

Introduction to Package Creation
for
System Administrators

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OVERVIEW

As you likely know, SmartBuild automatically models, measures, cuts and prices all of the sheathing and trim materials required for each job. But what about the other materials and services that may be required for a job? Materials like screws, closures and underlayment, and services like labor and freight? To include these items in your outputs, you must setup SmartBuild packages.

SmartBuild packages are a powerful tool that will allow you to estimate costs and pricing for all of the materials and services required for a job beyond basic sheathing and trim. Packages are a sophisticated tool, and you will need to work closely with the SmartBuild Support Team to get them set up properly for your organization. The purpose of this document is to provide you with a high-level overview of this important feature, and thereby allow you to work effectively with the Support Team to get your packages created and configured properly. Topics to be covered in this document include:

- The function of packages and the role they play in calculating job costs and pricing
- The basic package types
- The Packages Administration interface; its parts and functions
- How to create a new package from scratch

DEFINITION – A SmartBuild *package* is a defined set of material(s) and/or service(s) that are managed as a single unit and used to estimate the cost and pricing in order to estimate their costs for a quote or order. A *package defines how the charges for these materials and services are to be calculated for each job.*

In SmartBuild, packages are often created to manage materials such as Fasteners (Screws, Clips, Rivets), Closures (Ridge Cap, Eave Drip), accessories like Underlayment, Sealants, Paint Pens, and services such as Labor and Freight. As Systems Administrator, you are responsible for setting up and maintaining the packages to be used by your organization. Here are some things you should know:

- There is no limit to the number of packages that can be created
- Each package may include anything from a single material or service to many
- A package can be setup so that it is added automatically to each job
- A package can be setup so that your SmartBuild users can select whether or not to include it on any given job
- The framework used for organizing and pricing the materials in your Materials Database will determine how package cost and pricing information are calculated

PACKAGE TYPES

There are four different types of SmartBuild packages:

1. **Base Macro** – A *Base Macro* is a package that is automatically included in every job. Base Macro packages are used to calculate things such as the required number of screws and connectors. All *Base Macro* packages are invisible to SmartBuild end users, and can neither be added nor deleted from a job by them.
2. **Add-on** – An *Add-on* is a type of package that users can choose to either include or exclude from a given job. If an Add-on package is included in a job, then all materials and services associated with that Add-on will be added to the job's material list and quote price. By default, Add-on

packages are excluded from each job so, unless the Systems Administrator switches the default value to “on” users will need to activate the checkbox associated with that Add-on to include it.

3. **Bundle** – A *Bundle* is a collection of two or more types of materials and/or services that are packaged and sold together as a single unit, with a single assigned price. Bundles are used to present customers with a single line-item price, rather than a full breakdown. Like an Add-on package, users have the ability to include or exclude an available bundle from a given job.
4. **Options** – An *Option* package is used to create alternative designs, configurations and treatments for a job from which the customer may choose. Options are not included in the price for a job unless the customer decides to include them as part of the agreed upon work. Options can be excluded from a job all together, included in the quote (as a bundle), or shown as a price line item not included in the total quote price.

NOTE – Any material or service can be configured as any one of the four *Package Types*. It is not the contents of the package that determines the *Package Type*, but rather the manner in which that material or service is to appear to your end users and on your outputs.

TABLE OF PACKAGE PROPERTIES

The table below summarizes the properties associated with each of the four different *Package Types*. An explanation of each column name is provided immediately below the table:

Package Type	Automatic	Hidden / Visible	Default	User's Choice	Min # Line-Item
Add-On	No	Visible	On / Off	Yes	1+
Base Macro	Yes	Hidden	On	No	1+
Bundle	No	Visible	On / Off	Yes	2+
Option	No	Visible / Hidden	Option List / Bundle List / Hidden	Yes	1+

Automatic – Indicates whether or not the package is automatically included in each job, without the ability of end users to remove it.

Hidden/Visible – Indicates whether the package is visible or hidden to Roofing passport end users.

Default – By default, the package is “checked” for inclusion in each job however, the end user has the ability to “uncheck” the package and exclude it from an individual job.

User's Choice – The package is made available to end users, who decide whether or not to include it in a given job.

