Sistema ZCL CRM BAL LOG Release 740 CDA Classe: ZCL CRM BAL LOG Status: Ativo Características Descrição: BAL Log Geração instância: Público Não final Não liberado Aritmética em ponto fixo Categoria: Tipo de objeto geral Pacote: ZCRM Idioma original: EN Criado por: P000520 Criado em: 29.12.2014 Atributos Atributos públicos Atributo Tp. Descrição Tipo ref. Val.inicial AV_OBJECT Mant (só leitura) Application log: Object name (Application code) CTG. BALOBJ D AV EXTNUM Mant (só leitura) Application Log: External ID CTG. BALNREXT Atributos protegidos Atributo Tp. Descrição Tipo ref. Val.inicial AO HANDLE Mant BAL logging procedures control through the log handle

CTG.REF.A ZCL_CRM_BAL_LOG_HANDLE

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```
Métodos
       Métodos públicos
       CONSTRUCTOR
       Descrição: CONSTRUCTOR
       Mét.instância
       Parâmetro importaç.
          P OBJECT TYPE BALOBJ D (Application log: Object name
(Application code))
         P EXTNUM TYPE BALNREXT (Application Log: External ID)
          METHOD constructor.
           me->av_object = p_object.
           me->av extnum = p extnum.
          ENDMETHOD.
        PUT MESSAGES
       Descrição: Adds messages to the log.
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        Parâmetro importaç.
         PT_MESSAGES TYPE BAPIRET2_T (Return parameter table)
         CX BAPI ERROR (BAPI Error Exception: Migrated Error Messages
Type "E")
          METHOD put messages.
            DATA lx_error TYPE REF TO cx_bapi_error.
            TRY .
                IF me->ao handle IS INITIAL.
                 me->set handle().
               ENDIF.
               me->ao_handle->put_messages( pt_messages ).
              CATCH cx bapi error INTO lx error.
               RAISE EXCEPTION lx error.
           ENDTRY.
         ENDMETHOD.
        SAVE LOG
        Descrição: Saves messages in log to database.
       Mét.instância
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Exceções
          CX BAPI ERROR (BAPI Error Exception: Migrated Error Messages
Type "E")
          METHOD save log.
            DATA lx error TYPE REF TO cx bapi error.
            TRY .
                IF me->ao handle IS INITIAL.
                 me->set handle().
                ENDIF.
                me->ao handle->save log().
              CATCH cx_bapi_error INTO lx_error.
                RAISE EXCEPTION lx error.
            ENDTRY.
          ENDMETHOD.
        SHOW MESSAGES
        Descrição: Shows messages stored in this log.
        Mét.instância
        Parâmetro importaç.
          P TITLE TYPE BALTITLE (Application Log: Screen title)
          P MODE TYPE CHAR03 (Exhibition mode)
        Exceções
          CX BAPI ERROR (BAPI Error Exception: Migrated Error Messages
Type "E")
          METHOD show messages.
            DATA: lo api TYPE REF TO lcl api,
                  lx error TYPE REF TO cx bapi error.
            lo api ?= me->get api().
            TRY .
                lo api->show messages( p object = me->av object
                                       p_extnum = me->av_extnum
                                       p_title = p_title
                                       p mode = p mode
                                                               ) .
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             CATCH cx_bapi_error INTO lx_error.
                RAISE EXCEPTION lx error.
            ENDTRY.
          ENDMETHOD.
        CLEAN UP MESSAGES
        Descrição: Deletes from database entries older than a given date
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Mét.instância
        Parâmetro importaç.
         P_DATE TYPE SYDATUM (System Date)
        Exceções
         CX BAPI ERROR (BAPI Error Exception: Migrated Error Messages
Type "E")
          METHOD clean_up_messages.
            DATA: lo api TYPE REF TO lcl api,
                  lx error TYPE REF TO cx bapi error.
            lo api ?= me->get api().
            TRY .
                lo_api->clean_up_log( p_object = me->av object
                                      p_{date} = p_{date}).
              CATCH cx bapi error INTO lx error.
                RAISE EXCEPTION lx_error.
            ENDTRY.
          ENDMETHOD.
        Métodos protegidos
        GET API
        Descrição: Returns an instance of an API calls mediator.
        Mét.instância
        Parâmetro retorno
         VALUE(RO API) TYPE REF TO OBJECT (API calls mediator.)
         METHOD get api.
            DATA lo api TYPE REF TO lcl api.
            lo api = NEW lcl_api().
            IF lo api IS BOUND.
             ro_api = lo_api.
            ENDIF.
            FREE lo_api.
          ENDMETHOD.
        SET HANDLE
        Descrição: Sets the log handle.
        Mét.instância
        Exceções
          CX BAPI ERROR
                        (BAPI Error Exception: Migrated Error Messages
Type "E")
         METHOD set_handle.
                            TYPE REF TO lcl_api,
            DATA: lo_api
                  lx_error TYPE REF TO cx_bapi_error,
                  lv handle TYPE balloghndl.
            lo api ?= me->get api().
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           TRY .
               lo api->get log handle( EXPORTING p object = me-
>av object
                                                p extnumber = me-
>av extnum
                                      RECEIVING r handle = lv handle
) .
             CATCH cx_bapi_error INTO lx_error.
               FREE lo api.
               RAISE EXCEPTION lx error.
           me->ao handle = NEW zcl crm bal log handle ( lv handle ).
           FREE lo_api.
         ENDMETHOD.
       Métodos redefinidos
       Tipos locais
