used.</p> <p>Only evaluated if oms_submit (with https ipp) without oms_server is used for the transfer!</p> <p>If the job is transferred with or without oms_server depends on OMS_CONFIGURATION.</p> <p>The value is a boolean:</p> <ul style="list-style-type: none"> <li>Y Using a routing server</li> <li>N Do not use a routing server</li> </ul> <p>Default: N</p>	IPP_ROUTING_ON   hint - with or without oms_server
<p>The parameter specifies the server name and port number of the routing server.</p> <p>Only evaluated if oms_submit (with https ipp) without oms_server is used for the transfer!</p> <p>The value is a string:</p> <ul style="list-style-type: none"> <li>10.49.31.183:2631 Server name:port number of the routing server</li> </ul> <p>Default: None</p>	IPP_ROUTER

```
[IPP]
#Use router for IPP? Y|N
IPP_ROUTING_ON Y
IPP_ROUTER 10.49.31.183:2631
IPP_CONNECT_TIMEOUT_MSECS 3000
```



## [OMS\_SUBMIT] Section

contents	The section defines details of the assignment like the target directory or specific settings for the external output management systems.
parameters	The following section describes the available parameters in the [OMS_SUBMIT] section.
CHECK_FORMAT	<p>The parameter specifies whether the format is checked and whether the SAP_OMS_FILE_FORMAT parameter is set for OTF data.</p> <p>If the check is active and it is an SAP list or OTF file the following header item is written:</p> <p>SAP_OMS_FILE_FORMAT=OTF</p> <p>The value is a boolean:</p> <ul style="list-style-type: none"> <li>• Y Format will be checked</li> <li>• N Format will not be checked</li> </ul> <p>Default: N</p>
DIRECTORY	<p>The jobs are transferred to this directory for further processing. This is the input directory of oms_server.</p> <p>Only evaluated if oms_server (without https ipp) is used for the transfer!</p> <p> <b>Caution - default</b> The default %PLSR00T%\data\oms\input must not be changed when using oms_server for the transfer!</p> <p>Another directory makes sense, for example, if the SAP system and the output management system have access to shared directories and if oms_submit can copy the files into a shared directory.</p> <p>Another scenario could be the configuration of several logical output management systems with different directories, such as sys1/server/sapserv/.../oms_submit, sys2/server/sapserv/.../oms_submit and sys3/server/sapserv/.../oms_submit, which access the common oms_server installation such as com/server/sapserv/.../oms_server. The three assigning systems write separate log files. This way, separate statistics files can be logged for each initiator.</p> <p> <b>hint - with or without oms_server</b> If the job is transferred with or without oms_server depends on OMS_CONFIGURATION.</p> <p>The value is a string:</p> <ul style="list-style-type: none"> <li>• „%PLSR00T%\data\oms\input“ Target directory of the modified jobs</li> </ul> <p>Default: „%PLSR00T%\data\oms\input“</p>
LOGLEVEL	The log level is specified.

## [OMS\_SUBMIT] Section, Continuation

Messages up to the specified type are written into the log file.

Values of the following enumeration are supported:

- error  
Error messages
- warn  
Additional warnings + error
- info  
Additional success messages + warn
- diag  
Additional diagnose information + info
- debug  
Additional debug information + diag

Default: debug

---

The maximum size of the log file is specified.

LOGSIZE

If the size of the log file exceeds the value specified here, it is saved to \*.old and a new log file is created.

The value is an integer:

- -1  
No limit, new items are added to the end of the log file
- 6400  
Maximum size in KB

Default: 6400

---

The parameter specifies the type of the transfer.

OMS\_CONFIGURATI-  
ON

The target directory of the orders for further processing is defined with DIRECTORY (without https|ipp).

The value is a string in one of the following forms:

- „PLOSSYS“  
Name of the output management system  
„This must be listed in oms\_server.cfg at OUTPUT\_SYSTEMS and specified in a separate section in oms\_server.cfg.  
The transfer is executed by oms\_server.
- roett221 443 PLOSSYS https  
Server name or IP address, port number, pipe name of the output management system and https.  
This specification activates the transfer using oms\_submit only via IPP Service (encrypted, HTTPS). If the pipe name is omitted, PLOSSYS is used as default.
- roett221 631 PLOSSYS ipp  
Server name or IP address, port number, pipe name of the output management system and ipp.

