Pricing in MM-PUR		



Agenda



- 1. Pricing Overview
 - 1.1. conditions
 - 1.2. condition records and tables
 - 1.3. access sequence
 - 1.4. calculation schema
- 2. Time-dependent & Time Independent conditions
- 3. Types of Conditions
 - 3.1. Precious Metals
 - 3.2. Gross Price
 - 3.3. Delivery Costs
 - 3.4. Group Conditions
- 4. Price Determination Programs
- 5. Analysis
- 6. Sources of Information

How is Pricing used in Purchasing?



Main Business Scenario







 A vendor's price for a material is often made up of different components. Your vendor may offer to sell you a material at a certain price, but additional factors may affect what you pay. Prices, discounts and surcharges, freight costs, and the like are represented in the system as pricing conditions. The conditions are applied in order to arrive at the net and effective purchase prices in purchase orders. Settings made in Customizing define the details of the conditions and price determination process.

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Elements Used in the Condition Technique

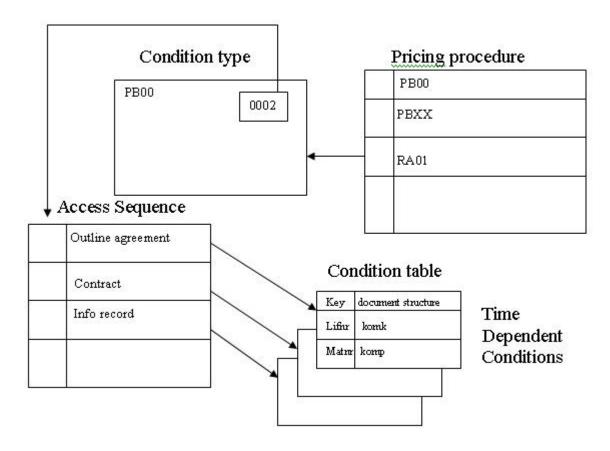


- Condition Types
- Condition Records and Tables
- Access Sequences
- Calculation Schemas

Overview



Customizing

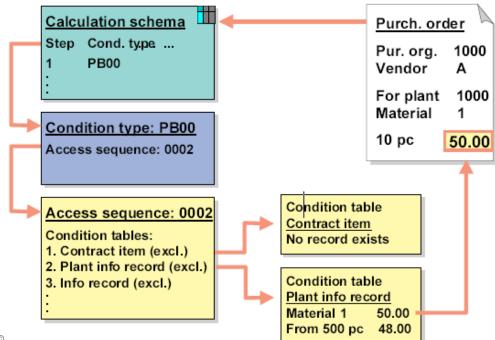


Price Determination Process: Overview



The price determination process is carried out in a number of steps:

- First, the relevant calculation schema is determined.
- The system then searches for condition records for all condition types listed in the calculation schema that have an access sequence assigned to them.
- The search for condition records is carried out in the order specified in the access sequence.
- The search is concluded when a valid condition record is found.



Conditions (I)





Conditions

Prices

Contract

Info record

Scheduling agreement

Quotation

Discounts and surcharges

Percentage, quantity-dependent, or absolute discounts/surcharges

Freight charges

Cash discounts

End-of-period rebates

Conditions (II)



- Conditions are stipulations agreed with vendors regarding prices, discounts and surcharges, etc. The system determines the effective net purchase price in POs on the basis of these pricing elements.
- Conditions can be maintained when you enter or create quotations, info records, outline purchase agreements, and purchase orders.
- MM Purchasing differentiates between the following prices:
 - **Gross price**: Price excluding any possible discounts or surcharges
 - **Net price**: Price taking discounts, surcharges, and possibly taxes into account
 - **Effective price**: Net price less or plus delivery (incidental procurement) costs, cash discount, and miscellaneous provisions for accrued costs or rebates.

Discounts or surcharges may be percentage-based, quantity-dependent, or absolute in nature.

Conditions (III)

