

Send Mail

25 September 2025 15:49

Sending ALV Output as an E-Mail Attachment



- To send the ALV output as an e-mail attachment, we will make use of the various standard classes of SAP related to BCS(Business Communication Services). The various standard classes^I are as follows :

- CL_BCS
- CL_DOCUMENT_BCS
- CL_SAPUSER_BCS
- CL_CAM_ADDRESS_BCS

Sending ALV Output as an E-Mail Attachment(Contd.)



- CL_BCS - This class is used for creating the send request, adding the recipient, sending the document etc.
- CL_DOCUMENT_BCS - This class is used for creating the document, adding the attachment etc.
- CL_SAPUSER_BCS - This class is used to create SAP users.
- CL_CAM_ADDRESS_BCS - This class is used to create the external recipients

Steps to Send ALV Output as an E-Mail Attachment

1. Prepare a text format for ALV data.
2. Convert the text format to binary format
3. Create the send request.
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4. Create the SAP user/external user(recipient)
5. Add the recipient
6. Create the document.
7. Add the attachment.

Steps to Send ALV Output as an E-Mail Attachment(Contd.)

8. Set the document
9. Activate/deactivate immediate sending
10. Send
11. Commit

To convert to binary format

70/154
FM : SCMS_TEXT_TO_BINARY

70/154
FM : SCMS_TEXT_TO_BINARY

SOLIX_TAB I

ZALV_SEND_EMAIL1_640

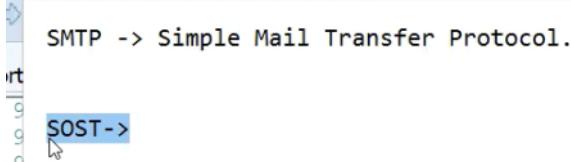
```
E-Mail Sending Steps Covered.  
-Activate/deactivate immediate sending  
-Send  
-Commit
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-Understanding the Process of Sending the Mail to SAP User in Debugging Mode.  
-Checked the Mail in Transaction Code : SBWP.
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-Understanding the Flow of Sending the Mail to External Recipient in Debugging Mode.  
-The Transaction Code - SOST is Used to Check the Mail at SAP End.
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SBWP -> SAP business workPlace

For External Email check



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*-----*<br/>*& Report ZALV_SEND_EMAIL1_640<br/>*&-----*<br/>*&-----*<br/>REPORT zalv_send_email1_640.<br/><br/>PARAMETERS : p_erdat TYPE erdat DEFAULT sy-datum.           "'20250207'"<br/>PARAMETERS : p_email AS CHECKBOX DEFAULT 'X'.<br/><br/>TYPES : BEGIN OF lty_vbak,<br/>         vbeln TYPE vbeln_va,<br/>         ernam TYPE ernam,<br/>         netwr TYPE netwr_ak,<br/>         END OF lty_vbak.<br/>TYPES : BEGIN OF lty_data,<br/>         data(100) TYPE c,<br/>         END OF lty_data.<br/><br/>DATA : lt_vbak TYPE TABLE OF lty_vbak.<br/><br/>DATA : lt_data TYPE TABLE OF lty_data,<br/>      ls_data TYPE lty_data.<br/><br/>DATA : lt_binary_data TYPE solix_tab.<br/>DATA : lo_bcs TYPE REF TO cl_bcs.<br/>DATA : lo_sapuser TYPE REF TO cl_sapuser_bcs.<br/>DATA : lo_external_user TYPE REF TO cl_cam_address_bcs.<br/>DATA : lo_external_user1 TYPE REF TO cl_cam_address_bcs.<br/>DATA : lv_subject TYPE so_obj_des.<br/>DATA : lt_text TYPE soli_tab.<br/>DATA : lo_document          TYPE REF TO cl_document_bcs,<br/>      lv_attachment_subject TYPE so_obj_des,<br/>      lv_result             TYPE boolean.<br/><br/>DATA : lt_fieldcat TYPE slis_t_fieldcat_alv.<br/><br/>SELECT vbeln ernam netwr<br/>  FROM vbak<br/>  INTO TABLE lt_vbak<br/> WHERE erdat = p_erdat.<br/><br/>IF p_email = 'X'.
```

```

* 1) Prepare a text format for ALV Data.

CONCATENATE 'Sales Document Number' 'User Name' 'Amount' INTO ls_data-
data SEPARATED BY ' ! '.
APPEND ls_data TO lt_data.
CLEAR ls_data.

LOOP AT lt_vbak INTO DATA(ls_vbak).
  ls_data-data = |{ ls_vbak-vbeln } ! { ls_vbak-ernam } ! { ls_vbak-
netwr }|.
  APPEND ls_data TO lt_data.
  CLEAR ls_data.
ENDLOOP.

* 2) convert text format to binary format

CALL FUNCTION 'SCMS_TEXT_TO_BINARY'
*  EXPORTING
*    FIRST_LINE      = 0
*    LAST_LINE       = 0
*    APPEND_TO_TABLE = ' '
*    MIMETYPE        = ' '
*    ENCODING        =
*  IMPORTING
*    OUTPUT_LENGTH   =
TABLES
  text_tab      = lt_data
  binary_tab    = lt_binary_data
EXCEPTIONS
  failed        = 1
  OTHERS        = 2.

* 3) create a send request

