# Class: ZCL\_ZAS\_CONTRACT\_VERSI\_DPC\_EXT

Status: Active

Inh. from: ZCL ZAS CONTRACT VERSI DPC

### **Attributes**

Description: Data Provider Secondary Class

Instantiation: Public

Not final

Not released

Fixed pt.arithmetic

Category: General Object Type

Package: ZSD Original lang.: EN

Created by: SG0303539 Created on: 04/01/2019 Last changed on: 04/03/2019

#### Methods

#### **Redefined Methods**

### /IWBEP/IF MGW APPL SRV RUNTIME~EXECUTE ACTION

```
METHOD /iwbep/if mgw appl srv runtime~execute action.
**TRY.
*CALL METHOD SUPER->/IWBEP/IF MGW APPL SRV RUNTIME~EXECUTE ACTION
** EXPORTING
    iv action name
    it parameter
** io tech request context =
** IMPORTING
    er data
** CATCH /iwbep/cx mgw busi exception .
** CATCH /iwbep/cx_mgw_tech_exception .
**ENDTRY.
   DATA lt key tab
                            TYPE
                                         /iwbep/t mgw name value pair.
   DATA lo function import TYPE REF TO object.
   DATA ls_status TYPE DATA: lv_ship_to TYPE kunnr,
                            TYPE
                                         zcl zas contract versi mpc=>ts status.
         lv rel pkg atinn TYPE atinn,
         lv rel pkg TYPE atnam,
         lv rel pkg name TYPE klschl,
         lv version TYPE atwrt.
**<< Begin of insert by vijay on 07/10/2020 - Redesign
   DATA: lv vc ver atinn TYPE atinn,
         lv vc rp id atinn TYPE atinn,
         lv rp id
                    TYPE matnr.
**>> End of insert by vijay on 07/10/2020
**Structure declaration
   TYPES: BEGIN OF st final tab,
            contract
                                         TYPE vbeln va,
```

```
item
                                      TYPE posnr_va,
           header enddate
                                      TYPE vndat veda,
                                    TYPE vndat_veda,
TYPE vidat_veda,
           item enddate
           header insdate
                                    TYPE ktext_v,
           po description
           product
                                      TYPE matnr,
                                  TYPE prodh_d,
TYPE objko,
TYPE objpo,
TYPE arktx,
           product hierarchy
           header objectno
            item objectno
           material desc
                                    TYPE kunnr,
TYPE name1_gp,
TYPE sort1,
TYPE name1_gp,
            ship to
            ship_to_customer
            ship_to_21tr
            sold to customer
            sold to 2ltr
                                     TYPE sortl,
           class desc
                                      TYPE klschl,
            prod_characteristic_name TYPE atnam,
            prod_characteristic_name_desc TYPE atbez,
            vc prod characteristic name TYPE atnam,
           vc charateristic desc TYPE atbez,
           vc_prod_characteristic_value TYPE atwrt,
            vc description
                                      TYPE atwtb,
           vc_config
                                      TYPE cuobj,
                                      TYPE prodh d,
           prodh1
                                      TYPE bezei40,
           vtext1
           prodh2
                                      TYPE prodh d,
                                      TYPE bezei40,
           vtext2
           prodh3
                                      TYPE prodh d,
                                      TYPE bezei40,
           vtext3
                                      TYPE prodh d,
           prodh4
           vtext4
                                      TYPE bezei40,
           delivery_method
                                      TYPE atwtb,
           flag(1)
                                      TYPE c,
         END OF st final tab.
**Internal table and Workarea declaration
   DATA: It final tab TYPE TABLE OF st final tab,
         ls final tab TYPE st final tab.
   DATA: ls inst rec TYPE ibco2 instance rec2,
         ls values TYPE ibco2 value rec.
   DATA: It value TYPE TABLE OF string,
         ls value TYPE string,
        lv value TYPE string.
   DATA lt return
                          TYPE STANDARD TABLE OF bapiret2.
**Structure for Updating the log
   DATA: Is history TYPE zas verupd log.
**file
   DATA: lv file name TYPE string,
    lv file data TYPE string.
   DATA: It ship to TYPE /iwbep/t cod select options,
         ls ship to TYPE /iwbep/s cod select option.
```

```
**Constant declataion
   CONSTANTS: con_obtyp_vbk TYPE jsto-obtyp VALUE 'VBK',
              con obtyp vbp TYPE jsto-obtyp VALUE 'VBP',
               con del method TYPE atnam VALUE 'ZAS PRODUCT DELIVERY METHOD',
              con agr name TYPE agr name VALUE 'ZS AS VERSION UPDATE',
**<< Begin of insert by vijay on 04/08/2020- For contract header status CSDU/CCU
              con_csdu TYPE j_txt04 VALUE 'CSDU',
                            TYPE j txt04 VALUE 'CCU'.
               con ccu
**>> End of insert by vijay on 04/08/2020
**<< Begin of insert by vijay on 07/10/2020 - Redesign
    CONSTANTS: con vc ver char TYPE cabn-atnam VALUE 'ZAS RP CNTR VERSION',
              con_vc_rp_id_char TYPE cabn-atnam VALUE 'ZAS RP ID'.
**>> End of insert by vijay on 07/10/2020
**file
               con path
                          TYPE string VALUE
'/boomi/outbound/I0447 AS Asset Mass Updates/',
               con delimit TYPE c VALUE ','.
**Field Symbol Declaration
   FIELD-SYMBOLS <ls_parameter> TYPE /iwbep/s_mgw_name_value_pair.
    "Retrieve key/value of incoming request parameters:
    lt key tab = io tech request context->get parameters().
   CASE iv action name.
     WHEN 'UpdateContractVersion'.
        "Retrieve user role data
       CALL FUNCTION 'BAPI USER GET DETAIL'
         EXPORTING
           username
                         = sy-uname
         TABLES
           activitygroups = lt activity groups
           return = lt return.
**Check for the update role
       READ TABLE 1t activity_groups WITH KEY agr_name = con_agr_name TRANSPORTING
NO FIELDS.
        IF sy-subrc EQ 0.
         lv valid_action = abap_true.
        ENDIF.
        IF lv valid action EQ abap true.
**Get Release Package
         READ TABLE lt_key_tab INTO DATA(ls_key_tab) WITH KEY name = 'REL_PKG_NAME'.
          IF sy-subrc = 0 AND ls_key_tab-value IS NOT INITIAL.
            CLEAR: lv rel pkg name.
            lv rel pkg name = ls key tab-value.
**<< Begin of insert by vijay on 07/10/2020 - Redesign
**Version Characteristic (Internal Number)
            CLEAR: lv_vc_ver_atinn.
            SELECT SINGLE atinn
                         INTO
                                lv vc ver atinn
                         FROM cabn
                         WHERE atnam EQ con vc ver char.
            IF sy-subrc = 0.
            ENDIF.
**Release Package ID Characteristic(Internal Number)
            CLEAR: lv vc rp id atinn.
            SELECT SINGLE atinn
```

```
INTO lv_vc_rp_id_atinn
                          FROM cabn
                          WHERE atnam EQ con vc rp id char.
            IF sy-subrc = 0.
            ENDIF.
**Release Package ID
            CLEAR: lv_rp_id.
            SELECT SINGLE matnr rpg
                          INTO lv rp id
                          FROM zasv_rpg_data
                          WHERE rpg desc EQ lv rel pkg name.
            IF sy-subrc = 0.
            ENDIF.
**>> End of insert by vijay on 07/10/2020
**<< Begin of comment by vijay on 07/10/2020 - Redesign
             SELECT SINGLE internal num
                           FROM zas_clas_rel_pkg
                           INTO lv rel pkg atinn
                           WHERE class_desc EQ lv_rel_pkg_name.
**>> End of comment by vijay on 07/10/2020
          CLEAR: lv_rel_pkg_name.
           lv rel pkg name = ls key tab-value.
***Get Release pkg internal number
           CLEAR: lv rel pkg atinn.
           SELECT SINGLE atinn
                         INTO
                                lv rel pkg atinn
                         FROM cabnt
                         WHERE atbez EQ lv_rel_pkg_name
                             spras EQ 'E'.
                         AND
            IF sy-subrc = 0.
           ENDIF.
         ENDIF.
**Get the Ship to
         CLEAR: ls_key_tab.
          READ TABLE lt_key_tab INTO ls_key_tab WITH KEY name = 'SHIP_TO'.
          IF sy-subrc = 0 AND ls key tab-value IS NOT INITIAL.
            CLEAR: lv value.
            lv_value = ls_key_tab-value.
**Split the String value by Comma and construct as a Range
            SPLIT lv_value AT ',' INTO TABLE lt_value.
            LOOP AT 1t value INTO 1s value.
              CONDENSE ls value.
             CLEAR: lv_ship_to.
**Convert the Customer into Internal SAP Format
              CALL FUNCTION 'CONVERSION EXIT ALPHA INPUT'
                EXPORTING
                  input = ls value
                IMPORTING
                 output = lv_ship_to.
**Move the Values as a range
              ls\_ship\_to-sign = 'I'.
              ls_ship_to-option = 'EQ'.
              ls ship to-low = lv ship to.
              APPEND ls_ship_to TO lt_ship_to.
```

