

ABAP Code Sample to Upload Data with Batch Data Communication and Display Result in Report Layout



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Applies to:

ABAP / BDC

Summary:

This ABAP code sample helps to explain in detail the Batch Data Communication through Call Transaction Method, then capturing the errors generated in the internal table and display the result in report layout.

By: Nitin Gupta, Wipro Technologies

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Code Sample

```
REPORT znit_bdc_assign
      NO STANDARD PAGE HEADING LINE-SIZE 255.

*   for programs doing a data transfer by creating a batch-input session
*   and
*   for programs doing a data transfer by CALL TRANSACTION USING

*****Here SESSION = ' ' and CTU = 'X'

DATA: ctumode LIKE ctu_params-dismode VALUE 'N' ,
      cupdate LIKE ctu_params-updmode VALUE 'L' ,
      e_group(12),           "group name of error-session
      e_user(12) ,           "user for error-session
      e_keep VALUE 'X',      "'X' = keep session if finished
      e_hdate LIKE sy-datum.
DATA: smallllog VALUE ' ' ,
      nodata VALUE '/'.
DATA: flag .

*****
*   DATA DECLARATION
*****
TYPES: begin of t_result,
        matnr(18) ,          "TYPE RMMG1-MATNR
```

```

        maktx(40) ,           "TYPE makt-maktx
        bismt(18) ,          "TYPE mara-bismt
        brgew(13) ,          "TYPE mara-brgew
        gewei(3) ,           "TYPE mara-gewei
        message(250),        "Message
    END OF t_result .

DATA : right TYPE STANDARD TABLE OF t_result ,
      wrong TYPE STANDARD TABLE OF t_result ,
      wa_result TYPE t_result .

*-----*
*  data definition
*-----*
*      Batchinputdata of single transaction
DATA:  bdcdata LIKE bdcdata   OCCURS 0 WITH HEADER LINE.
*      messages of call transaction
DATA:  messtab LIKE bdcmsgcoll OCCURS 0 WITH HEADER LINE.
*      error session opened ( ' ' or 'X')
DATA:  e_group_opened.
*      message texts
TABLES: t100.

*-----*
*INITIALIZATION
*-----*
INITIALIZATION.

    MOVE sy-uname TO e_user .

*-----*
*      Start new transaction according to parameters
*-----*
FORM bdc_transaction USING tcode.
    DATA: l_mstring(480).
    DATA: l_subrc LIKE sy-subrc.
*  batch input session

    REFRESH messtab.
    CALL TRANSACTION tcode USING bdcdata
        MODE ctumode
        UPDATE cupdate
        MESSAGES INTO messtab.

    l_subrc = sy-subrc.
    IF smalllog <> 'X'.
*      WRITE: / 'CALL_TRANSACTION',           "CH01

*          tcode,                             "CH01
*          'returncode:'(i05),                 "CH01
*          l_subrc,                             "CH01
*          'RECORD:',                           "CH01
*          sy-index.                           "CH01

    LOOP AT messtab.
        SELECT SINGLE * FROM t100 WHERE sprsl = messtab-msgspra
            AND arbgb = messtab-msgid

