```
          ZCL_CRM_BOR_CASE              Release 740              System
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```
          Class: ZCL_CRM_BOR_CASE
          Status: Active
          Inh. from: ZCL_CRM_BOR_PROXY

          Attributes

          Description: BOR case
          Instantiation: Public
          Final
          Not released
          Fixed pt.arithmetic
          Program status: Customer Production Program
          Category: General Object Type
          Package: ZCRM
          Original lang.: EN
          Created by: P000520
          Created on: 15.12.2014
          Last changed by: P000520
          Last changed on: 17.12.2014


          Attributes
          Public attributes
          Attrib.    Cat    Description    Ref. Type        Init. value
          _____
          C_TYPE     Inst   Object Type    TYPE SWO_OBJTYP  'BUS20900'
               _____


          Methods

          Public methods

          CONSTRUCTOR
          Description: CONSTRUCTOR
          Instance mthd
          Importing parameter
            VALUE(P_KEY) TYPE SWO_TYPEID  OPTIONAL  (Object key)

            METHOD constructor.
              CALL METHOD super->constructor
                EXPORTING
                  p_key = p_key.
              me->av_type = c_type.
            ENDMETHOD.

          SET_TASK_REFERENCE
```

Description: Creates a case with reference to a task and makes it this.

Instance mthd

Importing parameter
    VALUE(PO_TASK) TYPE REF TO ZCL_CRM_BOR_TASK (BOR task)
    VALUE(PO_CASE) TYPE REF TO ZCL_CRM_BOR_CASE OPTIONAL (BOR case)
    PT_TASKS TYPE ZT_CRM_BOR_PROXY OPTIONAL (List of BOR instances)

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    P_MPARTNER TYPE BU_PARTNER (Main partner)
Exceptions
    CX_BAPI_ERROR (BAPI Error Exception: Migrated Error Messages
Type "E")

```
METHOD set_task_reference.
  DATA: lt_args     TYPE           swconttab,
        lt_retr     TYPE           swconttab,
        lt_attr     TYPE           bapiproptb_t,
        lw_attr     TYPE           bapiproptb,
        lt_elem_id  TYPE           bapipropme_tab,
        lw_elem_id  TYPE           bapipropme,
        lt_elem_ins TYPE TABLE OF bapidocins,
        lw_elem_ins TYPE           bapidocins,
        lt_elem_att TYPE           bapipropme_tab,
        lw_elem_att TYPE           BAPIPROPME,
        lt_elem_rel TYPE TABLE OF bapireltb,
        lt_return   TYPE           bapiret2_t,
        lw_return   TYPE           bapiret2,
        lv_value    TYPE           swc_value,
        lx_error    TYPE REF TO   cx_bapi_error,
        li_counter  TYPE           int4.",
        "lt_partners TYPE           ZTT_CRM_BUS_PARTNER,
        "lw_partner  TYPE           ZST_CRM_BUS_PARTNER.
  FIELD-SYMBOLS: <lo_bor>    TYPE REF TO zcl_crm_bor_proxy,
                 <lv_codevl> TYPE           swc_value.
  IF me->av_objid IS NOT INITIAL.
    lw_return-type       = 'E'.
    lw_return-id         = '00'.
    lw_return-number     = 368.
    lw_return-message_v1 = 'This sample already has the
id'(M02).
```

```
                 lw_return-message_v2 = me->av_objid.
                 APPEND lw_return TO lt_return.
                 RAISE EXCEPTION TYPE cx_bapi_error
                   EXPORTING
                     status = lt_return.
               ENDIF.
       * Case type
               lv_value = po_task->get_child_type( ).
               swc_set_element lt_args 'CaseType' lv_value.
       * Case attributes
               lw_attr-name  = 'EXT_REF'.
               lw_attr-value =  po_task->get_plain_attribute( 'OBJECT_ID' ).
               SHIFT lw_attr-value LEFT DELETING LEADING '0'.
               APPEND lw_attr TO lt_attr.
               lv_value = po_task->get_plain_attribute( 'DESCRIPTION' ).
               m_add_attribute: 'CASE_TITLE'  lv_value,
                                'PROCESSOR'   sy-uname,
                                'RESPONSIBLE' sy-uname.
               lv_value = po_task->get_plain_attribute( 'PROCESSID' ).
               m_add_attribute 'CRM_CASE_TITLE' lv_value.
               swc_set_table lt_args 'CaseAttributes' lt_attr.
       * Adding Case
               IF po_case IS SUPPLIED.
                 TRY .
```