TRY.
  CALL METHOD cl_bcs=>create_persistent
    RECEIVING
      result = lo_bcs.
  CATCH cx_send_req_bcs.
ENDTRY.

* 4) create a sap user / external user (recipient).

TRY.
  CALL METHOD cl_sapuser_bcs=>create
    EXPORTING
      i_user = 'TECH_54'
    RECEIVING
      result = lo_sapuser.
  CATCH cx_address_bcs.
ENDTRY.

* 5) ADD THE RECIPIENT.

TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_sapuser
*      i_express   =
*      i_copy     =
*      i_blind_copy =
*      i_no_forward =
    .
  CATCH cx_send_req_bcs.
ENDTRY.

TRY.
  CALL METHOD cl_cam_address_bcs=>create_internet_address
    EXPORTING
      i_address_string = 'vinodreddyk@gmail.com'
*      i_address_name   =
*      i_incl_sapuser   =
    RECEIVING
      result          = lo_external_user.
  CATCH cx_address_bcs.

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ENDTRY.

TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_external_user
*       i_express   =
*       i_copy     =
*       i_blind_copy =
*       i_no_forward =
    .
  CATCH cx_send_req_bcs.
ENDTRY.

*  for adding more mails in cc and bcc.

TRY.
  CALL METHOD cl_cam_address_bcs=>create_internet_address
    EXPORTING
      i_address_string = 'vinod@gmail.com'
*       i_address_name   =
*       i_incl_sapuser   =
    RECEIVING
      result          = lo_external_user1.
  CATCH cx_address_bcs.
ENDTRY.

TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_external_user1
*       i_express   =
*       i_copy     = 'X'
*       i_blind_copy = 'X'
*       i_no_forward =
    .
  CATCH cx_send_req_bcs.
ENDTRY.

* 6) create the document

DESCRIBE TABLE lt_vbak LINES DATA(lv_lines).
lv_subject = |{ p_erdat+6(2) }:{ p_erdat+4(2) }:{ p_erdat+
0(4) } Number Of Sales Order : { lv_lines }|.

lt_text = VALUE #( ( line = 'Dear Sir, '
                     ( line = 'Below is the Attached Document '
                     ( line = 'Thanks & Regards' )
                     ( line = 'Vinod' ) ) .

TRY.
  CALL METHOD cl_document_bcs=>create_document
    EXPORTING
      i_type      = 'RAW'
      i_subject   = lv_subject
*       i_length    =
*       i_language   = SPACE
*       i_importance =
*       i_sensitivity =
      i_text      = lt_text
*       i_hex       =
*       i_header    =
*       i_sender    =
*       iv_vsi_profile =
*       iv_vsi_scan_off =
    RECEIVING
      result      = lo_document.
  CATCH cx_document_bcs.
ENDTRY.

* 7) Add the attachment.

CONCATENATE 'Sales Orders ' '_ ' p_erdat+6(2) ':' p_erdat+
4(2) ':' p_erdat+0(4) INTO lv_attachment_subject.

TRY.

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CALL METHOD lo_document->add_attachment
EXPORTING
  i_attachment_type      = 'XLS'
  i_attachment_subject   = lv_attachment_subject
*   i_attachment_size     =
*   i_attachment_language = SPACE
*   i_att_content_text    =
  i_att_content_hex     = lt_binary_data
*   i_attachment_header   =
*   iv_vsi_profile        =
*   iv_vsi_scan_off       =
*   i_attachment_filename =
.

CATCH cx_document_bcs.
ENDTRY.

* 8) set the document.

TRY.
  CALL METHOD lo_bcs->set_document
  EXPORTING
    i_document = lo_document.
  CATCH cx_send_req_bcs.
ENDTRY.

* 9) Activate or Deactivate immediate sending

TRY.
  CALL METHOD lo_bcs->set_send_immediately
  EXPORTING
    i_send_immediately = 'X'.
  CATCH cx_send_req_bcs.
ENDTRY.

* 10) send

TRY.
  CALL METHOD lo_bcs->send
*  EXPORTING
*   i_with_error_screen = SPACE
*   RECEIVING
*     result = lv_result.
  CATCH cx_send_req_bcs.
ENDTRY.

* 11) Commit only for external email not for sap users. ( within sap do not
require commit work ).

IF lv_result IS NOT INITIAL.
  COMMIT WORK.
ENDIF.

ENDIF.

lt_fieldcat = VALUE #( ( col_pos = 1 fieldname = 'VBELN' seltext_l = ' Sale
s Document Number' )
                      ( col_pos = 2 fieldname = 'ERNAM' seltext_l = ' Use
r Name' )
                      ( col_pos = 3 fieldname = 'NETWR' seltext_l = ' Amo
unt' ) ).

CALL FUNCTION 'REUSE_ALV_GRID_DISPLAY'
EXPORTING
  it_fieldcat = lt_fieldcat
TABLES
  t_outtab    = lt_vbak
EXCEPTIONS
  program_error = 1
  OTHERS        = 2.

