Material Master Extension for New Plant

Applies to:

SAP ECC 6.0. For more information, visit the ABAP homepage.

Summary

There is a need of extending the material of an existing plant in a company code to new plant. The paper discuss about the various method of extending material from one plant to another.

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Business Requirement

More often there is a business requirement of extending Material Master for one or more plant. There are various methods which can be used to achieve this.

- Extending the material Manually using MM01

- Using an ABAP code by writing a BDC for MM01

- Using Standard SAP provided FM's.

- Creating LSMW using Direct Input Program RMDATIND

Let's discuss in details about various methods stated above.

Extending Material Master Manually Using MM01

The first possible way of extending the material master is by manually processing individual material using MM01. Please see the snapshots for doing the same.

a. Call Transaction MM01 with the material number and use copy from as also the material number:
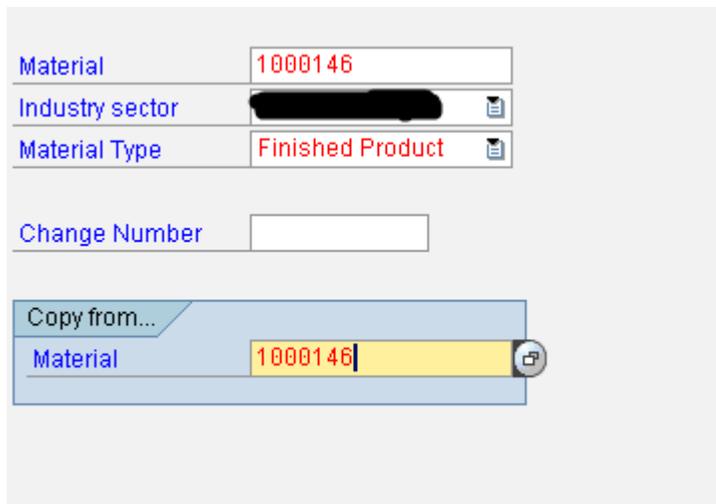
b. Select the views to be created. Plant specific views specially.

c. Put the Plant and storage location in the next screen for copying from plant and copied to plant:

When clicked OK the Material would be extended for the copied to plant too.

Note: This method is easy but it requires MM01 transaction access in production environment and also it's a tedious and lengthy job once the number of material increases.

Using ABAP Code by Writing a BDC for MM01

If the numbers of materials are large, then we can go for a programmatic method. One of the possible ways is writing a BDC for MM01.

   a. Create a recording using Transaction SHDB for MM01.
   b. Use select query to fetch the Materials for the particular Copying Plant (Plant from which material needs to be extended)
   c. Use the recording in the program to update the material master.

Note: This method not usually used as BDC for material master is not recommended by SAP. The View selection sequence changes for different material type.

Using ABAP Code by Using SAP Provided Standard FM's

Another possible way of achieving it programmatically is using SAP standard BAPI's such as

MATERIAL_MAINTAIN_DARK

    a.   Use select query on table MARA, MARC, MBEW and MARD for plant specific data.

    b.   Fill the tables of FM from the data fetched in step a. and replace the plant with the new plant.

Function module	MATERIAL_MAINTAIN_DARK		Active			

Attributes	Import	Export	Changing	Tables	Exceptions	Source code

Parameter Name	Typing	Associated Type	Optional	Short text	Long Text	Enh
AMARA_UEB	LIKE	MARA_UEB	☐	Table of MARAs extended to include TC		
AMAKT_UEB	LIKE	MAKT_UEB	☑	Table of short texts		
AMARC_UEB	LIKE	MARC_UEB	☑	Table of MARCs		
AMARD_UEB	LIKE	MARD_UEB	☑			
AMFHM_UEB	LIKE	MFHM_UEB	☑			
AMARM_UEB	LIKE	MARM_UEB	☑			
AMEA1_UEB	LIKE	MEA1_UEB	☑			
AMBEW_UEB	LIKE	MBEW_UEB	☑			
ASTEU_UEB	LIKE	STEU_UEB	☑			
ASTMM_UEB	LIKE	STEUMM_UEB	☑			
AMLGN_UEB	LIKE	MLGN_UEB	☑			
AMLGT_UEB	LIKE	MLGT_UEB	☑			
AMPGD_UEB	LIKE	MPGD_UEB	☑			
AMPOP_UEB	LIKE	MPOP_UEB	☑			
AMVEG_UEB	LIKE	MVEG_UEB	☑	Total consumption		
AMVEU_UEB	LIKE	MVEU_UEB	☑	Unplanned consumption		
AMVKE_UEB	LIKE	MVKE_UEB	☑			
ALTX1_UEB	LIKE	LTX1_UEB	☑			
AMPRW_UEB	LIKE	MPRW_UEB	☑			
AE1CUCFG_UEB	LIKE	E1CUCFG_UEB	☑	ALE Konfigurationsdaten: Nicht verwen		