```

```

                                AND    msgnr = messtab-msgnr.
IF sy-subrc = 0.
  l_mstring = t100-text.
  IF l_mstring CS '&1'.
    REPLACE '&1' WITH messtab-msgv1 INTO l_mstring.
    REPLACE '&2' WITH messtab-msgv2 INTO l_mstring.
    REPLACE '&3' WITH messtab-msgv3 INTO l_mstring.
    REPLACE '&4' WITH messtab-msgv4 INTO l_mstring.
  ELSE.
    REPLACE '&' WITH messtab-msgv1 INTO l_mstring.
    REPLACE '&' WITH messtab-msgv2 INTO l_mstring.
    REPLACE '&' WITH messtab-msgv3 INTO l_mstring.
    REPLACE '&' WITH messtab-msgv4 INTO l_mstring.
  ENDIF.
  CONDENSE l_mstring.
*      WRITE: / messtab-msgtyp, l_mstring(250).
*****
  IF messtab-msgtyp = 'S' .    "If successfully uploaded CH01
    flag = '1' .
  ELSE .
    flag = '2' .    "if not succesfully uploaded CH01
  ENDIF.
  MOVE l_mstring TO wa_result-message .
*****
  ELSE.
    WRITE: / messtab.
  ENDIF.
ENDLOOP.
*      SKIP.

** Erzeugen fehlermappe *****
IF l_subrc <> 0 AND e_group <> space.
  IF e_group_opened = ' '.
    CALL FUNCTION 'BDC_OPEN_GROUP'
      EXPORTING
        client    = sy-mandt
        group     = e_group
        user      = e_user
        keep      = e_keep
        holddate  = e_hdate.
    e_group_opened = 'X'.
  ENDIF.
  CALL FUNCTION 'BDC_INSERT'
    EXPORTING
      tcode       = tcode
    TABLES
      dynprotab   = bdcdata.
  ENDIF.
ENDIF.
REFRESH bdcdata.
ENDFORM.

*-----*
*      Start new screen                                *
*-----*
FORM bdc_dynpro USING program dynpro.
  CLEAR bdcdata.

```

```

    bdcdata-program = program.
    bdcdata-dynpro  = dynpro.
    bdcdata-dynbegin = 'X'.
    APPEND bdcdata.
ENDFORM.

```

```

*-----*
*          Insert field                                *
*-----*

```

```

FORM bdc_field USING fnam fval.
  IF fval <> nodata.
    CLEAR bdcdata.
    bdcdata-fnam = fnam.
    bdcdata-fval = fval.
    APPEND bdcdata.
  ENDIF.
ENDFORM.

```

**Structure of the internal table in which data has to be uploaded*

```

TYPES: BEGIN OF t_final,
        matnr(18) ,           "TYPE RMMG1-MATNR
        maktx(40) ,           "TYPE maktx-maktx
        bismt(18) ,           "TYPE mara-bismt
        brgew(13) ,           "TYPE mara-brgew
        gewei(3) ,            "TYPE mara-gewei
      END OF t_final .

```

```

DATA: answer ,               "return value in popup_to_confirm
      count1 TYPE i ,        "no. of records not succusfully uploaded
      count2 TYPE i .        "no. of records successfully uploaded

```

```

DATA: i_final TYPE STANDARD TABLE OF t_final ,
      wa_final TYPE t_final .

```

```

PARAMETERS: p_file LIKE rlgrap-filename OBLIGATORY.

```

```

*   stores file name to be uploaded

```

```

*****
*   AT SELECTION SCREEN                                *
*****

```

```

AT SELECTION-SCREEN ON VALUE-REQUEST FOR p_file .

```

```

  CALL FUNCTION 'WS_FILENAME_GET'
    EXPORTING
      DEF_FILENAME = ' '
      DEF_PATH     = ' '
      mask         = ',*.*,*.*.'
      MODE         = ' '
      TITLE        = ' '
    IMPORTING
      filename     = p_file
      RC           =
    EXCEPTIONS
      inv_winsys   = 1

```

```

        no_batch                = 2
        selection_cancel        = 3
        selection_error         = 4
        OTHERS                  = 5
    .
    IF sy-subrc <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
    ENDIF.

*****
*           START OF SELECTION                               *
*****

START-OF-SELECTION.

    CALL FUNCTION 'POPUP_TO_CONFIRM'
      EXPORTING
        titlebar                = 'Confirm Pop-UP'
*   DIAGNOSE_OBJECT            = ' '
        text_question           = 'Would you like to proceed?'
        text_button_1           = 'Yes' (001)
        icon_button_1           = 'ICON_OKAY'
        text_button_2           = 'No' (002)
        icon_button_2           = 'ICON_CANCEL'
        default_button          = '1'
        display_cancel_button   = 'X'
*   USERDEFINED_F1_HELP       = ' '
        start_column            = 25
        start_row               = 6
*   POPUP_TYPE                =
      IMPORTING
        answer                  = answer
*   TABLES
*   PARAMETER                  =
      EXCEPTIONS
        text_not_found          = 1
        OTHERS                  = 2
    .
    IF sy-subrc <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
    ENDIF.

    CHECK answer EQ '1'.

    CALL FUNCTION 'WS_UPLOAD'
      EXPORTING
*   CODEPAGE                    = ' '
        filename                = p_file
        filetype                = 'DAT'

