

EXPERTIZERS : FUNCTIONAL ANNEXES : MATERIAL



ADDING GROUPS OF MATERIALS IN CONNECTION WITH ONE OR SEVERAL ACTIVITIES

IMPLEMENTATION ; HOW TO USE: TWO COMPLEMENTARY MODES OF USE

NB: A variable bom_qty_ref has been added but does not appear in slides.

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ACTIVITY (S) IN CONNECTION WITH THE MATERIALS

- TWO MODES OF USE - **MODE 1**

PURPOSE OF MODE 1

- A link from an activity to a nominee of materials (in the generic sense: fabrics, accessories, services,).
- In quotation at the time of the activity process, give the list of materials of the group. The user selects all or part of the list.
- In batch mode (if the activity batch option is active) the all list of materials of the group is automatically taken into account
- The result shows as many lines as materials selected.
- The rule condition entry in the activity still plays its role as a filter to enter or not in the activity.
- The rules for calculating the variables activity_value, activity_cost and activity_text must take into account the **four** variables included in each material line of the group:

mat_unit : unit of measurement associated with the purchase price of the material

mat_qty_per_price: number of units contained in the purchase price

mat_price: purchase price of the material

bom_qty_ref: quantity of finished product of semi finished product
in relation with quantities of material.



COMMON PART OF BOTH MODES: IMPLEMENTATION OF THE FUNCTION

As the function is not always necessary, it is only activated if there is a real need

The screenshot illustrates the implementation of the 'Material groups function' through a series of dialog boxes and a variable list:

- Menu:** The 'Material groups function' is highlighted in the 'Utilities' menu.
- Dialog 1:** 'Material group Initialization' dialog with a question mark icon. Text: 'Processing this function will initialize:
- Automatic creation of three new variables inside the working area: mat_price = material price, mat_unit = material unit of measure, mat_qty_per_price = how many quantities per price.
- Access to a new choice inside the batch side menu: loading material groups.
- Access to a new field in activity windows to link when needed any activity to a material group.
So do you want to process the function?' A 'Yes' button is visible.
- Dialog 2:** 'Material group Initialization' dialog with a question mark icon. Text: 'Last confirmation: Are you sure to go on?' 'Yes' and 'No' buttons are visible.
- Dialog 3:** 'Material group Initialization' dialog with an information icon. Text: 'Procedure ended successfully. Now the three variables are created. You can link activities to material groups and load material group lists.' An 'OK' button is visible.
- Tree View:** Shows the 'User Internal Variables (Updatable)' folder containing:
 - current_date
 - cadence_init
 - transport_price
 - mat_unit
 - mat_price
 - mat_qty_per_price



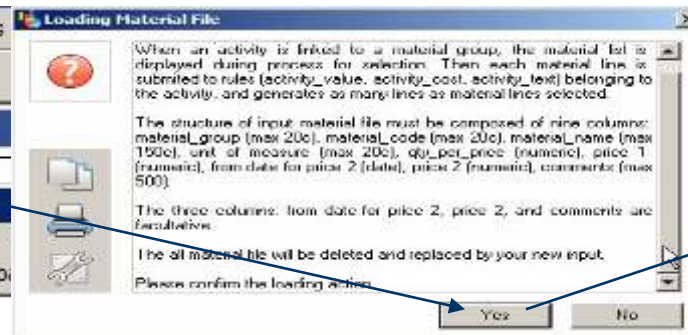
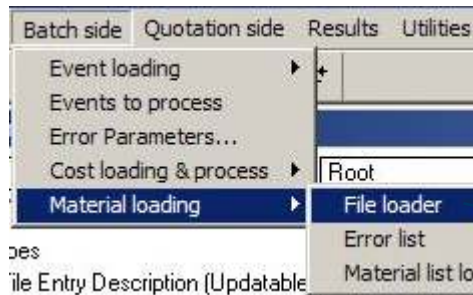
COMMON PART OF BOTH MODES: LOAD OF MATERIAL GROUPS

- The file is either an extraction of the information system or is the preparation of data in a spreadsheet, such as the file 'material_list.txt' below. Loading supersedes all data from the internal table 'Material groups'.

