



ENTERPRISE SOLUTIONS LECTRA FASHION PLM

140 – STYLE TECH PACK & 150 – COST PROCESSES

142 - Bill of Materials and Labor

151 - Costing and Margin – BOM/BOL Cost

Process Manual

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Modifications made to the document since its last publication are highlighted in [blue](#).

1. BILL OF MATERIALS AND LABOR PREREQUISITES

1.1 Configure SKUs via PLM Manager

The BOM branch uses the SKU configuration for three action types:

- Transfer to reference cost
- Get Price from component
- Generate component SKUs



Refer to the Classification, Variation attributes, SKUs, Assortments, BOM, Time & Actions - Configuration Guide to have more details on how to configure SKUs in the PLM Manager.

1.1.1 Transfer to reference cost

This action is performed to transfer the calculated general price to the SKUs of the product (only those that correspond to the “Transfer” SKU configuration). The product’s price is therefore made available if the product is used in another BOM for example.

1. In the BOM instance, fill in the price grid.
2. When the costing is finalized, the cost can be saved as a reference.

3. Click on .


- If the SKUs already exist, the costs are pushed to every SKU.
- If the necessary SKUs have not been created yet, they are created and their cost is set.

4. The SKUs can be viewed in the corresponding SKU instance.

1.1.2 Get Price

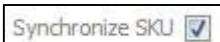
This action is performed to get the unit price of the components that is indicated in the components’ SKUs (only those that correspond to the “Get Price” SKU configuration).

1. Define the BOM by setting values for each attribute type.

2. Click on  to calculate all costs and retrieve the unit prices of the components.

1.1.3 Generate SKU

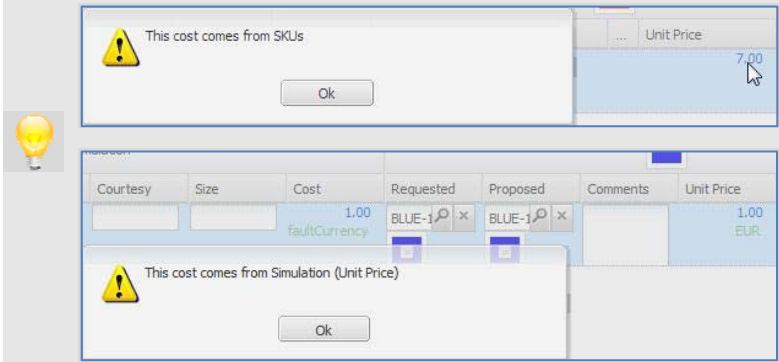
This action is performed to generate the missing SKUs of each component picked in the BOM. The SKUs that are generated depend on the “Generation/Get Price” SKU configuration.

1. In the BOM, check the  box.
2. **Save.**

3. The requested SKUs are generated.

By clicking on the **Unit Price**, a message indicates where this cost comes from.

E.g.



The screenshot shows a software interface with a table and two dialog boxes. The table has columns: Courtesy, Size, Cost, Requested, Proposed, Comments, Unit Price. The 'Unit Price' column shows '1.00 EUR'. Two dialog boxes are overlaid on the table, both with a yellow warning icon and the text 'This cost comes from SKUs' and 'This cost comes from Simulation (Unit Price)'. The dialog boxes have an 'Ok' button.

1.2 Set the operations

To know the cost price of a product, the amount of the operations to be done must be calculated. To perform this simulation, it is needed you choose both operations and suppliers.

1. In the **Instructions** tab, set the **Operations**. You may create:
 - Contractual cost operations. Enter a Contractual Cost and a Currency.
 - Unit cost operations. Enter a Unit and the number of units (usually Standard Allowed Minutes) needed for the operation.
2. Name the operation and define its **Type**.
Other fields are not mandatory.



The lists of **Units**, of **Operation Types** and of **Currencies** are set in the PLM Manager.

3. In the Master Attributes tab, set the Companies.

Once you've identified the companies, set the suggested **Operation Types** in the **Managed Services** tab as well as the **Cost per Time Unit**, the number of **Units** and the **Currency** for each of them.

2. BILL OF MATERIALS AND LABOR PROCESSES

2.1 Definition

- The purpose of these processes is to provide information on the components of a product to be presented through the Technical Pack Report.
- Similarly information on the operations needed for producing the product is held in the Bill of Labor.
- The costs of each are used to complete the Cost and Margin Processes.

2.2 List of tasks

- Create a BOM BOL Costs instance
- Enter Materials (BOM) and Labor Operations (BOL)



BOM (as well as CAD) specifications for a selected Style are summarized in information cards in the browser.

See the *Lectra_Enterprise_Solutions_VxRx_Style_Setup_Process-Manual_en.docx* for further information.

3. COST AND MARGIN PROCESSES

3.1 Definition

- There are two Cost and Margin processes
 - Sourced Cost
 - BOM/BOL Costs
- The base **Sourced Cost** is obtained from a vendor or vendors, using the RFQ process. Variable costs are then added and the final landed cost compared with the required price point to give a predicted margin.



For more information on this process, refer to the *Cost Processes – Costing and Margin – Sourced Cost* Process Manual.

