

# Migration of DIR (Document Info Record) with Attachments - DMS



## Applies to:

This document applies to Document Info Records in Document Management System module. For more information, visit the [ABAP homepage](#).

## Summary

The document would give knowledge about migration of DIR document info records from one system to other system using ALE method. It would also include the possible issues that would come up and solution for the same.

**Author:** Lalit Mohan Gupta

**Company:** Capgemini Consulting Pvt Ltd

**Created on:** 25<sup>th</sup> October 2010

## Author Bio

Lalit Mohan Gupta is working with Capgemini Consulting for around two year now. He is involved in SAP ABAP Implementation projects and Production Support projects.

Nagaraj Kumar Nishtala is working with Capgemini Consulting for around five years now. He is involved in SAP ABAP Implementation, Upgrade and Production Support projects.

## Table of Contents

|  |    |
|--|----|
| Introduction to Document Management .....      | 3  |
| Purpose of DMS .....                           | 3  |
| Uses of DMS .....                              | 3  |
| Document Info Record.....                      | 4  |
| Document Number.....                           | 4  |
| Document Types.....                            | 4  |
| Document Parts .....                           | 4  |
| Document Version.....                          | 5  |
| Scenario .....                                 | 6  |
| ALE Configuration .....                        | 6  |
| Configurations on the Source System.....       | 6  |
| Configurations on the Target System.....       | 13 |
| Steps to Transfer DIR.....                     | 14 |
| Problem Encountered.....                       | 16 |
| Reasons & Solution .....                       | 17 |
| Maintain RFC Destination in Target System..... | 17 |
| Define transport of Originals for ALE .....    | 18 |
| Related Content .....                          | 19 |
| Disclaimer and Liability Notice.....           | 20 |

## Introduction to Document Management

### Purpose of DMS

As the process becomes more complex, the systems for managing the technical documents involved need to be more sophisticated. The many different procedures for describing products (such as design drawings, photographs, and texts) mean that there is a huge increase in digitally stored data.

The quality and availability of documentation is becoming increasingly important. The Document Management System (DMS) in the SAP System offers the following advantages:

- Avoid data redundancy, maintain consistency of data, and minimize the workload involved in entering and updating your data.
- Secure storage of documents
- Easy retrieval of documents.
- Ability to exchange data quickly and securely.
- Reduces access time and workload involved in routine tasks.

### Uses of DMS

Document management can be used in various areas of the company like.

- In the design office, document management can be used to manage drawings. All design drawings can be linked to material masters.
- Companies that process complex documents can use document structures to organize these documents. All documents and texts that are logically connected can be grouped together in one document structure.
- A routing contains the sequence of operations for manufacturing a product. Documents can be allocated to the operations in a routing as production resources/tools. These documents may be used, for example, to describe the specifications of a product, or to store inspection requirements.

## Document Info Record

Document info record refers to the master record in the SAP system that stores all business information for a document. Document info record contains data such as storage location, status while the original file contains the actual content of the document.

Document info record mainly consists of descriptive data such as description, control data such as status, original application data.

**Document**  
 Document 600089 Part 000 Version 00  
 Deletion Flag Document Structure Hierarchy

**Document Data** | Addnl Data | Descriptions | Object Links | Originals

**Document Data**  
 Description BOX 12/14 OZ BROWNULATED  
 Document Status NR | NEW REQUEST Not Released  
 CM Relevnce  
 User EVANST Theresa Evans , CMDM - Centr  
 Lab/Office  
 Change Number Valid From  
 Authorization Group

**Superior Document**  
 Document Type Part Version

**Originals**

| Appl. | Application   | Storage Cat. |
|-------|---------------|--------------|
| ZPD   | Adobe Acrobat | SAP-SYSTEM   |

Documents are identified in the SAP system using following document key fields.

### Document Number

Document number in short identifies the document as the main part of the key. The document number is an alpha numeric field which can be 25 characters long. The type of number assignment can be either internal assignment number or mixed assignment number. This is configured under document types.

