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# FUNCTION MODULE FTP

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<https://belajarabap.wordpress.com/>

```
FUNCTION yfm_ftp.
*-----
*""Local Interface:
*"  IMPORTING
*"    REFERENCE(FI_USERNAME) TYPE  E_DEXCOMMUSERNAME
*"    REFERENCE(FI_PASSWORD) TYPE  WT_AUTHVAL
*"    REFERENCE(FI_HOST) TYPE  /ISDFPS/HOSTNAME
*"    REFERENCE(FI_RFCDEST) TYPE  RFCDES-RFCDEST DEFAULT 'SAPFTP'
*"    REFERENCE(FI_FOLDER_INBOUND) TYPE  SRMRGDESC
*"    REFERENCE(FI_FOLDER_OUTBOUND) TYPE  SRMRGDESC
*"  TABLES
*"    FT_RETURN STRUCTURE  TLINE
*-----

DATA: BEGIN OF lt_files OCCURS 0,
      line(128) TYPE c,
    END OF lt_files.

DATA: BEGIN OF lt_result OCCURS 0,
      line(128) TYPE c,
    END OF lt_result.

DATA: BEGIN OF lt_blob OCCURS 0,
      line(2250) TYPE x,
    END OF lt_blob.

DATA: BEGIN OF lt_text OCCURS 0,
      line(2250) TYPE c,
    END OF lt_text.

DATA:
ld_password TYPE wt_authval,
ld_handle   TYPE i,
ld_command  TYPE s_w3txt128,
ld_tabix    TYPE sy-tabix,
ld_bloblen  TYPE i,
ld_file_out TYPE c LENGTH 128,
ld_extention(128).
```

*\*\*Scramble the password provided in a format recognized by SAP.*

```
CALL FUNCTION 'SCRAMBLE_STRING'  
  EXPORTING  
    SOURCE = fi_password  
    key     = 26101957  
  IMPORTING  
    target = ld_password.
```

*\*\*Connect to the Server using FTP*

```
CALL FUNCTION 'FTP_CONNECT'  
  EXPORTING  
    user           = fi_username  
    password       = ld_password  
    host           = fi_host  
    rfc_destination = fi_rfcdst  
  IMPORTING  
    handle         = ld_handle  
  EXCEPTIONS  
    not_connected = 1  
    OTHERS        = 2.  
IF sy-subrc = 0.  
  ft_return-tdformat = 'S'.  
  ft_return-tdline   = 'FTP_CONNECT OK'.  
  APPEND ft_return.  
ELSE.  
  ft_return-tdformat = 'E'.  
  MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno  
    WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4  
    INTO ft_return-tdline.  
  APPEND ft_return.  
  RETURN.  
ENDIF.
```

*\*\*Accessing FTP Folder*

```
CONCATENATE '/' fi_folder_inbound INTO ld_command. CONDENSE ld_command.  
CONCATENATE 'cd' ld_command INTO ld_command SEPARATED BY space.
```

```

CALL FUNCTION 'FTP_COMMAND'
  EXPORTING
    handle      = ld_handle
    command     = ld_command
    compress    = 'N'
  TABLES
    data        = lt_result
  EXCEPTIONS
    tcpip_error = 1
    command_error = 2
    data_error  = 3
    OTHERS      = 4.
IF sy-subrc = 0.
  ft_return-tdformat = 'S'.
  ft_return-tdline   = 'Change folder directory OK'.
  APPEND ft_return.
ELSE.
  ft_return-tdformat = 'E'.
  MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
    WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
    INTO ft_return-tdline.
  APPEND ft_return.
  RETURN.
ENDIF.

**Accessing file in FTP Folder
CALL FUNCTION 'FTP_COMMAND'
  EXPORTING
    handle      = ld_handle
    command     = 'nlist'
  TABLES
    data        = lt_files
  EXCEPTIONS
    tcpip_error = 1
    command_error = 2
    data_error  = 3
    OTHERS      = 4.

IF sy-subrc = 0.
  ft_return-tdformat = 'S'.
  ft_return-tdline   = 'Get file from FTP server OK'.
  APPEND ft_return.
ELSE.

```

```

ft_return-tdformat = 'E'.
MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
      WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
      INTO ft_return-tdline.
APPEND ft_return.
RETURN.
ENDIF.

LOOP AT lt_files.
  TRANSLATE lt_files-line TO UPPER CASE.
  IF lt_files-line CP '*.TXT'.
    CONTINUE.
  ELSE.
    DELETE lt_files.
  ENDIF.
ENDLOOP.

IF lt_files[] IS INITIAL.
  ft_return-tdformat = 'E'.
  ft_return-tdline   = 'No text file to be proceed'.
  APPEND ft_return.
  RETURN.
ENDIF.

LOOP AT lt_files.
  ld_tabix = sy-tabix.

  IF ld_tabix GT 1.
    ****For 1st file, this command already execute above
    ****But for 2nd file and so on, needs to execute this command to
    ****change access its folder, because the access folder already change
    ****when execute outbound file

    CONCATENATE '/' fi_folder_inbound INTO ld_command. CONDENSE ld_command.
    CONCATENATE 'cd' ld_command INTO ld_command SEPARATED BY space.

