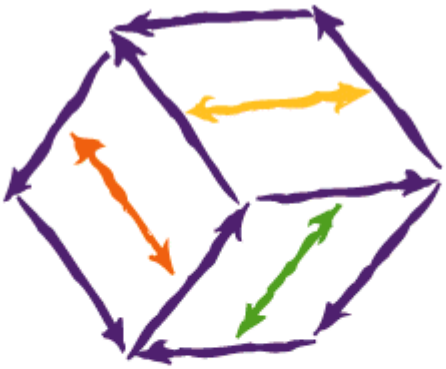

take off™

Tutorial

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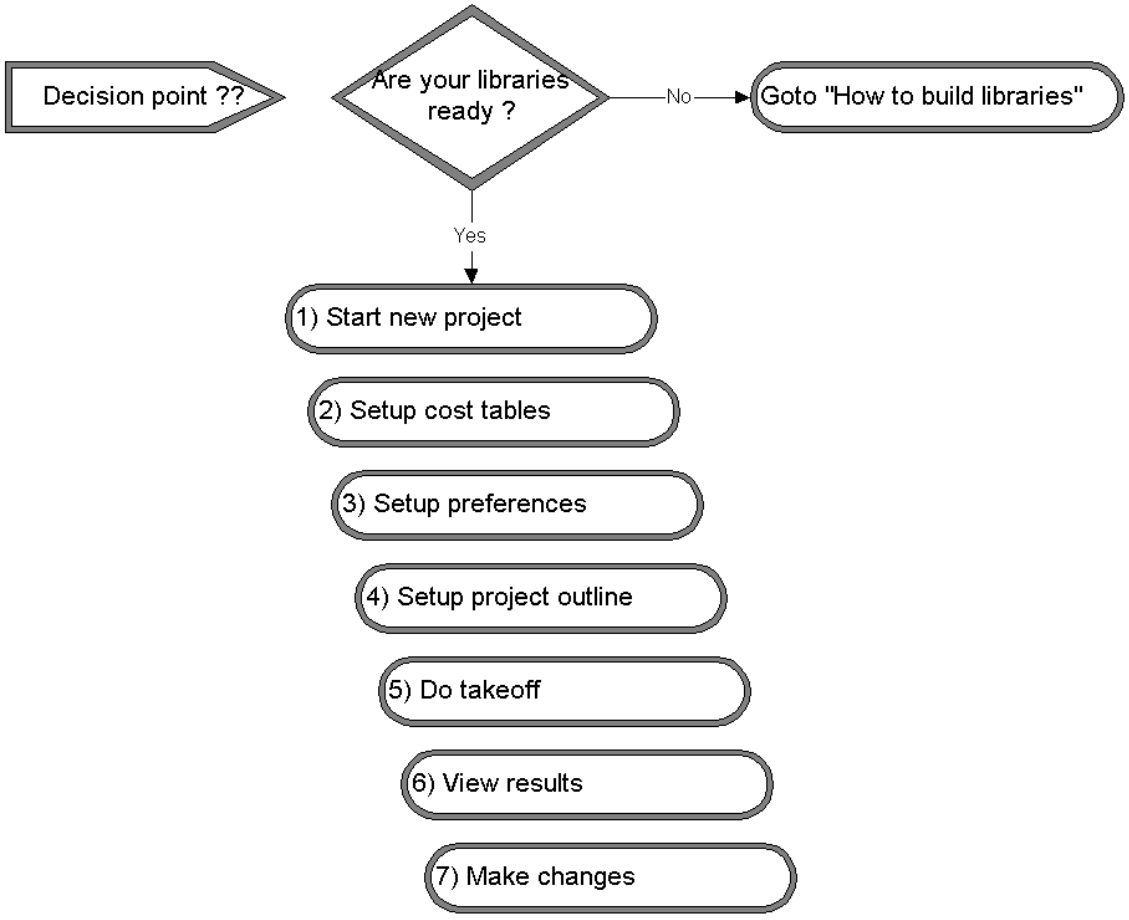
Contents

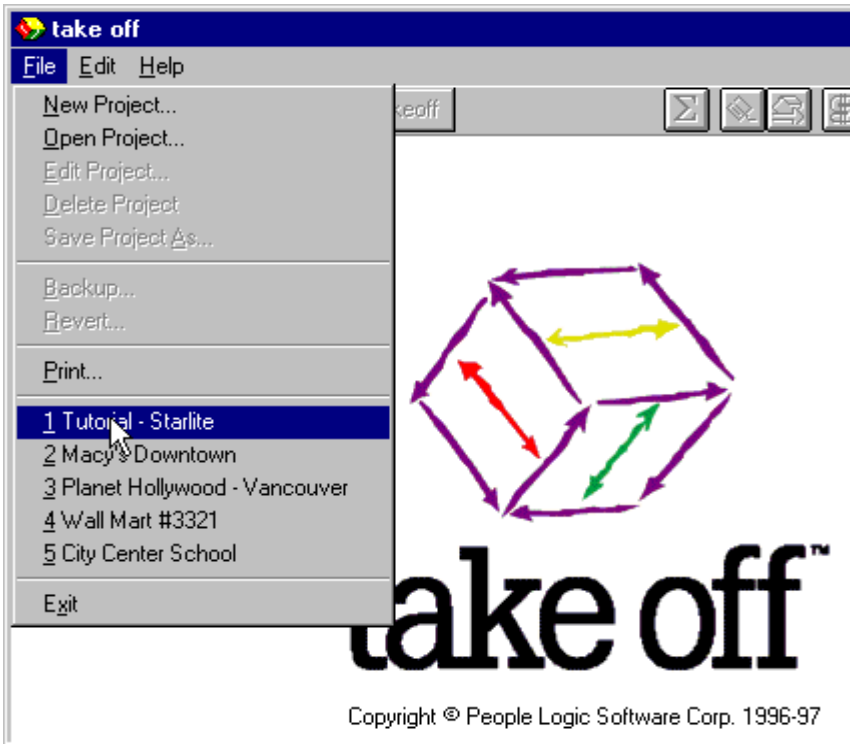
How do I do a Takeoff?



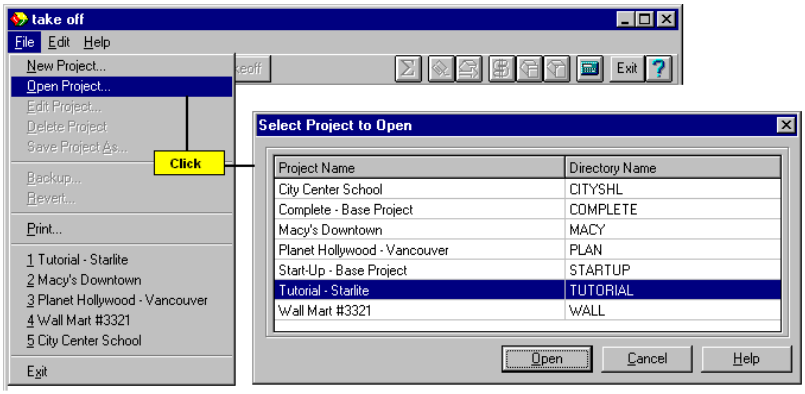
1) Start a New Project

There are two ways to open an existing project.

1.On the file menu the last 5 projects created by the current user are displayed. Click on the desired project to open it.



2.From the File menu, select Open Project and a dialog box appears displaying all the projects. Select the desired project and press open or simply double click on the project.



The selected project will be opened on the last screen location in use when the project was last used.

2) Setup Cost Tables

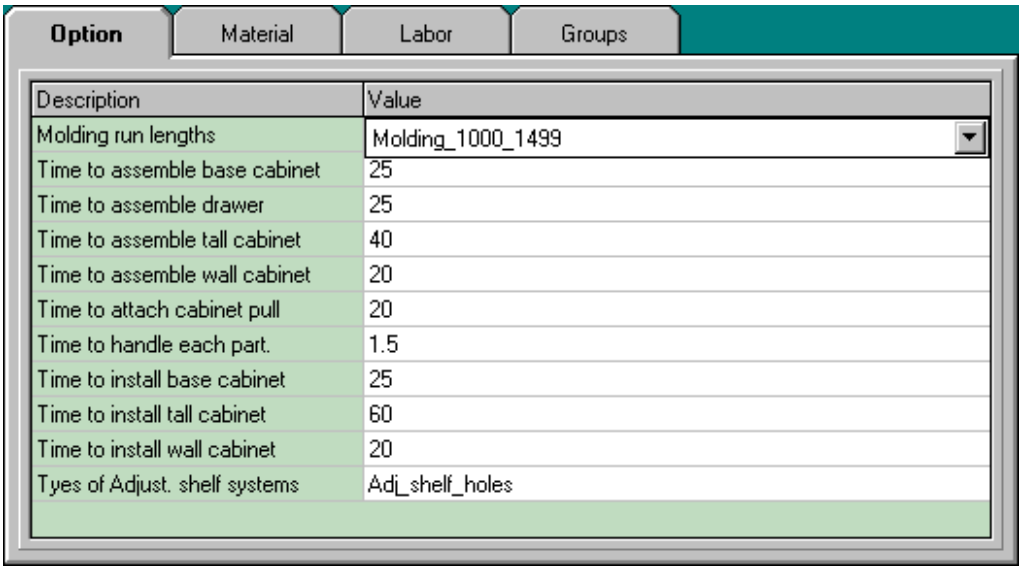
The administration section of **take off**[tm] is used to create, set and maintain all global and physical information used in a project. It is within this section that actual material and labor costs can be assigned to individual items. As well, the linkages between the actual materials to be used and the components that are used in products is created. Although the building of the library is also critical, errors or admissions in this area will lead to inaccurate costs in the final bid.

Although this section may be revisited during the takeoff process it is normally prudent to set the correct values at the project initiation. As such this is the first section we will discuss.

In this section of the manual we will lead you through the process of setting up the project to enable accurate costing to take place.

Project Options

This section of the program provides you with a location to set project wide option values. **take off**[tm] allows for products to have user definable options that are either specific to the product or project wide in their scope. An example of a project wide option might be the default height for toe kicks. An example of a product specific option might be the number of locks required. Changes made on this tab are immediately reflected through out the entire library.



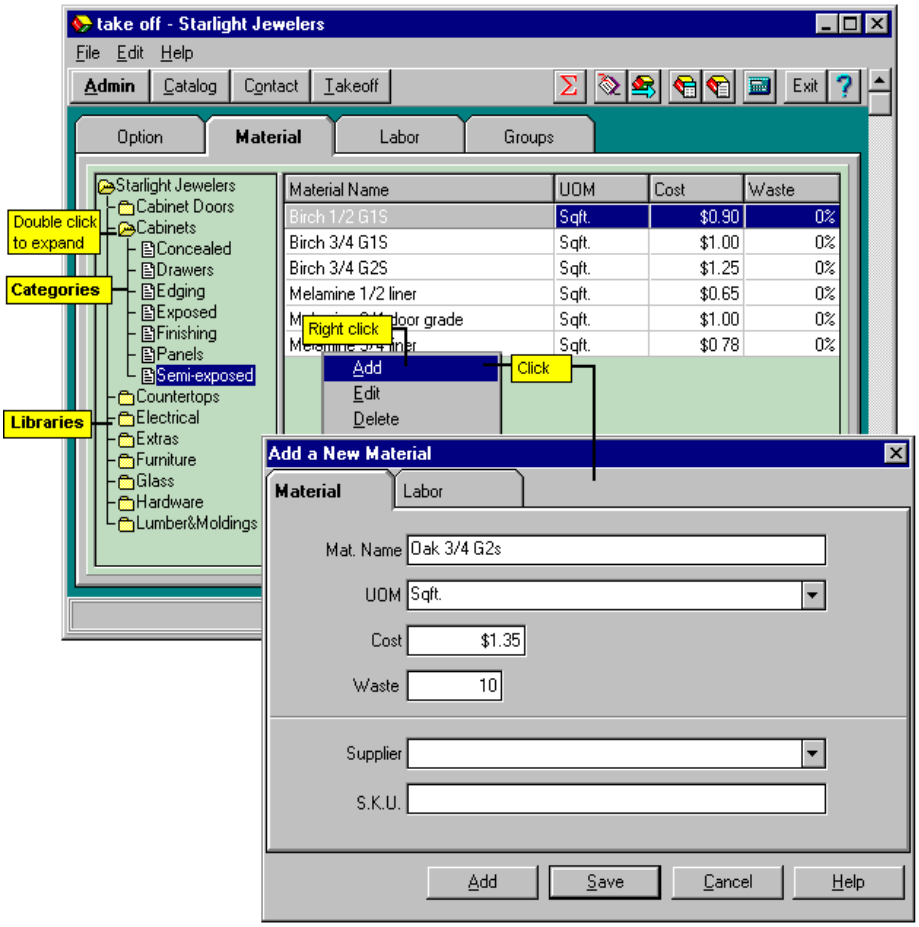
From the pull down list select the desired value for each project option. Changing these values will update **ALL** products whether already taken off or not. As such, the cost for the project will normally be effected by a change to

these options.

Note – This screen is only used for changing an option value to a new value from a previously created list of choices. To create new choice sets and individual choices see the "Math Stuff" section.

Entering or Updating Material Costing

Before beginning any takeoff, it is always prudent to check that material prices are current. From the Admin section, Click on the **Material** tab. This is where materials and material pricing information is entered and updated.



When the Material tab is opened, the component libraries are displayed on the outline. These component libraries are copied from the Catalog-Components if they exist there. You can add/edit/delete these tabs to create an order that is different from the Catalog-Components section. Also at any time, you can import the categories that are added to the Catalog-Components section without removing changes you have made to this outline. When a library is selected, the categories of components within that library are expanded and displayed on the

outline. When a category is selected, the grid is activated and materials can be added or updated. For example, when the semi-exposed category is selected on the outline, all the materials available for use as semi-exposed components can be entered and will be displayed on the grid.