### Document Types

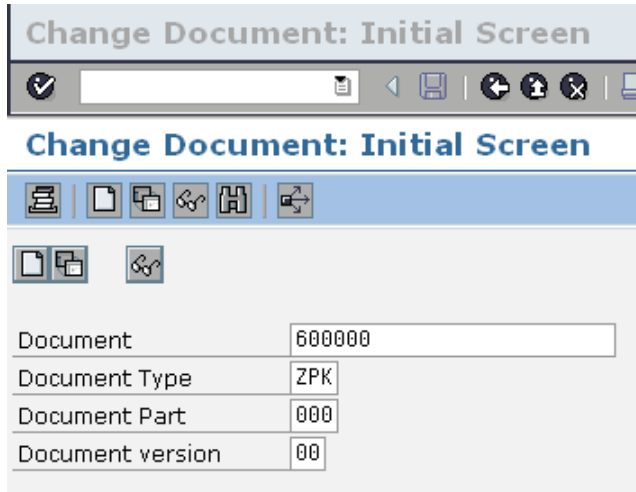
Document types are used to categories documents according to their distinguishing features. Document type is an alpha numeric field which can be up to 3 characters. For document type we need to maintain control aspects such as type of number assignment, number range, and storage in knowledge provider.

### Document Parts

Document parts further subdivide a document into several documents. Document parts can used to enter different sheets of a complex design for a document number. Document parts can also be used to maintain documents in different languages.

## Document Version

Document versions are used to represent the different change or delivery statuses of a document.



**Change Document: Initial Screen**

Document 600000

Document Type ZPK

Document Part 000

Document version 00

## Scenario

To migrate the Document Info Record including originals from one system to another system. Here in this case the criticality is that the attachments are also to be uploaded in the new system and the best approach to do this would be ALE method.

## ALE Configuration

Create RFC destination in the source system. Go to transaction SM59. Input the IP address of the destination system.

### Configurations on the Source System

The screenshot displays the SAP SM59 transaction interface for configuring an RFC destination. The main window is titled "Configuration of RFC Connections". Below the title bar, there is a list of connection categories:


| RFC Connections             | Type | Comment |
|-----------------------------|------|---------|
| ABAP Connections            | 3    |         |
| Internal Connections        | I    |         |
| Logical Connections         | L    |         |
| TCP/IP connections          | T    |         |
| Connections via ABAP Driver | X    |         |

The selected destination is "QDF-100". The configuration details are as follows:

- Remote Logon**: Connection Test, Unicode Test
- RFC Destination**: QDF-100
- Connection Type**: 3 ABAP Connection
- Description**:
  - Description 1: QDF-100
  - Description 2:
  - Description 3:
- Administration**: Technical Settings, Logon & Security, MDMP & Unicode
- Target System Settings**:
  - Load Balancing Status**: Load Balancing  Yes  No
  - Target Host**: [Redacted] **System Number**: [Redacted]
  - Save to Database as**: Save as  Hostname  IP Address [Redacted]
- Gateway Options**:
  - Gateway Host**: [Redacted]
  - Gateway service**: [Redacted]
  - Delete**: [Button]

Provide the logon details, username and password to access the destination system from source system. Try Remote logon option to check if the connection is established between both the systems.

### RFC Destination QDF-100

Remote Logon Connection Test Unicode Test 

RFC Destination


Connection Type  ABAP Connection Description

Description

Description 1

Description 2

Description 3


Administration Technical Settings **Logon & Security** MDMP & Unicode 

Security Options

Trusted System/Logon Screen Status

Trusted System  No  Yes  Logon Screen

Status of Secure Protocol

  Inactive  Active

Authorization for Destination

Logon

Language

Client

User   Current User

PW Status

Create Transactional RFC port using transaction WE21.

The screenshot shows the 'Ports in IDoc processing' window. On the left, a tree view shows 'Ports' > 'Transactional RFC' with a list of ports. 'A000002016' is selected and highlighted in yellow. The main area shows the configuration for this port:

- Port: A000002016
- Description: QDF Client 100
- Version:
  - IDoc rec.types SAP Release 3.0/3.1
  - IDoc record types SAP Release 4.x
- RFC destination: QDF-100

Add the message type DOCMAS in the outbound parameters using transaction WE20.