```

```

*   HEADLEN                      = ' '
*   LINE_EXIT                    = ' '
*   TRUNCLEN                     = ' '
*   USER_FORM                    = ' '
*   USER_PROG                    = ' '
*   DAT_D_FORMAT                 = ' '
* IMPORTING
*   FILELENGTH                   =
*   TABLES
*       data_tab                 = i_final
* EXCEPTIONS
*   CONVERSION_ERROR             = 1
*   FILE_OPEN_ERROR              = 2
*   FILE_READ_ERROR              = 3
*   INVALID_TYPE                 = 4
*   NO_BATCH                     = 5
*   UNKNOWN_ERROR                = 6
*   INVALID_TABLE_WIDTH          = 7
*   GUI_REFUSE_FILETRANSFER      = 8
*   CUSTOMER_ERROR               = 9
*   OTHERS                       = 10
.
IF sy-subrc <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
*   WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.

LOOP AT i_final INTO wa_final .

    PERFORM bdc_dynpro            USING 'SAPLMGMM' '0060'.
    PERFORM bdc_field             USING 'BDC_CURSOR'
                                        'RMMG1-MATNR'.

    PERFORM bdc_field             USING 'BDC_OKCODE'
                                        '/00'.

    PERFORM bdc_field             USING 'RMMG1-MATNR'
                                        wa_final-matnr.

    MOVE wa_final-matnr TO wa_result-matnr .

    PERFORM bdc_dynpro            USING 'SAPLMGMM' '0070'.
    PERFORM bdc_field             USING 'BDC_CURSOR'
                                        'MSICHTAUSW-DYTXT(01)'.

    PERFORM bdc_field             USING 'BDC_OKCODE'
                                        '=ENTR'.

    PERFORM bdc_field             USING 'MSICHTAUSW-KZSEL(01)'
                                        'X'.

    PERFORM bdc_dynpro            USING 'SAPLMGMM' '4004'.
    PERFORM bdc_field             USING 'BDC_OKCODE'
                                        '=BU'.

    PERFORM bdc_field             USING 'MAKT-MAKTX'
                                        wa_final-maktx.

    PERFORM bdc_field             USING 'BDC_CURSOR'
                                        'MARA-BISMT'.

    PERFORM bdc_field             USING 'MARA-BISMT'

```

```

                                wa_final-bismt.
PERFORM bdc_field              USING 'MARA-BRGEW'
                                wa_final-brgew.
PERFORM bdc_field              USING 'MARA-GEWEI'
                                wa_final-gewei.
MOVE wa_final-maktx TO wa_result-maktx .
MOVE wa_final-bismt TO wa_result-bismt .
MOVE wa_final-brgew TO wa_result-brgew .
MOVE wa_final-gewei TO wa_result-gewei .

PERFORM bdc_transaction USING 'MM02'.

*****  flag = '1'      Record updated successfully
*****  flag = '2'      Record not updated
      IF flag = '1' .
          APPEND wa_result TO right .
          count1 = count1 + 1 .
      ELSEIF flag = '2' .
          APPEND wa_result TO wrong .
          count2 = count2 + 1 .
      ENDIF .

ENDLOOP.

**  Report Generation

WRITE : ' Success Item' .
SKIP .
WRITE : / ' Number of Success Items: ', count1 , ' Items.' .
SKIP .
WRITE: / 'Material Number ',
        19 'Material Name',
        59 'Old Mat. Name',
        77 'Gross Wt.',
        90 'Weight Unit',
        105 'Message' .
WRITE: sy-uline .

LOOP AT right INTO wa_result .
    WRITE: / wa_result-matnr ,
            19 wa_result-maktx ,
            59 wa_result-bismt ,
            77 wa_result-brgew ,
            90 wa_result-gewei ,
            105 wa_result-message .
ENDLOOP .

SKIP 2 .
WRITE : / ' Error Item' .
SKIP .
WRITE : / ' Number of Error Items: ', count2 , ' Items.' .
SKIP .
WRITE: / 'Material Number ',
        19 'Material Name',
        59 'Old Mat. Name',
        77 'Gross Wt.',