```

Send mail 2

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BADI in me21n

```
METHOD if_ex_me_process_po_cust~process_item.

  IF sy-uname = 'TECH_54'.

    DATA : lt_text1  TYPE soli_tab.

    CALL METHOD im_item->get_previous_data
      IMPORTING
        ex_data = DATA(ls_old)
      EXCEPTIONS
        no_data = 1
        OTHERS   = 2.
    IF sy-subrc <> 0.
*       Implement suitable error handling here
ENDIF.

    CALL METHOD im_item->get_data
      RECEIVING
        re_data = DATA(ls_new).

* 1) Prepare a text format for ALV Data.
*     lt_data = VALUE #( ( data = |Material Number ! Plant ! Purchasing Document Number !
Old Quantity ! New Quantity ! User Name ! UTC Time Stamp | )
*                   ( data = |{ ls_new-matnr } ! { ls_new-werks } ! { ls_new-ebeln } ! { ls_old-
menge } ! { ls_new-menage } ! { sy-uname } ! { sy-dATUM }{ sy-uzeit }| ) .
* 2) convert text format to binary format
  " Build HTML body with table

  CLEAR lt_text1.
  APPEND '<html><body>' TO lt_text1.
  APPEND '<p>Dear Sir,</p>' TO lt_text1.
  APPEND '<p>Below is the PO change details :</p>' TO lt_text1.

  APPEND '<table border="1" cellspacing="0" cellpadding="5">' TO lt_text1.
  APPEND '<tr> <th>Purchasing Document</th><th>Material Number</th><th>Plant</th><th>
Old Quantity</th><th>New Quantity</th><th>Unit</th><th>User Name</th><th>Change Date</th>
</tr>' TO lt_text1.

  APPEND '|<tr><td>{ ls_new-ebeln }</td><td>{ ls_new-matnr }</td><td>{ ls_new-werks }</td>
</td><td>{ ls_old-menage }</td><td>{ ls_new-menage }</td><td>{ ls_new-meins }</td><td>{ sy-
uname }</td><td>{ sy-datum+6(2) }:{ sy-datum+4(2) }:{ sy-datum+0(4) } {
sy-uzeit+0(2) }:{ sy-uzeit+2(2) }:{ sy-uzeit+4(2) }</td>
</tr>| TO lt_text1.

  APPEND '</table>' TO lt_text1.
  APPEND '<br/><p>Thanks & Regards,<br/>Vinod</p>' TO lt_text1.
  APPEND '</body></html>' TO lt_text1.

* 3) create a send request
TRY.
  CALL METHOD cl_bcs=>create_persistent
    RECEIVING
      result = DATA(lo_bcs).
    CATCH cx_send_req_bcs.
ENDTRY.

* 4) create a sap user / external user (recipient).
```

```

TRY.
  CALL METHOD cl_sapuser_bcs=>create
    EXPORTING
      i_user = 'TECH_54'
    RECEIVING
      result = DATA(lo_sapuser).
  CATCH cx_address_bcs.
ENDTRY.

* 5) ADD THE RECIPIENT.
TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_sapuser.
  CATCH cx_send_req_bcs.
ENDTRY.

* for Exter Mail connect

TRY.
  CALL METHOD cl_cam_address_bcs=>create_internet_address
    EXPORTING
      i_address_string = 'vinod.k@ladera.com'
      i_address_name = 'K Vinod'
*      i_incl_sapuser = 'X'
    RECEIVING
      result = DATA(lo_external_user).
  CATCH cx_address_bcs.