The screenshot shows the 'Partner profiles' window for partner 'QDF-100'. The left tree view shows 'Partner Profiles' > 'Partner Type LS' > 'QDF-100' selected. The main area shows the partner details and configuration:

- Partner No.: QDF-100 (PDF Client 100)
- Partn.Type: LS (Logical system)
- Post processing: permitted agent
- Classification: ...
- Ty.: US (User)
- Agent: CPICUSER (CPICUSER)
- Lang.: EN (English)
- Outbound parmtrs. table:
 

| Partner R... | Message Type | Message v... | MessageFu... | Test                     |
|--------------|--------------|--------------|--------------|--------------------------|
|              | DOCMAS       |              |              | <input type="checkbox"/> |
|              | SHPMNT       |              |              | <input type="checkbox"/> |
|              | SYNCH        |              |              | <input type="checkbox"/> |
|              | WHSORD       |              |              | <input type="checkbox"/> |



Specify Receiver port i.e. transactional RFC destination, message type and basic type. Message type would be DOCMAS for documents and basic type would be DOCMAS05.

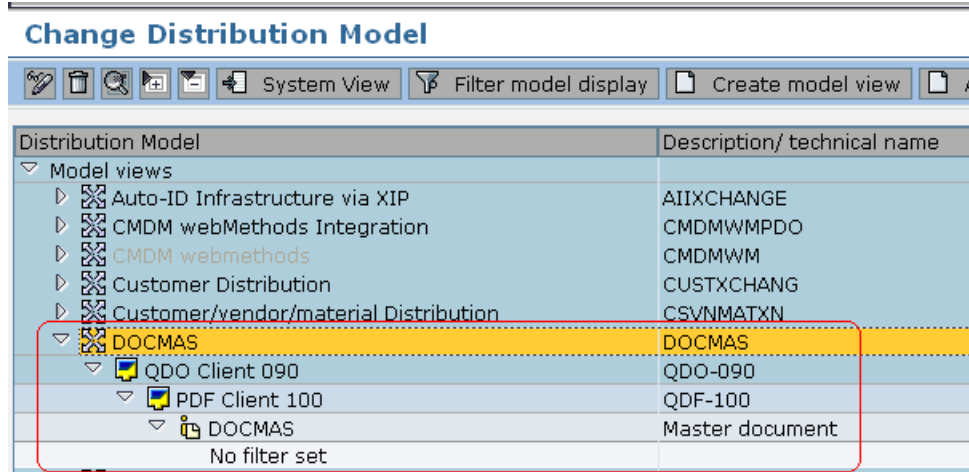
## Partner profiles: Outbound parameters

|                  |           |                               |
|------------------|-----------|-------------------------------|
| Partner No.      | QDF - 100 | PDF Client 100                |
| Partn.Type       | LS        | Logical system                |
| Partner Role     |           |                               |
| Message Type     | DOCMAS    | Master document               |
| Message code     |           |                               |
| Message function |           | <input type="checkbox"/> Test |