## [OMS\_SUBMIT] Section, Continuation

This specification activates the transfer using `oms_submit` only via IPP Service (unencrypted).

If the pipe name is omitted, PLOSSYS is used as default.

Default: „PLOSSYS“

### PARAMETER

The parameter specifies the call of `oms_submit` with the SAP data as parameters. You find more details and a list of the available SAP data in → *Available SAP Parameters*, Page 103.



Caution - upper/lower case

The specifications of the SAP tokens are case-sensitive. The automatic case conversion might need to be disabled in the SAP system if there are problems!



Caution - from spad

The specification of PARAMETER can be directly copied from the customizing of the real OMS (`spad` transaction, OMS Commands section, Submit item). The parameters in the customizing and the settings of PARAMETER must match!

The value is a string:

- `oms_submit.exe "&C" "&E1" "&E2" "&E3" "&E4" "&EG" "&EI" "&Es" "&F" "&M" "&m" "&o" "&P" "&Y" "&c" "&E1" "&Er" -cfgfile`

Default: `oms_submit.exe "&C" "&E1" "&E2" "&E3" "&E4" "&EG" "&EI" "&Es" "&F" "&M" "&m" "&o" "&P" "&Y" "&c" -cfgfile`

### PLS\_CALL\_CONDITIONS

The parameter specifies the status information of the output job for which a reply should be initiated. It is irrelevant for PLOSSYS Output Engine as the `seal-co-notifier` service evaluates the SAP configuration.

## 9.2 oms\_server.cfg - Configuration


---

This chapter contains the reference information about the oms\_server.cfg configuration file for the configuration of oms\_server. introduction

---

The oms\_server.cfg file is located in the following directory on the SAP system: location  
server\sapserv\conf\oms\_server.cfg

---

A restart of oms\_server is not required after modifications in oms\_server.cfg. The program checks the configuration file and rereads it if needed.  hint - modifications

- 
- *[DIRECTORIES] Section, Page 122* structure
  - *[EXTENSION\_MAPPING] Section, Page 123*
  - *[OMS\_SERVER\_PARAMETERS] Section, Page 124*
  - *[OMSWATCHER] Section, Page 130*
  - *[OUTPUT\_SYSTEMS] Section, Page 131*
  - *[OUTPUT\_SYSTEMS-NAME] Section, Page 132*
  - *[STATUSCODES] Section, Page 133*

## [DIRECTORIES] Section

---

### contents

The section defines the target directories in the external output management system depending on the file extension.

This section is irrelevant for the connection with PLOSSYS Output Engine.

## [EXTENSION\_MAPPING] Section

---

The section maps the source file extension in the SAP system to the target file extension in the external output management system. contents

---

The following section describes the available parameters in the [EXTENSION\_MAPPING] section. parameters

---

The source file extension in the SAP system is mapped to the target file extension in the external output management system. If \* is specified as source file extension, the target file extension is valid for all source file extensions that are not explicitly specified. *SourceFileExtension*

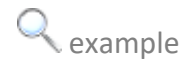
The value is a string:

- hpgl  
Target file extension in the external output management system
- \*  
Source file extension is used as target file extension.