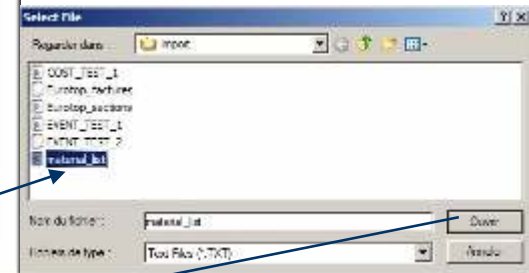
	A	B	C	D	E	F	G	H	I
1	Material group	Material code	Material name	mat_unit	mat_qty_per_price	price_1	from_date	price_2	Comment
2	GROUP_1	PRODUCT_1	Nom du produit_1	KG	100	125,5			
3	GROUP_1	PRODUCT_2	Nom du produit 2	UN	100	140			
4	GROUP_1	PRODUCT_3	Nom du produit 3	KG	150	50,75			
5	GROUP_2	PRODUCT_4	Nom du produit 4	UN	1	300			

If a date is given, use only the format YYYY/MM/DD

- Columns G, H, I are optional. The contents of the variable mat_price will result of the choice between the columns price_1 and price_2 on from_date comparison with the current date during activity process rule.



The variable bom_qty_ref is now between price_2 and comment. It must be <> from 0



Material list by group

Group Code	Material Code	Material Name	Unit Measure	By How Many	Price 1	From Date	Price 2
GROUP_1	PRODUCT_1	Nom du produit_1	KG	100,00000	125,50000	01/02/2007	125,50000
GROUP_1	PRODUCT_2	Nom du produit 2	UN	100,00000	140,00000	01/02/2007	140,00000
GROUP_1	PRODUCT_3	Nom du produit 3	KG	150,00000	50,75000	01/02/2007	50,75000
GROUP_2	PRODUCT_4	NOM DU PRODUCT_4	UNITE	1,00000	300,00000	01/02/2007	300,00000

Result of the load. Empty columns Price_2 and date are completed automatically



MODE 1:

LINK BETWEEN AN ACTIVITY AND A MATERIAL GROUP

Here is an example of the activity OTHER_MATERIALS linked to GROUP_1. The activity is concerning only events with diameter 10. The rules activity_value and activity_cost refer to three variables mat_unit, mat_qty_per_price and mat_price which values are loaded before processing each selected line belonging to the group.

Batch side - Settings

Unlocked mode | Activity

Tree View:

- Root
 - Variable Types
 - Entity Description
 - PARIS
 - Operations
 - Activities
 - MATERIAL
 - PRODUCTION
 - PACKAGING
 - RESALE_RAW_MAT
 - TRANSPORT
 - ERROR_DATE
 - OTHER_MATERIALS**
 - Quotation Data Order

Main Configuration Panel:

Description

Code / Name : OTHER_MATERIALS

Type B/Q : B. & Q. Keep in memory for use in other activity ? No (default) Display in results : Yes (default)

Comments : Add other materials when product belongs to diameter 10

Where condition : diameter = 10

rules (double click on rule fields for help)

Activity_value = `activity_value = if mat_unit = 'UN' then quantity_ope_PACKAGING else if mat_unit = 'KG' then (quantity_ope_PACKAGING / 100.00) else 9999 endif endif`

Activity_cost = `activity_cost = activity_value * (if mat_qty_per_price = 0 then 9999 else mat_price / mat_qty_per_price endif)`

Activity_text =

Link to Mat.group : GROUP_1 When link is activated, use variables mat_unit, mat_qty_per_price, mat_price inside rules.