       *"* use this source file for any type of declarations (class
       *"* definitions, interfaces or type declarations) you need for
       *"* components in the private section
       Definições classes locais
       *"* use this source file for the definition and implementation of
       \star"* local helper classes, interface definitions and type
       *"* declarations
       *_____
       * Specification structure:
          .Classes:
           ..OVERVIEW clause: A conceptual description of the class.
          .Methods and Procedures (Sub-routines):
           .. REQUIRES clause: states a precondition, e.g., a an
obligation on
                               the client (ie, the caller of the
method).
                               It?s a condition over the state in which
the
                               method is invoked. If the precondition
does not
                               hold, the implementation of the method is
free
                               to do anything (including not
terminating,
                               throwing an exception, returning
arbitrary
                               results, making arbitrary modifications,
etc).
           .. EFFECTS clause: states a postcondition, e.g., an
obligation on
                               the implementor of the method. If the
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precondition holds for the invoking
state,
                              the method is obliged to obey the
postcondition,
                              by returning appropriate values,
                              throwing specified exceptions, modifying
or not
                              modifying objects, and so on.
       * ..MODIFIES clause: identifies which objects or data
structures may
                              be modified.
       * Class LCL API
       * OVERVIEW: Objects of this class mediates API calls. 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 API of the main class (ZCL CRM BAL LOG).
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                  redefining the method GET API one can provide
appropriated
                   stubs, which must redefine the desired methods of
LCL API,
                  instead of accessing the real APIs.
       CLASS lcl api DEFINITION.
         PUBLIC SECTION.
          METHODS: get log handle IMPORTING p object
                                                         TYPE
balobj d
                                           p extnumber
                                                          TYPE
balnrext
                                 RETURNING VALUE (r handle) TYPE
balloghndl
                                RAISING cx_bapi_error,
       *_____
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* Method GET_LOG_HANDLE
       * REQUIRES: The log object and the external identifier must be
provided.
       * EFFECTS.: If the API BAL LOG CREATE returns an error, this
method
                 raises the exception type CX BAPI ERROR, otherwise
returns
             the log handle.
       * -> P OBJECT Application log: Object name (Application
code).
       * -> P EXTNUMBER Instance Identification in Persistent
Object
                         References.
       * <- R HANDLE Application Log: Log Handle.
       *-----
            show messages IMPORTING p object TYPE balobj d
                                 p extnum TYPE balnrext
                                 p title TYPE baltitle
                                 p mode TYPE char03 OPTIONAL
                        RAISING cx_bapi_error,
       * Method SHOW MESSAGES
       *----
       * REQUIRES: The log object, the external identifier and the
window
                 title must be provided.
       * EFFECTS.: If the API BAL DSP LOG DISPLAY returns an error
raises
                 exception CX BAPI ERROR, otherwise shows the related
log
                messages.
       * -> P OBJECT Application log: Object name (Application
code).
       * -> P EXTNUMBER Instance Identification in Persistent
Object
                          References.
       * -> P_TITLE Application Log: Screen title.
* -> P_MODE Presentation mode (default STD
                         Presentation mode (default STD).
            clean_up_log IMPORTING p_object TYPE balobj_d
                       p_date TYPE sydatum RAISING cx_bapi_error.
       * Method CLEAN UP LOG
       *-----
             REQUIRES: The cut date must be provided.
              EFFECTS.: If the API BAL DB DELETE returns an error
raises
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exception CX_BAPI_ERROR, otherwise deletes from
                    database entries older than the date provided.
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      ^\star -> P_OBJECT Application log: Object name (Application
      * -> P_DATE Date up to which the log will be cleaned
up.
      *-----
        PROTECTED SECTION.
         METHODS: get search arguments IMPORTING pw lfil TYPE
bal s lfil
                                 RETURNING VALUE(rt_lhdr) TYPE
balhdr t
                                 RAISING cx bapi error,
      *_____
      * Method GET_SEARCH_ARGUMENTS
           REQUIRES: Log header filter criteria must be provided.
           EFFECTS.: If the API BAL DB SEARCH returns an error
raises
                    exception CX BAPI ERROR, otherwise returns a
sorted
                table of related log headers.
      * --> PW_LFIL Log filter criteria
* <-- RT_LHDR Application Log: Log header data table</pre>
           * Method LOAD LOGS
      *----
            REQUIRES: Log filter criteria must be provided.
            EFFECTS.: If the API BAL DB LOAD returns an error raises
```