Default: \* \*

---

```
[EXTENSION_MAPPING]
#SourceExtension TargetExtension
* otf
```



## [OMS\_SERVER\_PARAMETERS] Section

contents	The section contains the settings for the distribution algorithm.
parameters	The following section describes the available parameters in the [OMS_SERVER_PARAMETERS] section.
DELETE_READY_WAIT_TIME	<p>The parameter specifies the time after which successfully transferred files are removed from the ready directory.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• 24 Time in hours</li> <li>• 0 Successfully transferred files are deleted at once and not moved into the ready directory.</li> </ul> <p>Default: 0</p>
FUZZY_TIME	<p>The parameter specifies the time period in seconds for the fuzziness in the sorting with the effect of a latency time.</p> <p>When determining the jobs to be processed, all jobs that were created within the specified time difference are considered of the same age. If jobs are of the same age, the alphabetical order (job number) determines the processing order. Only the jobs are considered that are located in the job directory for the time specified by FUZZY_TIME so that the processing is always delayed by this period. With higher values of FUZZY_TIME, the delay will be proportionately longer and only the alphabetical order determines the processing order instead of the job age.</p> <p>With this setting, the desired order can be kept even if the printing jobs that are created by SAP spool differ in size and processing time in SAP so that newer jobs prior to older jobs are put into the input directory of oms_server.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• 30 Jobs that were created within this time difference are sorted alphabetically.</li> <li>• 0 Only jobs of the same age are sorted alphabetically.</li> </ul> <p>Default: 0</p>
IPP_CONNECT_TIMEOUT_MSECS	<p>The parameter specifies the period in milliseconds, after which a connection retry is aborted if the IPP server is not available.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• 3000 Time span in milliseconds</li> </ul> <p>Default: 3000</p>

## [OMS\_SERVER\_PARAMETERS] Section, Continuation

---

The parameter specifies whether the device status is queried before a job is repeated. IPP\_DEVICE\_QUERY

The value is a boolean:

- Y  
In case of an internal error (INTERNAL SERVER ERROR (0x500)) of the IPP server during the assignment via IPP Service, oms\_server first checks the status of the IPP server. The job is only repeated if the status of the IPP server is not equal to IDLE in order to avoid duplicate jobs.
- N  
In case of an internal error INTERNAL SERVER ERROR (0x500) oms\_server does not start a device query but repeats the job immediately.

Default: Y

---

The parameter specifies the time period after which the connection is to be closed if the kNet/franss3 connection was not used in this time. KNET\_DISCONNECT\_AFTER\_IDLE\_MINUTES

This parameter is irrelevant for the connection with PLOSSYS Output Engine.

---

The parameter specifies the type of the load balancing. LB\_ROUND\_ROBIN

Using the round robin method, oms\_server remembers the last server and uses the next server with the same priority for the next job in consideration of the EXCLUSIVE times.

The value is a boolean:

- Y  
Load balancing via the round robin method
- N  
No load balancing, orders are sent to the first free server

Default: Y

---

The log level is specified. LOGLEVEL

Messages up to the specified type are written into the log file.

Values of the following enumeration are supported:

- error  
Error messages
- warn  
Additional warnings + error
- info  
Additional success messages + warn
- diag  
Additional diagnose information + info
- debug

## [OMS\_SERVER\_PARAMETERS] Section, Continuation

Additional debug information + diag

Default: info

---

LOGSIZE	<p>The maximum size of the log file is specified.</p> <p>If the size of the log file exceeds the value specified here, it is saved to *.old and a new log file is created.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• -1 No limit, new items are added to the end of the log file</li> <li>• 6400 Maximum size in KB</li> </ul> <p>Default: 6400</p>
MAX_CONNECT_RETRY	<p>The parameter specifies the number of attempts of kNet to reconnect after the network timeout before aborting with error.</p> <p>This parameter is irrelevant for the connection with PLOSSYS Output Engine.</p>
MAX_RETRIES	<p>The parameter specifies the maximum number of repetition retries of erroneous jobs.</p> <p>As soon as MAX_RETRIES or MAX_RETRY_TIME is reached, the job is terminated with an error and deleted.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• 10</li> </ul> <p>Default: 10</p>
MAX_RETRY_TIME	<p>The parameter specifies the maximum time for repetition retries of erroneous jobs.</p> <p>As soon as MAX_RETRIES or MAX_RETRY_TIME is reached, the job is terminated with an error and deleted.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"> <li>• 48 Time in hours</li> </ul> <p>Default: 48</p>
QUEUE_EXCLUSIVE_TO_SERVER_TIME	<p>Within this period, all jobs of a user to the same output device are transferred to one server.</p> <p>This setting is only relevant when customizing the load balancing and LB_ROUND_ROBIN Y.</p> <p>The value is an integer:</p>

## [OMS\_SERVER\_PARAMETERS] Section, Continuation

- 10  
Time in seconds
- 0  
No reservation is done.