THE PACKAGES ADMINISTRATION INTERFACE

You will create, delete and modify packages using the SmartBuild *Packages Administration* page. To access this page, from your homepage, click on the *Settings* menu and select *Packages*, as pictured at right in Figure 1.

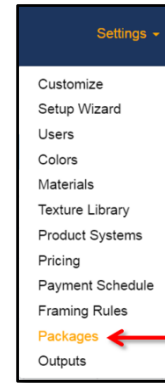


Figure 1: Accessing the *Packages Administration* page from the *Settings* menu.

An example of the *Packages Administration* page is shown in Figure 2 below. As you can see, the left side of the page displays the *Packages List*; a complete list of the packages that have been created for your organization to date. When you click on any package in the *Packages List* to select it, the details for that package appear on the right-side of the window; the *Package Details* pane.

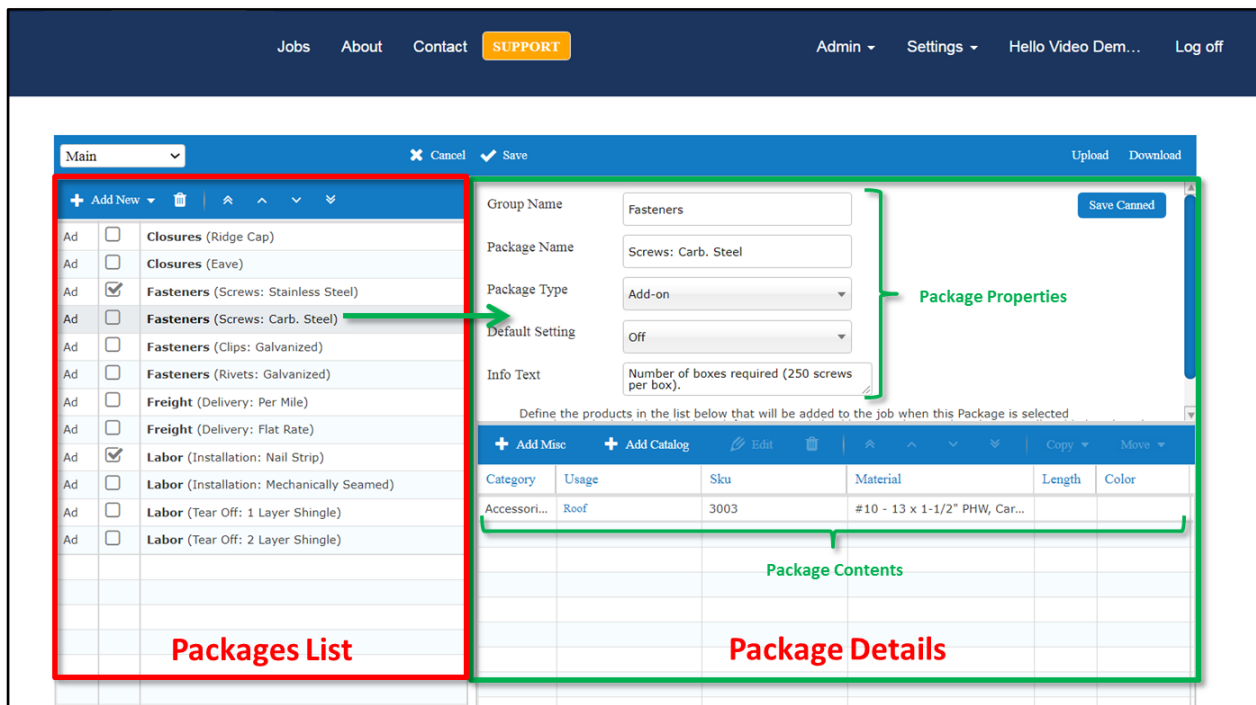


Figure 2: Parts of the SmartBuild's *Packages Administration* page.