To add a new material, right click anywhere on the grid, select Add from the menu and the new material dialog is displayed.

In the Material name field, enter the name of the new material.
In the UOM field select the desired unit of measure for that material from the drop down list. New Units of Measure can be added at any time. (See adding UOM's)
In the Cost field enter the cost per Unit of Measure.
In the Waste field enter a percentage waste factor for that material.

The bottom section allows you to enter a supplier for this material from the list of suppliers entered on the Contact-Suppliers tab. You can not type in a new supplier here but would need to add it to the Suppliers tab first. Additionally you can enter a reference number (S.K.U.) to identify this material in yours or your suppliers inventory.

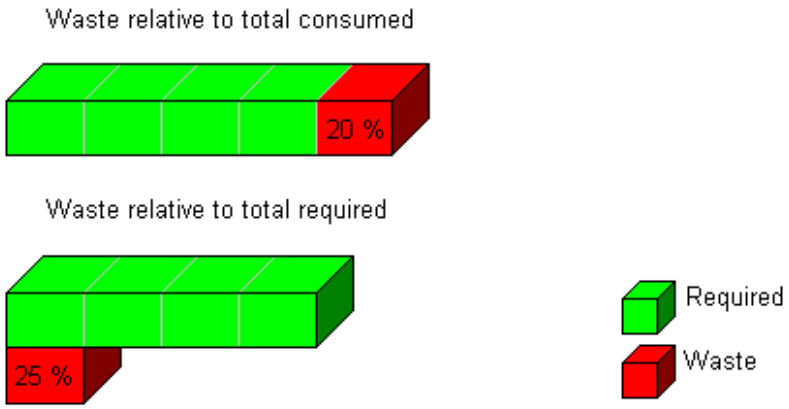
The Labor tab allows you to add labor that would be unique for this material. An example may be additional labor to bore for a recessed pull.

Click Save when you are done or click Add to add another material.

To update an existing material, double click on the desired material item on the grid or right click on the desired material and select Edit from the menu. The material dialog box is displayed and the selected material is now ready for editing.

Waste in take off™.

Waste can be described in the two methods shown below which both uses the same amount of required quantity and both have the same waste. However the waste is described by a different percentage for both models.



The first method looks at waste as the percentage of material purchased that ends up in the waste bin by the saw (TK_Waste) while the second method looks at waste as the quantity of the extra material you need to purchase (Extra). Both methods get to the same final outcome but approach it differently.

For example In the first model if you require 100 units of a material and want a waste of 20% this does not mean you purchase 120 units instead you purchase the 20% that will end up as waste. As you can see above when your waste is 20% of the total amount you needed to purchase 25% more material. In this first model a 50% waste means that for every 1 item purchased, 1/2 or 50% will be thrown away so you would require double the number of units.

take off[tm] uses the first model to describe it's waste however if you need to convert from the second model you can use the following formula to calculate the correct waste percentage.

To convert between "waste relative to total required" and "waste relative to total consumed" use the following formula TK_waste = (100 * Extra) / (100 + Extra).

The following table shows some values converted.

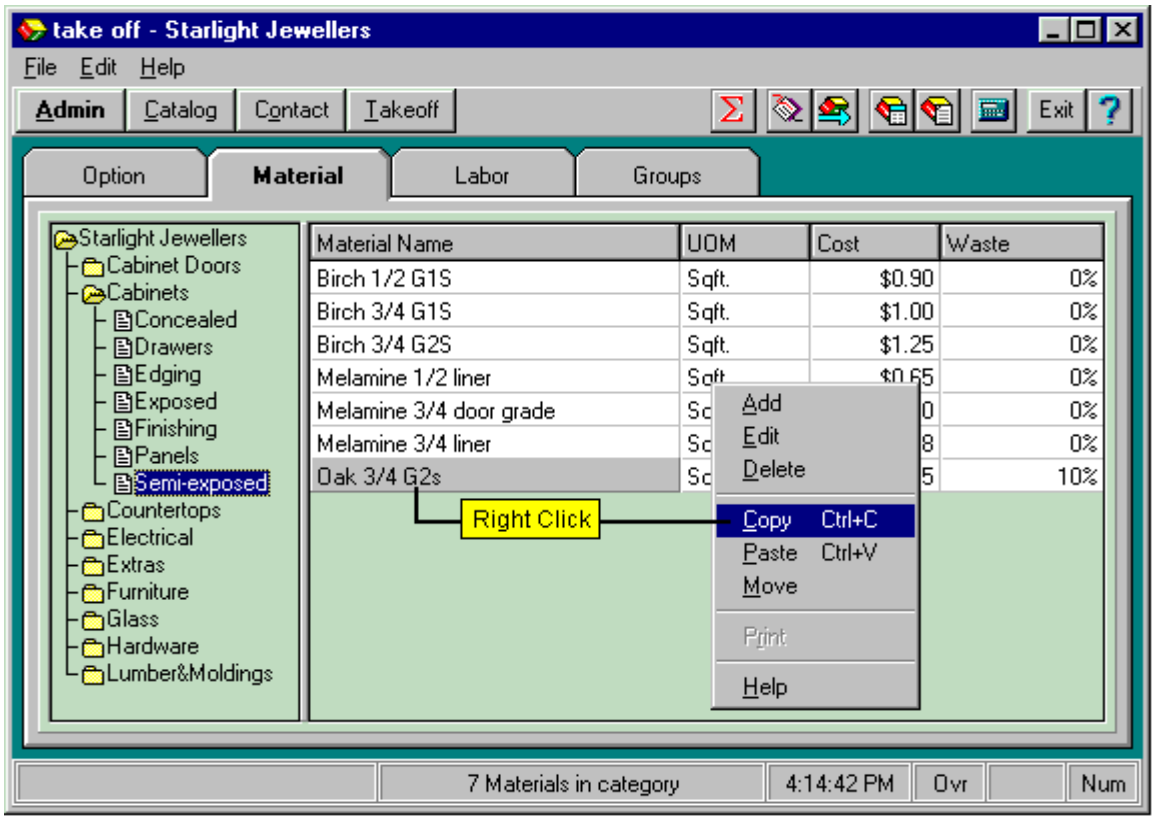
Extra	TK_Waste
20%	16%
35%	26%
45%	31%
55%	35%

Note - Summary screens show required quantities (no waste) but costs show includes the cost for waste, as this is a cost of the final product.

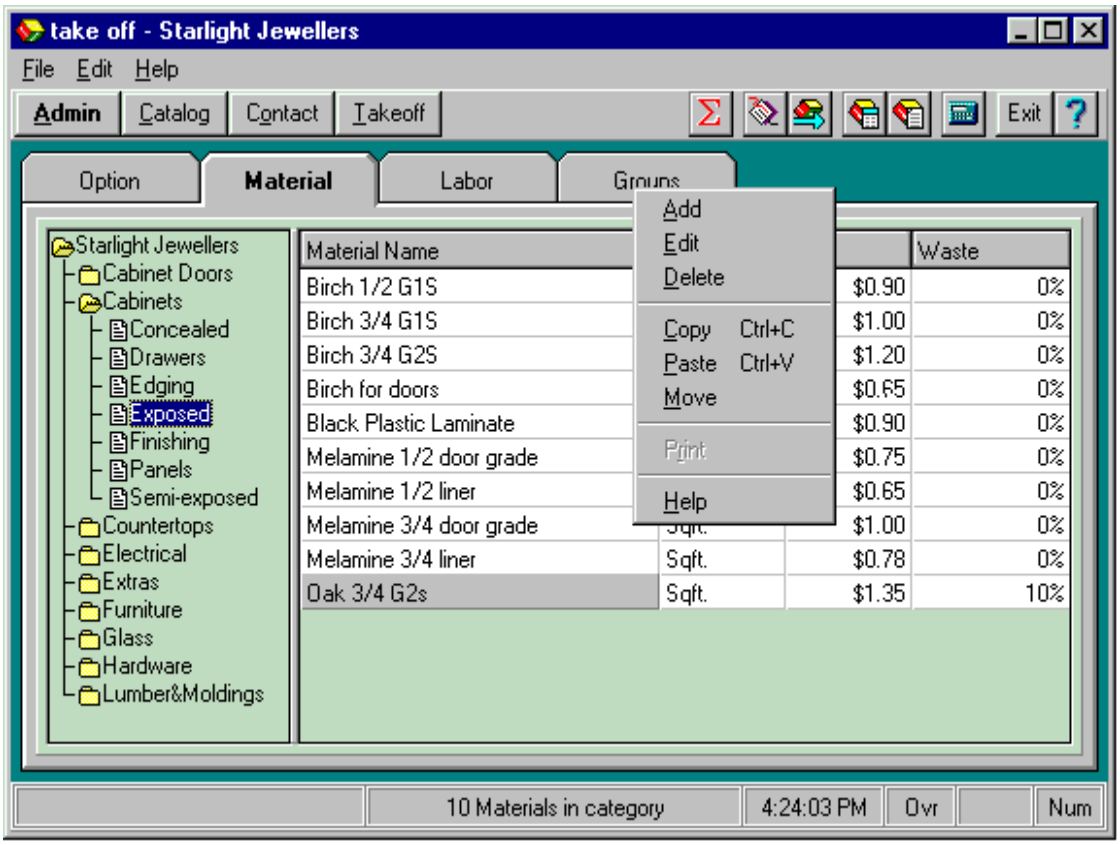
Copying Materials

Materials are entered on a per category basis. If the same materials are required

in more than one category simply copy and paste them from one category to another. To copy a material, select the desired material on the grid, right click and select Copy from the menu.



On the outline, locate the new category to where you want to copy the material, right click on the grid and select Paste from the menu.



The Material tab displays the materials that are available for selection. Assigning which materials to use in an estimate is done on the Group tab.

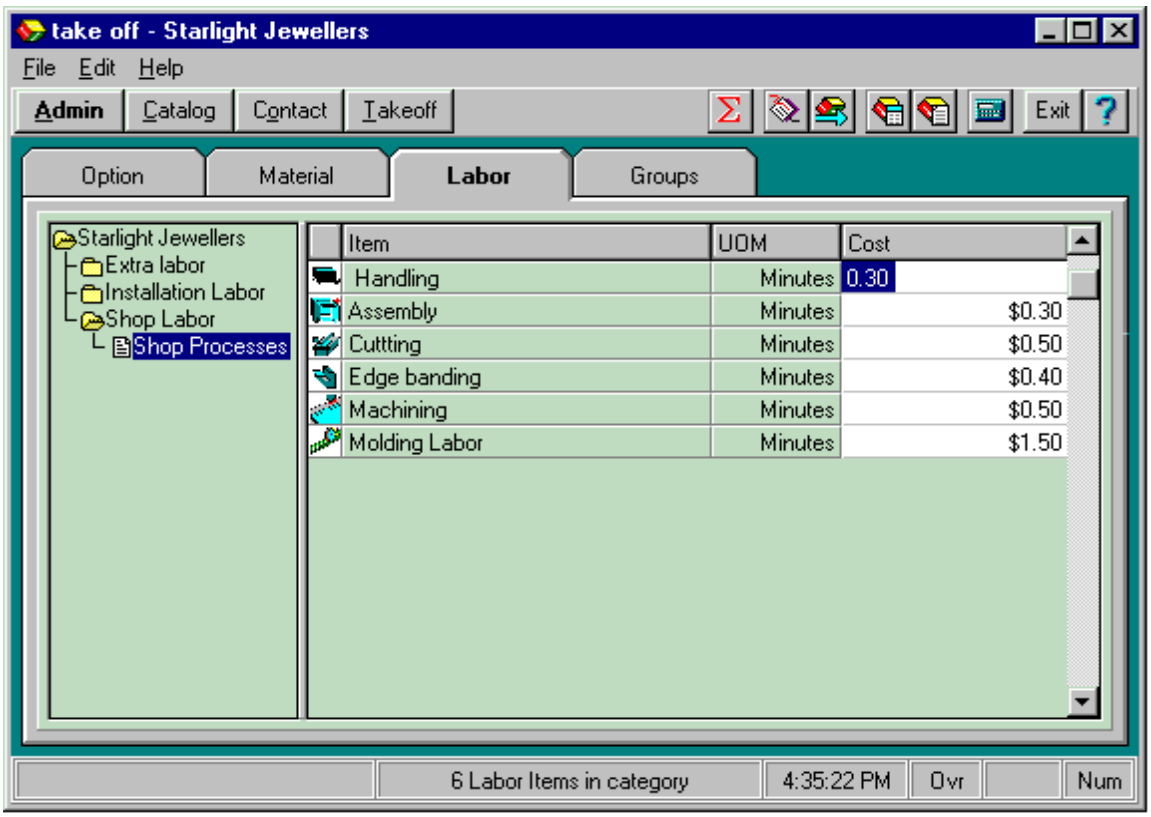
Entering or Updating Labor Costs

Two elements are required to arrive at the correct labor pricing for any given labor process. Firstly the time of the labor process. Secondly the cost of the labor to perform that process. The true labor cost of any process is a combination of these two elements. The cost of each labor process is entered on the Labor tab in the Admin section of the program while the quantity of labor is derived from library

When the Labor tab is opened the labor libraries is displayed on the outline. These labor libraries are created in the Catalog section of the program. If the are no entries visible this means that you have not made any entries in the labor library. You must build the labor library first. If you haven't see "How to build a labor library".

When a labor library is selected, the categories of labor processes within that library are expanded and displayed on the outline. When a category is selected,

the grid is activated and labor processes within the selected category are displayed on the grid.



