Introduction to
SIGMA
ESTIMATES

Accurate easy-to-use
construction estimating software
– built by and for estimators

Contents

Welcome to
Sigma Estimates

Process Tips

This Introduction to Sigma Estimating is designed to help you get started quickly with Sigma Estimates. Sigma is structured as a hierarchical program that is familiar to anyone who has used the CSI, Uniformat or Masterformat systems.

This Introduction is laid out in a step-by-step format to help you quickly learn how to use Sigma. Assuming you already have estimating experience, by the time you finish this guide you will be able to build your estimates quickly, with confidence. But first, a few words about workflow.

To get the most from Sigma, we recommend working in this order:

1. Use the Contents sheet to build the work breakdown structure WBS) of the estimate, and then add assemblies and subcomponents to add costs and quantities.

2. Use the Resources sheet to adjust the cost for a specific item and to view the resources needed for your estimate. Note that the Resource sheet is responsive to where you are in the WBS on the left.

3. Use the Summary sheet to add overhead and profit, to review the final costs for your estimate and to adjust the prices "on the fly".

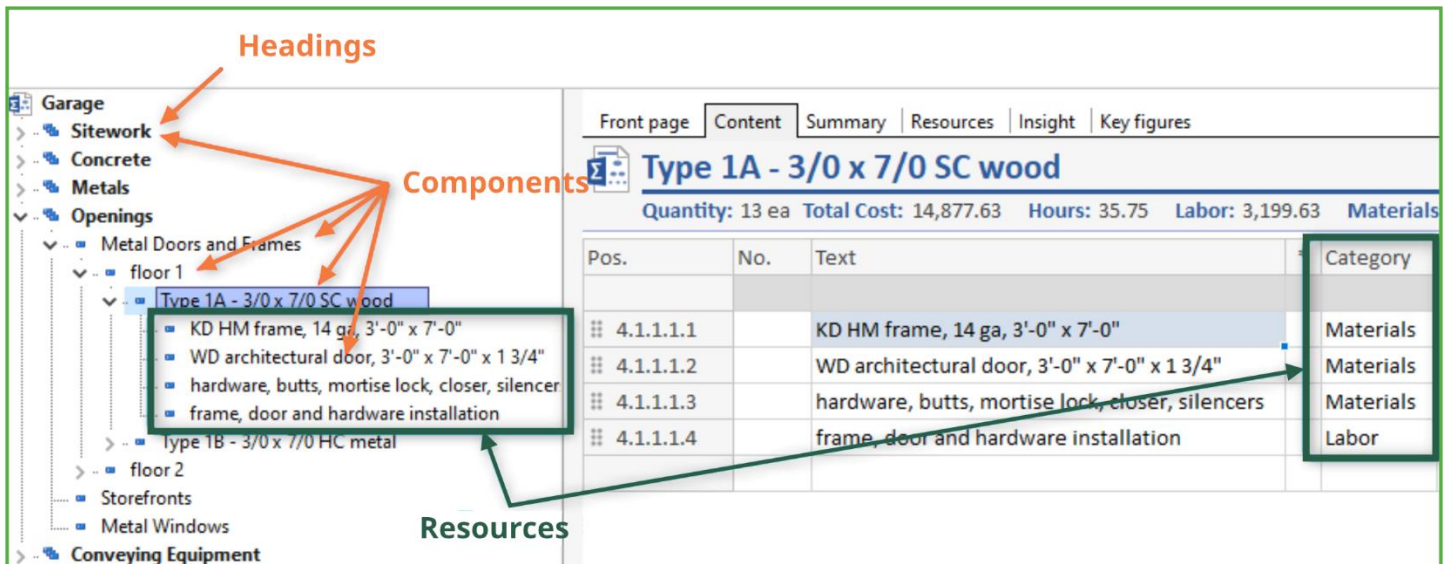**4.** Use the options under the Reports ribbon to create the documents you need.

A few definition

Work Breakdown Structure (WBS): is the structure of the estimate as it appears in the left-hand window of Sigma.

Estimating Window: is the right-hand window in Sigma and has the tabs for the Front Page, Content, Resources, Insight and Key Figures

Component: is the general term for the items that make up the estimate structure in the WBS. They can be Headings, subcomponents or sub-sub components, and so on to the final level, where there are resources.

Resources: the individual items of materials, labor, equipment, etc. that are categorized and used to establish the costs. Resources can also be referred to as components.

Feature Notes

Sigma Estimates has many advanced features not found in other estimating applications. It is highly customizable, including the ability to modify the Front Pages with custom tabs and information, to create scripted assemblies, to resort the estimate in the Insight Views, to accept an unlimited number of categories and custom fields, to re-using Key figures in the estimate, and other advanced and custom features.

Its drag & drop functionality means building your own cost databases, sharing data between estimates, and sharing data among estimators is easy and quick.

Several things to be aware of - any number in green is calculated from subcomponents below it; any number in blue is a constant or derived from a math equation in that cell. (While Sigma does not use formulas in the sense or excel, a math equation can be entered in a cell. For instance, to find the cy of concrete in a footing 1" deep by 2' wide by 100 feet long, in the quantity cell could be enter: (1*2*100)/27).

Finding more help

Many menu items and buttons in Sigma have context help available. Simply hover the mouse pointer over an item and an informational box will pop up to explain the item's function or provide additional information about it, such as the locations of related files.

Our Community web site (community.sigmaestimates.com) offers many guides and videos to help you in working with Sigma, and we offer an introductory online course and online training courses for every level of user. We also have webinars, workshops, and customized classes.

First Steps

This chapter explains the trial period and shows how to activate Sigma Estimates

This application requires the Microsoft Windows® operating system and will run on Windows XP, Vista, Windows 7, Windows 8, and Widows 10. The user interface will be very familiar to those who already use Microsoft Office products.

After you have downloaded and installed Sigma you will be able to use it in trial mode for 14 days or activate it if you have already purchased a license.