ENDTRY.

TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_external_user.
  CATCH cx_send_req_bcs.
ENDTRY.

* 6) create the document
TRY.
  CALL METHOD cl_document_bcs=>create_document
    EXPORTING
      i_type = 'HTM'
      i_subject = ' Changed PO Details'
      i_text = lt_text1
    RECEIVING
      result = DATA(lo_document).
  CATCH cx_document_bcs.
ENDTRY.

* 7) Add the attachment.
* TRY.
*   CALL METHOD lo_document->add_attachment
*     EXPORTING
*       i_attachment_type = 'XLS'
*       i_attachment_subject = |created po on { sy-datum }|
*       i_attachment_size =
*       i_attachment_language = SPACE
*       i_att_content_text =
*       i_att_content_hex = lt_binary
*       i_attachment_header =
*       iv_vsi_profile =
*       iv_vsi_scan_off =
*       i_attachment_filename =
*
*     CATCH cx_document_bcs.
*   ENDTRY.
* 8) set the document.
TRY.
  CALL METHOD lo_bcs->set_document

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        EXPORTING
            i_document = lo_document.
        CATCH cx_send_req_bcs.
    ENDTRY.

* 9) Activate or Deactivate immediate sending
    TRY.
        CALL METHOD lo_bcs->set_send_immediately
        EXPORTING
            i_send_immediately = 'X'.
        CATCH cx_send_req_bcs.
    ENDTRY.

* 10) send
    TRY.
        CALL METHOD lo_bcs->send
*     EXPORTING
*         i_with_error_screen = SPACE
*             RECEIVING
*                 result = DATA(lv_result).
        CATCH cx_send_req_bcs.
    ENDTRY.

* 11) Commit only for external email not for sap users.( within sap do not require commit
work ).
    IF lv_result IS NOT INITIAL.
        COMMIT WORK.
    ENDIF.

    ENDIF.

ENDMETHOD.

```

Send mail 3

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```
METHOD if_ex_me_process_po_cust~process_item.

IF sy-uname = 'TECH_54'.

DATA : lt_text1 TYPE soli_tab.

CALL METHOD im_item->get_previous_data
IMPORTING
  ex_data = DATA(ls_old)
EXCEPTIONS
  no_data = 1
  OTHERS   = 2.
IF sy-subrc <> 0.
*   Implement suitable error handling here
ENDIF.

CALL METHOD im_item->get_data
RECEIVING
  re_data = DATA(ls_new).

* 1) Prepare a text format for ALV Data.

* 2) convert text format to binary format

" Build HTML body with table

CLEAR lt_text1.
APPEND '<html><body>' TO lt_text1.
APPEND '<p>Dear Sir,</p>' TO lt_text1.
APPEND '<p>Below is the PO change details :</p>' TO lt_text1.

APPEND '<table border="1" cellspacing="0" cellpadding="5">' TO lt_text1.
APPEND '<tr> <th>Purchasing Document</th><th>Material Number</th><th>Plant</th><th>Old Quantity</th><th>New Quantity</th><th>Unit</th><th>User Name</th><th>Change Date</th></tr>' TO lt_text1.