    c.   Call the FM with the data and the material would be extended for the new plant.

Note: This method is a bit tedious if you have custom fields (Z fields) in material master. As these are standard structures, they don't have custom fields by default. The possible of achieving the Material master extension using the above method is to extend each structure associated with the tables. For e.g. MARC_EUB needs to be extended if Custom fields of the table MARC also need to be updated.

Using LSMW Direct Input Program RMDATIND

One of the good ways of achieving the material master extension is using LSMW.

a. Call Transaction LSMW. Create Project, Sub-Project and Object.
   In step 1 of LSMW ' Maintain Object Attributes' use Standard Batch/Direct Input method and choose the program RMDATIND

b. In step 2 and step 3 of LSMW. Create the source Structure and maintain the source fields which needs to be copied for new plant.

```
Source Fields

   └─🗁 MAT_COPY                    Material Copy

         ├──── MARA-MATNR                 C(018)    Material Number
         ├──── MARA-MTART                 C(004)    Material Type
         ├──── MBEW-BWKEY                 C(004)    Valuation Area
         ├──── MARC-MTVFP                 C(002)    Checking Group for Availability Check
         ├──── MARC-ATPKZ                 C(001)    Replacement part
         ├──── MARC-MFRGR                 C(008)    Material freight group
         ├──── MARC-XCHPF                 C(001)    Batch management requirement indicator
         ├──── MARC-LADGR                 C(004)    Loading Group
         ├──── MARC-VRVEZ                 C(006)    Shipping setup time
         ├──── MARC-VBEAZ                 C(006)    Shipping processing time
         ├──── MARC-VBAMG                 C(017)    Base quantity for capacity planning in shipping
         ├──── MARC-XMCNG                 C(001)    Negative stocks allowed in plant
         ├──── MARC-PRCTR                 C(010)    Profit Center
```

c. In step 4 of LSMW, Maintain the Structure relationship.

```
Structure Relations

   └─🗁 BGR00 Batch Input Structure for Session Data              <<<< MAT_COPY Material Copy
            Select Target Structure BGR00 .

      └─🗁 BMM00 Material Master: Transaction Data for Batch Input      <<<< MAT_COPY Material Copy
               Select Target Structure BMM00 .

         ├──── BMMH1 Material Master: Transfer of Main Data            <<<< MAT_COPY Material Copy
         │            Select Target Structure BMMH1 .
         ├──── BMMH2 Material Master: Country Data for Batch Input (from 2nd Cty)
         ├──── BMMH3 Material Master: Forecast Values for Batch Input
         ├──── BMMH4 Material Master: Consumption Values for Batch Input
         ├──── BMMH5 Mat. Master: Descriptions for Batch Input (Except 1st Text)
         ├──── BMMH6 Material Master: Units of Measure for BTCI
         ├──── BMMH7 Material Master: Long Texts for Batch Input
         └──── BMMH8 Material Master: Referential EANs for BTCI
```

d. In step 5 of LSMW. Maintain Field Mapping and Conversion Rules. Fill the structure BMM00 and BMMH1.