THE PACKAGES LIST

As you can see in Figure 3 (right) the *Packages List* contains a toolbar along with three columns of information. The toolbar includes buttons for adding a new package or deleting an existing package, along with a series of arrows for changing the sort order of your list. The left-most column in the *Packages List* indicates the *Package Type* for each row. Within this column, the four package types are abbreviated as follows:

- Ad** – Add-on
- Ba** – Base Macro
- Bu** – Bundle
- Op** – Option

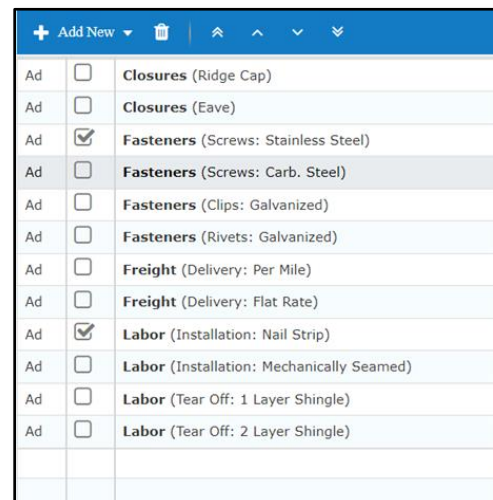


Figure 3: The *Packages List*.

The middle column on the *Packages List* indicates whether or not the package is to be included in each job by default. When the checkbox is activated (i.e. “checked”) then the package is included by default. SmartBuild end users have the ability to uncheck this box when reviewing the packages to be included in each job (unless the *Package Type* is Base Macro, in which case the package is invisible to end users and will be included in all jobs automatically). The third column in the *Packages List* displays the *Group Name* for each package in bold font, followed by the *Package Name*.

PACKAGE DETAILS PANE

The *Package Details* pane displays the properties and contents of the package selected in the *Packages List*. The buttons, fields and columns associated with the *Package Details* pane are described in detail later in this document in the section entitled [Using the Blank Template](#).

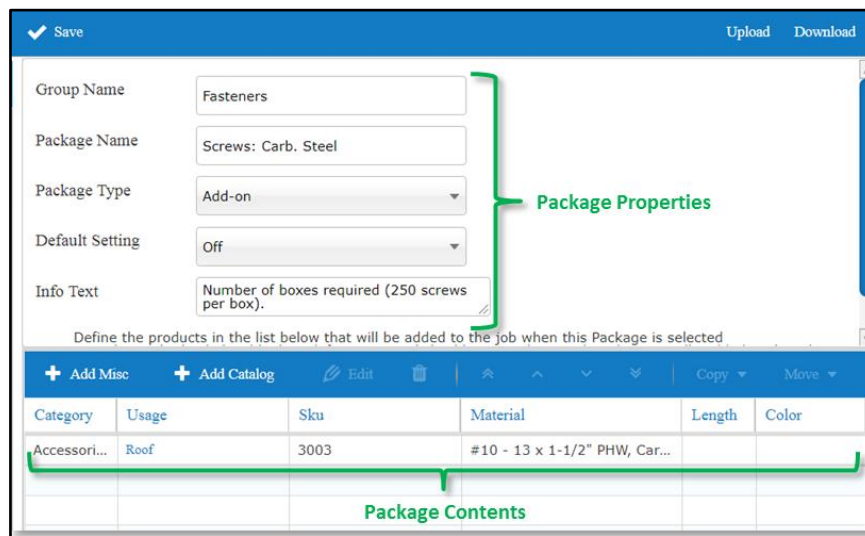


Figure 4: The *Package Details* pane displays the properties and contents of the package selected on the *Packages List*.

CREATING A NEW PACKAGE

PREREQUISITES

There are some basic processes and planning that must take place before you jump into the process of creating your packages.

Materials Database – You will need to create packages for all the different types of products and services made available in your catalog. Therefore, before creating packages, make sure your *Materials Database* is in good order. That is, your materials have all been entered and properly categorized and priced. A poorly or inconsistently organized catalog will make package creation exponentially more difficult.

Pricing Units – Within your SmartBuild database, materials are listed and sold in different pricing units. For example, sheathing may be sold by the square foot, trim by lineal foot, screws by the box, and sealant by the tube. When creating a package in SmartBuild, you must be certain to understand how that material is priced within your catalog, in order to arrive at the correct calculation for your package.