APPEND '|<tr><td>{ ls_new-ebeln }</td><td>{ ls_new-matnr }</td><td>{ ls_new-werks }</td><td>{ ls_old-menge }</td><td>{ ls_new-menge }</td><td>{ sy-uname }</td><td>{ sy-datum+6(2) }:{ sy-datum+4(2) }:{ sy-datum+0(4) } {
          sy-uzeit+0(2) }:{ sy-uzeit+2(2) }:{ sy-uzeit+4(2) }</td>
</tr>| TO lt_text1.

APPEND '</table>' TO lt_text1.
APPEND '<br/><p>Thanks & Regards,<br/>Vinod</p>' TO lt_text1.
APPEND '</body></html>' TO lt_text1.

* 3) create a send request
TRY.
  CALL METHOD cl_bcs->create_persistent
    RECEIVING
      result = DATA(lo_bcs).
  CATCH cx_send_req_bcs.
ENDTRY.

* 4) create a sap user / external user (recipient).
```

```

* 5) ADD THE RECIPIENT.
*      for Exter Mail connect
TRY.
    CALL METHOD cl_cam_address_bcs->create_internet_address
        EXPORTING
            i_address_string = 'vinod.k@ladera.com'
            i_address_name   = 'K Vinod'
            i_incl_sapuser   = 'X'
        RECEIVING
            result          = DATA(lo_external_user).
    CATCH cx_address_bcs.
ENDTRY.

TRY.
    CALL METHOD lo_bcs->add_recipient
        EXPORTING
            i_recipient = lo_external_user.
    CATCH cx_send_req_bcs.
ENDTRY.

* 6) create the document
TRY.
    CALL METHOD cl_document_bcs->create_document
        EXPORTING
            i_type      = 'HTM'
            i_subject   = ' Changed PO Details'
            i_text      = lt_text1
        RECEIVING
            result      = DATA(lo_document).
    CATCH cx_document_bcs.
ENDTRY.

* 7) Add the attachment.

* 8) set the document.
TRY.
    CALL METHOD lo_bcs->set_document
        EXPORTING
            i_document = lo_document.
    CATCH cx_send_req_bcs.
ENDTRY.

* 9) Activate or Deactivate immediate sending
TRY.
    CALL METHOD lo_bcs->set_send_immediately
        EXPORTING
            i_send_immediately = 'X'.
    CATCH cx_send_req_bcs.
ENDTRY.

* 10) send
TRY.
    CALL METHOD lo_bcs->send
*  EXPORTING
*      i_with_error_screen = SPACE
        RECEIVING
            result = DATA(lv_result).
    CATCH cx_send_req_bcs.
ENDTRY.