BMM00 needs to be filled with View specific indicators too.

```
──TCODE              🛈 ❓ 🎴 4-character transaction code
                     Rule :  Constant
                     Code:   BMM00-TCODE = 'MM01'.
──MATNR              🛈 ❓ 🎴 Material Number
                     Source:  MAT_COPY-MARA-MATNR (Material Number)
                     Rule :   Transfer (MOVE)
                     Code:    BMM00-MATNR = MAT_COPY-MARA-MATNR.
──MBRSH              🛈 ❓ 🎴 Industry sector
──MTART              🛈 ❓ 🎴 Material Type
                     Source:  MAT_COPY-MARA-MTART (Material Type)
                     Rule :   Transfer (MOVE)
                     Code:    BMM00-MTART = MAT_COPY-MARA-MTART.
──WERKS              🛈 ❓ 🎴 Plant
                     Rule :   Constant
                     Code:    BMM00-WERKS = ▇▇▇▇.
──LGORT              🛈 ❓ 🎴 Storage Location
                     Rule :   Constant
                     Code:    BMM00-LGORT = ▇▇▇▇.
──BUKRS              🛈 ❓ 🎴 Company Code
──BWTAR              🛈 ❓ 🎴 Valuation type
──VKORG              🛈 ❓ 🎴 Sales Organization
                     Rule :   Constant
                     Code:    BMM00-VKORG = ▇▇▇▇.
──VTWEG              🛈 ❓ 🎴 Distribution Channel
                     Rule :   Constant
                     Code:    BMM00-VTWEG = ▇▇▇▇
──LGNUM              🛈 ❓ 🎴 Warehouse Number / Warehouse Complex
                     Rule :   Constant
                     Code:    BMM00-LGNUM = ▇▇▇▇.
```

Values could be hard coded or sent throug File.

Views can be selected based on the value of PSTAT coming from table MARC.

```
──XEIA1              🛈 ❓ 🎴 Indicator: include first Work Scheduling view
                     Code:    PERFORM ur_view_sel USING mat_copy-marc-pstat
                                                        'A'
                                              CHANGING bmm00-xeia1.
```

The code Snippet for the same is:

```
FORM ur_view_sel
      USING p_in1
            p_in2
   CHANGING p_out.
   IF p_in1 CS p_in2.
   P_OUT = 'X'.
   ELSE.
     p_out = ' '.
   ENDIF.
ENDFORM.                    "ur_VIEW_SEL
```

Fill BMMH1 structure with the corresponding fields which needs to be updated.

e. In the next steps of LSMW. Specify the file, assign the files, Display the read data, Convert the Data and Then Display the converted data.
f. In last step of LSMW. Start Direct Input Program RMDATIND
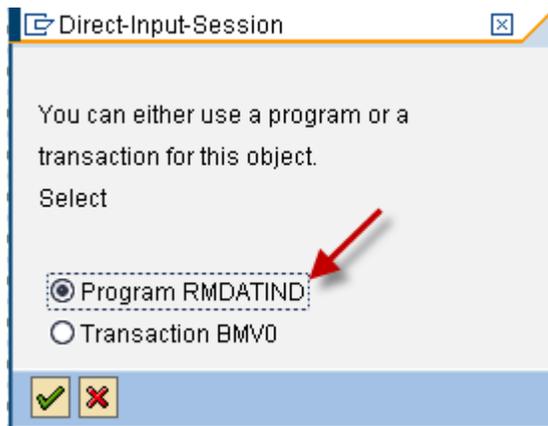
Transfer Material Master Data by Direct Input

File access

○ Using logical file name:

◉ Using physical file name:

> Use teh Physical file name which has been generated by LSMW conversion

Code Page of File

◉ UTF-8

○ NON-Unicode

> Choose Unicode or non Unicode depending upon your system and data

General data

Max. no. of logical errors	100
Transactions per commit unit	500
Message level (1-4)	2
☑ Success messages	
Lock mode	E
Fields not ready for input	W

> Choose Message level, depending on weather you want to see error messages only or all messages.

> Lock mode for creation of record. Exclusive or shared.

Performance control

☐ Set up administrative data
☐ Create change documents
☐ Update planning file entries

Check file

☐ Only import file
☐ Check data, but do not update

Execute the program and the material would be extended for new plant.

Note: This method also has the overhead for Custom fields (Z fields), if they are present in the material master. In this case BMMH1 structure can be extended and all the Z fields can be included in the same. Difference between the FM method and this method is that only one structure needs to be extended in this case rather than all the structures pertaining to tables.

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