CLEAR: ls\_ship\_to. ENDLOOP. ENDIF. \*\*Get Version CLEAR: ls key tab. READ TABLE lt\_key\_tab INTO ls\_key\_tab WITH KEY name = 'CURR\_PROD\_VER'. IF sy-subrc = 0 AND ls\_key\_tab-value IS NOT INITIAL. CLEAR: lv\_version. lv version = ls key tab-value. CALL FUNCTION 'CONVERSION EXIT ALPHA INPUT' EXPORTING input = ls\_key\_tab-value IMPORTING output = lv version. ENDIF. \*\*Get the data from View zas con prod rel (As it contains all the data) SELECT contract item header enddate item enddate header insdate po\_description product product hierarchy header objectno item objectno material desc ship to ship to customer ship to 21tr sold\_to\_customer sold to 21tr class\_desc prod characteristic name prod characteristic name desc prod characteristic value prod\_characteristic\_desc vc\_prod\_characteristic\_name vc\_charateristic\_desc vc\_prod\_characteristic\_value vc description vc\_config FROM zas con prod rel INTO TABLE lt\_final\_tab WHERE ship\_to IN lt\_ship to \* \* AND ship to IN lr ship to AND ship to 21tr IN 1r ship to 21tr AND prod characteristic\_name\_desc EQ lv\_rel\_pkg\_name AND class\_desc EQ lv\_rel\_pkg\_name. contract IN lr\_contract ( header\_enddate >= sy-datum OR header\_enddate EQ '00000000'). AND "Commented by 303638 ( item enddate >= sy-datum OR item enddate EQ '00000000').

```
IF sy-subrc = 0.
**Get header status details only for CRX(To ignore the contract)
            SELECT a~objnr,
                   b~stat,
                   c~txt04
                   INTO TABLE @DATA(lt header status)
                   FROM jsto AS a
                   INNER JOIN jest AS b
                   ON a \sim objnr = b \sim objnr
                   INNER JOIN tj30t AS c
                   ON a \sim stsma = c \sim stsma
                   AND b\sim stat = c\sim estat
                   FOR ALL ENTRIES IN @lt final tab
                   WHERE a~objnr EQ @lt final tab-header objectno
                   AND a~obtyp EQ @con obtyp vbk
                   AND b~stat LIKE 'E%'
                   AND b~inact EQ ''
                   AND c~spras EQ 'E'
                   AND c~txt04 EQ 'CRX'.
            IF sy-subrc = 0.
            ENDIF.
**Get Item status details only for (DUP, PDX, PRX, PCA) (To ignore the contract)
            SELECT a~objnr,
                   b~stat,
                   c~txt04
                   INTO TABLE @DATA(lt item status)
                   FROM jsto AS a
                   INNER JOIN jest AS b
                   ON a \sim objnr = b \sim objnr
                   INNER JOIN tj30t AS c
                   ON a \sim stsma = c \sim stsma
                   AND b \sim stat = c \sim estat
                   FOR ALL ENTRIES IN @lt final tab
                   WHERE a~objnr EQ @lt final tab-item objectno
                   AND a~obtyp EQ @con obtyp vbp
                   AND b~stat LIKE 'E%'
                   AND b~inact EQ ''
                         c~spras EQ 'E'
                         c~txt04 IN ( 'DUP' , 'PDX' , 'PRX' , 'PCA', 'PCE' , 'PEX' ).
"Insert PCE & PEX by 303638
            IF sy-subrc = 0.
            ENDIF.
**Get Coontrat item delivery method details
            SELECT sales doc,
                   item,
                   material,
                   description
                   FROM zas con prod ver
                   INTO TABLE @DATA(lt delivery method)
                   FOR ALL ENTRIES IN @lt_final_tab
                   WHERE sales doc EQ @lt final tab-contract
                   AND item EQ @lt final tab-item
                   AND material EQ @lt final tab-product
                        characteristic_name EQ @con_del_method.
                   AND
```

IF sy-subrc = 0. ENDIF. \*\*<< Begin of insert by vijay on 04/08/2020 - To consider only the contracts which is having header status as CSDU/CCU. \*\*Get the header status details for CDSU and CCU SELECT a~objnr, b~stat, c~txt04 INTO TABLE @DATA(lt hdr stat csdu) FROM jsto AS a INNER JOIN jest AS b  $ON a \sim objnr = b \sim objnr$ INNER JOIN tj30t AS c  $ON a \sim stsma = c \sim stsma$ AND  $b \sim stat = c \sim estat$ FOR ALL ENTRIES IN @lt final tab WHERE a~objnr EQ @lt\_final\_tab-header\_objectno AND a~obtyp EQ @con\_obtyp\_vbk AND b~stat LIKE 'E%' AND b~inact EQ @abap\_false AND c~spras EQ 'E' AND c~txt04 IN (@con csdu , @con ccu ). IF sy-subrc = 0. ENDIF. \*\*>> End of insert by vijay on 04/08/2020 ENDIF. LOOP AT 1t final tab ASSIGNING FIELD-SYMBOL(<fs final>). \*\*Check the header status. If CRX , then set the delete flag to ignore the contract. READ TABLE 1t header status INTO DATA(1s header status) WITH KEY objnr = <fs final>-header objectno. IF sy-subrc = 0. <fs final>-flag = 'X'. ENDIF. \*\*<< Begin of insert by vijay on 04/08/2020 - For contract header status CSDU/CCU. \*\*\*\*Check the header status. If CSDU or CCU then consider those contract. If not then set the delete flag to ignore the contract. READ TABLE lt hdr stat csdu INTO DATA(ls hdr stat csdu) WITH KEY objnr = <fs final>-header objectno. IF sy-subrc NE 0. <fs final>-flag = 'X'. ENDIF. \*\*>> End of insert by vijay on 04/08/2020 \*\*Check the item status. If its falls under 'DUP' , 'PDX' , 'PRX' , 'PCA' , 'PCE' , 'PEX' , then set the delete flag to ignore the c READ TABLE It item status INTO DATA(ls item status) WITH KEY objnr = <fs final>-item objectno. IF sy-subrc = 0. <fs final>-flag = 'X'. ENDIF. IF <fs final>-flag IS INITIAL AND <fs final>-product hierarchy IS NOT INITIAL. \*\*<< Begin of comment by vijay on 09/03/2021 - To incorporate new prod hier design <fs final>-prodh1 = <fs final>-product hierarchy+0(5). <fs\_final>-prodh2 = <fs\_final>-product\_hierarchy+0(9).

