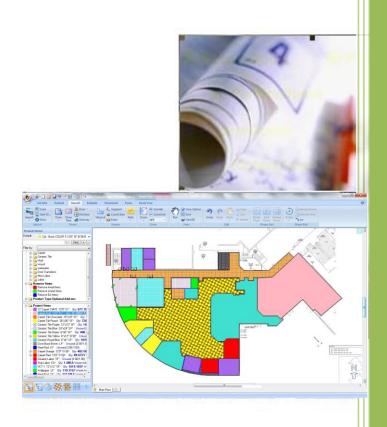
2015

MeasureSquare 2015 Commercial



Feb 1st, 2015

Measure Square Corp.

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1 Introduction

Measure Square Corp. (formerly Floor Covering Soft) has been dedicated to providing accurate, fast and productive solutions in floor takeoff estimation, either as a stand-alone tool or integrated with the popular digital devices. Our MeasureSquare Software is one of the very few flooring specific software suites designed exclusively for the flooring industry

Whether you are in retail or commercial flooring, you will discover that this software can provide a visible competitive advantage of quality over your competition in flooring market.

1.1 About MeasureSquare software and Measure Square Corp.

MeasureSquare (abbreviated as **M2** over rest of the document), is an easy-to-use flooring measure, takeoff, and layout estimating software designed for flooring contractors, dealers and installers for

Fast turn-around time

Accurate estimate and installation diagram

Professional sales presentation for customers

MeasureSquare software comes with Three major editions for different estimating needs, mainly for two trades: **COMMERCIAL** and **RESIDENTIAL** (including multifamily and installation trades). To find out which edition is right for you, refer to detailed comparison chart below.

MeasureSquare software has been developed by **Measure Square Corp.** (formerly Floor Covering Soft in California since late 2001). It has evolved several generations of product innovations, including mobile, web edition, desktop estimation and CRM customer relationship and sales technologies, and has found wide applications in floor covering and related home improvement industry.

M2 products have been used widely in United States, Canada, Australia, New Zealand, United Kingdom, and others. Leading flooring companies are using it in their daily estimating operations, including Empire Today, R.C. Willey, Acousti Engineering, Redi Carpet, Australia National Tile, stores of Abbey Carpet, Carpet One, Flooring America, franchisee of Floor Covering International, and many contractors of Lowes and Home Depot, and thousands of users. Please visit www.measuresquare.com/customers for customer testimonials.

Key Features	Retail	Multifamily	Commercial
Create Room, stairway, wall drawing with takeout, islands (with border, doors, windows)	✓	✓	✓
Lay rooms with carpet, vinyl, tile, wood and laminate product types	*	✓	</td
Tile pattern assignments	*	*	✓
Self coving, transition and base assignments	*	*	✓
Pattern carpet match	*	✓	✓
Generate seam layout, and cut sheet with optimized waste	*	*	✓
Create estimate, work order, purchase order, invoice forms	*	*	✓
Export to PDF, Excel and QuickBooks	*	*	✓
3D view with product assignment and tile layout	*	*	✓
Disto laser meter support	*	*	✓
Floor divider and splitter for floor design and plan takeoff		*	✓
Wall designer, tile pattern editor		✓	✓
Advanced seam layout, and roll cut manipulation (rotation, group shifting, etc.)		✓	✓
Define custom tile pattern		*	
Estimate by floor layer or phase		*	✓
PDF plan import		*	✓
Multi-room or unit multiplier		*	✓
Multi-floor layer multiplier			✓
Roll allocation and dye lot match			✓
Import AutoCAD (DWF, DWG, DWF files)			✓
Batch plan file import			✓
GTCO Digitizer takeoff support			✓

1.2 What MeasureSquare can do?

MeasureSquare is designed to simplify and speedup time consuming takeoff estimating process to accelerated turn-around time and to produce more bids and quotes with accuracy.

Fast takeoff floor areas from scaled plan onscreen (all formats, **PDF, TIF, Dodge, AutoCAD**, etc) or on paper blueprint on a digitizer accurately, or draw site measurement on screen

Assign product and services items to selected rooms easily by drag-and-drop

Experiment different layout options of material assignments or seam placements in matters of seconds

Calculate instantly **product usages, waste ratio, profit margin, seam layout, and cut sheet**, regardless of residential houses or thousands of rooms in multi-floor commercial project

Huge estimating time savers: Use room or floor **multipliers** to calculate duplicated rooms and floors, copy/paste floor and wall design profile to batch of rooms

Generates **batch of quotes** to a list of selected clients with a single button (for commercial bids)

Export takeoff and estimate data into Microsoft **Excel**, **QuickBooks** so it can be plugged into your existing applications

One-click Conversion to estimated data into work order, purchase order, and invoice

Integrated with **FloorLink.net**, a web-based CRM system that can further streamline sales activities and customer relationship management

1.3 Roadmap to learn MeasureSquare

This guide is broken into modules that best reflect the workflow of completing an estimate project from A to Z.

General system setup includes two parts, setting up system level preferences, and setting up main product and services database, both apply to all projects.

Rests of modules apply to steps of working on a specific project from plan takeoff to completing a bid.

Project setup involves entering client and job site information, and for the most part, setting up project material schedule, that is the list of items to be estimated in the project.

Plan import and scale setup is the process of bringing in floor plans as separate tabs, crop a plan or rotate it to right orientation, then scale them according to its plan scale or using a known measurement size on plan. Essentially, is to get them ready for next takeoff stage.

Plan takeoff is the process to capture all floors and wall areas that are to be covered with project items specified by the project. It may involve area-based products, such as carpet, vinyl, wood, tile, or linear foot based products, such as wall base, tacks strip, trims, transitions, bull nose, heat welding, etc... And it may also include count items, such as number of corners, columns, light boxes, that are counted by EACH unit.

Product assignment is process to apply items in project item list to proper specified areas or wall locations, so that they can be calculated in the next step. Items assigned are visually displayed in colored area or in hatch mark symbol if it is linear item, and a list is shown under a room label, so one can easily inspect and verify the assignments.

Layout direction can be set to 45 degree or any angle along a wall. Flash coving can be specified at each room level. Tile patterns and design can be done visually as well. Three D view is used to visualize all product assignment effects in any angle in three D.

MeasureSquare Commercial version has a tool to copy and paste room floor and wall area design profile to any number of rooms, substantially boosts productivity in large commercial jobs.

MeasureSquare Commercial version has special features to set duplicated floor layers or duplicated rooms to multiply estimated quantities, without cumbersome copy and paste, and meanwhile optimizes for material waste.

Once product assignments are done, all item usages are automatically calculated with a single click on Layout Estimating button.

Layout estimating is the key process to review auto-estimated results, including quantities, waste ratios, seam locations and cut sheet if they are carpets or vinyl sheets, and to experiment different options, such as layout direction, seam locations, etc.. Depending on one's own experience and client requirements, the program is flexible enough to allow manually adjusting seam location, adding T seam, switching layout direction, moving cuts in cut sheet, or changing first cut of pattern carpet.

In estimating mode, one may switch between by Material or by Room views to further inspect details.

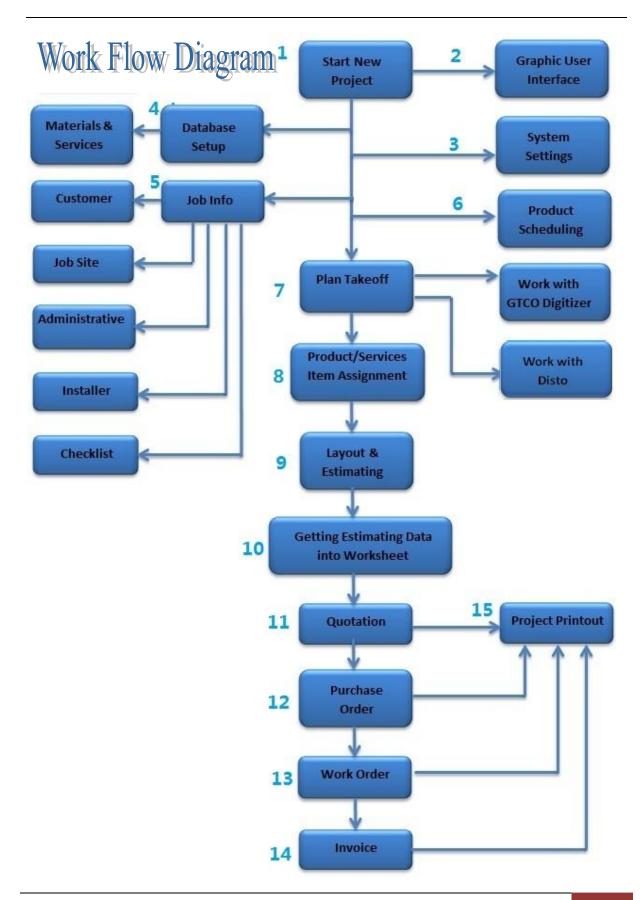
When all quantities and layout look good, you may proceed to turn to Worksheet tab to find all detailed information about estimated data, and start preparing a bid from there.

Prepare bid and order form can be carried out in several ways. Based on estimating data in Worksheet, you may export or print data into Excel file, and plug the data into your existing bidding templates or import it into other programs, such as QuickBooks.

You may also continue on with quotation tab of the program, where you can load data from worksheet and create quote sheet from here, similarly for creating Work Order, Purchase Order and Invoice forms under rest of tabs. Quotation sheet can also be exported directly into QuickBooks as an Estimate.

Printing report at any stage of takeoff estimating, you may print a project report with full spectrum of commonly used report types, including estimation summary, room takeoff list, cut sheet and cut list, plan and seam diagram, three D view, order sheets, and even room installation condition site report.

This is a complete workflow view of all possible steps. In most cases, only portion of them is used in a real project.



1.4 How to evaluate 15-day trial software effectively

Important: After trial software is installed on your PC, 15-day trial period starts to tick. So make sure you have enough time to fully use trial period as it cannot be extended once it expires.

Steps:

- 1. Visit product evaluation site: http://www.measuresquare.com/Products/
- 2. **Select and watch video tutorials** related to your type of business online, go to FAQ section to find related Q & A.
- 3. **Download the 15-day trail** that suits your need (COMMERCIAL vs RETAIL, etc), or consult a support rep (see contact below), download User Guide (PDF).
- 4. **Install the software** from CD or download from web site.
- 5. **Get familiar with tool icons**: set up general preference, and get familiar with major tools: importing, drawing, and estimating icons on toolbar, and simple database setup tasks (add your own folders, items in database etc). **Help Guide** is under Help menu , Help Topics with the software started.
- 6. **Sign-up a free web demo**: request a live walk through demo with a customer support rep to get your initial questions answered. Request it on web site or call customer rep.
- 7. **Work with small projects** to get familiar with steps of workflow. Call customer rep for questions.
- 8. **Work with sophisticated projects** to get familiar with details of major features (for example, wall design, tile pattern, pattern carpet, multipliers, floor design, roll allocation). Call customer rep for questions.
- 9. **Make informed decision**: compare for editions vs features and pricing, compare web training vs onsite training options, request customer references.

Technical Support (Free):

Please call trial user technical support: **626-683-3850** (8AM-4PM Pacific Time) for any questions or email: support@measuresquare.com

1.5 Get help

Measure Square provides a variety of options for learning MeasureSquare, including user guide, video tutorials, online help, FAQs and forums in customer login area.

Call customer support hotline: 1-626-683-9188, M-F 8am-4pm Pacific Time

Submit your questions from web: http://www.measuresquare.com/support.html

Email support staff: support@measuresquare.com

Signup and participate in weekly live web demo: http://www.measuresquare.com/support.html

If you are trial user and have technical questions during your 30-day evaluation period, please contact support using one of approaches above.

1.6 What's new in MeasureSquare 2015 Version

Disto Drawing

- Draw doors, openings, angled wall with triangulation and curved wall with Arc in Disto laser drawing mode
- Draw takeout areas in the Disto laser drawing mode by pressing the lower-left key
- Enhancements to avoid reconnection at time off

Plan Importation

Zoom in/out at preview windows and resize preview window

Takeoff

- Snap takeout to room corner and boundaries
- Support multi-touch gestures on Windows tablets:
 - o To zoom in/out, pinch in/out two fingers
 - o To double click, tap screen twice
 - o To right click, press one finger on the screen and tap the second finger
- Partially overlap a takeout with a room, right-click takeout to
 - Trim takeout area

- Cut and remove overlapped section
- Press Ctrl key to select multiple rooms and embed them in one shot
- Drag middle point handle on a wall to create an extrusion
- Create rectangular shape with any angle
- · Auto-scroll the screen view while using rectangular takeoff command

Product Assignment

- Tile pattern design:
 - o Support hexagon tile and triangle tile replacement to create free style tile pattern
 - o Center a pattern from a tile
 - o Display quarter-turn of tile pattern when texture image is specified
 - o Match patterns across all divided regions
 - o Import a tile pattern from an existing project file into tile pattern library
 - o Provide layout options panel when set pattern/grid starting point
- Allow to assign linear product to a missing wall to calculate labor charges for counter top edges.
- Assign add-on area/linear/EA product to selected rooms in one shot
- Create and save wall profile template; drag and drop to assign wall profile to selected wall(s)

Cut Sheet Manipulation

- Right-click cut sheet to
 - Move roll cuts to start/end of the roll
 - o Consolidate wastes by squeezing out the waste between cuts
 - o Zoom cut to room
- Option to rearrange cuts after placing t-seam on cut sheet
- Round up each roll cut length to the nearest 3", 6" or 1'

Worksheet and Forms

- Display roll cut list in worksheet
- Set profit margin and tax for selected items on order forms
- Merge selected items into one line on order forms
- Create purchase order by vendor

View and display

- In Room View, re-name room label; move up/down to change the order of layers
- Use Ctrl key to select multiple rooms to show total area and perimeter at status bar
- Auto-adjust the font scale on the diagram when zoom in/out

Printing

- Print multiple roll cut list with diagrams if there are more than one roll goods (for Lowes contractor)
- Print product texture for black and white printing
- Print to any paper size (print to scale)
- Print multiple room photos in the same page

System

 Switch among three PDF-to-image converters to obtain the best result when importing blueprints

Find out latest MeasureSquare2015 feature update from web site:

http://www.measuresquare.com/Corporate/Press Release/

2 Getting Started

You will see in the chart below, the minimum hardware requirement you will need for M2 to run smoothly in your computer. Please refer to your help options above if you encounter any problem.

2.1 System requirements

Commercial OS: Windows 8.1, 8, 7, 64 bit Recommended for large jobs			
Applications	RAM: 4GB minimum, 8GB recommended		
	CPU : Intel i5 Dual-Core or up (for better performance, use Quad Core processor)		
	HD: 500 GB hard drive		
	Monitor: Double monitors and large screens help productivity		
Residential OS : Windows 8.1, 8, 7, 64 bit			
Applications	RAM: 2 GB minimum, 4GB recommended		
	CPU: Intel i3 Dual-Core or up		
HD : 250 GB hard drive			
	Monitor: 1024x768 (minimum for better view)		
Internet	Internet connection is required for product activation, program updates, database backup and synchronization features. Not required for trial evaluation.		

For latest recommended system configuration or sample hardware configuration, visit system configuration section of http://www.measuresquare.com/products.html

2.2 Installing/removing software

The software can be installed in two ways:

From CD-ROM: Inserting the software disc into the CD drive, the setup program will automatically start, and you can **select the proper edition** to install. Normally the distributed software contains all editions of the software.

From web site download area: Download the proper edition of the software from http://www.measuresquare.com/products.html web site download area, and click on Run to install.

If you are a customer, login from customer login area to find product key and latest product update download

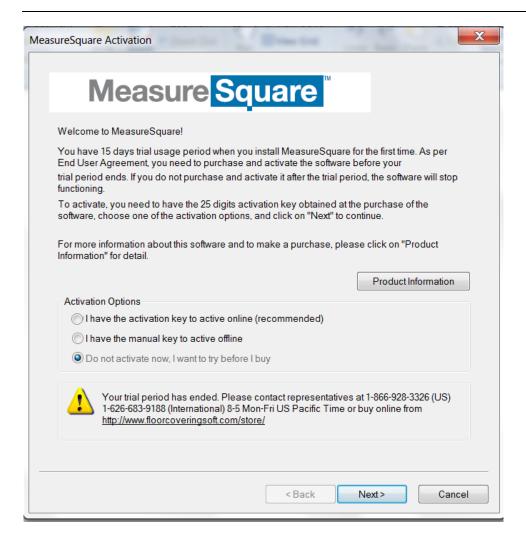
Either way the installation wizard will prompt you through a sequence of steps to complete the installation. When the program is installed, the program icon will show up on your computer desktop screen with name MeasureSquare 2015 as well as from Start/All Programs as MeasureSquare 2015.



To remove the program, click **Start**, then **Control Panel**, double click on **Program and Features** (or from earlier OS: **Add or Remove Programs**), choose **MeasureSquare** and click **Remove**.

2.3 Trial registration or license activation

When the program is started, software registration window will pop up.



Trial User Registration:

Trial user selects 3rd option "Do not activate now, I want to try first", then click on Next to complete a registration form. Collected information is kept confidential and will NOT be shared with third parties, please refer to company <u>privacy policy</u> at web site.

Important for trial users: The trial program will expire after 15 days from the first installation. Once it expires, the program CANNOT be extended. Please fully use that period for evaluation.

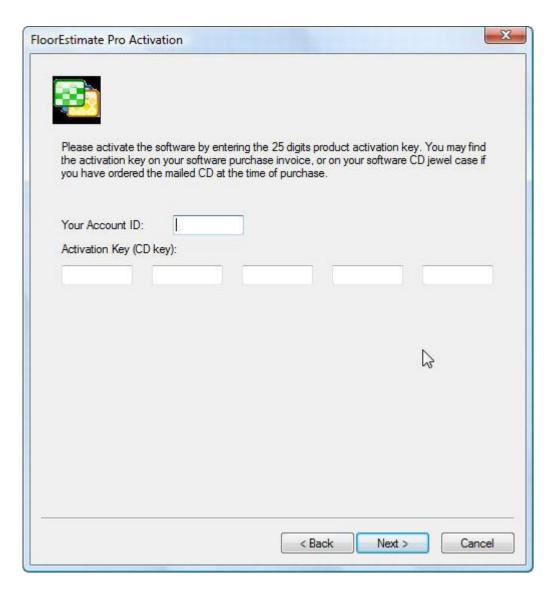
License Activation for LICENSED USER:

To activate your license online, **your computer must have Internet connection**, select first option "Automatic activation over Internet (Recommended)". Click on Next, enter your Account ID and activation key. **Tip**: the long activation code can be copied and pasted into the entry.

You may find your Account ID and Activation Key from your confirmation email. Or login to web customer login area to retrieve them.

http://www.measuresquare.com/login.html

** If you don't remember password, use your email address to retrieve it.



Note: If it encounters some error messages or alerts from any AntiVirus program, try temporarily turning off your anti-virus or firewalling software to allow it to complete activation.

If your computer doesn't have Internet connection, select the second option "Manual activation by phone or fax", click on Next, Print the instruction on the following form, fill it out and fax it to 626-683-9699. You will get the manual activation key by email or fax.

2.4 Quick start guide

To start the program, double click the desktop icon



or navigate from **Start**/All Programs, and select **MeasureSquare 2015**.

Upon starting the program, Quick Start Guide screen pops up and provides shortcuts for

initial setup tasks (Measurement System, Company Setup and Material Database)

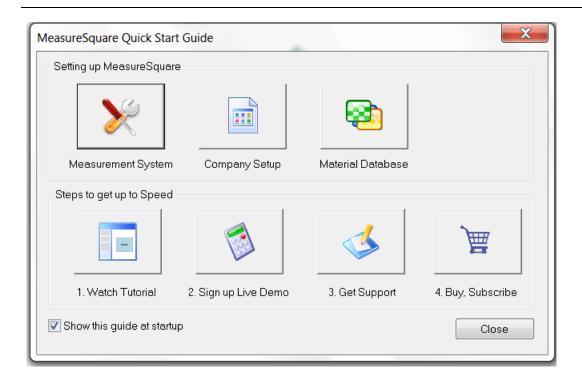
web link to Video Tutorials

web link to Sign-up Live Demo

web link to Support Center

web link to Web Store

Check off "Show this guide at startup" to turn off this pop-up. It can be started manually from Help menu.



2.5 User interface structure

Program window contains several key components:

Start Icon (TOP)-allows to start a new estimate, open an existing project, save an existing project, print reports and change settings in MeasureSquare.

Quick Access Tool Bar (TOP) – are most frequently used tools can be placed in this toolbar, providing the user with easy and constant access to those tools.

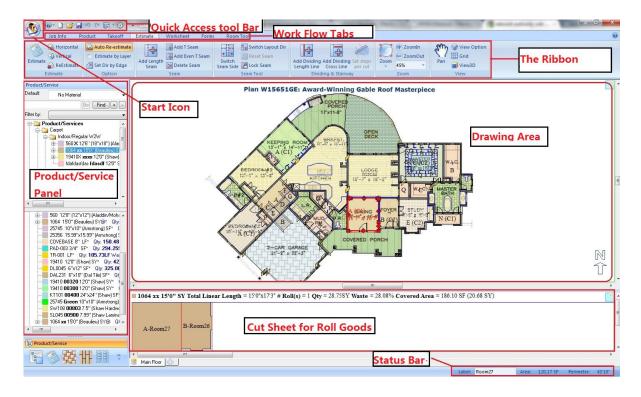
Workflow Tabs (MIDDLE) –organizes a flow of tabs representing estimating workflow from Job Info, Product, Takeoff, Estimate, Worksheet, Forms. Some of tabs appear only when a certain type of object is selected, providing specific tools for items such as Freedraw Tool tab and Room Tool tab.

The Ribbon(MIDDLE) – contains groups of toolbars namely Job Info preparation tools, Takeoff Tools, Estimating tools, Zoom In/Out and so on.

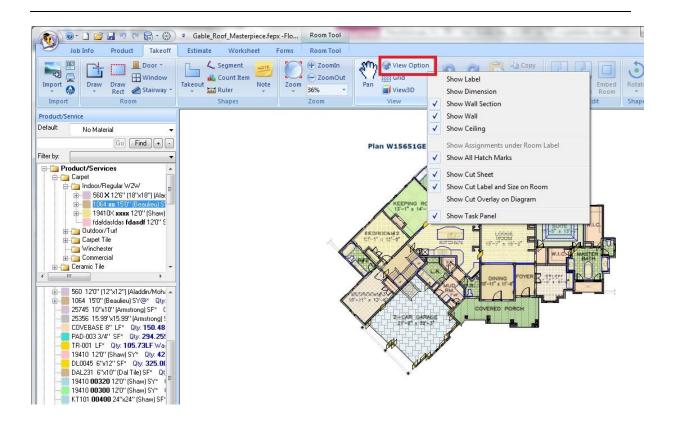
Product/Services List and Project Item List Panel (LEFT) shared with Estimating Panel – is on the right hand side and contains main product and services list, project item list and some tab functions.

Drawing and Layout Area (RIGHT) – area window for drawing room and material layout, seam cut layout, cut sheet at lower section.

Status Bar (BOTTOM) – is located on the bottom of the screen automatically indicates the room label, moving coordinate and room size.



To turn on or off some of these interfaces components, go to View menu, check or uncheck any components.



Help tips for command icon

Place mouse pointer over any command icons to display a brief description.

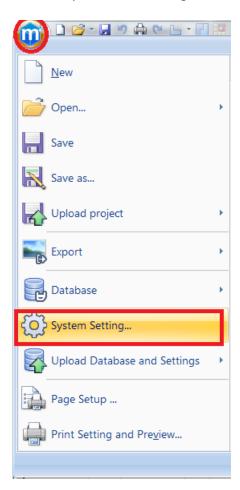


3 General System Settings

System Settings as mentioned in 1.3. Roadmap Section is designed to help you configure your own company's general settings and options. It is suggested to explore this right after you open the program but you can also customize it after your exploration or you can use the default and make your changes later.

As different flooring business types have different requirements on flooring layout and estimating, the program provides comprehensive set of configuration options to fit to the needs of any particular user.

Open System Settings: from Start Icon, select **System Settings**; it contains a list of tabs that each tab performs its designated configurations.



Measurement: options for measure systems (**Imperial** versus **Metric**), grid size, etc.

User Settings: user specific information such as names, address, contact information, and business related information including name, web site and **logo file location**

Directories and image setting: default directory paths for various project type file locations, default project name prefix, and project saving options

Material Layout: default material selection, layout and estimating options such as rounding up estimated linear length, etc.

Room Drawing: room creation and drawing options, default sizes and labels, room snapping, etc.

Other Room Properties: define default sizes for wall, door and window types.

Sales and Tax: define any set of tax names and rates, discount levels and rates, and Quotation and Work Order title and tag text.

Order Forms: initial form settings

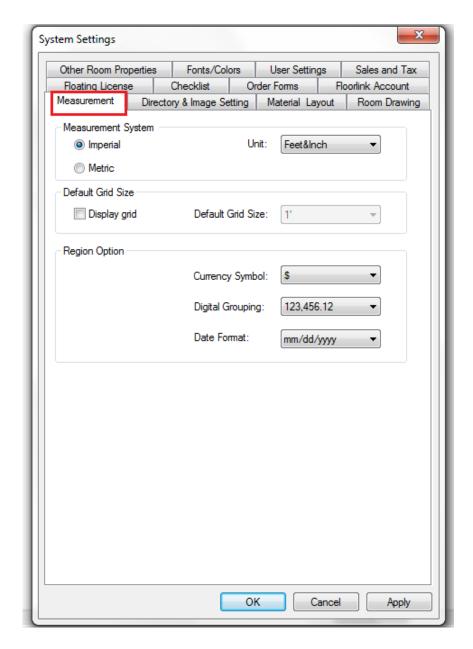
Checklist: for reminding user to be aware of unfinished jobs before saving current project

Fonts/Colors: font style and size settings for room label, dimension display, quotation and work order form printout

Floating License: for user who buy subscription version of M2

Floorlink Account: set up account information for Floorlink website

3.1 Measurement setting



The main function in this tab is to set measurement system: Imperial or Metric.