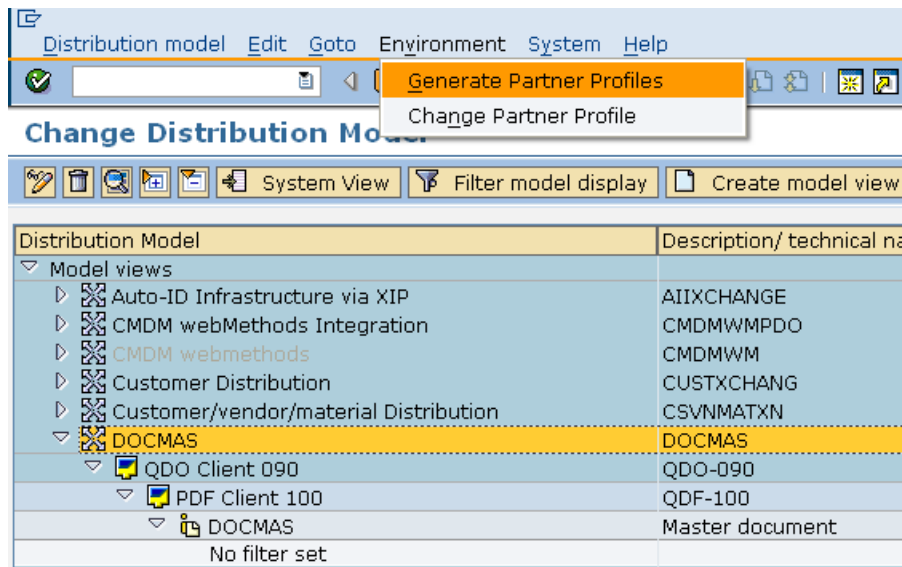
  

|  |            |                         |                 |  |  |                                  |  |  |
|--|------------|-------------------------|-----------------|--|--|----------------------------------|--|--|
| Outbound Options   |            |                         | Message Control |  |  | Post Processing: Permitted Agent |  |  |
| Receiver port  | A000002016 | Transactional RFC       | QDF Client 100  |  |  |                                  |  |  |
| Pack. Size   | 1          |                         |                 |  |  |                                  |  |  |
| <input type="checkbox"/> Queue Processing                                |            |                         |                 |  |  |                                  |  |  |
| Output Mode  |            |                         |                 |  |  |                                  |  |  |
| <input checked="" type="radio"/> Transfer IDoc Immed.                    |            |                         |                 |  |  | Output Mode 2                    |  |  |
| <input type="radio"/> Collect IDocs                                      |            |                         |                 |  |  |                                  |  |  |
| IDoc Type  |            |                         |                 |  |  |                                  |  |  |
| Basic type   | DOCMAS05   | Documents with UPS Link |                 |  |  |                                  |  |  |
| Extension  |            |                         |                 |  |  |                                  |  |  |
| View   |            |                         |                 |  |  |                                  |  |  |
| <input checked="" type="checkbox"/> Cancel Processing After Syntax Error |            |                         |                 |  |  |                                  |  |  |
| Seg. release in IDoc type  |            | Segment Appl. Rel.      |                 |  |  |                                  |  |  |

Create a distribution model using transaction BD64. Add the sender system and receiver system and the message type in the model.



Go to Environment and generate partner profiles.