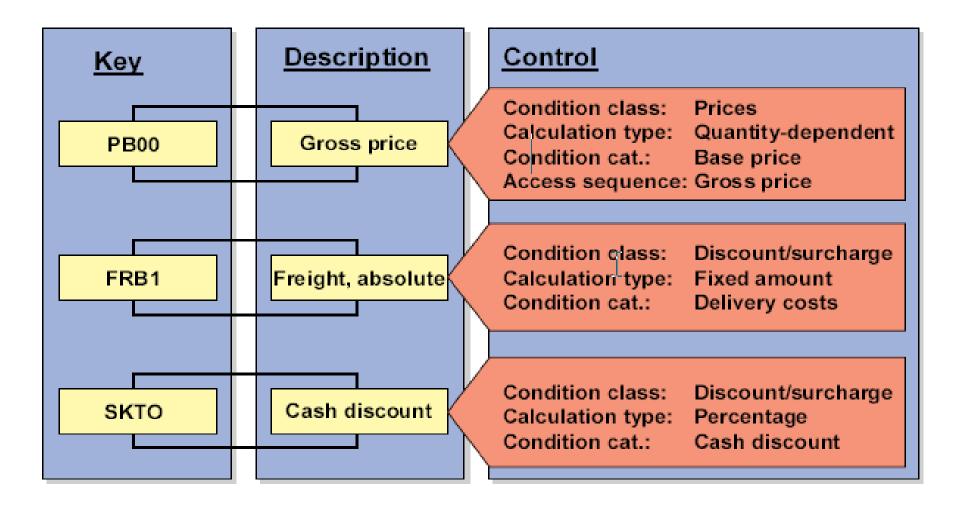


- You can also enter conditions that do not take effect immediately, at the time of individual transactions, but subsequently thereto, and which require settlement at the end of a predefined period.
- In MM Purchasing, a distinction is made between conditions that are valid for a certain period (time-dependent conditions or master conditions) and conditions for which no special validity period can be defined (time-independent conditions or document conditions).

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Condition Types (I)





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Condition Types (II)



- The individual conditions are described by means of condition types. There are condition types for the **gross price**, various **discounts and surcharges**, **freight charges**, **fixed costs**, etc.
- Condition types are defined together with their control parameters in Customizing.
- Condition types are differentiated broadly using the condition class and more definitively using the condition category.
- The **calculation type** (or rule) stipulates how the R/3 System calculates the condition value. For example, a discount or surcharge can be a **percentage** of the gross price, a **fixed amount** or a **quantity dependent amount**.
- The plus/minus sign determines whether a condition is treated as a **negative or positive** amount. Negative amounts are discounts (deductions), positive amounts are surcharges (additions).

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Condition Types (IV)



- The **scale basis** for scales also depends on the condition type. A scale can be based on quantity or dollar value, for example.
- An access sequence may be assigned to a condition type. The access sequence is a search strategy that enables you to specify the **order in which condition tables are to be searched** for relevant entries for a condition type. In the standard R/3 System, no access sequences are assigned to the condition types for discounts and surcharges (RA00, RA01, etc.) because they do not have separate validity periods. They are always maintained at the same time as the gross price (PB00) and their validity period is always the same as the validity period of the gross price.

You can define your own condition types.

Header, Group, and Item Conditions (I)



	Pur	chas	se order			
	lten	n Ma	at. Mat. gr.	Qty.	Price	
Per purchase	10	1	001	1	81.00	
order: 20.00	20	4	009	1	72.00	Mat. group discount:
freight surcharge	40	5	009	10	63.00	5% from 100.00
	Spo	Special discount for material 5				
	1%	1% from 10 pc upwards				

Header, Group, and Item Conditions (II)



- Item conditions are conditions relating to a single item of a document.
- Header conditions are entered in the header of a document and relate to all the items of that document.
- No automatic price determination process is carried out for header conditions.
- A condition type can be defined as a group condition in Customizing.

Access Sequence (I)



Cond. ty.	Control
PB00	Access sequence 0002
_	

Access sequence	No.	Condition table	Exclusive
0002	10	A017 (Info record w. plant)	X
	20	A018 (Info rec. w/o plant)	X
	30		

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Access Sequence (II)



- An access sequence can be assigned to a condition type.
- An access sequence is a search strategy that enables you to specify the order in which condition tables are to be searched for relevant entries for a condition type.
- The order of the accesses is determined by the **order of the condition tables** in the access sequence.
- The **Exclusive indicator** determines that the search for further valid entries in (other) condition tables is interrupted if an access was successful and a relevant entry was found.
- A condition type must have an access sequence assigned to it if you want to maintain conditions with their own validity periods (for example, condition type PB00).
- No access sequence assigned to header conditions, discounts, or surcharges

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Condition Records and Condition Tables (I)



Condition table A017 (info record with plant)

Cond. ty.	Vendor	Material	Pur. org.	Plant	 Cond. rec. no.
PB00	Α	1	1000	1000	 1234

Condition table A018 (info record without plant)

Cond. ty.	Vendor	Material	Pur. org.	 Cond. rec. no.	
PB00	Α	1	1000	 4321	

Table KONP (item conditions)

Cond. rec. no.	Cond. ty.	 Cond. amount	
1234	PB00	 10.00	
4321	PB00	 11.00	

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Condition Records and Condition Tables (II)



- Conditions are stored in the system as condition records.
- Condition tables reference condition records. Condition tables enable you to vary the key structure of condition records.
- Entries in condition tables consist of a key part and a data part. The data part contains the number of a condition record.
- Condition records are stored in the following transparent tables
 - **KONP** (time-dependent conditions)
 - **KONH** (header conditions)
 - **KONM** (quantity scales)
 - KONW (value scales)

