

konvertierenimFlug

TUTORIAL

3-HEIGHTS™ DOCUMENT CONVERTER WEBSERVICE CLIENT INTEGRATION INTO SAP ABAP

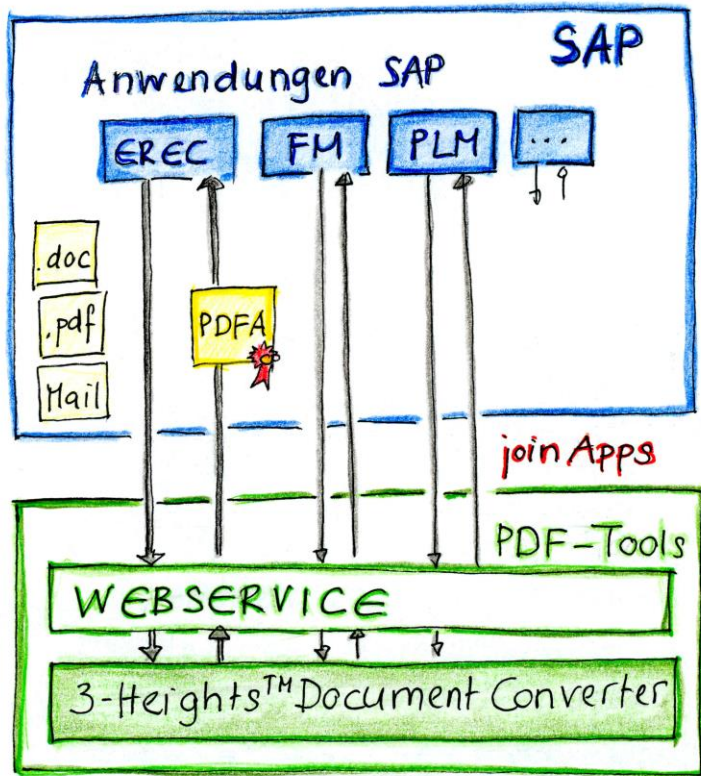
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1 **INTRODUCTION**

The web service client of the 3-Heights™ Document Converter Webservice provides document conversion services to SOAP based client applications. This tutorial shows the steps needed to integrate the 3-Heights™ Document Converter Webservice into the SAP ABAP environment.



