Qlik Gold Client™

Qlik

# Change Pointers
# User Guide
# 8.7

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# Introduction

In Gold Client 8.7.4, Change Pointer functionality has been introduced for the creation of Change Pointer records while importing data into a target system. For Change Pointers to be created for imported data into a target system, an application setting within Gold Client must be set and two Change Pointer tables for Gold Client must also be maintained, both of which are documented in this User Guide.

This User Guide is intended for a user who has experience in the Change Pointer/Data Replication Functionality and understands the technical components behind Change Pointers within their SAP environment.

It is important to note that analysis will need to be done in the SAP environment and the BDCP2 table to properly populate the entries in the Gold Client Change Pointer Tables (/HTG/CHPTR_H and /HTG/CHPTR_D). Please contact Qlik Support if help is needed with analysis and maintaining the Change Pointer Tables or questions regarding this solution.

After the application setting and the two Gold Client Change Pointer tables have been maintained, when data is being imported into a target client that corresponds to the Change Pointers you have configured in the tables, unprocessed BDCP2 entries will be created for the data that is being imported. These BDCP2 records are created as unprocessed, so that standard SAP Programs (such as RBDMIDOC) or custom programs your organization may use, can trigger the processing of the BDCP2 entries to send to external systems.

## Change Pointer Configuration

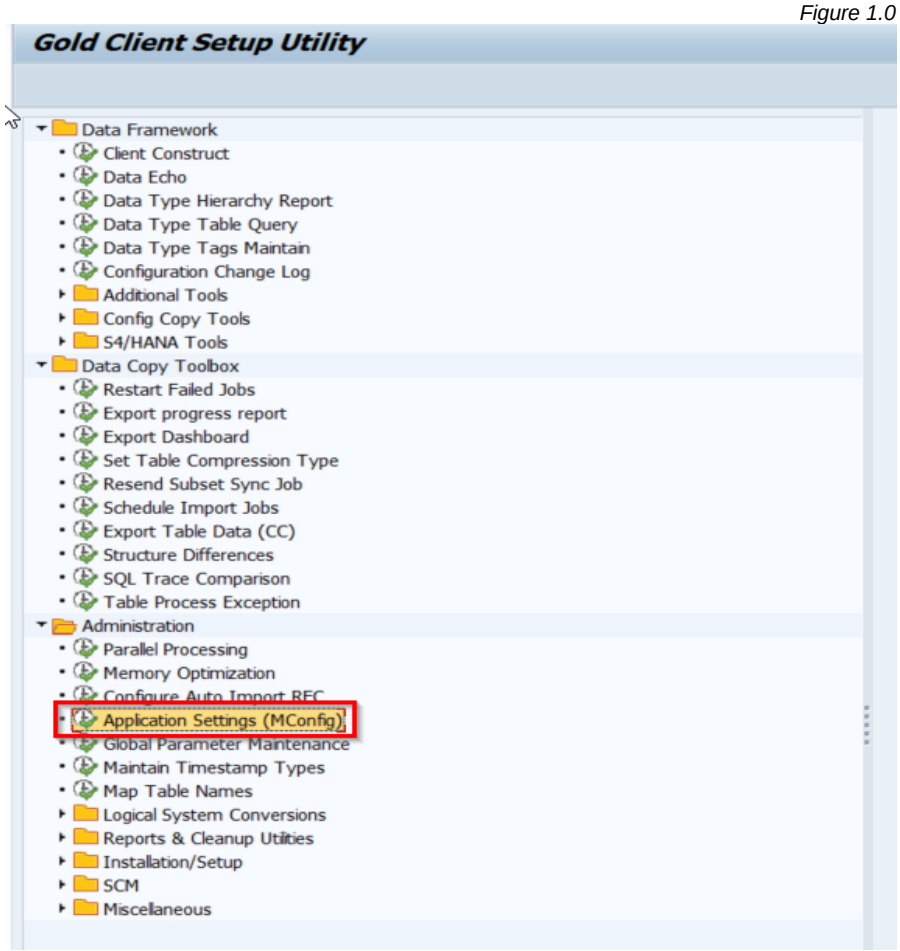
When using Change Pointers with Gold Client, there are two areas where Change Pointer configuration must be maintained for these entries to update the BDCP2 table in your SAP environment during importing of Gold Client data. While Change Pointer configuration is not required to be maintained in the source system, it is required in the target system to generate Change Pointers. Recommended best practices include maintaining Gold Client Configuration in the source system. If maintaining the Change Pointer Configuration only in the target environments (and not in the source system), Qlik recommends taking a backup of this Configuration so the Change Pointer configuration can be repopulated post-system refresh or new client build.

The first area that must be maintained is within the Application Settings (Mconfig) area within Gold Client (ZGOLD). The second area that must be maintained are within two tables (in the Gold Client namespace) named /HTG/CHPTR_H and /HTG/CHPTR_D (this is maintained via SM30).

## Change Pointer Configuration in Application Settings

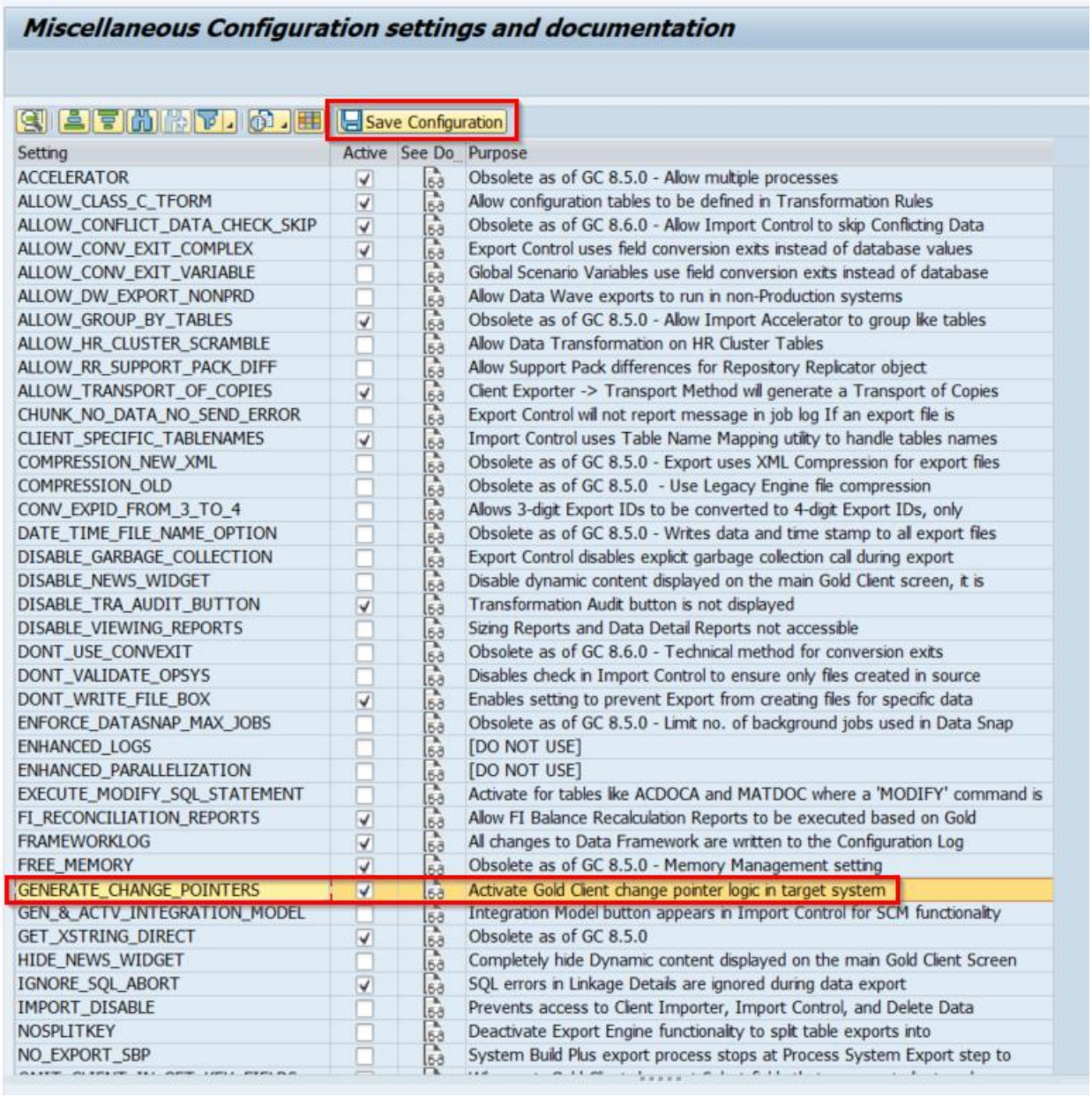
The first setting that needs to be maintained is the Application Setting **GENERATE_CHANGE_POINTERS**. To find this setting, go to /HTG/ZGOLD → Configuration → Administration → Application Settings (Mconfig) (Fig. 1.0).

*Figure 1.0*



In the list, find the application setting GENERATE_CHANGE_POINTERS (Fig. 1.1). By default, Qlik will deliver this setting as inactive. To generate Change Pointers, this setting needs to be activated. Once the checkbox has been set to active, be sure to select the Save Configuration button to save changes.