- The **BOM/BOL Costs** is where the quantities of components in the Bill of Material (BOM), as well as the Bill of Labor (BOL) quantity expressed in standard allowed minutes are used to simulate and validate sourcing scenarios. Variable costs are then added and the final landed cost compared with the required price point to give a predicted margin.

3.2 List of tasks

- For Styles only, set target prices and margins
- Create/select costs adds (e.g. Duty, Freight) to calculate Landed Cost
- Create simulations of conditions to see variations and lowest cost scenarios
- Set up material Colors
- Select best scenario
- Push Simulation costs into Color and Size breakdown
- Save Reference Cost


4. BOM BOL COSTS – STYLE

A **BOM BOL Costs** instance can be used when there is a Bill of Materials and/or Bill of Labor.


A **Sourced Cost** instance may also be used as a receptor for vendor quotes and a comparison with the theoretical **BOM BOL Costs**.

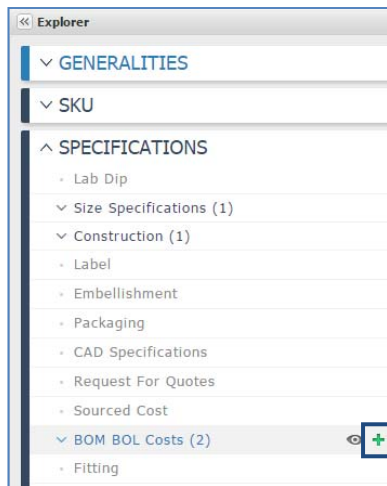
4.1 Creating a BOM BOL Costs instance

To add a BOM BOL Costs instance:

Click on the plus sign  beside the **BOM BOL Costs** branch.

OR

Click on the  sign beside the **BOM BOL Costs** branch and then click on the **Create Instance** link when the page refreshes.



4. A blank **BOM BOL Costs** instance opens in the window.

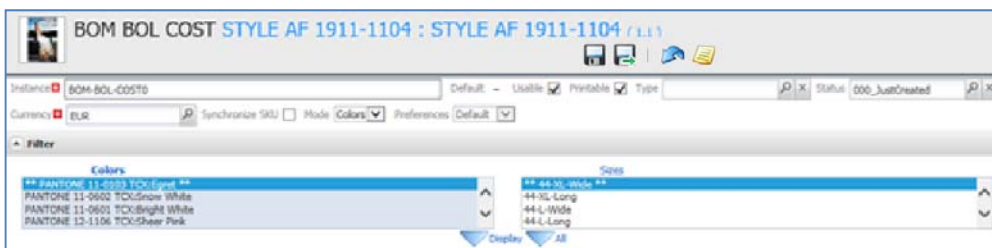
Some information is automatically filled in such as the **Date**, specification **Status**, **Currency**, option.



The user's currency is used by default (if no user currency has been defined, the currency of the product will be used)
 An instance name is also generated.

The information in all of these fields can be changed, if desired, apart from the date field.

The sizes and colors connected to the product are also shown.

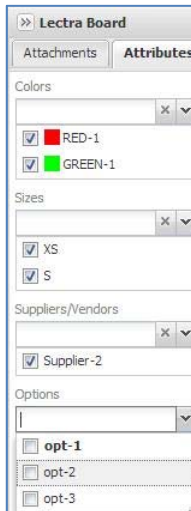


4.2 Filter


The BOM BOL COSTS window's display can be filtered in the **Lectra Board**.

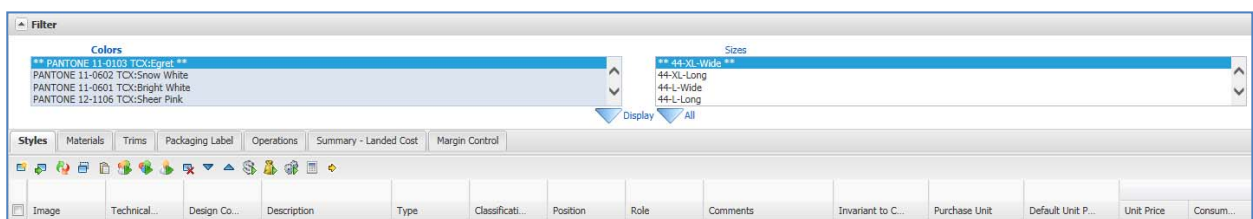
To reduce the number of combinations, check in the **Lectra Board > Attributes** tab, the attributes values you want to work on.

Example:



4.3 Entering Materials

1. Select the tab for the type of Material that will be entered. Choices are **Styles, Materials, Trims, Packaging Labels** or **Operations**.
2. To enter information for each size, change the mode to **Sizes**.
3. Select the **Colors** and **Sizes** to view and click on the  button.



In the case of Styles, it is usual to only select the mid size and one color at this stage.