<fs final>-prodh3 = <fs\_final>-product\_hierarchy+0(14). <fs final>-prodh4 = <fs final>-product hierarchy+0(18). \*\*>> End of comment by vijay on 09/03/2021 \*\*<< Begin of insert by vijay on 09/03/2021 - To incorporate new prod hier design <fs final>-prodh1 = <fs final>-product hierarchy+0(2). <fs\_final>-prodh2 = <fs\_final>-product\_hierarchy+0(5). <fs final>-prodh3 = <fs final>-product hierarchy+0(9). <fs final>-prodh4 = <fs final>-product hierarchy+0(14). \*\*>> End of insert by vijay on 09/03/2021 ENDIF. \*\*Move Delivery method to final table IF <fs\_final>-flag IS INITIAL. READ TABLE 1t delivery\_method INTO DATA(ls\_delivery\_method) WITH KEY sales doc = <fs final>-contract item = <fs final>-item material = <fs final>-product. IF sy-subrc = 0. <fs final>-delivery method = ls delivery method-description. ENDIF. ENDLOOP. \*\*Delete the records where Header and item status not met our condition DELETE lt final tab WHERE flag = 'X'. SORT lt final tab BY product contract item. IF lt final tab[] IS NOT INITIAL. \*\*\*Get the product hierarhy description SELECT prodh, vtext INTO TABLE @DATA(lt suite) FROM t179t FOR ALL ENTRIES IN @lt final tab WHERE prodh EQ @lt final tab-prodh1. IF sy-subrc = 0. ENDIF. SELECT prodh, vtext INTO TABLE @DATA(lt sol family) FROM t179t FOR ALL ENTRIES IN @lt final tab WHERE prodh EQ @lt final tab-prodh2. IF sy-subrc = 0. ENDIF. SELECT prodh, vtext INTO TABLE @DATA(lt solution) FROM t179t FOR ALL ENTRIES IN @lt final tab WHERE prodh EQ @lt final tab-prodh3. IF sy-subrc = 0. ENDIF. \*\*For Capability SELECT prodh,

```
INTO TABLE @DATA(lt capability)
                   FROM t179t
                   FOR ALL ENTRIES IN @lt final tab
                   WHERE prodh EQ @lt final tab-prodh4.
            IF sy-subrc = 0.
            ENDIF.
***file
***Create the file name
           CLEAR: lv file name.
           CONCATENATE con path
                       'version_update_'
                       sy-datum
                       1 1
                       sy-uzeit
                       '.csv' INTO lv file name.
***& Open the Output file
          OPEN DATASET lv_file_name FOR OUTPUT IN TEXT MODE ENCODING DEFAULT.
**Now we got all the records so we can go ahead and update it.
           LOOP AT lt final tab ASSIGNING <fs final>.
**Get the existing values
              CLEAR: ls inst rec , ls values.
              CALL FUNCTION 'CUCB GET SINGLE INSTANCE'
                EXPORTING
                  instance
                                               = <fs final>-vc config
                IMPORTING
                                               = ls inst rec
                 instance rec
                EXCEPTIONS
                  invalid instance
                  instance_is_a_classification = 2
                  OTHERS
**<< Begin of comment by vijay on 07/10/2020 - Redesign
              READ TABLE ls_inst_rec-values ASSIGNING FIELD-SYMBOL(<lfs_values>)
                                          WITH KEY atinn = lv rel pkg atinn.
**>> End of comment by vijay on 07/10/2020
**<< Begin of insert by vijay on 07/10/2020 - Redesign
             READ TABLE 1s inst rec-values ASSIGNING FIELD-SYMBOL (<1fs values>)
                                         WITH KEY atinn = lv vc ver atinn.
**>> End of insert by vijay on 07/10/2020
              IF sy-subrc = 0.
                IF <lfs_values>-atwrt = lv_version.
                  CONTINUE.
                  <lfs values>-atwrt = lv version.
                ENDIF.
**<< Begin of comment by vijay on 07/10/2020 - Redesign
                ls values-atinn = lv rel pkg atinn.
**>> End of comment by vijay on 07/10/2020
**<< Begin of insert by vijay on 07/10/2020 - Redesign
                ls values-atinn = lv vc ver atinn.
**<< Begin of insert by vijay on 07/10/2020 - Redesign
                ls values-atwrt = lv version.
                ls values-atcod = 1.
```

```
APPEND ls_values TO ls_inst_rec-values.
                CLEAR: ls values.
**<< Begin of insert by vijay on 07/10/2020 - Redesign
**For Updating Release Package ID
                ls_values-atinn = lv_vc_rp_id_atinn.
                ls_values-atwrt = lv_rp_id.
                ls values-atcod = 1.
                APPEND ls_values TO ls_inst_rec-values.
                CLEAR: ls values.
**>> End of insert by vijay on 07/10/2020
             ENDIF.
**Set the Vc value
              CALL FUNCTION 'CUCB_SET_VALUES_TO_INSTANCE'
                EXPORTING
                  instance rec
                                              = ls inst rec
                EXCEPTIONS
                  invalid instance
                  instance_is_a_classification = 2
              IF sy-subrc = 0.
**Save to DB
                CALL FUNCTION 'CUCB CONFIGURATION TO DB'
                  EXPORTING
                                              = <fs_final>-vc_config
= ls_inst_rec-owner
                   root_instance
                   root object
                  EXCEPTIONS
                    invalid instance
                                                 = 1
                    invalid_root_instance
                    no changes
                    already_registered_for_update = 4
                    instance is a classification = 5
                    OTHERS
                IF sy-subrc = 0.
                  COMMIT WORK AND WAIT.
                ENDIF.
             ENDIF.
*** Get Suite Description
            READ TABLE 1t suite INTO DATA(1s suite) WITH KEY prodh =
<fs final>-prodh1.
            IF sy-subrc = 0.
               <fs_final>-vtext1 = ls_suite-vtext.
             ENDIF.
*** Get Solution Family Description
            READ TABLE It sol family INTO DATA(ls sol family) WITH KEY prodh =
<fs final>-prodh2.
             IF sy-subrc = 0.
               <fs final>-vtext2 = ls sol family-vtext.
             ENDIF.
*** Get Solution Description
            READ TABLE It solution INTO DATA(Is solution) WITH KEY prodh =
<fs final>-prodh3.
             IF sy-subrc = 0.
               <fs final>-vtext3 = ls solution-vtext.
             ENDIF.
```

```
Get Capability Description
             READ TABLE 1t capability INTO DATA(1s capability) WITH KEY prodh =
<fs final>-prodh4.
             IF sy-subrc = 0.
               <fs final>-vtext4 = ls capability-vtext.
             ENDIF.
**Update the log table
             CLEAR: ls_history.
             ______ contract = <fs_final>-contract.
ls_history-item = <fs_final>-2.
             ls_history-processed_time = sy-uzeit.
             ls history-delivery method = <fs final>-delivery method.
             ls history-cont end date = <fs final>-header enddate.
             MODIFY zas verupd log FROM ls history.
***file
***Write the data into application server file
            CLEAR: lv file data.
            CONCATENATE <fs final>-ship to
                        <fs final>-ship to customer
                        <fs_final>-ship_to_2ltr
                        <fs final>-sold to customer
                        <fs final>-sold to 2ltr
                        <fs final>-product
                        <fs final>-vtext1
                        <fs final>-vtext2
                        <fs final>-vtext3
                        <fs final>-vtext4
                        <fs final>-material desc
                        <fs final>-class desc
                         <fs_final>-vc_prod_characteristic_value
                        lv version
                        <fs final>-contract
                        <fs final>-item
                        <fs final>-po description
                        <fs_final>-header_enddate
                        <fs final>-header insdate
                        <fs_final>-delivery_method
                        INTO lv file data
                        SEPARATED BY con delimit.
            TRANSFER lv file data TO lv file name.
            CLEAR: lv file data.
           ENDLOOP.
**file
**& Close the file
          CLOSE DATASET lv file name.
           CLEAR: ls status.
```

```
ls_status-identifier = 1.
         ls status-success = abap true.
       ELSE.
         CLEAR: ls status.
         ls status-identifier = 1. "Data Issue - Update Failed
         ls_status-success = abap false.
       ENDIF.
      "Set return status based on action:
      me->copy data to ref(
       EXPORTING
         is data = ls status
        CHANGING
        cr_{data} = er_{data}).
     ELSE.
       "Failed due to invalid action by user:
       ls_status-identifier = 2.
                                             "Access Issue - No Auth
       ls status-success = abap false.
     "Set return status based on action:
     me->copy data to ref(
       EXPORTING
        is data = ls status
       CHANGING
        cr_{data} = er_{data}).
   WHEN OTHERS.
 ENDCASE.
ENDMETHOD.
```