*Figure 1.1*

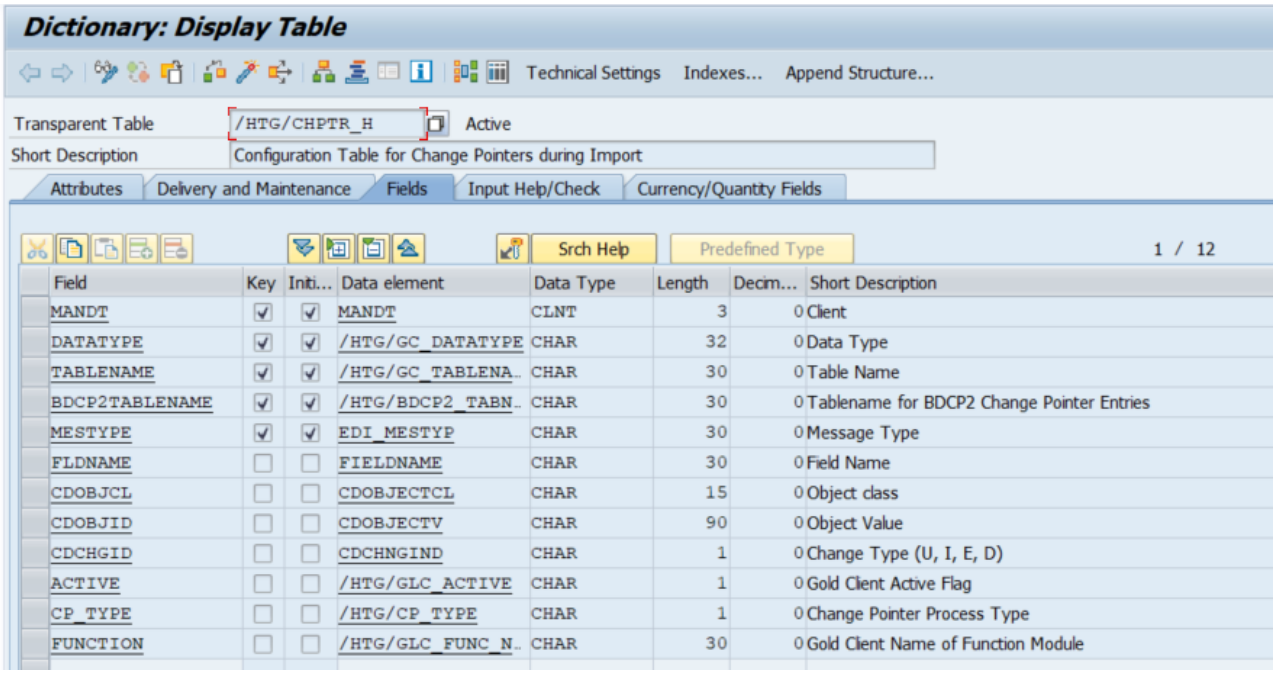


## Change Pointer Configuration Tables

After maintaining the Change Pointer Application Settings, the two Gold Client Tables (**/HTG/CHPTR_H** and **/HTG/CHPTR_D**) need to be maintained to generate Change Pointers in the Gold Client Target System.

Table **/HTG/CHPTR_H** is the header table for the Change Pointer records that are created. This table needs an entry for every Table and Message Type Combination that generates Change Pointers in BDCP2. Table **/HTG/CHPTR_H** contains the following fields (Fig. 1.2):

*Figure 1.2*




| Field | Key | Initi... | Data element | Data Type | Length | Decim... | Short Description |
|---|---|---|---|---|---|---|---|
| MANDT | ☑ | ☑ | MANDT | CLNT | 3 | 0 | Client |
| DATATYPE | ☑ | ☑ | /HTG/GC_DATATYPE | CHAR | 32 | 0 | Data Type |
| TABLENAME | ☑ | ☑ | /HTG/GC_TABLENA.. | CHAR | 30 | 0 | Table Name |
| BDCP2TABLENAME | ☑ | ☑ | /HTG/BDCP2_TABN.. | CHAR | 30 | 0 | Tablename for BDCP2 Change Pointer Entries |
| MESTYPE | ☑ | ☑ | EDI_MESTYP | CHAR | 30 | 0 | Message Type |
| FLDNAME | ☐ | ☐ | FIELDNAME | CHAR | 30 | 0 | Field Name |
| CDOBJCL | ☐ | ☐ | CDOBJECTCL | CHAR | 15 | 0 | Object class |
| CDOBJID | ☐ | ☐ | CDOBJECTV | CHAR | 90 | 0 | Object Value |
| CDCHGID | ☐ | ☐ | CDCHNGIND | CHAR | 1 | 0 | Change Type (U, I, E, D) |
| ACTIVE | ☐ | ☐ | /HTG/GLC_ACTIVE | CHAR | 1 | 0 | Gold Client Active Flag |
| CP_TYPE | ☐ | ☐ | /HTG/CP_TYPE | CHAR | 1 | 0 | Change Pointer Process Type |
| FUNCTION | ☐ | ☐ | /HTG/GLC_FUNC_N.. | CHAR | 30 | 0 | Gold Client Name of Function Module |

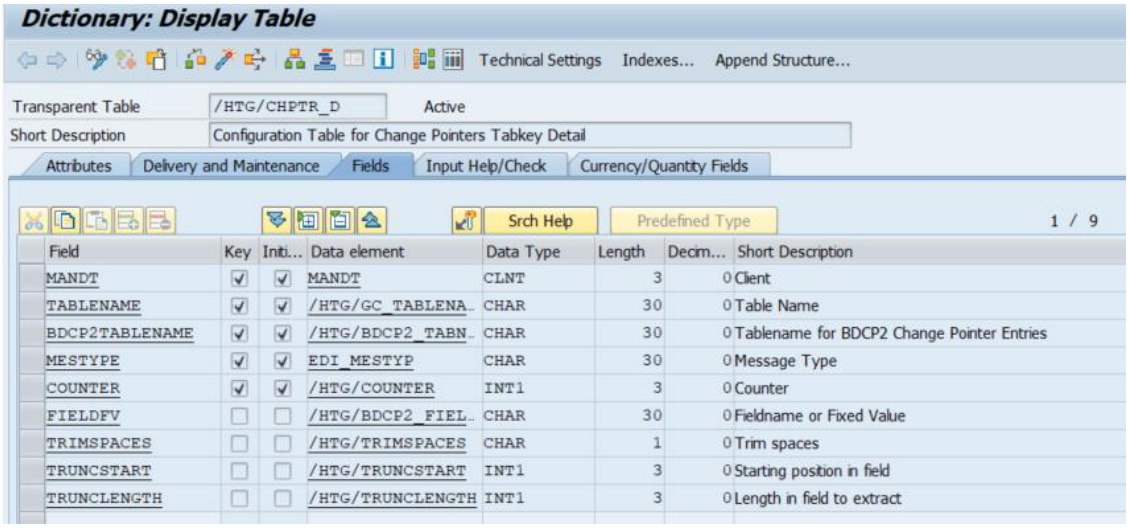
- **DATATYPE:** this field is used to signify whether a particular data type is needed for the Change Pointers.
    - This could be used in instances where only a certain table from a certain type of data to generate Change Pointers and where other Change Pointers are not needed for other data objects
    - For example, a user only wants Address Records related to Customer Master data to generate Change Pointers, but do not want Change Pointers generated for addresses related to Vendors, Business Partners, etc.
    - Enter the data type which links downstream from the Customer Master area so that only those address records generate Change Pointers.
- **TABLENAME:** this field is the table name from which the data is being imported from the Gold Client files (examples include MARA, MARC, MLAN, MAKT)
- **BDCP2TABLENAME:** this field designates what the name of the BDCP2 table is for generating Change Pointers *(in the Material Master space we import table MLAN, but the BDCP2 table name (or structure is DMLAN).* Determine whether the table name is the same as within the file or a different value, based on a structure
- **MESTYPE:** This field denotes which Message Type will be generated for the data during the import process (examples: MATMAS, DEBMAS, CREMAS)

- **FLDNAME:** This field provides Gold Client with the field name for the data (this is usually populated with value KEY, but other variations can be used; especially in cases where KEY is not used to generate Change Pointers and a different field instead)
- **CDOBJCL:** This field provides Gold Client with the Change Object class of the data (examples of this include *DEBI* – for customers, *KRED* – for vendors, *COND_A* – for conditions, *MATERIAL* – for materials/articles, *ADDRESSE* – for address related data)
- **CDOBJID –** This field provides Gold Client with the Change Object Value (this information is used for table fields that are used to populate the BDCP2 table entries for Change Pointers (example: MATNR for the Material Master Number, KUNNR for the Customer Master Number, LIFNR for the Vendor Master Number). This field can use concatenation for data that is from multiple fields or uses hard coded values
- **CDCHGID:** This field is for the Change Type. In most cases with Gold Client, you would use the 'I' for insert and in rarer cases, 'U' for update
- **ACTIVE:** This field is used to turn on the Change Pointer functionality for each record within this table. If the record is not set as active, no Change Pointers will be generated during the import process even if entries are maintained in both the header and detail tables for Gold Client
- **CP_TYPE:** This field is used to denote what type of Change Pointer Configuration is needed for the specific Table Name + BDCP2 Table Name + Message Type.
    - The 'C' value is for Configuration Table (*where the use of table /HTG/CHPTR_D is required to generate the Change Pointers by the configuration maintained within the table*).
    - The 'F' value is used for a Function Module and there is no maintenance of /HTG/CHPTR_D, as the Function Module creates the Change Pointers. Function Module are most widely used when standard configuration within the /HTG/CHPTR_D table cannot be configured to generate Change Pointers.
- **FUNCTION:** This field is used to enter the Function Module that will be used to Generate Change Pointers. There are a few function modules that are delivered with the solution because standard configuration in the detail tables cannot properly generate Change Pointers and the use of the Function Module is needed to do this correctly. The current function modules being delivered with the Change Pointer solution include:
    - /HTG/CREATE_CP_MATMAS_DMLAN
    - /HTG/CREATE_CP_GLMAST_SKB1
    - /HTG/CREATE_CP_BOMMAT_CDPOS).

Table **/HTG/CHPTR_D** is the detail table for the Change Pointers configuration. This table is used in conjunction with the /HTG/CHPTR_H table. If the entry in field CP_TYPE for table /HTG/CHPTR_H is set to 'C' (Configuration Table), this table needs to be populated with the details on how to populate the TABKEY field in the BDCP2 table during the import of data in the target system.