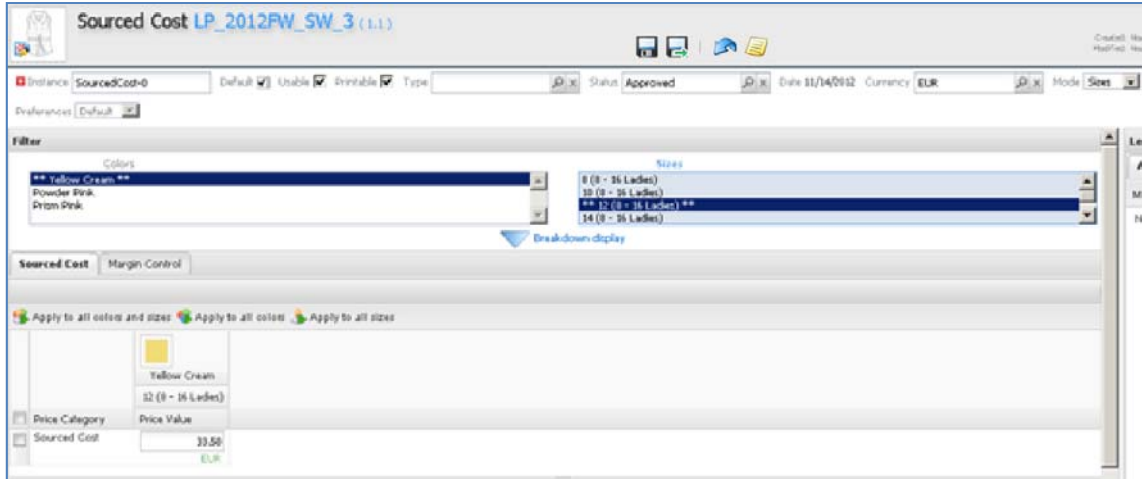
In the case of Trims, for instance a button, all colors and sizes will be necessary for use in a Manufacturing Cost instance.

4. To quickly apply the same price across, colors, sizes, or both, select either the default color and size or another color and size combination.

Three additional buttons are available:

- Apply to all colors and sizes
- Apply to all colors
- Apply to all sizes

5. Fill in the desired price of the selected combination and click on the respective button to apply the price to the desired items.



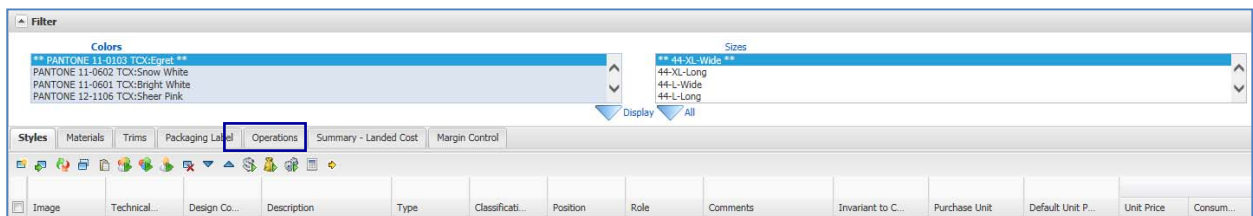
4.4 Entering Operations

Select the **Operations** tab and either pick or create those required.

For costs to be calculated for operations with SAMs (Standard Applied Minutes), the vendor **Company** must be added to the operation so that their specific conversion rate can be applied.



The Currency indicated under the **Contractual Cost** is the one carried by the operation whereas the Currency indicated under **Cost** is the one set for the BOM BOL COST instance. If currencies are different, a conversion is instantaneously done.



4.5 Managing the Costing Process

The software contains several aids to managing the costing process once all **Materials**, **Trims**, **Packaging Labels** and **Operations** have been added.

Costing gathers all the components, operations and various taxes that concern a product.

4.5.1 BOL (Bill of Labor)

This tab is used to easily get an operation cost per size or per color.

1. In the **Operations** tab of the **BOM BOL COSTS** window, select the operations necessary for the development of the current product and for a price definition.

The operation cost may either depend on:

- a fixed price. In this case, the **Contractual Cost** is displayed automatically (embedded in the operation definition).

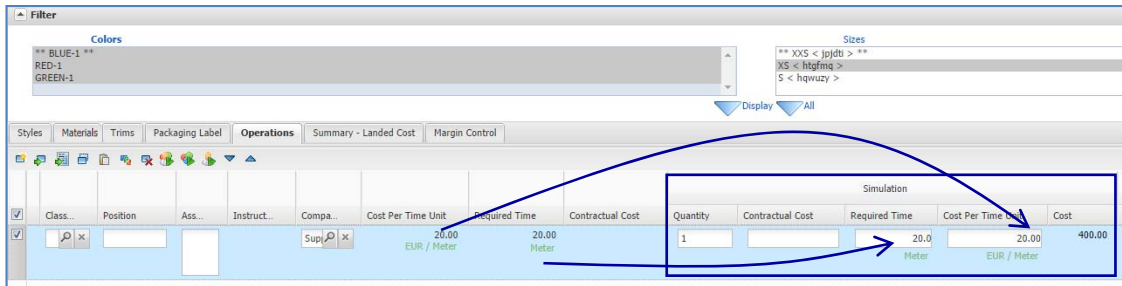
OR

- the time spent to perform the operation. In this case, the **Required Time** and **Cost Per Time Unit** are displayed automatically.
2. Select a supplier for each operation. The production cost of each operation by the selected supplier is indicated.