```
exception CX_BAPI_ERROR.
        MODIFIES: Loads the related log messages into memory.
     * --> PW_LFIL Log filter criteria
     *----
          get_std_profile RETURNING VALUE(rw_dsprof) TYPE bal s prof
                     RAISING cx_bapi_error,
      * Method GET_STD_PROFILE
          EFFECTS.: If the API BAL DSP PROFILE STANDARD GET returns
an
                  error raises exception CX_BAPI_ERROR, otherwise
                  returns standard format profile
     * <-- RW DSPROF Log Output Format Profile
     *-----
         get_pop_profile RETURNING VALUE(rw_dsprof) TYPE bal s prof
                RAISING cx_bapi_error.
     * Method GET POP PROFILE
     *----
          EFFECTS.: If the API BAL DSP PROFILE POPUP GET returns an
                  error raises exception CX BAPI ERROR, otherwise
                  returns standard format profile
     * <-- RW DSPROF Log Output Format Profile
     *-----
     ENDCLASS.
     CLASS 1cl api IMPLEMENTATION.
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METHOD get_log_handle.

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lvc_dummy(1) TYPE c,
         lw_return TYPE bapiret2,
lt return TYPE bapiret2_t.
* define some header data of this log
   lw log-extnumber = p_extnumber.
   lw_log-object = p_object.
   CALL FUNCTION 'BAL LOG CREATE'
     EXPORTING
       i s log
                              = lw log
     IMPORTING
       e log handle
                              = r handle
     EXCEPTIONS
       log_header_inconsistent = 1
                              = 2.
       OTHERS
   IF sy-subrc <> 0.
     m raise fm exception sy-msgid sy-msgty sy-msgno
                         sy-msqv1 sy-msqv2 sy-msqv3 sy-msqv4.
   ENDIF.
 ENDMETHOD.
 METHOD show messages.
   DATA: lr_object
                           TYPE
                                      bal_s_obj,
         lr extnumber
                          TYPE
                                     bal_s_extn,
         lw_log_filter TYPE
                                    bal s lfil,
         lw_display_profile TYPE
                                     bal_s_prof,
         lvc dummy(1)
                           TYPE
                                      C,
                          TYPE bapiret2,
TYPE bapiret2_t,
         lw return
         lt return
         * create a filter with all relevant criteria:
   lr_object-sign = 'I'.
   lr_object-option = 'EQ'.
   lr_object-low = p_object.
   APPEND lr_object TO lw_log_filter-object.
   lr extnumber-sign = 'I'.
   lr_extnumber-option = 'EQ'.
   lr extnumber-low = p extnum.
   APPEND lr extnumber TO lw log filter-extnumber.
   TRY .
* Load logs into memory
       load_logs( lw_log_filter ).
* Initilizes the displaying profile
       IF p_mode IS SUPPLIED.
         lv mode = p_mode.
       ELSE.
         lv mode = 'STD'.
       ENDIF.
       CASE lv mode.
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```
WHEN 'POP'.
           lw display profile = get pop profile().
         WHEN OTHERS.
           lw_display_profile = get_std_profile().
       ENDCASE.
     CATCH cx bapi error INTO lx error.
       RAISE EXCEPTION lx_error.
   ENDTRY.
* use grid and detail level for display
   lw_display_profile-title = p_title.
* call display function module
   CALL FUNCTION 'BAL DSP LOG DISPLAY'
     EXPORTING
       i s display profile = lw display profile
       i s log filter
                       = lw log filter
     EXCEPTIONS
       profile_inconsistent = 1
       internal_error = 2
       no_data_available
       no authority
                           = 5.
       OTHERS
   IF sy-subrc <> 0.
     m raise fm exception sy-msgid sy-msgty sy-msgno
                          sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
   ENDIF.
 ENDMETHOD.
 METHOD load logs.
   DATA: lt_log_header TYPE balhdr_t,
         lx error TYPE REF TO cx bapi error,
         lvc dummy(1) TYPE c,
         lw return
                     TYPE
                                 bapiret2,
         lt return TYPE
                                 bapiret2 t.
* search on DB for the logs
   TRY .
       lt log header = get search arguments( pw lfil ).
     CATCH cx_bapi_error INTO lx_error.
       RAISE EXCEPTION lx_error.
   ENDTRY.
* load messages into memory
   CALL FUNCTION 'BAL DB LOAD'
     EXPORTING
       i t log header = lt log header[]
     EXCEPTIONS
       no_logs_specified = 1
       \log not found = 2
       log already loaded = 3.
   IF sy-subrc <> 0.
     m raise fm exception sy-msgid sy-msgty sy-msgno
                          sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
   ENDIF.
```