QUESTIONS TO ASK

Before creating a new package, consider the following:

1. **Question** – *How do your end users tend to “think about” and classify the materials and/or services associated with the package you are about to create?*

Answer – Use the terminology that is commonly accepted in your workplace in order to make accessing and using packages an efficient process for your end users.

2. **Question** – *Is there an existing package that could serve as a template for the new package you want to create?*

Answer – If the answer is yes, then you can copy the product line-items from the existing package to the new package you are creating. (As of this writing, you cannot create a copy of an entire package.)

3. **Question** – *Do you want the package included automatically in every job while simultaneously prohibiting end users from removing or even seeing it?*

Answer – If yes, create a Base Macro Package. All *Base Macro* packages are included with every job automatically, and cannot be seen or removed by end users. (For example, many organizations automatically include the required fasteners for each job using a *Base Macro*.)

4. **Question** – *Should the package be assigned to a group?*

Answer – When you create a *Group Name*, all packages assigned that *Group Name* will appear in a drop-down list from which users can make their selection. (See Figure 5, at right.) This is fast and effective if you have numerous different materials that belong to the same category (e.g. multiple screw types, lengths and/or colors, etc.) That said however, if a user might need to select more than one material from this category (e.g. 2” Screws AND 2 ½” screws then grouping these items together is the wrong solution, since a drop-down list is limited to the selection of a single item. If multiple selections are potentially required, **DO NOT** assign a *Group Name*, but instead use a naming convention in the *Package Name* field that will group these items together for ease of use. (e.g. *Package Names*: Screws 2”, Screws 2 ½”, etc.)

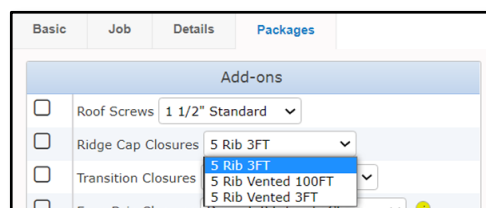


Figure 5: Ridge Cap Closure options grouped together and presented in a drop-down list for users.

PACKAGE WIZARDS

SmartBuild includes two wizards for creating sophisticated packages that lie beyond the scope of this introductory document; the *Roofing Wizard* and the *Labor Wizard*. This introductory document is restricted to creating packages using the *Blank Template*, described immediately below.

USING THE BLANK TEMPLATE

To create a new package, from your SmartBuild homepage, click on the *Settings* menu and select *Packages*. This will open the *Packages Administration* page, as shown below in Figure 6 below. To create your new package, click on the *Add New* button and select *Blank* from the drop-down list. This will add a new package to the bottom of your *Packages List*, as shown in Figure 6. You will then fill out the *Package Properties* and *Package Contents* sections on the right of the window.