#### CONTRACTVERSIOND GET ENTITYSET

```
METHOD contractversiond get entityset.
*CALL METHOD SUPER->CONTRACTVERSIOND GET ENTITYSET
 EXPORTING
   IV ENTITY NAME
   IV ENTITY SET NAME
   IV_SOURCE_NAME
   IT FILTER SELECT OPTIONS =
   IS PAGING
  IT_KEY_TAB
  IT_NAVIGATION_PATH
  IT_ORDER
* IV_FILTER_STRING
* IV_SEARCH_STRING
    io tech request context =
** IMPORTING
** et_entityset
    es_response_context
** CATCH /iwbep/cx mgw busi exception .
** CATCH /iwbep/cx mgw tech exception .
**ENDTRY.
**Structure declaration
   TYPES: BEGIN OF st_final_tab,
```

06/20/2024 12 00:03:20

```
contract
                                        TYPE vbeln va,
                                        TYPE posnr_va,
            item
                                        TYPE vndat_veda,
            header enddate
            item enddate
                                      TYPE vndat veda,
                                      TYPE vidat_veda,
TYPE ktext v,
            header insdate
                                       TYPE ktext v,
            po description
            product
                                       TYPE matnr,
                                     TYPE prodh_d,
TYPE objko,
            product hierarchy
            header objectno
                                      TYPE objpo,
TYPE arktx,
            item objectno
            material desc
                                      TYPE kunnr,
            ship_to
                                     TYPE name1_gp,
TYPE sort1,
TYPE name1_gp,
TYPE sort1,
            ship_to_customer
            ship to 2ltr
            sold to customer
            sold to 2ltr
            class desc
                                        TYPE klschl,
            prod characteristic name TYPE atnam,
             prod_characteristic_name_desc TYPE atbez,
             vc prod characteristic name TYPE atnam,
            vc_charateristic_desc TYPE atbez,
            vc_prod_characteristic_value TYPE atwrt,
            vc description
                                        TYPE atwtb,
            prodh1
                                        TYPE prodh d,
                                        TYPE bezei40,
            vtext1
            prodh2
                                        TYPE prodh d,
                                        TYPE bezei40,
            vtext2
            prodh3
                                        TYPE prodh d,
                                       TYPE bezei40,
            vtext3
                                        TYPE prodh d,
            prodh4
                                      TYPE bezei40,
            vtext4
            delivery_method
                                       TYPE atwtb,
            flag(1)
                                        TYPE c,
          END OF st final tab.
**Internal table and Workarea declaration
   DATA: It final tab TYPE TABLE OF st final tab,
         ls final tab TYPE
                                   st final tab.
   DATA is entity LIKE LINE OF et entityset.
   DATA lo_filter TYPE REF TO /iwbep/if_mgw_req_filter.
   DATA lt filter select options TYPE /iwbep/t mgw select option.
   DATA is filter TYPE /iwbep/s mgw select option.
   DATA lv filter str TYPE string.
   DATA ls converted_keys LIKE LINE OF et_entityset.
   DATA: ls order TYPE /iwbep/s mgw sorting order.
**Structure and Internal table for input parameters
   ls ship to
                       LIKE LINE OF lr_ship_to,
         lr_ship_to_cust LIKE RANGE OF ls_converted_keys-ship_to_cust,
         ls_ship_to_cust LIKE LINE OF lr_ship_to_cust,
         lr_ship_to_2ltr LIKE RANGE OF ls_converted_keys-ship_to_2ltr,
         ls ship to 21tr LIKE LINE OF 1r ship to 21tr,
         1r sold to cust LIKE RANGE OF 1s converted keys-sold to cust,
```

```
ls_sold_to_cust LIKE LINE OF lr_sold_to_cust,
         lr sold to 21tr LIKE RANGE OF 1s converted keys-sold to 21tr,
         ls sold to 21tr LIKE LINE OF 1r sold to 21tr,
         1r rel pkg name LIKE RANGE OF 1s converted keys-rel pkg name,
         ls_rel_pkg_name LIKE LINE OF lr_rel_pkg_name,
         ls contract LIKE LINE OF lr contract.
**Constant declataion
   CONSTANTS: con_obtyp vbk TYPE jsto-obtyp VALUE 'VBK',
              con_obtyp_vbp TYPE jsto-obtyp VALUE 'VBP',
              con del method TYPE atnam VALUE 'ZAS PRODUCT_DELIVERY_METHOD',
**<< Begin of insert by vijay on 04/08/2020- For contract header status CSDU/CCU
              con csdu TYPE j txt04 VALUE 'CSDU',
              con ccu
                          TYPE j txt04 VALUE 'CCU'.
**>> End of insert by vijay on 04/08/2020
* Get filter or select option information
   lo_filter = io_tech_request_context->get_filter().
   lt filter select options = lo filter->get filter select options().
   lv_filter_str = lo_filter->get_filter_string().
   IF lt filter select options[] IS NOT INITIAL.
     LOOP AT 1t filter select options INTO 1s filter.
       CASE ls filter-property.
         WHEN 'SHIP_TO'.
           lo filter->convert_select_option(
             EXPORTING
               is select option = ls filter
             IMPORTING
               et select option = lr ship to ).
         WHEN 'SHIP TO CUST'.
           lo filter->convert_select_option(
             EXPORTING
               is select option = ls filter
             IMPORTING
               et_select_option = lr_ship_to_cust ).
         WHEN 'SHIP TO 2LTR'.
           lo filter->convert_select_option(
             EXPORTING
               is select option = ls filter
             IMPORTING
               et_select_option = lr_ship_to_2ltr ).
         WHEN 'CONTRACT'.
           lo filter->convert select option(
             EXPORTING
               is select option = ls filter
             IMPORTING
               et select option = lr contract ).
          WHEN 'SOLD TO CUST'.
            lo filter->convert select option(
              EXPORTING
                is select option = ls filter
              IMPORTING
                et_select_option = lr_sold_to_cust ).
          WHEN 'SOLD TO 2LTR'.
            lo filter->convert select option(
```

```
EXPORTING
                is_select_option = ls_filter
              IMPORTING
                et select option = lr sold to 2ltr ).
         WHEN 'REL PKG NAME'.
           lo filter->convert select option(
             EXPORTING
               is_select_option = ls filter
              IMPORTING
               et select option = lr rel pkg name ).
         WHEN OTHERS.
       ENDCASE.
     ENDLOOP.
   ENDIF.
**Get the data from View zas con prod rel (As it contains all the data)
       contract
       item
       header_enddate
       item enddate
       header_insdate
       po description
       product
       product_hierarchy
       header objectno
       item objectno
       material desc
       ship_to
       ship_to_customer
       ship_to_21tr
       sold_to_customer
       sold_to_2ltr
       class desc
        prod_characteristic_name
        prod_characteristic_name_desc
        prod characteristic value
        prod characteristic desc
       vc_prod_characteristic_name
       vc_charateristic_desc
       vc_prod_characteristic_value
       vc_description
       FROM zas con prod rel
       INTO TABLE lt_final_tab
       WHERE ship to customer IN lr ship to cust
       AND ship_to IN lr_ship_to
       AND ship_to_2ltr IN lr_ship_to_2ltr
        AND prod characteristic name desc IN lr rel pkg name
       AND class desc IN lr rel pkg name
             contract IN lr contract.
        AND (header enddate >= sy-datum OR header_enddate EQ '00000000').
"commented by 303638
       AND (item enddate >= sy-datum OR item enddate EQ '00000000').
   IF sy-subrc = 0.
**Get header status details only for CRX(To ignore the contract)
```

```
SELECT a~objnr,
             b~stat,
             c~txt04
             INTO TABLE @DATA(lt header status)
             FROM jsto AS a
             INNER JOIN jest AS b
             ON a~objnr = b~objnr
             INNER JOIN tj30t AS c
             ON a \sim stsma = c \sim stsma
             AND b \sim stat = c \sim estat
             FOR ALL ENTRIES IN @lt final tab
             WHERE a~objnr EQ @lt_final_tab-header_objectno
                  a~obtyp EQ @con obtyp vbk
             AND
             AND b~stat LIKE 'E%'
             AND b~inact EQ ''
             AND c~spras EQ 'E'
             AND
                  c~txt04 EQ 'CRX'.
     IF sy-subrc = 0.
     ENDIF.
**Get Item status details only for (DUP, PDX, PRX, PCA)(To ignore the contract)
     SELECT a~objnr,
             b~stat,
             c~txt04
             INTO TABLE @DATA(lt item status)
             FROM jsto AS a
             INNER JOIN jest AS b
             ON a~objnr = b~objnr
             INNER JOIN tj30t AS c
             ON a \sim stsma = c \sim stsma
             AND b \sim stat = c \sim estat
             FOR ALL ENTRIES IN @lt final tab
             WHERE a~objnr EQ @lt_final_tab-item_objectno
             AND a~obtyp EQ @con obtyp vbp
             AND b~stat LIKE 'E%'
             AND b~inact EQ ''
             AND c~spras EQ 'E'
                  c~txt04 IN ( 'DUP' , 'PDX' , 'PRX' , 'PCA' , 'PCE' , 'PEX' ).
             AND
"Insert PCE & PEX by 303638
     IF sy-subrc = 0.
     ENDIF.
**Get Contract item delivery method details
     SELECT sales doc,
             item,
             material,
             description
             FROM zas con prod ver
             INTO TABLE @DATA(lt delivery method)
             FOR ALL ENTRIES IN @lt final tab
             WHERE sales doc EQ @lt final tab-contract
             AND item EQ @lt_final_tab-item
             AND
                 material EQ @lt final tab-product
                   characteristic_name EQ @con_del_method.
     IF sy-subrc = 0.
     ENDIF.
```

```
**<< Begin of insert by vijay on 04/08/2020 - To consider only the contracts which is
having header status as CSDU/CCU.
**Get the header status details for CDSU and CCU
      SELECT a~objnr,
            b~stat,
             c~txt04
             INTO TABLE @DATA(lt hdr stat csdu)
             FROM jsto AS a
             INNER JOIN jest AS b
             ON a \sim objnr = b \sim objnr
             INNER JOIN tj30t AS c
             ON a~stsma = c~stsma
             AND b \sim stat = c \sim estat
             FOR ALL ENTRIES IN @lt final tab
             WHERE a~objnr EQ @lt final tab-header objectno