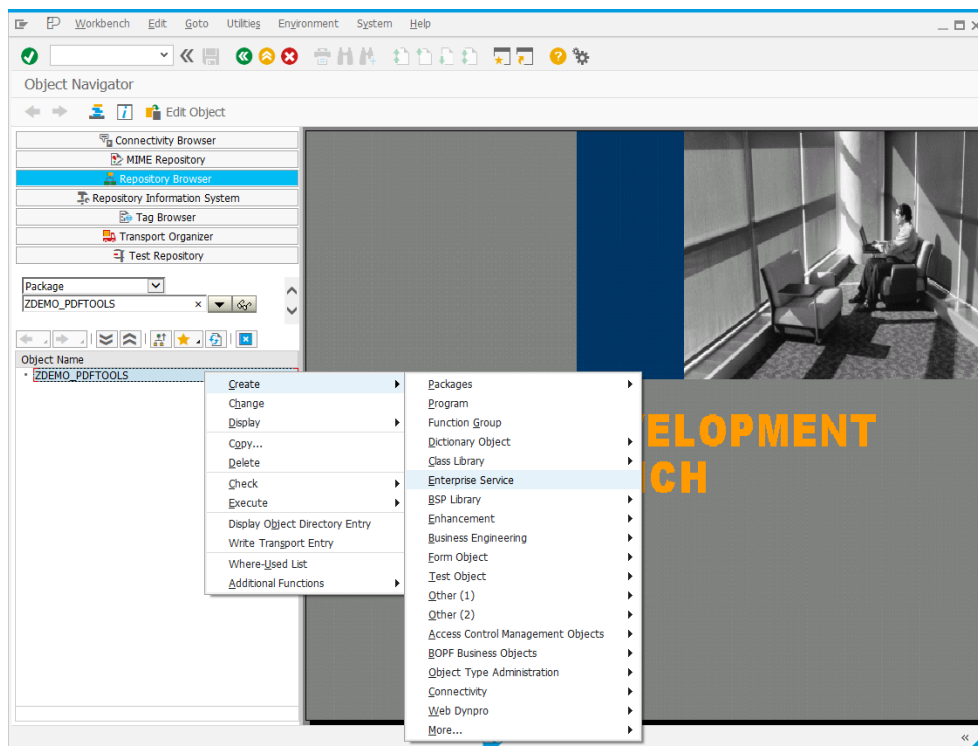
2 **PREREQUISITES**

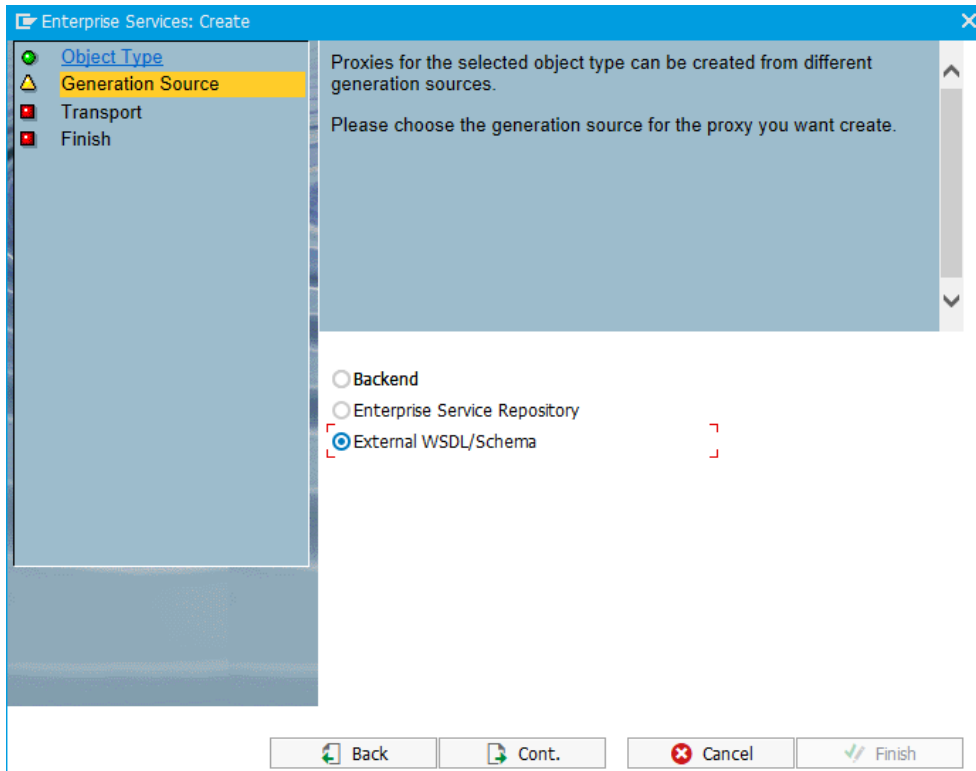
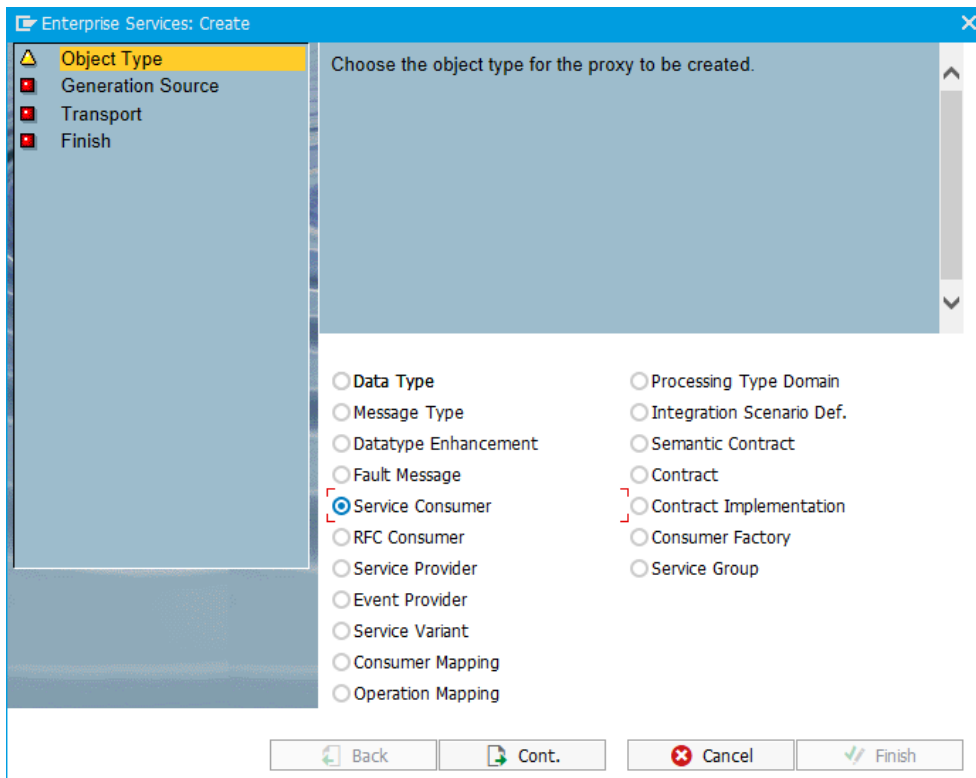
The 3-Heights™ Document Converter Webservice is accessible by the SAP Application Server on http resp. https port (check possible firewall constraints).