Trial Period

Sigma Professional and Sigma Enterprise editions run without limitations during the trial period. Once the trial period is up, you must activate the program by completing the purchase and getting an Activation Code.
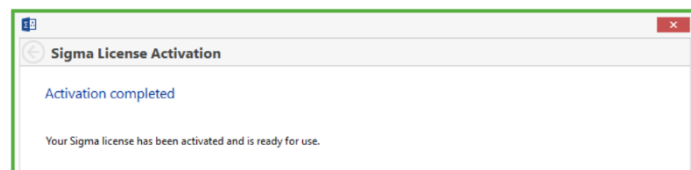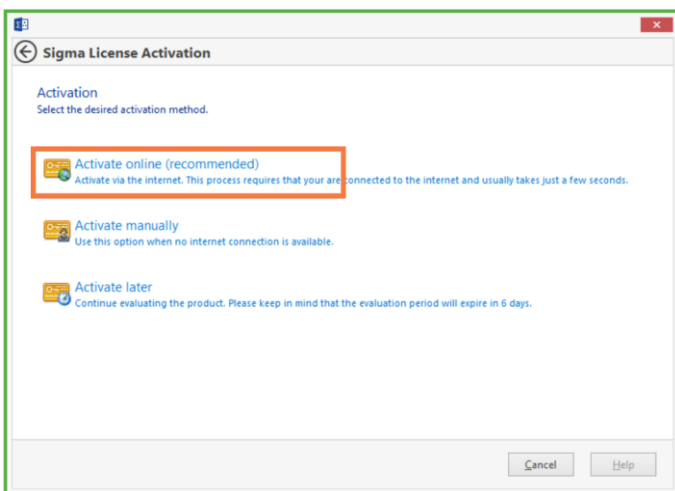
Activation

Until activation of the application, the screen below will appear each time you run it:

1. Click Activate button then you are ready to activate.

2. Enter your License number in the box. When the license number is entered a ✅ is shown.
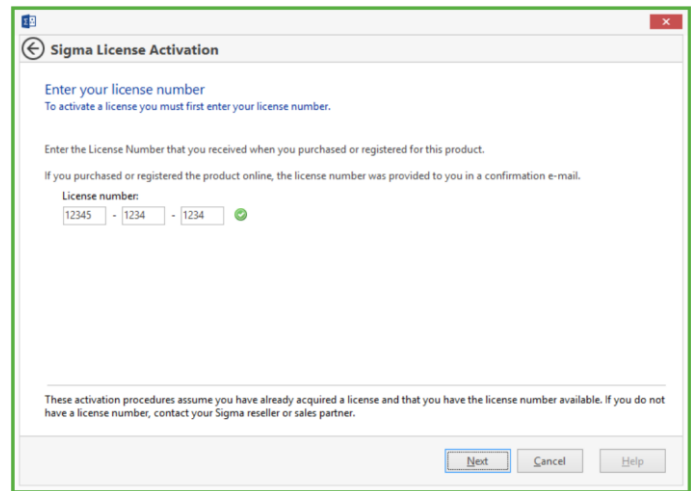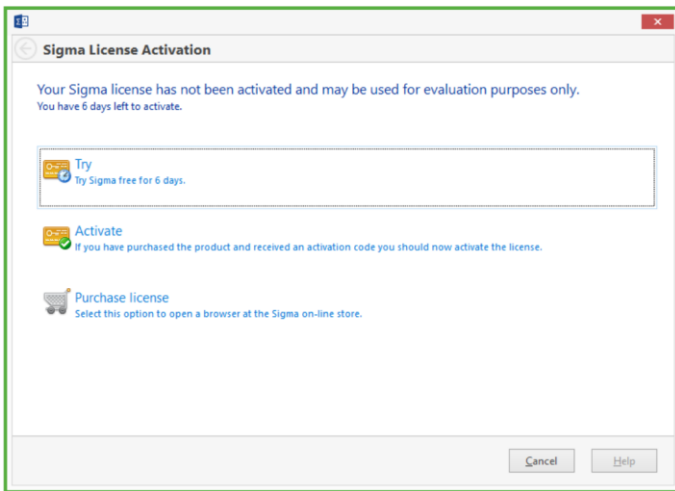
3. Select Next.

4. In next window click Activate Online – Sigma's license server will validate the activation

5. This window appears when program is activated successful

Starting Out

This chapter shows you how to begin an estimate

With the application installed and activated, or operating in trial mode, Sigma is ready to begin estimating.

Open Sigma and click on File, New, then click on the Large Estimate template. A new estimate opens to the Front Page tab. We will cover all the options available here later in this introduction, but for now simply enter Garage as the Project name and click the Save icon in the tool bar. Sigma saves the estimate, opens the Content tab in the estimating window (right hand side), and puts the project name at the top of the WBS window (left side).
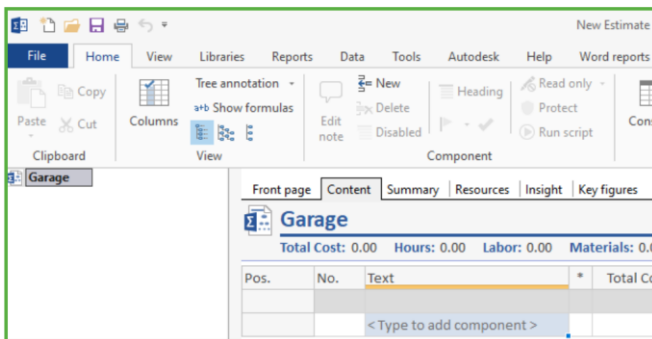
In the estimating window on the Content tab, enter the major headings for our WBS. For this Garage example, enter Sitework (click the down arrow to go to the next line), Concrete, Metals, Openings and Conveying Equipment. Notice that the main headings just entered now appear in the WBS.
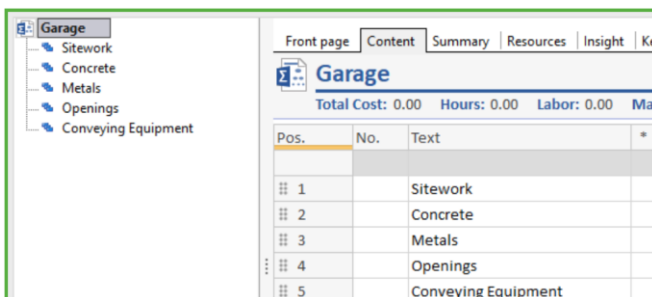

The Content tab is where the details for each component in the cost breakdown structure is entered – it is where the estimate gets built. Also note that by clicking on a heading in the WBS, all of that heading's components are shown in the content tab. As the estimate is built, deeper levels of the estimate can be shown by clicking on headings or subheadings or sub-subheadings in the WBS. There is not any limit to the number of levels the WBS can have.