This table contains the following fields (Fig. 1.3):

*Figure 1.3*




- **TABLENAME:** this field is for the table that is being imported with Gold Client that will generate the Change Pointers for the BDCP2 table. This field utilizes the same table name from the /HTG/CHPTR_H table for the Message Type and Table Name combination
- **BDCP2TABLENAME:** this field designates what the name of the BDCP2 table is for generating Change Pointers (in the Material Master space we import table MLAN, but the BDCP2 table name is DMLAN). This field utilizes the same table name from the /HTG/CHPTR_H table for the Message Type and Table Name Combination
- **MESTYPE:** This field denotes which Message Type will be generated for the data during the import process (examples: MATMAS, DEBMAS, CREMAS). This field utilizes the same Message Type from the /HTG/CHPTR_H table for the corresponding entry
- **COUNTER:** This field denotes what position the field/characters from the table will be for the TABKEY field in BDCP2 (MANDT is typically 0 or 1, followed by the next field(s) from the table)
- **FIELDFV:** This field denotes the table name field, or a fixed/blank value based on what Change Pointers are being generated
- **TRIMSPACES:** This is used when trimming of values from the field need to be used *(this field is not commonly used)*
- **TRUNCSTART:** This field is used to denote what the starting position would be within a table field, if the starting position of the value is not the first position *(this field is not commonly used)*
- **TRUNCLENGTH:** This field is used when truncating the fields to show how many positions of data need to be utilized *(this field is not commonly used)*

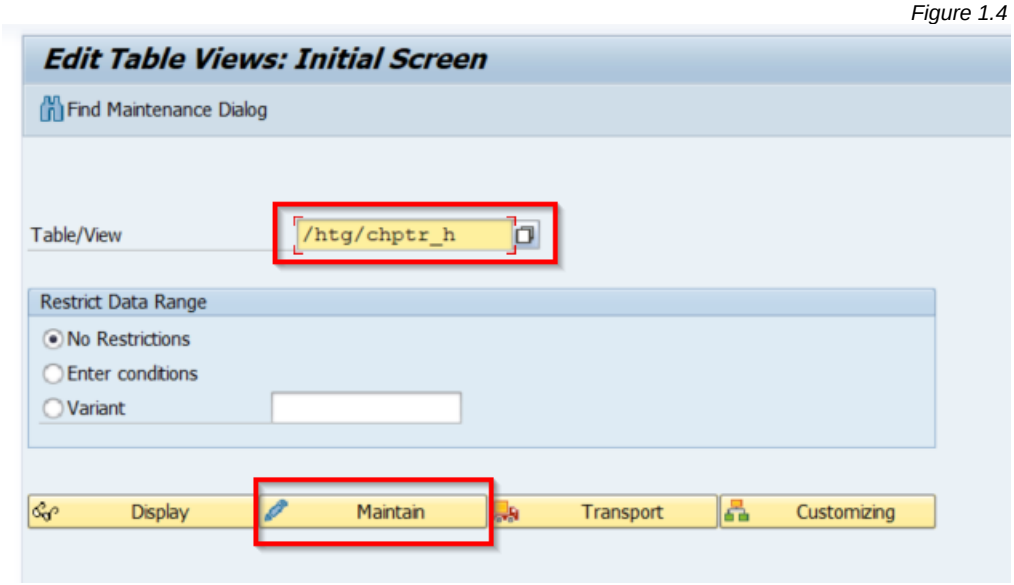
## *Maintaining the Gold Client Change Pointer Tables – Header Table (/HTG/CHPTR_H)*

Currently, the only way to maintain the two Gold Client Change Pointer Tables are within transaction SM30.

The first table that needs to be maintained is the /HTG/CHPTR_H table. This is the header table that defines which Change Pointers are generated in the BDCP2 table in your SAP Environment.

To maintain this table, go to transaction SM30 in your SAP system. Enter table /HTG/CHPTR_H and then select Maintain (Fig. 1.4).

*Figure 1.4*

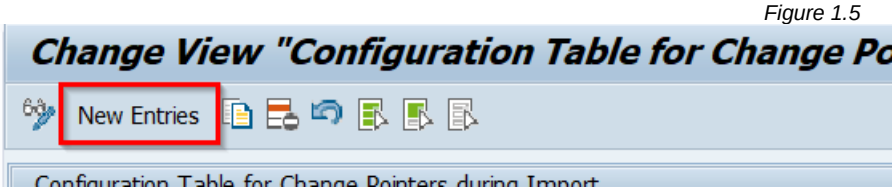



Below are examples of how the Gold Client Change Pointer tables can be configured within a user's SAP environment. More or less table and message type combinations can be used than what is shown below for the provided message type. It is important to analyze the SAP system for Change Pointer information when you configure the Gold Client Change Pointer Tables and to populate the Gold Client tables based on how the Change Pointers operate in the SAP environment.

Within the table, the following steps will need to be completed to configure this table.

1. Select New Entries near the top of the screen (Fig. 1.5)

*Figure 1.5*



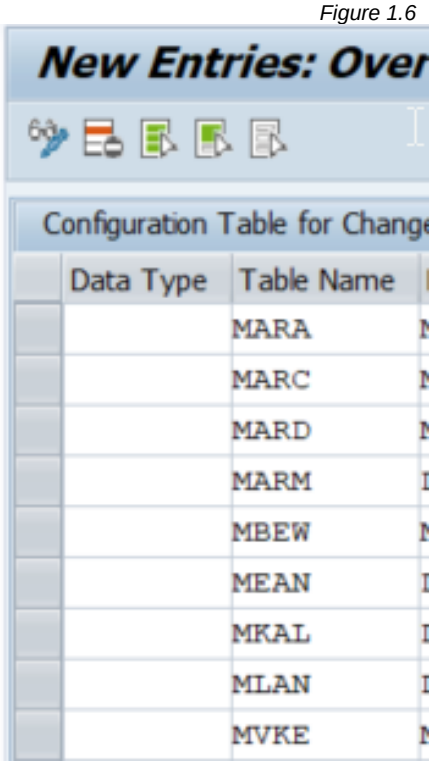

2. On the next screen, the first column within the table will be utilized to designate if you wish to use a specific data type to generate Change Pointers – as seen with the Data Type header (*as mentioned above, this functionality would be used in cases where you only want a certain type of data to generate Change Pointers in the target system, but*

*those same tables are used for other areas of data as well. For example, you want to create change pointers for Customer Master addresses but not for Vendor Master addresses).*

a. This field is not required and only used for instances such as listed above.
b. Please note that some of our data types (such as the CA – CENTRAL ADDRESS MANAGEMENT data type) is used downstream from many areas (Customers, Vendors, Business Partners, Purchase Orders, etc.) within the Gold Client Framework.
c. If you require use of this field to specify a data type, you may find that you have to copy the standard data types we provide and link these newly copied data types downstream from the areas you are trying to target Change Pointers, so that the other (standard) data type does not generate Change Pointers during the import process.

3. The following field, Table Name, is for the table being imported by Gold Client into your target client (the table for which the file has been written out for).
   a. This is most often going to be an SAP data dictionary table in your organizations SAP environment
   b. The table that is being imported into the target system *may not* match the table name in BDCP2 (which is why we have the next field for this process).
   c. The example in the next screenshot (Fig. 1.6) is for MATMAS and are a *few* of the tables that may be configured for this message type

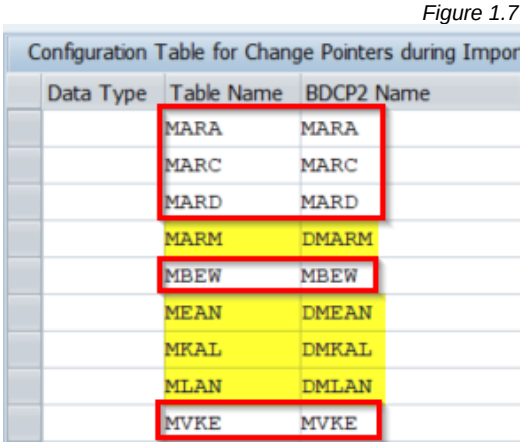
*Figure 1.6*




4. Following the TABLENAME field, we have the BDCP2 Name field (BDCP2TABLENAME). Because the table name within the BDCP2 table can differ from the table name that is imported within Gold Client (due to the use of structures of tables), this is the field we populate what table name should be entered in to BDCP2 when Change Pointers are generated during the import process.
   a. For most cases, the table name entered in the TABLENAME field will be the same for BDCP2TABLENAME.

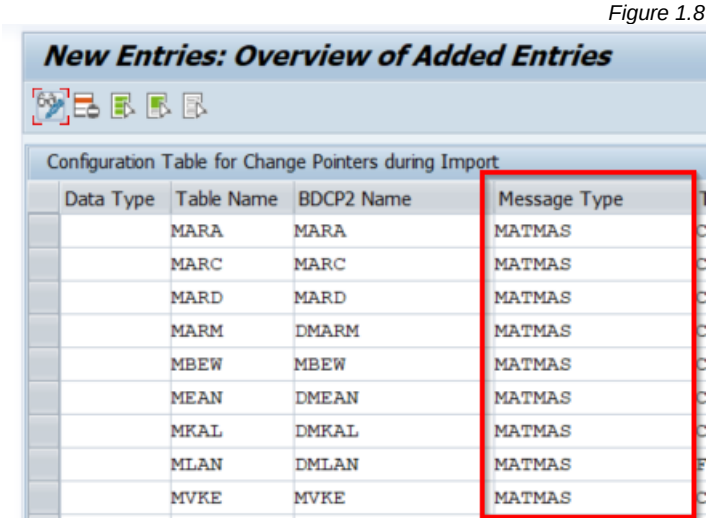
b. In some cases, structures are used instead (in the material master space, these include the MLAN table that is imported, but structure DMLAN is utilized in BDPC2 or table MKAL is imported into the target client, but DMKAL is utilized in BDCP2).
c. Fig. 1.7 displays the way the entries should be maintained when table names are the same in both entries and how it is maintained when they differ.

*Figure 1.7*




5. The next column within the table is for the Message Type. In the example provided (Fig. 1.8), we are focusing on materials and more specifically the MATMAS message type.
   a. You may also find that certain data (like materials) requires multiple message types with the same type of configuration.
   b. If this is the case, you will need to maintain the entries for each table and message type combination you wish to use.
   c. With materials, you may find in your environment that both MATMAS and other message types like MATMAS_CFS or MEREP_DELTABO are utilized to generate Change Pointers.
   d. Each of the Message Types will require their own configuration to be accurately generated during the import process.