Calculation Schema (I)



Step	Counter	Cond. ty.	Description	Fr.	Manu.	Stat	
1	1	PB00	Gross price				
10	1	RB00	Absolute discount		х		
10	9	ZA01	% Surcharge on gross	1	Х		
20	0		Net value incl. discount				
31	1	FRA1	Freight %	20	Х	Х	
35	1	SKTO	Cash discount	20		Х	
40	0		Effective price				

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Calculation Schema (II)



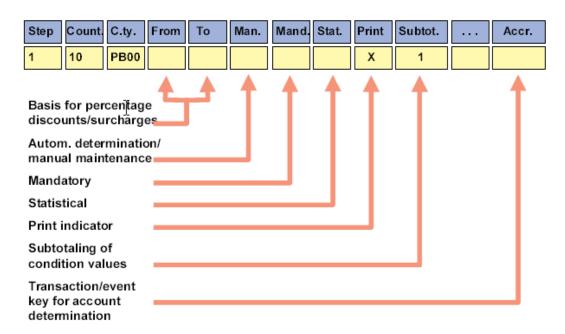
- Groups together all the condition types that are relevant in determining a price
- The calculation schema specifies the following:
 - Permissible condition types
 - Condition types for which conditions are adopted automatically (Manu. indicator)
 - Condition types for which the net price calculation is applied (Stat. indicator)
 - Order in which the condition types are taken into account in the calculation of the net or effective price
 - Condition types for which subtotals are calculated
 - Requirements that must be satisfied before a certain condition type is taken into account

■ FROM / To reference steps

Calculation Schema (III)



- Which condition types are to be taken into account and in which order (step & counter)
- Basis for percentage discounts or surcharges (from and to)
- Whether conditions are determined manually or automatically
- Whether a condition type is mandatory
- Whether and how condition lines should be printed
- Subtotals in which fields condition values or subtotals should be stored
- Requirement
- Non-standard formulas for determining condition value (Calc frm) or condition basis (BasFrm)
- Transaction/event key through which the G/L account is found (provision-relevant condition type)



Sequence of Conditions



- The step numbers (STUNR) determine the sequence (order) in which the condition types are taken into account in the calculation of the net or effective price.
 - This sequence cannot be changed in the document even if the condition types are entered manually.
- Condition types assigned to the same step in the calculation schema are sorted by means of a counter (ZAEHK).



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Tables used for pricing (I)



- Pricing condition tables
 - **KONV** Database table for all item conditions
 - Annn Conditions tables
 - **KONH** Conditions (Header)
 - **KONP** Conditions (Item)
 - **KONM** Conditions (Quantity Scales)
 - **KOMW** Conditions (Value Scales)
- KOMK Header communication structure
 - filled by Function ModuleME_FILL_KOMK_PO and ME_FILL_KOMK_IN.
- **KOMP** Item communication structure
 - filled by Function Module ME_FILL_KOMP_PO and ME_FILL_KOMP_IN
- KNUMV links conditions in table KONV to the document in table EKKO
- **KNUMH** links the condition tables to time dependent condition records
 - Example: TABLE A017 linked to tables KONH and KONP for info record conditions)

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Tables used for pricing (II)



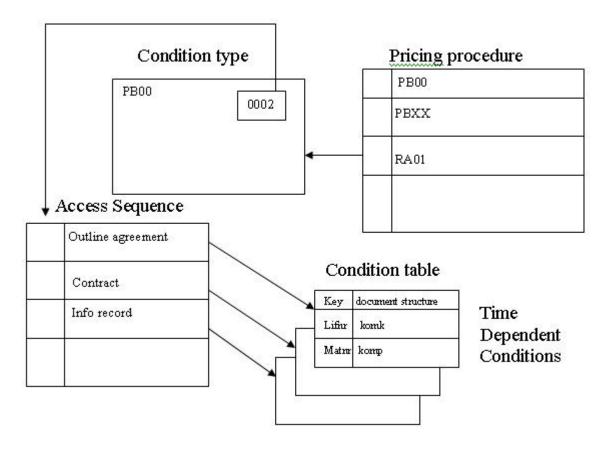
Some important condition tables:

A068	Outline Agreement Item: Plant-Dependent
A016	Contract Item
A067	Plant Info Record per Order Unit
A017	Material Info Record (Plant-Specific)
A066	Info record per order unit
A018	Material Info Record
A025	Info Record for Non-Stock Item (Plant-Specific)
A028	Info Record for Non-Stock Item

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Flow Charts (I)