For Imperial Measurement System, there are two options:

Feet/Inch (Recommended): the standard feet and inch presentation for size entry and display (Examples: 11'4", 11', 14" or 11'4)

Feet/Inch with Fraction: allows fractional inch in size representation and display (Examples: 11'4-1/4", 5-1/16", 12'1/16")

Feet with Decimal Point: allows feet with decimal point in size presentation and display (Examples: 11.35', 5.125', and 12.625')

Inch with Decimal Point: allows inch with decimal point in size presentation and display (Examples: 11.35", 5.125", and 12.625")

For Metric Measurement System, there are three options:

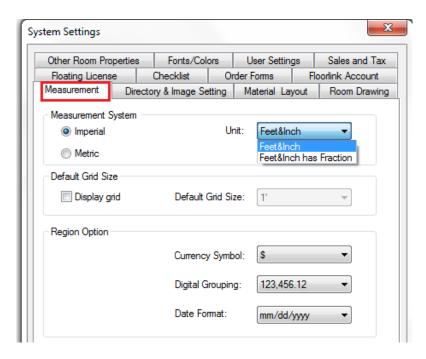
Meter (Recommended): the standard meter and decimal presentation for size entry and display (Examples:101 MR, 11.5 MR, 0.25 MR)

Centimeter: allows fractional inch in size representation and display (Examples: 1010 CM, 11.5 CM, 0.25 CM)

Millimeter: allows fractional inch in size representation and display (Examples: 10100 MM, 1150 MM, 25 MM)

Default Grid Size: check on or off the box to show or hide grid; if checked to show, to set grid size (useful as drawing reference)

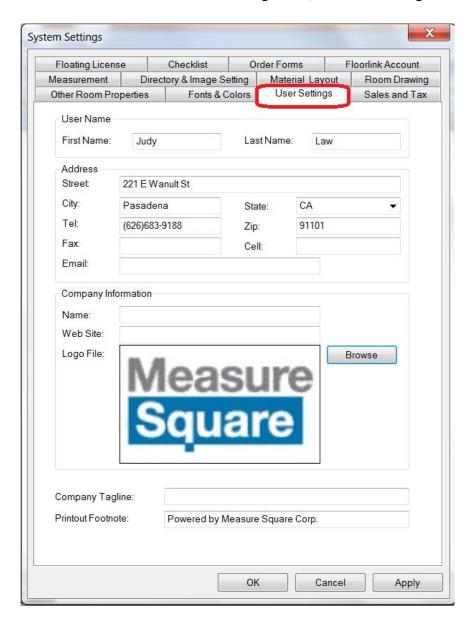
Currency Symbol: select the currency symbol to be used in Quotation and Work Order printout. One may need to set its regional settings to your region in Windows Control Panel to see its currency symbol in this list.



Click here to watch how to set up measurement in system setting

3.2 User settings

This is where User specific information such as names, address, contact information, and business related information including name, web site and **logo file location** are set.



Fill in the blank with current user information including **User Name**, **Address**, **Company Information** and **Note** which can be automatically presented on tables like **Work Order**, **Quotation** etc.

3.3 Directories and image settings

Under **Directories and image settings** tab, following settings can be defined:

Project Home Directory: the default directory to look for plan image files at importing Plan Image Files

Import Image \PDF \CAD Directory: the default directory to look for pdf or CAD files at importing Plan image Files

Export Diagram \PDF Directory: the default directory to save project diagram as JPG or PDF files

Project Default Name: the default project name prefix

Load and Save Room Type: ignore (to be replaced by a new feature)

Save Project File Option:

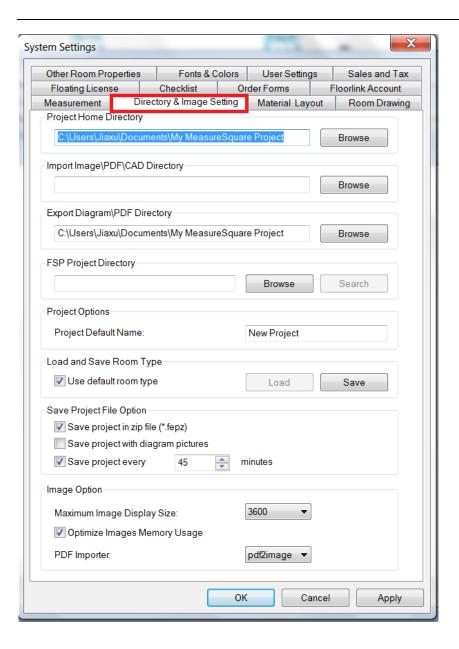
Save background image into project file as attachment:

Save project with diagram pictures: saves diagram pictures under sub project directory for 3rd party applications (NOTE: **Comp-U-Floor program needs this option ON to retrieve the diagrams**)

Save project every [30] minutes: automatically prompts to save project every [30] minutes (set the time period to your desired length)

Image option: allows changing the resolution of exported image.

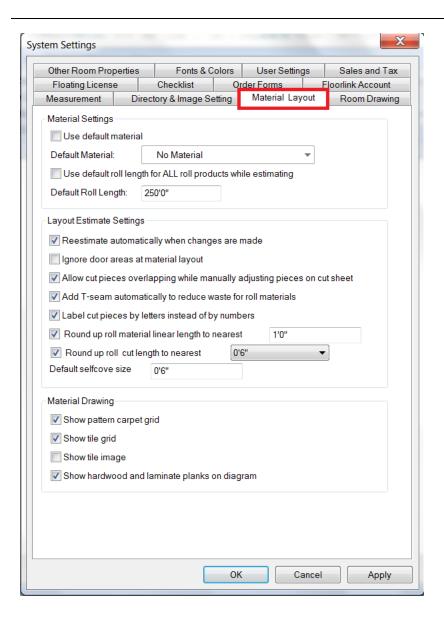
PDF Importer: allows change the PDF importer when importing and previewing blueprints in PDF format in order to get the best results



Click <u>here</u> to watch how to configure directories and image settings.

3.4 Material layout

On **Material Layout** Tab, you can have the option to use or not to use a default material whenever you create a takeoff, use roll allocation calculation for roll product or not, as well as set several Layout Estimate options.



Material Settings: Set up **Default Material** option and roll allocation calculation for roll goods.

Layout Estimate Settings: Grouped options are mainly about optimizing seam cutting algorithm.

Material Drawing: Grouped options control showing material with

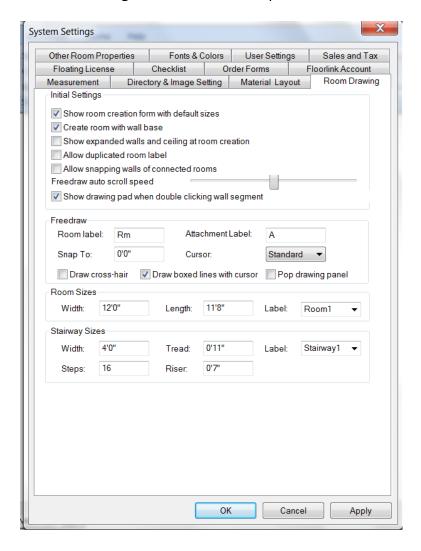
3.5 Room drawing

Under Room Drawing tab, following settings can be defined

Initial Settings: configure the settings for room drawing

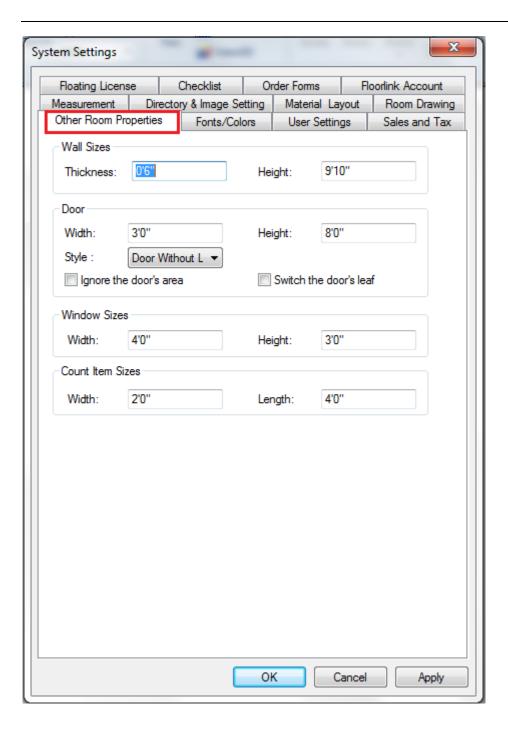
Freedraw: define Room Label, Attachment Label and freedraw speed settings

Sizes Settings: define the sizes of quick insert Room and Stairway



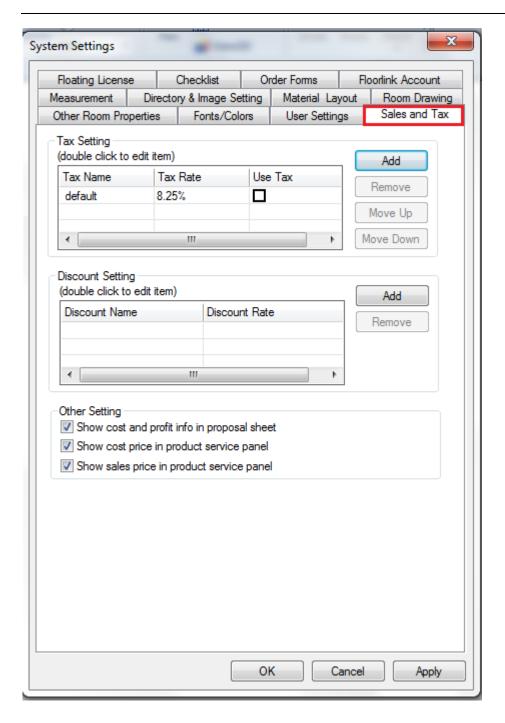
3.6 Other room properties

Under Other Room Properties tab, one can define sizes data of Wall Sizes, Door and Window Sizes as default sizes of quick insert as well as door style.



3.7 Sales and tax

The Sales and Taxes tab define any set of tax names and rates, discount levels and rates, and Quotation and Work Order title and tag text.



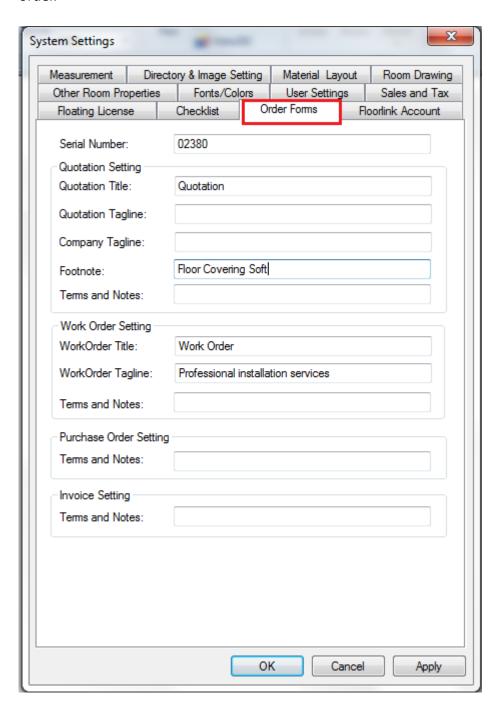
Tax Setting: click **Add** to add in tax item with Tax Name, Tax Rate; click **Move Up, Move Down** to arrange tax list; click **Remove** to delete the selected tax.

Discount Setting: click **Add** to add in discount rate with editable name/Remove

Other Setting: grouped options control price showing on or off in printout sheet or product service panel

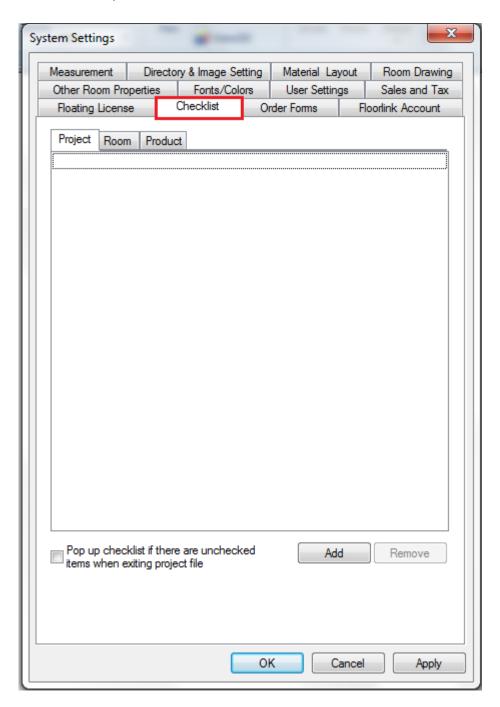
3.8 Order forms

On **Order Forms** tab, you can customize your forms, tagline, terms and conditions, etc. Those customized fields will be initialized as proposal sheets such as quotation and work order.



3.9 Checklist

On **Checklist** Tab, you can create a reminder or list of items and can be categorized as Project, Room and Product Checklist. Just switch to the tab for specific category list, click on Add button, input items to be checked and then click blank area.



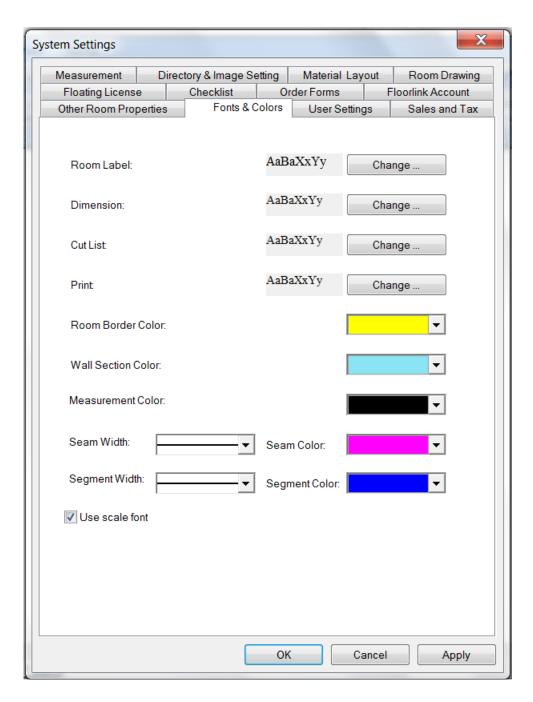
3.10 Floating license

For the condition that one would like to run MeasureSquare on someone's pc with its own license, **Floating License** tab under System Settings would be helpful. One can protect its license with **Floating License** enabled or disabled.



To disable current license, click **Use Floating License** and click OK. The current MeasureSquare is being recognized as your copy.

3.11 Fonts/colors



The **Font** style tab is the **font and size setting** for room label, dimension display, quotation and work order form printout.

Font: Click on each **Change** tab to set up font options of related items.

Colors: Click on each **Change** tab to pick up the desired color of related items.

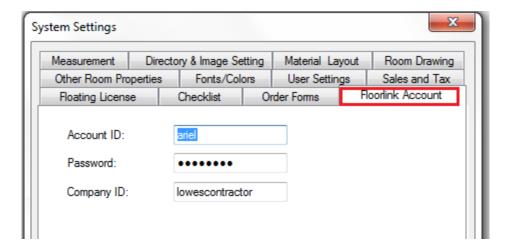
Use Scale Font: If this box checked, the program will adjust the font with zoom in/out scale.

3.12 Floorlink account

Floorlink is a web-based sales team management system. It allows to:

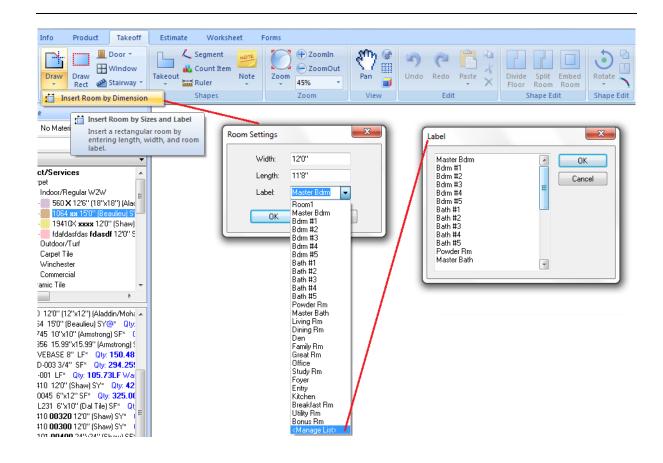
- Backup your MeasureSquare projects over the web, so you can access it over the web from anywhere with a browser
- Track your customers, schedules and appointments
- Share or collaborate with coworkers on the projects.

To set up Floorlink account, the user needs to type in the account ID, Password and company ID, then he/she is able to upload or download database, project or system settings with his/her coworkers.



3.13 Set default room label list, stairway label list

From Insert Room icon on toolbar, from room label pulldown list, click <Manage List>, then edit this list. Find it in similar place for stairway labels (Stairway icon is next to Insert Room).



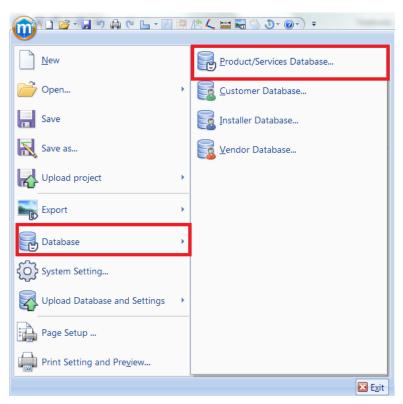
4 Product and Services Database Setup

Product and services database is where to create products, installation add-ons, and labor services charge items that are to be applied in takeoff and product assignments process, and then later to be laid out and estimated. This database should be set up properly before starting any real project.

4.1 Open product and services database window

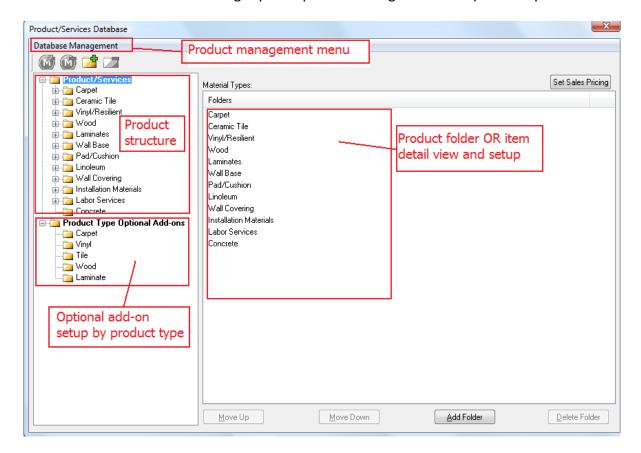
Click Database icon directly on top Quick Access Toolbar, on Product tab or from Start menu, database submenu, **Product/Services Database**.





Functional sections of product database interface are

- Database management menu on top bar: commands to manage database
- Product folder structure on upper left panel: product folder and item list
- Product type optional add-ons on lower left panel: optional add-ons for product types
- Product detail view on right panel: product listing or detailed product spec window



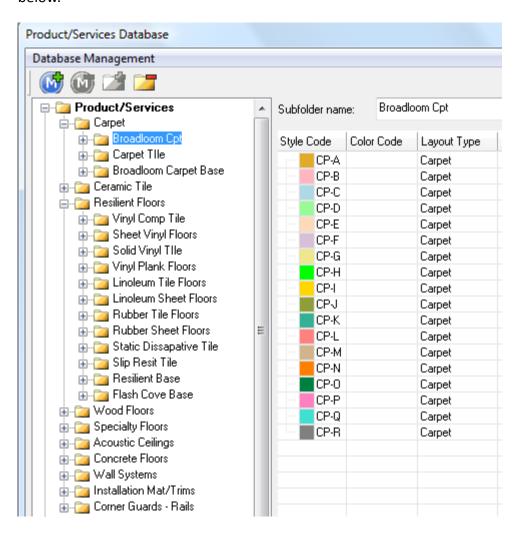
Note: Product database is pre-populated with commonly used flooring materials, add-on items and labor items. It serves as a sample database that you may use, modify or remove.

4.2 Set up product structure

Product/ Services database organizes products with **two-level folder structure**:

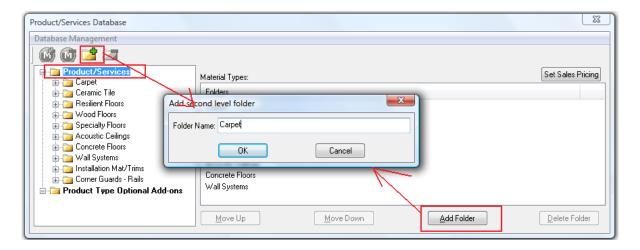
- First level folders, second level folders
- Any specific product item must be placed under second-level folder

Users have flexibility to organize their product items in any ways based on their takeoff estimating practice. For example, use first-level folders for major product types, and second-level folders for sub product types and installation add-on types. See a sample setup below.

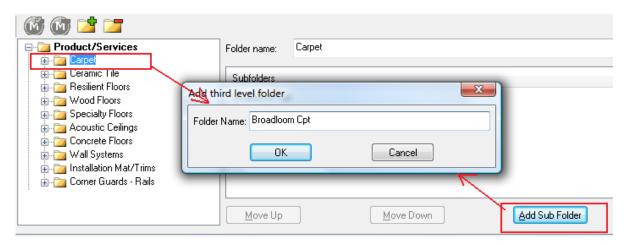


Manage folder structure:

• Add first-level folder: click to select Product/Services folder (root folder), and then click on Add Folder button or add folder icon on toolbar, and enter folder name



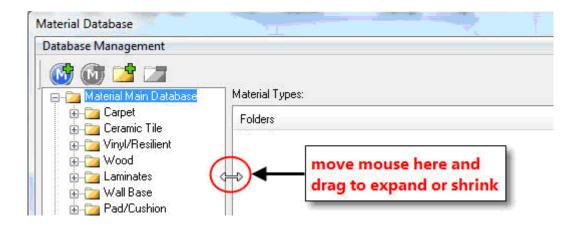
• Add second-level folder: click to select a first-level folder, then click Add Sub Folder button or add folder icon on toolbar, and enter folder name



• To remove any folder: click to select folder, click on Delete Sub Folder button or command icon on toolbar



Drag product structure panel border to adjust its width

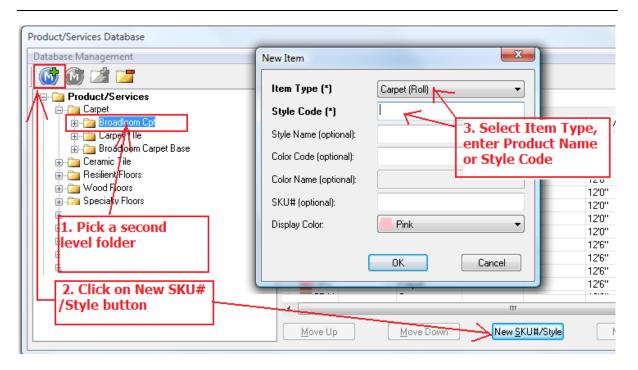


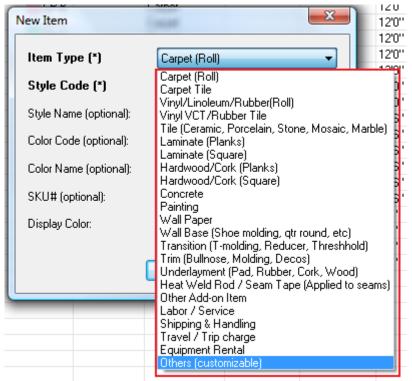
Click here to watch introduction of product database structure.

4.3 Add and specify a product item

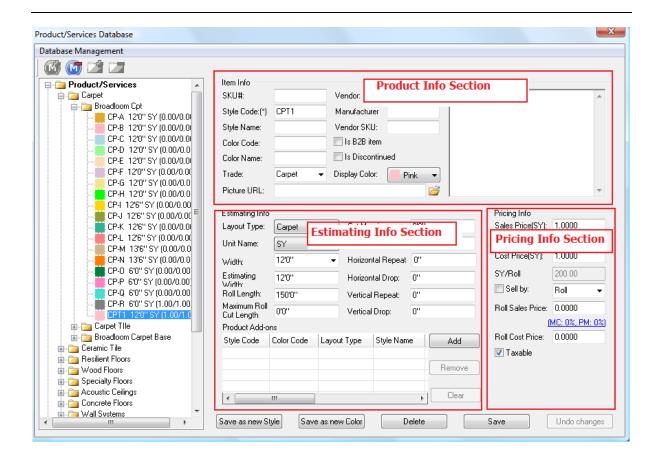
Add new product item to database:

- Select a second-level folder
- Click on **New SKU#/Style** button or click on **t**oolbar
- Select Item Type, enter Product Name/Style Code and other optional fields (Product Name/Style must be unique across database (except with different color code)
- Specify detailed Item info, and estimating info and pricing info sections





Note: If product type is not listed under pulldown list, select **Other Add-on Item** or **Others** (customizable).



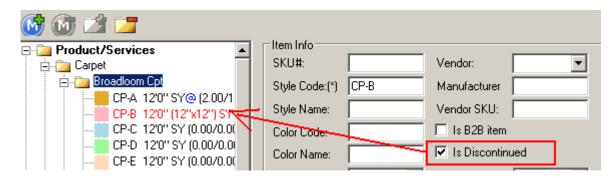
Item Info Section:

- Style Code (or Product Name): required to uniquely identify a product item
- SKU# (product SKU#), Style Name, Color Code, Color Name are optional
- **Display Color**: controls product color displayed on diagram screen
- Trade: used for data grouping in worksheet or quotation sheet
- **Vendor, Manufacturer**: Vendor/distributor, manufacturer
- Discontinued: show red in product list if checked
- IsB2B: indicate if this item info can be obtained from b2b catalog
- **Picture URL**: product image URL from web or from local file folder. For layout type set as Tile, its texture image can be displayed on floor and wall in 2D and 3D. Please refer to **Material Layout** tab of System Setting for the flag to turn on this feature.

Style code is the ONLY required field in this section, it can be product name that uniquely identify a product within database.