Default: 10

The parameter specifies the period to the next transfer attempt after an erroneous transfer attempt.

RETRY\_WAIT\_TIME

The value is an integer:


- 0  
The transfer is repeated at once.
- 30  
Period in seconds to the next transfer attempt

Default: 30

The parameter specifies the level of the reply messages concerning the assignment on SAP.

SAPNOTIFY

As soon as `SAPNOTIFY > 0` is specified, the alternative `oms_server_rfccm` binary has to be started!

 Caution -  
`oms_server_rfccm`

The value is an integer:

- 0  
No messages are sent to SAP.
- 1  
Success and error messages are sent to SAP.
- 2  
Only error messages are sent to SAP. A message is also sent if a transfer is successful after several attempts.

Default: 0

This setting is only relevant when customizing the load balancing and `LB_ROUND_ROBIN N`.

SERVER\_EXCLUSIVE\_TO\_USER\_TIME

The parameter specifies the time interval, in which only jobs of a specific user are transferred to the server in order to avoid a mixing with jobs of other users.

Simultaneously, `USER_EXCLUSIVE_TO_SERVER_TIME` has to be specified.

The period should be as short as possible - as long as the output of a job is supposed to take in order to avoid blocking each other.

To completely utilize all advantages of load balancing, an exclusive reservation must be omitted. If possible, for example, if jobs do not belong together, set `USER_EXCLUDE_TO_SERVER_TIME` and `SERVER_EXCLUSIVE_TO_USER_TIME` to 0.

The value is an integer:

## [OMS\_SERVER\_PARAMETERS] Section, Continuation

- 0  
Time in seconds

Default: 0

SERVER\_INFO\_REFRESH\_TIME

This setting is only relevant when customizing the load balancing and LB\_ROUND\_ROBIN N.

The parameter specifies the time interval, after which the server with the least load is determined again, which is usually very time-consuming.

For increasing the performance, it is advisable to specify the time period long enough.

Within the waiting period, the jobs are transferred to the server determined at last as least loaded.

If there is additionally a reservation for a user by USER\_EXCLUSIVE\_TO\_SERVER\_TIME, a new request for load balancing is first done after the last job of the user is older than USER\_EXCLUSIVE\_TO\_SERVER\_TIME.

The value is an integer:

- 300  
Time in seconds

Default: 300

TRANSFER\_TIMEOUT\_ACTION

TRANSFER\_TIMEOUT\_ACTION defines how the server should react in the event of a timeout during job transfer (TRANSFER\_TIMEOUT\_SECONDS).

Values of the following enumeration are supported:

- none  
oms\_server continues to wait for the end of the transfer thread. Subsequent jobs to the same destination are blocked as a result.
- continue  
The hanging thread continues to run. The next job to the same destination is started.
- terminate  
oms\_server waits for all current transfer threads and then ends with an error message.  
oms\_server must be restarted for example with systemctl or cron. With an rpm installation under Linux, a restart is set up via systemctl.

Default: none

TRANSFER\_TIMEOUT\_SECONDS

If the IPP server does not respond within this time period, the transfer is interpreted as erroneous and the usual error handling (failover, retry) is performed.

The value is an integer:

- 120  
Time in seconds

## [OMS\_SERVER\_PARAMETERS] Section, Continuation

Default: 60

---

This setting is only relevant when customizing the load balancing and LB\_ROUND\_ROBIN N.

USER\_EXCLUSIVE\_TO\_SERVER\_TIME

The parameter specifies the time interval, in which all jobs of a specific user are transferred to a specific server in order to ensure the output in the correct order of jobs.

Jobs of other users could potentially mix these jobs up. In order to avoid this SERVER\_EXCLUSIVE\_TO\_USER\_TIME must be set.

To completely utilize all advantages of load balancing, an exclusive reservation must be omitted. If possible, for example, if jobs do not belong together, set USER\_EXCLUDE\_TO\_SERVER\_TIME and SERVER\_EXCLUSIVE\_TO\_USER\_TIME to 0.