## Generate Partner Profile

Model View  to    
 Partner System  to    
 Check Run

**Default Parameters for Partner Profile**

**Postprocessing: Authorized Users**

Ty.  User  
 ID

**Outb. Parameters**

Version  IDoc record types from Version 4.0 onwards  
 Pack. Size  IDocs

**Output Mode**

Transfer IDoc immediately  
 Collect IDocs and transfer

**Inb. Parameters**

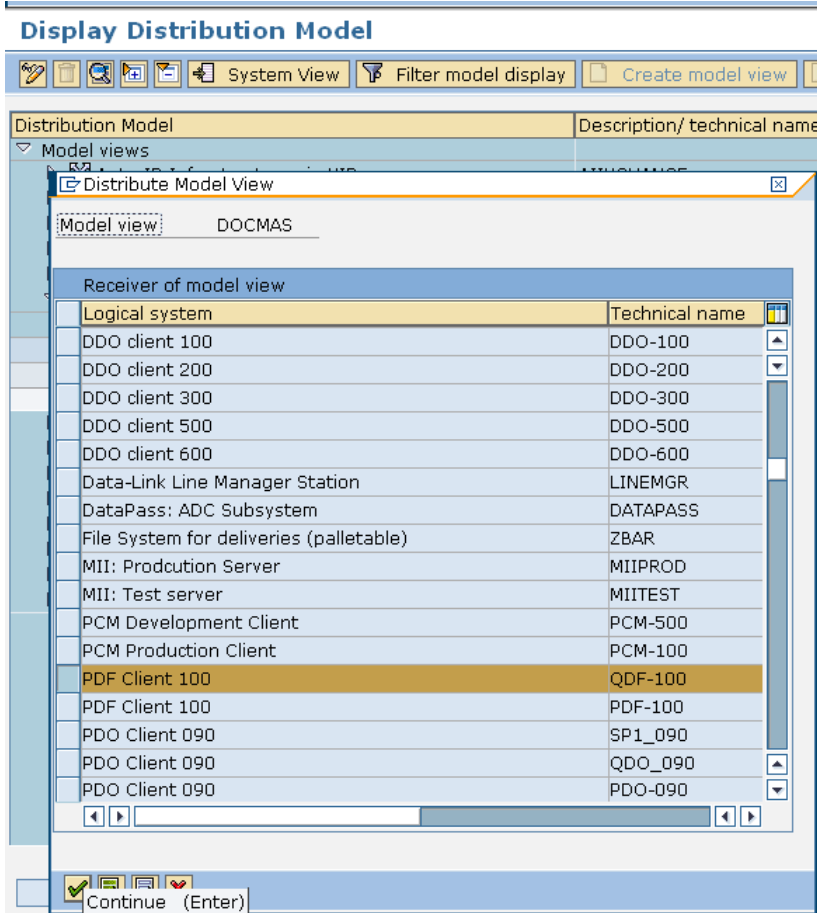
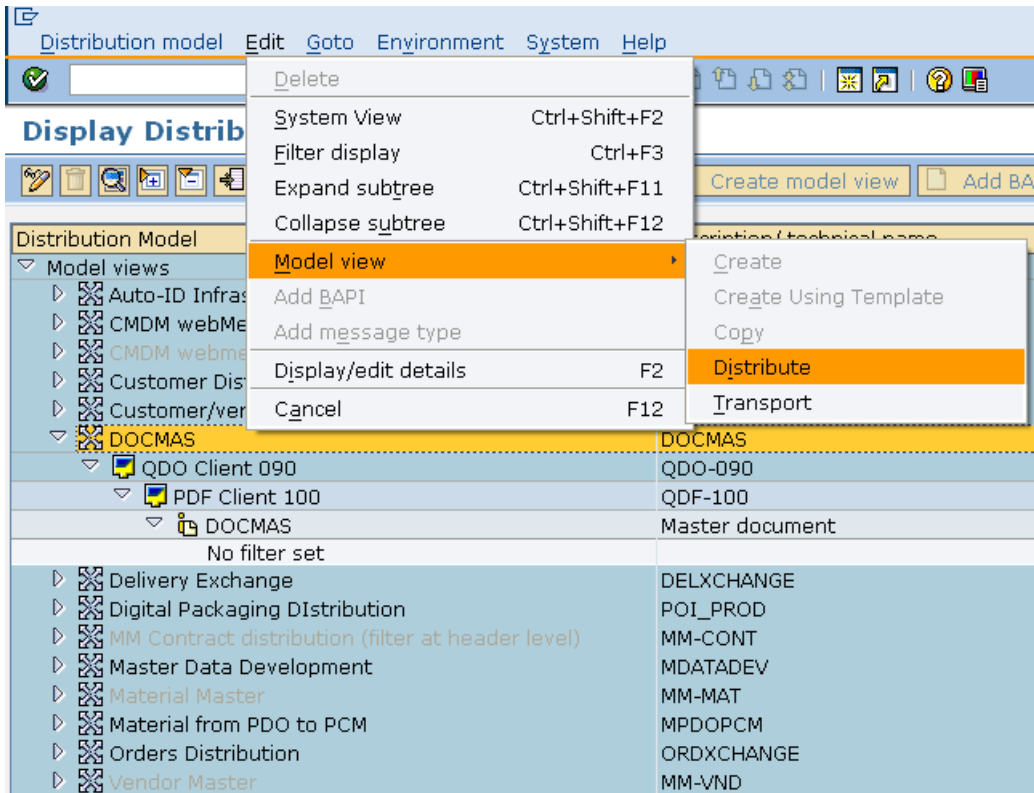
**Processing**

Trigger immediately  
 Trigger by background program

## Generate Partner Profile

| Log for Partner Profile Generation |   |
|------------------------------------|---|
| <b>Partner</b>                     |   |
| System QDF-100                     | System QDF-100 as a partner type already exists   |
| System QD0-090                     | System QD0-090 as a partner type already exists   |
| <b>Port</b>                        |   |
| System QDF-100                     | Port A000002016 with RFC destination QDF-100 already exists   |
| <b>Outb. Parameters</b>            |   |
| System QDF-100                     | Outbound parameters for message type DOCMAS DOCMAS05 already exist<br>Outbound parameters for message type SYNCH SYNCHRON already exist |

Now distribute the Model View so that it is distributed to the destination system.



## Configurations on the Target System

Once you distribute the model view, it is distributed in the destination system. Add DOCMAS in the inbound parameters of the source logical system. Use process code as DOCM.

### Partner profiles

Partner No. QDO-090 PDO Client 090  
 Parth.Type LS Logical system

Post processing: permitted agent    Classificat...

Ty. US    User  
 Agent MORLEYR    Ruth Morley  
 Lang. EN    English

Outbound parmtrs.

| Partner R... | Message Type   | Message v... | MessageFu... | Test                     |
|--------------|----------------|--------------|--------------|--------------------------|
|              | ACC_GL_POSTING |              |              | <input type="checkbox"/> |

Inbound parmtrs.

| Partner R... | Message Type | Message v... | MessageFu... | Test                     |
|--------------|--------------|--------------|--------------|--------------------------|
|              | BLAORD       |              |              | <input type="checkbox"/> |
|              | CLFMAS       |              |              | <input type="checkbox"/> |
|              | DOCMAS       |              |              | <input type="checkbox"/> |
|              | MATMAS       |              |              | <input type="checkbox"/> |