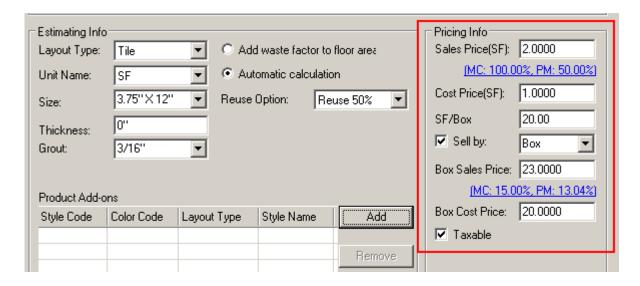
If **Discontinued** box is marked, the item will be shown in **red** in material panel (as depicted below), when it is applied to rooms, the program will alert the user the

discontinued status and prompt for the confirmation.



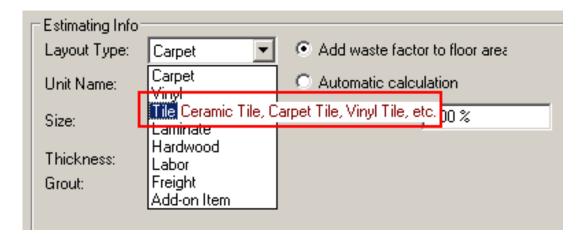
Pricing Info Section: specifies cost and sales prices, selling method by container unit or not (box, carton, etc. if so, container unit cost and sales prices)

- Sales Price (per Unit): sales price to customers (used in Quotation, Invoice)
- Cost Price (per Unit): cost price to this business user (used in Quotation, Invoice, Work Order, Purchase Order)
- Unit/Box (qty of Unit per Container): Qty per container unit (for example, SF per box)
- Sell by checkbox: check box if sell by container, and select or enter container unit
- Box Sales Price: sales price by container
- Box Cost Price: cost price by container
- MC/PM: Cost markup and profit margin percentages are automatically calculated. Click on blue links to reset MC/PM

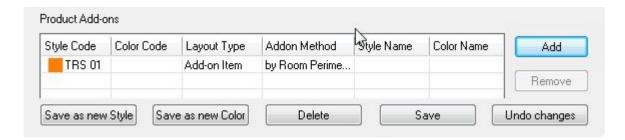


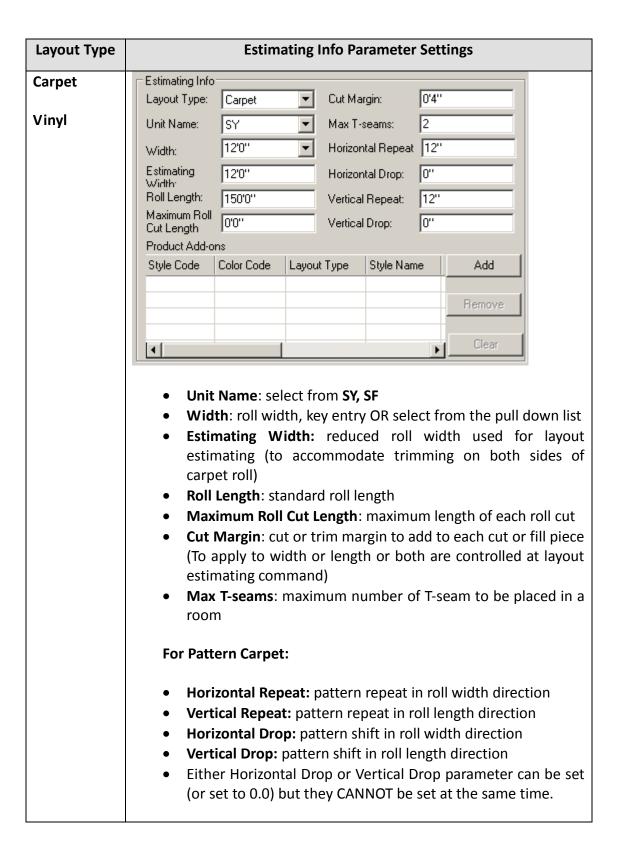
Estimating Info Section: specifies estimating requirements for this product item. This information is used by the program in layout estimating product usages.

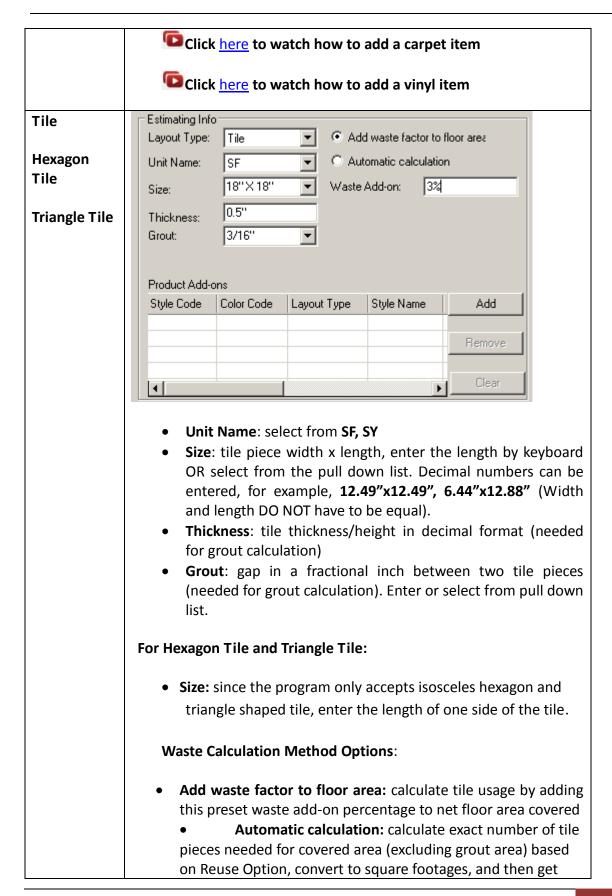
 Layout Type: select first from Carpet, Vinyl, Tile, Hexagon Tile, Triangle Tile, Hardwood, Laminate, Labor, Freight and Add-on Item. Mouse over any item from Layout Type option list to see its corresponding product applications. Depending Layout Type, entry form for estimating info is different.



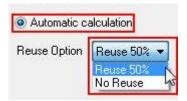
- Unit Name: based on Layout Type, select from option list
- **Product Add-ons**: associated add-on items to be applied together with this product
- •







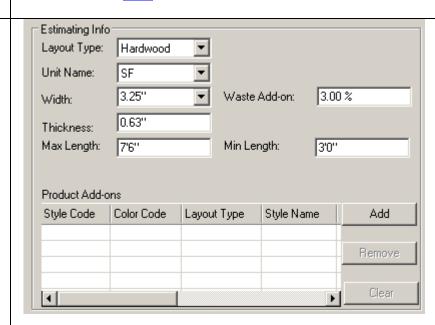
corresponding waste ratio versus the net floor area. **Reuse Option** can be set to **Reuse 50%** meaning re-using cut waste if 50% size of a tile piece left or **No Reuse** meaning not reusing any cut waste.



Click here to watch how to add a Tile item

Hardwood

Laminate

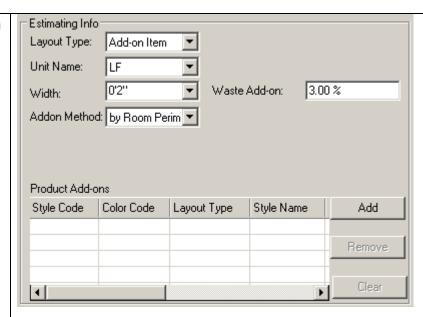


- Unit Name: SF, SY
- Width: plank width, enter OR select from pulldown list
- Thickness: wood thickness (not used in any calculation)
- Max Length/Min Length: control plank length range from max length to min length for random plank layout
- Waste Add-on: percentage waste to add on top of covered net floor area

Waste Calculation Method:

 Calculate product usage by adding this preset waste add-on percentage on top of net floor area covered

Add-on Item



Use of Add-on items are products used to help install main floor covering materials such as underlayment, transition, base, molding, bull nose, trims, etc.. They can be measured by area, length or by each count. Also called installation products or sundries.

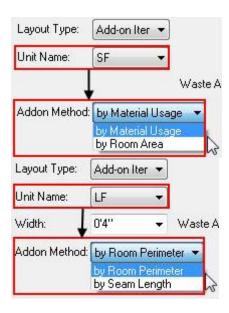
- Unit Name: select from area, length or each count units: SF,
 SY, LF, EA
- **Width:** width of product only needed with length-based unit (for example, height of base, width of transition)
- Waste Add-on: percentage waste to add on top of calculated quantity
- Add-on Method: only used when this add-on is in association with another product

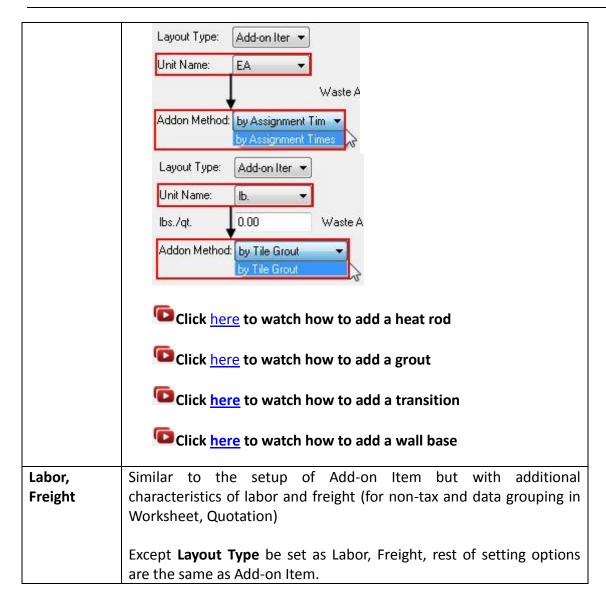
Following table links each UNIT type with add-on method options, their calculation formula/logic, and on options how they can be applied.

Add-on Unit	Method	Formula/Logic	Application
SF/SY	Material	Area qty equates to	Drag-and-drop
	Usage	associated product	OR Material
		qty	Association
	Room Area	Area qty equates to	Drag-and-drop
		net covered area by	OR Material
		associated product	Association

		(instead of product	
		usage qty)	
LF	Room	Length qty equates	Drag-and-drop
	Perimeter	to perimeter (LF) of	OR Material
		rooms covered by	Association
		associated product	
	Seam	Length qty equates	Material
	Length	to total seam length	Association
		of associated	
		product	
Qt/LB/L	Tile Grout	Grout usage is based	Material
		on volume of grout	Association (only
		gap, tile thickness,	associate with
		and tile sizes	tile)
EA	Assignment	Apply to room	Drag-and-drop
	Times	corners (inside,	
		outside corners or at	
		room level)	

Here are some sample UNIT type vs Addon Method combinations:





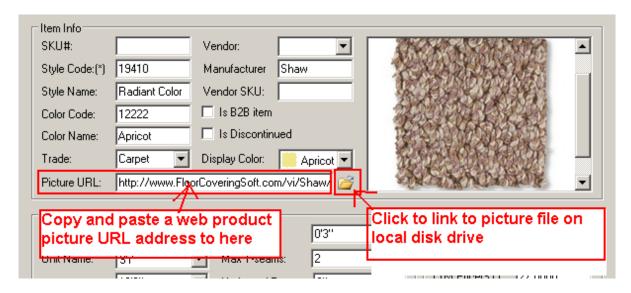
4.4 Add labor services and freight items

Select **Layout Type** as **Labor** or **Freight**, and then follow the same approach on specifying add-on item type as described in previous section.

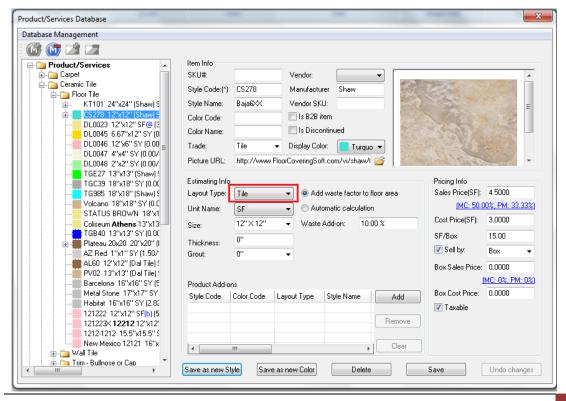
Calculated quantities of product items with layout type as Labor or Freight are listed under Labor and Freight section in Estimating Panel and Worksheet after layout estimating.

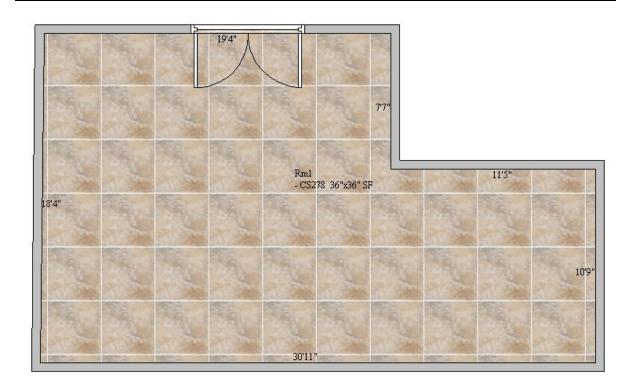
4.5 Set up and show product texture picture

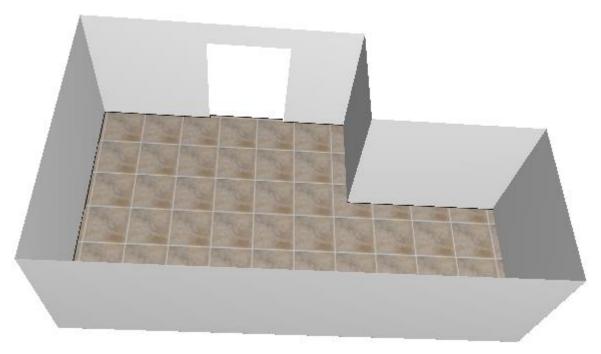
Product texture picture can be brought into product database for viewing. Simply link product image file from your local computer drive or copy and paste its URL address from web site.



For product items with **Tile** as layout type, its product texture image can be displayed on applied rooms in 2D or 3D view.



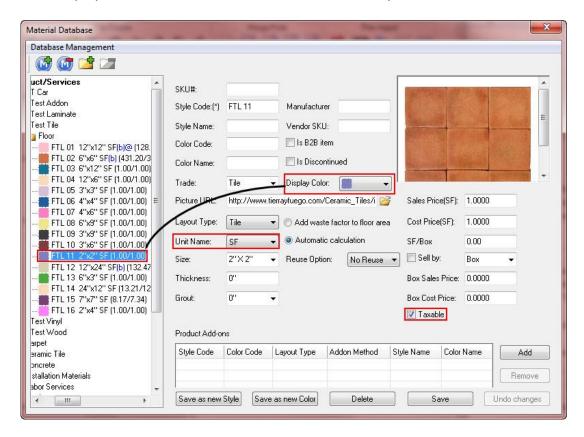




4.6 Add new product display color

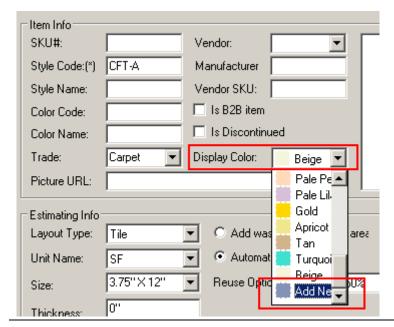
Product display color is used in color icon in product panel, as product layout color in drawing and in color legend in estimating summary printout. Beside a default list of colors

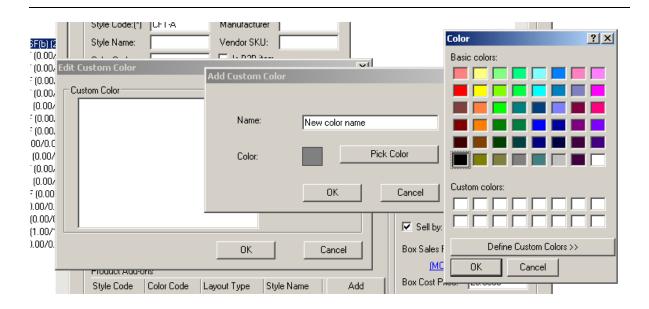
from display color list, additional colors can be defined by users.



Click on display color pulldown list, and scroll to the end, and select **<New New Color>**, and then proceed to Add, enter a new color name, and then pick a color from color palette.

New color names can be added or removed from this custom color list.



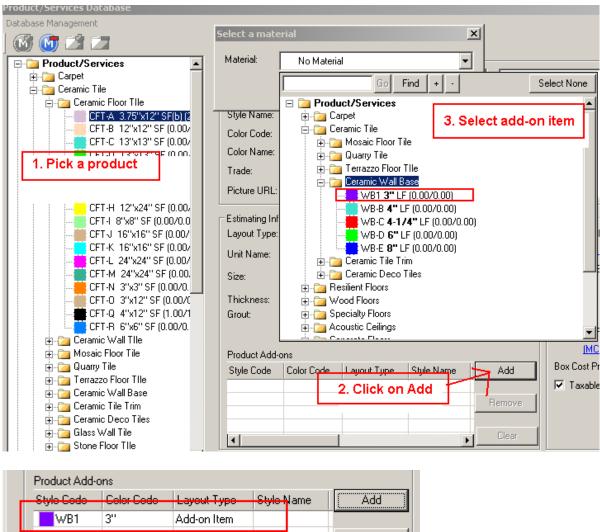


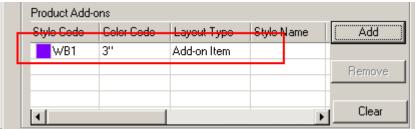
4.7 Associate product item with add-on items

In flooring estimating, installing major covering materials requires installation add-on items as well as labor costs to get the job done. This can be accomplished by associating add-on items and labor items with major covering product.

Steps to Associate Product Add-ons:

- Select the item from left panel, then click on **Add** button (as depicted below)
- Pick up the required add-on item, and then click on **OK** button
- Selected add-on item then shows under Project Add-ons section





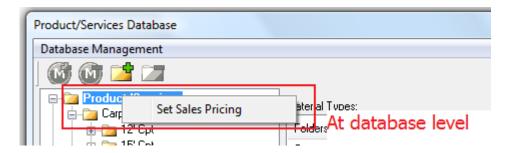
Click here to watch how to add a heat rod and associate it with vinyl

Once the association is made, when this tile is applied to any room, the associated wall base item is automatically applied to the room.

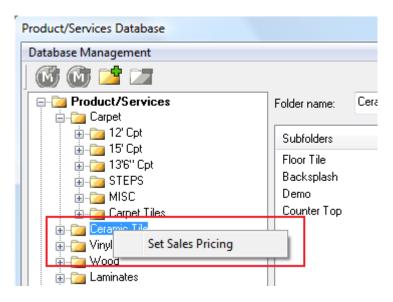
4.8 Set up sales pricing by markup or by profit margin at any level

Setting up sales price based on cost markup or profit margin percentage can be done at **database, folder, or item level**. Simply right click over folder name, or item name to pop up command "Set Sales Pricing".

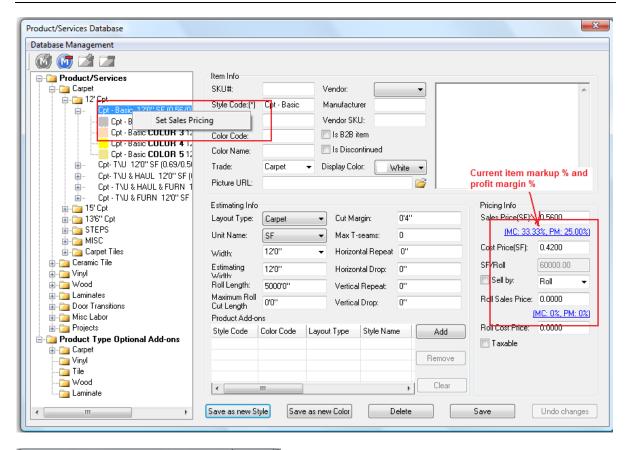
At database level. Right-click over root folder Product Services, select **Set Sales Pricing**, and it applies to all items in database

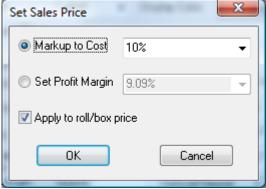


At any folder level. Right-click over any folder at first or second level, select Set Sales Pricing, and it applies to all items under that folder (including sub folders).



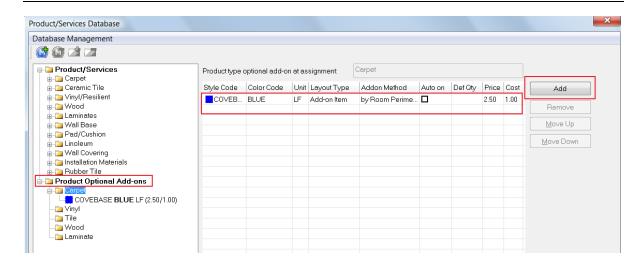
At item level. Right-click over item on left panel, and select **Set Sales Pricing**. Under detail page of an item, its current markup % and profit margin % are displayed under the prices. To change it, simply click on the blue link to pop a setup box.



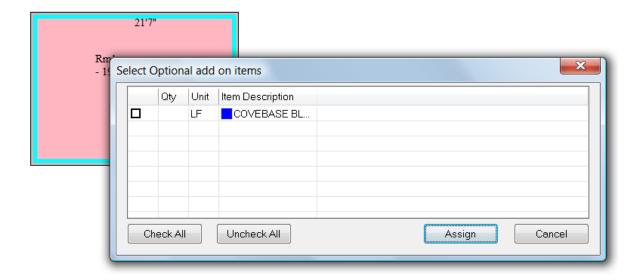


4.9 Specify optional add-on items by product type

From V2012, add-ons can be associated to product types, so when an item of that type is dragged and applied to a room, a pop-up box pops up to allow selecting predefined add-ons to apply with that type product.

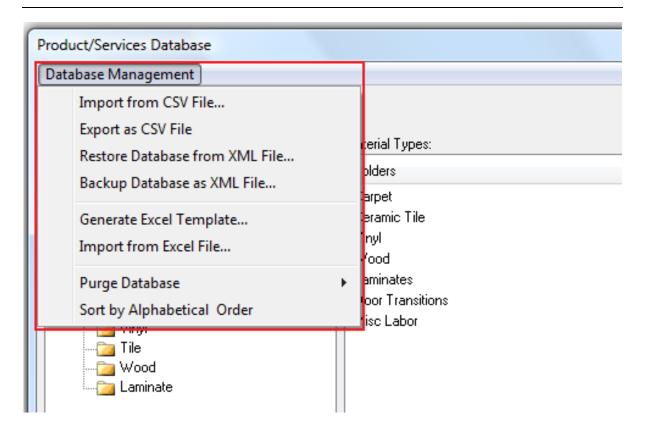


This feature is useful for product assignment that is not universal for all rooms, so add-on selection can be made specific to any room.



4.10 Manage product/services database

Database management menu provides a list of management functions including:



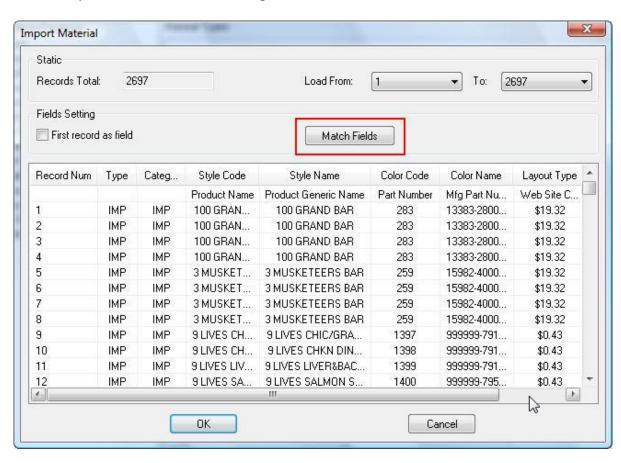
- Import from CSV File
- Export as CSV File
- Restore Database from XML File
- Backup Database as XML File
- Generate Excel Template
- Import from Excel File
- Purge Database with Options
- Sort by Alphabetical Order

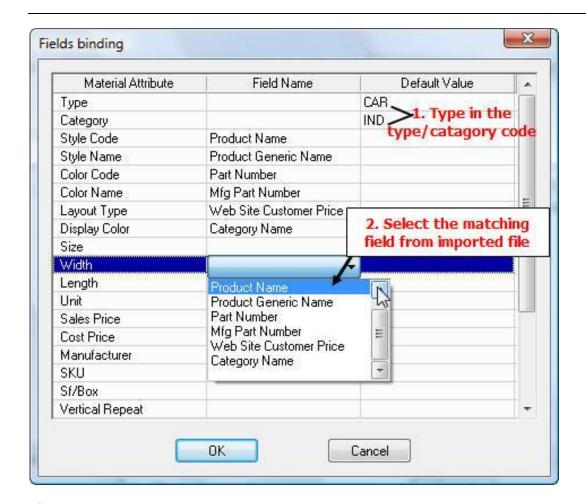
Importing product catalog from CSV file

Click on **Database Management** menu, then select **Import from csv file**. If product list file is Microsoft Excel file, open it with Excel and use Save As and select file format as **csv** format.

Steps to Import Product List from a CSV File:

- Click on import csv file, navigate the directory and select the csv file (as depicted below). One csv file should contain one product type (such as Carpet, etc), if your product file contains multiple product types, break into separate csv files by product type.
- Upon importing, click on 'Match Fields' button to sync the imported file fields with those of the program database. The most important field is Style Code. Match as many fields as possible, leave the unmatched field blank. For Type Code and Category Code, you may match the ones in the sample database to have the items imported under the same categories.





If in csv file there is **Unit** or **UOM** column, make sure the unit labels in there matches the ones used in the program database (such as SY, SF; if not, convert them into SY or SF and save into the csv file to ensure accurate importing).

Export as CSV file

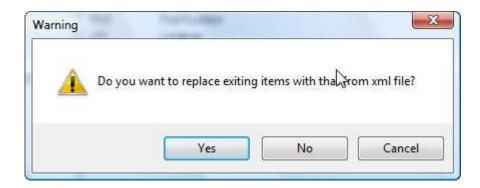
Export existing product services database into CSV file.

Back up database as XML file

Navigate to target directory then type a file name then click Save.

Restore database as XML file

Navigate to file folder and select the XML file that was generated by back up database as XML file command. At import, a warning message prompts if imported items are to replace existing ones which match the same style code.