Notice there are three columns on the grid. The Item name of the labor processes, the Unit of Measure (UOM) for those processes and the Cost column. To enter or update the labor cost of an item, click in the cost field. The field will become active and costs can then be entered or updated. The costs entered here are per the unit of measure of the selected item.

You will notice that the cost per UOM is a monetary field and not a time field. This is because many manufacturers assign different labor rates to different operations. To arrive at the figure for this field you must know how much your shop rate is. If your unit of measure is minutes then you would divide your hourly shop rate by sixty (60) to arrive at the shop rate per minute.

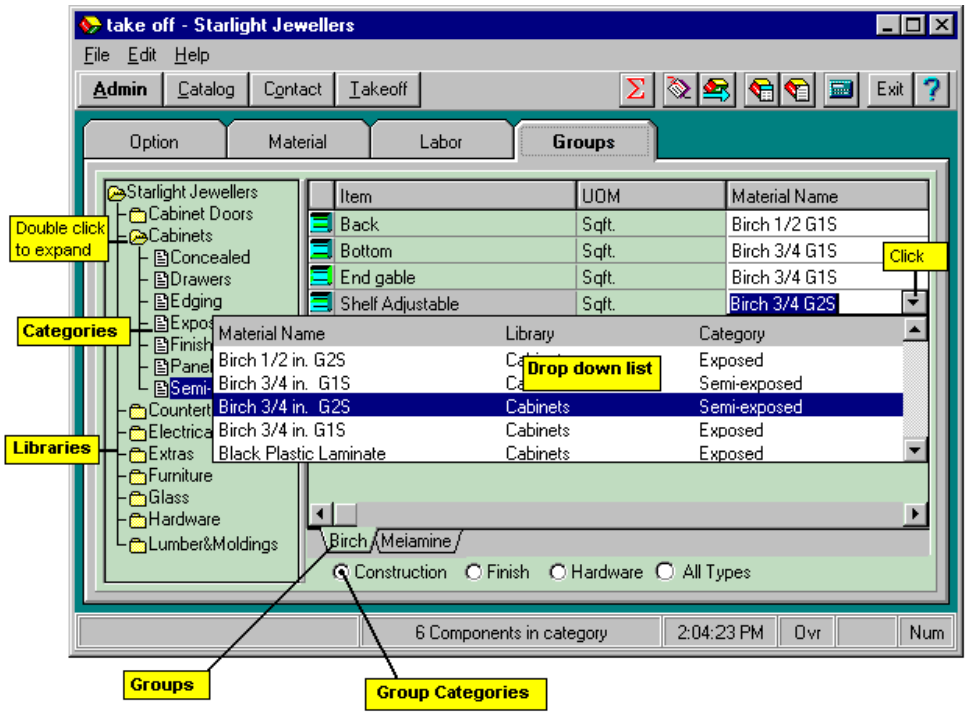
Material Groups

The groups tab in the *Admin.* section of the program displays libraries of actual items that you can purchase. When a product is created in the Catalog section **take off**[tm] is not concerned with what actual material is required to build the item. In the Groups section, groups will be used to create links between actual, purchasable items and the components that were used to build product libraries.

These component libraries are created in the *Catalog* section of the program.

Groups are one of the more powerful features of takeoff™ because it allows a product to select from one of many pre-configured sets of materials called groups. Each product has three possible types of groups to choose from namely construction, finish and hardware. All of which have been "type" defined during component creation. Thus it is the combination of these three groups, which will specifically configure a products' materials.

When a library is selected, the categories of components within that library are expanded and displayed on the outline. When a category is selected on the outline, the components within that category are displayed on the grid. Materials can then be assigned to each of these components.



To assign a material to a component, select the component on the grid and the material name field becomes active. From the drop down list in that field you can select the desired material. The materials displayed in the drop down lists are according to the unit of measure of the component. This filter is applied so the materials that would not be used for this component are not displayed.

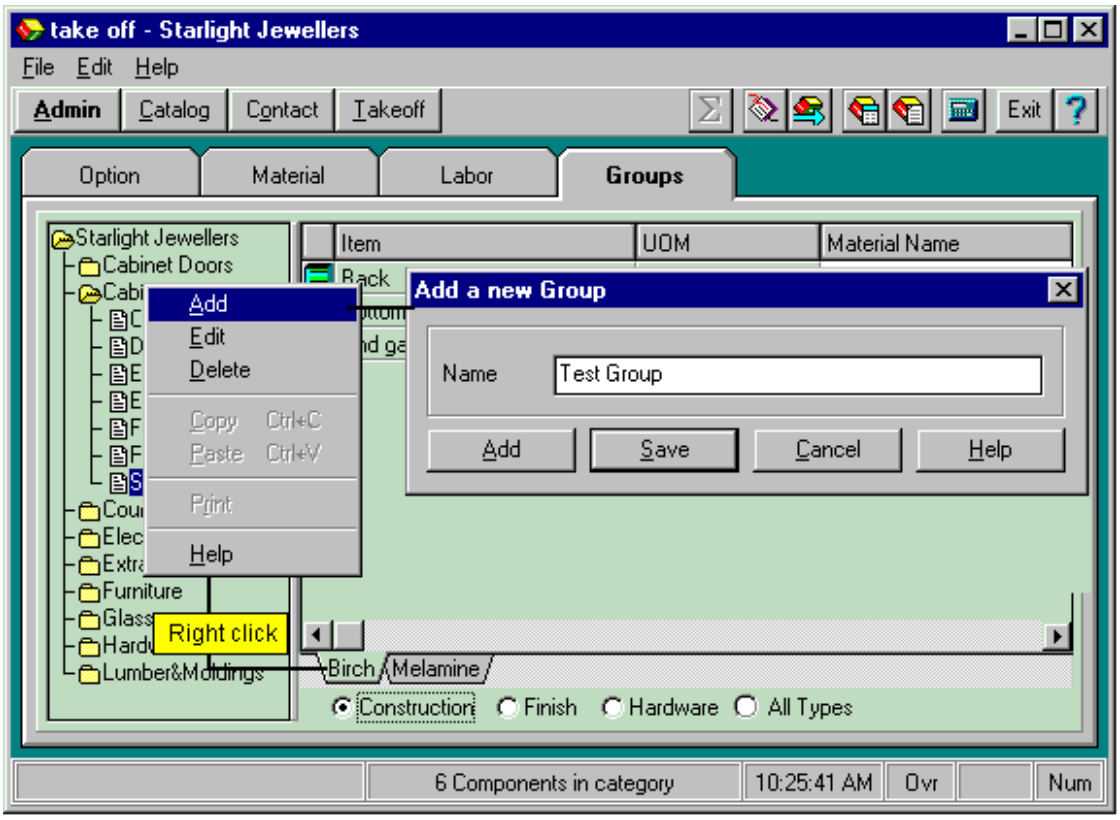
Notice the tabs at the bottom of the grid. These tabs represent material groups. **take off**[tm] allows you to assign materials to every component and then organize these material assignments into material groups. For example in our Birch group, we have assigned various birch plywood to all the semi-exposed cabinet components. In our Melamine group we have assigned various melamine panels to the same components.

Material groups are organized into three group categories; the Construction category, for those components that are generally involved in the carcass of a product; the Finish category for those components that are generally visible (for example doors, end panels, tops etc.) and the Hardware category for hardware items. These group categories are selected by pressing the appropriate Radio button. Each group category has its own groups. For example: The Construction and Finish categories have Birch and Melamine groups while the Hardware category has Group 1 and Group 2 to describe the hardware used in each group.

The "All Types" button allows you to see all components regardless of which group category they belong. This is useful for finding components that are not in the group category you expect them to be in.

Adding Material Groups

In the Groups section we will create links between generic components that our product libraries were built with and actual purchasable materials. Each group we create will have a record for all of the components created in the Catalog component tab. We can then assign a different actual material to each component in each group. The result of this would be to have a Pine group linking pine material to each component, while an Oak group would link oak material. At takeoff time, by simply changing the group between Oak and Pine, we would change the costing and materials used for this product between Oak and Pine. The change between these groups could greatly change cost and materials required if different waste factors are applied.



Make sure the group category where you want the new group is selected by clicking the appropriate Radio Button. Point at any group tab at the bottom of the screen and right click.
Select Add from the menu and enter the new group name in the dialog box.
There is no limit to the number of groups you can create.

Copy and Paste Groups

To aid in creating groups you can copy and paste an existing group.

To copy a Group:

1. Select the correct category from the outline.
2. Select the correct type of group from the three choices Construction, Finish, Hardware.
3. Press the context mouse button over the desired Group name to open the menu and from here select "Copy".

To Paste in a New Group

If you leave the currently selected Group name highlighted and then select the "Paste" option from the right mouse button menu, a new group will be built. The new group name will be similar to the highlighted group name except that the

final two letters will be "_#", where # is a number from 1-9.

To Overwrite an Existing Group

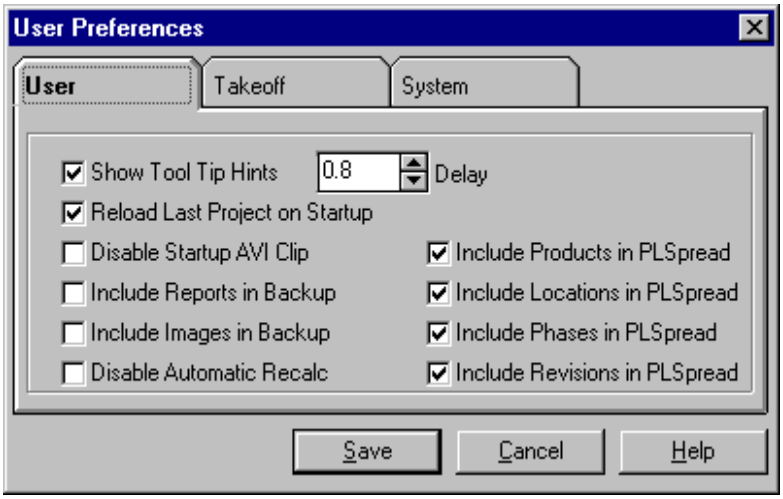
If you select a new group name before selecting the "Paste" option from the context mouse button menu, the current group will be overwritten with all the information from the copied group.

***Tip** - A right button menu exists over the group names. Ensure that you have a catalog selected then press the context mouse button over the group names. You will then be allowed to Add, Edit and Delete group names.*

3) Setup Preferences

As mentioned, materials required for products are organized into material groups. This occurs in the Admin/Groups section of the program. At any time you can select the default groups to be used while doing a takeoff. Additional preferences can also be configured. From the Edit menu, select Preferences.

User Tab



Show Tool Tip Hints - Tool tips are available when the mouse pointer is hovering over the product icons and other buttons. You change the delay time for these captions to appear or turn them off all together.

Reload last project on startup - Selecting this option will automatically load the last project used when **take off**[tm] is started.

Disable startup AVI clip - Selecting this option will disable the animation when

take off[tm] is started.

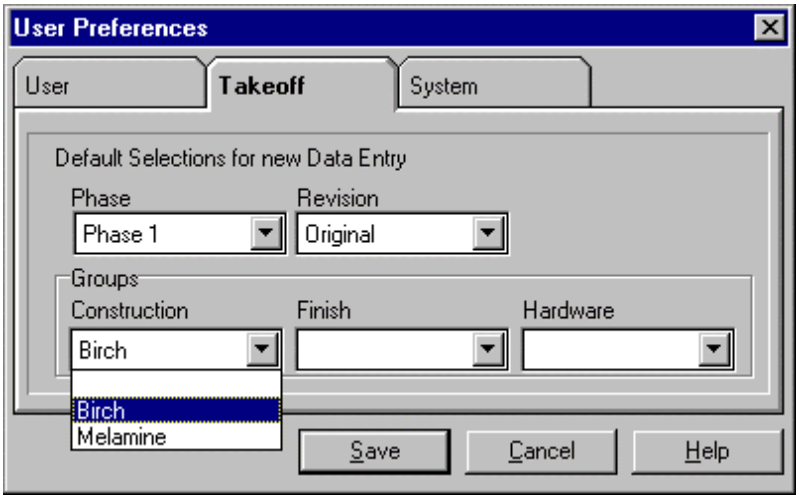
Include reports in backup - **take off**[tm] comes with a number of predefined reports. The user can also create custom reports. Leaving this option clear will conserve space when backing up projects by not saving the reports.

Include images in backup - The Takeoff and Catalog sections of the program use both graphics and icons for visual aids. Since graphics files are large, leaving this option clear will conserve space when backing up projects. However, if you plan on "reverting" the backed up project to a different computer, you will be prompted each time an expected icon does not exist. If you plan on "reverting" this project to a different machine it is best to include the images.

Disable Automatic Recalc. – When you are doing a takeoff, by default, the costs for the particular products are always calculated. On slower machines or very complicated products this can cause a delay. Leaving this option clear will disable this recalculation. However, to get the final costs for the bid you will then need to do a manual recalculation.

Include Products, Locations, Phases, Revisions in PLSpread – These choices control whether additional information is added to the takeoff tab of PLSpread. These additional values can be used to calculate more detailed costing information. The trade off is that when they are included PLSpread will take longer to launch.

Takeoff Tab



To set default groups for this project in **take off**[tm] you would use select the Takeoff tab. The selections made on this tab determine what material will be used as defaults until the selections in this tab are again changed. The selections chosen in this tab are only defaults and can be changed on an individual product,

or group of products basis, at any time during a takeoff.