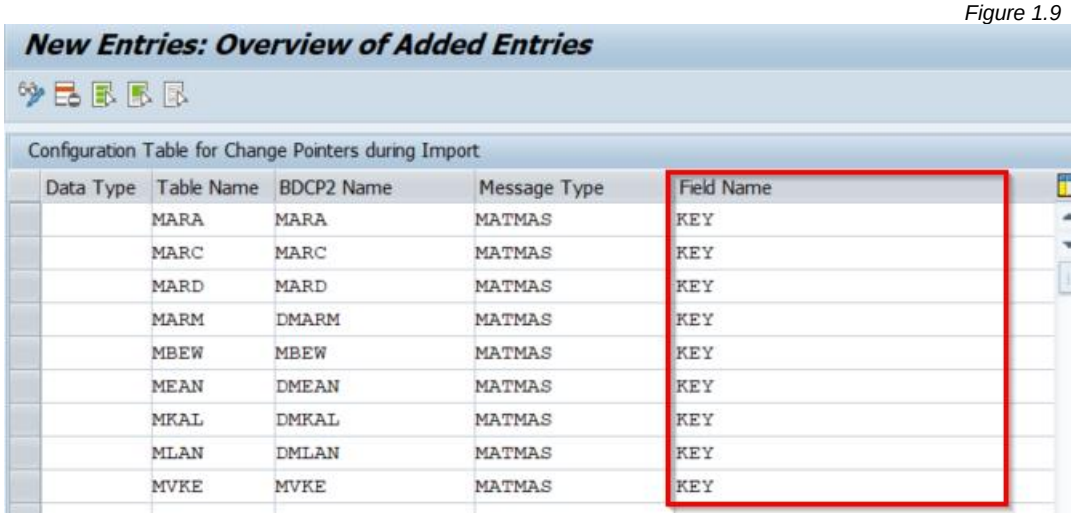
*Figure 1.8*




6. The next column within the table is for the Field Name. This field corresponds to the FLDNAME field within your BDCP2 table.
   a. This entry is usually designated with KEY for most Message Type and Table Combinations (Fig. 1.9).

b. In your environment, you may find that a table and a message type does not use KEY for any entries in BDCP2. In this case, a new field will need to be selected, based on the entries in BDCP2 in your environment.
c. We recommend finding a field name that utilizes an 'I' indicator; the Change Indicator Field in BDCP2 (CDCHGID), if possible.
d. The KEY entry designates that for each table and message type, the key field of the tables are used to generate change pointer information.

*Figure 1.9*




7. For the Change Doc. Object column, this entry corresponds with the CDOBJCL field in your BDCP2 table.
   a. For the MATMAS example, this uses MATERIAL as the Change Doc. Object and is configured in the example provided (Fig. 1.10 and Fig 1.11).
   b. Other message types will utilize other change document objects. Analysis of the BDCP2 table will determine what the object will be within the Gold Client Configuration.

*Figure 1.10*

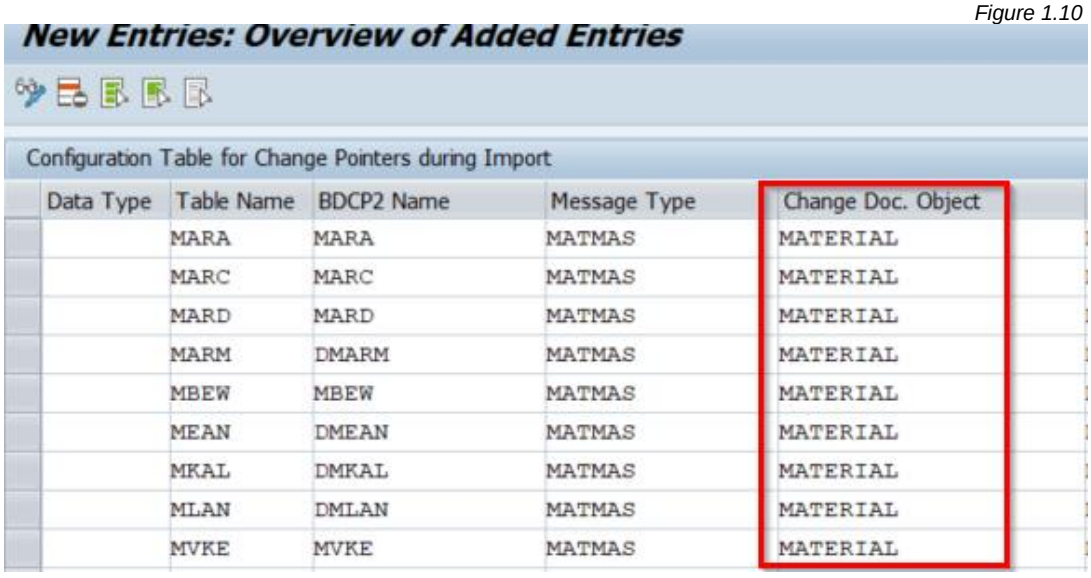
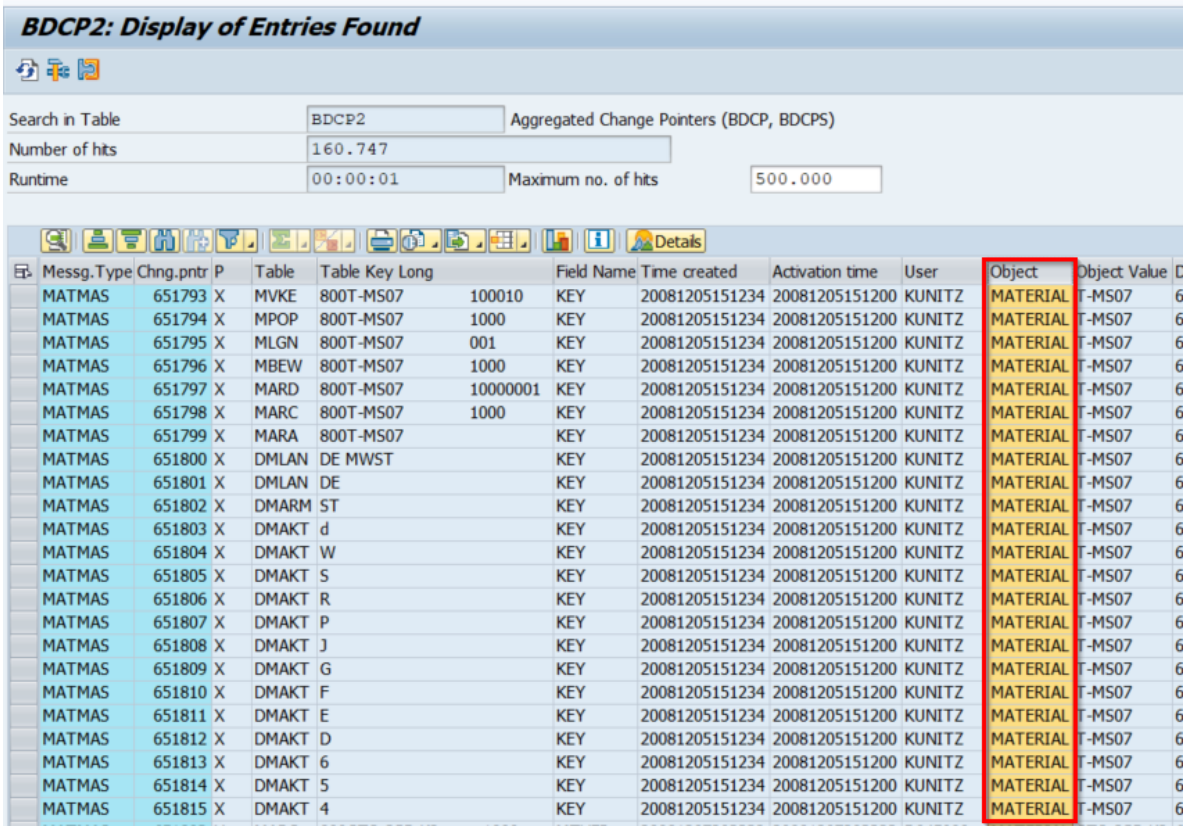


*Figure 1.11*



**BDCP2: Display of Entries Found**

Search in Table: BDCP2 — Aggregated Change Pointers (BDCP, BDCPS)
Number of hits: 160.747
Runtime: 00:00:01 — Maximum no. of hits: 500.000

Details

| Messg.Type | Chng.pntr | P | Table | Table Key Long | | Field Name | Time created | Activation time | User | Object | Object Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MATMAS | 651793 | X | MVKE | 800T-MS07 | 100010 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651794 | X | MPOP | 800T-MS07 | 1000 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651795 | X | MLGN | 800T-MS07 | 001 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651796 | X | MBEW | 800T-MS07 | 1000 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651797 | X | MARD | 800T-MS07 | 10000001 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651798 | X | MARC | 800T-MS07 | 1000 | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651799 | X | MARA | 800T-MS07 | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651800 | X | DMLAN | DE MWST | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651801 | X | DMLAN | DE | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651802 | X | DMARM | ST | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651803 | X | DMAKT | d | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651804 | X | DMAKT | W | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651805 | X | DMAKT | S | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651806 | X | DMAKT | R | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651807 | X | DMAKT | P | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651808 | X | DMAKT | J | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651809 | X | DMAKT | G | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651810 | X | DMAKT | F | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651811 | X | DMAKT | E | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651812 | X | DMAKT | D | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651813 | X | DMAKT | 6 | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651814 | X | DMAKT | 5 | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |
| MATMAS | 651815 | X | DMAKT | 4 | | KEY | 20081205151234 | 20081205151200 | KUNITZ | MATERIAL | T-MS07 |

8. The Object Value column corresponds to what is populated in the BDCP2 table for field CDOBJID (Object Value).
    a. The entries in the Gold Client Table (/HTG/CHPTR_H) will not match what is the populated value in the BDCP2 table in your environment.
    b. For the MATMAS Change Pointers, this field is entered in Gold Client as MATNR. This is because the MATNR (or Material Number) is what is utilized to populate the CDOBJID field in BDCP2.
    c. We are specifying which field (and the field value of the data being imported) will be used when generating new Change Pointers in BDCP2.
    d. In our example (Fig. 1.12 and Fig. 1.13), when we generate Change Pointers for Gold Client, we want the CDOBJID field to be the actual Material(s) being imported.
    e. It is important to note that if the entries for this field require more than one field or need to utilize hard coded values this can be configured as such.
    f. For multiple fields we utilize a ‘,’ to separate the field names.
    g. Fields requiring hard coded values, the values are encased in single quotations (‘ ’). This use case is uncommon but is needed in a few instances where the value is a concatenation.