The value is an integer:

- 10  
Time in seconds

Default: 10

---

The parameter specifies whether operating system signals are ignored or executed.

USE\_SIGNAL\_HANDLER

The value is a boolean:

- Y  
oms\_server catches operating system signals and ignores them.
- N  
Operating system signals, such as Ctrl-C to cancel a program, are effective and are not ignored by oms\_server.

Default: Y

## [OMSWATCHER] Section

---

contents	The section defines the details for the reply of the assignment via oms_server. Reply messages via the job status and device status in the external output management system are not affected.
parameters	The following section describes the available parameters in the [OMSWATCHER] section.
COUNTER	<p>The value determines, how many messages are combined, before they are transferred back to the SAP system.</p> <p>The value is an integer, maximum 499:</p> <ul style="list-style-type: none"><li>• 100 Number of summarized reply messages</li></ul> <p>Default: 100</p>
RETRY_WAIT_TIME	<p>The parameter specifies the period to the next transfer attempt of the assignment after an erroneous transfer attempt</p> <p>The value is an integer:</p> <ul style="list-style-type: none"><li>• 0 The transfer is repeated at once.</li><li>• 300 Time in seconds</li></ul> <p>Default: 60</p>
RM_AFTER_HOURS	<p>After the number of hours specified at RM_AFTER_HOURS, the messages that are not passed back to the SAP system are deleted without retrying the transfer.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"><li>• 24 Deletion period in hours for the messages that are not passed back</li></ul> <p>Default: 24</p>
SLEEP_TIME_SEC	<p>The parameter specifies how many seconds are paused after the waiting reply messages are passed and before the directory is scanned again.</p> <p>The value is an integer:</p> <ul style="list-style-type: none"><li>• 60 Waiting period in seconds for the next pass</li></ul> <p>Default: 60</p>

## [OUTPUT\_SYSTEMS] Section

The section lists the external output management systems that are available. A separate section must exist additionally for each external output management system. [contents](#)

The following section describes the available parameters in the [OUTPUT\_SYSTEMS] section. [parameters](#)

The parameter specifies the name of the output system that is available. *output system*

The system name PLOSSYS is the default if `oms_submit.cfg` is read neither the server and port are specified in the customizing of the real output management system in the SAP system (transaction: `spad`, item: `OMS Configuration`). In this case, PLOSSYS must be listed in [OUTPUT\_SYSTEMS] and specified in a separated section!



The value is a string:

- PLOSSYS

Default: PLOSSYS

```
[OUTPUT_SYSTEMS]
PLOSSYS
PLOSSYSYHTTPS
PLOSSYSIPP
```



## [OUTPUT\_SYSTEMS-NAME] Section

contents	The section describes the output management systems specified at [OUTPUT_SYSTEMS].
parameters	The following section describes the available parameters in the [OUTPUT_SYSTEMS-NAME] section.
<i>PriorityHost-PortPipe RouterURL</i>	Each output management system listed in [OUTPUT_SYSTEMS] is specified in detail. For this, the host name, port and pipe of the output management system are specified. A routing server can be specified optionally for the transfer via IPP.
priority	<p>At first, the output management system providing the least priority is searched for. If several systems have the same priority, the system least loaded is selected. If none of these systems can be accessed, the systems with the next higher priority are considered.</p> <p>The priority does not have to be consecutively numbered. The order of the priorities in the configuration does not matter. The lowest priority may also be specified in the last line.</p>
pipe	<p>The type of the transfer is specified via <i>pipe</i>:</p> <ul style="list-style-type: none"> <li>• IPP Service (encrypted, HTTPS): HTTPS</li> <li>• IPP Service (unencrypted): IPP</li> </ul>
RouterURL	<p>A routing server can be specified optionally for the transfer via IPP Service using the format <i>ServerName:PortNumber</i>.</p> <p>The value is a string:</p> <ul style="list-style-type: none"> <li>• 1 sealhttps1 443 HTTPS</li> </ul> <p>Default: None</p>