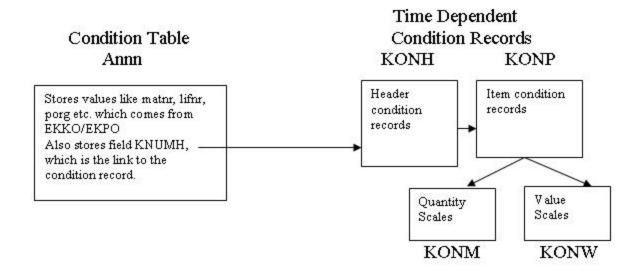


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Flow Charts (II)



Condition tables (Master conditions/ Time dependent conditions)

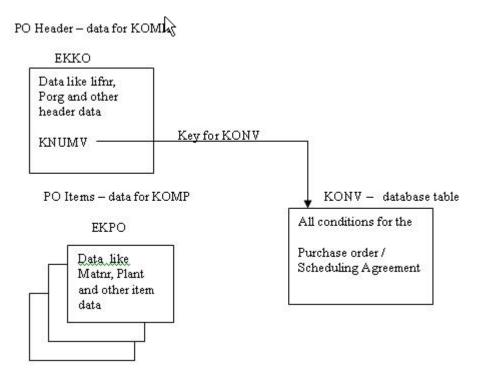


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Flow Charts (III)



Document Conditions (Time independent conditions)

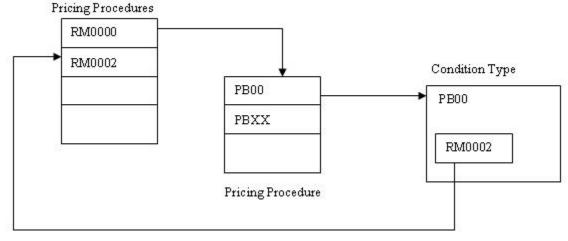


Flow Charts (IV)



Link for Document Pricing Procedure and Supplemental conditions for Gross price

- 1. RM0000 standard Pricing Procedure for Document pricing
- 2. RM0002 standard Supplemental Pricing Procedure

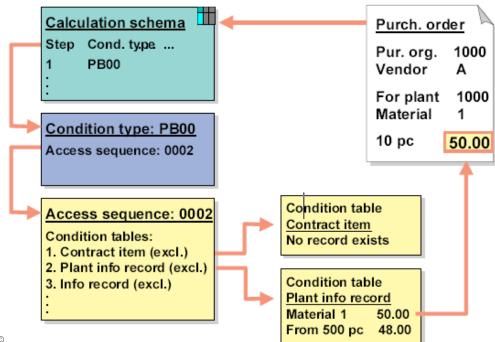


Price Determination Process: Overview



The price determination process is carried out in a number of steps:

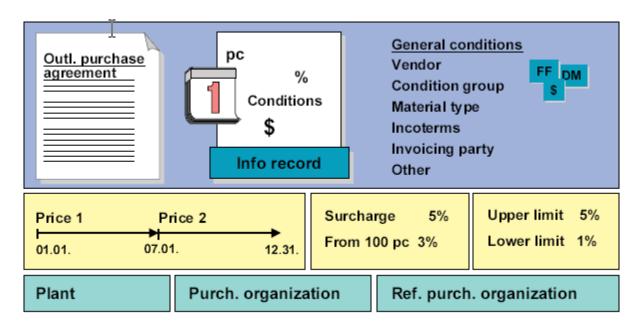
- First, the relevant calculation schema is determined.
- The system then searches for condition records for all condition types listed in the calculation schema that have an access sequence assigned to them.
- The search for condition records is carried out in the order specified in the access sequence.
- The search is concluded when a valid condition record is found.



Master Conditions (Time-Dependent) (I)



- Master conditions have the following properties:
 - have validity periods
 - have 'master data' character
 - normally have a long-term validity
 - can have scales
 - do not have subtotals on pricing screen



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Maintaining Master Conditions (I)



- Outline agreement items, Quotations and Info Records use master conditions
 - maintained directly in the relevant documents or in the info record
 - validity period is mandatory
 - predefined maximum validity period assigned if not specified (12.31.9999)
 - Scheduling Agreement Document type defined for time-dependent or time-independent

Scaled Values

- detail screen is available for each condition type enabling you to maintain the scale values and scale amounts.
- The scale type (From or To) can be changed on the detail screen of the condition type.
- Discounts & Surcharges, Delivery Costs
 - Propose condition supplements & Restore functions
 - can be maintained using the Master data menu in Purchasing (Master data-> Conditions-> Prices or Discounts/surcharges).

SAP recommends that you do not maintain info record, outline agreement and quotation conditions using the Master data menu but maintain them in the relevant documents or in the info record.

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Maintaining Master Conditions (II)



Time-dependent conditions

- can be maintained using the Master data menu in Purchasing (Master data->Conditions-> Prices or Discounts/surcharges).
 - SAP recommends that you do not maintain info record, outline agreement and quotation conditions using the Master data menu but maintain them in the relevant documents or in the info record.