The Settings window – reached by clicking File, then Settings, controls many things in Sigma, such as the file locations Sigma uses, editing the unit and category lists, number of autosaved versions of the estimates, etc. We have a thorough guide to the settings window on our website: Exploring the Settings Window.

# Completing the WBS

Building the WBS for your estimate provides a foundation for accuracy

So far in the Garage estimate, there are 5 main headings, or components. Each of those main components could conceivably have numerous subcomponents, and those in turn could have subcomponents, and so on. To continue building the WBS, enter components that might be found under the heading Openings. For instance: Metal Doors and Frames, Storefronts and Metal Windows.
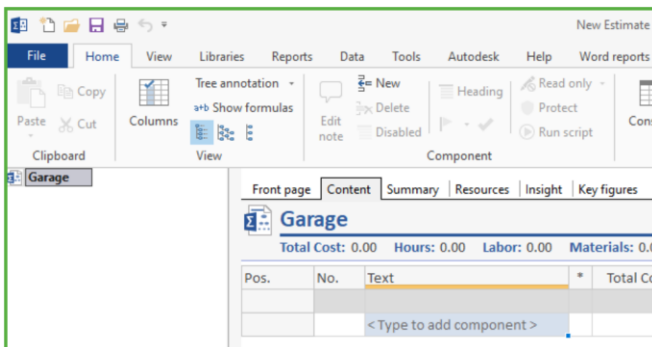
To do this, click on Openings in the WBS window and enter the subcomponents in the estimating window. As before, the new entries show up under the heading Openings in the WBS.
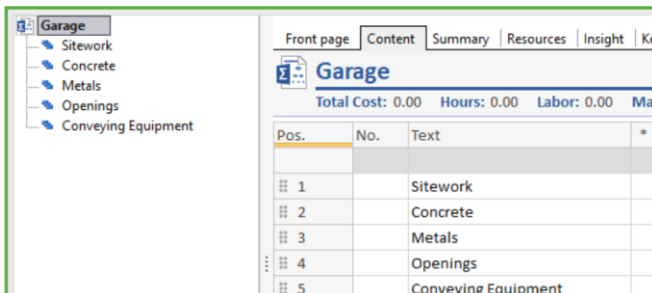
This method of building the structure is consistent throughout Sigma. The picture on the left shows the subcomponents that have been added to each heading to begin structuring the WBS.
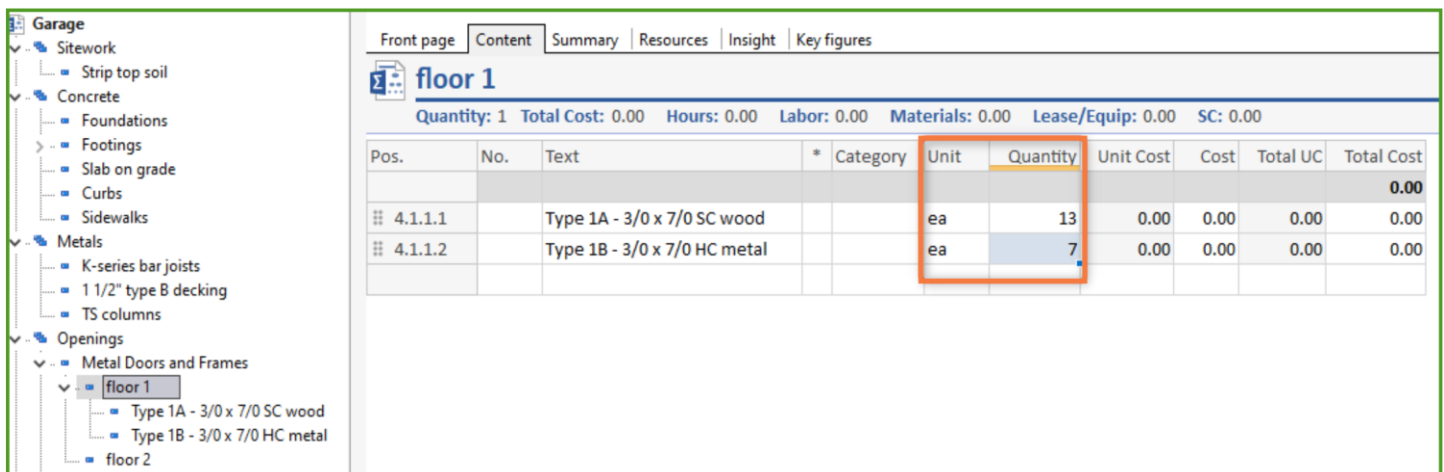
The addition of subheadings (subcomponents) can continue to any level as you see fit to organize your estimate. For instance, maybe you want to organize the HM doors by floor and then door type or the footings by type and then footing call out. Sigma can handle whatever WBS you need for an estimate. (And no, you do not have to build this every time – any estimate can be saved as a template.)