### example

```
[PLOSSYSHTTPS]
#Priority Host Port Pipe
1 sealipp1 443 HTTPS
[PLOSSYSIPP]
#Priority Host Port Pipe Router URL
1 sealipp1 631 IPP
2 sealipp2 631 IPP sealipp3:631
```

## [STATUSCODES] Section

The section defines the mapping of the status codes of the external output management system to the status in the SAP system. contents

The status in the SAP system is represented by four values: SAP status  
 Job status, class code, area code, result code

The following section describes the available parameters in the [STATUSCODES] section. parameters

Error status in the external output management system E

The value is an integer, 4 integers separated by comma:

- 04,04,05,02  
 Complete, Information, Other, Not printed

Default: 04,04,05,02

Information status in the external output management system I

The value is an integer, 4 integers separated by comma:

- 03,04,02,04  
 Processing/printing, Information, Printing, Possible printed

Default: 03,04,02,04

Success status in the external output management system S

The value is an integer, 4 integers separated by comma:

- 04,04,03,01  
 Complete, Information, Other, Printed correctly

Default: 04,04,03,01

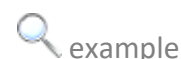
Warning status in the external output management system W

The value is an integer, 4 integers separated by comma:

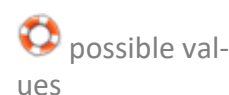
- 03,02,02,02  
 Processing/printing Problem request intervention, Printing, Not printed

Default: 03,02,02,02

```
[STATUSCODES]
W 03,02,02,02
I 03,04,02,04
```



Possible values for job state, class code, area code and result code:  
 → *SAP Status - Reply Mapping, Page 108*



## 10 Programs

---

introduction      This chapter contains information about the implemented programs, their parameters and processes.

---

in this chapter      This chapter deals with the following topics:  
→ *oms\_submit* - *Assignment*, Page 135  
→ *oms\_server* - *Advanced Assignment*, Page 138

## 10.1 oms\_submit - Assignment

---

This chapter contains information about oms_submit.	contents
The oms_submit program creates the output jobs during the printing in the SAP system and transfers them to the external output management system or to oms_server.	purpose
The oms_submit program is located in the following directory on the SAP system: server\sapserv\bin_xxx	location
The oms_submit program is executed within the SAP system when the print button is used.	start
This chapter deals with the following topics: → <i>Usage of oms_submit</i> , Page 136	in this chapter
The configuration of oms_submit is described in a separate chapter: → <i>oms_submit.cfg - Configuration</i> , Page 114	configuration

---

## Usage of oms\_submit

### overview

This is how oms\_submit is started:

```
oms_submit[.exe|.sh]
[-h]
OMS-Par
[-logfile filename] [-loglevel level] [-logsize size]
[-version]
[-cfgfile [filename]]
[-seqproc]
```

### parameters

The program oms\_submit evaluates the following parameters:

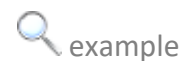
parameters	Description
-h (optional)	Lists the available parameters.
<i>OMS-Par</i>	See PARAMETER in the OMS_SUBMIT section: → <i>oms_submit.cfg - Configuration, Page 114</i>
-logfile (optional)	Specifies the log file with directory path. Default: data\log\oms_submit.log
-loglevel (optional)	Specifies the log level. Messages up to the specified type are written into the log file.  Value as enumeration: error Error messages warn Additional warnings + error info Additional success messages + warn debug Additional diagnostic messages + info info Default: info
-logsize (optional)	If the size of the log file exceeds the value specified here, it is saved to *.old and a new log file is created.  Values as integer: -1 No limit, new items are added to the end of the log file -2 Cutting the log file at the start to the default maximum size 1000 Maximum size of the log file in KB Default: 1024
-version (optional)	Shows the version of oms_submit.
-cfgfile (optional)	If no file name is specified, the default is used. Otherwise the configuration file with the absolute directory name from the point of view of the SAP system must be specified. Default: server\sapserv\conf\oms_submit.cfg