Generate Excel template

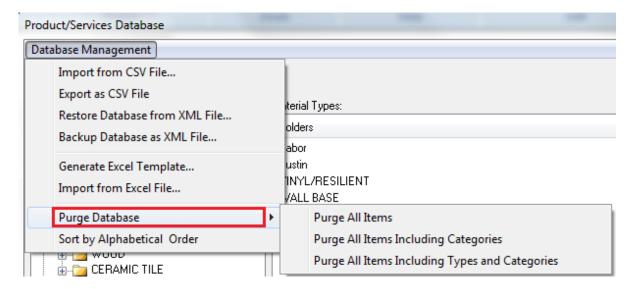
Export existing database into Excel file template.

Import from Excel file

Import product items from Excel template file generated by the reversed operation (see above Generate Excel template).

Purge database with options

- Purge All Items: delete all items but leaves folder structure
- Purge All Items Including Categories: delete all items including second-level folders
- Purge All Items Including Types and Categories: delete all items including folder structure



Sort by alphabetic order

Sort folder name structure and product item style codes by alphabetic order. This operation

cannot be undo.

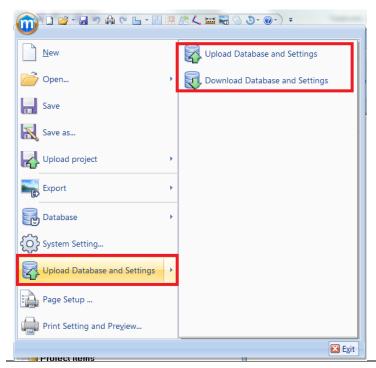
4.11 Transfer product database to another computer

One may use Back up database as XML file command, and transfer that XML file to another computer, and use Restore database from XML file from Database Management menu.

4.12 Manage databases from customer web login

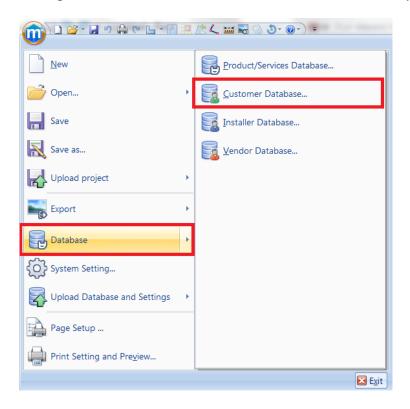
From customer login, under Online Services tab, find instruction on how to upload and download product database, customer database and vendor database, and system setting profiles. Here are uses of these services:

- Administrator can upload master copies of databases onto web account with different codes for any types of database backup purposes (for example, commercial bidding, retail estimating, installation, multi-family bidding, etc)
- Users of an organization can download with specified download code to sync from web site directly from the program (from File menu)



5 Customer, Installer and Vendor Databases

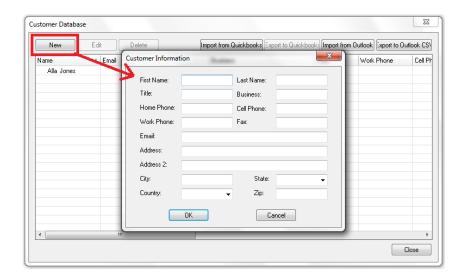
From File, Database submenu, there are a few other databases that users can use to manage their customer, installer and vendor databases for quick order sheet preparations.



5.1 Customer database

Within this database window, these functions can be performed:

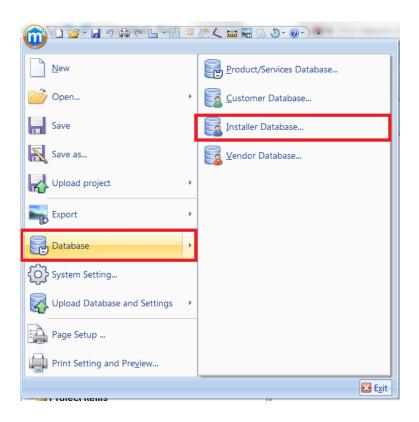
- Create new contact, edit or delete existing contacts
- Import customers from QuickBooks
- Export customers to QuickBooks
- Import contacts from Outlook
- Export customers as Outlook csv file



Click **New** to pop up **Customer Information** window. Fill in text box with related information.

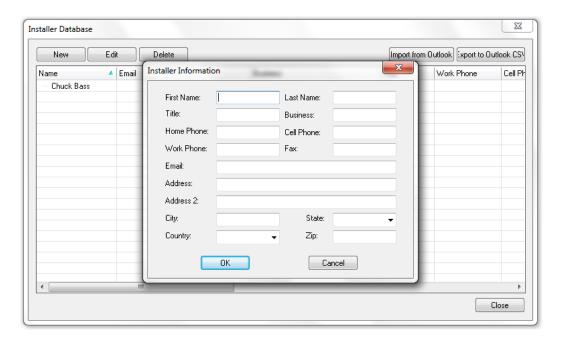
To import from Outlook, simply click the button **Import from Outlook** and the program will prompt to sync with the Outlook contact list on the condition that Outlook contact list has been defined. Click Name to sort Name by alphabetical order.

5.2 Installer database

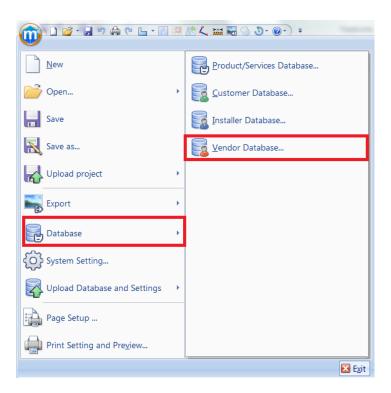


Within this database window, these functions can be performed:

- Create new installer, edit or delete existing installers
- Import contacts from Outlook
- Export installers as Outlook csv file

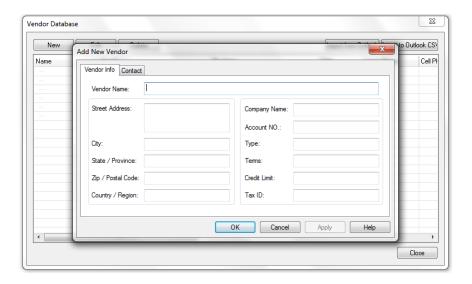


5.3 Vendor database



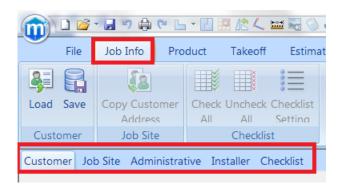
Within this database window, these functions can be performed:

- Create new vendor account, edit or delete existing vendors
- Import contacts from Outlook
- Export vendors as Outlook csv file



6 Project Setup When Starting a New Project

Before starting a new takeoff estimating job, prepare to set up job related data under **Job Info** tab.



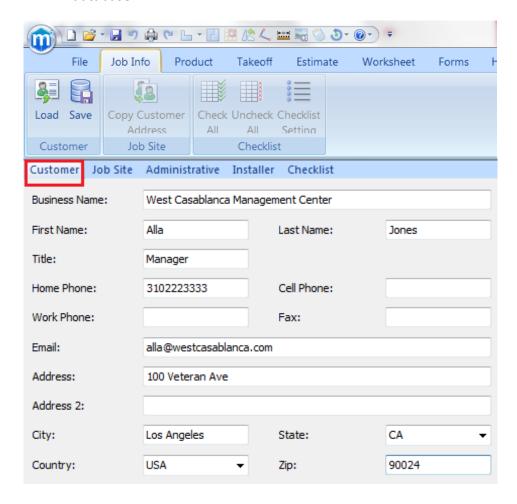


- **Customer/Job Site (optional):** Customer contact and job site information (to be used for Estimating Summary report, Quotation, Work Order, Invoice forms, etc.)
- Administrative (optional): Project administrative reference information such as project number, plan name, architect, and revision dates.
- Installer (optional): Installer contact (for Work Order)
- Checklist (optional): Predefined check list (or best business practices)
- Click here to watch how to set up job info

6.1 Customer info setup

Enter new customer information or load one from existing customer list.

- Use **Load Contact** button to select from existing customers
- Use Save to Database button to save newly entered customer into customer database

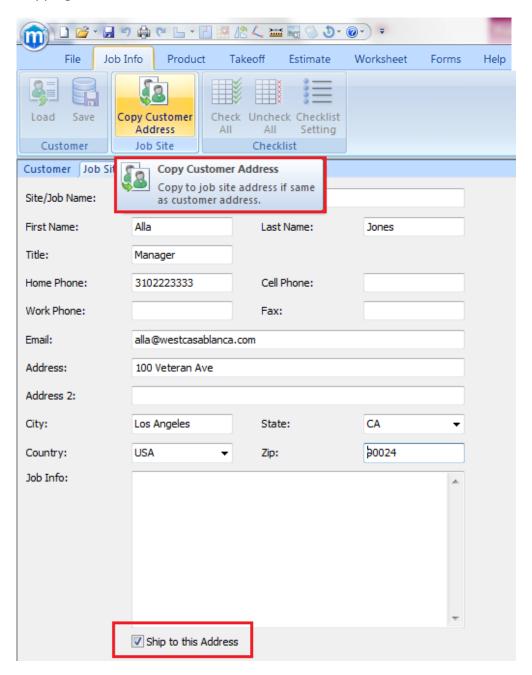


Customer information entered here is to be used in Estimation Summary report and Quotation sheet forms at later stage.

To open customer database, select **Customer Database** under **Database** submenu from **File** menu.

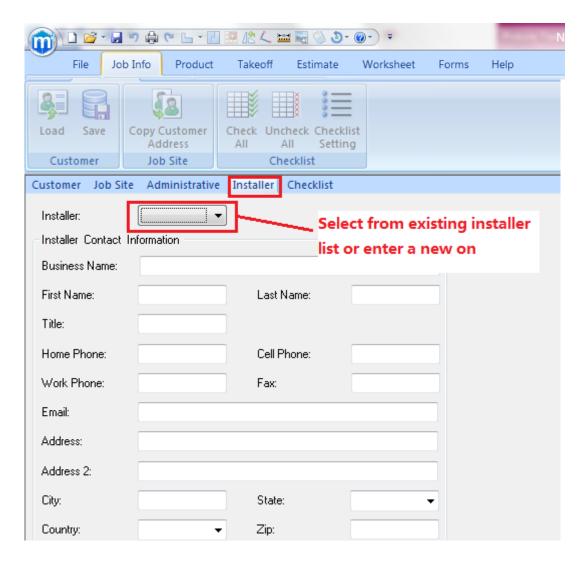
6.2 Job site info setup

If the job site address is the same customer address, click on **Copy Customer Address** to pass info from **Customer** tab. Check **Ship to this Address** to copy customer address as shipping address.

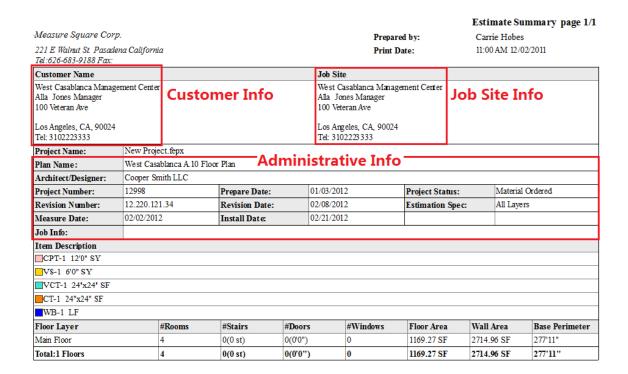


6.3 Administrative info setup

This tab helps organize with project administrative information which is to be used in estimating summary report.

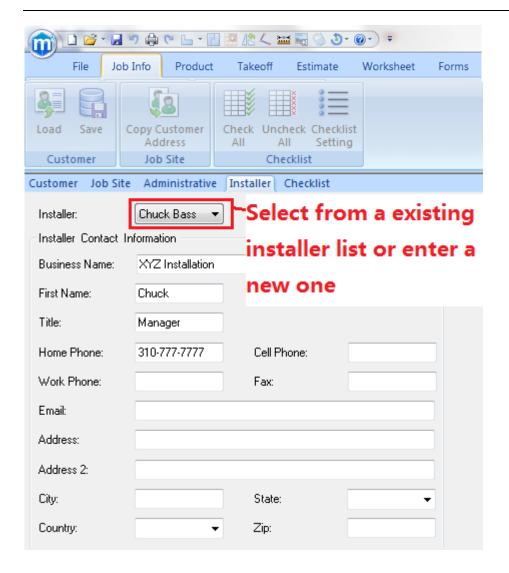


Here is sample printout on how customer/job site info and administrative info show in Estimation Summary report. Info included in this section can reference to other information sources such as plan name, revision number, and project serial number.



6.4 Installer setup

Select from existing installer database or create new installer profile. Installer information entered here is to be used in Work Order sheet forms at later stage.

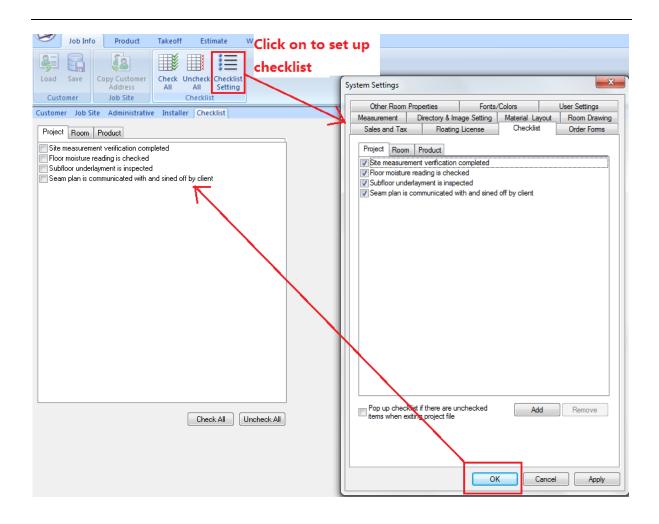


To open installer database, select **Installer Database** under **Database** submenu from **File** menu.

6.5 Project checklist

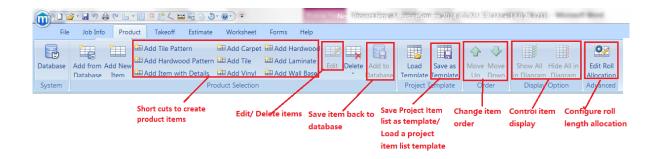
Project check list is a list of predefined reminders and questions that may represent best practices of a business or guidelines of some standards to ensure better business processes and executions.

Checklist can be set up under Checklist tab of **System Settings**. It can be configured to pop up checklist window as project save time if this checklist is not completed fulfilled.



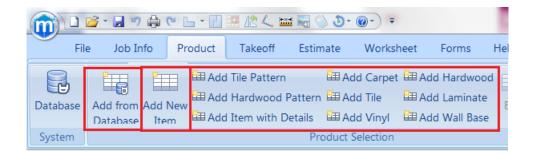
6.6 Material schedule setup

• Under **Product** tab, material schedule as specified document for the project (for layout estimating) can be set up.

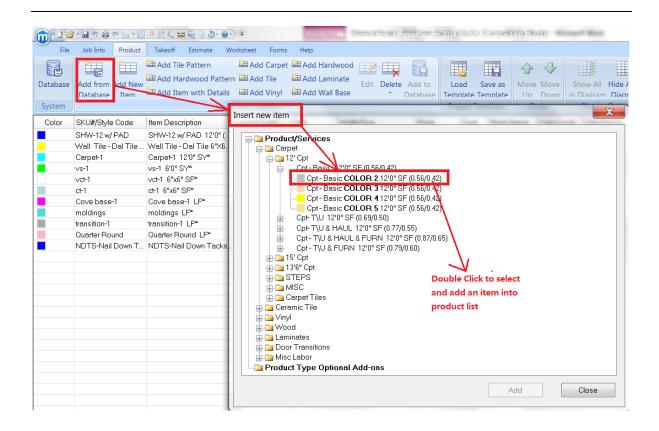


Material Schedule can be set up by

- Add items from main product and services database
- Add items ad hoc for this project (still accessible within this project)
- Or combination of above two ways

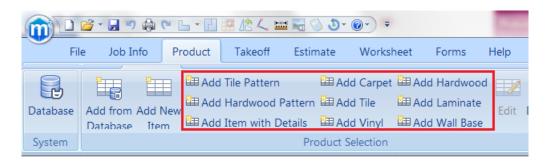


Add from Database: Click on the button to pop up product database, navigate and double click on items to bring into project list. When done, click **Close** button.



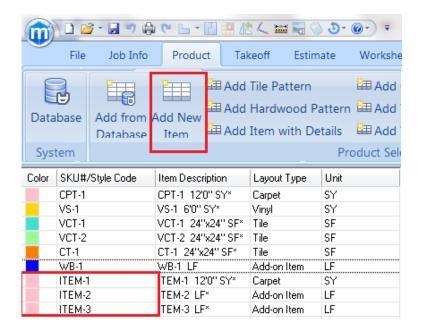
Add New Item: There are three methods to add new items.

Method 1: Click the short cuts on the Ribbon to create generate products such as carpet, vinyl, tile, wood,lamninate and wall base. (**2013 feature**)



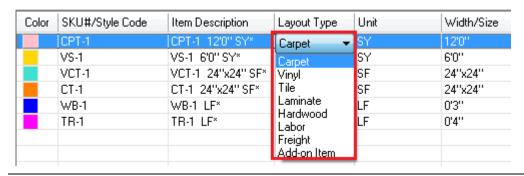
Method 2: Click to add as many project product items as needed, and then configure each item based on their product characteristics (for example, their layout estimating type and paramters).

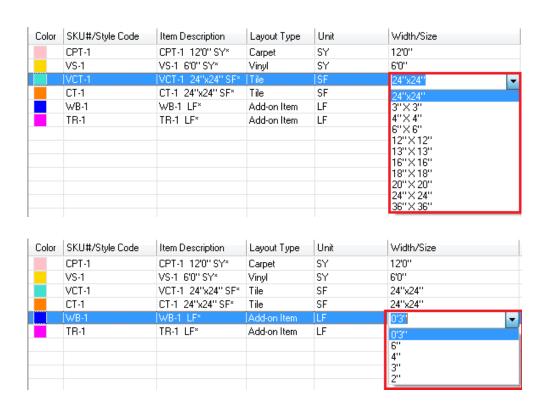
 Click on Add New Item six times to add six new items to project item list. By default, each item is set as layout type as carpet with name ITEM-X, unit SY and width 12'.



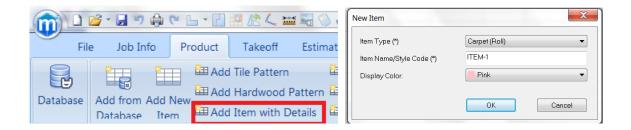
- **Configure Item for layout estimating.** Follow these steps to configure each item to set their layout estimating property:
- 1. Double click on SKU# / Style Code to change its product name
- 2. **Important**: Double click on **Layout Type** to set material layout/estimating type (*Note:* Layout type of Carpet Tile, Vinyl Tile, and Ceramic Tile is Tile)
- 3. **Important**: Double click to select **Unit** from pulldown list (use LF for length-based items, transition, base, molding, etc.)
- 4. Double click to set **Width/Size** (for roll goods, use roll width format 13'6"; for tile, use size format 12"x12", for LF base, use format 4", etc.)
- 5. Double click on **Color** to set item display color
- 6. Set **Price**, **Cost** if needed (if only estimating for quantities, these numbers can be left as default 1.0)

Here is a partial setup for a commerical project material schedule setup with CPT-1, VS-1, VCT-1, CT-1, WB-1,TR-1.





Method 3: Click on the triangle under Add New Item to open the sub-menu. Click on Add Item with Details.



- Select Item Type, enter Product Name/Style Code and Display
 Color(optional).Product Name/Style must be unique across database (except with different color code)
- Right-click on it and select View/Modify to specify detailed Item info, and estimating info and pricing info sections. Please refer 4.3 Add and spcify a produt item

Layout Type Quick Reference for major flooring product and installation products:

Product	Layout Type	Unit
Carpet (roll)	Carpet	SY/SF
Vinyl, Linoleum, Robber (roll/sheet)	Vinyl	SY/SF
Carpet Tile, Vinyl Tile, Rubber Tile	Tile	SY/SF
Ceramic Tile, Procelian, Stone, Mosaic,	Tile	SF
Marble, Slab, etc.		
Hardwood (squares), Laminate (squares)	Tile	SF
Hardwood/Cork (planks)	Hardwood	SF
Laminate/Cork (planks)	Laminate	SF
Base, Transition, Heat Welding,	Add-on Item	LF
Threshhold, Reducer, Molding, Quarter		
Round, Trim bullnose, Stair nose,		
Stringer		
Underlayment (pad, cork, plywood)	Add-on Item	SY/SF
Painting, wall paper, concrete	Add-on Item	SF
Installation labor (area-based products)	Labor (or Add-on Item)	SY/SF
(carpet, tile, wood, pad, tear-and-haul,		
etc.)		
Installation labor (length-based products)	Labor (or Add-on Item)	LF
(base, heat rod, transition, etc.)		
Installation labor (EA) (Door cut,	Labor (or Add-on Item)	EA
furniture removal, per stair step charge,		
etc.)		
Freight	Freight (or Add-on Item)	EA

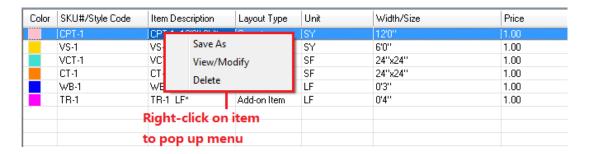
Display and Unused Flags:

- **Display**: when checked, show this product color in drawing. This flag can be used to control printout when some items need to be hidden from diagram printout. Refer to printout report section 0 for more information
- **Used**: state flag indicating if this item is being assigned on any room



Other commands on this interface is described below:

- Right-click menu: Right-click over item, select View/Modify to edit item detail, or
 Delete item, or Save As another item (useful when creating similar items)
- Load /Save Template: Load a project item list template (M2pil file) from the local drive or save current project item list as a template to the local drive.
- Move Up
 ¹ and Move Down
 ¹: use to reorder item sequence
- Show All in Diagram/Hide All in Diagram: toggle display or hide all items in diagram window and printout
- Add to Database: save project items back to product database. Multiple items can be selected with Ctrl-key (but if one of items has already existed in database, this button is grayed out)
- Set Roll Allocation: configure roll carpet good with different dyelot and roll lengths
- **Keep Item Order in Worksheet and Estimation Summary**: keep the same order as in this list, otherwise sort by alphabetic order



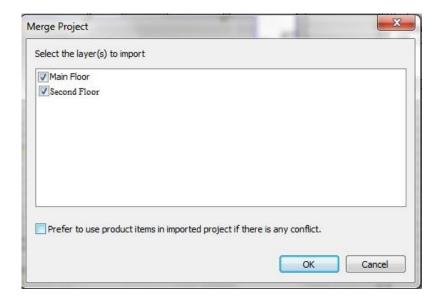
Click here to watch how to set up material schedule

6.7 Merge multiple projects files into one

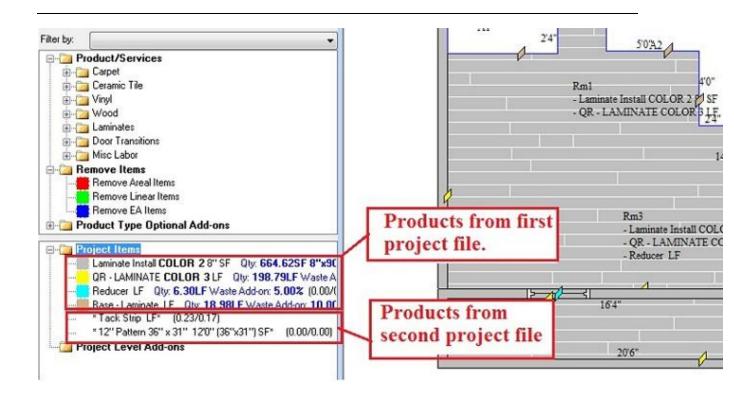
From M2 version 2012, the program allows user to merge multiple project files into one so that multiple people can work on different parts of a job and combine them later.

To merge two projects:

- **Step1.** Open an existing project in M2, from the upper-left round File menu->Open...->Merge project file...
- **Step2.** Upon the popping out window, navigate in your computer and select the second project file that you want to merge, then click on OK.
- **Step3.** Upoin the popping out window, select one or multiple layers that you want to merge . If there is any conflict and you prefer to use the items from imported project, you can check the box at the bottom of the window. Click on OK



Step4. After merging, you will see the the selected layer(s) are loaded into M2 and imported items are listed under Project items with star symbol. You might double check the product list again and re-estimate if necessary.



Plan File Import and Scale Setup 7

More often your builders, architects and designers send floor plan files electronically in bitmap or CAD formats such as jpg, tif, pdf, dxf/dwg formats. The program provides various importing functions to bring these files into the program and one can takeoff the areas from the imported image background.

Importing plan files in different formats

Supported file formats are:

General image formats: JPG, TIF, GIF, BMP etc.

Dodge plan file: PLN

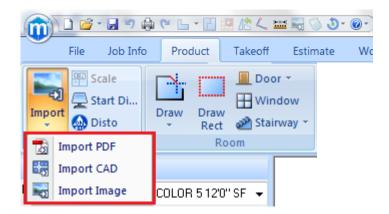
Adobe file format: PDF

AutoCAD file: DXF, DWG, DWF

Insert Plan File to an Existing Layer:

Tap to the layer, then from **File** menu, select **Import**, and select import file types

Set up takeoff scale at each layer with each imported image plan



Some importing functions are available at higher editions of the program. Please check the edition comparison chart at http://www.measuresquare.com/products.html for details.

As many projects involve multiple floor layers. Bitmap plan files can be imported into each layer, but one plan file in a layer.