```
ENDMETHOD.

METHOD get_search_arguments.

DATA: lvc_dummy(1) TYPE c,
 lw_return TYPE bapiret2,

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lt return TYPE bapiret2 t.

```
CALL FUNCTION 'BAL DB SEARCH'
   EXPORTING
     i s log filter = pw lfil
    IMPORTING
     e_t_log_header = rt lhdr
   EXCEPTIONS
     log not found
                    = 1
     no filter criteria = 2.
  IF sy-subrc <> 0.
   m_raise_fm_exception sy-msgid sy-msgty sy-msgno
                        sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
 ENDIF.
ENDMETHOD.
METHOD get_std_profile.
 DATA: lvc_dummy(1) TYPE c,
       lw_return TYPE bapiret2,
lt_return TYPE bapiret2_t.
  CALL FUNCTION 'BAL DSP PROFILE STANDARD GET'
     e_s_display_profile = rw dsprof
   EXCEPTIONS
     OTHERS
  IF sy-subrc <> 0.
   m_raise_fm_exception sy-msgid sy-msgty sy-msgno
                        sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
 rw dsprof-use grid = 'X'.
 rw dsprof-bydetlevel = 'X'.
ENDMETHOD.
METHOD get_pop_profile.
 DATA: lvc_dummy(1) TYPE c,
       CALL FUNCTION 'BAL DSP PROFILE POPUP GET'
     e_s_display_profile = rw_dsprof
    EXCEPTIONS
```

```
OTHERS
                                    = 1.
            IF sy-subrc <> 0.
              m_raise_fm_exception sy-msgid sy-msgty sy-msgno
                                    sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
            ENDIF.
          ENDMETHOD.
          METHOD clean up log.
            DATA: lr_object lr_date
                                      TYPE
                                                  bal s obj,
                                     TYPE
                                                 bal s date,
                  Lw_log_filter TYPE bal_s_lfil,
lw_display_profile TYPE bal_s_prof,
lt_log_header TYPE balhdr_t,
lx_error TYPE PFF TO content
                  lw_log_filter TYPE
                                     TYPE REF TO cx bapi error,
                  lx error
                                   TYPE C,
                  lvc dummy(1)
                  lw_return
                                     TYPE
                                                 bapiret2,
                  lt_return
                                    TYPE
                                                 bapiret2 t.
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        * create a filter with all relevant criteria:
            lr object-sign = lr date-sign = 'I'.
            lr object-option = 'EQ'.
            lr_object-low = p_object.
            APPEND lr_object TO lw_log_filter-object.
            lr date-option = 'LE'.
            lr date-low = p date.
            APPEND lr date TO lw log filter-aldate.
        * search on DB for the logs
            TRY .
                lt log header = get search arguments( lw log filter ).
              CATCH cx_bapi_error INTO lx_error.
                RAISE EXCEPTION lx_error.
            ENDTRY.
        * Delete the log
            IF lt_log_header[] IS NOT INITIAL.
              CALL FUNCTION 'BAL DB DELETE'
                EXPORTING
                  i_t_logs_to_delete = lt_log_header[]
                  i_in_update_task = 'X'
                  i with commit work = 'X'
                EXCEPTIONS
                  no logs specified = 1
                  OTHERS
              IF sy-subrc <> 0.
                m raise fm exception sy-msgid sy-msgty sy-msgno
```

sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.

```
ENDIF.
            ENDIF.
          ENDMETHOD.
        ENDCLASS.
        Macros
        *"* use this source file for any macro definitions you need
        *"* in the implementation part of the class
        DEFINE m raise fm exception.
          message id &1
                  type &2
                  number &3
                  with &4 &5 &6 &7
                 into lvc dummy.
          lw_return-type = sy-msgty.
          lw return-id
                              = sy-msgid.
          lw_return-number = sy-msgra.

          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[].
        END-OF-DEFINITION.
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1
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1
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```

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