General conditions

- You can maintain general conditions using the Master data menu that apply
 - To all the materials supplied by a vendor (vendor discount, condition type RL01)
 - To all the materials belonging to a vendor condition group (condition group discount, condition type RGR0)

General Standard Condition Types

■ There are special condition maintenance functions for the general standard condition types supplied by SAP (for example, RL01 and RGR0) (Master data-> Conditions-> Discounts/surcharges-> By vendor/By condition group).

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Maintaining Master Conditions (III)



Own Condition Types

 Customer's own condition types, which cannot be maintained using the info record or outline agreement, must use the general condition maintenance function (Master data ->Conditions ->Other -> Create/Change).

Condition types GAU2 and NAVS

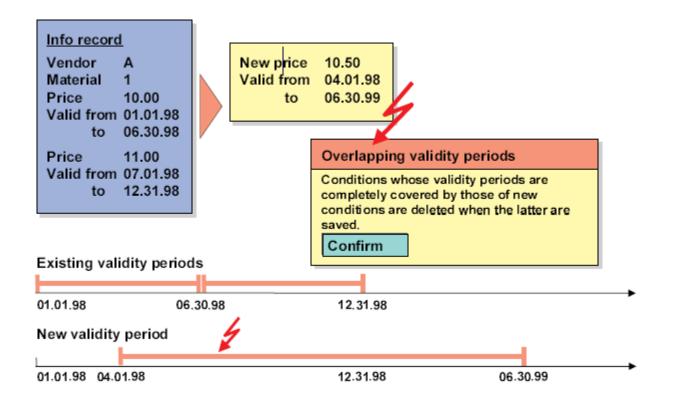
- Use the general condition maintenance function for the standard condition types GAU2 and NAVS.
- Only use the general maintenance function for other standard condition types if expressly advised to do so by SAP

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Validity Periods



Pricing can only handle one validity period at a time.



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Master Conditions in Info Records



- Conditions in info records are entered manually or updated from a quotation if the update info record flag is on.
- No condition update from the PO.
 - Only the **order price history** and **last PO** are updated in the info record from the PO. (see note 13127).
- If pricing conditions are in the info record then price information is taken from the info record.
- If no pricing conditions are in the info record then pricing conditions from last PO are brought over.
 - A new pricing must be performed to get the correct condition values for the current PO.
 - Customizing: Material Management -> Purchasing -> Environment Data -> Define default values for buyers -> Set default values, see tab 'Price adoption' (OMFI)

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Document Conditions - Time-Independent



- Document conditions have no validity periods.
- Can have subtotals on the pricing screen.
- Pricing conditions in Purchase Orders are considered document conditions. The conditions are only valid for this document.
 - Scheduling agreements and RFQ can have Document or Master conditions (time dependent conditions).
 - In configuration transaction OMED & OMEA (define document type) the field T161-STAKO should be flagged if the user want to use master conditions.
 - When this flag is set now the schedule agreement and/or RFQ can have multiple validity periods.
 - If this flag is not set then the conditions are consider document conditions.

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Precious Metals (I)



- GAU1 & GAU2 are used together for gold.
 - If other precious metals are used you need to setup 2 different conditions for each precious metal.
 - In condition type you need to flag the condition category with a 'U'. System is looking for the 'U'.
- In Material and Info record store the unit conversion of amount of gold in unit of measure.
 - GAU is the gold unit of measure (no dimension)
 - EX: 1 KG = 1 GAU for every Kilogram this is 1 GAU of gold contained.
 - When an info record is created this conversion from the material master comes over. It can be changed in the info record.

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Precious Metals (II)



- The two condition types must satisfy special requirements:
 - Condition class A, condition category U, calculation type C and identical units of measure (for example, GAU) must be assigned to both condition types.
 - Both condition types must be placed in pricing schema (RM0000) on different but sequenced steps.
 - This first condition type GAU1 must be marked as "manual" and have the calculation formula 31 assigned to it. Only this first condition type may be entered in the supplementary condition schema. The Statistical indicator must be set for this condition type.
 - An access sequence must be assigned to the condition type for the daily ruling price (GAU2). This second condition type must not be marked as "manual". The calculation formula 32 and the requirement 31 must be assigned to it.