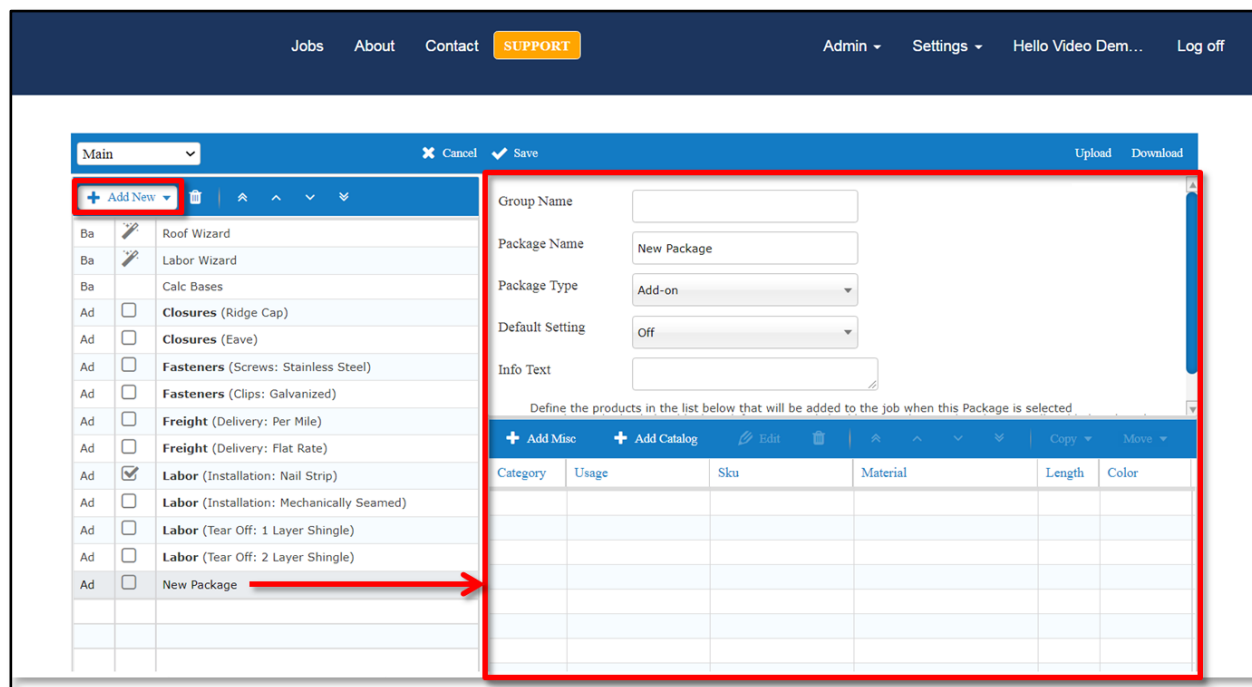


Figure 6: The *Package Details* pane when creating a new package using the *Blank* template

To create our new package, you must complete the fields presented in the *Package Details* pane, beginning with the *Package Properties* fields at the top of the pane.

PACKAGE PROPERTIES

Group Name – The *Group Name* field is not required however, you should always add a *Group Name* if there are multiple packages that should be grouped together to make it easier for end users to find them in the interface. Packages that share the same *Group Name* will appear together in a drop-down list, as shown in Figure 7 at right.

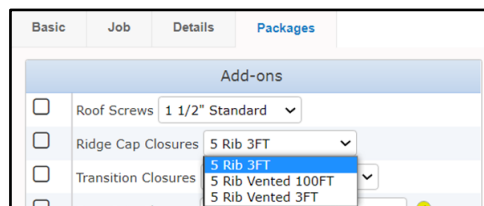


Figure 7: Using a *Group Name* creates a drop-down list of like packages in the user interface.

NOTE – The order in which the items are presented in the drop-down list for each group is determined by the order in which they are sorted in your *Packages List* on the *Packages Administration* page.

Package Name – Enter a name for your package that best describes its contents. If you will be creating several packages under the same *Group Name*, be sure to use a similar and consistent

package naming convention, so that users can easily identify the needed materials within their interfaces.

Package Type – Using the drop-down list provided in this field, you will select which of the four package types (Add-on, Base Macro, Bundle or Option) best suits the needs of the package to be created. (See pages 3 and 4 for details about Package Types.)

Default Setting – This field is used to define whether or not a package is “checked” on or off by default. The options available depend upon the Package Type that has been selected:

- *Base Macro* – Automatically on by default, and cannot be changed.
- *Add-on* – This default setting can be set to either On or Off.
- *Bundle* – This default setting can be set to either On or Off.
- *Option* – There are three potential default settings for an Option package: Option List (items in package are priced separately and do not appear in the grand total shown on outputs), Bundle List (default On; package items appear as a single line item in outputs), and Hidden (Off).

Info Text – This field is used for the Systems Administrator to make a note about the purpose, contents and/or calculation(s) used within the package.

PACKAGE CONTENTS

Once you have filled out the package property fields, you must add the content – that is, the product(s) and/or service(s) – to your package. If the materials/services are already in your catalog, you will click on the Add Catalog button. If you wish to add a material or service that IS NOT in your catalog, you will click on the Add Misc button instead. Since it is the option you will use most often, let’s take a look at the Add Catalog dialog box first.