When the floor plan is selected to be imported as background, **Image Import** dialogue box will pop up. You can:

Scale the takeoff image

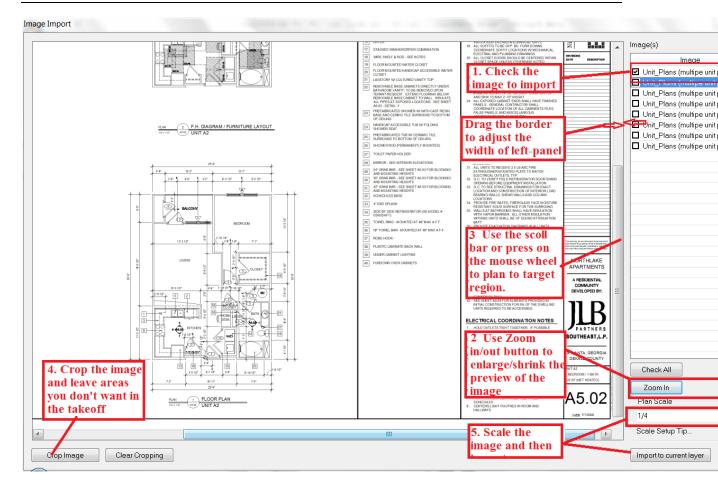
Merge multiple pages of a file into a layer

Import multiple pages of a file to multiple layers

Crop image if needed

Zoom in/out and pan the preview of each image page

Image Import dialogue box:

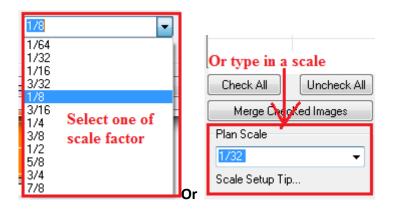


To zoom in/out the image, use Zoom In/Out button or scroll the mouse wheel to enlarge/Shrink the image.

To pan the image, use the scroll-bar or press on the mouse wheel.

To scale the image, choose a scale number in the pull-down list of **Scale down for Performance Factor** or type in a desired scale number in the blank.

To flip/mirror image (by x or y axis), after the image is imported to current layer, right click-copy, create a new layer and then right click -> paste-> paste mirrored by x or y. Please refer 7.2 to see how to add multiple layers.



To enable user to select images to load (2013 feature), the program will load and display the name of each page first when loading a batch of PDFs/images. Then the user can select which pages to preview and import to the M2.

- Click here to watch how to import blueprints in PDFs file format
- Click here to watch how to import multiple blueprints on the same layer
- Click here to watch how to crop image while importing

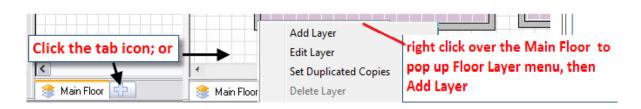
7.2 Adding multiple layers

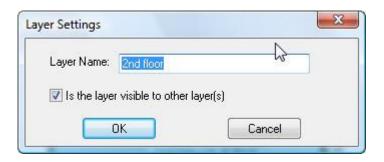
As residential houses, apartments and commercial buildings can be constructed in multiple floors, the program provides the function to add and edit multiple layers.

Add New Layer: click or right click over the Main Floor tab at the bottom of the program window, select Add Layer, and then enter the new layer name, check on "Is the layer visible to other layer(s)" if you want to view the grayed out room shapes of this layer from other layers.

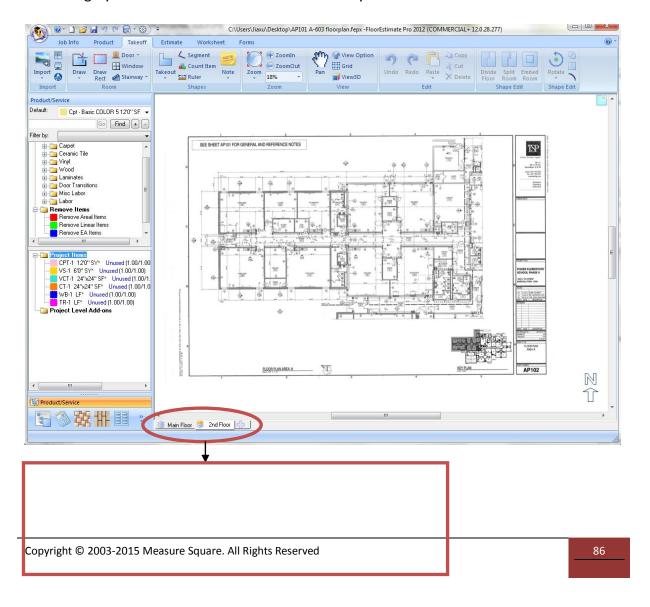
Edit the Layers: Right-click over the tab, select Edit Layer

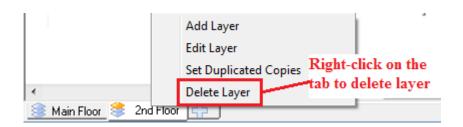
Delete Layer: Right-click over the one to be deleted, select **Delete Layer.**





Switch between Layers: Click on the new Second Floor tab to switch to the layer. You may view the grayed out rooms of the first Main Floor layer.





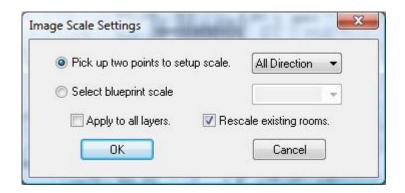
On the Image Import dialogue box, you have scaled your image to scale down for performance factor. After you have imported the image in the layer tab, you need to set up your takeoff scale for actual takeoff job. Then, you may start drawing the rooms into this layer.

7.3 Setting up takeoff scale

After the blueprint is imported, there are two methods available for setting up takeoff scale as well:

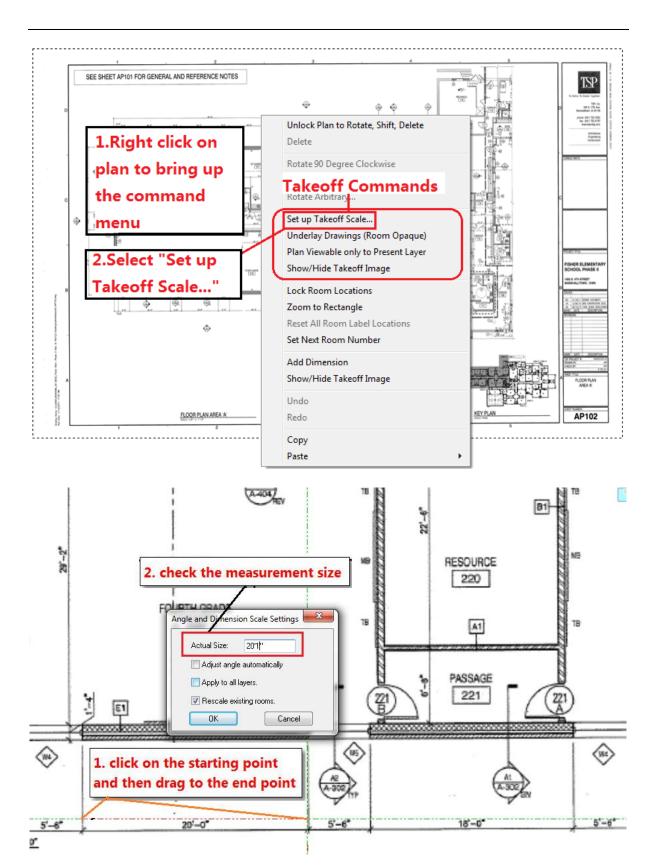
Pick up two points to setup scale (recommended)

Select blueprint scale (see WARNING note below)



WARNING: Use "Select blueprint scale" option with care. As scanned image files are not normally guaranteed to maintain the real plan scale (such as 1:4, 1:8 etc) even if it prints the scale on the plan. Always verify the takeoff scale.

Normally upon import, the plan image is too small to see room details, click on Cancel button on above form; and then zoom to the details where wall segment with size can be identified, then right-click over the image area, select **Set Takeoff Scale**.

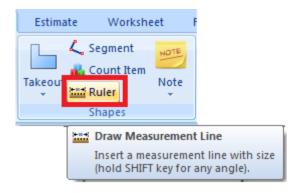


Click here to watch how to set up the blue print scale.

Click here to watch how to correct miss-scaled plan.

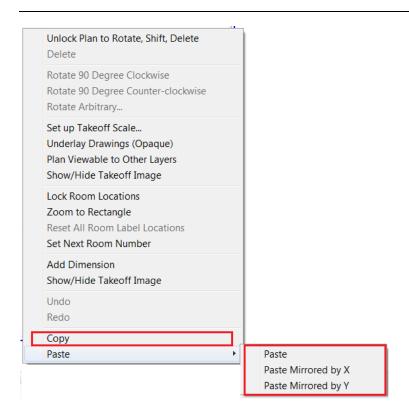
Use Longer Wall Segment for More Accurate Takeoff Scale Setup: measure longer wall segment generates more accurate setup than short wall length.

Verify Takeoff Scale: measure known wall segments before the actual takeoff using Measurement Tool on the toolbar. Click Insert measurement between two points then click on the starting point and drop to the end point.

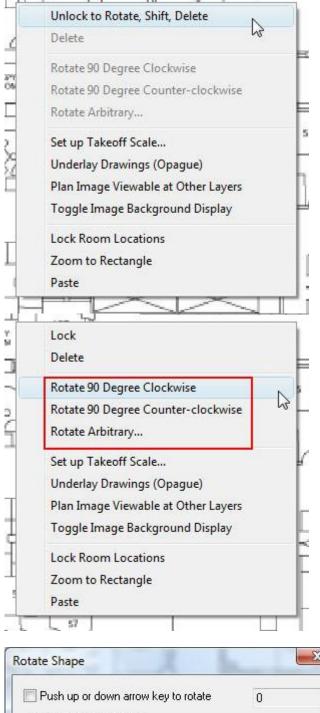


Rotating shifting and flipping plan image 7.4

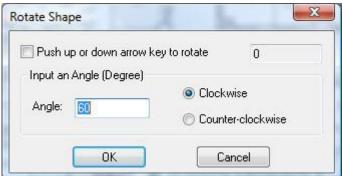
To flip/mirror image (by x or y axis), right click the background image to copy, then create a new layer and then right click to paste mirrored by x or y. Please refer 7.2 to see how to add multiple layers.



Right click the background then **Unlock to Rotate**, **Shift**, **Delete** to activate the grouping rotation options. One can quickly **Rotate 90 Degree Clockwise** or **Counter-clockwise**, or rotate any degree by **Rotate Arbitrary**.



отонем



Or you can simply choose and click the designated icons







and Rotate Arbitrary Angle



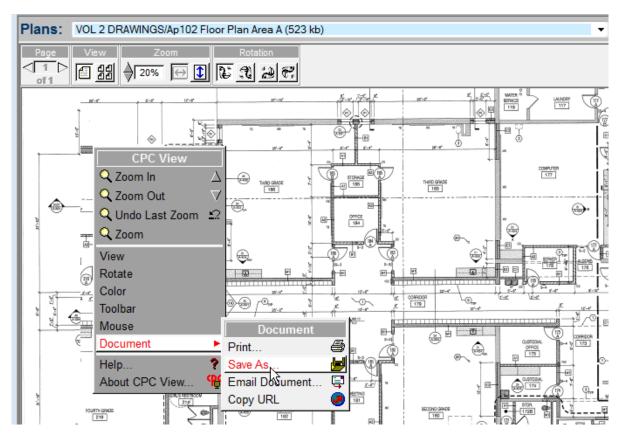
Floor layer tab order can be adjusted by moving tabs back and forth. Select a layer tab first, click and press on the tab until it flashes, then drag to place it to another location.

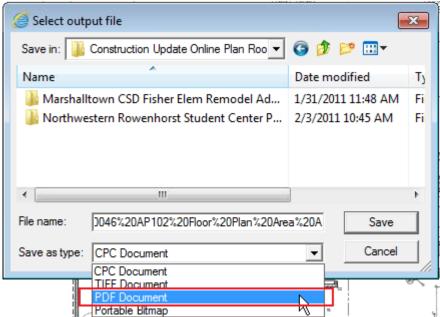
Alternatively, to change the sequence of layers, go to room Room View, select a layer and then click "UP" or "DOWN".



7.6 Import plan files from isqft.com online plan room

From isqft plan drawing window, right click to pop up command menu, select **Document**, **Save As**, and then at file save dialog, select **Save as type** as **PDF Document** which can be imported into MeasureSquare COMMERCIAL program.





For other online plan rooms (Dodge, Bluebook, etc.), find similar plan files saving commands to save floor plan as PDF, TIFF, JPG, or CAD formats so that they can be imported into MeasureSquare program.

8 Plan Takeoff (Room Area Tracing)

Plan takeoff is the process to capture all floor areas (including their walls and ceiling areas) by tracking over imported floor drawings so that product assignments can be applied on these takeoffs at next step.

8.1 Drawing and takeoff tools on toolbar

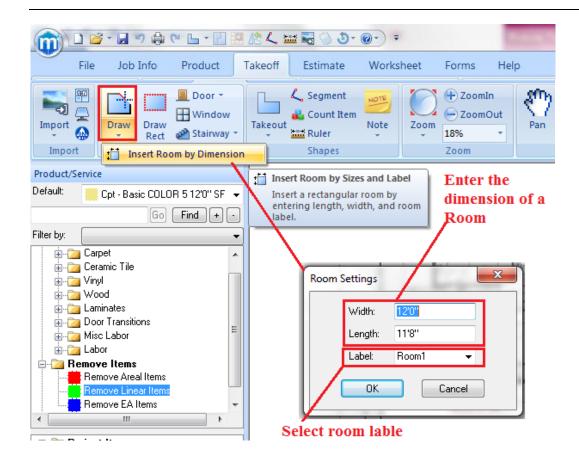
Takeoff tools are grouped under **Drawing/Takeoff Tools** group on toolbar. Their usages are explained in following sections. Mouse over any icon displays a brief description on its function.



Click here to watch introduction to takeoff tab

8.2 Insert room by dimension

This tool is for inserting a rectangular shaped room or area by entering length, width and room label, and it runs on continuous mode until cancelled by right-click.

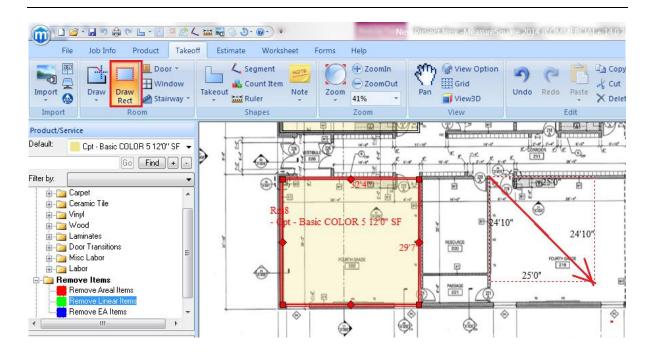


Click here to watch how to takeoff a plan

8.3 Rectangular room takeoff

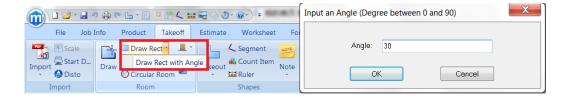
This tool is for capturing rectangular shaped rooms or area, and it runs on continuous mode until cancelled by right-click.

Left-click on first corner of rectangular area, then press down left button and drag to the opposite corner of the rectangular area, release left button to complete takeoff.



Create rectangular room with any angle

- Click the triangle under Draw Rect command and select Draw Rect with Angle.
- On the pop-up window, enter a degree and then all rectangular rooms will be created and rotated based on the angle.

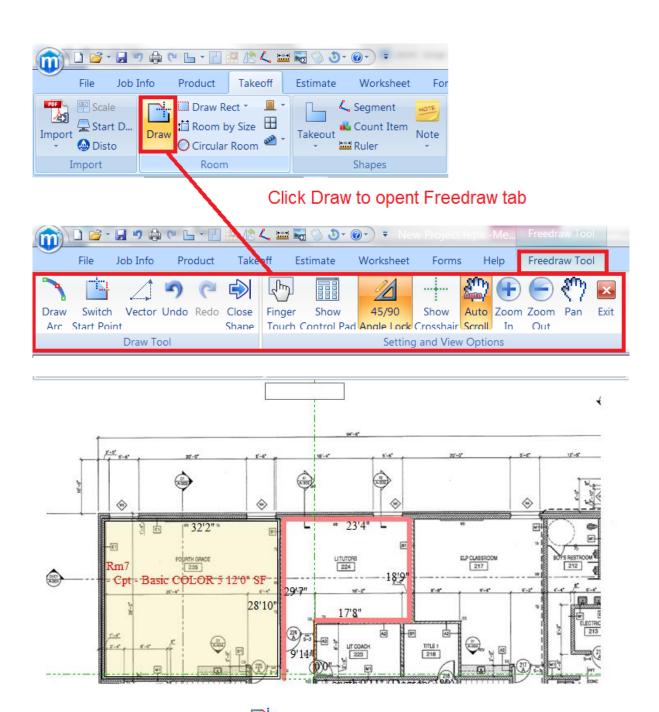


Click here to watch how to takeoff a plan

8.4 Room takeoff with Freedraw

To capture irregular shaped rooms and open areas such as hallways and corridors, Freedraw tool is used to trace around perimeter of the area. When click on Freedraw icon, Freedraw Tool tab appears where you will find a bunch of functionalizes organized under Draw Tool and Setting and View Options. Freedraw runs on continuous mode to capture

multiple numbers of room areas until cancelled by right-click.



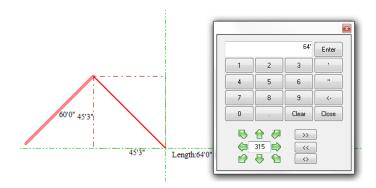
• Click on Arc icon Press or hold R key to turn last two segments as an arc, move cursor to the other end of curve, left click to create an arccross these

three points

- Click on **Switch start point** icon to switch start point to other end. It is useful for switching drawing from another end of loop.
- When click on **Vector**, draw two walls, then it converts to a single wall by connecting first point to 3rd point. It is useful for drawing angled all with boxed edges.



- CTRL-Z or click on icon to back up one step or multiple steps (undo)
- Click on to **redo** one step or multiple steps
- Click on , hit **space key** or **right-click** on to **close loop** to the starting point of the room area
- Press down and hold mouse wheeler or click on to pan (shift) whole drawing
- Press on **Finger Touch** to do the takeoff using the finger or Stylus pen.
- To turn on **45/90 degree lock** click on a or press and hold **SHIFT key** to allow drawing line to swing to any angle (if 90/45 angled is toggled down for drawing on tool bar)
- Click on **Show crosshair** icon to show crosshair at drawing. It is useful for alignment with previous corner point.
- Click on to turn on/off **Auto scroll drawing.** When it is on, move mouse cursor out of any border of drawing window to auto scroll in that direction to.
- Click on **Show Control Pad** to pop up control panel for directed drawing with direction and size with entry pad. It is useful for stylus pen or finger touch.



- Scroll mouse wheeler or click on or icon to zoom in /out whole drawing
- Press **P** key to pause drawing, then click on start point end (or current stopped end) to restart drawing from that end
- Click on **Exit** or press and hold **Q** key to turn current drawing line perpendicular to previous segment

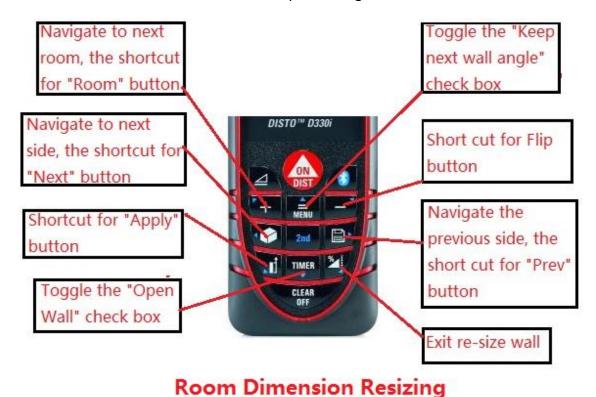
Takeoff rectangular rooms with walls which are not parallel to X axis or Y axis (2015 feature)

Sometimes there are rectangular rooms with walls which are not horizontal or vertical as shown in the image below. You cannot use draw rectangular command, but you can takeoff them easily with **Freedraw**.



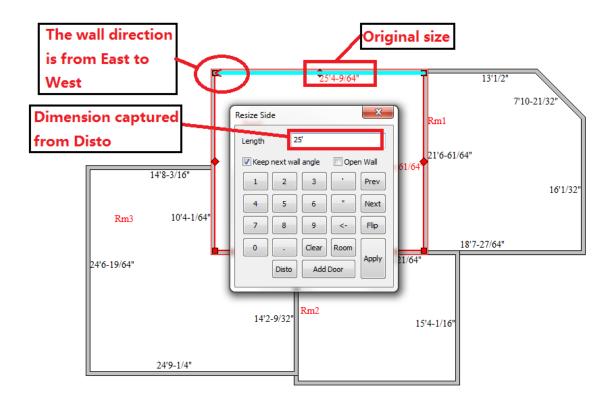
Room dimension resizing using Disto

After the connection established between MeasureSquare and Disto, you can communicate and control the Resize Side panel using Disto.

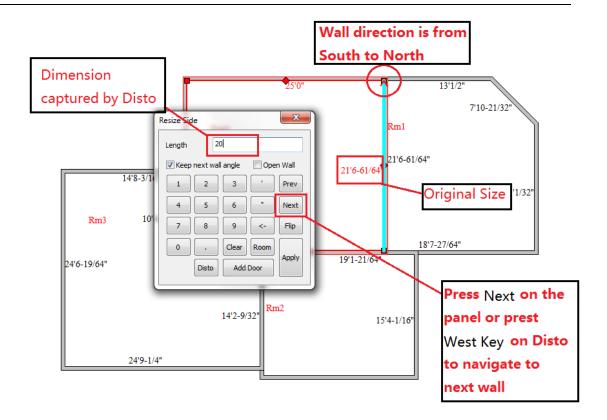


- 1) After double-click on a wall and connect Disto to M2. The selected wall is highlighted in blue. The original size of the wall is 25'4'9/64"."Now aim the Disto and press the ON button to shoot a measurement. The dimension of the current wall appears on
- 2) Press the Bluetooth button on the Disto to send the dimension to the Resizing Side panel. The length entry box will show the new dimension transmitted from Disto. In this example, it is 25'

the screen on Disto. In this example, it is 25'.



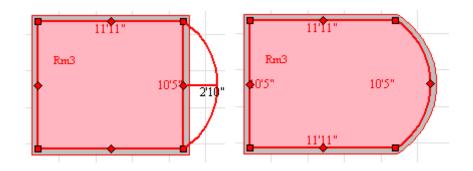
- 3) Press the Southwest key on the Disto or click on Apply key on the resize Side panel. The wall is resized in the drawing area from East to West (right of the screen to the left of the screen).
- 4) Press West key on Disto or press Next button on the panel to highlight next wall. Aim the Disto, press the ON button to shoot the measurement and then press Bluetooth button to transmit data to M2. The dimension of the next wall appears on the screen. In this example, its original size is 21'6'61/64" "nd the measurement Disto captured is 20'.



- 5) Press the Southwest key on the Disto or press Apply button on the panel to send the dimension to apply the new size to the highlighted wall. The wall is resized in the drawing area from South to North (bottom of the screen to the top of the screen).
- 6) Repeat 4)and 6)to finish a room. Then press Northwest key on Disto or click on "Room" button on the Resize Side panel to navigate to next room.

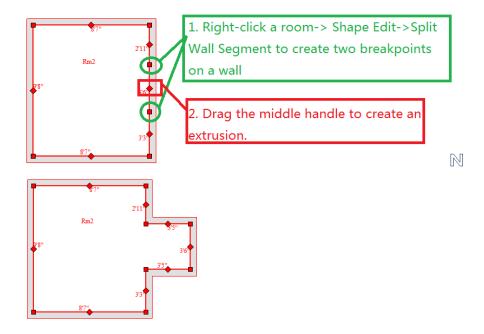
Turn straight wall into arc with arc tool Another way to create an arc is to simply connect two end points of curve with straight line, after completing the Freedraw. Use Arc tool on toolbar to convert a straight line into an arc.

Select to highlight a room first, Click on arc tool icon on toolbar, and then drag on middle point handle of any wall segment to extend to displayed distance.



Adjust room shape after closing. Drag on corner point handle to adjust its location and size. Drag on middle handle of a wall segment to adjust its size in parallel movement.

Create extrusion on a wall. Insert two breakpoints on a wall. Drag the middle handle to create an extrusion as shown below.

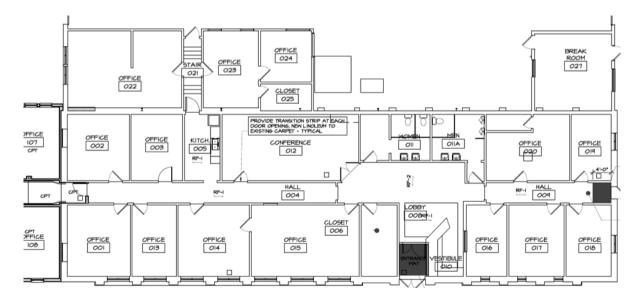


Click <u>here</u> to watch how to takeoff the blueprint with Freedraw

CTRL-Z reopens drawings even after Freedraw shape is closed.

8.5 Batch room takeoff using Floor Divide and Split Room commands

Often commercial flooring involves floor plans with rooms and open areas connect to each other and share walls. Individual takeoff on each room is inefficient and aligning them with shared walls is tedious as well.