Example

PB00	If Gold price included \$100.00	\$100.00
GAU1 GAU2	- 10.00 10.00	+10.00
	\$100.00	\$110.00

Note 24738 "Precious metal surcharges in Purchasing"

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Condition Category and Gross Price(PB00)



Minimum requirements for a gross price condition type:

- Condition category H (basic price)
- Exclusive flag is set
- Requirement 6 in schema for PBXX
- Two gross price conditions must exist (PB00 & PBXX)

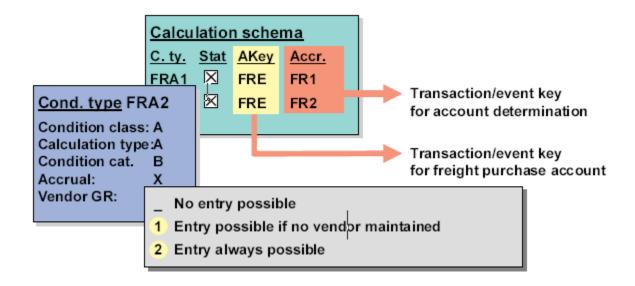
Important for Basic Price PB00 is to be flagged as an 'H'. This is hardcoded.	Control data 1
Can only have 1 Basic price in pricing.	Cond. class B Prices
Can only have I basic price in pricing.	Calculat.type C Quantity Cond.category H Basic price
T. T	
In condition PB00 the exclusive flag is set. If a condition record is found from PB00 then a flag is	Control data 2
set.	Exclusion X Gross Price
Condition PBXX should have requirement 6 (5 in older	Procedure RM0000
releases) set in the pricing procedure.	Control
The requirement checks the KOMP-KZNEP (Condition	Step Cntr CTyp Description Reqt AltC
exclusion indicator).	1 1 PB00 Gross Price
	1 2 PBXX Gross Price 5 🕣
The requirement checks if this field is equal to an 'X'.	
(i) (ii) (ii) (iii) (iii	
	Light Control of the
An access sequence is assigned to PB00, so that the	
♥ 3000 1000 1000 1000 1000 1000 1000 100	
No access sequence is assigned to PBXX.	
~~~~~ <del>~</del>	
This field is set to 'X' by condition type PB00 if a condition record is found.  The requirement checks if this field is equal to an 'X'. If it is 'X', the requirement is not full-filled and PBXX is ignored.  There must be two gross price conditions in the calculation schema (in standard: PB00 and PBXX).  An access sequence is assigned to PB00, so that the price determination process can be carried out for this condition type.  No access sequence is assigned to PBXX.  PB00 must be come before PBXX in the calculation schema.  If price determination process was not able to find a valid gross price (e.g. from the info record), system requires the manual entry of a net price which is then assigned to condition type PBXX.	

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# **Delivery Costs**



- Condition types for delivery costs must satisfy certain requirements: The condition category must be B (= delivery costs)
- The Accrual indicator must be set. (This indicator causes the condition to be posted as a provision for accrued costs in Financial Accounting.)
- The Statistical indicator must be set in the calculation schema. (This indicator ensures that the condition is not taken into account in the calculation of the net price.)
- A transaction/event key must be assigned to a provision-relevant condition type in the calculation schema (Accrual field) to enable the G/L account that is to be posted to be found.



# **Group Conditions (I)**



- Conditions can be flagged as a group condition
- In the condition type if a Group condition routine is specified then a condition group defined in the info record can be used to group the materials. (tr. VOFM -> formulas -> structure of group key)
- If no Group condition routine is specified in the condition type then the material number becomes the group used.
- If a group cond. flag is set for a condition type with scales, the document needs to be checked or saved so that the group condition becomes active (so that cond. values are calculated based on the cumulated values of the relevant po items). Group condition can also be activated manually at header condition screen.





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## **Group Conditions (II)**



### Example:

Header freight with group condition

Header value \$100.00 Item price \$200.00 25.00 Item price 600.00 75.00

Header freight with no group condition

Header value \$100.00 Item price \$200.00 100.00 Item price 600.00 100.00

PB00 with group condition

Info record conditions for material ABC:

from 1 pc 100,00 from 100 pc 99,00 from 900 pc 90,00

#### create PO:

item material quantity price

10 ABC 80 100,00 20 ABC 40 100,00

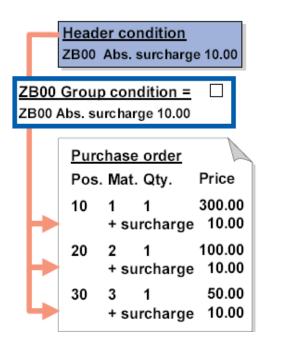
### after activating the conditions at header level:

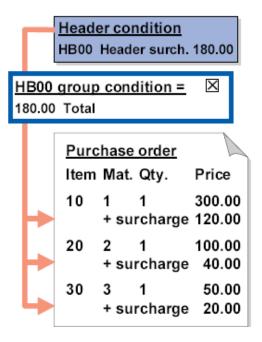
item material quantity price 10 ABC 80 99,00 20 ABC 40 99,00

## **Header Conditions**



- Apply to all items of a document, and are apportioned among the items automatically
- percentage or fixed amount
- if group condition, condition value spread proportionately among the items
- if not a group condition, condition value assigned to each item





## **Price Determination**



### Pricing Procedure

- Basic Price
- **Net Price** = Basis price [-Rebates/+Surcharges]
  - includes non-statistical conditions only
- Effective Price = Net price [+-]Delivery cost
  - contains statistical conditions and non-statistical conditions

#### Manual Conditions

- must be entered manually