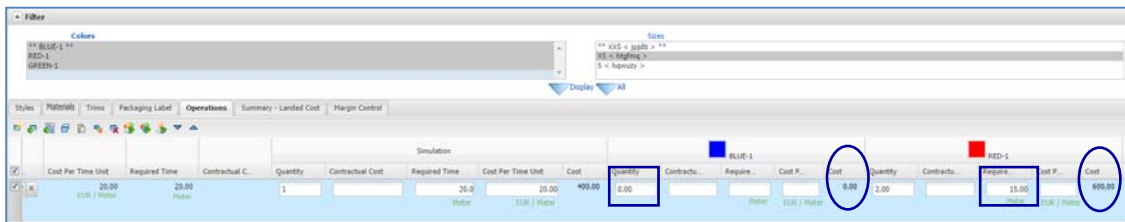
For unit price operations, the operation **Cost is Cost per Time Unit x Required Time** cost. The number of units defined for this operation is automatically transferred. It is nevertheless possible to modify the number of units of this operation for a particular product without the original operation be modified.

A conversion may be necessary to align the unit of the Cost per Time Unit and the Unit of the Required Cost. This conversion feature should be configured in the PLM Manager.

3. The **Simulation** area indicates the operation default cost. The information embedded in the operation is transferred to the simulation fields. These values may be modified.



4. By default the cost applied to each breakdown is the cost calculated in the **Simulation**. However, some distinctions may be performed, such as:
 - Setting the **Quantity** to 0: a way to indicate that the operation does not apply to a particular breakdown
 - Modifying the values in the breakdown: to adapt the cost of each operation per color (or per size)




4.5.2 BOM (Bill of Material)

The BOM is an exhaustive list of a product's components along with their costs.

The BOM tabs should be configured in the PLM Manager. No BOM tab is created in standard.

1. Select the attributes' values.
2. Enter information relative to color.

- For each color of the product, select the color of the wanted component.
If the **Proposed** color does not exist in the component, it will be created on generation of the SKU.
 - The **Unit Price** is in read only mode. It is retrieved from the component.
 - The **Negotiated Price** may be entered.
3. Enter information relative to size.
- Select the component's size attribute: **Proposed** size.
 - Enter a **Consumption** value.

 If the unit is changed, the consumption value is automatically converted with the new unit (as long as a conversion rate between the two units has been defined in the system; otherwise the previously entered value is kept).

4. The cost is calculated by multiplying the **Consumption** by the **Negotiated Price**.

4.5.3 Landed Cost

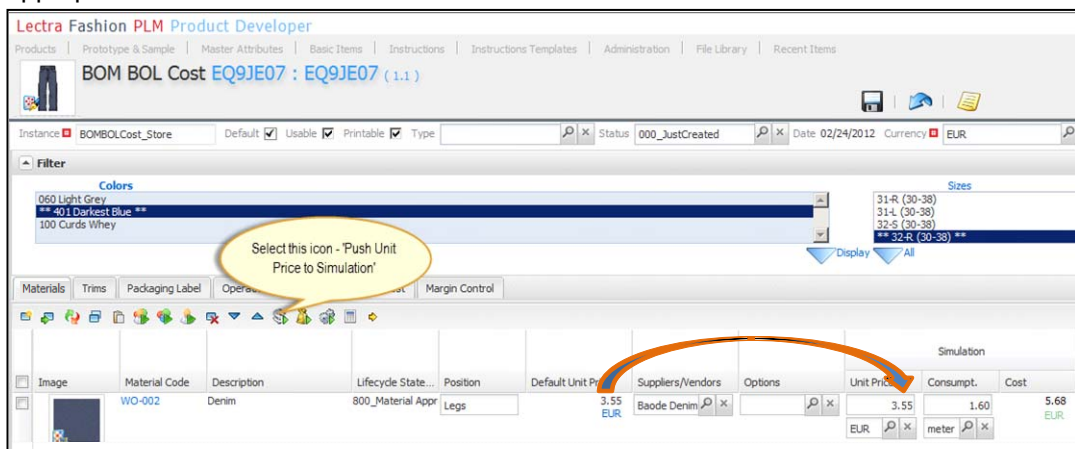
In the **Summary – Landed Cost** tab, you get the total cost (BOM and BOL) per breakdown. Calculated costs that have a defined added cost amount or additional cost percentage can be added.

See below [Adding Landed Costs](#)

4.5.4 Setting up a Simulation

The facility exists to simulate the cost of the product prior to fully costing each size and color. This is where changes are usually made.

1. The first step is to push the default **Unit price** to the simulation section.
On the Materials, Trims and Packaging Labels tabs this is performed by selecting the appropriate icon.




2. To help you estimate the consumption, the **Material** products allow you to use the results of an existing marker:
 - Open the context menu available in the **Marker** column.

Pick a marker using one of the following functions:


- **Pick:** This function allows you to choose a marker by using search criteria.
- **Pick by Variant:** This function allows you to display the markers composed of product variants. Use the criteria **Associated Variant** to list the available markers. You can refine the search by using other criteria.

The picked marker name is displayed in the column **Marker**.



The  symbol indicates that the variants used in the marker are associated to the variant product.



The  symbol indicates that the variants used in the marker have been modified since the marker was saved.

- The **Len./Variant (Marker)** column displays the calculated fabric average consumption for one variant occurrence.



The length is displayed in the unit specified in the **Consumption** column


If the unit is not specified or if the unit is not a length unit, the system uses the unit indicated by the **User Profile** (Unit representation for Marker measurements)



The **Len. /Variant (Marker)** is not editable; it is dynamically updated.

- By default, the **Consumption** column displays the calculated "**Len. /Variant (Marker)**" value in gray.