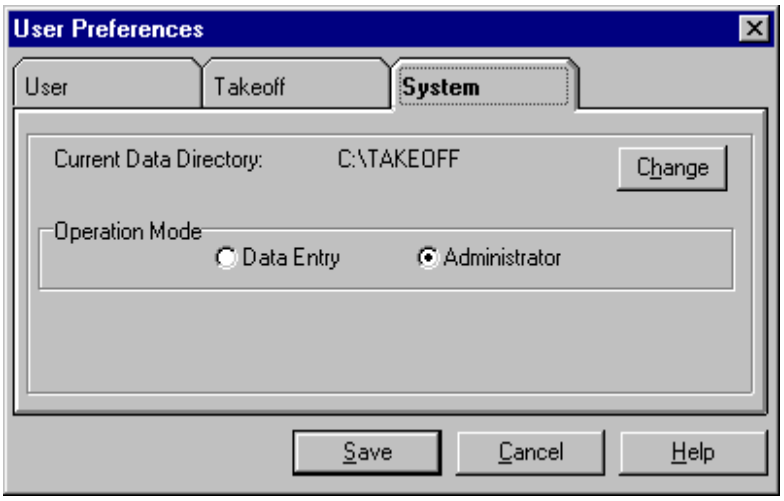
If your estimate has more than one phase you can select the default phase from the drop down list in the Phase field. New phases can be added here by right clicking in the field and selecting Add from the menu.

The Revision field operates in a similar fashion. If you are quoting change orders, the items to be taken off can be tagged with the corresponding change order number. New revision numbers can be added in this field.

For each of the material group categories, Construction, Finish and Hardware select the desired group of materials from the drop down list in the corresponding fields.

Note - Phase and Revision names can be added here by right clicking in the appropriate box. You can only add and edit; ***you cannot delete a Phase or Revision since it may be in use***.

System tab



This tab displays where the program looks for the project data. Clicking on "Change" will give the option to specify an alternate location. You would use this feature if you wished to map to data on a network or a test directory.

Administrator allows full access to the program while the Data Entry mode limits access to features required doing a take off and not building libraries.

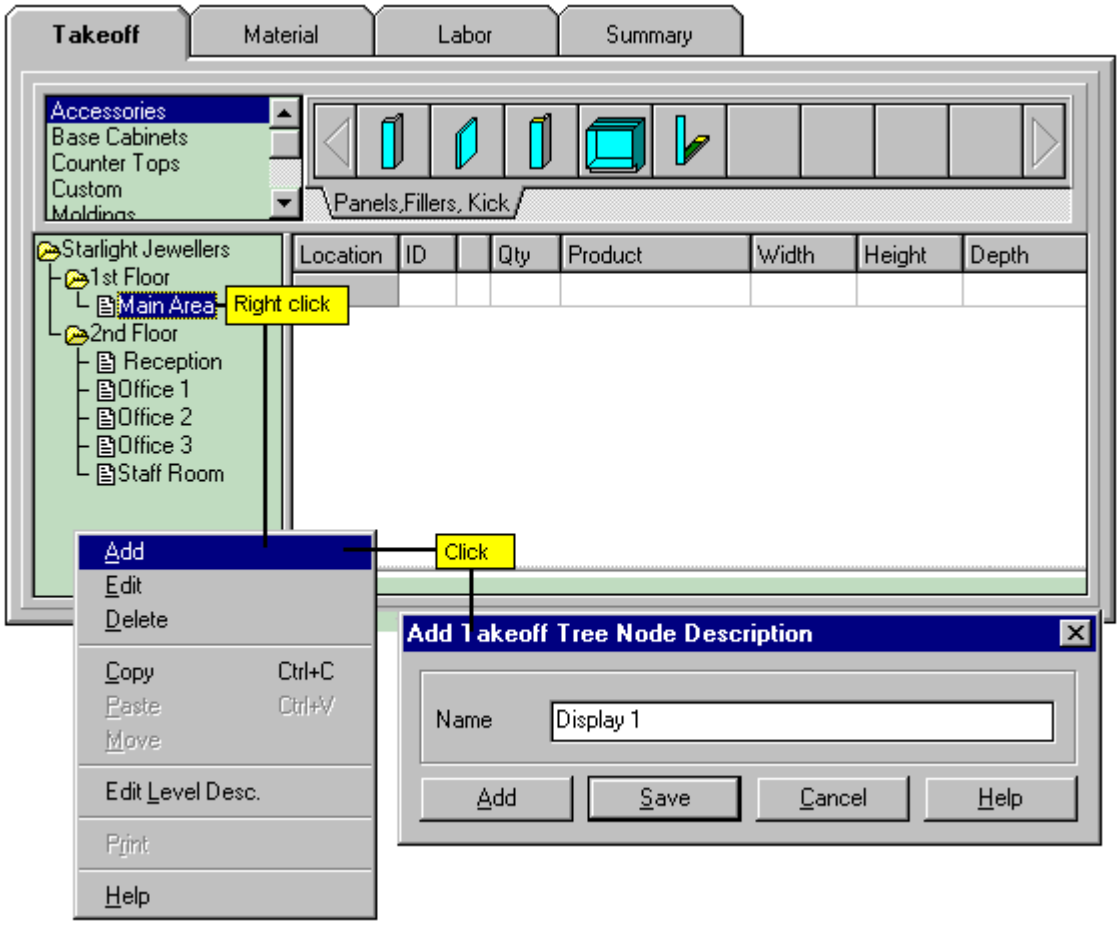
4) Setup Project Outline

A takeoff can be as simple as an estimate for one item, or as complex as estimating a multi-wing multi-story hospital. In a complex project most estimates are done per wing, then per floor, then per room, then per elevation. As in any takeoff, the starting point is to layout the project being estimated. This can be done up front or on the fly.

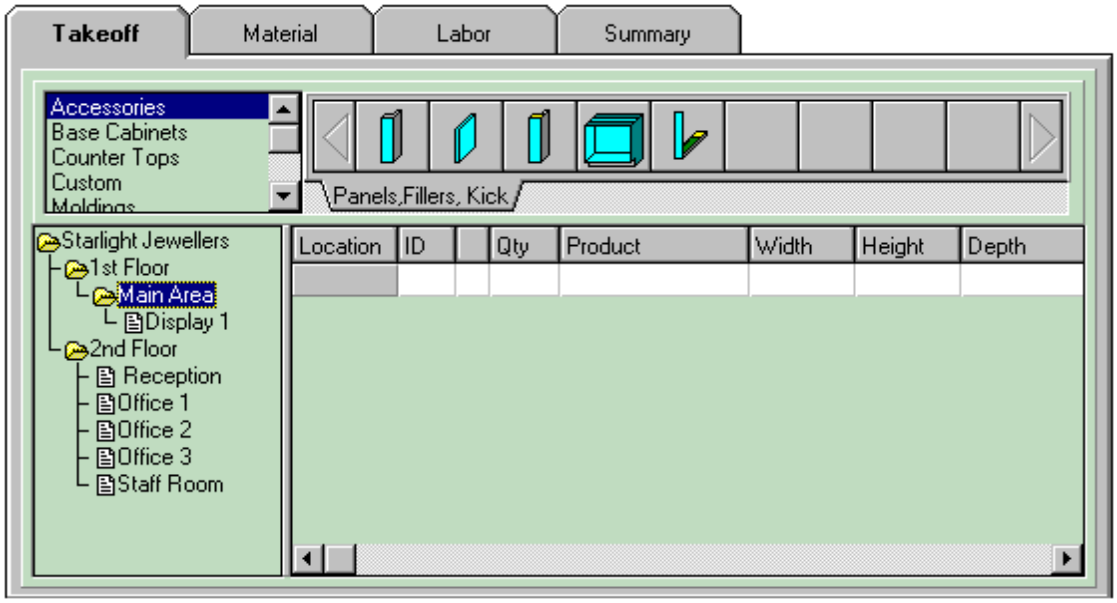
The first step is to build the Outline. Determine the structure of the project, how many wings, how many floors, how many rooms etc. First you want to create the floors. The first level of the outline structure is always added to the project name (root). To create a floor, highlight the project name, right click and select ***Add*** from the menu. And then add the description for the floor. Any element of the outline is referred to as a node.

To create a location within a location, for example within the 1st Floor, right click on the location, select Add from the menu and enter the location name in the dialog box, for example Main Area. These steps can be repeated until the completed takeoff structure is created. Locations can also be added, edited and deleted at any time. When a location has other locations within it, that location is a Parent location and is depicted by a Folder icon. A document icon depicts a location with no other locations within it.

Note – You can add multiple items to a level by pressing the Add button instead of Save. Add will add the item and leave you within the dialog while Save will save information and then exit the dialog box.



Example: On the Outline, add two display rooms Display 1 and Display 2 to the Main Area on the 1st Floor. To do this, select the Main Area on the outline. (If the location "Main Area" is not visible double click on the 1st Floor folder and the folder will expand revealing the locations within). Right click on the Main area and enter "Display 1" in the dialog box. Click Add on the dialog box and enter Display 2 in the new dialog box. Click Save when you are done.



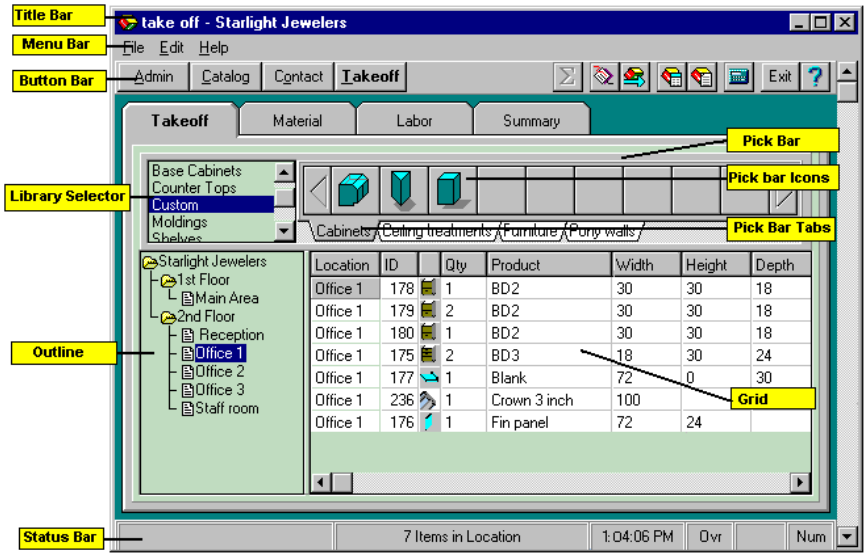
As long as there is at least one location on the outline, you can start a takeoff.

Highlighting a Library in the Library Selector displays the corresponding Categories within the selected Library as tabs on the Pick Bar. The Products within that Category are displayed as icons on the Pick Bar. There are Libraries of Products, Sub-Assemblies, Parts, Components, and Labor. By right clicking anywhere in the Library Selector you can select which groups of Libraries are displayed in the Library Selector. **All** Libraries and their Products are available for selection at the time of a takeoff.The status bar at the bottom of the screen displays an item count for the current location.

5) Do a Takeoff

Areas of the screen

In order to move around the program easily it is important to know the areas of the screen. This section of the tutorial describes these areas and their functions. To get to the main takeoff screen click the Takeoff button on the button bar, then select the takeoff tab.



The top line of the screen is the Title bar. The name of the current project is displayed here. The buttons on the button bar launch various sections of the program. Allowing the cursor to hover momentarily over a button will cause a context sensitive tool tip to be displayed.

The Library Selector displays the current group of libraries. To select a library group, right click anywhere on the library selector and click on the desired library group. The libraries within that group will be displayed in the library selector.

The libraries, categories and items that are created in the Catalog section of the program are displayed graphically on the pick bar. When a library is selected in the library selector the *categories* of items within that library are displayed as tabs along the bottom of the pick bar. When a category is selected, the *items* within that category are displayed as icons on the pick bar. These are the items that can be used in a take off.

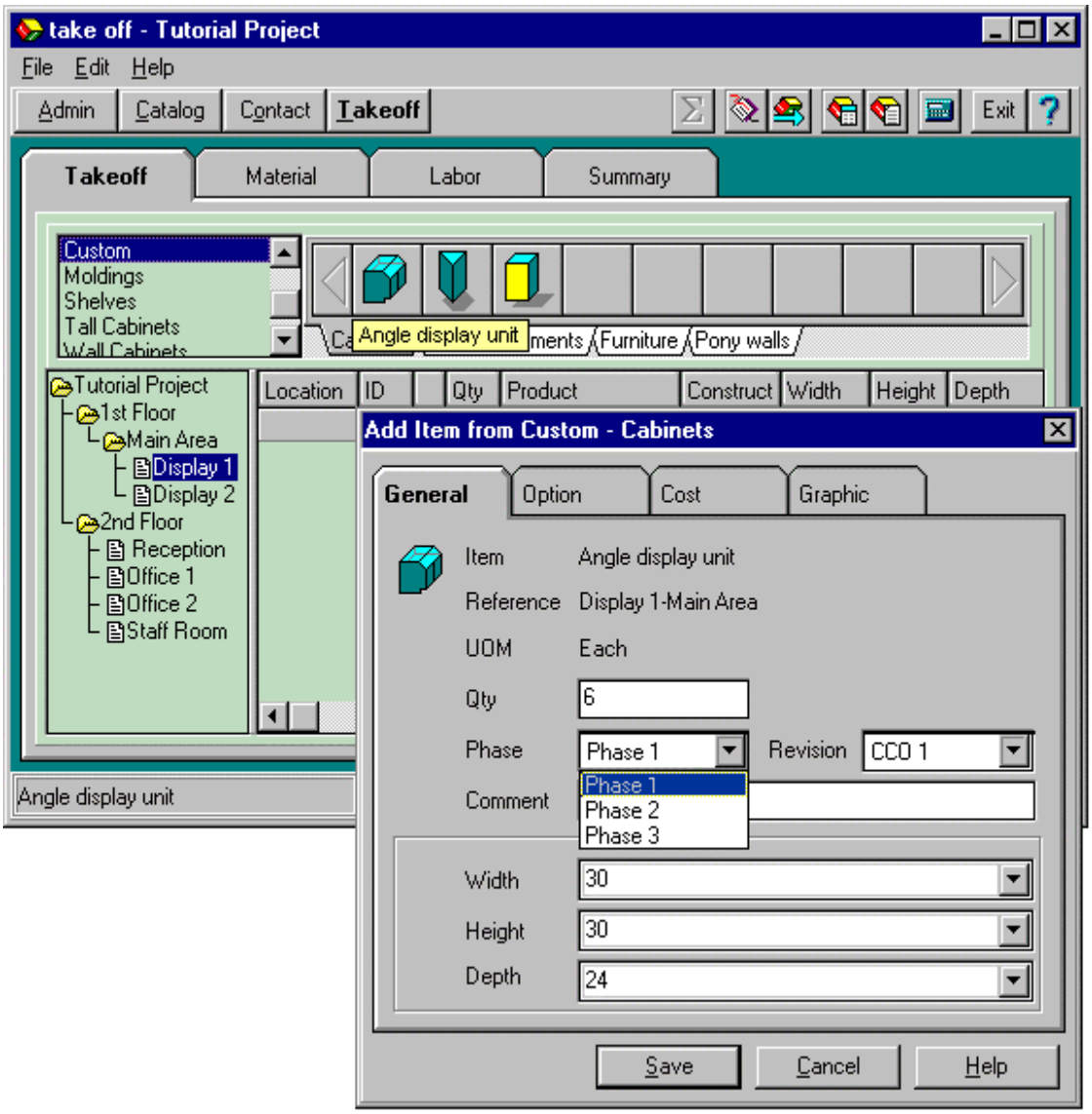
The Outline area of the screen is used for creating the structure of the project you want to estimate. The demonstration project has two floors. A main area with two display rooms on the first floor, and a reception area, three offices and a staff room on the second floor. Any project structure can be created on this outline. When a location on the outline is selected, the items already taken off at that location are displayed on the grid.