- Calculation Type Hard Coded Flag
  - **B**: used for new items & new pricing (new pricing in PO)
    - completely new pricing
    - manual conditions lost
  - A: used for changes (quantity)
    - no new pricing
    - scales readjusted
  - C: copy manual conditions and re-determine all others

# **Pricing in ME21N (I)**



Sequence - where is pricing performed?

form **po_process** (LMEPOF2I)

- -> function MEPO_DOC_HEADER_PROCESS
- -> function MEPO_DOC_ITEM_PROCESS
  - -> form **item_process** (LMEPOF2G)
    - -> form item_process_main (LMEPOF2B)
      - -> form mepo_preisfindung (LMEPOF1T) form mepo_preisfindung_pruefen (LMEPOF1S)

LMEPOF1L, form log_error

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# **Pricing in ME21N (II)**



## form mepo_preisfindung (LMEPOF1T)

Pricing type (CALCTYPE) is determined in form **mepo_determine_calctype**, there are 3 subroutines:

- form **mepo_set_calctype_bc** to set the CALCTYPE to B (or C), when changing significant criteria like vendor, plant, material,... or when pricing is performed the first time.
- form mepo_set_calctype_c to set the CALCTYPE to C, when changing material group, configuration, acc. ass. category, ...
- form mepo_set_calctype_c to set the CALCTYPE to A, when changing quantity, order unit, tax code,...

There is also a BAdI, so that customers can define their own requirements for setting the CALCTYPE to 'A', 'B' or 'C'. It's BAdI ME_DEFINE_CALCTYPE. See note 495264.

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# **Pricing in ME21N (III)**



# When **CALCTYPE** is **B**, system performs form mepo_preisfindung_b

determine whether conditions have to be copied from a ref. Document.
If_copy_cond_type = bstyp-anfr = 'A' copy conditions from RFQ (with document conditions) form kond_copy is used.

If_copy_cond_type = bstyp-best = 'F' copy conditions from po, form kond_copy is used.

- To copy conditions from a contract, function PRICING is called with CALCTYPE 'B', contract number is given with KOMP-EVRTN / KOMP-EVRTP to function PRICING.
- form preisfindung_prdat to set the pricing date ekpo-prdat
- form preisfindung to perform pricing (SD function PRICING).
- form preisfindung_staffel_pruefen to check scales (generate message 06 244 "Lower price obtained for quantities greater than..")
- form mepo_kond_copy_best if no price is found, to copy the conditions from the last po (form kond_copy_best is used)
- form mepo_transfer_manual_changes to take over the manually entered price into TKOMV-entry for gross price.
- form mepo_uebernahme_banf_preis to take over the price from the purchase requisition (if a purchase requisition is referenced), if field EBAN_BPUEB = 'X' or no other price was found during pricing and there's no material in the po item.

# **Pricing in ME21N (IV)**



## When **CALCTYPE** is A or C, system performs...

- form mepo_transfer_manual_changes to take over the manually entered price into TKOMVentry for gross price.
- form preisfindung to perform pricing (SD function PRICING)
- form preisfindung_staffel_pruefen to check scales (generate message 06 244 "Lower price obtained for quantities greater than..")
- form kond_taxes for tax calculation of non-deductible tax value
- form mepo_wpb00_determine to set the fields bekpo-netzu / pot-netzu
  - This field controls whether the net price field of the po item is open for changes or not.
     bekpo-netzu = 'Y' means field gets grayed out
     bekpo-netzu = 'X' means field is open for input

# **EBAN_BPUEB – Adopt requisition price**



Note **393367** "Price is not transferred from Preq to PO" It's controlled by the EFB parameter, if eban-bpueb gets set or not:

Function Authorizations are set up in the IMG:

Material Management -> Purchasing -> Authorization management -> Define Function Authorization for Buyers.

In here choose: "Function Authorizations: Purchase order"

In here you may specify a number of Function Authorization keys.

For each key, you may set rights for the key.

The field in question is "Order price adoption" (T160-EBPUEB) which must be ticked.

Then back out and now choose "Maintain Users".

In here choose tab "Parameters" and enter parameter ID "EFB" along with the value equal to the key you just maintained.

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## **Function 'PRICING'**



- TKOMV internal table for all conditions
  - KNUMV: document condition number
  - KPOSN: condition item
  - STUNR: step number
  - ZAEHK: counter
  - KSCHL: condition type
  - KAWRT: condition base value
  - KPEIN: condition pricing unit
  - KWERT: condition value
  - KBETR: condition rate
- KOMK header communication structure
  - KALSM: calculation schema
  - PRSDT: pricing date
- KOMP item communication structure
  - KPOSN: condition item number
  - NETWR: net value
  - NETPR: net price
  - EFFWR: effective value
  - MGLME: quantity
  - PRSOK: no error detected in pricing

#### PRICING is an SD function!