Warning Messages:

- Warning: Please notice that in batch mode, all materials belonging to the group will be automatically generated. If you do not want, limit the activity to Quotation
- Warning: For your information here are all the mat_unit values presently recorded in the group_code: KG/UN

Annotations:

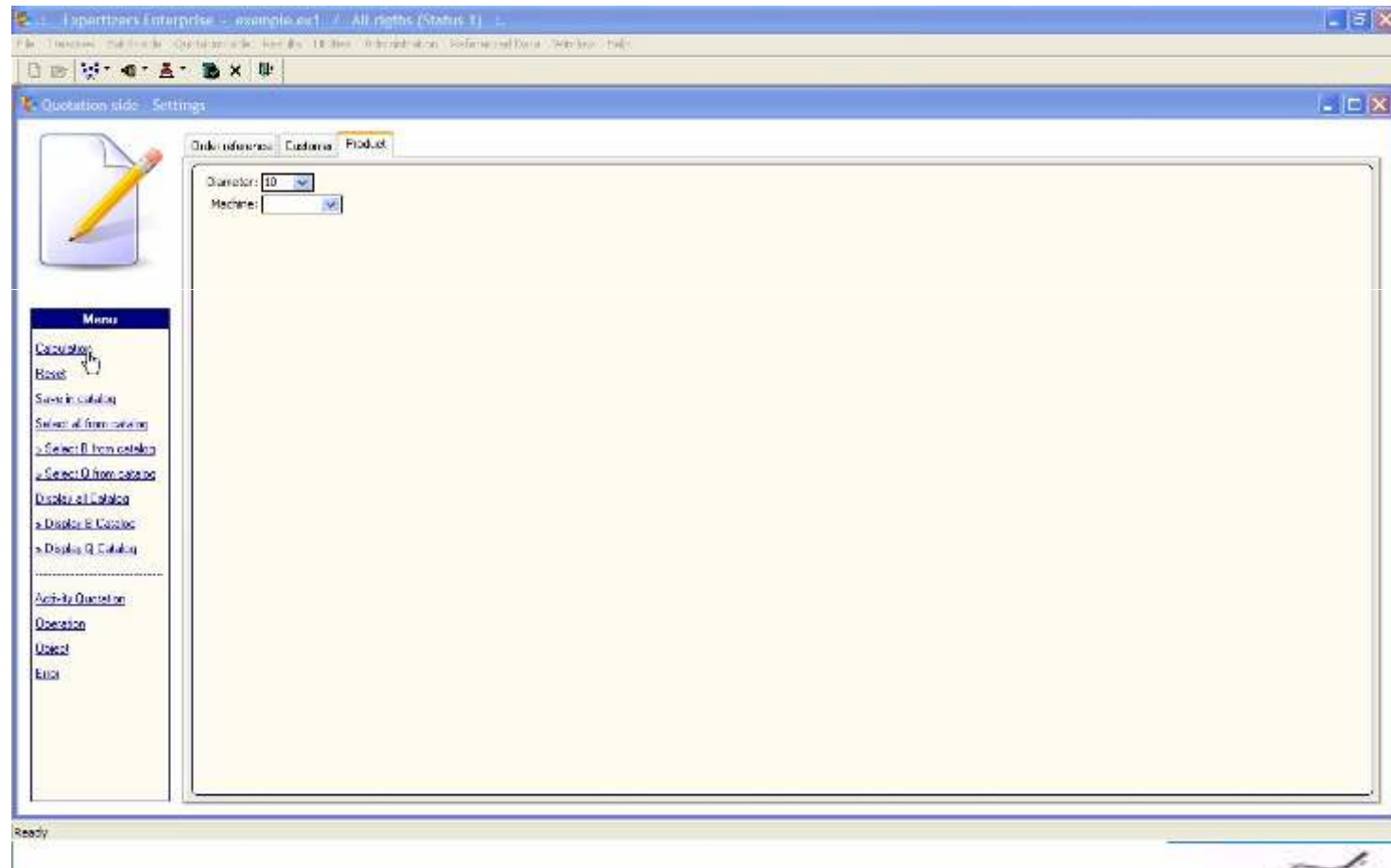
- Blue arrow pointing to the Activity_value rule: **Rule according to the different units of measure in the group**
- Blue arrow pointing to the Link to Mat.group field: **Link between activity and GROUP_1**