If you enter a customized value, the text becomes black.

You also can modify the display unit by clicking on the button: 



- No calculated value is displayed if the unit is not specified or if the unit is not a length unit
- If the unit is changed, the consumption value is automatically converted with the new unit (as long as a conversion rate between the two units has been defined in the system; otherwise the previously entered value is kept).



The consumption is used in the calculation of the cost

3. To complete the **Cost** simulation, the estimated consumptions should be entered for each row in the **Materials**, **Trims** and **Packaging Labels**.

At this stage the **cost** simulation will display, but the breakdown costs will be zero, until the next stage is completed –

Price Category	Simulation	32-R (30-38)	
			401 Darkest Blue
Fabrics	5.68 EUR	0.00	EUR
Trims	0.97 EUR	0.00	EUR
Packaging Label	1.06 EUR	0.00	EUR
Operations	3.95 EUR	0.00	EUR
Total	11.66 EUR	0.00	EUR
Total Landed Cost	11.66 EUR	0.00	EUR

It may be wise at this stage to add **Landed cost** to the simulation (see section on adding landed cost)










Price Category	Simulation	32-R (30-38)	
			401 Darkest Blue
Fabrics	5.68 EUR	0.00	EUR
Trims	0.97 EUR	0.00	EUR
Packaging Label	1.06 EUR	0.00	EUR
Operations	3.95 EUR	0.00	EUR
Total	11.66 EUR	0.00	EUR
Total Landed Cost	14.03 EUR	0.00	EUR

4.5.5 Setting up the Colors

This is an important sub process. Not only does it complete the detailed costing, but also provides style details, such as precise colors for each colorway. This is a vital part of the Technical Pack that is used first for prototype and then product production.

When a **Materials**, **Trims** or **Packaging Label** item is added, there are three main scenarios.

- The item has available the same marketing color as the colorway. In this case the requested and proposed colors are filled, the color chip is displayed, and the unit price and cost copied.
- The item does not have the same marketing color as the colorway, the **Proposed** field is left blank and the unit cost is not copied.
- If 'X' is filled in the **Requested** and **Proposed** color columns, then both are left blank and the unit cost is not copied.

Requested	Proposed	Comments	Unit Price	Negotiated ...	Cost
405 Lin   x	405 Lin   x		3.55 EUR	<input type="text"/> EUR	5.68 EUR
405 Lin   x	<input type="text"/>  x			<input type="text"/> EUR	
<input type="text"/>  x	<input type="text"/>  x			<input type="text"/> EUR	<input type="text"/> EUR

Case 1 (green border)
Case 2 (yellow border)
Case 3 (red border)

If an available marketing color is selected in the **Proposed** column, then the color chip will be displayed, the **Unit Price** will be copied and, providing the consumption is added, the **Cost** will be calculated.

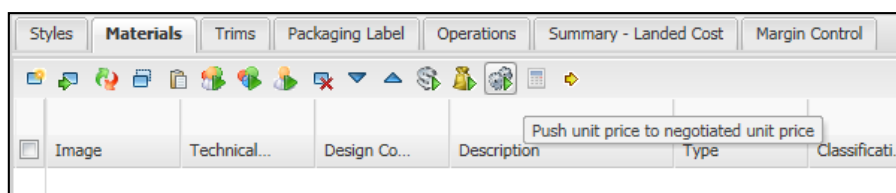
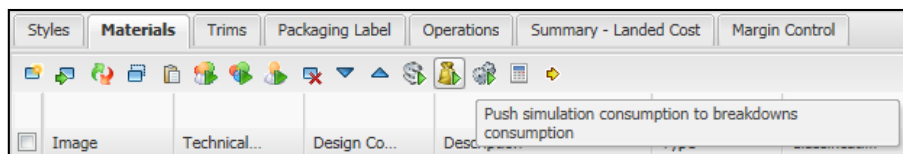
Requested	Proposed	Comments	Unit Price	Negotiated ...	Cost
405 Lin   x	405 Lin   x		3.55 EUR	<input type="text"/> EUR	5.68 EUR
405 Lin   x	513 De   x		7.95 EUR	<input type="text"/> EUR	12.72 EUR
<input type="text"/>  x	890 Ca   x		4.55 EUR	<input type="text"/> EUR	7.28 EUR

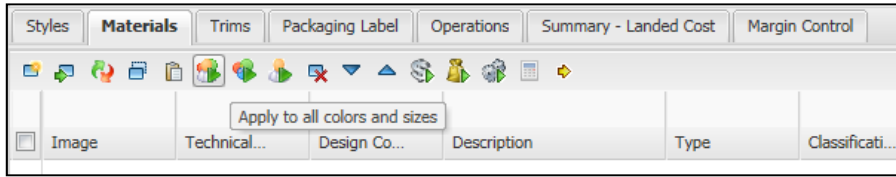
The **Negotiated Price** can either be pushed from the unit price or entered separately. In both cases it defines the cost rather than the unit price.

4.5.6 Pushing the Costs from Simulation to Color and Size Breakdown

Once the simulation has been verified, the costs and consumptions for the different components can be pushed to all the SKUs, meaning Colors and Sizes.