*Figure 1.12*

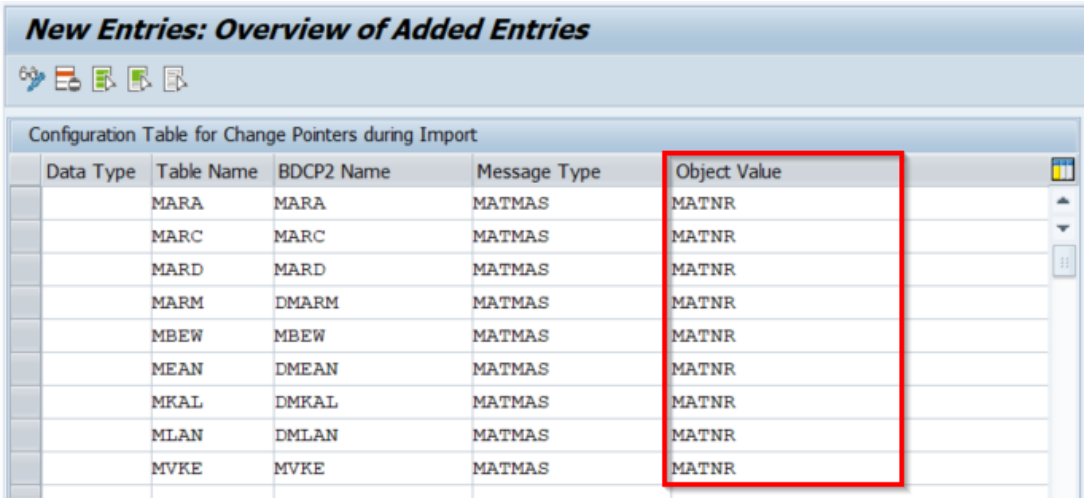
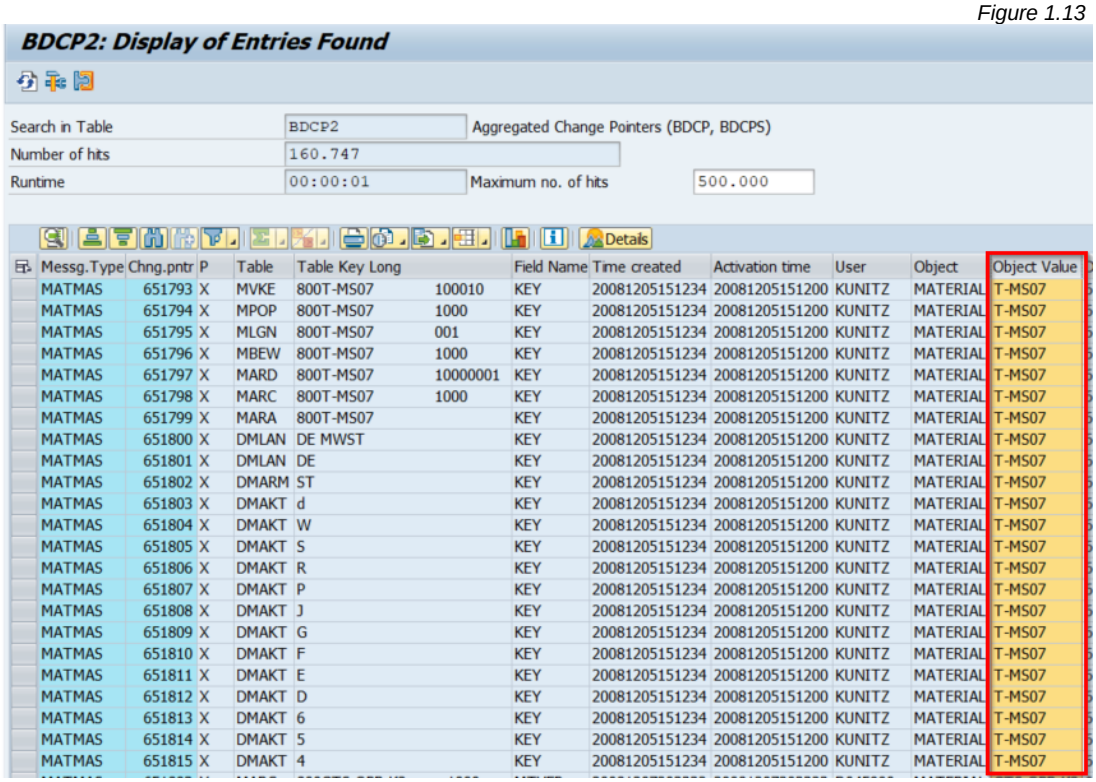



*Figure 1.13*




9. The Change Indicator field corresponds to the CDCHGID field within BDCP2.
    a. When populating this field within the Gold Client table, a drop-down will appear that will allow you to select what type of indicator you would like to use.
    b. Gold Client only allows for Change Pointers to be generated when importing data, so the only indicators that can be used are 'I' for insert or 'U' for update (Fig 1.14).
    c. In most cases within the Gold Client Configuration, we utilize the 'I' insert indicator.
    d. There may not be an 'I' indicator for a table and message type combination and instead only 'U' is used in your environment.
    e. In these cases, we recommend you do utilize the 'U' indicator to match your BDCP2 entries.

f. Fig. 1.15 and 1.16 show the configuration of these entries in the Gold Client table and what is in BDCP2 for the corresponding entries

*Figure 1.14*

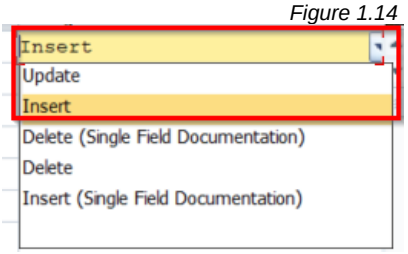



*Figure 1.15*

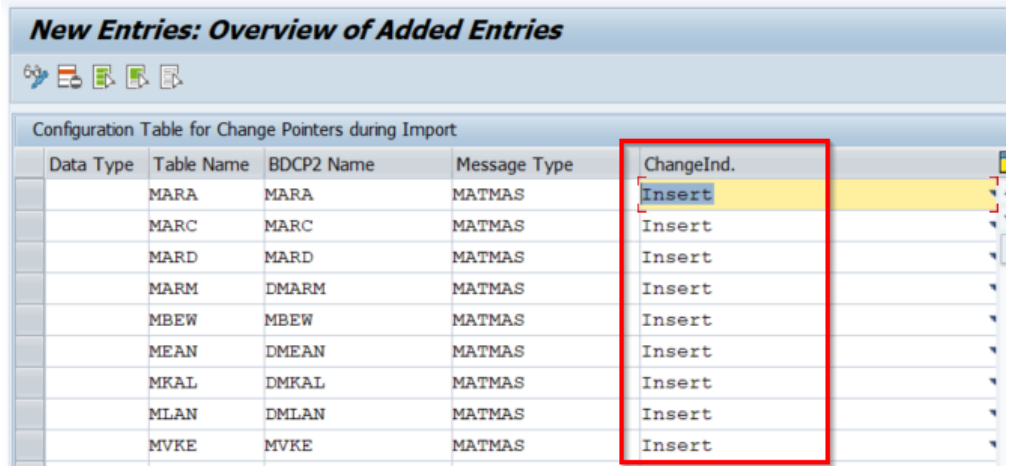
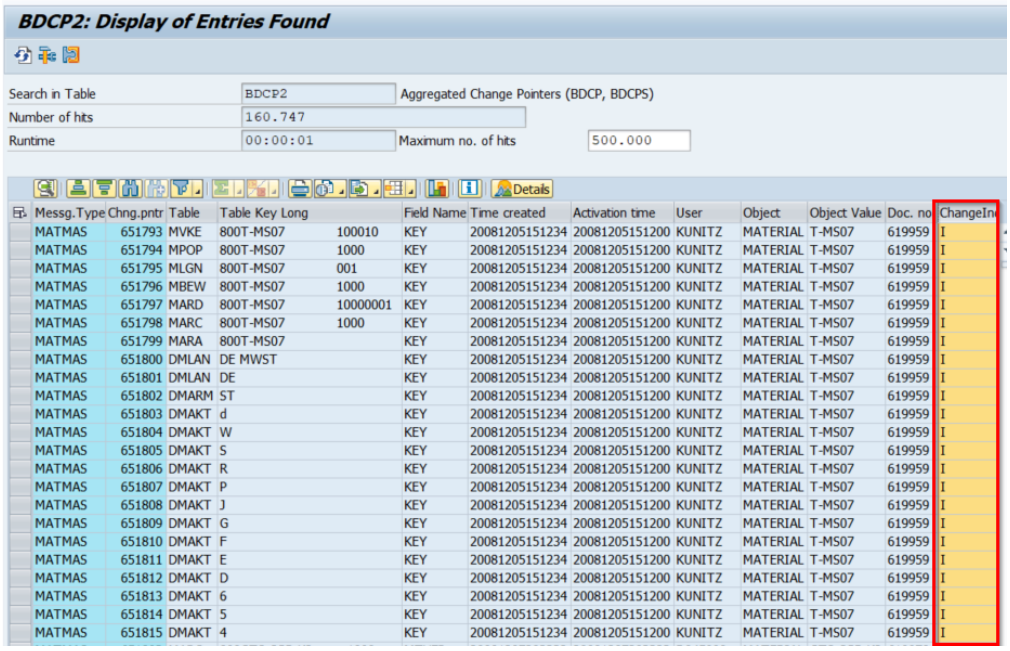


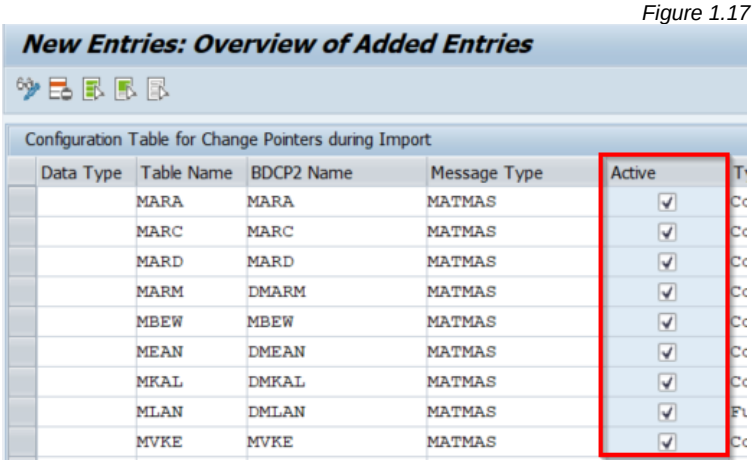

*Figure 1.16*




10. The Active column within the /HTG/CHPTR_H table indicates whether the Change Pointer Configuration you maintained will generate Change Pointers or if no Change Pointers will be generated.

a. When the active checkbox is selected (Fig. 1.17) Change Pointers will be generated during the import process.
b. If the indicator is not selected as active no Change Pointers will be generated during the import process.