MODE 1:

TYPING AND PROCESS OF A QUOTE

Path: Quotation side / Quotation screen



MODE 1:

DURING PROCESS, DISPLAY OF MATERIALS

The three lines of the group are displayed during the process of activity OTHER_MATERIALS (when event is diameter 10). Only two lines are selected by the operator.

The screenshot displays the Expertizers software interface. The main window is titled "Batch side - Events to process". On the left, there is a "Menu" with options: "Start process", "Results", "Save in catalog (in quotes)", and "Quit". The "Parameters" tab is active, showing "Events to process" with "Total number" set to 1 and "Use initiation" set to 1. The "Processing time" section shows "Started at" as 14:42:42, "Finished at" as empty, and "Elapsed time" as 00:02:10. The "Progression steps" section shows a progress bar and "96 % processed".

The central "Material selection" window displays a table for "PARIS - 2007 - Product A155 in diameter 10 - Event 1 - Activity: OTHER_MATERIALS". The table has the following columns: Material Code, Material Name, Unit Measure, By How Many, Price 1, From Date, and Price 2. The data rows are:

Material Code	Material Name	Unit Measure	By How Many	Price 1	From Date	Price 2
PRODUCT_1	Rouleau produit 1	KG	100.00000	125.50000	01/02/2007	125.50000
PRODUCT_2	Rouleau produit 2	UN	100.00000	140.00000	01/02/2007	140.00000
PRODUCT_3	Rouleau produit 3	KG	150.00000	50.75000	01/02/2007	50.75000

At the bottom of the table, there is a prompt: "After line selection(s) or nat., press enter".

MODE 1:

QUOTATION RESULT

Activity OTHER_MATERIALS has generated two lines PRODUCT_1 and PRODUCT_2 , each valued according to the rules of activity OTHER_MATERIALS and with the respective values of PRODUCT_1 and PRODUCT_2.

Quotation presentation of Activity results

QUOTATION : ACTIVITY RESULTS

PARIS 2007	1	Factory in Paris ENTETE D'EVENEMENT	A155 in diameter 10	
MATERIAL		raw material cost	12,180	1,462 PLASTIC
PRODUCTION		Production on lines	0,138	1,518
PACKAGING		packaging and control step	0,210	2,048
RESALE_RAW_MAT		recuperation of waste products	2,180	-0,218
TRANSPORT		delivery to the customer	10,000	0,108
PRODUCT_1		Nom du produit_1	0,105	0,132
PRODUCT_2		Nom du produit 2	10,500	14,700
PIED DE L'EVENEMENT			Total:	19,75 in currency EUR
Grand Total:			35,313	19,75

Menu

- [Export \(presentation as right\)](#)
- [Build events across activities](#)
- [Total \(Period, Activity\)](#)
- [Activity by variable X](#)

ACTIVITY (S) IN CONNECTION WITH THE MATERIALS

- TWO MODES OF USE - **MODE 2**

■ PURPOSE OF MODE 2

- A link between an activity and a **VARIABLE** defined in section 'Event File Entry Description'. For instance variable `product_code`.
- At each event line, it is the contents of the variable which is used to retrieve the material group, that is to say the bill of materials.
- In batch mode as in quotation mode, the all list of components of the group is recovered automatically. The result therefore shows as many lines as contained in the bill of materials.
- The rule condition entry in the activity still plays its role as a filter to enter or not in the activity.
- The rules for calculating the variables `activity_value`, `activity_cost` and `activity_text` must take into account the four variables included in each material line of the group:

`mat_unit` : unit of measurement associated with the purchase price of the material

`mat_qty_per_price`: number of units contained in the purchase price

`mat_price`: purchase price of the material

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in relation with quantities of material.