```

```

    90 'Weight Unit',
    105 'Message' .
WRITE: sy-uline .

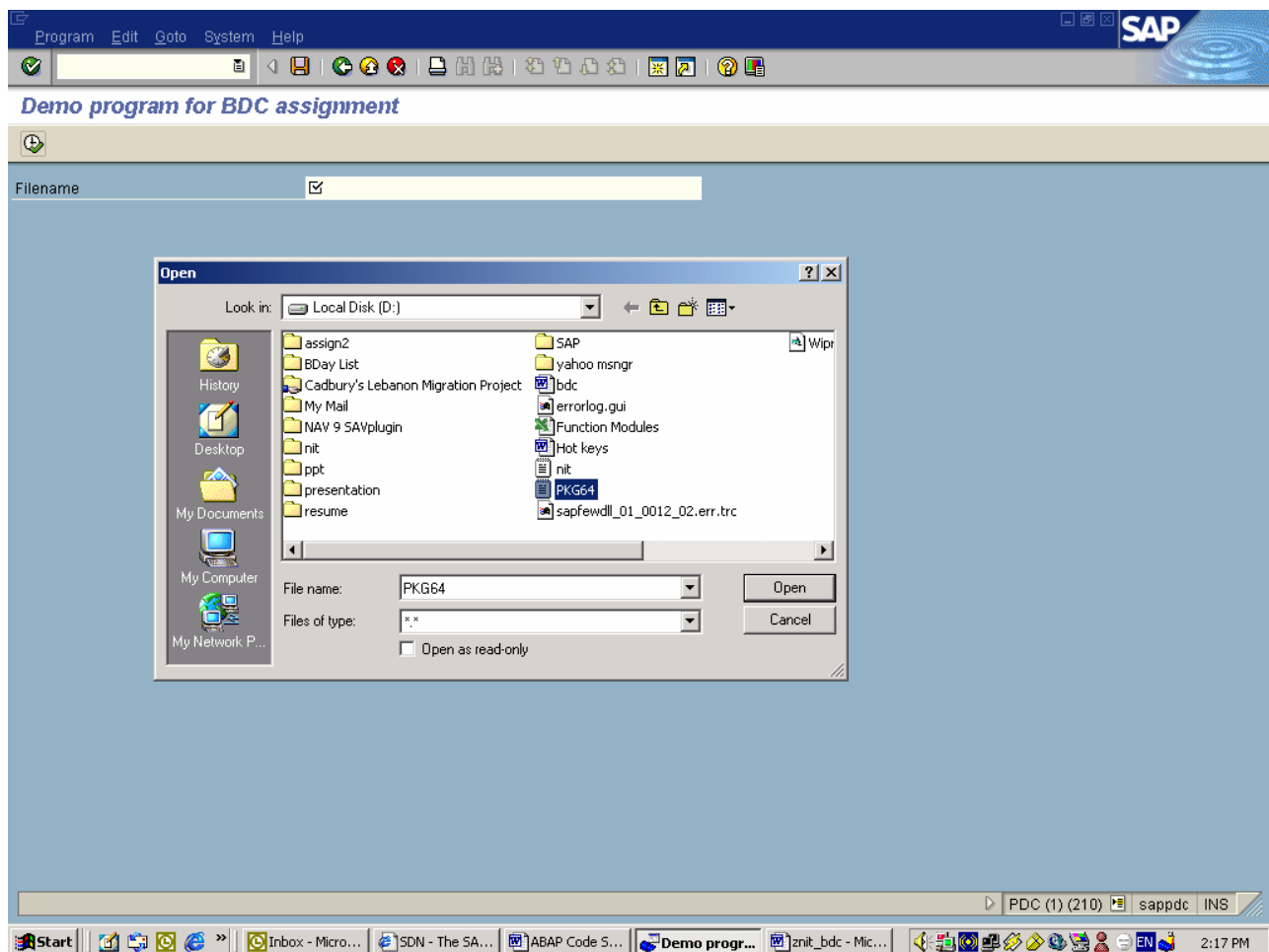
LOOP AT wrong INTO wa_result .
  WRITE: / wa_result-matnr ,
    19 wa_result-maktx ,