Adding the Content

It is time to start filling in the details of your project

After adding items to the WBS and developing the structure of our estimate, cost components need to be added. Components that do not have subcomponents are special: these are the actual resources (labor, material, equipment, etc.) that are needed for a work item, while all other components are headings and subheadings, and sub-subheadings, and so on. All such resources should be assigned a category such as Labor, Materials, Equipment, or another category. (Sigma uses the categories to establish markup and overhead – more on that later.)
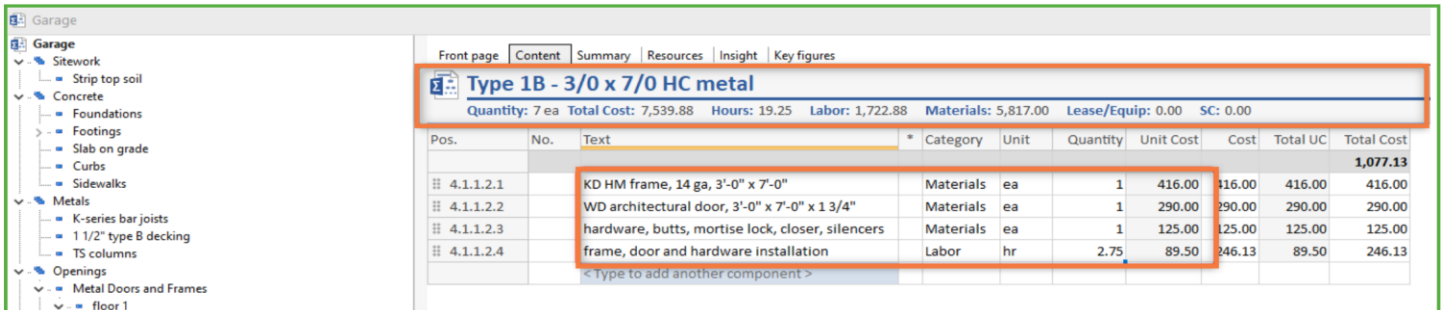
In the Garage example, under the heading Openings, there is the subheading Metal Doors and Frames, and when the WBS was built it was decided that being able to identify the doors and frames by floor would be beneficial, so the subheadings floor 1 and floor 2 were added. There are 2 types of doors, 1A and 1B, so these were added as subcomponents of Floor 1. It is at this level that quantities are to be added: how many of each door. In the picture below, ea has been added to the unit column, and 13 as the quantity for the SC Wood and 7 for the HC metal doors.
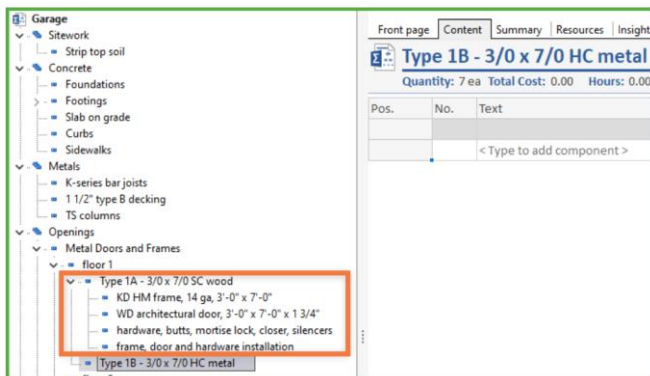

At this point the estimate lacks only the various resource components (materials, equipment, Subcontractor, labor, etc.) with unit costs to be able to establish total the costs. Selecting Type 1A in the WBS opens the estimating window to allow the entry of these resource components, which include the frame, door, hardware, and installation. Also note that the Category and Unit columns have been filled out (both from drop down lists), as well as the Quantity and Unit Cost for these resources. In the blue bar atop the estimating window are displayed the total quantity for that estimate item, as well as the hours, and labor, material, equipment, and sub costs.

The math here is simple: all of the resources' Total UC (unit costs) listed under Type 1B are added together and multiplied by the quantity of Type 1B doors.

A word about categories: click in the Category or Unit column and start typing and a list will open that brings up anything that matches whatever is typed. But in Sigma there can be as many custom categories as needed – such as Materials, Materials1, Materials 2 etc., so that different markups can be applied. It is best practice to make sure your categories are all named the same, or Sigma will treat them as new categories. These drop-down lists, called Smart Lists, can also be activated by selecting a cell and holding down ALT while pressing the down arrow.

Sigma also offers drag and drop functionality within both the WBS and the estimate window. For example, look closely and you will see that the door assembly created for door Type 1B, which is a metal door, contains the wood door component. This assembly of items is for door Type 1A, not Type 1B. Simply highlight all 4 components and drag and drop them on to door Type 1A in the WBS.

Drag & drop can be done between libraries, from libraries to estimates, from estimates to libraries and from one open estimate to another. Sigma is also highly customizable. Columns can be added to the view or hidden, unlimited custom columns can be created, category and unit drop down lists can be edited, the estimate can be resorted based on any custom column, to name a few of the ways Sigma will adapt to your workflow and estimating needs.