MODE 2:

LINK BETWEEN AN ACTIVITY AND A VARIABLE

Activity
BILL_OF_MATERIAL

Link

Description

Code / Name :

Type B/Q : Keep in memory for use in other activity ? Display in results :

Comments :

Where condition

rules (double click on rule fields for help)

Activity_value =

Activity_cost =

Activity_text =

Link to Mat.group
To link each event product to it:

Micellaneous

Group Conso 1/2

D/X: From

Activity Controls

Warning: We have noticed that activity will search bills of material in reference to the event variable product_code. Intentionally we generate an * sign at the starting position. So accept it. In addition, for your information here are all the mat_unit values presently recorded in the material file. The activity value rule must take into account all mat_unit cases: KG/UN

OK

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MODE 2:

RESULT IN QUOTATION (WOULD BE THE SAME IN BATCH)

Order reference Customer **Product** Quotation screen

Product Code: GROUP_1
Diameter: 10
Machine: LINE_1

Quotation result

QUOTATION : ACTIVITY RESULTS

PARIS 2006	1	Factory in Paris ENTETE D'EVENEMENT	GROUP_1	
MATERIAL		raw material cost	11,550	1,386 PLASTIC
PRODUCTION		Production on lines	0,116	1,212
PACKAGING		packaging and control step	0,210	2,048
RESALE_RAW_MAT		recuperation of waste products	1,550	-0,155
TRANSPORT		delivery to the customer	10,000	0,100
BILL_OF_MATERIAL		PRODUCT_1 : Nom du produit 1	0,100	12,550
BILL_OF_MATERIAL		PRODUCT_2 : Nom du produit 2	10,000	1400,000
BILL_OF_MATERIAL		PRODUCT_3 : Nom du produit 3	0,067	3,400
		PIED DE L'EVENEMENT	Total:	1420,541 in currency EUR

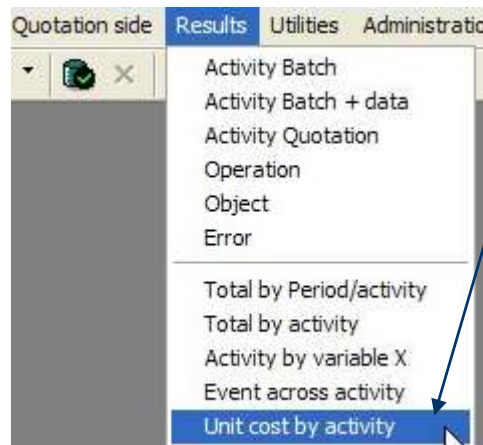


MODE 2:

POSSIBLE ADDITION OF ACTIVITY (S) IN THE MATERIAL GROUPS FILE

- If necessary, you can add costs to the components, calculated from a specific model 'supplies' comprising one or more activities consumed in this process.
- To achieve this goal several choices are available in the menu of the software.
- A basic principle to follow: The costs of the activities reported on the components are supposed to be in the same unit as their prices.

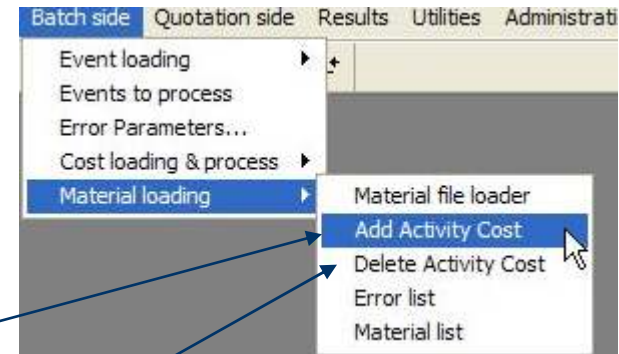
Model: supplies



Calculation of unit cost
by component and activity
followed by export

Add cost to
components in table
'material groups'

Modèle ventes:



rollback is possible



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