    59 wa_result-bismt ,
    77 wa_result-brgew ,
    90 wa_result-gewei ,
    105 wa_result-message .
ENDLOOP .

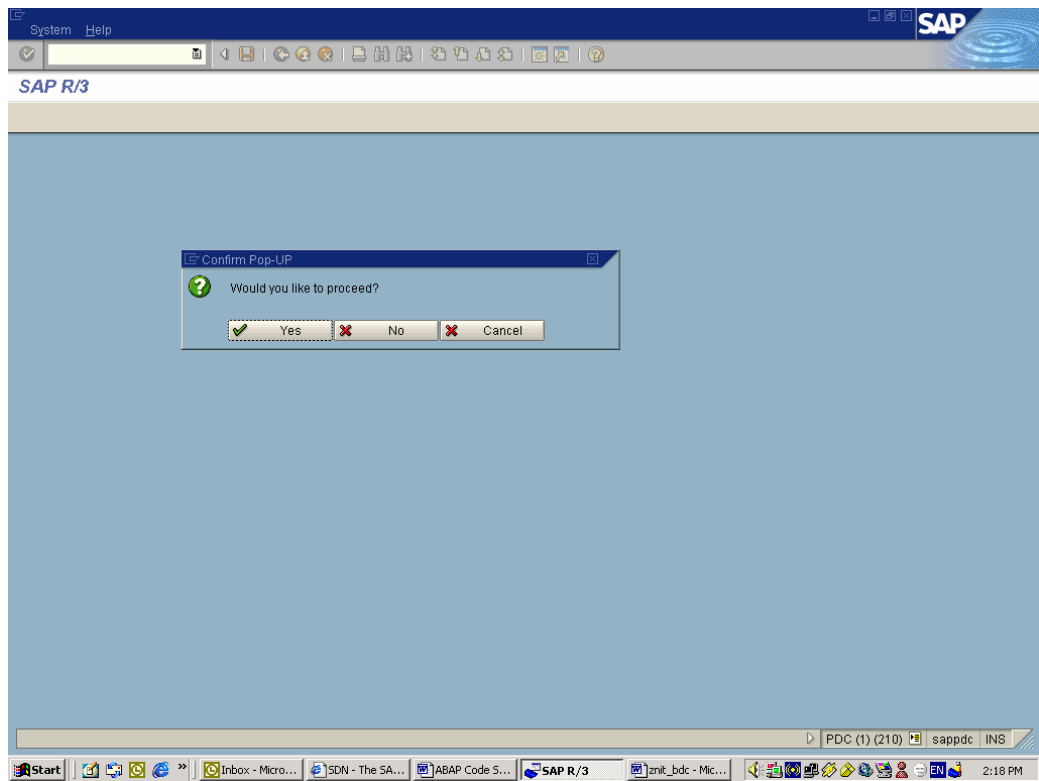
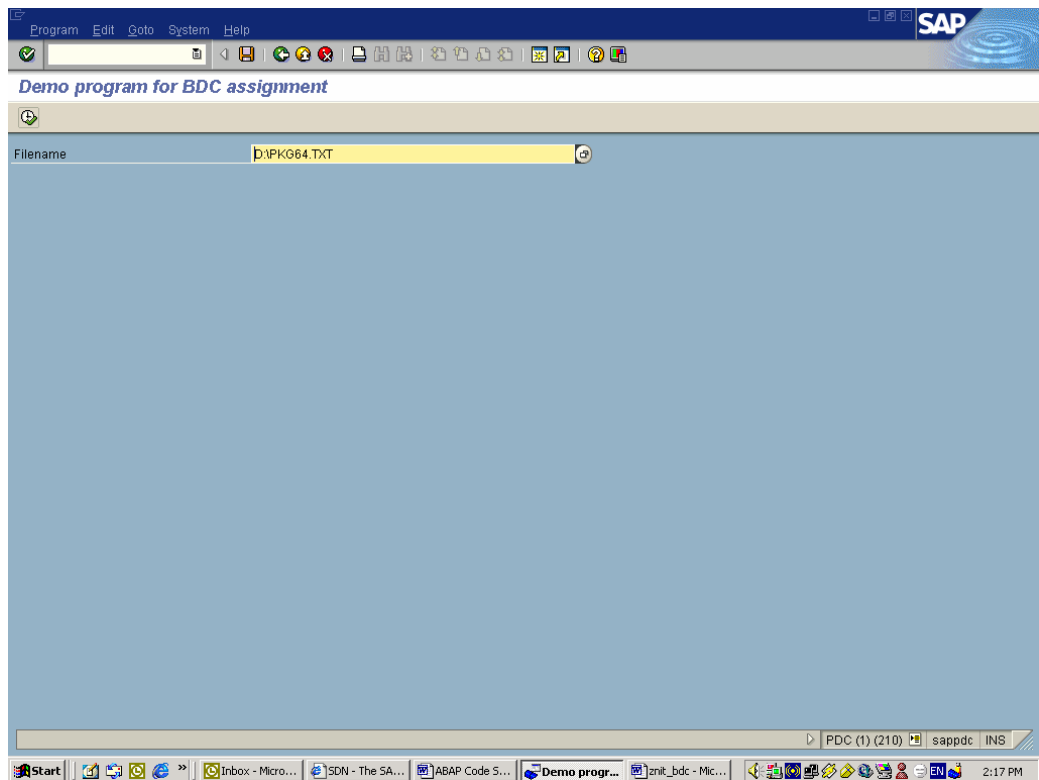
```