                 a~obtyp EQ @con obtyp vbk
                 b~stat LIKE 'E%'
             AND
             AND b~inact EQ @abap false
             AND c~spras EQ 'E'
             AND
                  c~txt04 IN (@con csdu , @con ccu ).
      IF sy-subrc = 0.
      ENDIF.
**>> End of insert by vijay on 04/08/2020
   ENDIF.
   LOOP AT 1t final tab ASSIGNING FIELD-SYMBOL(<fs final>).
**Check the header status. If CRX , then set the delete flag to ignore the contract.
     READ TABLE 1t header status INTO DATA(1s header status) WITH KEY objnr =
<fs final>-header objectno.
      IF sy-subrc = 0.
        <fs final>-flag = 'X'.
      ENDIF.
**<< Begin of insert by vijay on 04/08/2020 - For contract header status CSDU/CCU.
****Check the header status. If CSDU or CCU then consider those contract. If not then
set the delete flag to ignore the contract.
      READ TABLE 1t hdr stat csdu INTO DATA(1s hdr stat csdu) WITH KEY objnr =
<fs final>-header objectno.
      IF sy-subrc NE 0.
        <fs final>-flag = 'X'.
**>> End of insert by vijay on 04/08/2020
**Check the item status. If its falls under 'DUP' , 'PDX' , 'PRX' , 'PCA' , 'PCE' ,
'PEX' , then set the delete flag to ignore the c
      READ TABLE It item status INTO DATA(ls item status) WITH KEY objnr =
<fs final>-item objectno.
      IF sy-subrc = 0.
        <fs final>-flag = 'X'.
      ENDIF.
      IF <fs final>-flag IS INITIAL AND <fs final>-product hierarchy IS NOT INITIAL.
**<< Begin of comment by vijay on 09/03/2021 - To incorporate new prod hier design
         <fs final>-prodh1 = <fs final>-product hierarchy+0(5).
         <fs final>-prodh2 = <fs final>-product hierarchy+0(9).
         <fs final>-prodh3 = <fs final>-product hierarchy+0(14).
         <fs final>-prodh4 = <fs final>-product hierarchy+0(18).
**>> End of comment by vijay on 09/03/2021
```

```
**<< Begin of insert by vijay on 09/03/2021 - To incorporate new prod hier design
        <fs final>-prodh1 = <fs final>-product hierarchy+0(2).
        <fs final>-prodh2 = <fs final>-product hierarchy+0(5).
        <fs final>-prodh3 = <fs final>-product hierarchy+0(9).
        <fs final>-prodh4 = <fs final>-product hierarchy+0(14).
**>> End of insert by vijay on 09/03/2021
      ENDIF.
**Move Delivery method to final table
      IF <fs final>-flag IS INITIAL.
        READ TABLE 1t delivery method INTO DATA(1s delivery method) WITH KEY
sales doc = <fs final>-contract
item = <fs final>-item
material = <fs final>-product.
        IF sy-subrc = 0.
          <fs final>-delivery method = ls delivery method-description.
        ENDIF.
      ENDIF.
    ENDLOOP.
    DELETE lt final tab WHERE flag = 'X'.
    IF lt final tab[] IS NOT INITIAL.
**Get the product hierarhy description
      SELECT prodh,
             vtext
             INTO TABLE @DATA(lt suite)
             FROM t179t
             FOR ALL ENTRIES IN @lt final tab
             WHERE prodh EQ @lt final tab-prodh1.
      IF sy-subrc = 0.
      ENDIF.
      SELECT prodh,
             vtext
             INTO TABLE @DATA(lt sol family)
             FROM t179t
             FOR ALL ENTRIES IN @lt final tab
             WHERE prodh EQ @lt final tab-prodh2.
      IF sy-subrc = 0.
      ENDIF.
      SELECT prodh,
             vtext
             INTO TABLE @DATA(lt_solution)
             FROM t179t
             FOR ALL ENTRIES IN @lt final tab
             WHERE prodh EQ @lt final tab-prodh3.
      IF sy-subrc = 0.
      ENDIF.
      SELECT prodh,
             vtext
             INTO TABLE @DATA(lt capability)
             FROM t179t
             FOR ALL ENTRIES IN @lt final tab
             WHERE prodh EQ @lt final tab-prodh4.
      IF sy-subrc = 0.
**<< Begin of insert by vijay on 02/20/2020 - To display logs
```

```
**Get the Log details from ZAS VERUPD LOG table.
     SELECT contract,
            item,
            processed date,
            processed time,
            processed by,
            rel pkg name,
            curr prod ver
            FROM zas verupd log
            INTO TABLE @DATA(lt verupd log)
            FOR ALL ENTRIES IN @lt final tab
            WHERE contract EQ @lt_final_tab-contract
            AND item EQ @lt_final_tab-item
            AND rel pkg name EQ @lt final tab-class desc
            AND curr prod ver EQ @lt final tab-vc prod characteristic value.
     IF sy-subrc = 0.
        SORT 1t verupd log BY contract item ASCENDING
                             processed date DESCENDING
                             processed time DESCENDING.
        DELETE ADJACENT DUPLICATES FROM 1t verupd log COMPARING contract item.
**Get the processed by name from USER ADDR table
       SELECT bname,
               name textc
               FROM user addr
               INTO TABLE @DATA(lt user addr)
               FOR ALL ENTRIES IN @lt verupd log
              WHERE bname EQ @lt verupd log-processed by.
        IF sy-subrc = 0.
        ENDIF.
     ENDIF.
**>> End of insert by vijay on 02/20/2020
**Get Release Package ID from CDS View ZASV RPG DATA
     SELECT matnr rpg,
            rpg_desc
             FROM zasv_rpg_data
             INTO TABLE @DATA(lt rpg data)
            FOR ALL ENTRIES IN @lt final tab
            WHERE rpg desc EQ @lt final tab-class desc.
     IF sy-subrc = 0.
       SORT lt_rpg_data BY rpg_desc.
     SORT It final tab BY product contract.
     LOOP AT  lt final tab INTO ls final tab.
  Get Suite Description
       READ TABLE 1t suite INTO DATA(1s suite) WITH KEY prodh = 1s final tab-prodh1.
        IF sy-subrc = 0.
         ls final tab-vtext1 = ls suite-vtext.
       ENDIF.
   Get Solution Family Description
       READ TABLE 1t sol family INTO DATA(1s sol family) WITH KEY prodh =
ls final tab-prodh2.
        IF sy-subrc = 0.
         ls final tab-vtext2 = ls sol family-vtext.
        ENDIF.
```

```
Get Solution Description
        READ TABLE It solution INTO DATA(ls solution) WITH KEY prodh =
ls final tab-prodh3.
        IF sy-subrc = 0.
          ls final tab-vtext3 = ls solution-vtext.
   Get Capability Description
        READ TABLE lt_capability INTO DATA(ls_capability) WITH KEY prodh =
ls final tab-prodh4.
        IF sy-subrc = 0.
          ls final tab-vtext4 = ls capability-vtext.
        ENDIF.
  Move the values to entity set
        ls entity-ship to = ls final tab-ship to.
        ls entity-ship to cust = ls final tab-ship to customer.
        ls_entity-ship_to_2ltr = ls_final_tab-ship_to_2ltr.
        ls entity-sold_to_cust = ls_final_tab-sold_to_customer.
        ls_entity-sold_to_2ltr = ls_final_tab-sold to_2ltr.
        ls_entity-product = ls_final_tab-product.
ls_entity-suite = ls_final_tab-vtext1.
        ls_entity-solution_family = ls_final_tab-vtext2.
        ls entity-solution = ls final tab-vtext3.
        ls_entity-capability = ls_final_tab-vtext4.
        ls_entity-material_descr = ls_final_tab-material_desc.
        ls entity-rel pkg desc = ls final tab-prod characteristic name desc.
        ls entity-rel pkg name = ls final tab-prod characteristic name desc.
        ls_entity-rel_pkg_name = ls_final_tab-class_desc.
        ls_entity-rel_pkg_name = ls_final_tab-prod_characteristic_desc.
        ls_entity-curr_prod_ver = ls_final_tab-vc_prod_characteristic_value.
        ls_entity-curr_prod_ver = ls_final_tab-vc_prod_characteristic_name.
        ls entity-contract = ls final tab-contract.
        ls_entity-item = ls_final_tab-item.
        ls entity-po desc = ls final tab-po description.
        IF ls_final_tab-header_enddate EQ ''.
          ls entity-cont end date = '00000000'.
        ELSE.
          ls entity-cont end date = ls final tab-header enddate.
        ENDIF.
        IF ls final tab-header insdate EQ ''.
          ls entity-install date = '00000000'.
          ls entity-install date = ls final tab-header insdate.
        ls entity-delivery method = ls final tab-delivery method.
**<< Begin of insert by vijay on 02/20/2020 - for Log(Last updated by and date)
        READ TABLE 1t verupd log INTO DATA(1s verupd log) WITH KEY contract =
ls final tab-contract
                                                                     item
ls final tab-item
                                                                     rel_pkg_name =
ls_final_tab-class_desc
                                                                     curr prod ver =
ls final tab-vc prod characteristic value.
```

```
IF sy-subrc = 0.
**Move the Processed date as last updated date
          ls entity-updateddate = ls verupd log-processed date.
**Get the processed by user name
         READ TABLE 1t user addr INTO DATA(1s user addr) WITH KEY bname =
ls verupd log-processed by.
          IF sy-subrc = 0.
**Move the processed by user name to updated by
            ls entity-updatedby = ls user addr-name textc.
          ENDIF.
        ENDIF.
**>> End of insert by vijay on 02/20/2020
**Move Release Package ID
       READ TABLE 1t rpg data INTO DATA(1s rpg data) WITH KEY rpg desc =
ls final tab-class desc BINARY SEARCH.
        IF sy-subrc = 0.
          ls entity-rel pkg id = ls rpg data-matnr rpg.
        ENDIF.
        APPEND ls_entity TO et_entityset.
        CLEAR: ls entity,
               ls_rpg_data.
      ENDLOOP.
   ENDIF.
** $inlinecount query option for all count entries.
    IF io tech request context->has inlinecount() = abap true.
      DESCRIBE TABLE et entityset LINES es response context-inlinecount.
      CLEAR: es response context-inlinecount.
   ENDIF.
**** The function module for $top and $skip Query Options
    CALL METHOD /iwbep/cl mgw data util=>paging
      EXPORTING
        is paging = is paging
      CHANGING
        ct data = et entityset.
   IF et entityset[] IS NOT INITIAL.
      READ TABLE it order INTO 1s order INDEX 1.
      IF sy-subrc = 0.
        IF ls order-order EQ 'asc'.
          CASE ls order-property.
            WHEN 'ShipTo'.
              SORT et entityset BY ship_to ASCENDING.
            WHEN 'ShipToCust'.
              SORT et entityset BY ship to cust ASCENDING.
            WHEN 'ShipTo2ltr'.
              SORT et entityset BY ship to 21tr ASCENDING.
            WHEN 'SoldToCust'.
              SORT et entityset BY sold to cust ASCENDING.
            WHEN 'SoldTo2ltr'.
              SORT et entityset BY sold to 21tr ASCENDING.
            WHEN 'Product'.
              SORT et entityset BY product ASCENDING.
            WHEN 'Suite'.
              SORT et entityset BY suite ASCENDING.
```