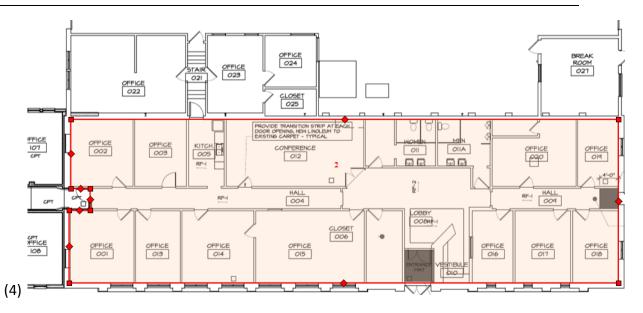


Using Floor Divide and Split commands substantially speeds up the process:

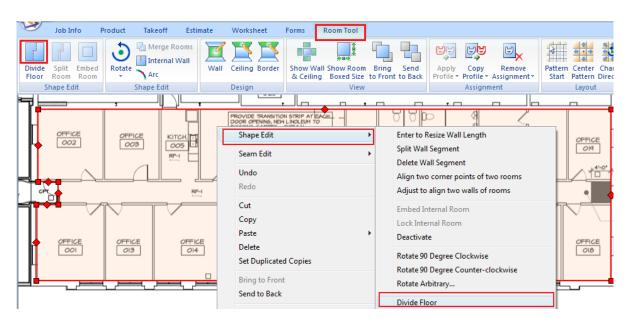
- First, use Freedraw to capture **inside** perimeter of floor area with batch of rooms connected to each other with shared walls
- Click on **Floor Divide** on **Shape Edit tool bar** or right-click over the captured area, from **Shape Edit** submenu, select **Floor Divide**
- Connect shared walls (longest walls first, it may cross several rooms), this process divides whole area into divided rooms and open areas regions
- Click on **Split Room** on **Shape Edit tool bar** or right-click over the divided area again, from **Shape Edit** submenu, select **Split Rooms by Floor Divider**, it converts divided regions into individual rooms with shared walls properly aligned automatically

The steps using above example are shown below:

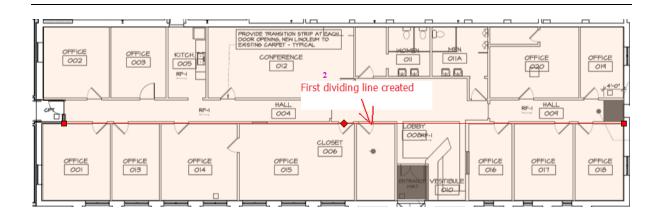
(1ace whole floor area with multiple rooms on their inside wall perimeter. Zoom in close to details while drawing.

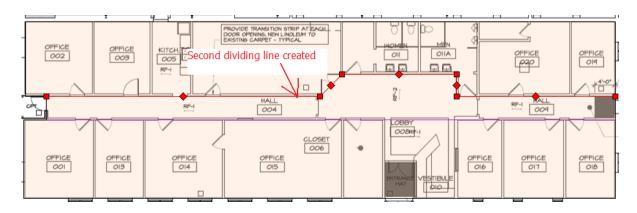


(2) Click on **Floor Divide** icon on **Shape Edit** tool bar or right-click over the area, apply Divide Floor command

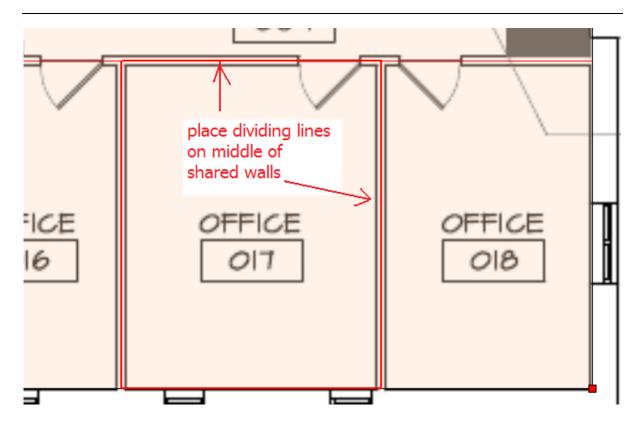


(3) Divide longer shared walls first (that crosses multiple rooms), then continue on dividing individual rooms.

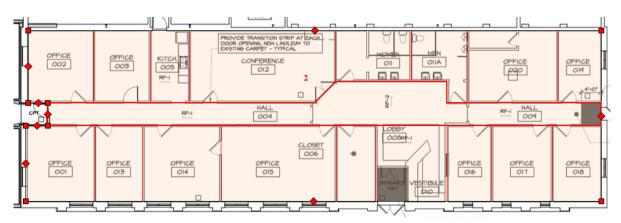




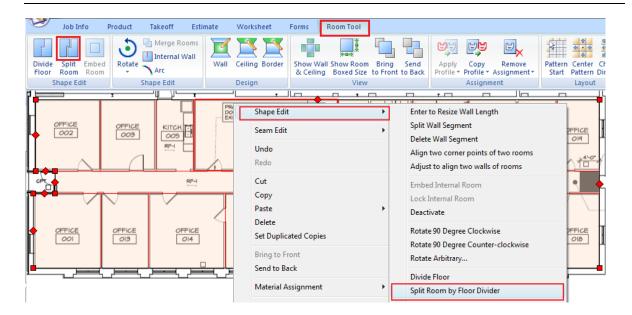
Place dividing lines on middle section of walls.



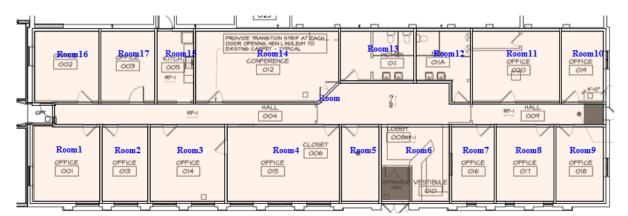
Here is the completed office area with dividing lines.



(4) Click on **Split Room** icon on **Shape Edit tool bar** or right-click over the area, from **Shape Edit**, select **Split Room by Floor Divider**



Then divided regions turn into individual rooms which are aligned on their shared walls and can be independently operated.

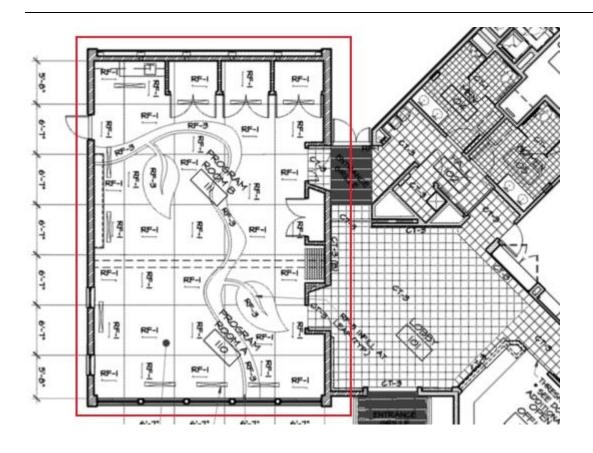


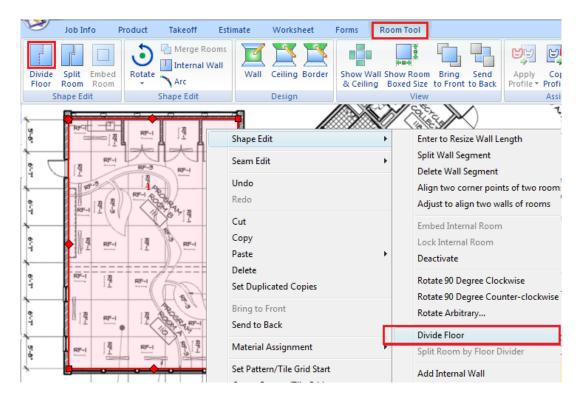
Click here to watch how to takeoff a batch of rooms with floor divide and split room

8.6 Divide floor area into regions (for different products)

It is common in commercial floor design that an open area is designed with patterns and different colored products. In such case, a floor area is divided into connected regions using Divide Floor command from Shape Edit submenu.

Capture whole area first with Freedraw on its inside wall perimeter, then use Divide Floor icon or command to place dividing lines along each border lines of products or patterns.





If there are curves on dividing line, simply connect two ends of an arc with straight line.

Several arcs may be used to simulate spline curve), and complete dividing line.

To turn segments of dividing line into arc, select the dividing line that needs to match to curves, Click on Arc tool on **Shape Edit** toolbar, and then pick each middle handle of segment to convert it into arc.



Continue on creating second border lines, and turn it into curves. With divided regions, different colored products can be applied to the regions (as in this flower region case)



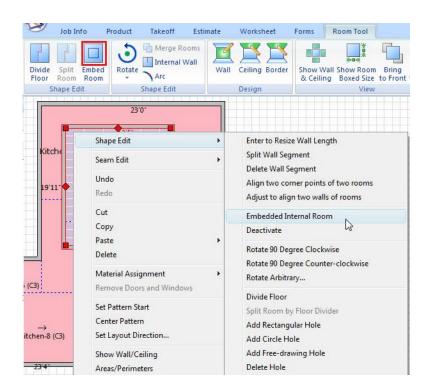
Click here to watch how to takeoff a batch of rooms with floor divide and split room

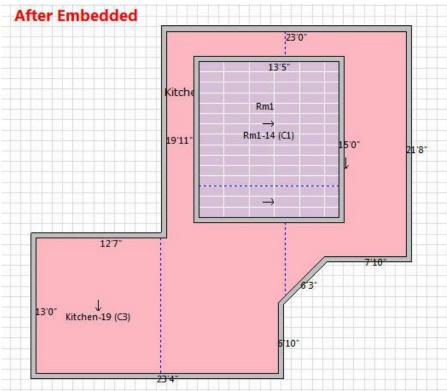
8.7 Embed rooms inside another room

There can be rooms inside a bigger open area where these room areas need to be taken out of the bigger area. Placing rooms inside another room does not automatically deduct the areas, **Embed Internal Room** command is used to specify the embedded room so program deducts the embedded area at estimating time.

Takeoff inside rooms, click on **Embed Room** icon on **Shape Edit** tool bar under **Takeoff** tab or **Room Tool** tab or right-click and from **Shape Edit**, select **Embed Internal Room**.

- Once a room is embedded, its boundary color is in blue
- If an embedded room is moved out of the host room, the embedding relationship is automatically removed
- An embedded room location can be further locked with respect to the hosting room with Lock Internal Room command, and boundary color turns pink

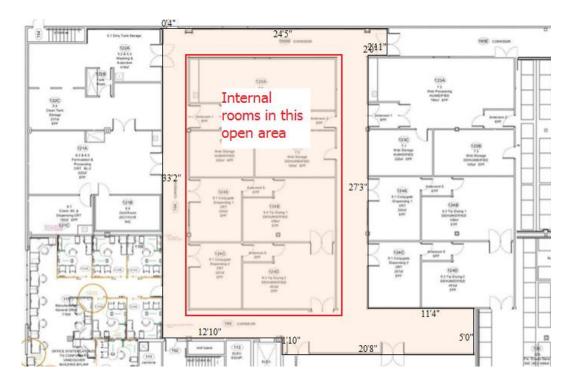




Switch to 3D view to see the effect.

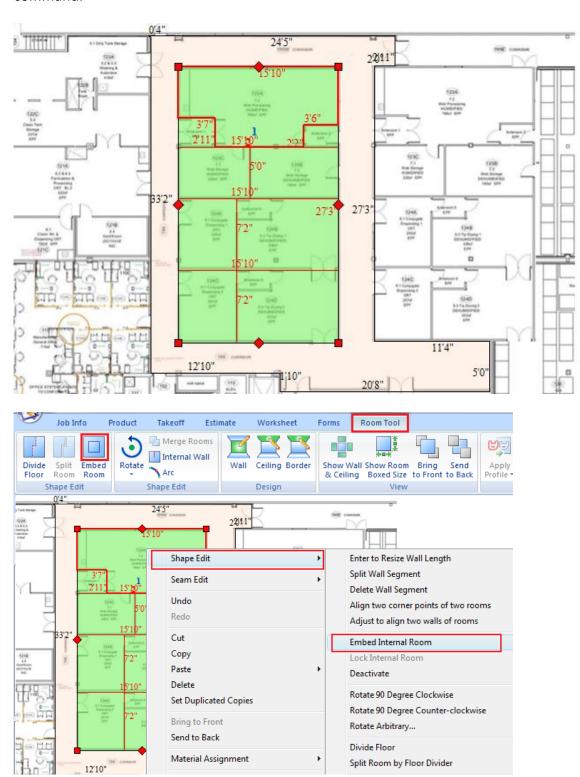


Embed Internal Room can be combined with **Divide Floor** command to takeoff inside rooms of floor.



Takeoff this side section first, then divide the area into room region with Floor Divide

command.



Then use Split Rooms by Floor Divider command, all internal rooms are placed and aligned properly. At estimating time, inside room areas are deducted from this open area.



Embed a batch of rooms: Press Ctrl key to select multiple rooms and embed them in one shot

Click here to watch how to embed a room into a hosting room

8.8 Create inset or nested inserts with Embed Room command

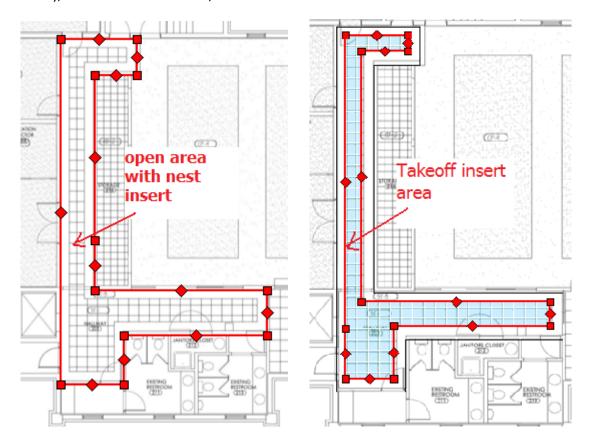
Embedded room concept can be applied to create sophisticated floor design particularly inside an open area with nested borders or a design shape with different colored materials.

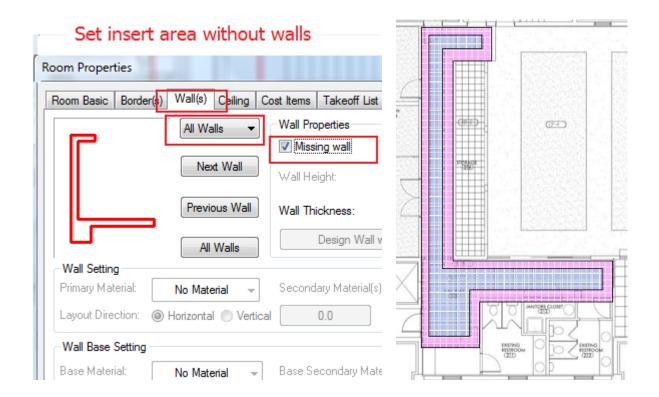
The key is to takeoff insert area as an **embedded room area without walls** so design operations that apply to room can be applied to insert area.

 Remove walls from insert area, go to Walls tab of room Properties, set all walls with Missing Wall state

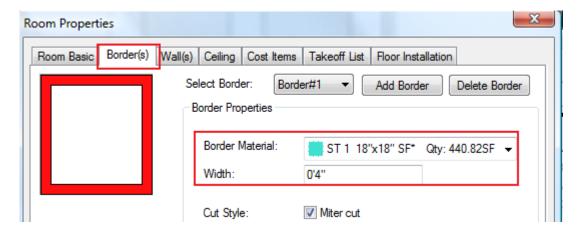
- Continue on adding other features (borders, dividing into different color regions, etc). Use border tab on insert area to create inset.
- Lock embedded area location so it cannot be accidentally shifted

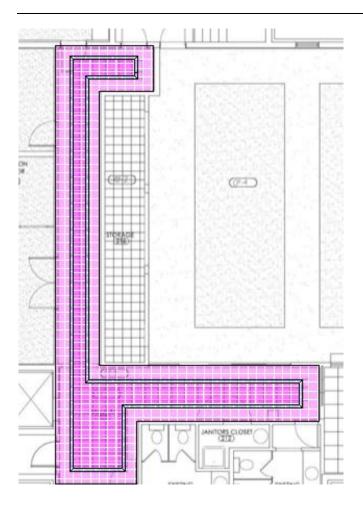
Here is an example, takeoff insert area first with Freedraw, set all its walls off (as missing state), then takeoff host area, and then embed insert area.



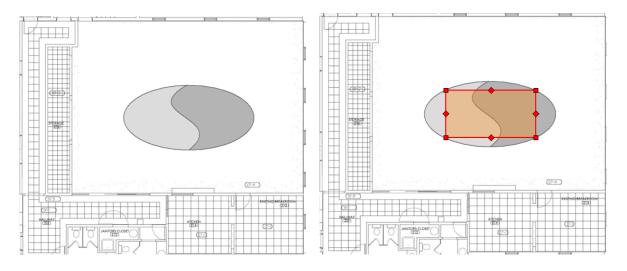


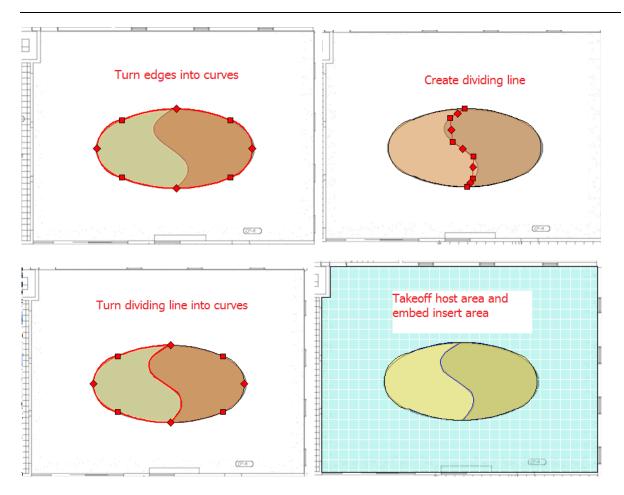
To create inset on this design for example, add border for insert area, set a border width (inset width), select a border product, then Apply, the final drawing is shown below.



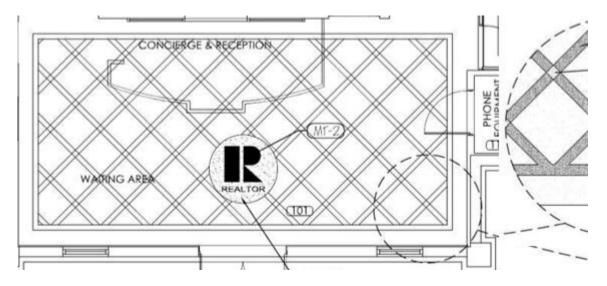


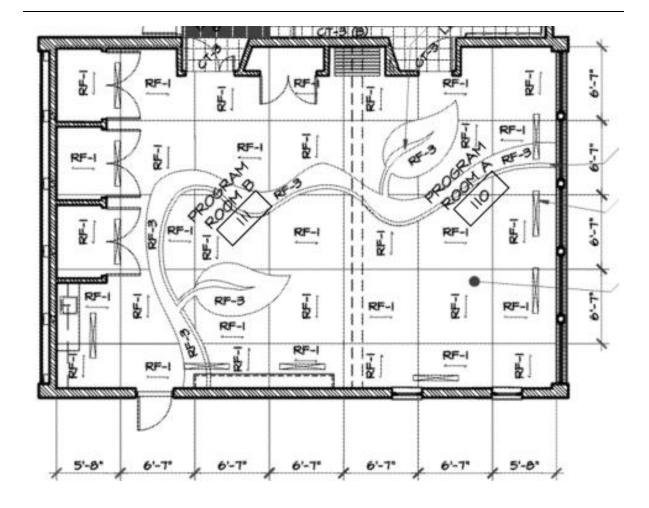
Here is another example of taking off an insert area inside a ball room where that insert area can be further divided into curved regions with two different colors.





More sophisticated insert takeoff examples as exercises (require combination of takeoff tools).





Note: Fixture tool can be used to create simply insert area which cannot be further divided into smaller regions, and it cannot be locked within host area as well.

Click <u>here</u> to watch how to create insets

8.9 Create insert, island, cabinet cut-outs with fixture tool

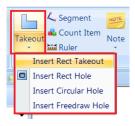
In real flooring job, no all rooms are empty without some fixtures on the floor. Often it involves cabinets, islands, fireplaces, and inserts in middle of rooms that need to be accommodate in drawing and be estimated properly with those areas taken out of the usage calculation.

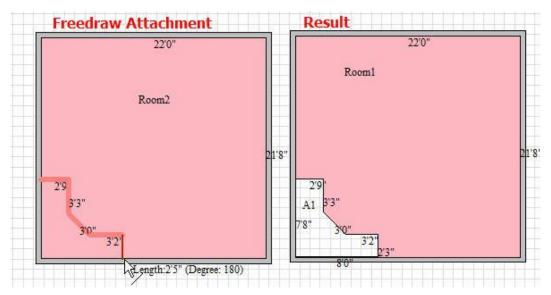


Click on button on Takeoff tab, then draw/takeoff a fixture shape directly from floor area similarly to Freedraw. The program automatically takes out the fixture area from the floor as a white space.

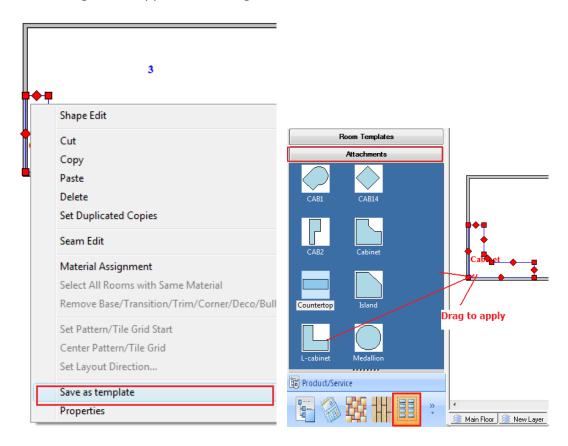
This takeout tool can be applied anywhere inside a room, on or across boundary of a room. It can be best used to create cabinet takeouts, islands, toilets, inserts on floors, and entry area of a floor which uses different flooring than rest of the room, etc.

The program provides several pre-defined takeout shapes: insert a rectangular takeout, insert a rectangular/circular/freedraw hole. The difference between a takeout and a hole is that material can be assigned to a takeout area but not to a hole. Please refer 8.10 to see more details.

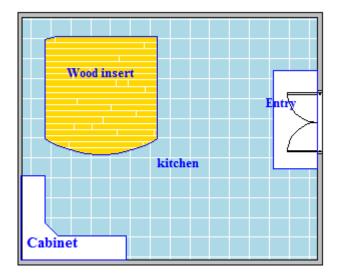




Frquently used fixtures can be saved as template in **Attachment Template** panel under **Room Template** panel. Right click over a fixture drawing, select **Save as template**. And they can be drag-and-dropped to drawing window.



At product assignment stage, product items can be applied to these fixture takeout areas and their perimeters. See related sections in Product Assignment chapter.

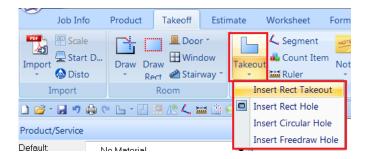


Note: Fixture shape should not be applied in such way that it divides room area into completely separate areas where takeout area is no longer valid.

Click here to watch how to takeout islands and fixtures from the floor plan

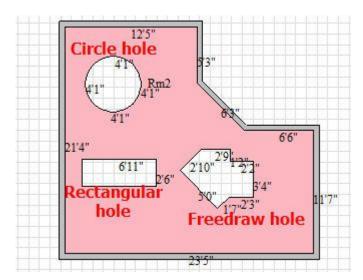
8.10 Insert holes on floor and wall areas

Another tool to create holes or takeout areas is to use one of hole inserting tool icons on toolbar.

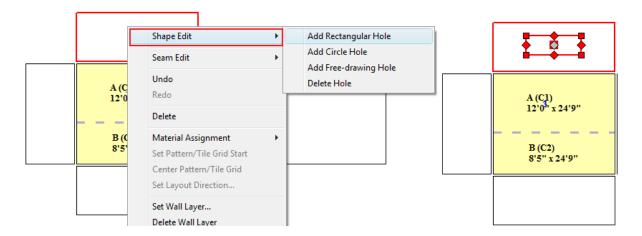


Click on one of command icons, then directly trace hole area shape within an existing room area. Three types of hole shapes are available:

- **Insert Rectangular Takeout**: press to draw out a rectangular area
- **Insert Rectangular Hole**: press to draw out a rectangular area
- **Insert Circle Hole**: start from center of circle to draw out circular shape
- **Insert Free-draw Hole**: draw a free-shaped hole



Insert Holes on Walls. These tools can be applied to wall sections under expanded room view by right-clicking over expanded wall and selecting **Shape Edit**, then one of hole inserting tool commands.



To relocate or remove holes:

- Left-click over the room area (**but not directly over the hole**), drag and move the center handle of the highlighted hole, drop it to relocate.
- If dropped right within room boundary and intersected with another hole, the hole merges with the other hole to form a new shape.
- Drop out of room boundary to remove the hole

Comparison of Hole Insertion commands with Add Insert Command. Both deduct area from underlying floor area or wall. The differences are

- Product items cannot be applied to holes and their perimeter
- Holes cannot intersect or touch with room boundary
- Add Insert command does not apply to wall

Trim takeout area: a shortcut to trim off takeout area that is outside room boundary is to right-click takeout and select "Trim takeout area".

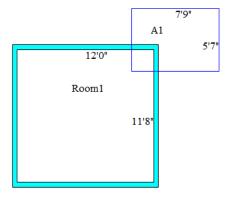
Align takeout with existing room: drag to snap takeout to room corner and boundaries

8.11 Cutout and Remove

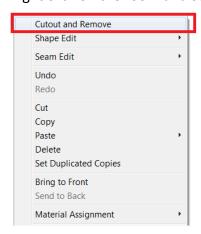
During the drawing process, you may need to cut out areas, join existing rooms or line up rooms. **The Cutout and Remove** command allows you to perform these tasks.

For example, using Cutout and Remove for removing the closet or the columns is easier than drawing a closet or a column by hand where small wall dimensions can be difficult to draw individually.

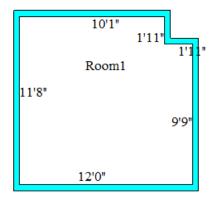
- 1) Draw a room.
- 2) Draw a takeout shape and overlay it with a room so that overlapped area equals the size that should be cut-out.



3) Right click on the room and select "Cutout and Remove".



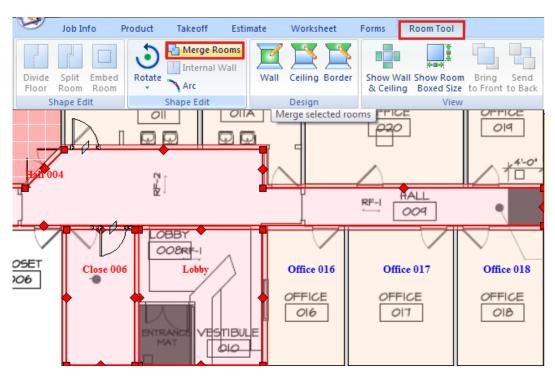
4) The overlapped area is now removed from the first room.