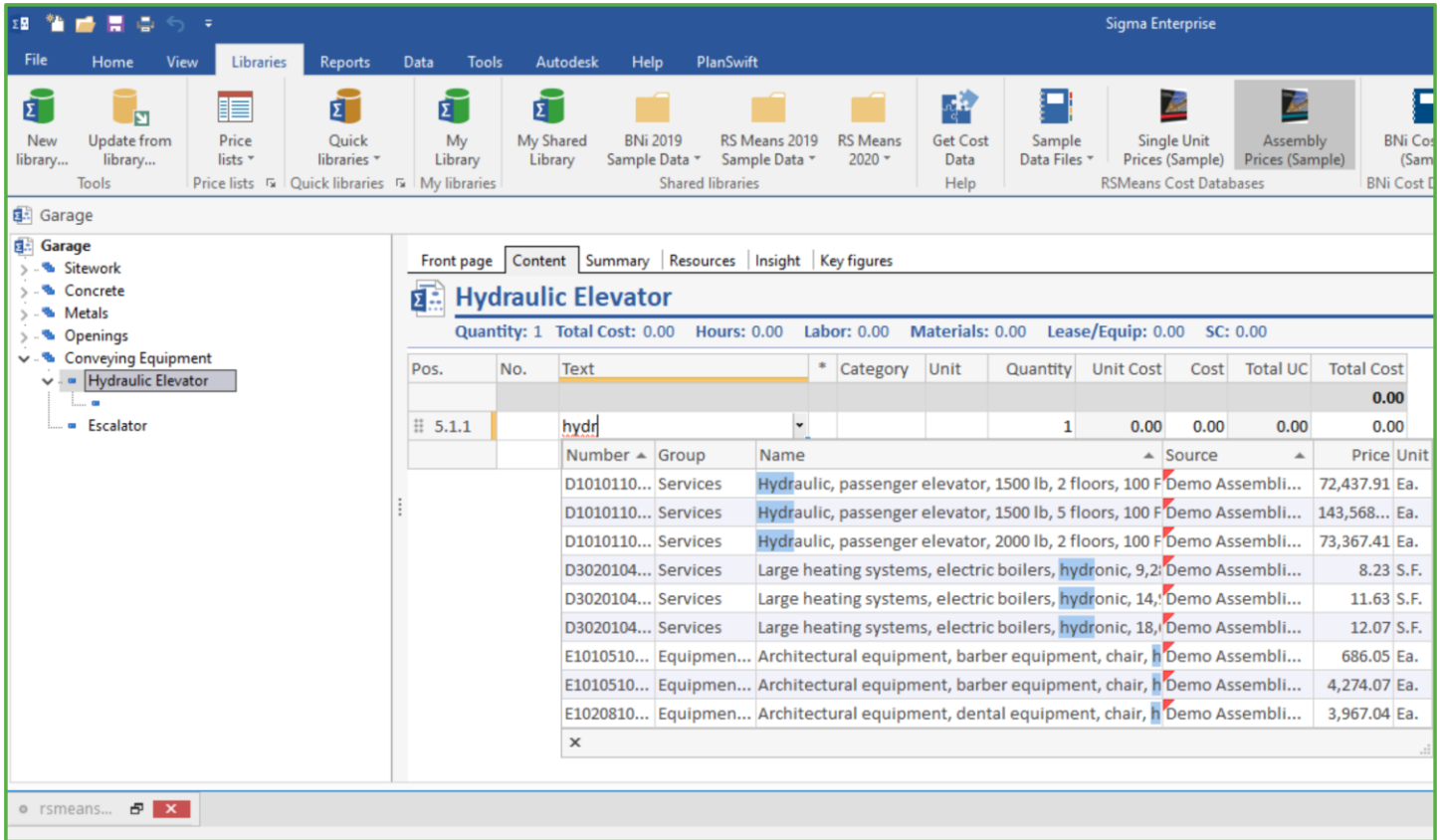# Tapping the Power of Sigma Libraries

Sigma's library system will take the repetition out of estimating

In Sigma Estimates a Library is just a collection of data. Smart Lists are an example of how data can be stored in Sigma to help speed up your estimating while keeping terminology consistent. Libraries not only store data and costs for individual components, but they can also be used to store collections of components called assemblies, as seen in the examples in the previous section. Included in the Libraries ribbon at the top of the main Sigma Window are Quick Libraries, My Libraries and Shared Libraries. Sigma comes with sample libraries from R S Means and BNI – these are also found in the Libraries ribbon.
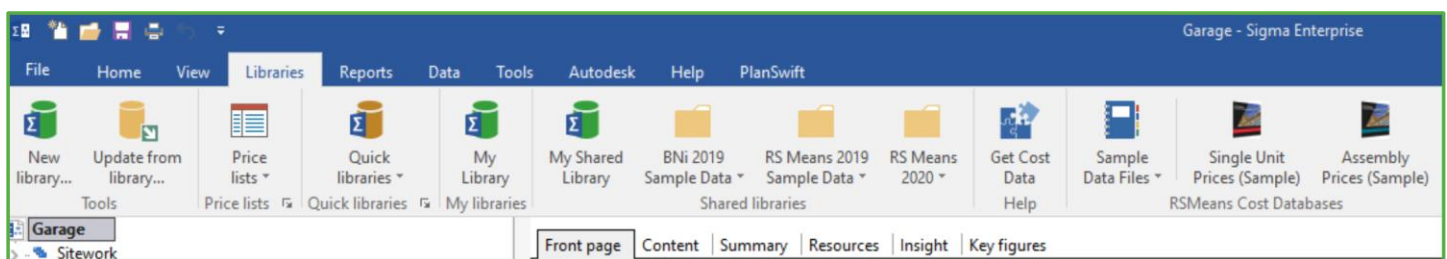
It is also possible to import cost databases that are in Excel or CSV formats and have them available as libraries. This is done by mapping the data fields so the columns in your Excel sheet match the Sigma columns. We have a guide on how to do this on our Community site: Import CSV or Paste from Excel.

Using Sigma libraries is easy. As explained already, components can be dragged and dropped from the Library to the estimate. Also, opening a library along with the estimate gives Sigma the power to make suggestions from the library that match what has been typed in the estimate. (The library can even be minimized.) In the picture below, the RS Means sample library is open along with the Garage estimate but has been minimized. As hydr is typed, Sigma offers a list of items from the RS Means library that match the text hydr. By clicking on one of the suggestions it is added to the estimate.

The number of libraries that can be made in Sigma is unlimited. Some users have libraries for labor and material. Some have a separate library for each trade. Sigma is responsive to any workflow – and the libraries support the workflow used.
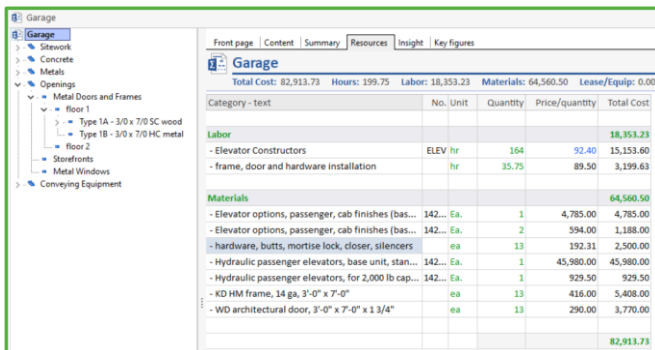
Additionally, any estimate can be saved as a library by clicking File, then Save as, and selecting Library in the file type drop down box.