WHEN 'SolutionFamily'.

```
SORT et entityset BY solution family ASCENDING.
            WHEN 'Solution'.
              SORT et entityset BY solution ASCENDING.
            WHEN 'Capability'.
              SORT et entityset BY capability ASCENDING.
            WHEN 'MaterialDescr'.
              SORT et_entityset BY material_descr ASCENDING.
            WHEN 'RelPkgName'.
              SORT et entityset BY rel pkg name ASCENDING.
            WHEN 'CurrProdVer'.
              SORT et_entityset BY curr_prod_ver ASCENDING.
            WHEN 'Contract'.
              SORT et entityset BY contract ASCENDING.
            WHEN 'Item'.
              SORT et entityset BY item ASCENDING.
            WHEN 'PoDesc'.
              SORT et_entityset BY po_desc ASCENDING.
            WHEN 'ContEndDate'.
              SORT et entityset BY cont end date ASCENDING.
            WHEN 'InstallDate'.
              SORT et entityset BY install date ASCENDING.
            WHEN 'DeliveryMethod'.
              SORT et entityset BY delivery method ASCENDING.
**<< Begin of insert by vijay on 02/20/2020 - log
            WHEN 'Updatedby'.
              SORT et entityset BY updatedby ASCENDING.
            WHEN 'Updateddate'.
              SORT et_entityset BY updateddate ASCENDING.
**>> End of insert by vijay on 02/20/2020
            WHEN 'RelPkgId'.
              SORT et entityset BY rel pkg id ASCENDING.
          ENDCASE.
        ELSEIF ls_order-order EQ 'desc'.
          CASE ls order-property.
            WHEN 'ShipTo'.
              SORT et entityset BY ship to DESCENDING.
            WHEN 'ShipToCust'.
              SORT et_entityset BY ship_to_cust DESCENDING.
            WHEN 'ShipTo2ltr'.
              SORT et_entityset BY ship_to_21tr DESCENDING.
            WHEN 'SoldToCust'.
              SORT et entityset BY sold to cust DESCENDING.
            WHEN 'SoldTo2ltr'.
              SORT et entityset BY sold to 2ltr DESCENDING.
            WHEN 'Product'.
              SORT et entityset BY product DESCENDING.
            WHEN 'Suite'.
              SORT et entityset BY suite DESCENDING.
            WHEN 'SolutionFamily'.
              SORT et entityset BY solution family DESCENDING.
            WHEN 'Solution'.
              SORT et entityset BY solution DESCENDING.
            WHEN 'Capability'.
```

```
SORT et_entityset BY capability DESCENDING.
            WHEN 'MaterialDescr'.
              SORT et entityset BY material descr DESCENDING.
            WHEN 'RelPkgName'.
              SORT et entityset BY rel pkg name DESCENDING.
           WHEN 'CurrProdVer'.
             SORT et_entityset BY curr_prod_ver DESCENDING.
            WHEN 'Contract'.
              SORT et entityset BY contract DESCENDING.
           WHEN 'Item'.
              SORT et entityset BY item DESCENDING.
           WHEN 'PoDesc'.
             SORT et entityset BY po desc DESCENDING.
           WHEN 'ContEndDate'.
             SORT et entityset BY cont end date DESCENDING.
           WHEN 'InstallDate'.
              SORT et entityset BY install date DESCENDING.
           WHEN 'DeliveryMethod'.
              SORT et entityset BY delivery method DESCENDING.
**<< Begin of insert by vijay on 02/20/2020 - log
           WHEN 'Updatedby'.
             SORT et entityset BY updatedby DESCENDING.
           WHEN 'Updateddate'.
              SORT et_entityset BY updateddate DESCENDING.
**>> End of insert by vijay on 02/20/2020
           WHEN 'RelPkgId'.
             SORT et entityset BY rel pkg id DESCENDING.
       ENDIF.
     ENDIF.
   ENDIF.
*** The function module for $top and $skip Query Options
   CALL METHOD /iwbep/cl mgw data util=>paging
     EXPORTING
       is_paging = is_paging
     CHANGING
       ct data = et entityset.
***Get the product release package data with contract
    SELECT contract
           item
           po_description
           product
           material desc
           sold to customer
           sold_to_21tr
             characteristic name,
             characteristic value,
           characteristic desc
           FROM zas_con_prod_rel
            INTO TABLE lt_final_tab
           WHERE characteristic_desc IN lr_rel_pkg_name
                contract IN lr contract.
           AND
  IF sy-subrc = 0.
***Get contract product version from view ZCDS_CON_VERSION
```

```
SELECT sales doc,
             item,
             characteristic name,
             charateristic desc,
             characteristic value,
             description,
             material
             FROM zas_con_prod_ver
              INTO TABLE @DATA(lt con version)
              FOR ALL ENTRIES IN @lt final tab
             WHERE sales doc = @lt final tab-contract
              AND item = @lt_final_tab-item
              AND material = @lt_final_tab-product.
***Get VEDA details
     SELECT vbeln,
             vposn,
             venddat,
             vkuesch
             FROM veda
             INTO TABLE @DATA(lt veda)
             FOR ALL ENTRIES IN @lt final tab
             WHERE vbeln EQ @lt_final_tab-contract
              AND venddat GT @sy-datum
             AND vkuesch = ''.
      IF sy-subrc = 0.
      ENDIF.
***Get Shift to details from VBPA
      SELECT vbeln,
             posnr,
             parvw,
             kunnr
             FROM vbpa
             INTO TABLE @DATA(lt_vbpa)
              FOR ALL ENTRIES IN @lt final tab
             WHERE vbeln EQ @lt final tab-contract
             AND parvw EQ 'WE'.
      IF sy-subrc = 0.
***Get Customer Name and 21tr code
        SELECT kunnr,
               name1,
                sortl
               FROM kna1
               INTO TABLE @DATA(lt kna1)
               FOR ALL ENTRIES IN @lt vbpa
               WHERE kunnr EQ @lt vbpa-kunnr.
        IF sy-subrc = 0.
        ENDIF.
     ENDIF.
    ENDIF.
    LOOP AT lt_final_tab ASSIGNING FIELD-SYMBOL(<fs_final_tab>).
        Check contract is active or not?? if not just ignore the entry
      READ TABLE lt_veda INTO DATA(ls_veda) WITH KEY vbeln = <fs_final_tab>-contract
```

```
vposn = '000000'.
       IF ls veda-venddat LT sy-datum.
        <fs final tab>-flag = 'X'.
        CONTINUE.
      ENDIF.
***Check line item is active or not
      READ TABLE lt_veda INTO DATA(ls_veda_item) WITH KEY vbeln =
<fs final tab>-contract
                                                            vposn =
<fs_final_tab>-item.
      IF sy-subrc NE 0.
      ELSE.
        IF ls veda-venddat LT sy-datum.
          <fs final tab>-flag = 'X'.
          CONTINUE.
       ENDIF.
      ENDIF.
***Get contract version
      READ TABLE lt_con_version INTO DATA(ls_con_version) WITH KEY sales_doc =
<fs final tab>-contract
                                                                     item
<fs final tab>-item
                                                                     material =
<fs final tab>-product.
       IF sy-subrc = 0.
        <fs final tab>-curr prod ver = ls con version-characteristic value.
      ENDIF.
***Get shift to
      READ TABLE lt_vbpa INTO DATA(ls_vbpa_item) WITH KEY vbeln =
<fs final tab>-contract
                                                      posnr = <fs final tab>-item.
       IF sy-subrc = 0.
        <fs final tab>-ship to = ls vbpa item-kunnr.
        READ TABLE 1t vbpa INTO DATA(1s vbpa) WITH KEY vbeln =
<fs final tab>-contract
                                                    posnr = '000000'.
         IF sy-subrc = 0.
          <fs_final_tab>-ship_to = ls_vbpa-kunnr.
        ENDIF.
      IF <fs final tab>-ship to IS NOT INITIAL.
***Get shipt to name and 21tr code
       READ TABLE 1t kna1 INTO DATA(ls kna1) WITH KEY kunnr =
<fs final tab>-ship to.
         IF sy-subrc = 0.
           <fs final tab>-ship to cust = ls knal-name1.
           <fs final tab>-ship to 2ltr = ls knal-sortl.
        ENDIF.
      ENDIF.
      CLEAR: ls_kna1 , ls_vbpa , ls_vbpa_item , ls_veda_item , ls_veda.
    ENDLOOP.
    DELETE lt final tab WHERE flag = 'X'.
```

```
IF lr_ship_to_cust[] IS NOT INITIAL.
    DELETE lt final tab WHERE ship to cust NOT IN lr ship to cust.
   ENDIF.
   IF lr ship to 2ltr[] IS NOT INITIAL.
    DELETE 1t final tab WHERE ship to 21tr NOT IN 1r ship to 21tr.
  ENDIF.
             lt final tab INTO ls final tab.
   LOOP AT
     ls entity-ship to cust = ls final tab-ship to cust.
     ls_entity-ship_to_2ltr = ls_final_tab-ship_to_2ltr.
     ls entity-sold to cust = ls final tab-sold to cust.
     ls_entity-sold_to_2ltr = ls_final_tab-sold_to_2ltr.
                        = ls final tab-product.
     ls entity-product
     ls entity-material descr = ls final tab-material descr.
     ls entity-rel pkg name = ls final tab-rel pkg name.
     ls_entity-curr_prod_ver = ls_final_tab-curr_prod_ver.
     ls_entity-contract = ls_final_tab-contract.
     ls_entity-item = ls_final_tab-item.
     ls_entity-po_desc = ls_final_tab-po_desc.
     APPEND ls entity TO et entityset.
    CLEAR: ls entity.
  ENDLOOP.
ENDMETHOD.
```