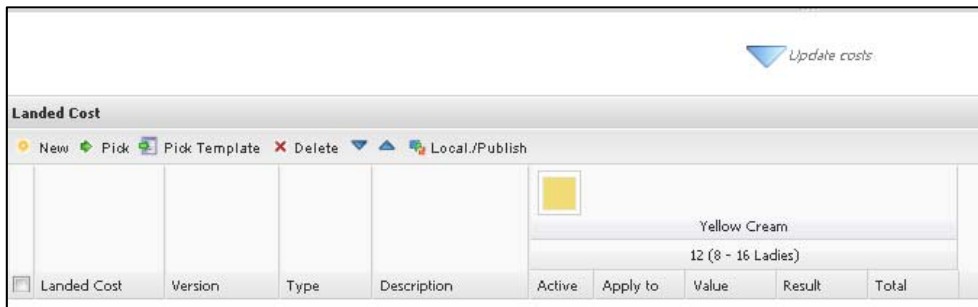
For each element (Materials, Trims or Packaging Label) selected separately or together, this is quite simply accomplished by clicking the required icons on the toolbar –





4.6 Adding Landed Costs

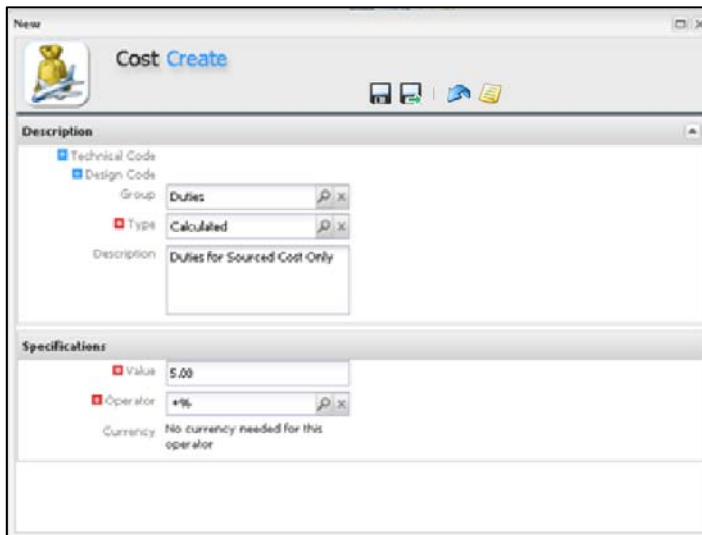
On the **Sourced Cost** tab, scroll down to view the **Landed Cost** section. Calculated costs that have a defined added cost amount or additional cost percentage can be added.



Click on the **Pick** button to choose individual costs from the library.

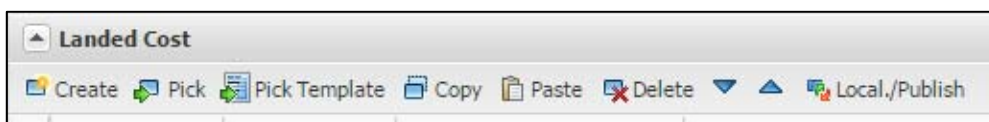


For use with a **Sourced Cost** instance, the cost type must be set to **Calculated**. This means that the calculation is performed on the base cost only.

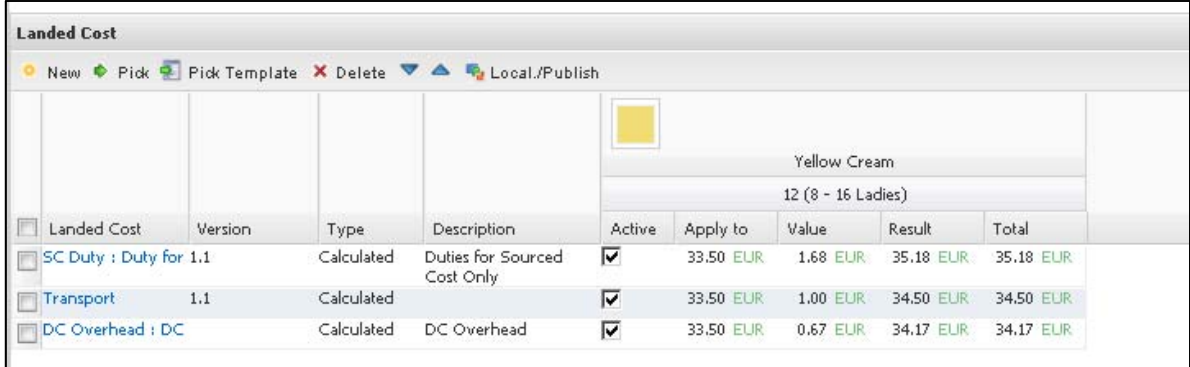


The value and operator govern the calculation of the **Landed Cost** Item. In this case, adding 5% Duty to the base cost. A cost item may be added at any time by selecting **Create** on the **Landed Cost** toolbar.

When created, the item may be kept as **Local**, or published to the database by selecting **Local/Publish** on the **Landed Cost** toolbar.



Select the cost items that apply to the **Sourced Cost** instance by picking them from a list and adding them to the **Landed Cost**.