*Figure 1.17*




11. The Type Column is a drop-down list with two entries (Fig. 1.18 and Fig. 1.19).
    a. One entry for Configuration Tables (in which the /HTG/CHPTR_D table must be maintained for the TABKEY entries in BDCP2 of your Change Pointers) or if a Function Module holds the configuration that is needed to generate the Change Pointers TABKEY field in BDCP2.
    b. It is more common to utilize the Configuration Tables entry then it is for Function Modules.
    c. Function Modules are used when configuration in the /HTG/CHPTR_D table is not possible to successfully generate Change Pointers, or the configuration needed is too complicated to maintain within the table itself.
    d. Examples of when Function Modules are used are for the MLAN/DMLAN table and Bill of Materials (as Bill of Materials require Change Documents and Change Document Numbers to exist in the environment to generate and process successfully).

*Figure 1.18*

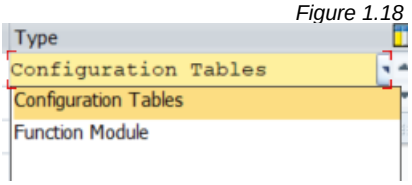
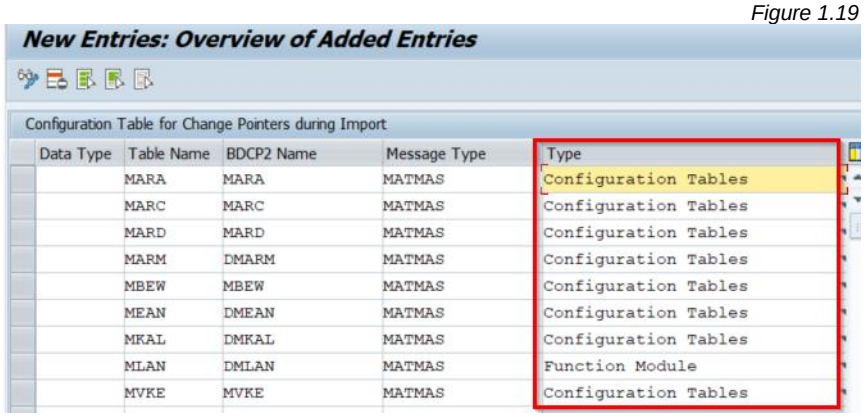
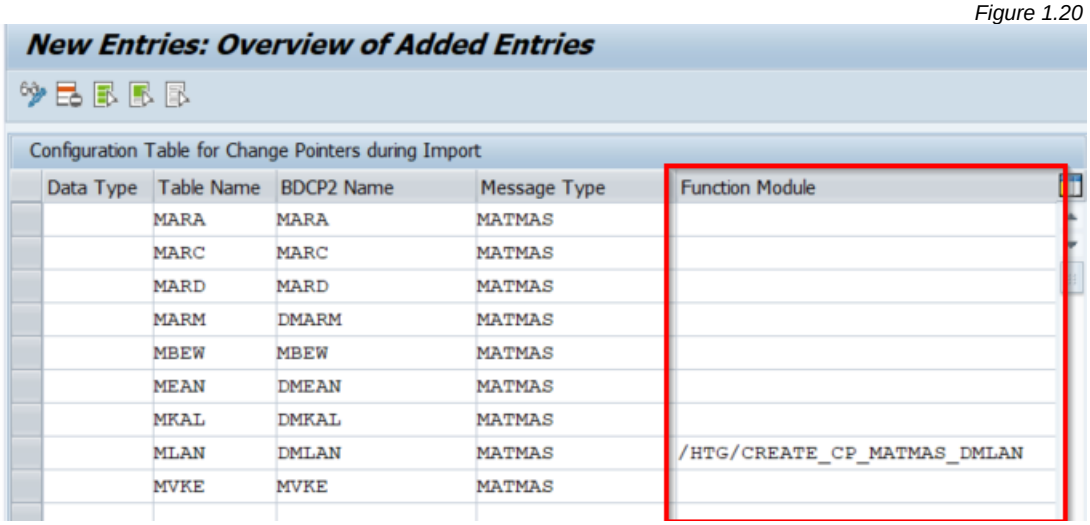



*Figure 1.19*



12. The final column that *may be maintained* is the Function Module field. If the previous field (Type) was maintained with Function Module, then a Function Module will have to be entered in this field to generate Change Pointers due to the specifications within the Function Module (Fig. 1.20). If Function Module is used, then no configuration will need to be maintained in the /HTG/CHPTR_D table.

*Figure 1.20*




13. Once the configuration has been maintained, select the Save button at the top of the screen to save the Change Pointer Configuration. Be sure to select the Save button at regular intervals to make sure the changes are added to the tables successfully without losing work.

## *Maintaining the Gold Client Change Pointer Tables – Detail Table (/HTG/CHPTR_D)*

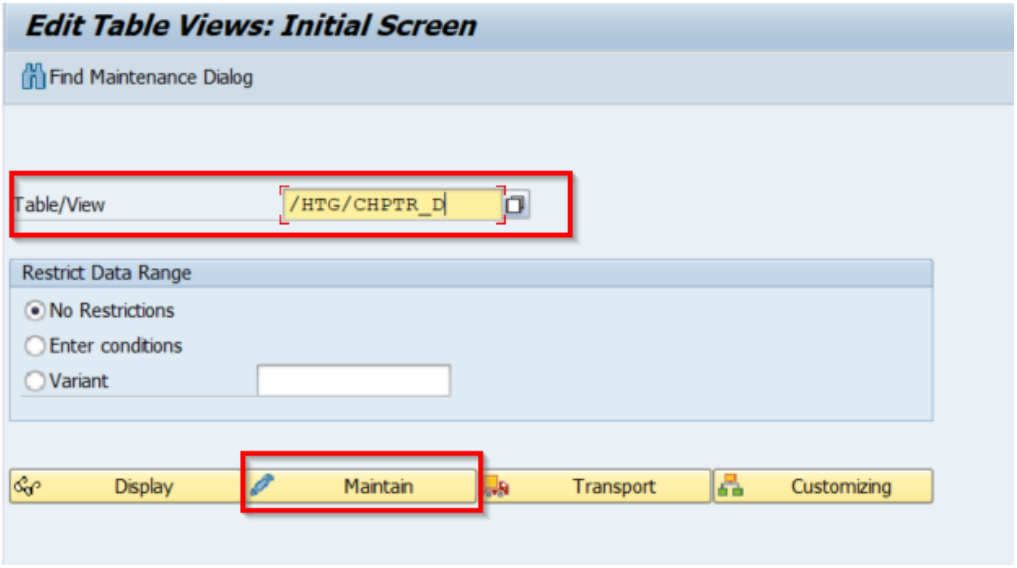
After maintaining table /HTG/CHPTR_H, you will need to maintain table /HTG/CHPTR_D for any entries that contain the 'Configuration Table' entry in the /HTG/CHPTR_H table. It is important to note that there will likely be multiple entries for each table and message type combination as this table is what will populate the TABKEY field in BDCP2 during the Change Pointer Generation.

Typically, with the TABKEY field this is populated with MANDT (or CLIENT) along with the Primary Keys from the tables that are within the Message Type (however this is not always the case). This can be analyzed and verified in your environment by looking at BDCP2 for the specific message type and table combinations and comparing the entries in TABKEY to the entries they correspond with in the SAP tables which are creating the Message Types.

Unlike the maintenance of the /HTG/CHPTR_H table, you may find that completing the configuration for this table is best done one Message Type and Table at a time. This way you can verify the correct entries are maintained within the table for these combinations.

To maintain this table, go to transaction SM30 in your SAP system. Enter table /HTG/CHPTR_D and then select Maintain (Fig. 1.21).

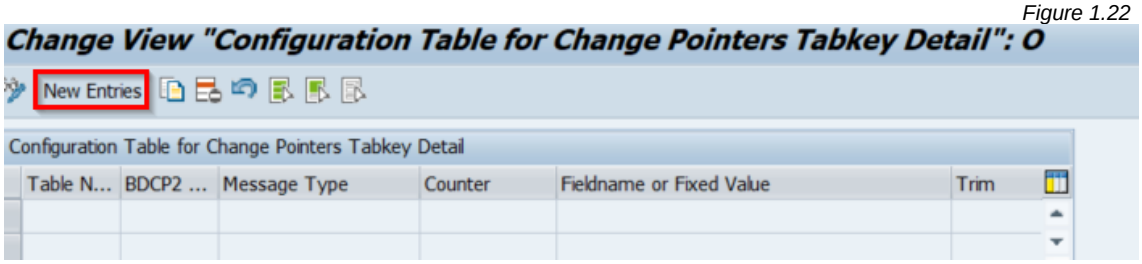
*Figure 1.21*




Within the table, the following steps will need to be completed to configure this table.