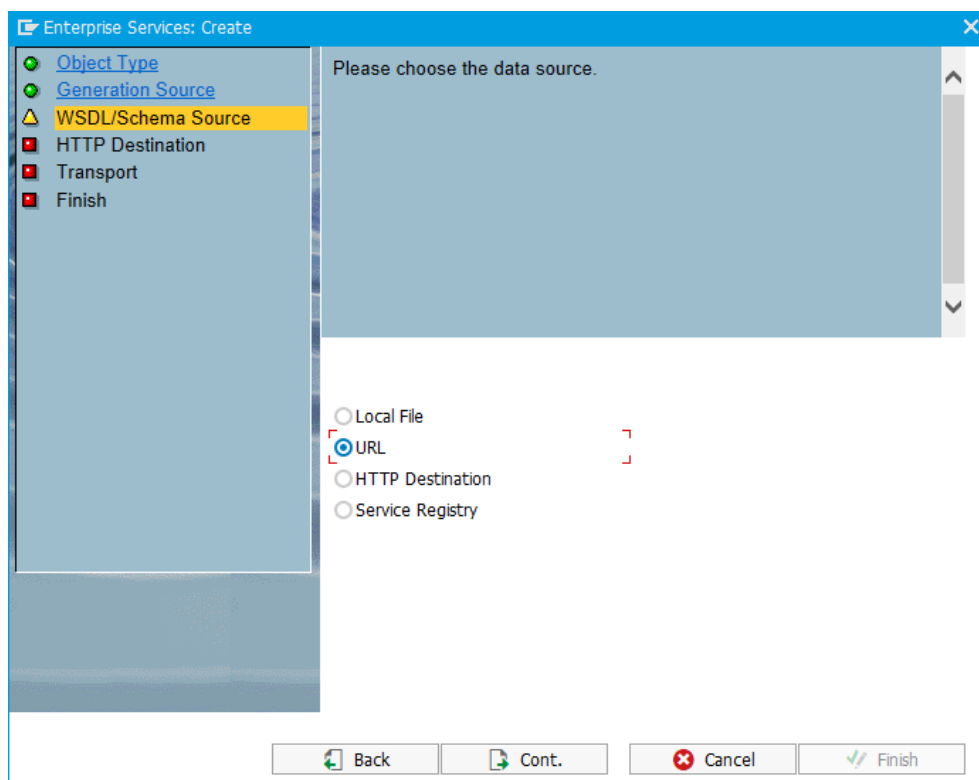
3 STEP PER STEP TECHNICAL GUIDE

3.1 Enterprise Service Proxy

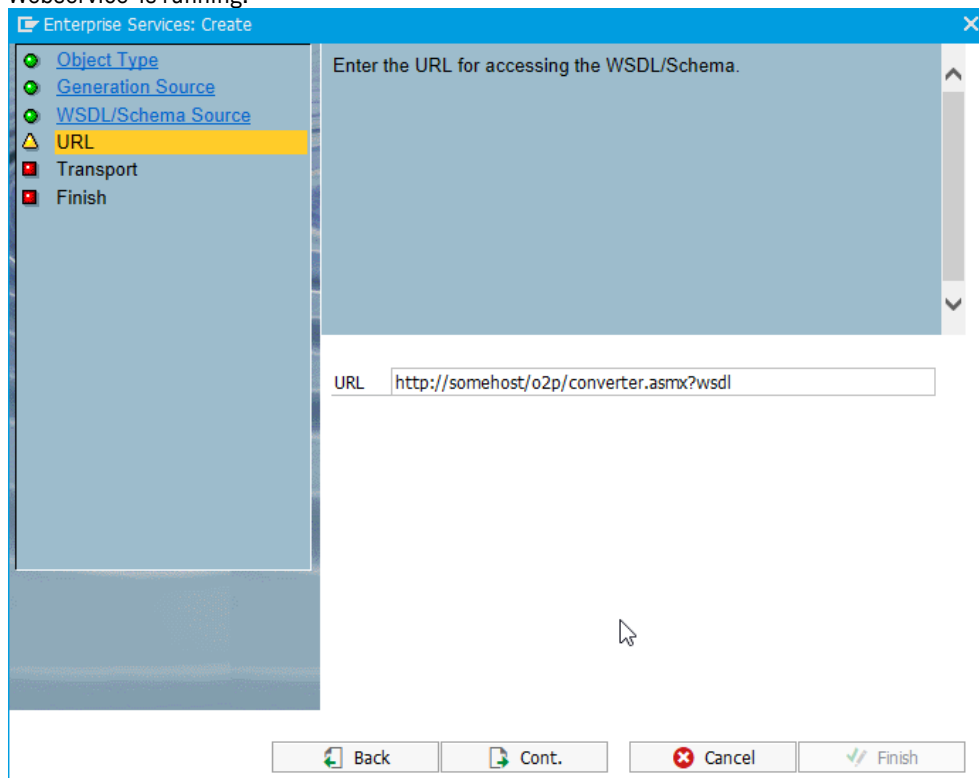
Create an Enterprise Service Proxy within the Object Navigator (transaction SE80) by using the corresponding wizard:







Replace 'somehost' with the hostname of the server on which the 3-Heights™ Document Converter Webservice is running.



Enterprise Services: Create

- Object Type
- Generation Source
- WSDL/Schema Source
- URL
- Transport**
- Finish

Enter the package for the new object or check Local Object to use \$TMP.
If already known you may enter the request to be used.
For proxy objects you have the option to specify a prefix.

Local Object

Package	ZDEMO_PDFTOOLS
Request/Task	JM7K900828
Prefix	ZDEMO_

Back Cont. Cancel Finish

3.2 Sample Program

```

*&-----*
*& Report  ZDEMO_CONVERT_DOCUMENT
*&
*&-----*
*& This abap sample shows how to use the Document Converter web service
*& interface.
*& Prerequisites for this program to run:
*& For the service consumer proxy ZDEMO_CO_CONVERTER_SOAP a logical
*& portname 'ZDEMO_CONVERTER' has been defined in SOA Management.
*&-----*
REPORT zdemo_convert_document.

TYPES data_line TYPE x LENGTH 255.

DATA: lt_file_table TYPE filetable,

*   Filenames ans paths
    l_file_str_in TYPE string,
    l_file_str_out TYPE string,
    l_file_path_in TYPE draw-filep,
    l_path_in TYPE draw-filep,
    l_file_in TYPE draw-filep,
    l_file_pure_in TYPE draw-filep,

*   File data
    ls_data_line TYPE data_line,
    lt_data_tab_in TYPE STANDARD TABLE OF data_line WITH EMPTY KEY,
    lt_data_tab_out TYPE STANDARD TABLE OF data_line WITH EMPTY KEY,
    l_stream_in TYPE xstring,
    l_stream_out TYPE xstring,
    l_len TYPE i,

*   Converter
    lc_conv TYPE REF TO zdemo_co_converter_soap,
    ls_soa_in TYPE zdemo_convert_file_soap_in,
    ls_soa_out TYPE zdemo_convert_file_soap_out,
    l_options TYPE string,
    l_final_msg TYPE string,
    l_rc TYPE i.