Landed Cost	Version	Type	Description	Active	Apply to	Value	Result	Total
<input type="checkbox"/> SC Duty : Duty for	1.1	Calculated	Duties for Sourced Cost Only	<input checked="" type="checkbox"/>	33.50 EUR	1.68 EUR	35.18 EUR	35.18 EUR
<input type="checkbox"/> Transport	1.1	Calculated		<input checked="" type="checkbox"/>	33.50 EUR	1.00 EUR	34.50 EUR	34.50 EUR
<input type="checkbox"/> DC Overhead : DC		Calculated	DC Overhead	<input checked="" type="checkbox"/>	33.50 EUR	0.67 EUR	34.17 EUR	34.17 EUR

The calculations are shown, with the value of the cost and the resulting total.

All landed costs added will automatically be applied to all size and color combinations. They may be removed per SKU by un-checking the checkbox in the active column. Use the breakdown display to display all colors or all sizes.

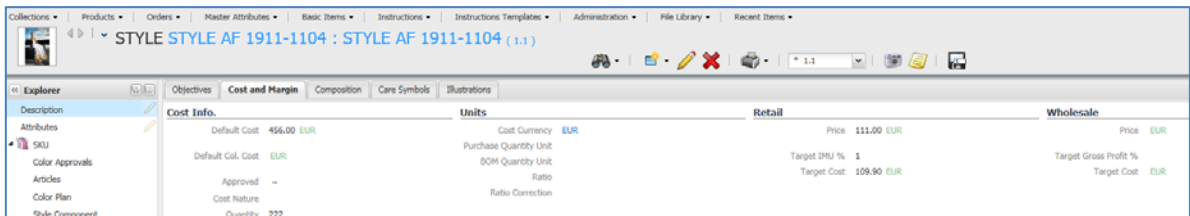


Landed Cost	Version	Type	Description	Active	Apply to	Value	Result	Total	12 (8 - 16 Ladies)				
									Yellow Cream			Powder Pink	
									Active	Apply to	Value	Result	Total
<input type="checkbox"/> SC Duty : Duty for	1.1	Calculated	Duties for Sourced Cost Only	<input checked="" type="checkbox"/>	33.50 EUR	1.68 EUR	35.18 EUR	35.18 EUR	<input checked="" type="checkbox"/>	33.50 EUR	1.68 EUR	35.18 EUR	35.18 EUR
<input type="checkbox"/> Logistics : Logistics	1.1	Calculated	Logistics Cost	<input checked="" type="checkbox"/>	33.50 EUR	1.68 EUR	35.18 EUR	35.18 EUR	<input checked="" type="checkbox"/>	33.50 EUR	1.68 EUR	35.18 EUR	35.18 EUR
<input type="checkbox"/> Local	1.1	Calculated	DC Overhead	<input checked="" type="checkbox"/>	33.50 EUR	0.67 EUR	34.17 EUR	34.17 EUR	<input checked="" type="checkbox"/>	33.50 EUR	0.67 EUR	34.17 EUR	34.17 EUR

4.7 Margin Control

Margin Control is exercised by comparing the **Landed Cost** (either Sourced or BOM/BOL) with the **Selling Price**, either **Retail** or **Wholesale**.

The **Selling Price** and target margins for the product should have already been set using the **Cost and Margin** tab in the **Description** of the style.



Cost Info.	Units	Retail	Wholesale
Default Cost: 456.00 EUR	Cost Currency: EUR	Price: 111.00 EUR	Price: EUR
Default Col. Cost: EUR	Purchase Quantity Unit	Target IMU %: 1	Target Gross Profit %
Approved: -	BOM Quantity Unit	Target Cost: 109.90 EUR	Target Cost: EUR
Cost Nature	Ratio		
Quantity: 222	Ratio Correction		

There are three types of margin calculation.

- **Initial Markup %**, which is percentage that the product is to be initially marked up compared with cost (difference between Cost and Revenue/Cost *100)
- **Gross Profit %**, which is the percentage of profit compared with Revenue (difference between Cost and Revenue/Revenue*100)

- **Coefficient**, which is the ratio Revenue/Cost.

The results of these calculations are available by selecting the **Margin Control** tab in the **Sourced Cost** instance.

Sourced Cost		Margin Control	
Retail		Wholesale	
Price	111.00 EUR	Price	EUR
Target IMU %	1	Target Gross Profit %	
IMU %	6,837.50	Gross Profit %	
<input type="button" value="Calculate all costs"/>		Factory O/H	1.60 EUR
Type	Cost	Miscellaneous Cost	0.00 EUR
Sourced Cost	0.00 EUR	Ex-Factory Cost	1.60 EUR
		All Taxes	0.00 EUR
		Landed Cost	1.60 EUR

It is now possible to explore different scenarios, based on

- Different Vendors, by using figures from returning quotations
- Different countries, by varying the duty and transport costs
- Different duties, by varying the material content

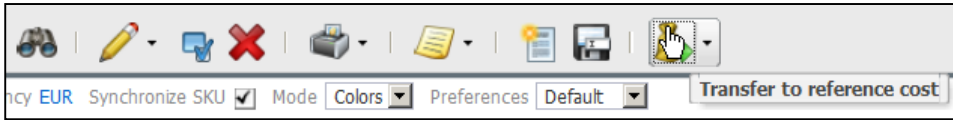
Each scenario may be saved as a different **Sourced Cost** instance, and used to select the most advantageous conditions for minimising cost and maximising margin.