The screenshot shows a web interface for configuring a package. At the top, there are several form fields: 'Group Name' (empty), 'Package Name' (containing 'New Package'), 'Package Type' (a dropdown menu set to 'Add-on'), 'Default Setting' (a dropdown menu set to 'Off'), and 'Info Text' (empty). Below these fields is a text area with the instruction: 'Define the products in the list below that will be added to the job when this Package is selected'. Underneath this text area is a table with a blue header row. The header row contains two buttons: '+ Add Misc' and '+ Add Catalog', followed by icons for 'Edit', 'Delete', 'Refresh', and 'Copy'. The table has six columns: 'Category', 'Usage', 'Sku', 'Material', 'Length', and 'Color'. The table body is currently empty. A red double-headed arrow points to the 'Add Misc' and 'Add Catalog' buttons.

Figure 8: Use the Add Catalog and Add Misc buttons to add products or services to your new package.

ADD CATALOG

When you click on the Add Catalog button, a dialog box like the one pictured in Figure 9 will open. Complete each of the fields in this dialog box, using the instructions below to guide you.

The screenshot shows a dialog box titled "Edit Added Material - Catalog". It contains the following fields and values:

- Category: Accessories (dropdown)
- Usage: Roof (text)
- Catalog Category: Fastener (dropdown)
- Catalog Item: 1 1/2" Standard Color Screws (dropdown)
- SKU: 1 1-2ColorScrew{CC} (text)
- Material: 1 1/2" Standard Color Screws (text)
- Calculation: {LFRoof}*3/250 (text)
- Color: Roof Color (dropdown)
- Cost: \$30.00 (text)
- Price: \$30.00 (text)

At the bottom of the dialog are "Save" and "Cancel" buttons. There are also buttons for "{ }", "{?}", and "Test" near the Calculation field.

Figure 9: Clicking on the Add Catalog button will open your Materials Catalog and allow you to choose item(s) to add to your new package.

Category – Use the drop-down list to select the category of product you wish to add to your package. The options are: Trim, Sheathing, Accessories, Labor and Freight.

Usage – Enter where or how this material or service is to be used.

Catalog Category – Use the drop-down list to select how this item has been categorized within your catalog. The options are: Trim, Sheathing, Hardware and Fastener.

Catalog Item – this drop-down will provide you with a list of all items available in your catalog for the category you have selected.

SKU – This field will be populated automatically once you have selected your catalog item.

Material – This field will be populated automatically once you have selected your catalog item.

Calculation – This is the computation that will be used to figure the amount of the material or service required for each job. The Calculation shown in Figure 9 is the total lineal feet of the roof times 3 screws per lineal foot, divided by 250 screws per box.

Color – This drop-down will provide a list of all colors available for the selected material.

Cost – The cost field is populated automatically using the cost information entered into your catalog for the selected material.

Price – The price field is populated automatically using the pricing information entered into your catalog for the selected material.

ADD MISC

Clicking on the `Add Misc` button will open a dialog box like the one pictured at in Figure 10. This dialog box allows you to specify materials for a package that do not exist in your *Materials Catalog*. Complete each of the fields in this dialog box, using the instructions below to guide you.

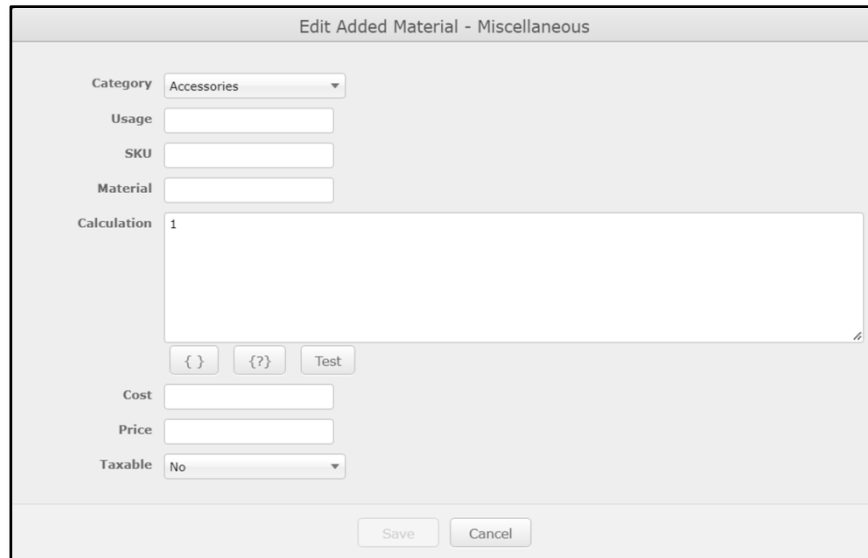


Figure 10: Adding contents to a package using the `Add Misc` option.