```

```
* Choose file to convert using dialog
CALL METHOD cl_gui_frontend_services=>file_open_dialog
  EXPORTING
    window_title      = 'Choose file to convert'
    file_filter        = '*'
    initial_directory  = 'C:\TEMP'
    multiselection     = ' '
  CHANGING
    file_table         = lt_file_table
    rc                 = l_rc
  EXCEPTIONS
    file_open_dialog_failed = 1
    cntl_error              = 2
    error_no_gui            = 3
    not_supported_by_gui    = 4
    OTHERS                  = 5.
IF sy-subrc = 0.
  READ TABLE lt_file_table INTO l_file_str_in INDEX 1.
ENDIF.

* Load file from client
IF l_file_str_in IS NOT INITIAL.
  CALL FUNCTION 'GUI_UPLOAD'
    EXPORTING
      filename          = l_file_str_in
      filetype          = 'BIN'
    IMPORTING
      filelength        = l_len
    TABLES
      data_tab          = lt_data_tab_in
    EXCEPTIONS
      file_open_error   = 1
      file_read_error   = 2
      no_batch          = 3
      gui_refuse_filetransfer = 4
      invalid_type      = 5
      no_authority      = 6
      unknown_error     = 7
      bad_data_format   = 8
      header_not_allowed = 9
      separator_not_allowed = 10
      header_too_long   = 11
      unknown_dp_error  = 12
      access_denied     = 13
      dp_out_of_memory  = 14
      disk_full         = 15
      dp_timeout        = 16
      OTHERS            = 17.
```


* Create instance of the proxy class

```
TRY.  
    CREATE OBJECT lc_conv  
        EXPORTING  
            logical_port_name = 'ZDEMO_CONVERTER'.  
CATCH cx_ai_system_fault .  
    MESSAGE 'Error: no connection to converter could be established ' TYPE 'I'.  
    RETURN.  
ENDTRY.
```

* Do some preparations for the service request

```
" Build xstring for the given data  
CLEAR l_stream_in.  
LOOP AT lt_data_tab_in INTO ls_data_line.  
    CONCATENATE l_stream_in ls_data_line INTO l_stream_in IN BYTE MODE.  
ENDLOOP.  
l_stream_in = l_stream_in(l_len).
```

" get filename and path of the given file

```
l_file_path_in = l_file_str_in.  
CALL FUNCTION 'CV120_SPLIT_PATH'  
    EXPORTING  
        pf_path = l_file_path_in  
    IMPORTING  
        pfx_path = l_path_in  
        pfx_file = l_file_in.
```

```
CALL FUNCTION 'CV120_SPLIT_FILE'  
    EXPORTING  
        pf_file = l_file_in " File Name  
    IMPORTING  
        pfx_file = l_file_pure_in.
```

" Build job options

```
CONCATENATE 'ORIGINALNAME=' l_file_path_in INTO l_options.
```

```
ls_soa_in-doc_bytes = l_stream_in.  
ls_soa_in-options = l_options.
```

```
* Do conversion
TRY.
    lc_conv->convert_file(
        EXPORTING
            input          = ls_soa_in
            IMPORTING
            output         = ls_soa_out
        ).
    CATCH cx_ai_system_fault.
        MESSAGE 'Error: no connection to converter could be established ' TYPE 'I'.
        RETURN.
    ENDTRY.

IF ls_soa_out-convert_file_result-num_pages GT 0.
    l_stream_out = ls_soa_out-convert_file_result-document_bytes.
ELSE.
    MESSAGE ls_soa_out-convert_file_result-error_description TYPE 'I'.
ENDIF.

* Convert output to binary
CALL FUNCTION 'SCMS_XSTRING_TO_BINARY'
    EXPORTING
        buffer      = l_stream_out
    TABLES
        binary_tab = lt_data_tab_out.

* Set Output filename
CONCATENATE l_path_in l_file_pure_in '.pdf' INTO l_file_str_out.

* Download file to client
CALL METHOD cl_gui_frontend_services=>gui_download
    EXPORTING
        filename = l_file_str_out
        filetype = 'BIN'
    CHANGING
        data_tab = lt_data_tab_out
    EXCEPTIONS
        OTHERS   = 1.

* Show result in message dialog
CONCATENATE 'Conversion successfull: Check file ' l_file_str_out INTO l_final_msg RESPECTING BL
ANKS.
MESSAGE l_final_msg TYPE 'I'.

ENDIF.
```