The different **Cost Scenarios** are summarised on the **Cost and Margin** tab of the Product Description.

Cost and Margin				
Instance Summary	Type	Calculated Cost	Calculated IMU %	Calculated Gross Profit %
Branch Instance Name SourcedCost-0	Sourced Cost	39.27 EUR	103.67981	36.65738
Currency	EUR			
Type				
Status	Approved			
Date	11/14/2012			
Branch Instance Name SourcedCost-1	Sourced Cost	44.10 EUR	81.38322	28.87097
Currency	EUR			
Type				
Status	Approved			
Date	11/16/2012			

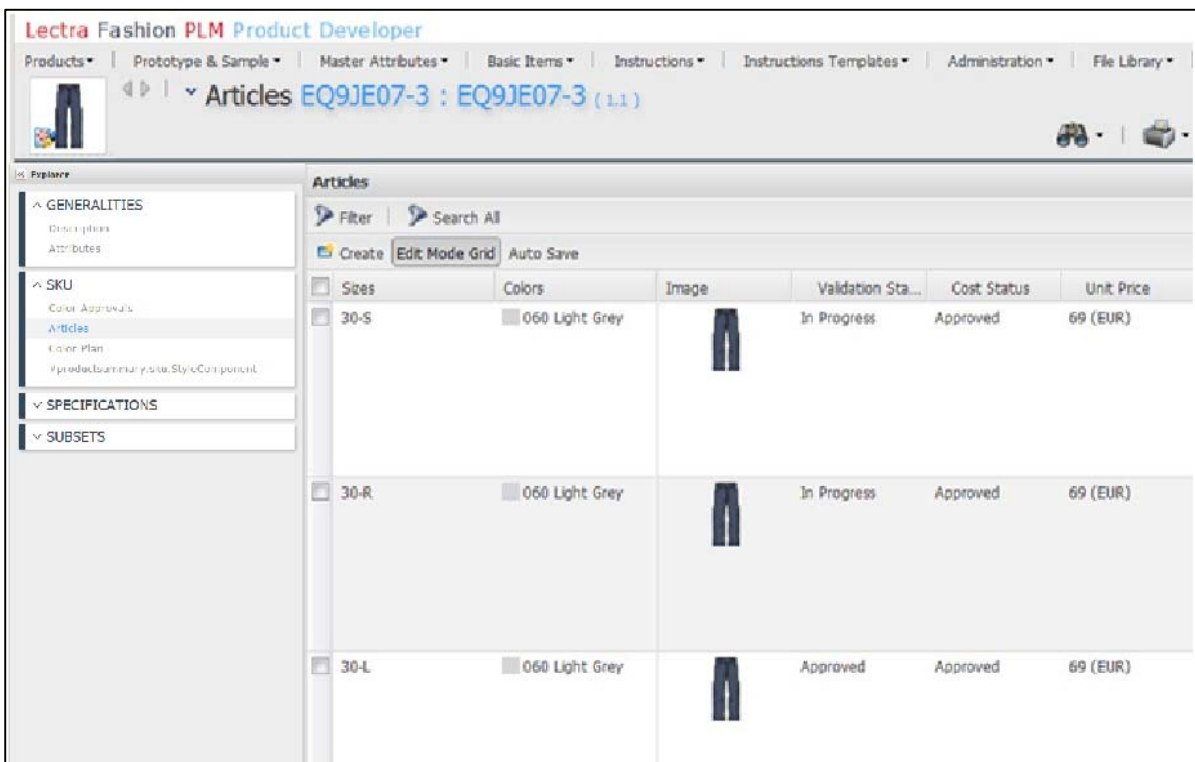
5. REFERENCE COST

When the costing is finalized, the cost can be saved as a reference by using the icon on the main toolbar.








The costs are then pushed to every SKU.

The SKUs can be viewed and edited by selecting the appropriate **SKU** instance on the sidebar.



6. TECHNICAL PACK

The data that has been entered, either materials or operations, may be viewed as part of the **Technical Pack** reports. An example page is shown below.

BOM		100 - 13/09/2012 - Product Brief Done - root	V1.1 - Version Description	*EF8BL08-8
BOMBOLCost_Store	Bom Bol Cost	800 Approved		04/04/12
Fabrics				
	Description: Cotton Poplin Code: *WO-001-8 / WO-001 Type: Other_Woven Position: Main Fabric Consumption: 1.200 / m		Description: Printed Cotton Poplin - Micro Squares and Triangles Code: WO-005 Type: Other_Woven Position: Bow Consumption: 0.200 / m	
	Description: Fusible Interlining Code: LI-34259 Type: Non_Woven Position: Collar Consumption: 0.100 / m			
Trims				
	Description: Invisible Zipper Code: ZI-002 Type: Zipper Position: Center Back Consumption: 1.000 / pc		Description: Star Shape Sequins Code: SQ-003 Type: Sequin Position: Back Consumption: 30.000 / pc	
11/04/2012	root			2/17

7. GLOSSARY

Cost calculation : Depends on Unit price and consumption component

Cost : Consumption * Unit Price (or negotiated unit price if it is filled)

Calculated cost : Simulation * price (price = unit price or negotiated price), if the system cannot calculate the cost, click on it to know which information it is missed.

The Calculated Cost use the consumption by size neither the consumption in the simulation