Category – Use the drop-down list to select the category of product you wish to add to your package. The options are: `Trim`, `Sheathing`, `Accessories`, `Labor` and `Freight`.

Usage – Enter where or how this material or service is to be used.

SKU – If there is a `SKU` number associated with this material or service, enter it in this field.

Material – Enter the name of the material to be included in this package.

Calculation – This is the computation that will be used to figure the amount of the material or service required for each job.

Cost – Enter the amount a given unit of this service or material will cost your organization to acquire.

Price – Enter the price your organization will charge for a given unit of this material or service.

Taxable – Select `Yes` or `No` from the drop-down list to indicate whether this material or service is subject to federal, state or local taxes.

PACKAGE EXAMPLES

Given the vast variety of materials and services available offered by different organizations, and the different ways in which each organization categorizes and manages them, it is not possible to provide you with a standard set of packages to work with. Instead, the section that follows will offers some simple examples of packages that are organized and configured properly. They should provide a basic foundation from which you can learn more advanced package development techniques.

FASTENERS PACKAGE

As you can see in the example provided in Figure 11, this organization has created four different packages for Fasteners; two for Screws, one for Clips and one for Rivets. These packages share the same Group Name (Fasteners), so that all these packages will appear in a drop-down list from which end users can make their selection.

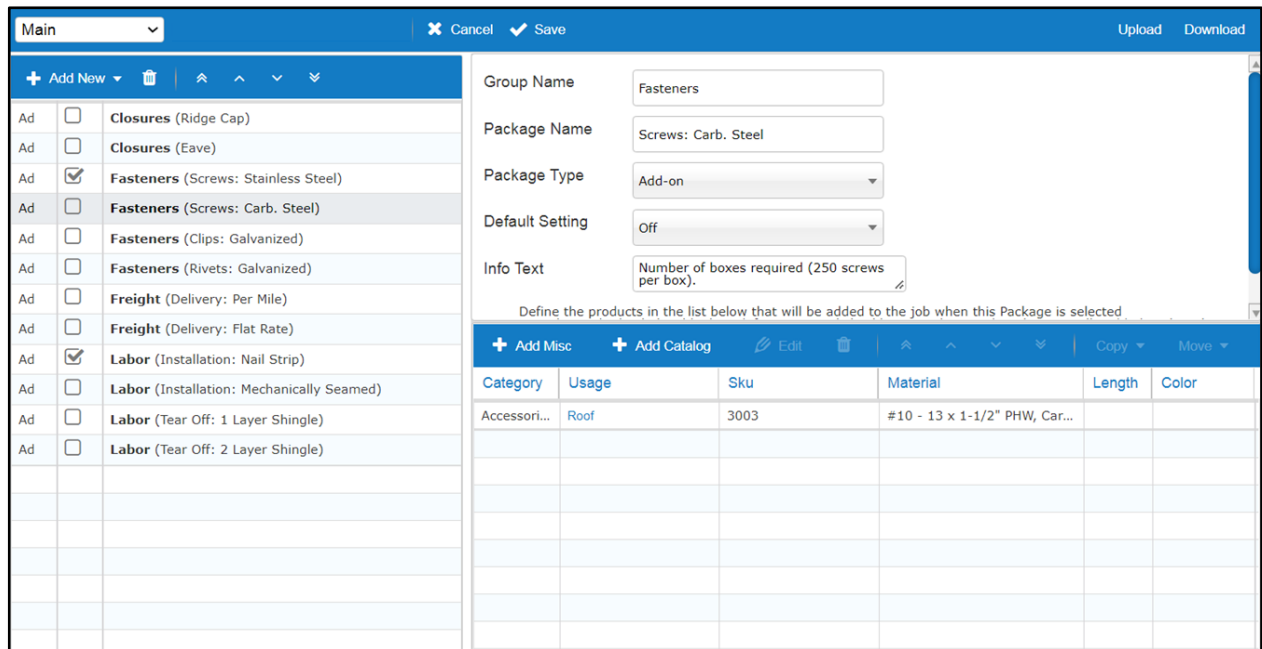


Figure 11: Example packages for Fasteners.