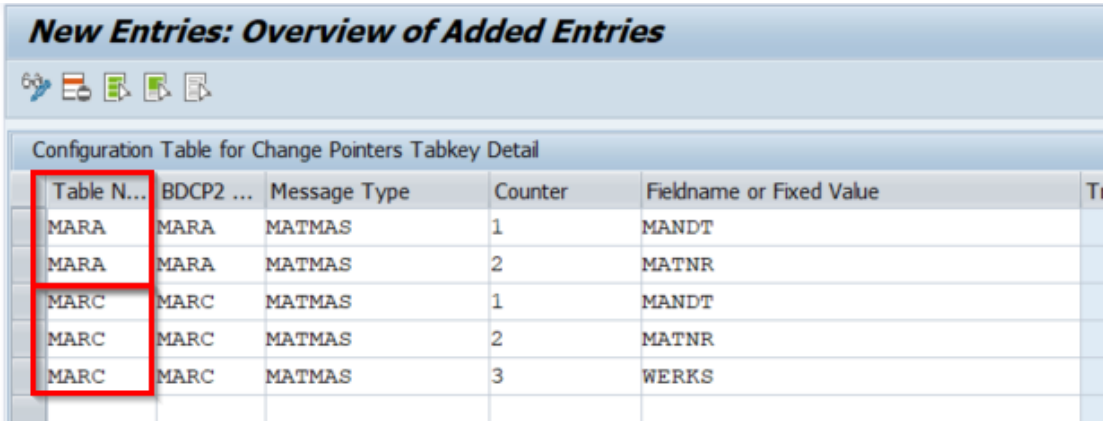
1. Select New Entries near the top of the screen (Fig. 1.22)

*Figure 1.22*



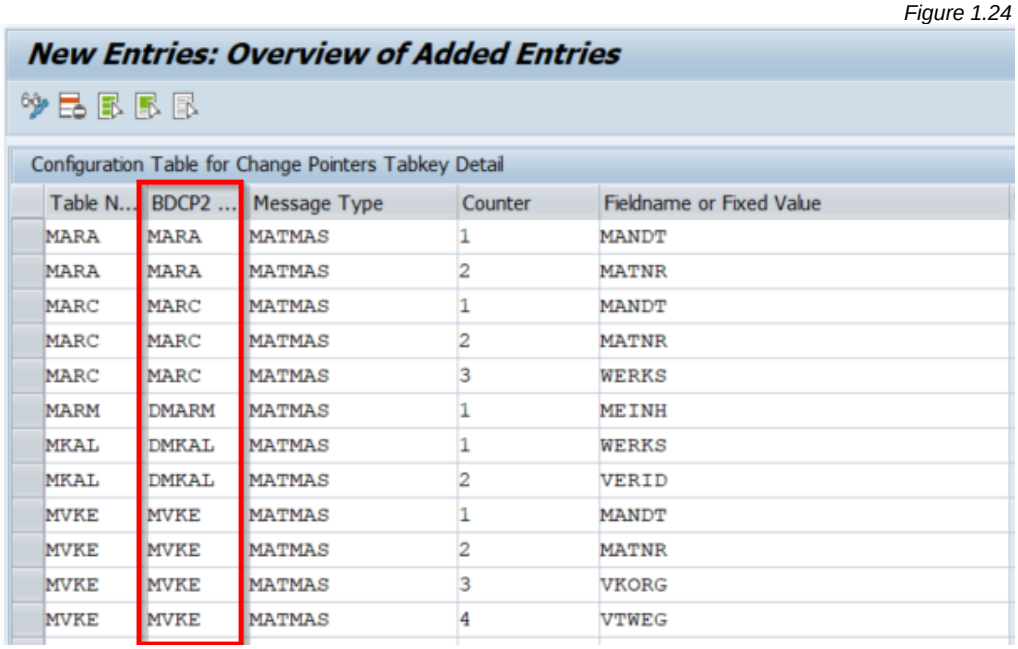

2. The first column in the /HTG/CHPTR_D table is the TABLENAME field. These entries will correspond to the entry entered in /HTG/CHPTR_H for the table and message type (Fig. 1.23).
    a. It is important to note here that there must be an entry for each field that is utilized to generate the TABKEY entry.
    b. In the example of the MARA table, both MANDT and MATNR are utilized to generate the TABKEY entry.
    c. For table MARC, the system uses MANDT + MATNR + WERKS to generate the TABKEY.
    d. Depending on how many Primary Keys exist on the tables you are maintaining will determine how many entries will need to be entered in this column.

*Figure 1.23*



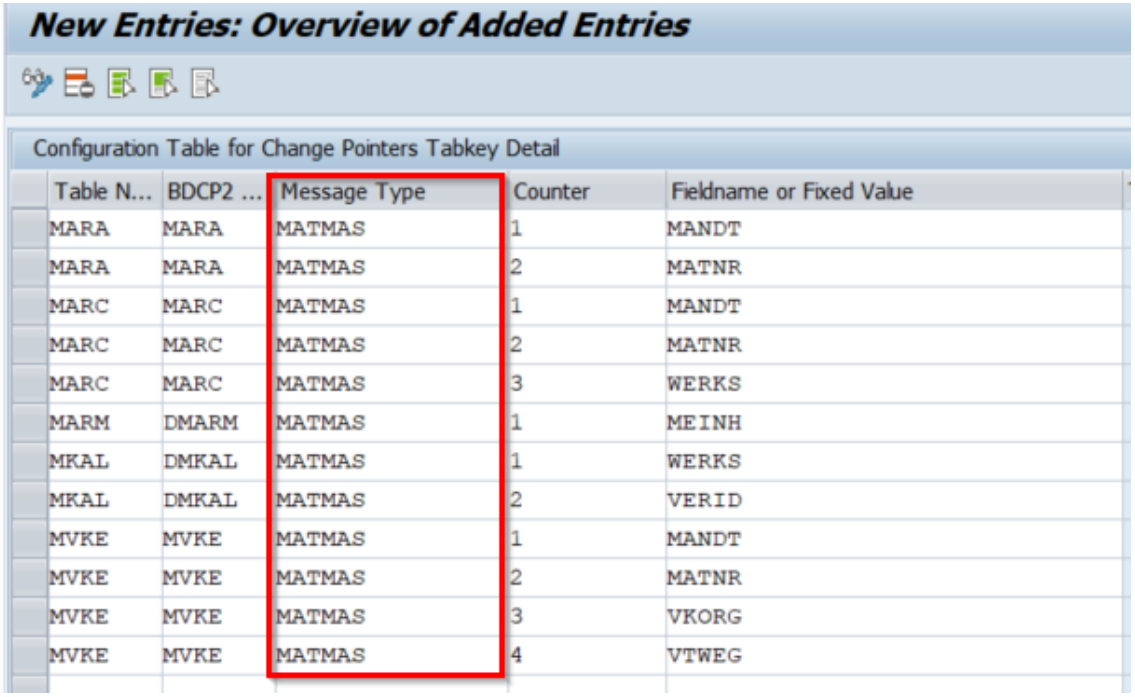

3. The BDCP2TABLENAME is the following field that will need to be maintained. This entry should correspond to the entries from the /HTG/CHPTR_H table.
    a. If the table is the same table name in BDCP2, this should be populated.
    b. If a structure is utilized, the structure name displayed in BDCP2 is entered in this field (Fig. 1.24).
    c. For every entry maintained in the TABLENAME field the corresponding table (or structure) will need to be maintained as well.
    d. In the example provided, you will see some of the entries contain numerous lines with the same tables as numerous fields are needed to maintain these entries

*Figure 1.24*




4. The Message Type field corresponds to the entry maintained in the Message Type field in /HTG/CHPTR_H. The same value used in the header table should be maintained in this field in the Detail Table (Fig. 1.25). Every entry that is maintained in this table requires the Message Type to be maintained.

*Figure 1.25*



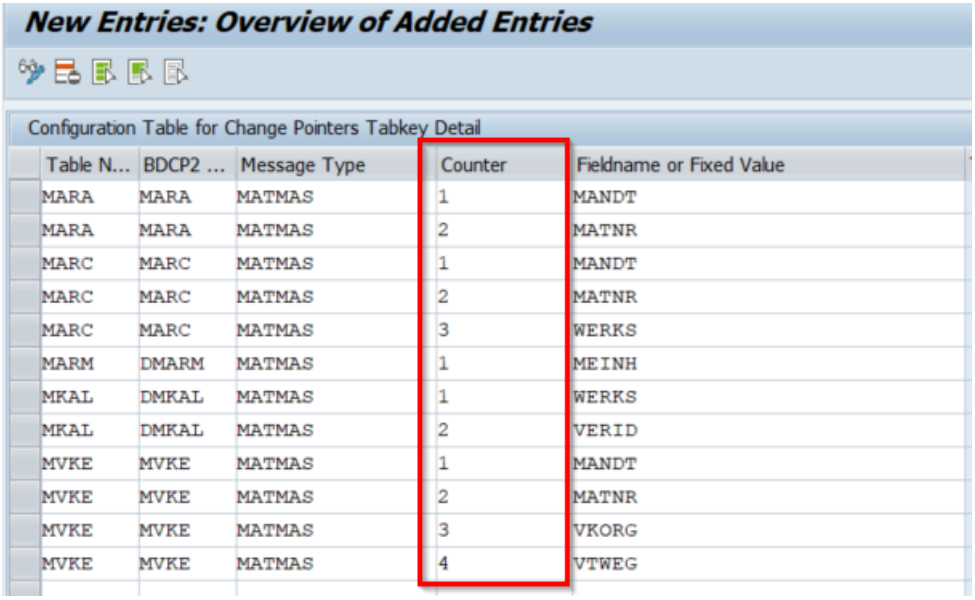
**New Entries: Overview of Added Entries**

Configuration Table for Change Pointers Tabkey Detail

| Table N... | BDCP2 ... | Message Type | Counter | Fieldname or Fixed Value |
|---|---|---|---|---|
| MARA | MARA | MATMAS | 1 | MANDT |
| MARA | MARA | MATMAS | 2 | MATNR |
| MARC | MARC | MATMAS | 1 | MANDT |
| MARC | MARC | MATMAS | 2 | MATNR |
| MARC | MARC | MATMAS | 3 | WERKS |
| MARM | DMARM | MATMAS | 1 | MEINH |
| MKAL | DMKAL | MATMAS | 1 | WERKS |
| MKAL | DMKAL | MATMAS | 2 | VERID |
| MVKE | MVKE | MATMAS | 1 | MANDT |
| MVKE | MVKE | MATMAS | 2 | MATNR |
| MVKE | MVKE | MATMAS | 3 | VKORG |
| MVKE | MVKE | MATMAS | 4 | VTWEG |