## Usage of oms\_submit, Continuation

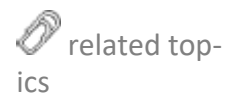
parameters	Description
-seqproc (optional)	<p>The output jobs are created using the following name: <i>_Number.FileExtension</i></p> <p>with:</p> <p><i>Number</i> = 37 digits including leading zeros</p> <p>The number is written to data\sysstat\oms_submit.uni. If the file exists the number is increased by one.</p> <p>Output jobs with these names are sorted alphabetically and processed by the time of their assignment.</p>

The oms\_submit program is started with its mandatory parameters:

```
oms_submit[.exe|.sh] "%C" "%E1" "%E2" "%E3" "%E4" "%EG" "%EI" "%Es"
"%F" "%M" "%m" "%o" "%P" "%Y" "%c" "%E1" "%Er" -cfgfile
```



→ Available SAP Parameters, Page 103



## 10.2 oms\_server - Advanced Assignment

---

contents	This chapter contains information about oms_server.
purpose	The oms_server program is responsible for the forwarding of the output jobs of oms_submit and transfers them to the external output management system. By means of oms_server a load balancing and reliability can be realized.
location	The oms_server program is located in the following directory on the SAP system:  server\sapserv\bin_xxx
start	The oms_server program must be started on the SAP system.
stop	You stop the oms_server program on the SAP system by starting it with the -stop option. This command creates the oms_server.stop stop file in the data\sysstop directory. As soon as the stop file exists, oms_server deletes the stop file and terminates.  Alternatively, you can delete the oms_server.lock lock file in the data\sysstat directory.
in this chapter	This chapter deals with the following topics: → <i>Usage of oms_server</i> , Page 139
configuration	The configuration of oms_server is described in a separate chapter: → <i>oms_server.cfg - Configuration</i> , Page 121

---

## Usage of oms\_server


This is how oms\_server is started:

overview

```
oms_server[.exe|.sh]
[-h]
[-logfile filename|-logdir directory]
[-version|-V]
[-cfgfile filename|-cfgdir directory]
[-lckfile filename|-lckdir directory]
[-gatedir directory]
[-rdydir directory]
[-waitdir directory]
[-errdir directory]
[-stop|-kill]
```

The oms\_server program evaluates the following parameters:

parameters

parameters	Description
-h (optional)	Lists the available parameters.
-logfile (optional)	Specifies the log file with directory path. Default: PLSDATA\log\oms_server.log
-version -V (optional)	Shows the version of oms_server.
-cfgfile (optional)	Specifies the configuration file with directory path. Default: server\sapserv\conf\oms_server.cfg
-cfgdir (optional)	Specifies the directory, in which the oms_server.cfg configuration file is located. Overwritten by -cfgfile, if available Default: server\sapserv\conf
-lckfile (optional)	Specifies the lock file with directory path. Default: PLSDATA\sysstat\oms_server.lck
-lckdir (optional)	Specifies the directory, in which the lock file oms_server.lck is located. Overwritten by -lckfile, if available  <b>Caution - start/stop:</b> If a special lock directory is specified during the start, this must also be specified at the stop of the program. Default: PLSDATA\sysstat
-gatedir (optional)	oms_submit saves the jobs in this input directory (ready directory). Default: PLSDATA\oms\input

## Usage of oms\_server, Continuation

parameters	Description
-rdydir (optional)	Specifies the directory for successfully transferred jobs. There they are deleted after DELETE_READY_WAIT_TIME has expired (default: 0, the successfully transferred jobs are deleted immediately).  Default: PLSDATA\oms\ready
-waitdir (optional)	This waiting directory contains the jobs that are currently being transferred by oms_server.  Default: PLSDATA\oms\wait
-errdir (optional)	This error directory contains incorrectly processed jobs that are read in again and repeated when oms_server is restarted (RETRY).  Default: PLSDATA\oms\error
-stop -kill (optional)	Creates the oms_server.stop stop file in the data\sysstop directory. Thus, oms_server is triggered to terminate itself.  Default: None

background  
knowledge - PLS-  
DATA

When started, oms\_server determines PLSDATA via its program directory:

PLSROOT\server\sapserv\bin\_xxx => PLSDATA = PLSROOT\data

Alternatively, PLSDATA can be set via an environment variable.