Input File:

[Download the input file](#) (note: SDN logon required).

SELECTION SCREEN:





Success Item

Number of Success Items: 7 Items.

Material Number	Material Name	Old Mat. Name	Gross Wt.	Weight Unit	Message
1	WORK FLOW FOR MATERIAL	656525	21.00	6	No changes made
21	work flow for MM test -21	1111	23.00	6	No changes made
31	work flow for MM test-31	215215	43.00	K6	No changes made
52	work flow for MM test-52	26215	6.00	6	No changes made
53	work flow for MM test-53	1111	7.00	K6	No changes made
61	work flow for MM test-61	2652	8.00	6	No changes made
62	work flow for MM test -62	26256	9.00	K6	No changes made

Error Item

Number of Error Items: 11 Items.

Material Number	Material Name	Old Mat. Name	Gross Wt.	Weight Unit	Message
Material Number	Material Name	Old_material name	Gross weight	Wei	The material MATERIAL NUMBER does not e
2	work flow for MM test -13	23251	2.00	K6	Enter a material type
51	work flow for MM test-51	262541	5.00	ST	Unit ST is not created in language EN
71	work flow for MM test-71	85697	10.00	ST	Unit ST is not created in language EN
72	work flow for MM test -72	75236	11.00		Make an entry in all required fields
73	work flow for MM test-73	56636	12.00	ST	Unit ST is not created in language EN
74	work flow for MM test-74	36525	1212232315656		Make an entry in all required fields
75	work flow for MM test-75	54827	14.00		Specify the relevant unit of weight
81	work flow for MM test-81	65336	15.00	ST	Unit ST is not created in language EN
82	work flow for MM test-82	5635	16.00		Make an entry in all required fields
92	work flow for MM test-92	87525	17.00		Specify the relevant unit of weight

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