Columns on the grid can be sorted alphanumerically by clicking on the appropriate column header. Clicking again will sort the column in reverse order. New items are taken off by dragging the icon representing the item onto the grid.

To takeoff a product.

1. Select the location for the takeoff on the outline.
2. Ensure the correct icons are displayed by right clicking on the library selector and selecting the correct type of items from the list.
3. Select the correct library from the list box, and the appropriate category from the pick bar tab. Remember that categories are the tabs on the bottom of the pick bar.
4. Finally either double click on the desired icon or drag it to the grid.

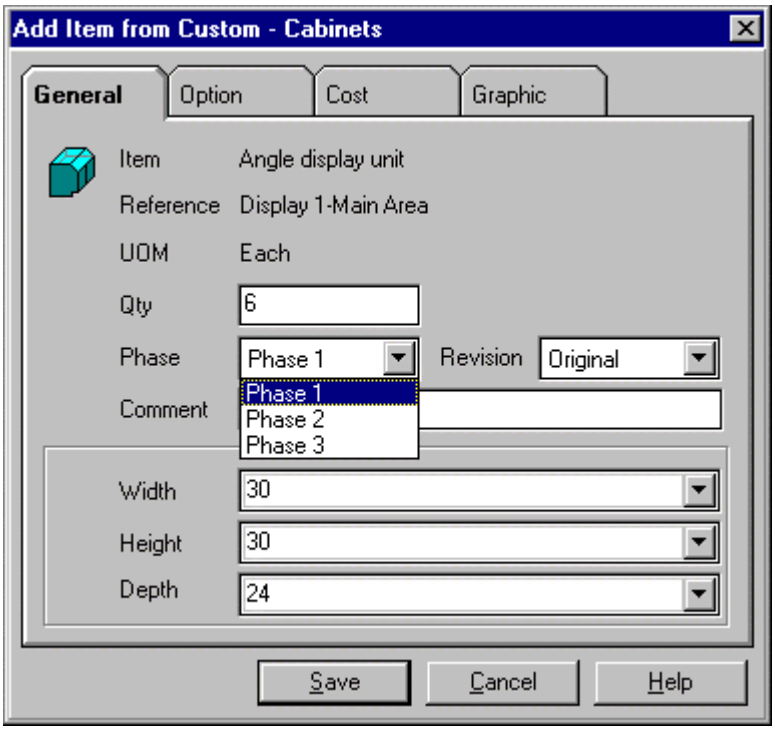
Example: We want to takeoff 6 Angled Display Cases into Display 1 in the Main Area on the 1st Floor. Select Display 1 on the outline. The angled display cases are found in the Products group of libraries, in the Custom library in the Cabinets category. Right click in the library selector and select Products from the menu. Scroll through the library selector and select the Custom library. The categories within the Custom library will now appear as tabs on the pick bar. Select the Cabinets tab on the pick bar. The items within the Cabinets category are displayed as icons on the pick bar.



To select the desired item from the icons on the pick bar, left click on the icon, hold the mouse button down and drag the cursor anywhere on the grid. Notice the square attached to the bottom of the cursor signifying you have picked up the item. Release the mouse button and the Add Item dialog box is displayed.

The General Tab

The Add Item dialog box shows four tabs General, Options, Cost and Graphic Tabs.



On the General tab, in the quantity field, enter the quantity of items required. The Phase and Revision fields display the defaults that were set in the project preferences under the Edit menu. If necessary these values can be changed by selecting new values from the drop down list. A comment about this item can be added in the comment field.

The dimension fields displays the default dimensions for this item. These dimensions were established when this item was created. All library items are created in the catalog section of the program. **take off**[tm] is entirely parametric. This means that as you change size of a product, the appropriate amount of materials and labor costs are automatically changed according to the size. Any material and labor changes associated with the change in dimensions will be displayed on the cost tab.

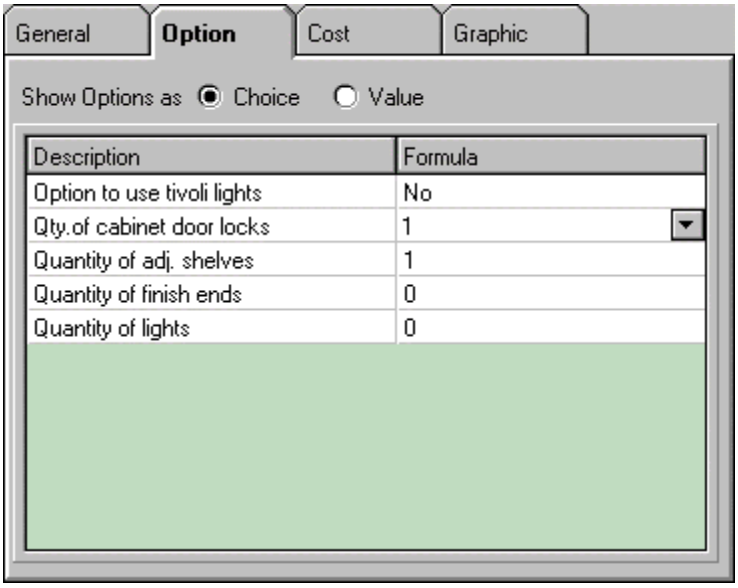
To change the size of a product select the required dimensions field width, height or depth and enter the required size. If your products have predefined sizes, these can be entered when the product is created and now become available for selection from the corresponding drop down list.

Example: There are six angled display cases. The quantity is entered in the quantity field and the dimension 30" high 30" wide and 24" deep are entered in the dimension fields. These dimensions can be entered manually in each field or selected from the drop down list by clicking on the arrow in each field and clicking on the desired selection.

The Options Tab

One of the strengths of **take off**[tm] is the ability to assign options to products. These options are created and assigned in the catalog section of the program and are available for selection at the time of a takeoff. Click the Option tab. The list of available options is displayed.

To select a choice for an option, click in the desired option field and make your selection from the drop down list. When a choice is made for an option all the necessary material and labor changes are made immediately. Any material or labor costs associated with options will be displayed on the Cost tab.

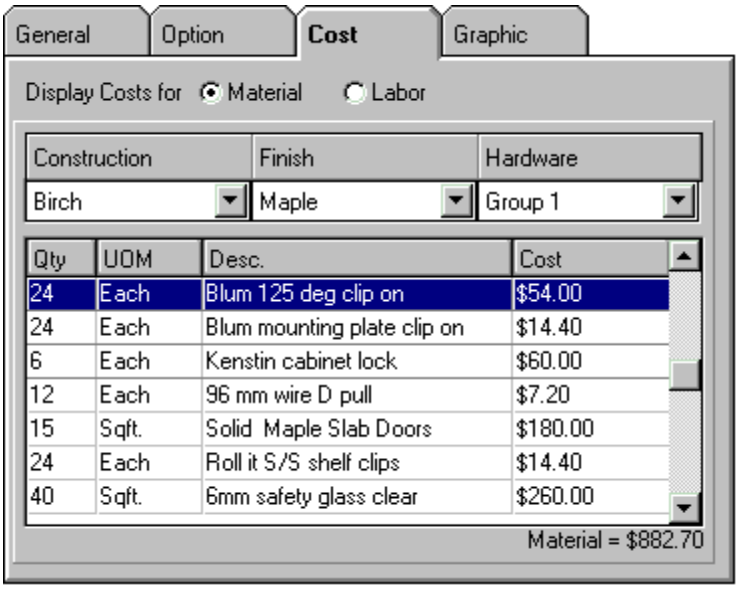


Example: Locks are required for the angle display cases. On the option tab select Quantity of Door Locks from the list of available options. From the drop down list in this field select the number of locks for each unit, in this case 1.

The Cost Tab

Click on the cost tab. This tab not only displays a listing of all the materials and labor necessary for the current product, but allows you to change material groups for the product.

The default material groups (set in the preference section of the edit menu) are displayed respectively in the Construction, Finish and Hardware fields. To change the material group for any of these fields, select the desired material group from the drop down list in the field.



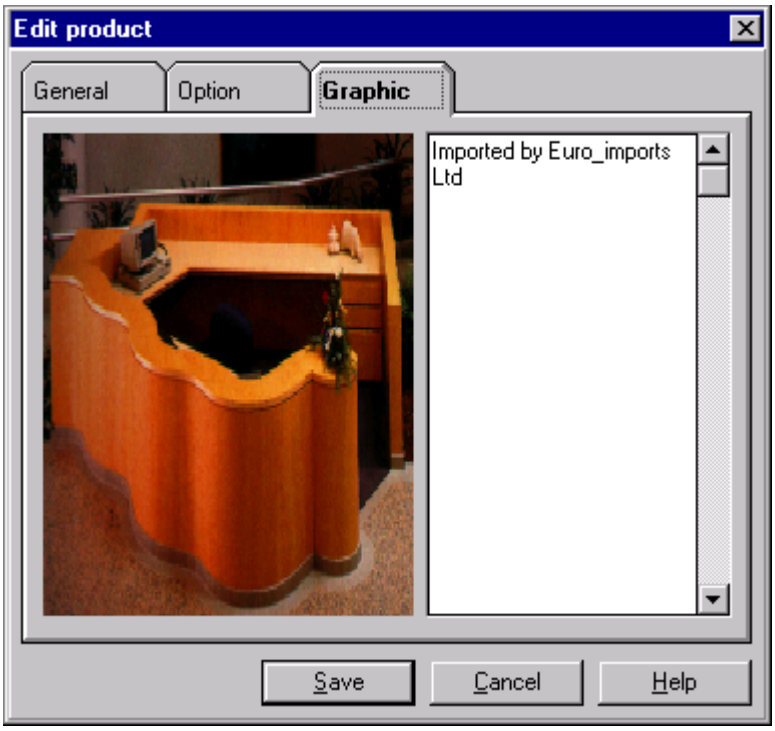
Example: Change the Construction field from Birch to Melamine by clicking on the down arrow in the field and selecting Melamine from the drop down list. Notice how the material listings and the corresponding costs change when you change groups. These listings and costs will also change if the size of the product changes. Click on the General tab and change the size of the product.

Now click on the cost tab to see the difference in costs. If you want to see a listing of all the labor costs click the labor radio button.

Change the Construction Finish and Hardware fields back to Birch, Maple and Group 1 respectively when you have finished experimenting.

The Graphics tab

In the Reception area on the 2nd Floor we will view some items, an Italian reception center and chairs, and view the graphics. The graphics tab is particularly useful for displaying images. These can be scanned images of products or product specification drawings or any other image you may want to use.



Example: Select Reception on the 2nd Floor and edit the Chairs that are displayed on the grid. To edit an item simply double click on the item or right click on the item and select edit from the menu. On the dialog box, click on the Graphics tab.