### Partner profiles: Inbound parameters

Partner No. QDO-090 PDO Client 090  
 Parth.Type LS Logical system  
 Partner Role

Message type **DOCMAS** Master document  
 Message code  
 Message function  Test

Inbound options    Post processing: permitted agent    Telephony

Process code **DOCM**    DOCMAS Documents  
 Cancel Processing After Syntax Error

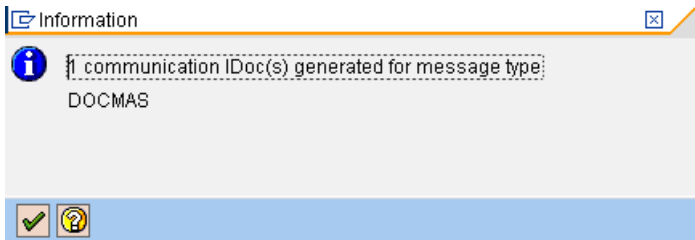
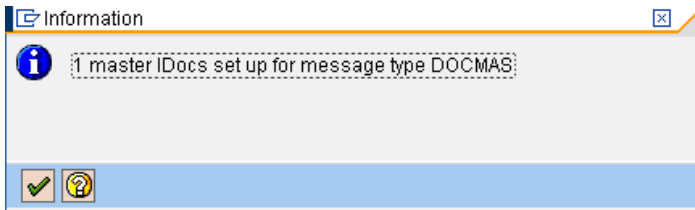
Processing by Function Module  
 Trigger by background program  
 Trigger Immediately

## Steps to Transfer DIR

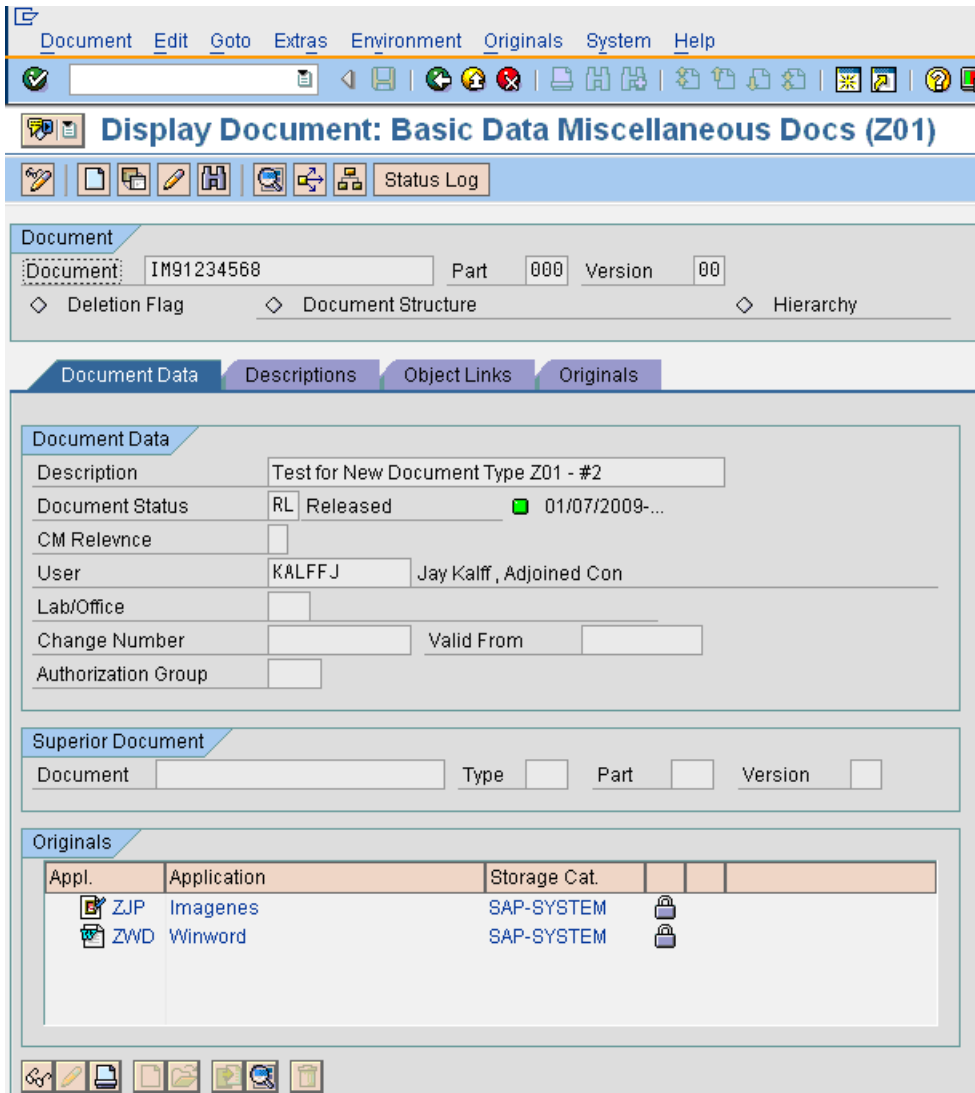
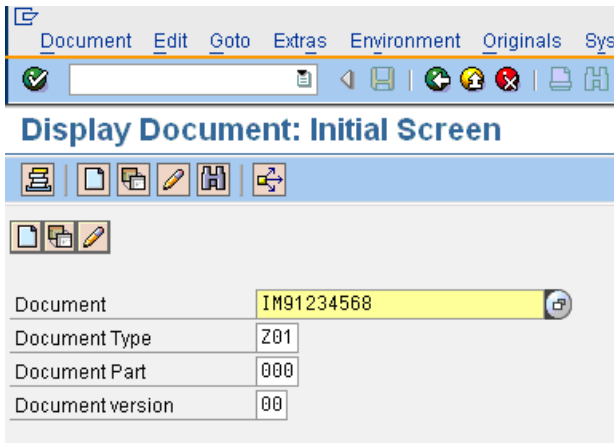
We can use transaction BDA5 to transfer DIR from one system to other. You need to input Document number, document type, document part, document version and logical system where the DIR is to be transferred.