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```
                 lv_value = po_case->get_plain_attribute( 'GUID' ).
               CATCH cx_bapi_error INTO lx_error.
                 RAISE EXCEPTION lx_error.
               ENDTRY.
               m_add_superior_case 'CRM_SPS_CASE' lv_value 'CZ'.
             ENDIF.
       * Adding Main Partner
             m_add_partner 'CRM_BUSINESS_PARTNER' 'BUS1006' p_mpartner
'C1'
                         space 'X'.
       * Adding audited partners
       *     TRY .
       *       lt_partners = po_task->get_partners( ).
       *     CATCH cx_bapi_error INTO lx_error.
       *       RAISE EXCEPTION lx_error.
       *     ENDTRY.
       *     m_add_audit_partner: 'ZFILAUDI',
       *                          'SOLICITA'.
```

```
      IF pt_tasks IS SUPPLIED.
* Adding tasks
* Insertion attribute
      lw_elem_ins-anchor = 'CA'.
* Relationshipment attribute
      LOOP AT pt_tasks ASSIGNING <lo_bor>.
* Entries identification
        m_add_element 'CRM_ACTIVITY_TASK' <lo_bor>->av_type
                       <lo_bor>->av_objid 'CA'.
      ENDLOOP.
    ENDIF.
    swc_set_table: lt_args 'ElementIdentification' lt_elem_id,
                   lt_args 'ElementInsertion'      lt_elem_ins,
                   lt_args 'ElementAttributes'     lt_elem_att,
                   lt_args 'ElementRelations'      lt_elem_rel.
    TRY .
       me->call_static_method(
           EXPORTING
             p_name      = 'Create'
             pt_container = lt_args
           RECEIVING
             rt_container = lt_retr ).
       swc_get_element lt_retr 'Guid' me->av_objid.
       IF me->av_objid IS INITIAL.
         swc_get_table lt_retr 'Return' lt_return.
         RAISE EXCEPTION TYPE cx_bapi_error
           EXPORTING
             status = lt_return.
       ENDIF.
     CATCH cx_bapi_error INTO lx_error.
       RAISE EXCEPTION lx_error.
    ENDTRY.
  ENDMETHOD.
```

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        REMOVE_TASKS_FROM_RECORD
        Description: Remove tasks from the Case Record.
        Instance mthd

```
        Importing parameter
          PT_RECORDS_IDS TYPE ZTT_CRM_RECORD_ID  (Record Ids)
        Exporting parameter
          EXT_RETURN TYPE BAPIRET2_T  (Return parameter table)

        Exceptions
          CX_BAPI_ERROR  (BAPI Error Exception: Migrated Error Messages
Type "E")
        METHOD remove_tasks_from_record.
          DATA: lt_args     TYPE                    swconttab,
                lt_retr     TYPE                    swconttab,
                lt_recpos   TYPE STANDARD TABLE OF  bapirecpos,
                lw_recpos   TYPE                    bapirecpos,
                lt_sppoid   TYPE STANDARD TABLE OF  bapipropme,
                lw_sppoid   TYPE                    bapipropme,
                lt_elements TYPE                    bapicaseelement_tab,
                lw_element  TYPE                    bapicaseelement,
                lx_error    TYPE REF TO             cx_bapi_error.
          FIELD-SYMBOLS <lw_record_id> TYPE zst_crm_record_id.
          "Getting details
          swc_set_element: lt_args 'WithVicinity' '',
                           lt_args 'WithNote'     '',
                           lt_args 'WithElement'  'X'.
          TRY .
             me->call_method_with_container(
                         EXPORTING
                           p_name      = 'GetDetail'
                           pt_container = lt_args
                         RECEIVING
                           rt_container = lt_retr ).
            CATCH cx_bapi_error INTO lx_error.
              RAISE EXCEPTION lx_error.
          ENDTRY.
          swc_get_element lt_retr 'Element' lt_elements.
          SORT lt_elements BY node_id instance_id.
          "Deleting elements
          LOOP AT pt_records_ids ASSIGNING <lw_record_id>.
            lw_recpos-rec_nodeid = <lw_record_id>-rec_nodeid.
            APPEND lw_recpos TO lt_recpos.
            READ TABLE lt_elements
             WITH KEY node_id     = <lw_record_id>-rec_nodeid
                      instance_id =  <lw_record_id>-rec_instid
             INTO lw_element.
            IF sy-subrc = 0.
              lw_sppoid-elem_no = lw_element-elem_no.
              lw_sppoid-name    = '%SPS_ID%'.
              lw_sppoid-value   = 'CRM_ACTIVITY_TASK'.
              APPEND lw_sppoid TO lt_sppoid.
            ENDIF.
          ENDLOOP.
```

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```
        SORT lt_recpos BY table_line.
        DELETE ADJACENT DUPLICATES FROM lt_recpos COMPARING
table_line.
        CLEAR: lt_args, lt_retr.
        swc_set_element: lt_args 'SkipErrors'        'X',
                         lt_args 'NewVersion'        'X',
                         lt_args 'DeleteOnlyFirst'    'X'.
        swc_set_table: lt_args 'ElementIdentRecpos' lt_recpos,
                       lt_args 'ElementIdentSpPoid' lt_sppoid.
        TRY .
           me->call_method_with_container(
                     EXPORTING
                       p_name       = 'DeleteElements'
                       pt_container = lt_args
                     RECEIVING
                       rt_container = lt_retr ).
           swc_get_element lt_retr 'Return' ext_return.
           m_check_for_errors.
         CATCH cx_bapi_error INTO lx_error.
           RAISE EXCEPTION lx_error.
        ENDTRY.
      ENDMETHOD.

   ADD_TASKS_TO_RECORD
   Description: Adds tasks to this Case Record.
   Instance mthd

   Importing parameter
     PT_TASKS TYPE ZT_CRM_BOR_PROXY  OPTIONAL  (List of BOR
instances)
   Exporting parameter
     EXT_RETURN TYPE BAPIRET2_T  (Return parameter table)

   Exceptions
     CX_BAPI_ERROR  (BAPI Error Exception: Migrated Error Messages
Type "E")
     METHOD add_tasks_to_record.
       DATA: lt_args      TYPE            swconttab,
             lt_retr      TYPE            swconttab,
             lt_elem_id   TYPE            bapipropme_tab,
             lw_elem_id   TYPE            bapipropme,
             lt_elem_ins  TYPE TABLE OF bapidocins,
             lw_elem_ins  TYPE            bapidocins,
             lt_elem_att  TYPE            bapipropme_tab,
             lw_elem_att  TYPE            bapipropme,
             lt_elem_rel  TYPE TABLE OF bapireltb,
             lt_return    TYPE            bapiret2_t,
             lw_return    TYPE            bapiret2,
             lx_error     TYPE REF TO   cx_bapi_error,
             li_counter   TYPE            int4.
       FIELD-SYMBOLS  <lo_bor> TYPE REF TO zcl_crm_bor_proxy.
* Adding tasks
```

```
        LOOP AT pt_tasks ASSIGNING <lo_bor>.
* Entries identification
           m_add_element 'CRM_ACTIVITY_TASK' <lo_bor>->av_type
                         <lo_bor>->av_objid 'CA'.
        ENDLOOP.
```

