

# Merge PDF files in ABAP



## Applies to:

SAP Net Weaver 7.0, ABAP. For more information, visit the [ABAP homepage](#).

## Summary

This article explains how to merge PDF files using an external non SAP solution from ABAP.

**Author:** Krisztian Katona

**Company:** Swisscom

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## Author Bio



Krisztian Katona is working as SAP developer at Swisscom specialized to technologies as ABAP Objects, WebDynpro and Process Integration.

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## Introduction

This article will show you how to merge two or more PDF files into one using ABAP. As the ABAP language or the integrated Adobe Document Services does not support PDF merge operations hence we have to use [PDFTK](#) which is an external non SAP solution for PDF manipulation and `ZCL_PDF_MERGE` an ABAP class to manage the merging process.

## How does it work

The PDFTK based merge process consist the following steps:

- The source PDF files are written to a temporary directory on the SAP application server (class `ZCL_PDF_MERGE`)
- Run PDFTK to merge the PDF files and save the merged file
- Read the merged PDF file and forward it to the ABAP program (class `ZCL_PDF_MERGE`)

## How to set up the environment

This document will describe the process to set up the SAP PDF merging environment on Linux machines. As PDFTK is an open source cross-platform product, it is also possible to set up the environment in different operating systems but it is out of the scope of this article.

### Step 1: Installing PDFTK

Download the [PDFTK binary](#) and install it onto the SAP application server. Make sure the binary is on the PATH and the user of the SAP installation has the execution right.

As SAP cannot handle the asterix character when executing external OS commands we have to use a shell script as a transient layer. Create a shell script called `runpdftk.sh` and place it into the application server. The shell script should have the following content:

```
#!/bin/sh
exec "/usr/local/bin/pdftk" $1*.pdf cat output $2
```

## Step 2: Setting up the external execution of PDFTK

Go to transaction SM49.

Press the create button and add the new command ZPDFMERGE

The screenshot shows the SAP SM49 transaction interface. The title bar reads "Change Command 'ZPDFMERGE' for 'Linux'". The interface is divided into several sections:

- Command:**
  - Command name: ZPDFMERGE
  - Operating system: Linux
  - Type: Customer
- Create and Last Change:**
  - Created by: TGEKAKR1
  - Created on: 15.07.2010
  - Created at: 10:21:55
  - Last changed by: TGEKAKR1
  - Last changed on: 06.08.2010
  - Last changed at: 09:24:04
- Definition:**
  - Operating system command: /usr/sap/trans/bin/runpdftk.sh
  - Parameters for operating system command: (empty field)
  - Additional Parameters Allowed
  - Trace
  - Check module: (empty field)

Write the absolute path of the shell script you created in the previous step into the *Operating system command* field.

Check *Additional Parameters Allowed*

Save your changes

To run external OS commands authorization object S\_LOG\_COM (COMMAND=ZPDFMERGE OPSYSTEM=Linux HOST=\*) is necessary.

### Step 3: Define a temporary directory path in SAP

This will be a directory in the application server to store temporary files for the merge operation.

Go to transaction FILE

Click on the New Entries button and add the logical path ZPDFMERGE

**Change View "Logical File Path Definition": Overview**

New Entries

Dialog Structure

- Logical File Path Definition
  - Assignment of Physical Paths to Logical Path
  - Logical File Name Definition
  - Definition of Variables
  - Syntax Group Definition
  - Assignment of Operating System

Create a logical file path

Logical file path	Name
ZPDFMERGE	
Z_DATA_MIGRATION_LOGICAL_PATH	Logical Path for data Migration
Z_LSMW	Logical file path for Ismw

Position...

Entry 151 of 153

Double click on the Assignment of Physical Paths to Logical Path label on the tree structure and add the following Physical path: /tmp/<FILENAME>

Table View Edit Goto Selection Utilities System Help

**Change View "Assignment of Physical Paths to Logical Path": Details**

New Entries

Dialog Structure

- Logical File Path Definition
  - Assignment of Physical Paths to Logical Path
  - Logical File Name Definition
  - Definition of Variables
  - Syntax Group Definition
  - Assignment of Operating System

Logical path: ZPDFMERGE

Name:

---

Syntax group: UNIX Unix compatible

Physical path: /tmp/ <FILENAME>

#### Step 4: Set up number range

A number range will be used to compose the name of the temporary files.

Go to transaction SNRO

Create number range object ZPDFMERGE.

Create a number range (by clicking on the Number ranges label on the toolbar) with the following parameters:

Add new interval to the number range.

You can do this by pressing the number range button on the SNRO screen.

N.	From number	To number	Current number	E.
1	0000000001	9999999999	2351	<input type="checkbox"/>

#### Step 5: Installing ZCL\_PDF\_MERGE

Download and install ZCL\_PDF\_MERGE SAP nugget from <http://code.google.com/p/sappdfmerge/> and install it using [SAPLINK](#). For documentation on using SAPLINK check this [link](#).

## ABAP Code example

### Merging individual PDFs into a new PDF

The following code sample illustrates how to use ZCL\_PDF\_MERGE class for a PDF merge operation.

```
DATA: lo_pdfmerge TYPE REF TO zcl_pdf_merge,  
      lv_pdf_merged TYPE xstring,  
      lv_pdf TYPE xstring.  
  
[...]  
  
CREATE OBJECT lo_pdfmerge.  
  
LOOP AT lt_pdf INTO lv_pdf.  
  
    lo_pdfmerge->add_pdf( lv_pdf ).  
  
ENDLOOP.  
  
lv_pdf_merged = lo_pdfmerge->get_merged( ).
```

You can call the ADD\_PDF method and add PDF pages one by one in XSTRING format. Finally call the GET\_MERGED method



## Related Content

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

[PDF files in SAP](#)

[Offline Interactive Forms Using ABAP](#)

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