#### IF SADL GW QUERY CONTROL~SET QUERY OPTIONS

```
METHOD if sadl gw query control~set query options.
*CALL METHOD SUPER->IF SADL GW QUERY CONTROL~SET QUERY OPTIONS
* EXPORTING
   IV ENTITY SET
    IO_QUERY_OPTIONS =
** CATCH /iwbep/cx_mgw_busi_exception .
** CATCH /iwbep/cx mgw tech exception .
**ENDTRY.
   "Method-local data declarations:
   DATA lt parameters TYPE if sadl public types=>tt entity parameters.
   DATA lt sort_elements TYPE if_sadl_public_types=>tt_sort_elements.
   DATA lt search scope TYPE if sadl public types=>tt search scope.
   DATA lo provider TYPE REF TO if sadl cond prov auth objects.
   DATA lv_search_term
                       TYPE string.
   CASE iv entity set.
     WHEN 'ShipToCustSet'.
       "Set search scope to include all visible/requested (above) fields:
       lt search scope = VALUE #( ( `CUSTOMER` ) ( `NAME` ) ( `CODE` ) ).
       io_query_options->set_text_search_scope( lt_search_scope ).
       lv search term = io query options->get text search term().
       lv search term = `*` && lv search term && `*`.
       io query options->set text search term( lv search term ).
     WHEN OTHERS.
   ENDCASE.
 ENDMETHOD.
```