Using the Resource Sheet

Categorized components are Resources

In the preceding section it was explained that the resource components of the estimate that are the actual items needed to build an assembly are categorized as Labor, Material, Subcontractor, Equipment, etc. These are the resources needed to complete the job and are displayed on the Resources tab in the estimate window, grouped by category. In the Resources tab a category can be changed, a price per quantity can be adjusted, the total cost can be increased or decreased, and the view can be changed from an overview of the resources to a detailed view.
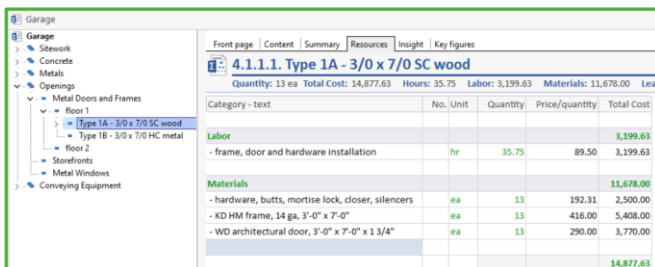
The information displayed in the Resources tab is dependent on the heading selected in the WBS. Clicking on the very top heading in the WBS will show all the resources required for the entire job. Or a subheading can be selected to see just the resources need for that work. This is illustrated in the following two illustrations.

The first shows the resources needed for the entire project
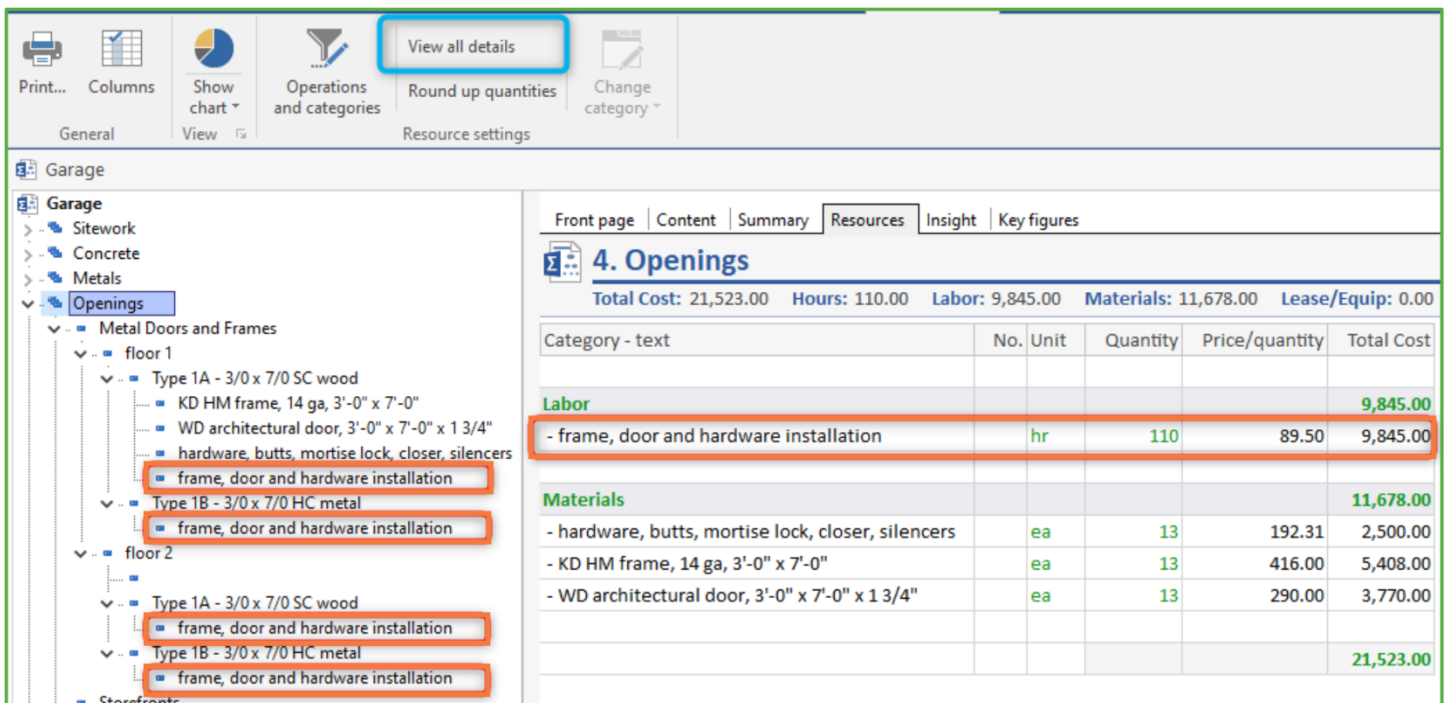
The second shows the resources needed for just door Type 1A

If the price/quantity is changed in the Resources tab, it will change that cost wherever the resource has been used in the estimate. For instance, the labor resource "frame, door and hardware installation" will be used repeatedly in the estimate as a labor resource for other doors. In the image below, we added two more door types and copied the installation resource from door Type 1A to each of the other three doors. By selecting Openings in the WBS, a summary of that resource is displayed, as shown below. If the price/quantity is changed from 89.50 to 100.75, that change will be made on all four instances of that resource in the estimate.