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```
        swc_set_element: lt_args 'SkipErrors'        'X',
                         lt_args 'NewVersion'        'X',
                         lt_args 'DeleteOnlyFirst'   'X'.
        swc_set_table: lt_args 'ElementIdentification' lt_elem_id,
                       lt_args 'ElementInsertion'      lt_elem_ins,
                       lt_args 'ElementAttributes'     lt_elem_att,
                       lt_args 'ElementRelations'      lt_elem_rel.
        TRY .
            me->call_method_with_container(
                      EXPORTING
                        p_name      = 'AddElements'
                        pt_container = lt_args
                      RECEIVING
                        rt_container = lt_retr ).
            swc_get_element lt_retr 'Return' ext_return.
            m_check_for_errors.
          CATCH cx_bapi_error INTO lx_error.
            RAISE EXCEPTION lx_error.
        ENDTRY.
      ENDMETHOD.

    Redefined Methods

    SET_INSTANCE_BY_ID
      METHOD set_instance_by_id.
        DATA: lw_return    TYPE bapiret2,
              lt_return    TYPE bapiret2_t,
              lvc_dummy(1) TYPE c,
              lv_guid      TYPE scmg_case_guid,
              lv_ext_key   TYPE scmg_ext_key.
        lv_ext_key = p_id.
        SHIFT lv_ext_key RIGHT DELETING TRAILING space.
        OVERLAY lv_ext_key WITH '000000000000'.
        TRY .
            me->av_objid = lcl_db=>get_guid( lv_ext_key ).
          CATCH cx_sy_sql_error.
            MESSAGE ID '00'
```