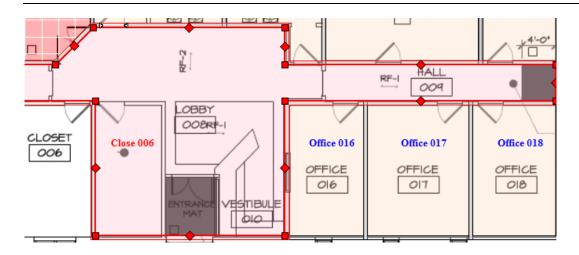
8.12 Merge selected rooms

There are situations that several connected rooms need to be merged into a single room.

This can be done by selecting rooms to be merged, and click on Merge command on Room Tool tab to complete.



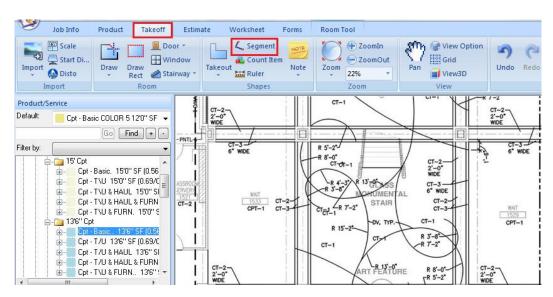
Below is the merged area after application. All shared walls and internal walls of each merged room are removed after merging.



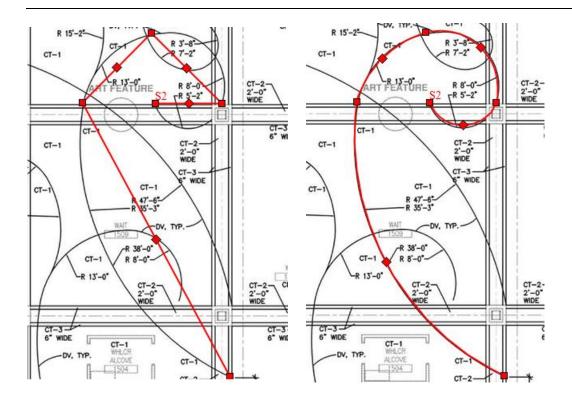
8.13 Linear length takeoff with Segment Lines

In many commercial flooring designs, there are straight or curved lines where its linear lengths need to be counted for.

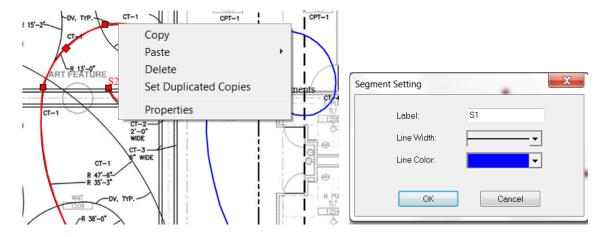
Segment tool on toolbar can be used to capture such linear footages. Linear length products can be drag-and-dropped to such line or curve segments.



For curved line, use straight line segments to capture each curved segment that can be modeled by an arc, click to highlight the segments, and then use **Arc tool** to convert corresponding segments into arcs. See example below.



Editing commands can be brought up from right-click over segment body. Select **Properties** to pop up dialog to set line width and color.



Product assignments. One or more linear length based products can be applied to such segment objects, so their linear footages are calculated in estimating stage. If "C"rl" "ey is pressed on when assigning a linear product to "s"gment line","it can be assigned to part of the line broken by turning points.

8.14 Count objects

There are situations that number of items needs to be counted from floor, wall or ceiling areas, such as number of light boxes on ceiling, number of columns to wrap around, number of toilets, refrigerators, etc. Sometimes area of such object needs to be deducted from host area, sometimes it can be ignored.

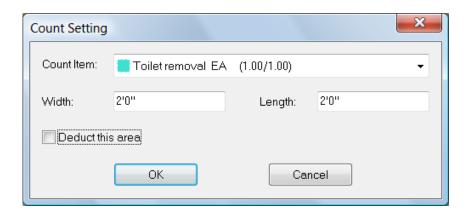


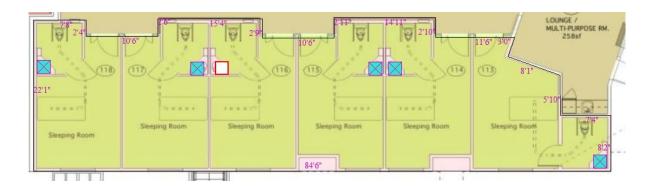
Count tool on toolbar can be used to capture such count object. Click on button and on pop up dialog:

- Select a product or charge item (with Unit as EA)
- Set count object rectangular drawing size
- Check Deduct this area box if this area needs to be deducted from hosting area.

While applying, click to place object cursor on floor room area which contains objects to be captured. As by its area deduction setting, if it's set as deducted, the takeoff object is shown by on floor area; otherwise it's shown by (with cross in box) so it is easy to distinguish them.

Here is an example of counting number of toilets on the green area.





To remove a count item, right-click and select Delete. Select Properties to open its settings.



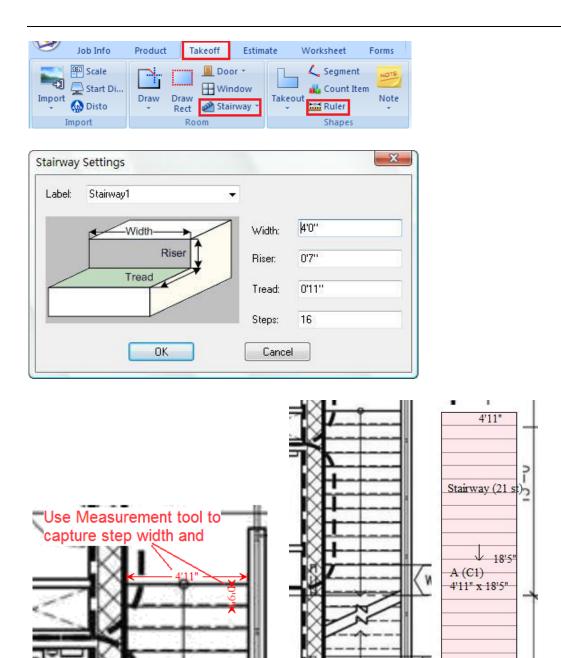
Number of count is automatically calculated at later layout estimating stage under specified product item.

8.15 Stairway and landing takeoff

Landing area connected to stairway can be treated as special 1-step stairway (with one riser), or it can be treated as room area. This section focuses on stairway takeoff.

Stairway can be created in two ways: Manual entry or from plan drawing.

Manual entry: Click on Stairway icon to pop up entry dialog, enter stairway width, tread and riser sizes, number of steps as graphically illustrated, drop the drawing to desired location. To obtain sizes of these parameters from plan drawing, use Measurement tool to get the readings.



Takeoff from imported plan drawing: Use Stairway Takeoff button next to regular stairway icon

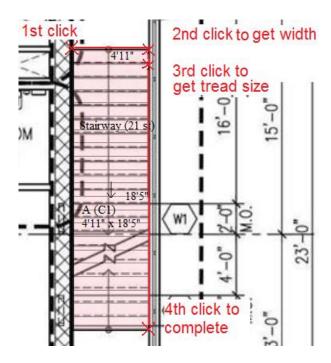
Count number of steps



Follow these steps to takeoff stairway from plan drawing:

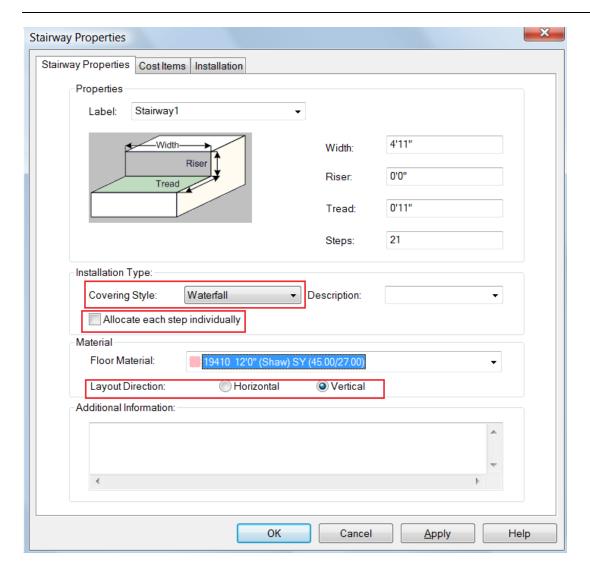
- Start from corner of 1st step with 1st ^click
- Proceed to other end with 2nd click to get step width
- Move down 3rd click to get thread length
- Then all the way to the end of stairway with 4th click to cover rest of step tread length.

The program creates stairway matching the takeoff sizes. Look for red X points at each location step on an example below.



Default riser size. Note that riser size is normally not available on plan to capture. A standard riser size (7" for instance) can be entered as default.

Stairway Properties window. Right click over stairway, and select Properties. Several layout estimating related parameters can be set either at this stage or at later product assignment stage, or even at estimating stage.

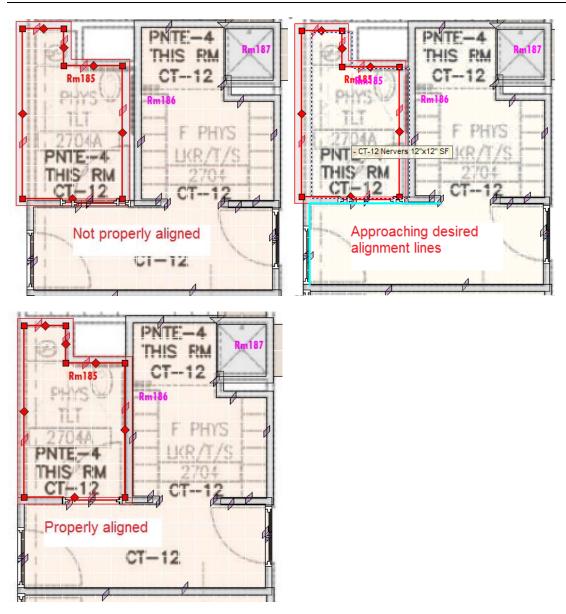


- Click here to watch how to takeoff stairs
- Click here to watch how to takeoff L-shaped stair and landing

8.16 Align and snap walls or corners among room takeoffs

When connected rooms are taken off individually, they may not be aligned properly on shared walls. Aligning rooms properly helps in presentation as well as for other takeoff needs such as adding doorways on shared walls.

To align a room to another, simply drag and move it to approach rooms to be aligned with, observe for highlighted walls when approaching, and then drop to desired location.



Click <u>here</u> to watch how to align rooms

8.17 Add doorways

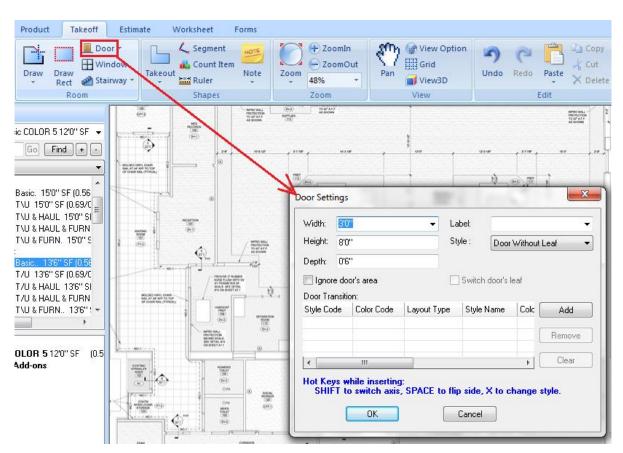
Doorway placements are important for takeoff estimating as they affect usages of floor materials and transition products.

 Door placements are important for accurate base calculation at later estimating stage as door width lengths are deducted from room perimeters

- Door placements are helpful annotations for at later seam layout stage (to avoid seams placed on or near doorways)
- Doorway placements should be performed after room takeoff and proper alignments on shared walls among rooms are completed.

Doorway can be added on walls of takeoff rooms by this process:

- Click on Insert Doorway button, on pop up diagram, enter proper parameters, select a transition product if needed (refer to **Product Assignment** chapter on transition assignments), click OK
- Mouse over walls with door signs, upon preview shape and location readings, use hot-keys to adjust axis, style and orientation as needed (read hot-key tips on dialog window), left-click on a wall to park doorway
- Continue on adding same sized door and with same transitions to all such door locations in a batch
- For properly aligned shared walls of two rooms, **doorway placed are added on walls of both rooms** (viewable if one room is dragged apart). Only one doorway is selectable as they are docked on top of another.

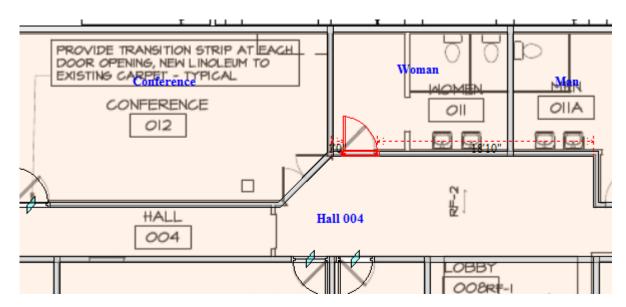


Doorway Parameters:

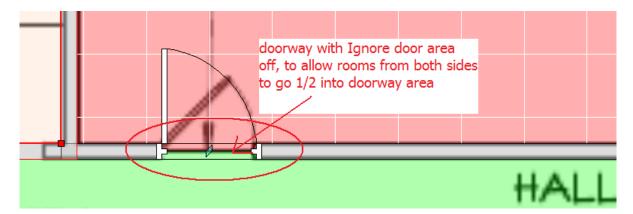
- Width/Height: door width and height (affect door area on wall)
- Depth: 1/2 depth of doorway is extend into from parked room area if Ignore door area box is NOT checked
- **Style:** select from the list (Common Door, French Door, Door without Leaf, Sliding Door, Folding Door, Double Folding Doors, Pocket Door)
- Label: doorway reference name, key in or select from predefined label list
- **Ignore door area** checkbox. When checked, the program ignores doorway depth area in layout estimating, otherwise it extends room area into 1/2 depth doorway area
- Switch door leaf checkbox. When checked, door leaf is placed on opposite side
- Door Transition. Select one or more linear length based transition products (or labor charges) from pull down list

Drag and drop a linear product to the doorway (2015 feature)

Hot-key tip while placing doorway. While previewing door location on target wall with mouse cursor, hit **SHIFT** to switch axis, **SPACE** to flip inside and outside, **X** to toggle among styles.



Extend room area into door depth. When **Ignore door area** checkbox unchecked for doorway created on shared walls, material areas are extended from room area into door area from each side of the doorway.



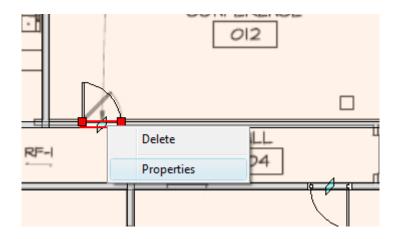
Adjust doorway width and location:

- Left-click on the doorway; drag on one of two end point handles to change its width
- Drag on leaf handle to swing the leaf to any location.
- Drag on doorway body to move another location. If dragged door is on shared wall
 of two rooms, both doorways are replaced together
- Drag on doorway body to move onto wall of another room. If dragged door is on shared wall of two rooms, only dragged doorway goes to another room

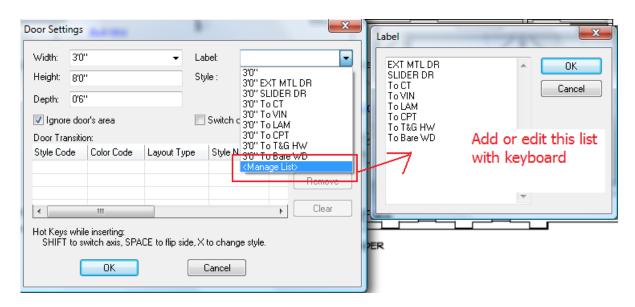
Access Docked doorways. For doorway created on shared walls, only one doorway is selectable. To select the other one, drag one room apart to access the other one

Open doorway Properties window. To edit doorway parameters, right click over doorway, and select **Properties**.

Delete doorway. Right-click over doorway, select **Delete**.



Manage predefined label list. From bottom of Label pulldown list, select <Manage List>, at pop up dialog window, edit label list with keyboard, and click OK.



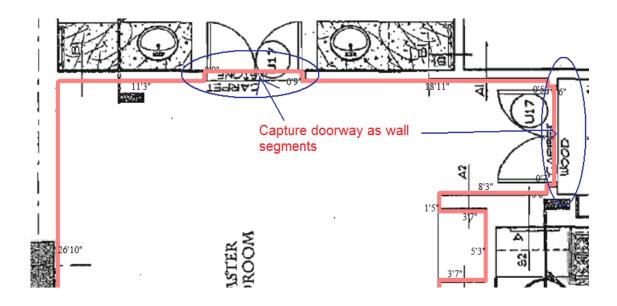
Click here to watch how to add doors to the plan

8.18 Alternative approach for doorway takeoff

Another practice way to account for doorways is to draw them as separate wall segment. In takeoff drawing with Freedraw, stop at each side of doorway area, one may either trace around doorway area including depth area (or simply ignore door depth).

- Transition product can be applied to these door segments individually
- When applying base to perimeter of the room, be aware to remove base

- assignments on those door segments
- If no transition needs to be assigned to door segment, removing wall on that segment can also avoid linear items (such as base) being applied to that segment length. To remove wall, right-click over the wall segment, and select Delete (assuming while wall section display is on, otherwise hit S key to toggle it on/off)



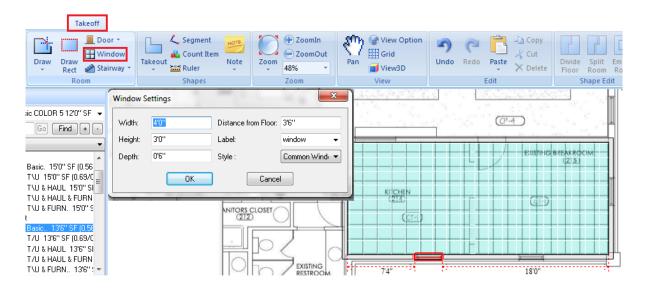
Click here to watch how to takeoff doors to the plan

8.19 Add windows

Window placements may not be necessary for takeoff estimating that does not involve wall material calculation. But they are helpful references for seam layout direction selection (especially for retail flooring)

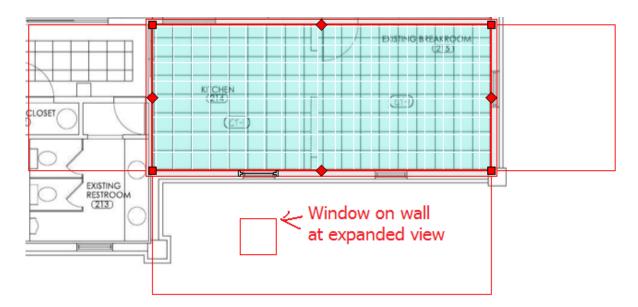
Windows can be added on walls of takeoff rooms.

- Click on Insert Window button; enter the parameters
- Mouse over walls with window signs, upon preview shape and location readings, left-click on a wall to park a window
- For properly aligned shared walls of two rooms, windows placed are added on walls
 of both rooms (viewable if one room is dragged apart)



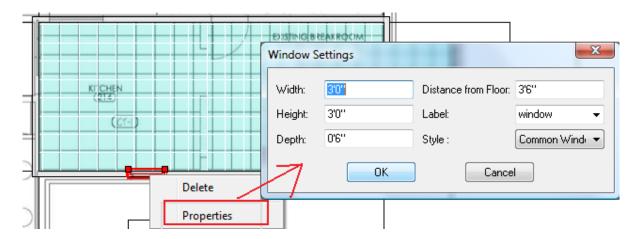
Window Parameters:

- Width/Height/Depth: window width, height and depth (width and height affect window area on wall)
- **Distance from Floor**: the measurement from floor to the bottom of the window
- Style: Common Window, French Window
- Label: Window reference name



Adjust window size and location. Left-click on the window; drag on two end point handles to change its width. Drag on the window body to move another location or even onto a wall of another room.

Window Properties window. Right-click on the window, select **Properties**, To delete window, select **Delete**.



Note: Doorways and windows of location locked rooms cannot be resized.

8.20 Create floor border and nested borders

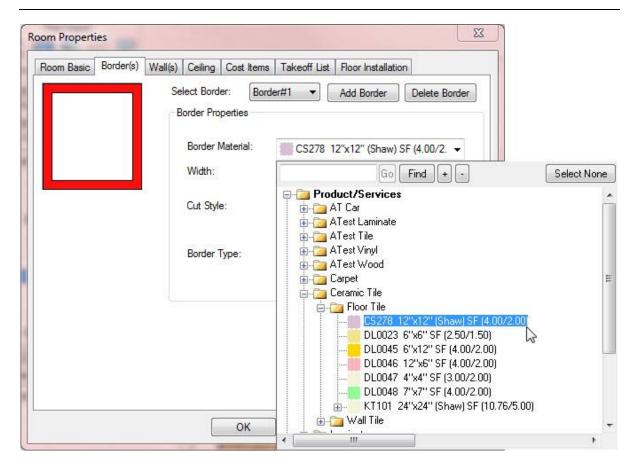
Many flooring projects have border designs and material specs on those border areas.

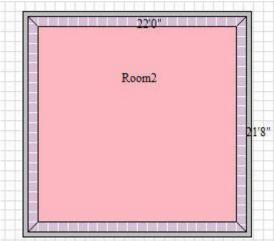
Create a Single Border on Room Floor:

Left-click on the room and go to **Room Tool** tab or right-click over the room, on pop-up menu, and select **Properties**, then click on **Border Tab**.

Click on **Add Border** button once, then select **Border Material** from the pull down list, enter border **Width** in the field

Mark proper checkboxes on Cut Style and Border Type (default recommended).





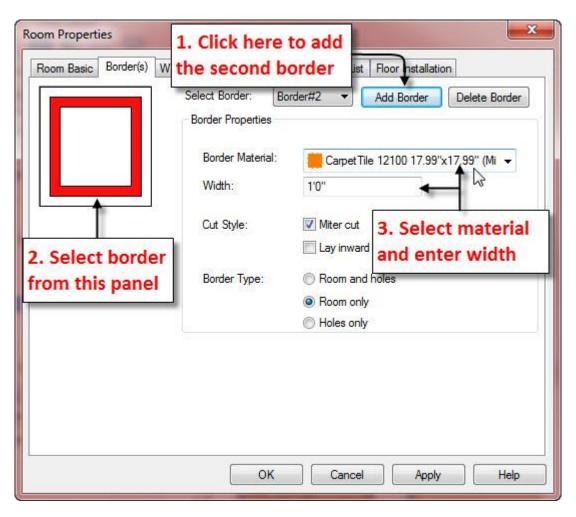
Remove Border:

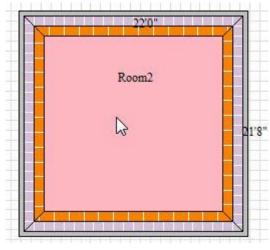
Select the border on left drawing pan (if there are multiple of them), click on **Delete** button.

Create Multiple Nested Borders:

Click on Add Border button multiple times, select each border on left drawing pan (showing

multiple nested borders), then select the border material and enter width for each border. The program automatically includes these border materials in estimating calculation.

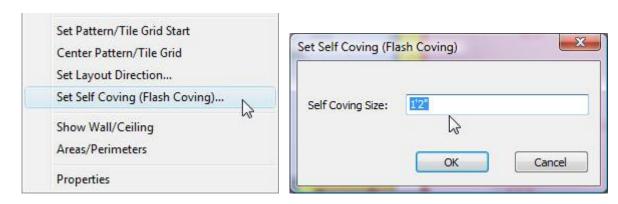




Click <u>here</u> to watch how to design borders

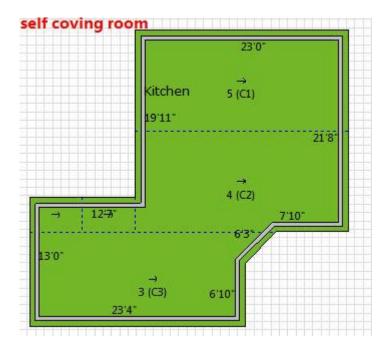
8.21 Expand (offset) room area

Right click over the target room, select **Set Self Coving (Flash Coving)** and enter expansion size in pop up dialog, click OK.

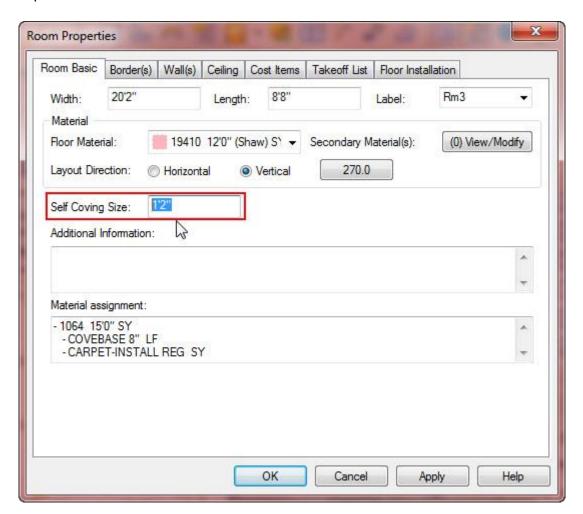


Please note that the default Self Coving Size can be set from Start icon->System Settings->Material Layout type.

The room area is expanded along its perimeter with expanded size. At later stage, self-coved product can be applied to this area to achieve self-coved base from floor onto walls continuously. The program automatically accounts the expanded area at material usage and cut sheet layout.



Same command can be achieved from room **Properties** menu, under **Room Basic** tab. Right-click over room, select **Properties**, at **Self Coving Size** field, enter the height of coving expanded onto walls.