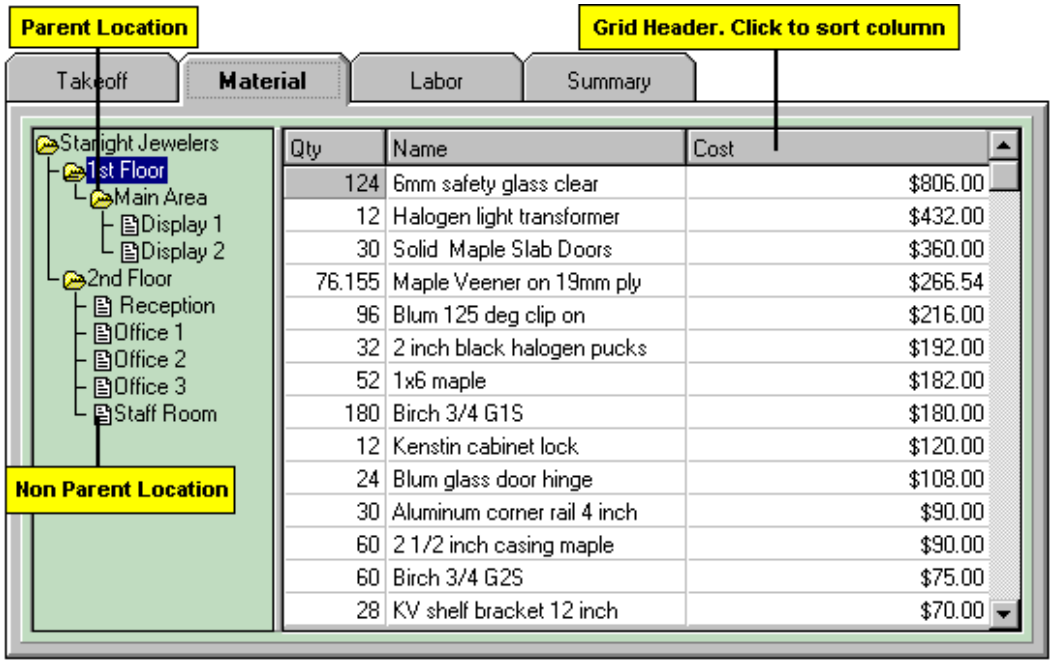
The following table shows the remainder of the items corresponding to the plan that is taken off in the Starlight Jewelers example. In order to familiarize yourself with the program we recommend that you take the time to take these items off. Make sure the dimensions are as shown. All these items are for Display 1.

Item	Library	Category	Qty	Width	Depth	Height	Option
Angled Cube	Custom	Cabinets	1	18	30	24	none
Shelves c/w Bracket	Shelves	Shelves		2	30	30	12 none
Shelves c/w Bracket	Shelves	Shelves		1	48	48	12 none
Liner and Casing	Molding	Window Trims		2	30	48	12 none
Soffit	Custom	Ceiling treatments	1	198	12	12	none

6) View Results

Takeoff Summaries Tabs Overview

The summary tabs in the takeoff section of the program, Material, Labor and Summary, display information in the following format.



When a location is selected on the outline the grid will display the summary information for that location. If the location is a Parent location the grid will display the summary information for the Parent location ***and all*** the locations within the parent location. On the outline a folder icon represents a Parent location. A document icon represents a non-Parent location.

Example: The 1st floor is a parent location because there are other locations within that floor. The Staff Room on the 2nd Floor is not a Parent location since there are NO other locations within the Staff Room.

Note – If the costs are not current you will be prompted to do a recalculation each time a summary tab is selected.

Takeoff Materials Tab

When the takeoff is complete, or at any time during the takeoff you can see a complete material listing for the products in any location on the outline. Click on the material tab and select the desired location on the outline. A complete list of materials and their respective costs is displayed on the grid. Any column on the grid can be sorted by clicking on the appropriate grid header. This is a quick

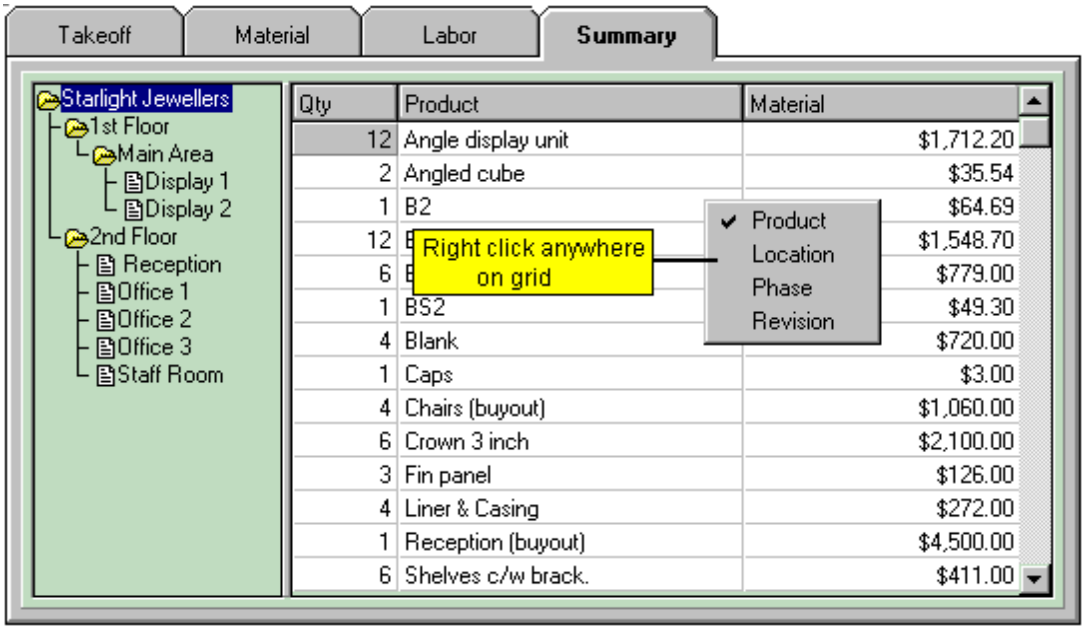
method for determining how much of each material is required or what materials cost the most.

Takeoff Labor Tab

The labor tab behaves in a similar fashion to the material tab. At any time during the takeoff you can see a complete listing of all the labor processes their times and costs for the products in any location on the outline. Click on the labor tab and select the desired location on the outline. As with any grid, the columns on the grid can be sorted by clicking on the appropriate grid header.

Takeoff Summary Tab

Click on the summary tab. The summary information can be displayed in any of four different ways. By Product, by Location, by Phase and by Revision.
Right click anywhere on the grid and select the desired summary display from the menu.



The Product summary displays the number of similar products.

The location summary displays the total number of items in each location. When a parent location is selected on the outline, the location summary displays the total number of items in the parent and child locations.

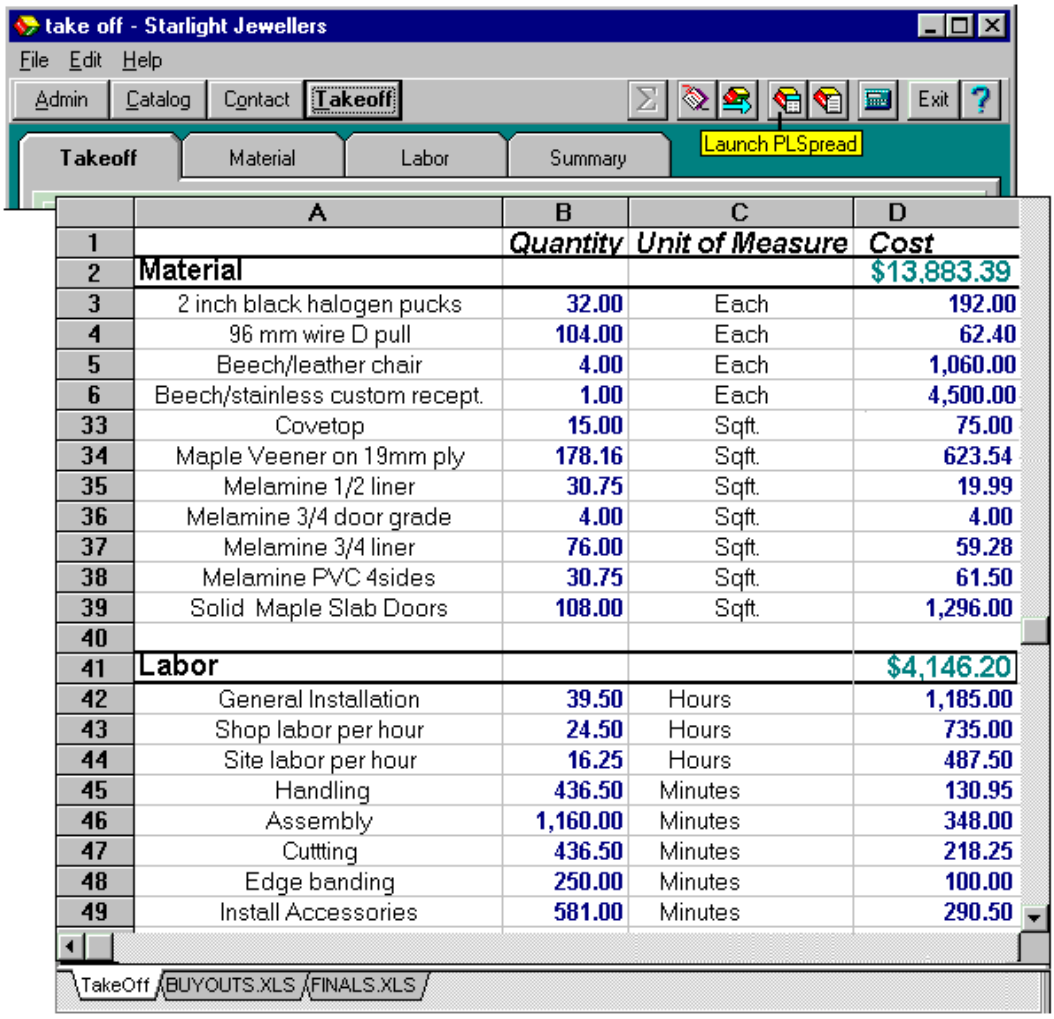
The Phase summary displays the number of products in each phase.

The Revision summary displays the number of products in each revision.

The Spreadsheet

During the course of a project, **take off**[tm] generates an enormous amount of information. The best way to utilize this information is to organize it in a spreadsheet format.

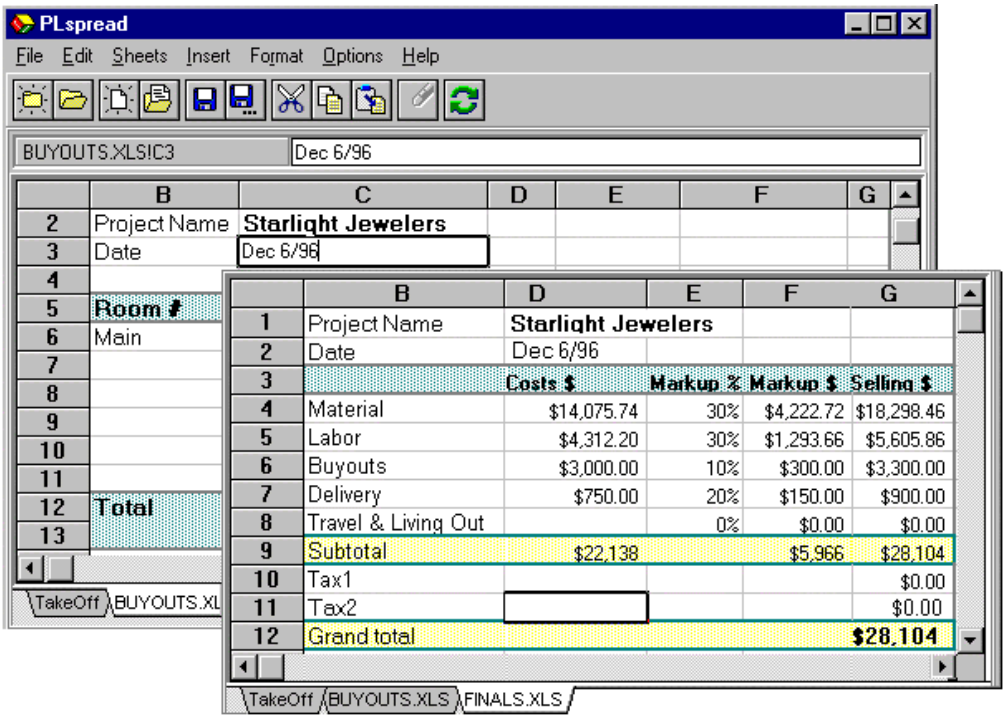
When Plspread is launched from it's button on the button bar the data from the current project is collected, summarized and displayed in a locked spreadsheet tab. This tab displays a summary of every type of material and every labor process used in the current project and can be used as a basis for data manipulation. A spreadsheet allows you to extract the relevant data in a format that suits your needs and use that information to make final presentations. **take off**[tm]'s spreadsheet has all the popular spreadsheet functions and is similar to Microsoft™ Excel 4.0. For a list and explanation of these functions see the Spreadsheet help file.



	A	B	C	D
1		*Quantity*	*Unit of Measure*	*Cost*
2	**Material**			$13,883.39
3	2 inch black halogen pucks	32.00	Each	192.00
4	96 mm wire D pull	104.00	Each	62.40
5	Beech/leather chair	4.00	Each	1,060.00
6	Beech/stainless custom recept.	1.00	Each	4,500.00
33	Covetop	15.00	Sqft.	75.00
34	Maple Veener on 19mm ply	178.16	Sqft.	623.54
35	Melamine 1/2 liner	30.75	Sqft.	19.99
36	Melamine 3/4 door grade	4.00	Sqft.	4.00
37	Melamine 3/4 liner	76.00	Sqft.	59.28
38	Melamine PVC 4sides	30.75	Sqft.	61.50
39	Solid Maple Slab Doors	108.00	Sqft.	1,296.00
40				
41	**Labor**			$4,146.20
42	General Installation	39.50	Hours	1,185.00
43	Shop labor per hour	24.50	Hours	735.00
44	Site labor per hour	16.25	Hours	487.50
45	Handling	436.50	Minutes	130.95
46	Assembly	1,160.00	Minutes	348.00
47	Cuttting	436.50	Minutes	218.25
48	Edge banding	250.00	Minutes	100.00
49	Install Accessories	581.00	Minutes	290.50

If you want to work on the data, the contents of the Takeoff tab can be copied to a new unprotected sheet.

The Buyout tab is for items not in the estimate libraries. These items can be entered here along with the quantities and unit costs and the program will calculate a total cost of the buyout items



The Finals tab collects the data from the takeoff and buyout tabs and assembles it into a format where markups can be added. This sheet produces the final selling price that can be incorporated in a quote letter created using the built in word processor.

The Buyout and Finals sheets are not protected and can be customized to suit individual requirements.