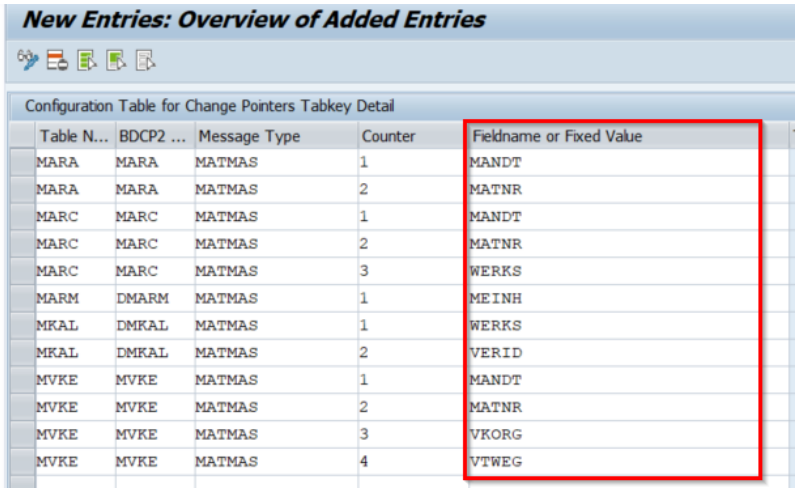
a. The Counter Field is used to determine the order in which the fields or hard coded values (fieldname or fixed value) column need to be ordered in.
b. The Qlik Team recommends analysis in BDCP2 and the corresponding tables for the Message Types to verify the number of fields that are needed and the order they need to go in.
c. Most tables make use of the MANDT/CLIENT field when generating Change Pointers, so this is almost always in the first position (note: either a 1 or a 0 can be used for the MANDT field) and the other entries come after.
d. There are a few tables that do not make use of the MANDT field and those are denoted by only having one entry (Fig. 1.26).
e. Please verify in your system if the MANDT/CLIENT field is required.

*Figure 1.26*



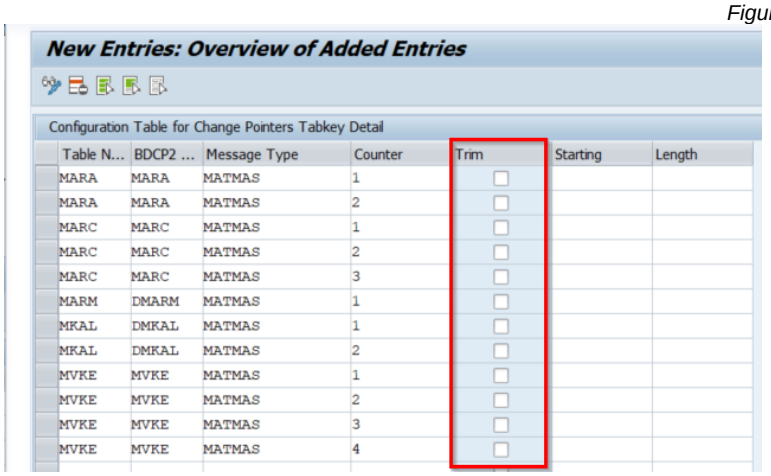

5. The Fieldname or Fixed Value field is the field to enter the table fields or fixed values based on the order they create the TABKEY entries in the BDCP2 table.
    a. In most cases, we will utilize the table name fields, but you may find where a hard coded value is required.
    b. Hard coded values are entered with single quotations (‘ ’) surrounding the value entered and will be on a line by itself.
    c. If you are required to enter blank spaces, you can also denote this with single quotations surrounding the number of spaces needed.
    d. It is important that the correct field names are entered and placed in the correct order in which the TABKEY entries are generated (Fig. 1.27).
    e. If the wrong order is entered or the wrong fields are entered or a field is missing from the configuration, the Change Pointers will not generate in a way that is readable by the system and the data will not process successfully.
    f. Another important thing to note is that it may appear like there are ‘extra’ spaces within the BDCP2 Change Pointers, however the Change Pointers are being generated with the field length in mind (meaning if your material is only 12 characters, it accounts for the extra spaces to equal the length of 18, so blank spaces aren’t typically required).

*Figure 1.26*



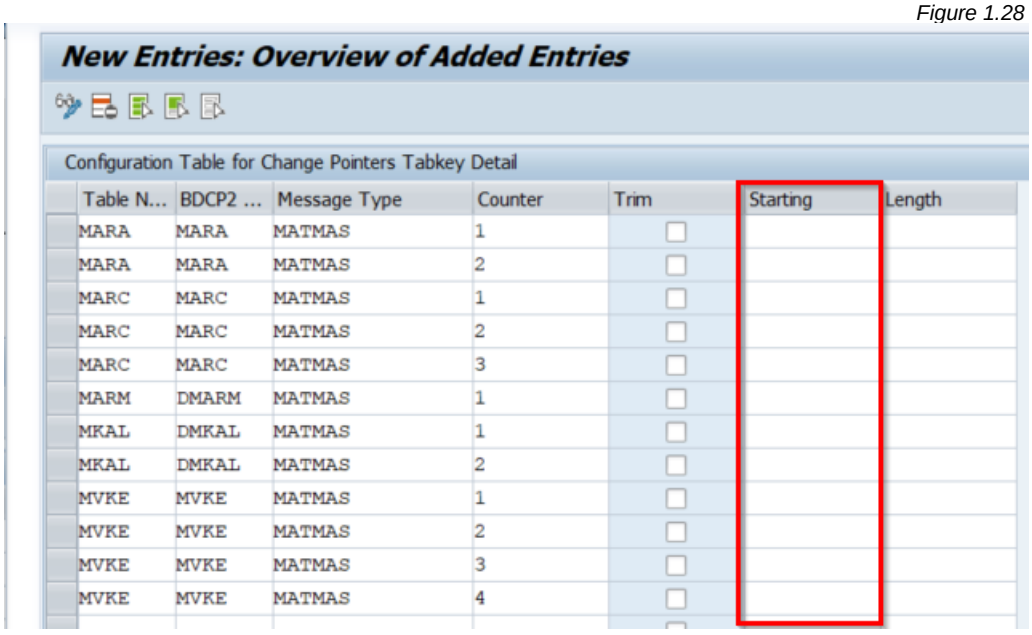
6. The Trim column is a check-box field. This field would only be utilized if part of a table field is needed, but not the entirety of the field. If trimming is needed for any table field, then you would want to mark the check box, so the system knows that trimming is needed for this data (Fig. 1.27). If this is selected, then the following two boxes will also need to be populated

*Figure 1.27*



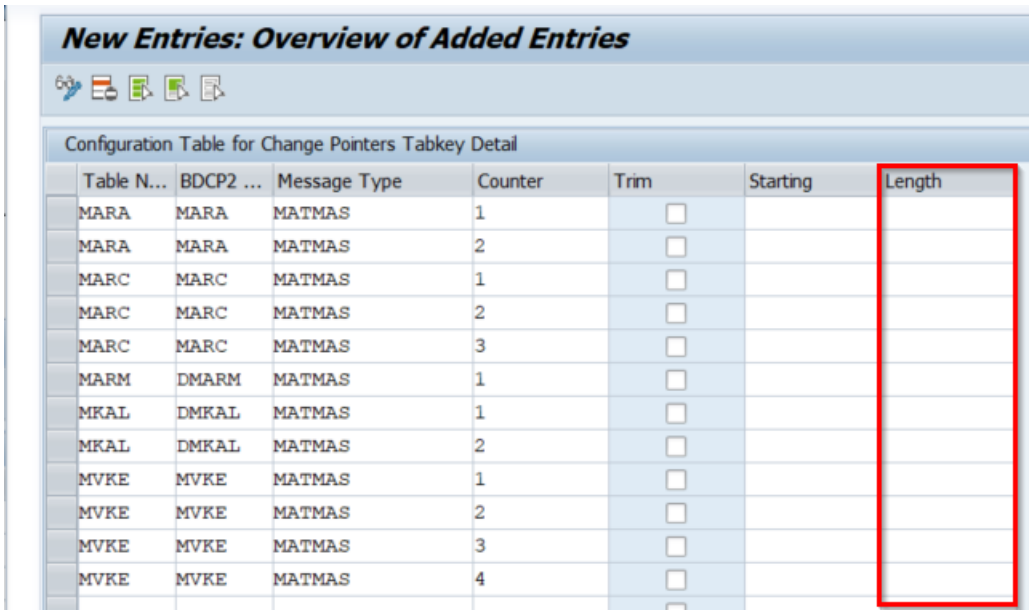

7. The Starting column (used only in conjunction with the Trim checkbox) is to tell the solution what position you want to start to capture the data to generate the TABKEY record for this table and message type, when needing to only take a few lengths of the original field (Fig. 1.28). Depending on where to start the trimming process would determine what value should be entered here.

*Figure 1.28*




8. The Length field is also used in conjunction with the Trim checkbox and the Starting Position field. The entry that is provided here tells Gold Client how long the trimmed section should be. Depending on the length of data to trim out of the field will determine what value is entered in the Length field (Fig. 1.29)

*Figure 1.29*




9. To save the entries that have been entered in the /HTG/CHPTR_D table, be sure to select the Save button at the top. As mentioned previously, you may find that doing a single table per message type one-by-one is the easiest way to maintain this table. If so, be sure to save as you progress with the configuration.

# *Support Information*

Qlik Analytics (ISR) Ltd. can be contacted either by telephone or via email. Any support related issue regarding problems with or use of the Gold Client software and process can be reported for resolution.

If our offices are closed, or staff is unable to directly respond to a support request, we will respond within 24 hours of the initial call. Problems related to the export or import processing may require code enhancements. If a code enhancement or fix is required, resolution time may vary.

As per the maintenance agreement, any repairs or enhancements to the Gold Client software will immediately be deployed to all customers up to date with their maintenance contract. It is the choice of the customer as to if and when such enhancements are implemented. In addition, customers may request a planning session with Qlik to review changes in the software and how the changes might impact their environment.

We can also be contacted to discuss application or feasibility of using the Gold Client process to resolve a current challenge the project team faces. When this is required, a planning session can be scheduled in advance to ensure proper participation by both Qlik and the client.

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