```
IF PRF_CALCT EQ 'B' OR PRF_CALCT EQ 'C'.
   PERFORM KOND_VCKEY_FUELLEN.
 ENDIF.
*----- Konditionen aufrufen ------
                       PRICING_06 SPOTS ES_SAPLMEPR.
ENHANCEMENT-SECTION
 CALL FUNCTION 'PRICING'
      EXPORTING
           CALCULATION_TYPE = PRF_CALCT
           COMM_HEAD_I
                           = K0MK
                           = KOMP
           COMM ITEM I
      IMPORTING
           COMM_HEAD_E
                          = KOMK
                           = KOMP
           COMM_ITEM_E
      TABLES
           TKOMV
                            = TKOMV.
END-ENHANCEMENT-SECTION.
```

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## **Function 'PRICING_COMPLETE'**



### preisfindung_complete:

called when checking or saving a purchase order.

The header conditions are distributed between the positions and a new distribution of the group conditions is done (parameter Prc_Calct = 'E').

```
CALL FUNCTION 'PRICING_COMPLETE'
EXPORTING
calculation_type = prc_calct
TABLES
tkomk = tkomk
tkomp = tkomp
tkomv = tkomv
svbap = vbapu.
```

# **Info Records (Master Conditions)**



### MM06IFKO:

- form call_condition:
  - KOMK and KOMP get filled, call function 'rv_condition_maintenance'.
  - Popup is generated, if there are more then one validity period Form call condition is called again, if there's a valid entry on the condition screen
- Master conditions in the info record are generated by
  - form info_kond_erzeugen_info: Copy of the info record conditions
    - The conditions are copied by form call_kond_to_kond_copy and the function module rv_cond_to_cond_copy, called within this routine.
    - The function module imports the value new_record, which is the base for the generation of a new condition record.
    - Within form info_kond_preis_uebernahme the values of KOMP and KOMK are copied into table EINE.
  - form info_kond_erzeugen_man manually entry of the price
- The conditions are copied by form call_condition_copy and the function module rv_condition_copy, called within this program.
- The function module imports the value new_record, which is the base for the generation of a new condition record.

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## **Purchasing Documents with Master Conditions**



Info record conditions (e.g. via the indicator 'update info record') are generated by the programs

- info_kond_erzeugen of document conditions (RFQ)
- info_kond_erzeugen_kont of conditions of a contract
- info_kond_erzeugen_angb of a RFQ with master conditions

Master conditions in a contract are generated by the programs

- kont_kond_erzeugen_man of manually entered price
- kont_kond_erzeugen_beleg of conditions of a RFQ

The conditions are copied by form call_condition_copy and the function module rv_condition_copy.

- kont_kond_erzeugen_kont of contract
- kont_kond_erzeugen_info of info record
- kont_kond_erzeugen_kont_kopf of contract for header

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# **Analysis approach for Pricing problems (I)**



- Check which pricing procedure is used (Header > Statistics > General)
- 2. Condition Analysis (Item > Conditions > Analysis > Details)
- 3. Check for 2 condition types for prices (PB00 and PBXX in procedure)
- 4. Check for subtotals 1 & 2 (in procedure)
- 5. A lot of condition checks in access seq. and formulas reduce performance
- 6. Counter order inside a Pricing Procedure (Calculation Schema) step is important (in procedure)
- 7. Check statistical flag (in procedure)
- 8. After PUT -> check access sequences

9. Inconsistencies after client copy (contents of Axxx transported, but no KONxx)

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# **Analysis approach for Pricing problems (II)**



- 10. Changing of old conditions in info record (conditions of info record)
- 11. Standard quantity in info record/contract (rounding errors)
- Conversion factors in info record (Conditions > Details > Extras > Conversion factors)
- 13. Check for first scale to start at 0
- 14. Check for freight conditions on header changed after goods receipt
- 15. User-exit empty in the fill routines (e.g. ME_FILL_KOMP_PO)
- 16. User-exit (move import-parameter to export-parameter)
- 17. Check for procedure maintained for condition type PB00
- 18. Negative freight conditions (enter subtotal 3 as from reference step for freight (value) conditions)

# **Pricing Analysis**



### Examples for messages on the Analysis screen:

- "Access not made (1 field is initial)" double-click on the message text and you will see, which field is initial. If a key field is initial, system cannot access the condition table. You can also switch to "technical view" to get the field names.
- "Condition ignored (requirement 08 not fulfilled)"
  It's possible to set a breakpoint in the source code of the requirement to find the reason for this message.
- "Condition record has been found (without condition record)" means, that the price was taken from the "last document".

The analysis can be done at item level only.

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# Thank you!