## 11 Changes

This chapter describes the most important changes for each released module version.

---

This chapter deals with the following topics:

in this chapter

→ *Changes with Release 4.4.1*, Page 142

## Changes with Release 4.4.1

purpose	<p>This documentation describes the connection of PLOSSYS Output Engine as external Ausgabemanagementsystem to the SAP system, as well as the usage of the OMS interface for the display of reply messages about the output progress.</p> <p>The connection of PLOSSYS netdome is described up to version 4.3.0 of this documentation.</p>
IPP service	<p>TRANSFER_TIMEOUT_ACTION (<code>oms_server.cfg</code>, [OMS_SERVER_PARAMETERS] section) defines how the server should react in the event of a timeout during job transfer (TRANSFER_TIMEOUT_SECONDS): Usual error handling (failover, retry) (none, default), start parallel thread (continue) or terminate after the end of the running threads (terminate).</p>
no IPPS for HP-UX	<p>For HP-UX, only unencrypted IPP, not IPPS is supported.</p>
oms_submit - parameter	<p>The assignment with <code>oms_submit</code> additionally supports the following parameters:</p> <ul style="list-style-type: none"> <li>• SAP_OMS_S_LOMS (&amp;E1 logical OMS)</li> <li>• SAP_OMS_S_DBLOCAT (&amp;Es NetWeaver system)</li> <li>• SAP_OMS_S_CATEGORY (&amp;d document category)</li> <li>• SAP_OMS_S_DRIVER (&amp;l printer driver)</li> <li>• SAP_OMS_S_PAGEAREA (&amp;r page area)</li> <li>• SAP_OMS_S_REQUESTNAME (&amp;s spool request name)</li> <li>• SAP_OMS_S_SPOOLREQNO (&amp;N number of spool requests)</li> <li>• SAP_OMS_S_SPOOLOUTNO (&amp;n number of output requests for spool requests)</li> </ul> <p>This supports all available BC-XOM print parameters.</p>
certification	<p>BC-XOM is certified by SAP for PLOSSYS Output Engine (PLOSSYS 5).</p>

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SAP Print Manual (BC-CCM-PRN), SAP

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SAPGOF Converter, System Description, SEAL Systems

[SEALSERV\_TEC]

SEALService, System Description, SEAL Systems

## Terminology

The following section explains the most important terms that are used in this documentation. Terms identified by → refer to other terms in this section.

### Add-on installation package

The add-on installation package (also A0I) contains the initial delivery of an add-on package. An add-on installation package is loaded and installed with the `saint` transaction.

### Add-On Support Package

The add-on support package contains bug fixes for an add-on package. Depending on the underlying SAP release, it has as package type CSP (Component Support Package, as of SAP NetWeaver 7.0) or A0P (Add-On Support Package, up to SAP Web AS 6.20). An add-on support package is loaded and installed with the `spam` transaction.

### Attribute change package

The attribute change package contains updated attributes for an add-on software component version.

### Client

A unit within an SAP system that is independent with regard to action, organization, and data functions. It also has separate master records in a table within the SAP system

### Namespace

Protected namespaces can be reserved upon request by SAP. The namespace for SEAL Systems is `/sea1/`, `/sea1c/` (for customer development) or `/dvsrepro/` (old).

### Online Correction Support (OCS)

OCS packages contain the transport objects along with attributes, for example, dependency/order information. The name of an OCS package within SAP contains the SAP system, the installation number and a sequential number followed by the file extension `.pat`, for example: `X740020092305_0001530.pat`. When exporting an OCS package to an external directory, the `.pat` file becomes a `.sar` file with a speaking name.

### System user

User, who is used by the output management system for the access to the SAP system. These accesses are performed without dialog with a user of the System type (previously CPIC).

### Transaction code

Identifier naming a →transaction in the SAP system

### Transport

Exporting/importing data between SAP systems

## Abbreviations

ACP	Attribute change package
AOI	Add-on installation package
CSP	Add-on support package (also AOP)
OCS	Online Correction Support

## Keywords

### Symbols

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