* 11) Commit only for external email not for sap users.( within sap do not
require commit work ).
    IF lv_result IS NOT INITIAL.
        COMMIT WORK.
    ENDIF.

```

ENDIF.

ENDMETHOD.

Send Mail 4

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```
*&-----*
*& Report ZALV_SEND_EMAIL1_640
*&-----*
*&
*&-----*
REPORT zalv_send_email2_640.

PARAMETERS : p_r1 RADIobutton GROUP r1,
              p_r2 RADIobutton GROUP r1.

DATA : lt_text1 TYPE soli_tab,
       lt_text2 TYPE soli_tab.
DATA : lo_document TYPE REF TO cl_document_bcs.

SELECT * FROM zord_h_12 INTO TABLE @DATA(lt_header).
SELECT * FROM zord_i_12 INTO TABLE @DATA(lt_item).

SORT lt_header BY ono.

* 1) Prepare a text format for ALV Data.

* 2) convert text format to binary format

" Build HTML body Header table

CLEAR lt_text1.
APPEND '<html><body>' TO lt_text1.
APPEND '<p>Dear Sir,</p>' TO lt_text1.
APPEND '<p>Below are the Header details :</p>' TO lt_text1.

APPEND '<table border="1" cellspacing="0" cellpadding="5">' TO lt_text1.
APPEND '<tr> <th>Order Number</th><th>Order Date</th><th>Payment Mode</th>
<th>Amount</th><th>Currency</th></tr>' TO lt_text1.
LOOP AT lt_header INTO DATA(ls_header).
  APPEND '|<tr><td>{ ls_header-ono }</td><td>{ ls_header-odate }</td><td>
{ ls_header-pm }</td><td>{ ls_header-ta }</td><td>{ ls_header-curr }</td>
</tr>|' TO lt_text1.
ENDLOOP.
APPEND '</table>' TO lt_text1.
APPEND '<br/><p>Thanks & Regards,<br/> Vinod</p>' TO lt_text1.
APPEND '</body></html>' TO lt_text1.

" Build HTML body Item table
CLEAR lt_text2.
APPEND '<html><body>' TO lt_text2.
APPEND '<p>Dear Sir,</p>' TO lt_text2.
APPEND '<p>Below are the Item details :</p>' TO lt_text2.

APPEND '<table border="1" cellspacing="0" cellpadding="5">' TO lt_text2.
APPEND '<tr> <th>Order Number</th><th>Order Item Number</th><th>
Order Description</th><th>Item Cost</th></tr>' TO lt_text2.
LOOP AT lt_item INTO DATA(ls_item).
  APPEND '|<tr><td>{ ls_item-ono }</td><td>{ ls_item-oin }</td><td>
{ ls_item-odesc }</td><td>{ ls_item-icost }</td></tr>|' TO lt_text2.
ENDLOOP.
APPEND '</table>' TO lt_text2.
APPEND '<br/><p>Thanks & Regards,<br/> Vinod</p>' TO lt_text2.
APPEND '</body></html>' TO lt_text2.
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```

* 3) create a send request
TRY.
  CALL METHOD cl_bcs=>create_persistent
    RECEIVING
      result = DATA(lo_bcs).
  CATCH cx_send_req_bcs.
ENDTRY.

* 4) create a sap user / external user (recipient).

* 5) ADD THE RECIPIENT.
*       for Exter Mail connect
TRY.
  CALL METHOD cl_cam_address_bcs=>create_internet_address
    EXPORTING
      i_address_string = 'vinod.k@ladera.com'
      i_address_name   = 'K Vinod'
      i_incl_sapuser   = 'X'
    RECEIVING
      result           = DATA(lo_external_user).
  CATCH cx_address_bcs.
ENDTRY.

TRY.
  CALL METHOD lo_bcs->add_recipient
    EXPORTING
      i_recipient = lo_external_user.
  CATCH cx_send_req_bcs.
ENDTRY.

* 6) create the document

IF p_r1 = 'X'.
  TRY.
    CALL METHOD cl_document_bcs=>create_document
      EXPORTING
        i_type     = 'HTM'
        i_subject = 'Header Details'
        i_text    = lt_text1
      RECEIVING
        result    = lo_document.
    CATCH cx_document_bcs.
  ENDTRY.
  MESSAGE 'Header Sent Mail' TYPE 'I'.
ELSE.
  TRY.
    CALL METHOD cl_document_bcs=>create_document
      EXPORTING
        i_type     = 'HTM'
        i_subject = 'Item Details'
        i_text    = lt_text2
      RECEIVING
        result    = lo_document.
    CATCH cx_document_bcs.
  ENDTRY.
  MESSAGE 'Items Sent Mail' TYPE 'I'.
ENDIF.

* 7) Add the attachment.

* 8) set the document.
TRY.
  CALL METHOD lo_bcs->set_document

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    EXPORTING
        i_document = lo_document.
    CATCH cx_send_req_bcs.
ENDTRY.

* 9) Activate or Deactivate immediate sending
TRY.
    CALL METHOD lo_bcs->set_send_immediately
    EXPORTING
        i_send_immediately = 'X'.
    CATCH cx_send_req_bcs.
ENDTRY.

* 10) send
TRY.
    CALL METHOD lo_bcs->send
* EXPORTING
*     i_with_error_screen = SPACE
    RECEIVING
        result = DATA(lv_result).
    CATCH cx_send_req_bcs.
ENDTRY.

* 11) Commit only for external email not for sap users. ( within sap do not
require commit work ).
IF lv_result IS NOT INITIAL.
    COMMIT WORK.
ENDIF.

```