Additionally new tabs can be added.

There are six possible reserved names from the takeoff sheet;

Material – This is the cell that contains the total material cost (always available)
Labor - This is the cell that contains the total labor cost (always available)
Products - This is the cell that contains the total product costs (available if selected in User Preferences)
Location - This is the cell that contains the total location costs (available if selected in User Preferences)
Phase - This is the cell that contains the total phase costs (available if selected in User Preferences)
Revision - This is the cell that contains the total revision costs (available if

selected in User Preferences)

Additionally you can access any of the individual lines from the takeoff sheet by using the Vlookup function.

The format to use this function from any sheet would be
Takeoff.XLS!VlookUp("text desc",Rangetype,column)

Where

Text desc – This would be the name in the left most column of the take off tab. This MUST be in double quotes.

Rangetype – this must be either "AllMaterial", "AllLabor", AllProducts", "AllLocation", AllPhase" or "AllRevision", the defined range names, depending on whether you which values you require.

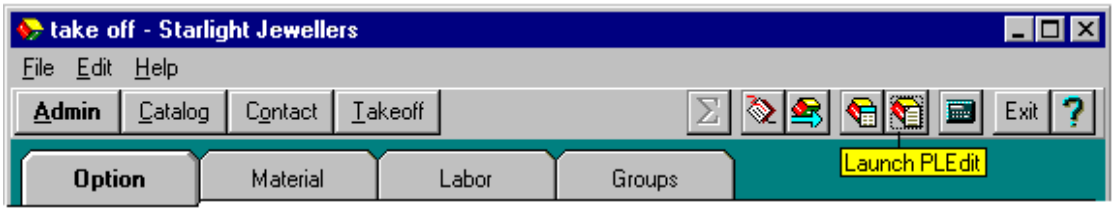
Column – the column you want a value from.

To get a cost for a labor item "CNC Time" you would enter
Takeoff.XLS!VlookUp"CNC Time",AllLabor,4)

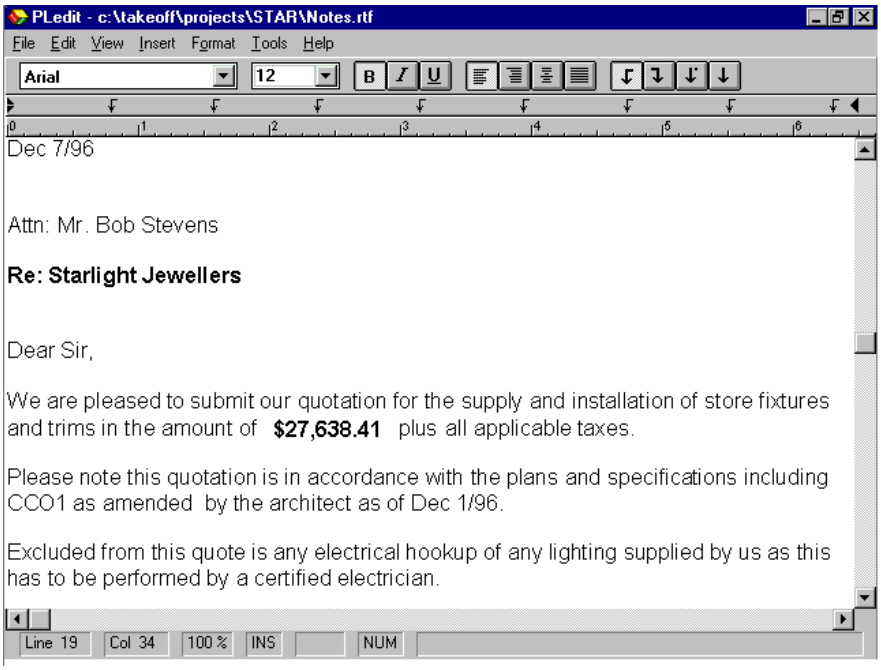
To get a UOM for a material item "Brass Hinges" you would enter
Takeoff.XLS!VlookUp"Brass Hinges",AllMaterial,3)

The Word Processor

The Word Processor, PLedit, is launched by clicking on the Word Processor button on the button bar.

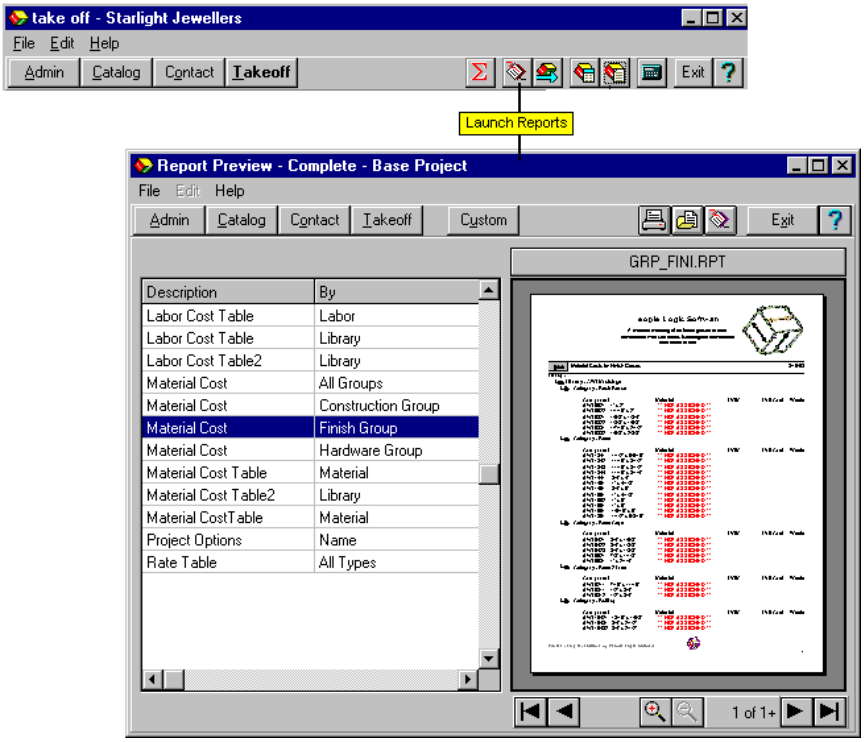


PLedit has all the features required for document processing, and is commonly used for creating quote letters. The final price, generated in the Spreadsheet, can be pasted into your quote letter that can then be faxed directly from the word processor to the recipient.

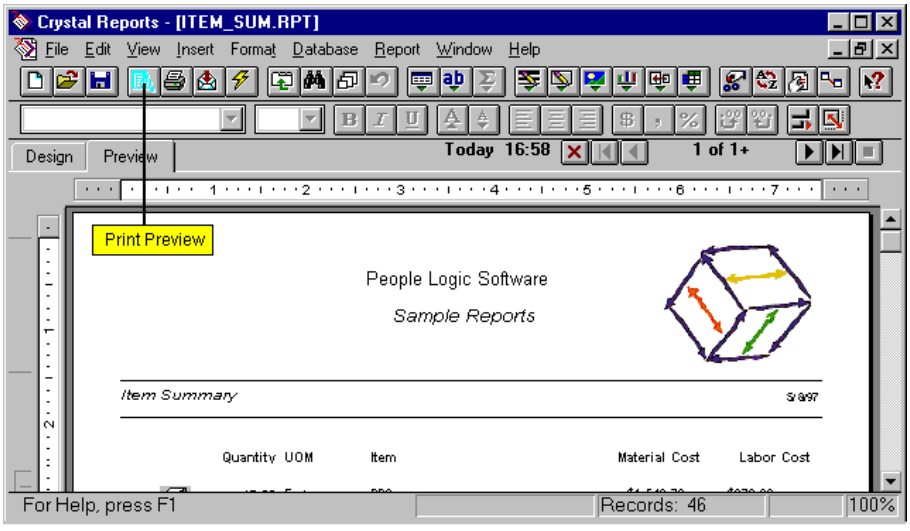


Report Writer

take off[tm] is shipped with Crystal Reports, a report writer capable of extracting data from the estimate and presenting that data into any custom format. These custom reports can be saved as templates and used with any estimate. **take off**[tm] includes several predefined reports. (See appendix for complete listing) Clicking the Launch Reports button on the button bar launches Crystal Reports. A dialog box is displayed listing all available reports. Selecting a report in this dialog will allow you to preview or print it. If you wish to start Crystal Report Writer to edit the report select the report button.



If you selected the report button then Crystal Reports would have launched with a dialog similar to the following.. Allowing the cursor to hover over each button on the tool bar will display a descriptive tool tip. Selecting Print from the File menu can print reports. Clicking the Open button and selecting the desired report can open new reports.



Report Name	**Description**
cat_part	Items that make up the parts
cat_sub	Items that make up the sub-assemblies

cat_prod	Items that make up the products
cl_cont	Contacts for each Client
cl_note	Notes for each Client
grp_cons	Libraries, categories and components within the **Construction** material group
grp_fini	Libraries, categories and components within the **Finish** Material group
grp_hrdw	Libraries, categories and components within the **Hardware** material group
grph_lab	Graph of labor processes for the current project
item_sub	Summary of labor and material for the current project
lab_sum	Summary of labor for the current project
lab_tabl	Summary of labor tables
mat_sum	Summary of labor for the material project
loc_item	Summary of items by location
math_sym	Description of constants, options and formulas
phas_sum	Summary of product by phase for current project
prod_sum	Summary of product by product for current project
rev_sum	Summary of products by phase for the current project

***Tip** - Throughout the program, context sensitive reports are available. To see where these reports are available, position your mouse pointer in an area of the program, click the right mouse button, and if the Print option is available, a report is available. You will not be able to modify these reports*

Exporting

take off[tm] provides an export feature. Clicking the ***Launch Export*** button will create an ASCII text file with the data from the fields you select. This feature makes it easy to integrate **take off**[tm] data with other software you may already have in use.

7) Make Changes

Has there ever been a project that didn't have changes? **take off**[tm] has been designed to handle every conceivable type of change. An Architect may call wanting to know the difference in price if he changes the whole job to Plastic Laminate doors from Birch doors. He may also want a separate price on just Room 201 being changed to melamine cases from Birch ply.

The first process is to log the call in the Contact section. Open the Contact section by clicking the Contact button. Open the Architects tab by clicking on that tab.

Make sure the Architectural Company and the person calling are selected in the client window.

Right click anywhere in the notes window at the lower section of the screen.

Click ***Add*** from the upcoming Menu. Enter the subject of the note in Dialog Box (Pricing Options). The text editor is launched and you can enter the required changes. Possibly: for example, the following;

Pricing options required for
1. 3mm PVC to semi-exposed cases
2. Birch cases instead of melamine
3. PLAM doors on Birch cases
4. Separate price on Room 201 with melamine cases

Close the text editor when you are complete. Notice how the program dates the note, identifies the user who wrote the note, and enters the subject of the note.

Changing Materials

Before making the change to plastic laminate doors, check the cost of the project when birch doors are used. (Takeoff, Summary, Material)

Global material changes in a project are accomplished in the Admin. Groups tab. Click on the ***Admin*** button then on the ***Groups*** tab.

The Outline displays the structure of the Component Libraries and their Categories. First select the correct component library. The Components within that Category and the materials assigned to them are now displayed on the Grid. The materials displayed are according to the material group that is currently selected. Material groups appear as tabs at the bottom of the screen.

Ensure the correct group is selected at the bottom of the screen. Within each material group are the material group categories Construction, Finish and Hardware. Selecting the corresponding Radio Button at the bottom of the screen chooses these material group categories.

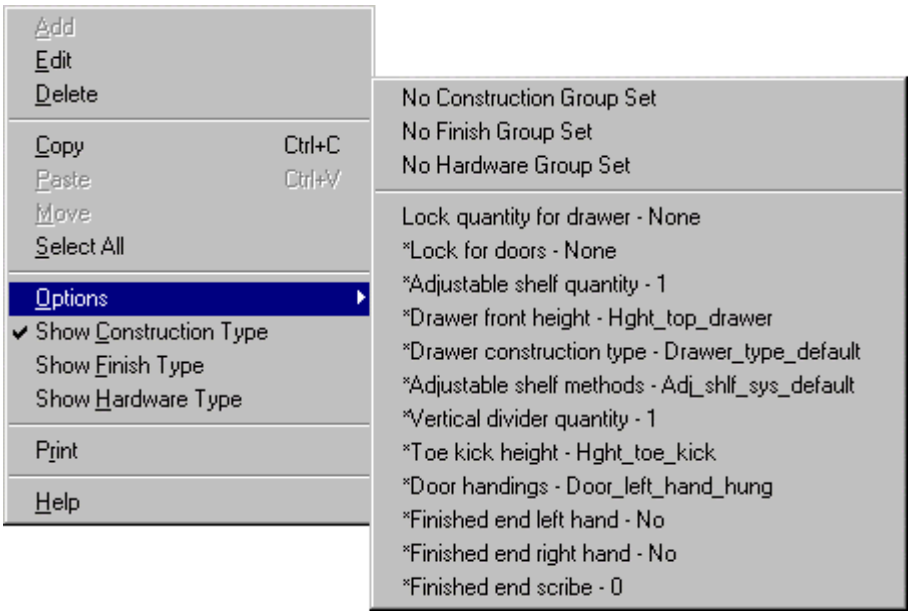
The materials currently in use will be displayed on the grid adjacent to the corresponding component. Use the pull down list to change the currently selected material to a new material.

To check the effect of the material change, click the **Takeoff** button then click the **Material** tab. Select the desired room to see the material costs. To check the amount of labor required for this room, click on the **Labor** tab and highlight the desired room. Compare these numbers to the original number to see the effect

of the change.