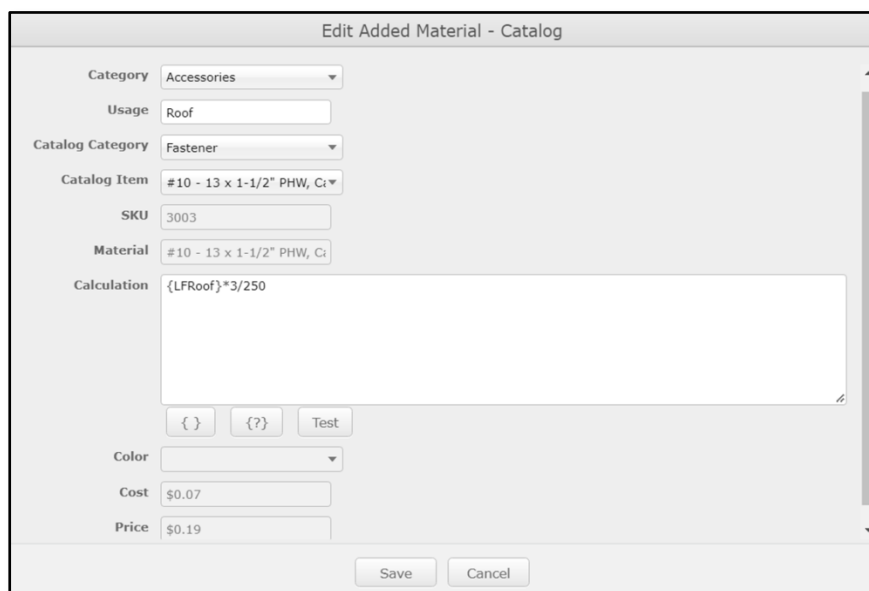


Figure 12: The *Edit Added Material* dialog box shows all the details about the selected material that has been added to this Fasteners package.

LABOR PACKAGE

As you can see in the example shown in Figure 13 below, this Builder has created four labor-related packages; two for installation services, and two for tear-off labor. Separate labor packages have been developed for installation of the two separate types of materials this company installs; Nail Strip vs. Mechanically Sealed. Likewise, two separate packages have been created for tear-off labor; allowing users to apply different charges based upon whether there will be one or two layers of shingles to be removed.

Category	Usage	Sku	Material	Length	Color
Labor	Tear Off - 1 Layer Shingle	Labor1	Dollars of Labor		

Figure 13: Example packages for Labor.

Category: Labor

Usage: Tear Off - 1 Layer Shingle

Catalog Category: Labor

Catalog Item: Dollars of Labor

SKU: Labor1

Material: Dollars of Labor

Calculation: $\frac{\{\{SFRoof\}\}}{100} * 45$

Color: [Dropdown]

Cost: \$1.00

Price: \$2.50

Buttons: Save, Cancel

Figure 14: the *Edit Added Material* dialog box shows all the details about the selected material that has been added to this Labor package.

FREIGHT PACKAGE

Below (Figure 15) is an example of a Freight package that is based upon mileage. When an end-user selects this package, he/she will be prompted to enter the mileage to the job site, and SmartBuild will calculate the Cost and Price for Freight based upon this figure.

Category	Usage	Sku	Material	Length	Color
Freight	Delivery	Trip Charge	Trip Charge		

Figure 15: Example packages for Freight.

Category: Freight
 Usage: Delivery
 Catalog Category: Freight
 Catalog Item: Trip Charge
 SKU: Trip Charge
 Material: Trip Charge
 Calculation: {?Mileage:}
 Color:
 Cost: \$1.00
 Price: \$2.50

Save Cancel

Figure 16 The *Edit Added Material* dialog box shows all the details about the selected material that has been added to this Freight package.