#### RELEASEPKGDATASE GET ENTITYSET

```
METHOD releasepkgdatase get entityset.
**TRY.
*CALL METHOD SUPER->RELEASEPKGDATASE GET ENTITYSET
* EXPORTING
   IV ENTITY NAME
   IV ENTITY SET NAME
   IV_SOURCE NAME
  IT FILTER SELECT OPTIONS =
  IS_PAGING
IT_KEY_TAB
* IT_NAVIGATION_PATH =

* IT_ORDER =

* IV_FILTER_STRING =

* IV_SEARCH_STRING =
** io tech_request_context =
** IMPORTING
** et entityset
   es_response_context =
** CATCH /iwbep/cx mgw busi exception .
** CATCH /iwbep/cx mgw tech exception .
**ENDTRY.
**<< Begin of insert by vijay on 07/10/2020 - Redesign
   SELECT rpg desc
          FROM zasv_rpg_data
           INTO TABLE @DATA(lt rel pkg).
    IF sy-subrc = 0.
     SORT lt rel pkg BY rpg desc.
      et entityset[] = lt rel pkg[].
   ENDIF.
**>> End of insert by vijay on 07/10/2020
**<< Begin of comment by vijay on 07/10/2020 - Redesign
   SELECT class desc
                FROM zas clas rel pkg
                INTO TABLE @DATA(lt rel pkg).
  IF sy-subrc = 0.
     SORT lt rel pkg BY class desc.
     et entityset[] = lt rel pkg[].
   ENDIF.
**>> End of comment by vijay on 07/10/2020
  ENDMETHOD.
```

#### RELEASEPKGVERNDA GET ENTITYSET

```
METHOD releasepkgvernda get entityset.
**TRY.
*CALL METHOD SUPER->RELEASEPKGVERNDA GET ENTITYSET
* EXPORTING
   IV ENTITY NAME
  IV_ENTITY_SET_NAME
IV_SOURCE_NAME
  IT FILTER SELECT OPTIONS =
```

```
IS PAGING
    IT KEY TAB
    IT NAVIGATION PATH
   IT ORDER
   IV FILTER STRING
   IV SEARCH STRING
    io_tech_request_context =
** IMPORTING
**
    et entityset
* *
     es response context
** CATCH /iwbep/cx_mgw_busi_exception .
** CATCH /iwbep/cx mgw tech exception .
**ENDTRY.
*Internal table and Workarea declaration
   DATA: lo filter TYPE REF TO /iwbep/if mgw req filter.
   DATA: lt_filter_select_options TYPE /iwbep/t_mgw_select_option.
   DATA: ls filter TYPE /iwbep/s mgw select option.
   DATA: lv_filter_str TYPE string.
   DATA: Is converted keys LIKE LINE OF et entityset.
   DATA: ls entityset LIKE LINE OF et entityset.
   DATA: It order TYPE /iwbep/t mgw tech order.
   DATA: ls order TYPE /iwbep/s_mgw_tech_order.
   DATA: lt otab TYPE abap_sortorder_tab,
         ls oline TYPE abap sortorder.
**Structure and Internal table for input parameters
   DATA: Ir rel pkg name LIKE RANGE OF ls converted keys-release pkg name,
         ls rel pkg name LIKE LINE OF lr rel pkg name.
**<< Begin of insert by vijay on 08/31/2020 -To display only serviceable version
**Constants declaration
   CONSTANTS: lc flag y TYPE c VALUE 'Y'.
**>> End of insert by vijay on 08/31/2020
**Get filter or select option information
   lo_filter = io_tech_request_context->get_filter().
   lt_filter_select_options = lo_filter->get_filter_select options().
   lv filter str = lo filter->get filter string().
   IF lt filter select options[] IS NOT INITIAL.
     LOOP AT 1t filter select options INTO 1s filter.
       CASE ls filter-property.
          WHEN 'RELEASE PKG NAME'.
            lo_filter->convert_select_option(
             EXPORTING
               is select option = ls filter
              IMPORTING
               et select option = lr rel pkg name ).
         WHEN OTHERS.
       ENDCASE.
     ENDLOOP.
   ENDIF.
**Get Release Package with Version details
   SELECT zas_rp_desc,
          zas_rp_version
          FROM zas rp vrsn mast
          INTO TABLE @DATA(lt_rp_vrsn_mast)
```

```
WHERE zas_rp_desc IN @lr_rel_pkg_name
          AND zas serv flag = @lc flag y.
                                                       "Added by vijay on 08/31/2020
- To display only serviceable flag
   IF sy-subrc = 0.
     et_entityset[] = lt_rp_vrsn_mast[].
     SORT et entityset BY release pkg name version.
** $inlinecount query option for all count entries.
     IF io tech request_context->has_inlinecount() = abap_true.
        DESCRIBE TABLE et entityset LINES es response context-inlinecount.
     ELSE.
        CLEAR: es response context-inlinecount.
     ENDIF.
*** The function module for $top and $skip Query Options
     CALL METHOD /iwbep/cl_mgw_data_util=>paging
       EXPORTING
         is paging = is paging
        CHANGING
         ct data = et entityset.
**Sorting
     lt order = io tech request context->get orderby().
     LOOP AT 1t order INTO 1s order.
        ls oline-name = ls order-property.
        IF ls_order-order = /iwbep/cl_mgw_data_util=>gcs_sorting_order-descending.
         ls oline-descending = abap true.
       ENDIF.
       APPEND Is oline TO It otab.
       CLEAR ls oline.
     ENDLOOP.
     IF lt otab[] IS NOT INITIAL.
       SORT et entityset BY (lt otab).
     ENDIF.
   ENDIF.
 ENDMETHOD.
```

## **Local Types**

```
*"* definitions, interfaces or type declarations) you need for
*"* components in the private section
Local class definitions

*"* use this source file for the definition and implementation of
*"* local helper classes, interface definitions and type
*"* declarations
Macros
```

\*"\* use this source file for any type of declarations (class

\*"\* use this source file for any macro definitions you need

\*"\* in the implementation part of the class

# Overview

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