And by clicking on View all details, each instance can be shown in the Resources tab.
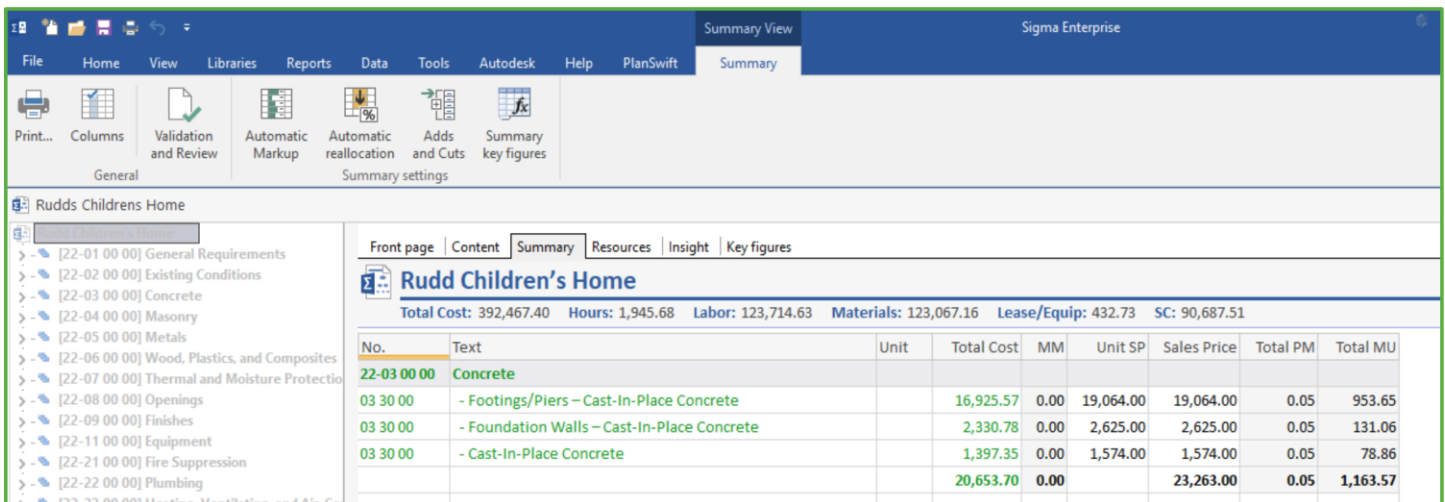
After clicking the Resources tab, the ribbon in the top Ribbon toolbar changes to offer other specific options. The Print icon on the far-left prints whatever is currently shown in the estimating window.

Selecting the columns that will be shown in the Resources view is done with the Columns button. Clicking on the Operations and Categories button will exclude or include categories or operations in the Resources tab. Click on Show Chart to get a graph detailing the percentages of the total project for each category. Clicking the "Round Up Quantities" button will round all quantities to the next highest amount. Clicking it again, returns them to their original values. The Change Category button will – surprise – offer the Category drop down list so that the category of the selected item can be changed.

Setting the Sales Price

Use the Summary Sheet to add Overhead and Profit

Sigma provides many tools for setting the overhead and profit, adding for bonds, contingencies, escalation, etc., and for redistributing the money in the estimate any way required. These tools are accessed via the Summary tab. (Note: On the Summary page, any number in black can be edited and columns can be added or removed.) Clicking on the Summary tab opens the job summary in the estimating window, and gives you a new tool bar as seen below:


The first three buttons, Print, Columns and Validation, are obvious: Print will dump whatever is shown in the estimating window to a pdf, and by clicking on Columns the data columns show in the Summary view can be changed. The Validation button opens the Validation dialogue box so that the estimate can be tested for various conditions, such as no cost in unit price, or no category assigned.

The Automatic Markup button opens a window where the Overhead and Profit can be set. As noted earlier, Sigma uses categories to handle O&P, and in the picture below can be seen the window that opens when the Automatic Markup button is activated. The window has 3 tabs, and each function in a similar manner. Next to each category, type in the percent amount that each category should be increased by. (Do not enter as decimals – just enter a whole number, such 20). Entering a percent of 20 at the Labor line in the Overhead tab will add 20% overhead to everything categorized as Labor.

There are also buttons to add or remove categories. Also, five additional columns can be added to the Overhead tab: click on Settings, then click on Add, give the new column a name and a default value (if desired) and click ok. All new columns function the same the Overhead column, and can be used for escalation, contingency, etc. Make sure the Use in Estimation box is checked to include the changes in the estimate.
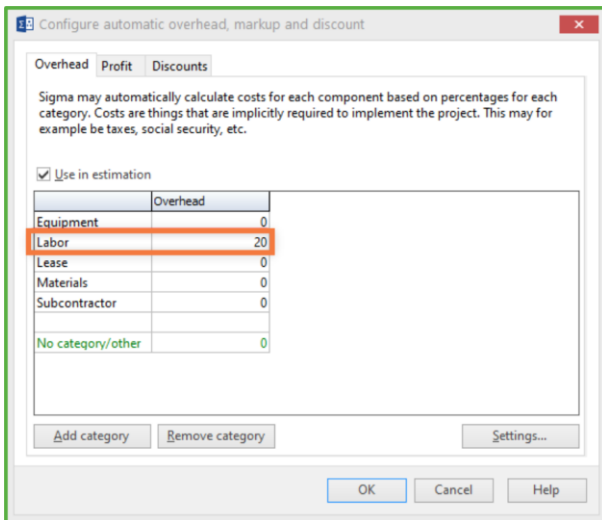
The Automatic Reallocation button is used to move money from one heading to another based on percentages. If, for instance, the Owner wants to see a breakdown of the estimate by heading, he will surely not want to see 18% general conditions as shown below.
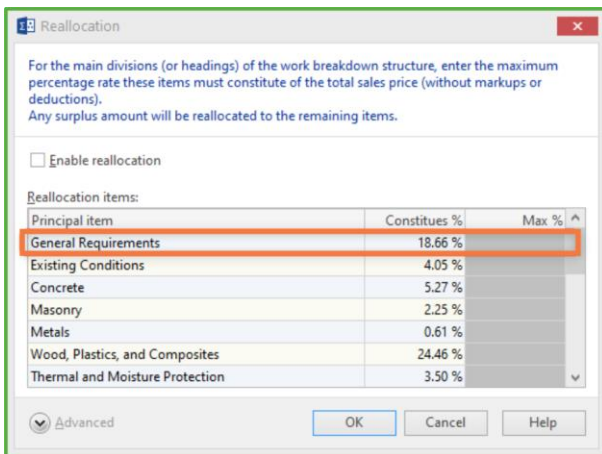
The Max % column will adjust the total shown in reports and in the summary window to be that percent of the total cost. To be able to show the Owner 8% general conditions simply enter 8 in the Max % column. Sigma will adjust the GC's total to be 8% of the job and distribute the adjustment amount proportionally across the rest of the estimate. The same can be done for any heading, or multiple headings. To return to the original distribution, delete the numbers in the Max % column, and click ok.