Viewing Options for products taken off

The groups and options that are associated with an item already taken off can be viewed without having to edit the takeoff line. To do this use the right mouse menu while over the desired product on the Takeoff-Takeoff tab. The menu that appears will have an option menu choice. Select this and a sub-menu similar to below will appear that shows the groups and all defined options associated with this product.

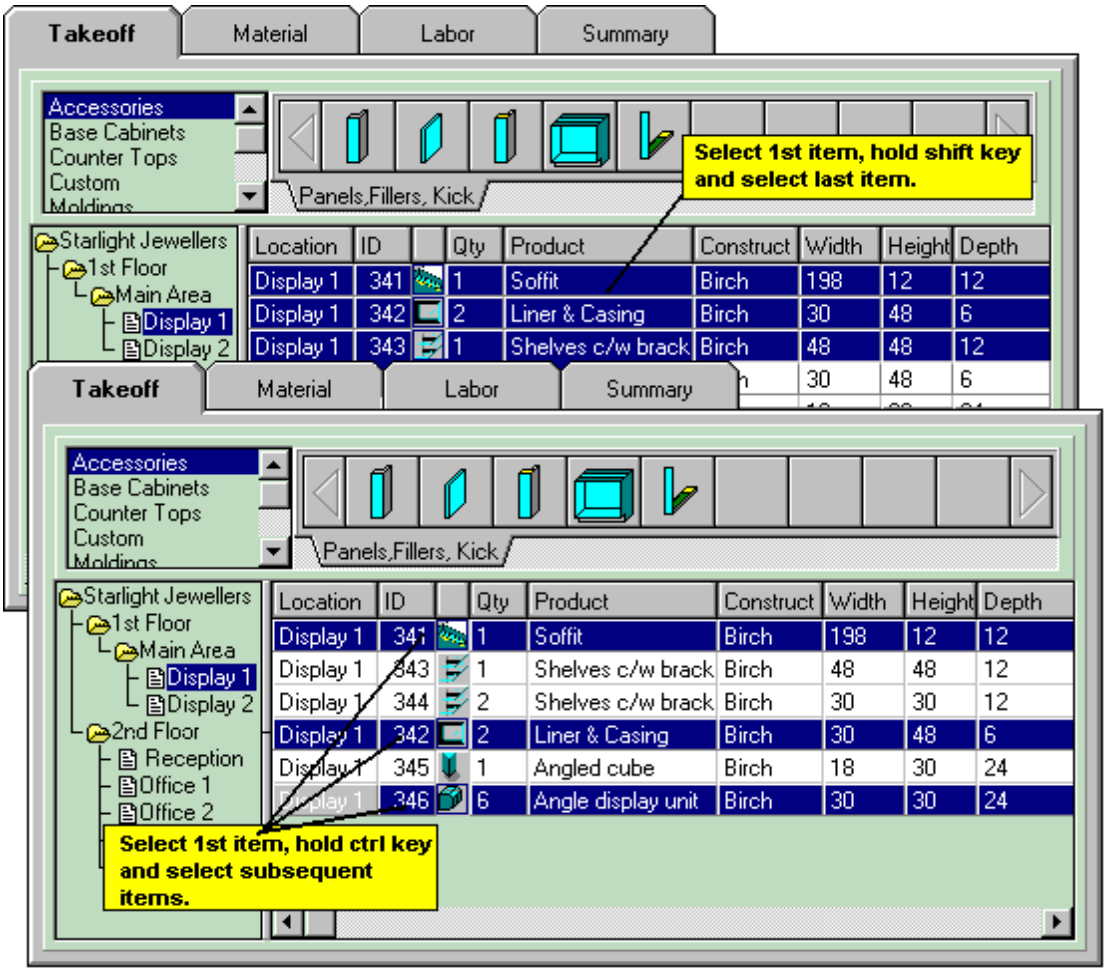


Changing a single takeoff item

To perform any modifications to an item, first select that item on the takeoff grid. All selections must be made on the takeoff tab. To do this, select the location on the outline of the item to be changed. Remember, when a location is selected on the outline, all the items at that location are displayed on the grid. Double click on the item to be modified (or right click and select Edit) and the familiar product dialog box is displayed. Now you can enter new dimensions, change material groups, add or delete options. Any changes you make will be immediately reflected on the Cost tab.

Changing a group of items

To perform any modifications to a group of items, those items must first be selected on the grid. All selections must be made on the takeoff tab. To do this, select the location on the outline of the items to be changed.



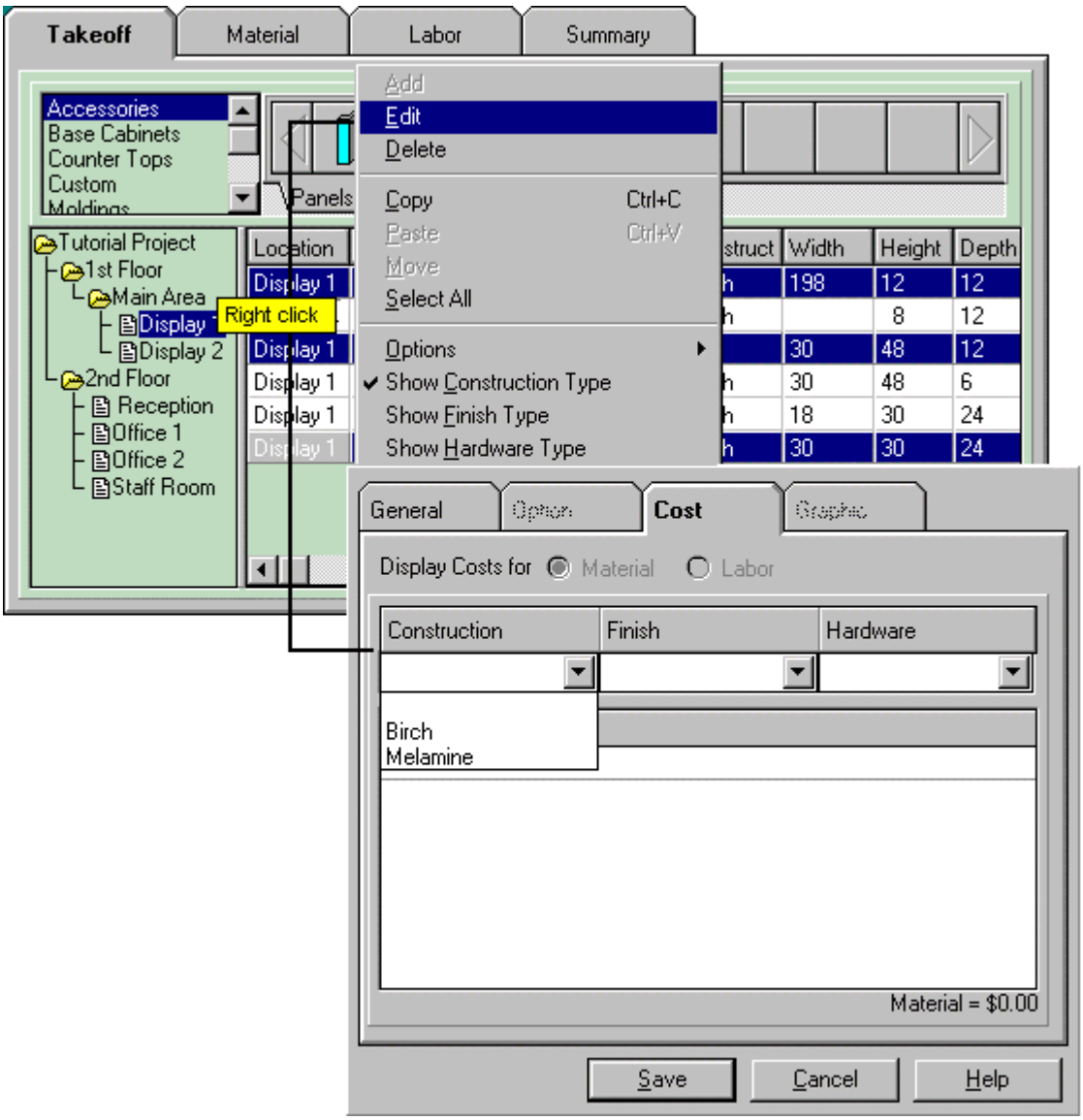
To select a sequential group of items on the grid, click on the first item to be changed, hold down the shift key and select the last item to be changed. This is a standard Windows selection control. The items will now be highlighted on the grid. Right click on any selected item and a menu with various choices will be displayed.

To select a non-sequential group of items, click on the first item to be changed, hold down the Ctrl key and select each item to be changed. This is a standard Windows selection control. The items will be highlighted on the grid as they are selected. Right click on any selected item and a menu with various choices will be displayed.

To select all the items at a location right click on any item on the grid and Choose Select All from the menu. All the items at this location will be selected. Right click again on any selected item to make a choice from the menu.

When changes are made to more than one item, the product dialog box that appears will not display any sizes or material groups. This is because the selected items may have different sizes and groups. Any sizes and material

groups that are entered will be assigned to all of the items selected for modification.



When making changes to more than one item, the Option and Graphics tabs are disabled. This is because different items may have been selected for modification and the options and graphics for these items could be different. The pre-existing options and graphics will remain intact after any modifications are made. To change a product's option, that product has to be modified individually.

Example: The Architect for our demonstration project "Starlight Jewelers" wants to change all the hinges in the staff room on the 2nd Floor from Blum 110 degree hinges to Mepla 270 degree opening hinges.

The Architect responsible for this project is listed in the Architects tab, in this

case Interior Space Planners and the designer in charge, Ms Fiona Richards is the contact. Make a note descriptor referencing the changes (CCO1 Changes to staff room) and enter the required changes using the word processor. ("All cabinet hinges in Staff Room on 2nd floor to be Mepla 270 Degree")

Go to the Groups tab in the Admin section of the program. Expand the Hardware library on the outline by double clicking on the Hardware folder icon and select the hinge category. Ensure that the Hardware radio button and the Group 1 tab are selected. The hinge components are displayed on the grid. Hardware Group 1 is currently being used for the hardware. Notice that Blum 110 degree hinges are assigned to the hinge component. Select the Group 2 tab. Notice that the hinges required by the Architect has been assigned to this group.

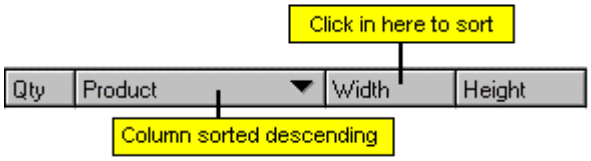
Go to the Takeoff tab in the takeoff section of the program. On the outline, select the Staff Room on the 2nd floor on the outline. Select the cabinets on the grid, right click and select Edit from the menu. On the General tab select CCO 1 from the drop down list in the Revision field. This will tag these items as the subject of the change CCO1. Select the Costs tab, and select Group 2 for the Hardware group from the drop down list. This will change all the hardware components to the materials assigned in Group 2. This can be checked by going to the materials tab selecting the Staff Room on the outline and looking for Mepla 270 degree hinges in the listing of materials.

Reordering Columns

Often there is more information than will fit on the screen. **take off**[tm] allows you to reorder the information by relocating the columns on the grid. To move a column, click on the column header and hold the left mouse button down. A heavy line on the left-hand side of the column appears. Drag the column to the new location and release the mouse button.

Sorting Columns

All grid columns can be sorted in either ascending or descending order. To sort a column press the left mouse button in the gray header area of the column. After the column is sorted an up or down arrow will be displayed to show which column is sorted and in which direction. Only one column may be sorted at a time. Clicking on an additional column will release the previous sort order and sort on the new column.



Changing the displayed Material Group

You can display the material group for the Construction, Finish or Hardware categories. To do so, right click anywhere on the grid and choose one of the following from the menu:

Show Construction type,
Show Finish type,
Show Hardware type.

The grid will be updated to display the appropriate material group names.

Copying

Many times in an estimate, similar items are required in different locations. Copying these items from one location to another is a simple task. Select the items or items to be copied, right click on any selected item and select copy from the menu. Select the location on the outline where you want the items to be copied. Right click on the selected location or anywhere on the grid and select paste from the menu. The copied items will be displayed on the grid.

Example: Select Display 1 on the outline. Right click anywhere on the grid and choose Select all from the menu, right click on any selected item and select copy from the menu. Select Display 2 on the outline. Right click anywhere on the grid and select paste from the menu. The contents of Display 1 have now been copied into Display 2

Deleting

Select the item or items to be deleted. Right click on any selected item and select delete from the menu.

Moving

In many parts of **take off**[tm] you are given the opportunity to move information. This is useful if you accidentally entered information into the wrong category or product. To use move you would select the desired items from the grid and then select copy from the right mouse menu. Next when using the right mouse menu over the new desired location you would select move. Move saves you having to copy, paste and then delete the original items.

Changing Labor Times

When the labor libraries are first created, it is recommended that the times for each labor process be assigned to constants. This is because if you need to change the time for a labor process, only the value of the constant representing

the time needs to be changed and wherever that labor process is required, the updated value will be used. In order to achieve maximum flexibility, there should be a constant for each labor process. This feature enables you to easily change the time of any individual labor process.

Project (global) Options can use these constants and are displayed on the Options tab in the Admin section of the program. If the value of any of the Project Options is changed, that change will be reflected wherever that option is used throughout the entire project. For example if you have a handling cost included in *all* your products, any change in the value of that handling cost will be reflected in the costs of *all* the products for the entire project.

Example: Select Handling from the Product Options on the Option tab. From the drop down list in the value field select the new time for handling. If the value required is not included in the drop down list simply type it in the field. The values displayed in the drop down list are entered when the libraries are built. The values in the drop down list can also be edited at any time in the Math section of the program.

Project options are generally created when the libraries are built. Project options can be added at any time in the Math section of the program. However, any option that is added after items have been taken off will have **NO** effect on those items already taken off.