```

```

CALL FUNCTION 'FTP_COMMAND'
  EXPORTING
    handle          = ld_handle
    command         = ld_command
    compress        = 'N'
  TABLES
    data            = lt_result
  EXCEPTIONS
    tcpip_error    = 1
    command_error  = 2
    data_error     = 3
    OTHERS         = 4.
IF sy-subrc = 0.
  ft_return-tdformat = 'S'.
  ft_return-tdline   = 'Change folder directory OK'.
  APPEND ft_return.
ELSE.
  ft_return-tdformat = 'E'.
  MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
    WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
    INTO ft_return-tdline.
  APPEND ft_return.
  CONTINUE.
ENDIF.
ENDIF.

```

\*\*\*Reading file

```

CALL FUNCTION 'FTP_SERVER_TO_R3'
  EXPORTING
    handle          = ld_handle
    fname           = lt_files-line
    character_mode  = 'X'
  IMPORTING
    blob_length    = ld_bloblen
  TABLES
    blob           = lt_blob
    text           = lt_text
  EXCEPTIONS
    tcpip_error    = 1
    command_error  = 2
    data_error     = 3
    OTHERS         = 4.
IF sy-subrc = 0.
  ft_return-tdformat = 'S'.
  ft_return-tdline   = 'Reading file OK'.

```

```

        APPEND ft_return.
ELSE.
    ft_return-tdformat = 'E'.
    MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
        WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
        INTO ft_return-tdline.
    APPEND ft_return.
    CONTINUE.
ENDIF.

*****
***** PUT YOUR LOGIC FOR DATA PROCESSING IN HERE *****
*****

****Delete file after processing
    CONCATENATE 'del' lt_files-line INTO ld_command SEPARATED BY space.

CALL FUNCTION 'FTP_COMMAND'
    EXPORTING
        handle          = ld_handle
        command         = ld_command
    TABLES
        data            = lt_result
    EXCEPTIONS
        tcpip_error    = 1
        command_error  = 2
        data_error     = 3
        OTHERS         = 4.
IF sy-subrc = 0.
    ft_return-tdformat = 'S'.
    ft_return-tdline   = 'Delete file OK'.
    APPEND ft_return.
ELSE.
    ft_return-tdformat = 'E'.
    MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
        WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
        INTO ft_return-tdline.
    APPEND ft_return.
    CONTINUE.
ENDIF.

****Change folder to outbound
    CONCATENATE '/' fi_folder_outbound INTO ld_command. CONDENSE ld_command.
    CONCATENATE 'cd' ld_command INTO ld_command SEPARATED BY space.

```

```

CALL FUNCTION 'FTP_COMMAND'
  EXPORTING
    handle          = ld_handle
    command         = ld_command
    compress        = 'N'
  TABLES
    data            = lt_result
  EXCEPTIONS
    tcpip_error    = 1
    command_error  = 2
    data_error     = 3
    OTHERS         = 4.
IF sy-subrc = 0.
  ft_return-tdformat = 'S'.
  ft_return-tdline   = 'Change to outbound folder directory OK'.
  APPEND ft_return.
ELSE.
  ft_return-tdformat = 'E'.
  MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
    WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
    INTO ft_return-tdline.
  APPEND ft_return.
  CONTINUE.
ENDIF.

****Write to FTP Server
SPLIT lt_files-line AT '.' INTO ld_file_out ld_extention.
CONCATENATE ld_file_out '_out_' sy-datum '.' ld_extention
INTO ld_file_out.

CALL FUNCTION 'FTP_R3_TO_SERVER'
  EXPORTING
    handle          = ld_handle
    fname           = ld_file_out
    blob_length     = ld_bloblen
    character_mode  = 'X'
  TABLES
    blob            = lt_blob
    text            = lt_text
  EXCEPTIONS
    tcpip_error    = 1
    command_error  = 2
    data_error     = 3
    OTHERS         = 4.
IF sy-subrc = 0.

```

```

        ft_return-tdformat = 'S'.
        ft_return-tdline   = 'Write file to outbound folder OK'.
        APPEND ft_return.
ELSE.
        ft_return-tdformat = 'E'.
        MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
                WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
                INTO ft_return-tdline.
        APPEND ft_return.
        CONTINUE.
ENDIF.

ENDLOOP.

**Disconnect the FTP
CALL FUNCTION 'FTP_DISCONNECT'
    EXPORTING
        handle = ld_handle.

CALL FUNCTION 'RFC_CONNECTION_CLOSE'
    EXPORTING
        destination = fi_rfcdst
    EXCEPTIONS
        OTHERS      = 1.
IF sy-subrc = 0.
    ft_return-tdformat = 'S'.
    ft_return-tdline   = 'Closes FTP connection OK'.
    APPEND ft_return.
ELSE.
    ft_return-tdformat = 'E'.
    MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
            WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4
            INTO ft_return-tdline.
    APPEND ft_return.
ENDIF.

ENDFUNCTION.

```