```
                   TYPE 'E'
                  NUMBER 368
                    WITH 'Case not found!'(m01) space
                    INTO lvc_dummy.
               lw_return-type       = sy-msgty.
               lw_return-id         = sy-msgid.
               lw_return-number     = sy-msgno.
               lw_return-message_v1 = sy-msgv1.
               lw_return-message_v2 = sy-msgv2.
               lw_return-message_v3 = sy-msgv3.
               lw_return-message_v4 = sy-msgv4.
               APPEND lw_return TO lt_return.
               RAISE EXCEPTION TYPE cx_bapi_error
                 EXPORTING
                   status = lt_return.
           ENDTRY.
```

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          ENDMETHOD.

       Local Types

       " use this source file for any type of declarations (class
       " 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
       INCLUDE <cntn03>.
       *--
----*
       * Class LCL_DB
       * OVERVIEW: Objects of this class mediates database queries. It
aims to
       *   isolate this development from external dependencies,
as
       *   might be desirable in tests.
       *   The instances of this object is provided by the
private
       *   method GET_DB of the main class
       *   (ZCL_CRM_BOR_TASK). By redefining the
```

```
           *              method GET_DB one can provide appropriated stubs,
which
           *              must redefine the desired methods of LCL_DB, instead
of
           *              accessing the real database tables.
           *-----------------------------------------------------------------
----*
       CLASS lcl_db DEFINITION.
         PUBLIC SECTION.
           CLASS-METHODS get_guid IMPORTING p_id          TYPE
scmg_ext_key
                                  RETURNING VALUE(r_guid) TYPE
scmg_case_guid
                                  RAISING   cx_sy_sql_error.
           *-----------------------------------------------------------------
----*
       * Method GET_GUID
           *-----------------------------------------------------------------
----*
       * REQUIRES: The order id must be provided.
       * EFFECTS.: If no related record is found in table
CRMD_ORDERADM_H
           *          returns exception type CX_SY_SQL_ERROR, otherwise
returns
           *          the related GUID.
           *-----------------------------------------------------------------
----*
       * ->    P_ID        Case ID.
       * <-    R_GUID      Technical Case Key (Case GUID).
           *-----------------------------------------------------------------
----*
       ENDCLASS.
       CLASS lcl_db IMPLEMENTATION.
         METHOD get_guid.
           SELECT case_guid
             FROM scmg_t_case_attr
               UP TO 1 ROWS
             INTO r_guid
            WHERE ext_key   = p_id.
           ENDSELECT.
           IF sy-subrc <> 0.
             RAISE EXCEPTION TYPE cx_sy_sql_error.
           ENDIF.
```

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```
            ENDMETHOD.
          ENDCLASS.
          Macros
          *"* use this source file for any macro definitions you need
          *"* in the implementation part of the class
          INCLUDE <cntn02>.
          DEFINE m_add_element.
            ADD 1 TO li_counter.
            lw_elem_id-elem_no  = lw_elem_ins-elem_no = lw_elem_att-elem_no
=
                                  li_counter.
            lw_elem_id-name  = '%SPS_ID%'.
            lw_elem_id-value = &1.
            APPEND lw_elem_id TO lt_elem_id.
            lw_elem_id-name  = 'BOR_OBJECT_TYPE'.
            lw_elem_id-value = &2.
            APPEND lw_elem_id TO lt_elem_id.
            lw_elem_id-name  = 'BOR_OBJECT_ID'.
            lw_elem_id-value = &3.
            APPEND lw_elem_id TO lt_elem_id.
            lw_elem_ins-anchor = &4.
            APPEND lw_elem_ins TO lt_elem_ins.
          END-OF-DEFINITION.
          DEFINE m_add_superior_case.
            ADD 1 TO li_counter.
            lw_elem_id-elem_no  = lw_elem_ins-elem_no = li_counter.
            lw_elem_id-name  = '%SPS_ID%'.
            lw_elem_id-value = &1.
            APPEND lw_elem_id TO lt_elem_id.
            lw_elem_id-name  = 'GUID'.
            lw_elem_id-value = &2.
            APPEND lw_elem_id TO lt_elem_id.
            lw_elem_ins-anchor = &3.
            APPEND lw_elem_ins TO lt_elem_ins.
          END-OF-DEFINITION.
          DEFINE m_add_attribute.
            lw_attr-name  = &1.
            lw_attr-value =  &2.
            APPEND lw_attr TO lt_attr.
          END-OF-DEFINITION.
          DEFINE m_add_audit_partner.
            READ TABLE lt_partners INTO lw_partner
             WITH KEY function = &1.
            IF sy-subrc = 0.
              m_add_partner 'CRM_BUSINESS_PARTNER' 'BUS1006'
                          lw_partner-partner_no 'C1' &1 space.
            ENDIF.
          END-OF-DEFINITION.
          DEFINE m_add_partner.
            m_add_element &1 &2 &3 &4.
            lw_elem_att-elem_no = li_counter.
            lw_elem_att-name  = 'CRM_PARTNER_FCT'.
            lw_elem_att-value = &5.
            APPEND lw_elem_att to lt_elem_att.
```

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    lw_elem_att-name  = 'CRM_MAIN_PARTNER'.
    lw_elem_att-value = &6.
    APPEND lw_elem_att to lt_elem_att.
  END-OF-DEFINITION.
  DEFINE m_check_for_errors.
    READ TABLE ext_return WITH KEY type = 'E'
     TRANSPORTING NO FIELDS.
    IF sy-subrc = 0.
      RAISE EXCEPTION TYPE cx_bapi_error
        EXPORTING
          status = ext_return.
    ENDIF.
  END-OF-DEFINITION.
```

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