The Adds and Cuts button opens a window where additional cost can be added to the estimate based on a percentage or an absolute vale (fixed amount). Clicking the Add button opens a short drop-down list to select whether the add is a percent or an absolute value. An absolute value might be for a permit, or an agreed upon cost for winter conditions, and is simply added to the total regardless of where you add it in this window. A percent might be added for a fee, escalation, contingency, insurance, etc. and the amount added can vary depending on how the adds are structured in this window. For example, 10% has been added to the estimate for each of fee, insurance and contingency.

The picture on the left shows that the 10% insurance is taken from the subtotal on the permit line, and 10% contingency is taken from the insurance subtotal, etc. By holding down control and using the right and left arrows on the keyboard, these line items can be in or outdented, changing which subtotal the percent is acting on. In the picture below, the structure has been changed so that the contingency and the insurance are taken from the sales price, and the fee is taken from the subtotal on the permit line.

By restructuring the line items in the Adds and Cuts window the amounts that are added to the estimate can be controlled. All the Adds and Cuts are shown in the Summary window "below the line" at the bottom of the window.

Since any number in black can be edited in the Summary window, a last-minute change to the estimate is always possible and easily made. In the pictures below the Sales Price for Curbs is originally 1,400.00. If the sales price is changed from 1,400.00 to 1,540.00, the difference will be noted in the MM (Manual Markup) column. To return your estimate to the original sales price simply change the 140.00 in the MM column to zero.

Creating a PDF report

Share your estimate by creating a PDF

Sigma comes preloaded with 23 different reports, all of which can be customized in the Report designer. There are reports for the estimate, materials list, time sheet, customer letter, etc. To print a report, click on the Reports tab, the select the Estimate folder and choose Cost Estimate summary from the drop-down list. A window opens with options regarding the report, such as printing it for the entire estimate or just the selected heading, printing in landscape mode, whether to include notes and the option to send as an email. A water mark can also be added to the report.

Num	Text	Unit	Quantity	Total UC	CP w/Overhead	Unit SP	Sales Price	Total GM	Total PM
	Main headings:								
22-01 00 00	General Requirements								
01 85 00	Site Supervision	ea	1	15,600.00	16,692.00	17,571.00	17,571.00	879.00	0.05
01 82 13	Foundations Performance Requirements	ea	1	2,654.00	2,839.78	2,989.00	2,989.00	149.22	0.05
01 82 16	Basement Construction Performance Requirements	ea	1	6,529.00	6,986.03	7,354.00	7,354.00	367.97	0.05
01 82 16	Basement Construction Performance Requirements	ea	1	7,500.00	8,025.00	8,447.00	8,447.00	422.00	0.05
01 83 16	Vertical Exterior Enclosure Performance Requirements	ea	1	6,950.00	7,436.50	7,828.00	7,828.00	391.50	0.05
01 83 16	Horizontal Exterior Enclosure Performance Requirements	ea	1	8,855.00	9,474.85	9,974.00	9,974.00	499.15	0.05
01 84 13	Interior Construction Performance Requirements	ea	1	7,923.00	8,477.61	8,924.00	8,924.00	446.39	0.05
01 84 19	Interior Finishes Performance Requirements	ea	1	5,900.00	6,313.00	6,645.00	6,645.00	332.00	0.05
01 84 19	Stair Finish Performance Requirements	ea	1	8,950.00	9,576.50	10,081.00	10,081.00	504.50	0.05
01 85 00	Conveying Equipment Performance	ea	1	2,310.00	2,471.70	2,602.00	2,602.00	130.30	0.05
					78,292.97		82,415.00	4,122.03	0.05
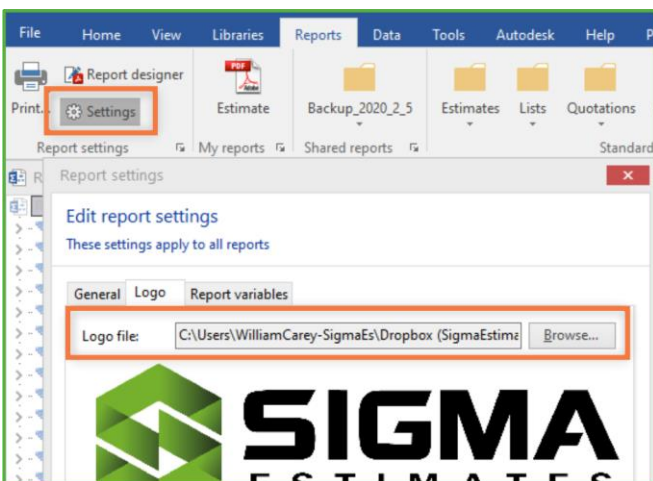
A logo can be added to the reports by clicking on Settings in the Report ribbon, and selecting Logo, then browsing to the file location of the logo.

Final Words

Thank you for investing your time in Sigma Estimates. We hope this manual gave you a quick start and a good understanding of Sigma basics. With the knowledge obtained from this manual, you should be able to complete your estimates faster and with more accuracy. All new routines and methods take time to learn and get comfortable with, and we understand that. Support is always just a call, chat, or email away.

If you are interested, Sigma is much more than we have covered in this guide. Advanced Smart assemblies, customized templates and reports, integration to Planswift, Revit and BIM360, are examples of what is available.

Please find more information in our Community site at community.sigmaestimates.com.

The Sigma Estimates Team

Introduction to
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