The screenshot shows the SAP transaction BDA5 'Send Documents Directly'. The interface includes a menu bar (Program, Edit, Goto, System, Help) and a toolbar with various icons. The main area is divided into three sections:

- Document Data:**
  - Document: IM91234568
  - Document Type: Z01
  - Document Part: 000
  - Document version: 00
  - Ignore Distribution Lock
- Target Sys:**
  - Logical system: [Redacted]
- Parallel Processing:**
  - Server Group: [Empty]
  - No. of Documents per Process: 20

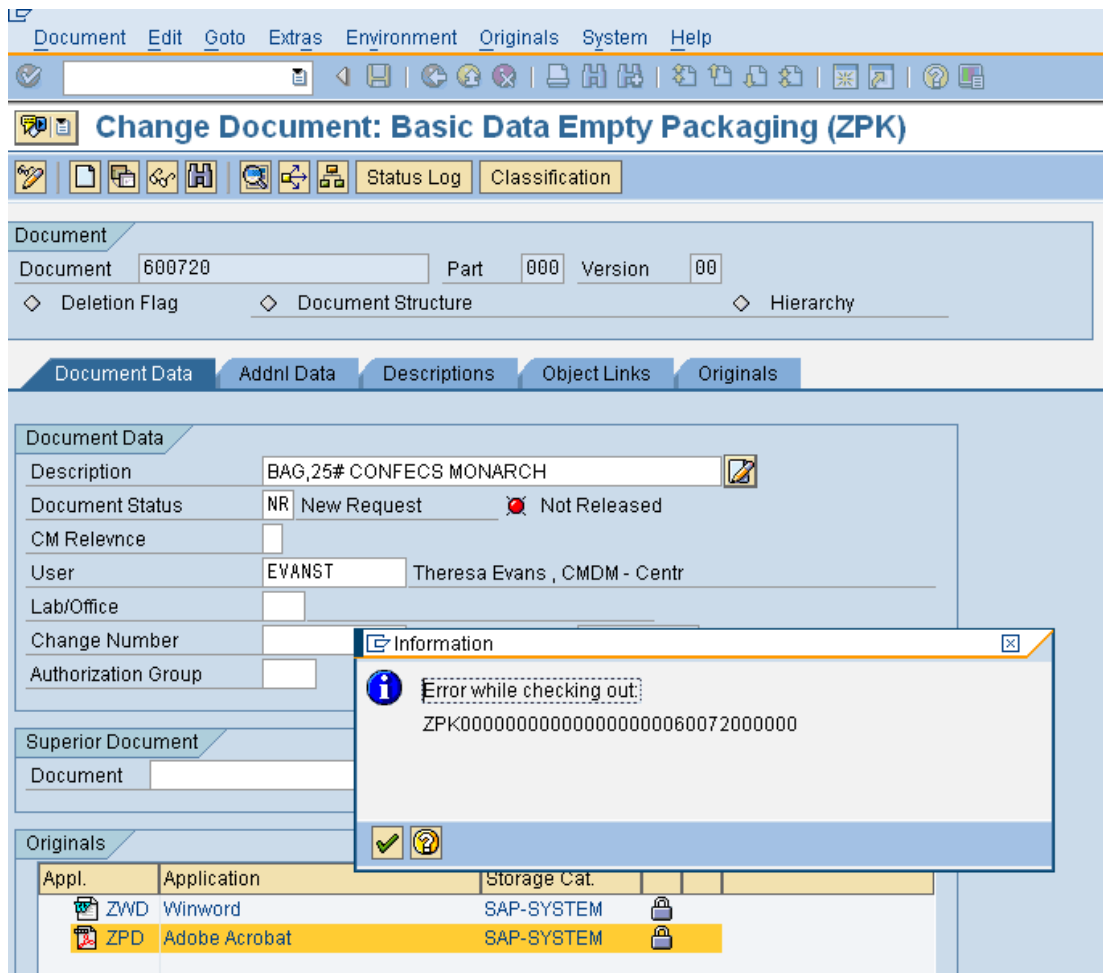


Check in CV03N for DIR in the target system.



## Problem Encountered

When we transfer the document info record using IDOC method, we might encounter error while opening the originals. I would give an error saying "Error while checking out:"





## Reasons & Solution

When we debug in the destination system while opening the attachment, it can be understood that the error is because the system was not able to find the data for the attachments. This data is contained in the DRAO database table.

### Maintain RFC Destination in Target System

You need to maintain an RFC destination in the target system with the credentials of the source system. While transferring of document info record, there should be a two way connection between the systems to exchange data. Also save the default login credentials to be used during data exchange.

**RFC Destination QDO - 090**

Remote Logon   Connection Test   Unicode Test

RFC Destination: QDO - 090

Connection Type: 3 ABAP Connection   Description

Description

Description 1: QDO

Description 2:

Description 3:

Administration   Technical Settings   **Logon & Security**   MDMP & Unicode

Trusted System:  No    Yes    Logon Screen

Status of Secure Protocol

SNC:  Inactive    Active

Authorization for Destination:

Logon

Language: EN

Client: 090

User: [REDACTED]    Current User

PW Status: saved

Password: [REDACTED]

## Define transport of Originals for ALE

**Display IMG**

Existing BC Sets | BC Sets for Activity | Activated BC

Structure

- SAP Customizing Implementation Guide
  - Activate Business Functions
    - SAP NetWeaver
    - Enterprise Structure
    - Cross-Application Components
      - Notification
      - European Monetary Union: Euro
      - Document Management
        - Control Data
          - Define Number Ranges for Document Numbers
          - Define Document Types**
          - Maintain Screen for Object Link
          - Maintain Key Fields
          - Define Revision Levels
          - Maintain Role
        - General Data

### Change View "Define document types": Overview

New Entries

Dialog Structure

- Define document type
  - Define language-...
  - Define document
    - Display langua...
    - Define object link:
      - Define transport of originals for ALE:ts**
      - Maintain object link d...
      - Define document stat...

| Ty. | Document type desc.  | Status Chan...           | Rev.asgmt                | Vers.asgmt                          | Chg. doc.                           | Arch.autht               |
|-----|----------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| TLD | TLNA Documents       | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Z01 | Miscellaneous Docs   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| ZAS | American Sugar Docum | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ZPK | Empty Packaging      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Change View "Define transport of originals for ALE": Overview

New Entries

Dialog Structure

- Define document type
  - Define language-...
  - Define document
    - Display langua...
    - Define object link:
      - Define transport o**
      - Maintain object link d...
      - Define document stat...

| Ty. | Data Carr.  | A... |
|-----|-------------|------|
| ZPK | SAP-SYSTEM* |      |

## Related Content

[Document: IDoc Type DOCMAS04](#)

[Document does not exist in the target system](#)

For more information, visit the [ABAP homepage](#).

## Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.