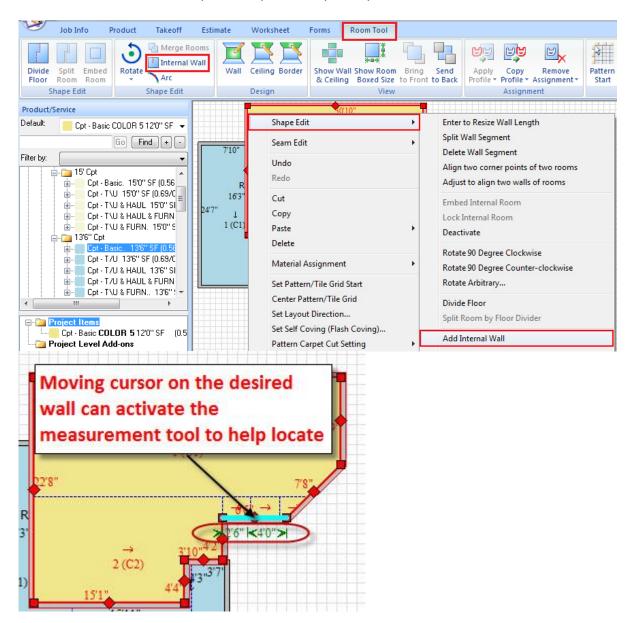
Click here to watch how to set flash coving (self-coving)

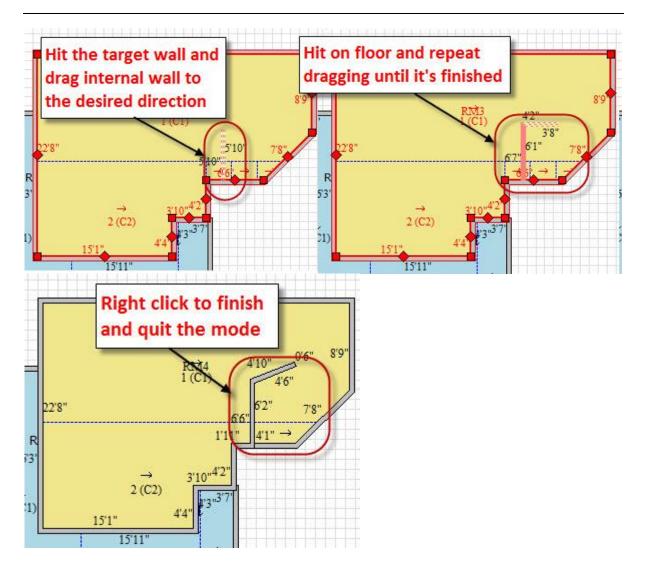
8.22 Add internal walls

To takeoff/draw internal walls from existing base wall,

- Left-click on the desired room, go to Takeoff tab and click on internal wall icon
- Or left-click on the desired room, go to Room tool tab and click on internal wall icon
- Or right click over the desired room, from **Shape Edit,** then to **Add Internal Wall**

- Move cursor on the desired wall to locate start point, left click to start drawing, continue on for multiple wall segments
- While drawing, press SHIFT key to swing to any direction, right-click to exit the mode;
 use CTRL-Z to back up one step or multiple steps

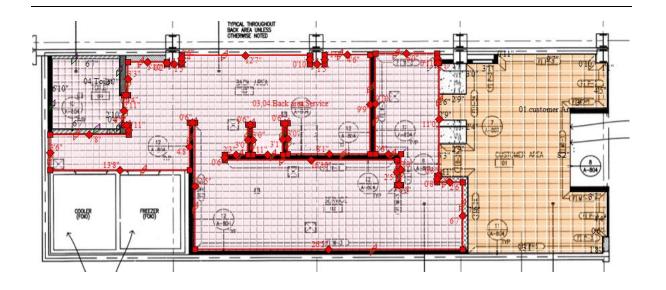


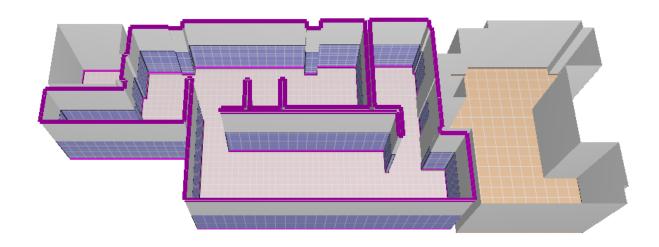


To delete the internal wall:

- Right click over the room and navigate Shape Edit to Delete Wall Segment
- Move cursor to wall segments, left click on highlighted segment to delete
- Use CTRL-z to undo a step

Here is an example of internal wall takeoff and its 3D view.

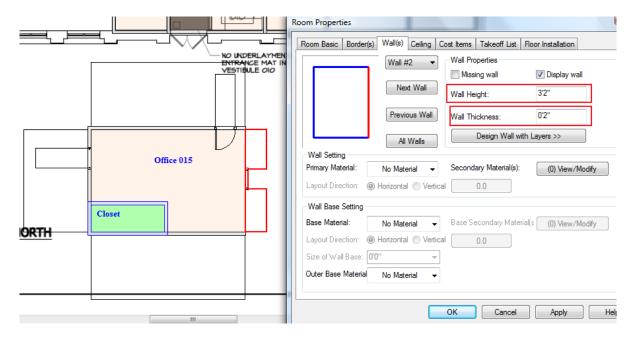




8.23 Set wall height, wall thickness and remove walls

General wall parameters can be set up from left-click on room and go to **Room Tool** tab or right-click over room, and then **Wall(s)** tab from Room Properties window.

- Select All Walls or a wall segment from wall pulldown list, or simply click on any wall on left viewing canvas
- Set wall height or its thickness for selected wall
- To remove wall, check **Missing Wall** box on selected wall
- Click on Apply or OK button to take effect



Wall covering product can be specified from this interface,

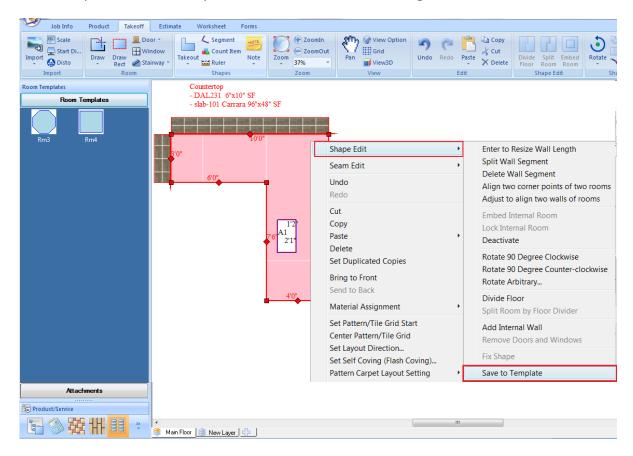
- From Wall Setting part, set primary or secondary materials from pulldown list
- From Wall Base Setting, set Base Material (applied to inside wall perimeter), and set
 Outer Base Material for product applied to outside wall perimeter of the room

As wall section design mainly involves product assignments, refer to wall design section in Product Assignment chapter for advanced wall features.

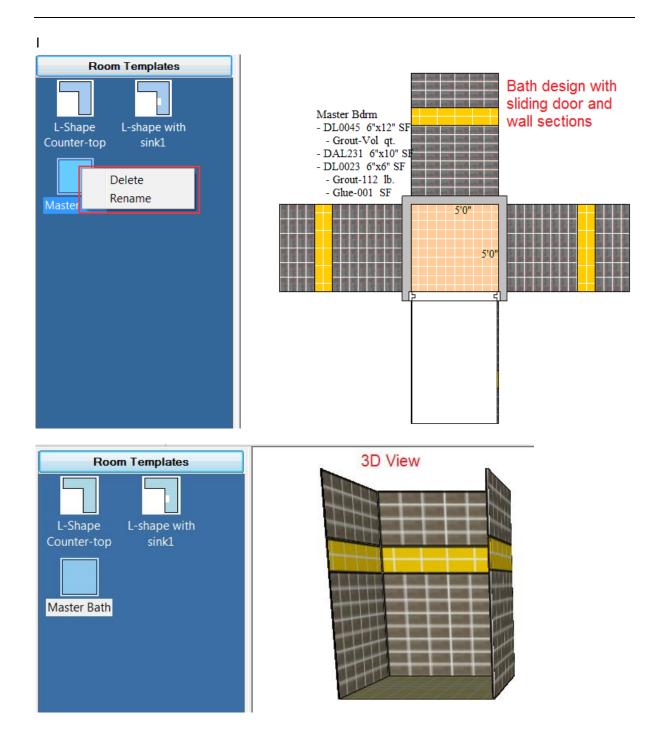
8.24 Create and use room shape template

For frequently used room or area shape, it can be saved into Room Template panel, so it can be drag-and-dropped onto a floor area later.

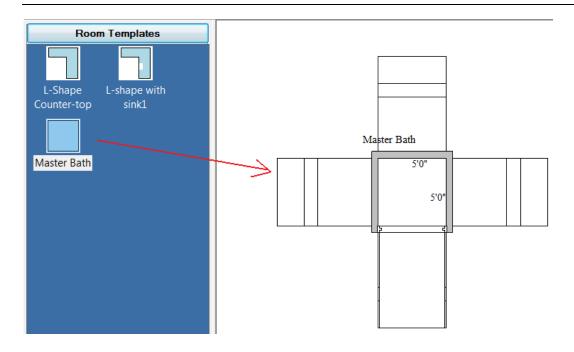
For example, this L-shaped countertop shape with sink can be saved as template under Room Templates panel by right-click and select **Save to Template** from Shape Edit submenu. Room shape as well as door placements and wall section design are saved as well.



Right-click any saved templates under Room Templates panel, select **Delete** to remove it, or **Rename**. For example, rename this bath room design as Master Bath with Sliding Door.

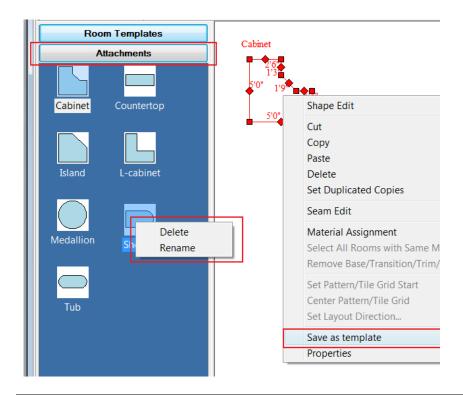


To apply a template, simply drag and drop it to any area. Please be aware that original material assignments are not saved with the template.

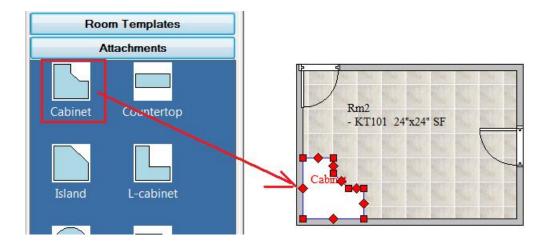


8.25 Create and use fixture (attachment) shape template

Fixture shapes (takeout area) created by command can be saved as template under Attachment Panel. Right-click any template in the panel to Delete or Rename the template.



To apply any of these takeout templates, simply drag and drop it to any floor area or room. For example, place L-shaped cabinet to the kitchen corner to deduct that area from the floor.

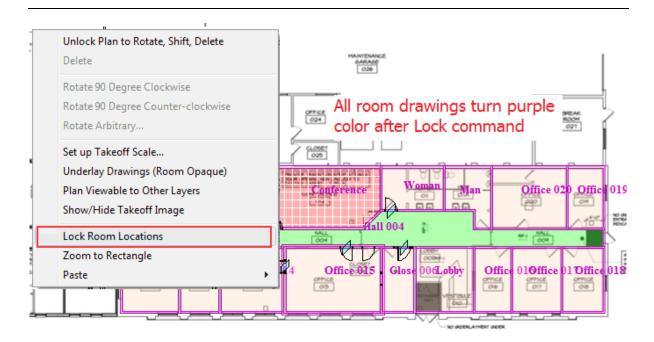


8.26 Lock room location and size changes at project level

When takeoff and design drawing are done, there is a need to lock on room location and shape/size changes at whole project level (so as to avoid any accidental shift or shape changes).

To lock whole project including all rooms, attachments, count items, holes, doorways and windows, right click over a blank space, select **Lock Room Locations**.

- After locking, all drawings are displayed in purple color
- No change can be made including shifting room shape or location, changing straight wall to arc, changing door or window width or location, etc.
- To reverse locking, right click on blank space, and select **Unlock Room Locations**



8.27 Lock internal room or fixture location at room level

To avoid accidentally shifting a fixture OR embedded room inside a host room, locking commands are available at room area level.

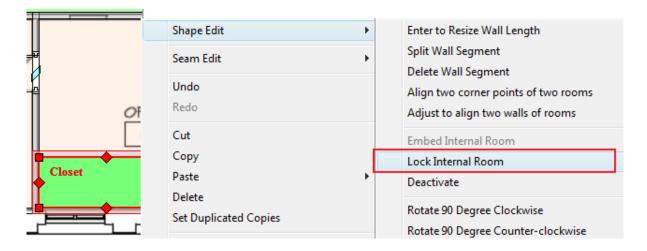
To lock a fixture (attachment shape) inside host room:

- Right click over fixture object, and select Lock Attachment. Locked fixture drawing turns in pink color, and it cannot be shifted within the host room
- To reverse locking, right-click over locked fixture, select Unlock Attachment



To lock an embedded room inside host room:

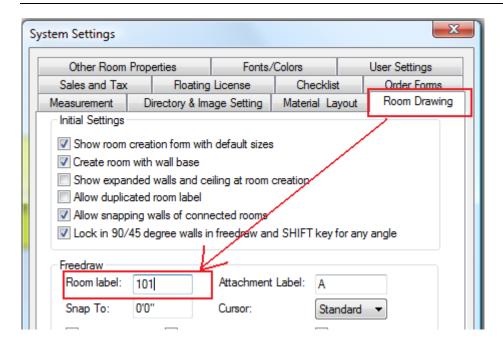
- Right-click over embedded room, and select **Lock Internal Room**. Locked fixture drawing turns in pink color, and it cannot be shifted within the host room.
- To reverse locking, right-click over locked internal room, select Unlock Internal Room



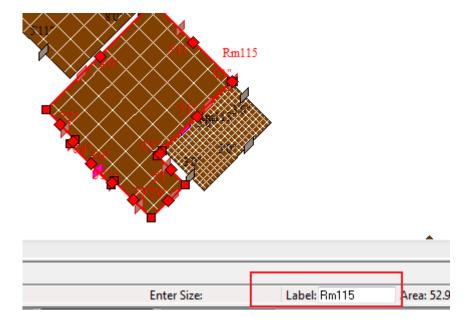
8.28 Set room prefix and start number, change room label

At takeoff time, program starts from default room label number and increments automatically.

Set default room numbering. From **File** menu, **System Setting**, and then **Room Drawing** tab, set Room label field to set prefix label.

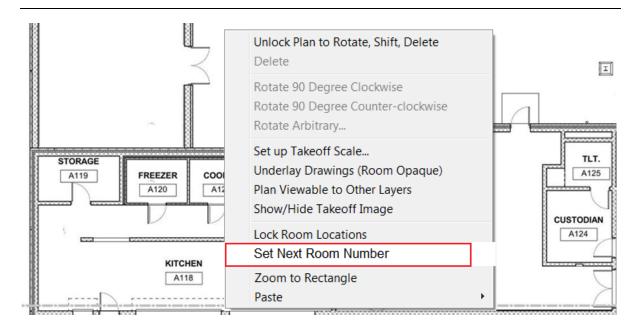


Change room label. Select room, at lower bottom room label field, enter new name, hit Enter key.



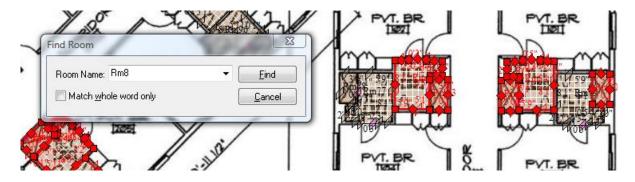
At takeoff time, as room number may start from any number, right-click over blank space, select **Set Next Room Number**, so it can be set together with room prefix name as well.

For example, in this plan, room prefix can be set to A, and next number is set to 118 to start with. So all subsequent rooms are labeled with A118, A119, A120, etc.



8.29 Find room on diagram

Click on icon or use Ctrl-F to pop up a dialog window, and enter full or partial room name to find any matched rooms with highlight color.

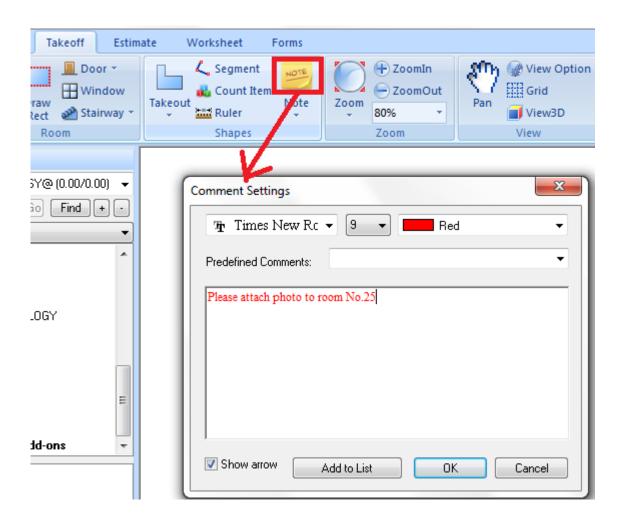


Or click on room pull down list to select from existing room label list.

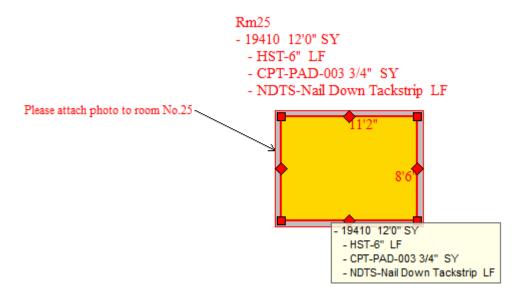


8.30 Add Note and Handwriting

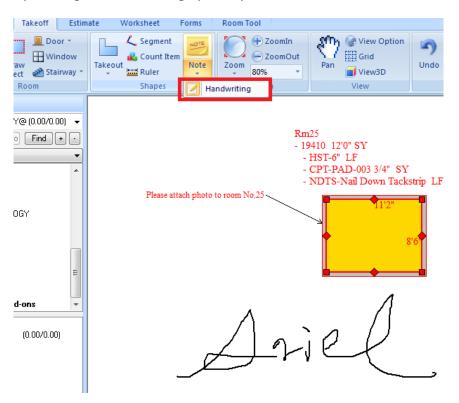
Sometimes, it is necessary to add some comments into diagram. Click on **Note** icon pop out **Comment Setting** window. The program allows you to set up the font, color and style of comments. You can also create a comment list by clicking on **Add to list** button. Next time you can select saved comments from **Predefined comments** pull-down menu.



If you click on OK, the software will save the comment and bring it to diagram with an arrow. You can use mouse to move the comment and the arrow to the right place.

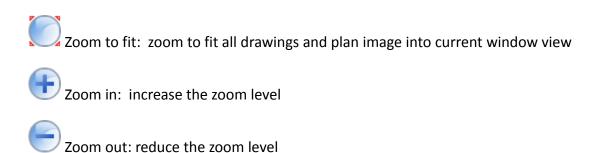


By clicking on Handwriting option, you are allowed to insert handwriting into diagram area.



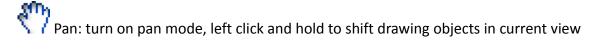
Click here to watch how to add note and handwriting to the diagram

8.31 View Options and Edit Tool



View Option: select and configure room drawing and product assignment display options

Grid: show grid lines in drawing area. The grid size can be set in Start menu->system settings->measurement tab.





- Show Wall: Display wall and ceilings in expanded view
- Show Room Boxed Size: display room dimensions with rectangular boxed size
- Bring to Front: bring an object like a room to front.
- Sent back: send an object like a room back.
- Undo: undo last action
- Redo: redo last action

Copy: copy selected drawing object(s) such as room, segment, count item, plan image and so on

Paste: paste copied drawing object(s) such as room, segment, count item, plan image and so on



Delete: delete selected object(s).

9 Product Assignment

Once rooms on floor plan are captured from takeoff process. Next step is to apply proper products and related installation add-on items to these room areas as specified by material schedule list, so they can be calculated by program.

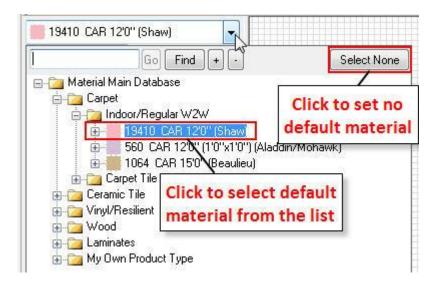
This chapter covers all different ways of assigning different types of products and add-on items to floors, walls and ceiling areas, on their area, perimeter lengths, or vertical walls.

Product Assignment can be achieved through following ways:

- Assigned with a default product at room creation time
- By drag-and-drop from left product panel to room drawings
- From Properties of a room (including wall, ceiling)
- From copy/paste existing floor or wall assignment profile

9.1 Default product setting

Default product item can be set by clicking on the pull down list and selecting an item from the list or from project item list.

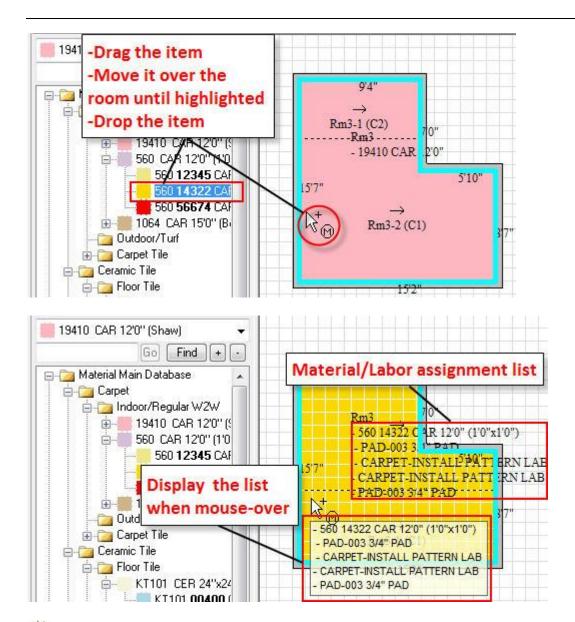


Any room floor takeoff is automatically assigned with this default product at room creation time. Click **Select None** button if no default product is desired so any room takeoff is without any product assigned.

9.2 Drag item from product and services list to rooms

On left product services panel or project item list panel,

- Navigate and open any folder to locate product item
- Press left mouse key to drag an item, and move it over to room drawing window and over room to be assigned to (observe mouse cursor turn into
- While cursor over room, border of the room is highlighted (indicating it is selected and ready to be applied), left click on anywhere inside the room to take effect
- Dragged item can be repeatedly applied to any other rooms
- Right click to cancel product assignment mode (so that cursor disappears
- When product item is dropped to a room, a product line with description shows under room label of assigned room.
- Major flooring products (carpet, vinyl, tile, wood, laminates) can be dragged and dropped to the same room area once, and it will be replaced automatically if another major product is applied over it.
- However, add-on material items can be applied to the same room area multiple times (for example, pad, adhesive, etc. can be applied to the same floor)



Assign same item to multiple rooms: select rooms first, and then drag and drop product items to selected rooms.

Click here to watch how to apply areal items to a room

9.3 Apply linear base product to wall perimeter or single wall segment

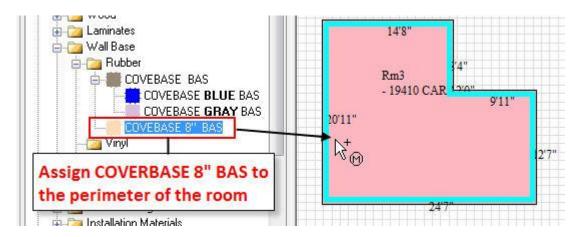
Some add-on installation products (such as cove base, moldings, transitions, quarter-round, etc.) are length-based and applied to wall base or room perimeters. In product specification, these items have **LF** (or **MR** in metric) as unit of measurement and their layout type is **Add**-

on Item in product database.

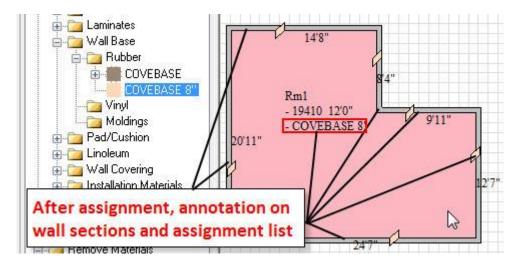
Assign LF (MR) add-ons to wall base:

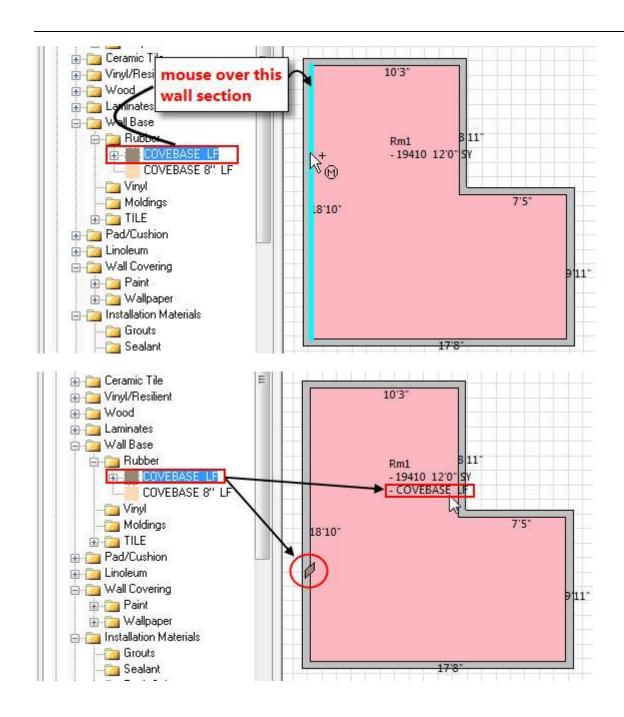
- **All wall perimeter**: Drag and drop to highlighted perimeter of a room (when mouse over the room)
- **Single wall segment**: Drag and drop to ONE highlighted wall segment (when mouse over the wall segment)

Length-based add-on item assignment is annotated by color-coded hatch marks on assigned wall segments.

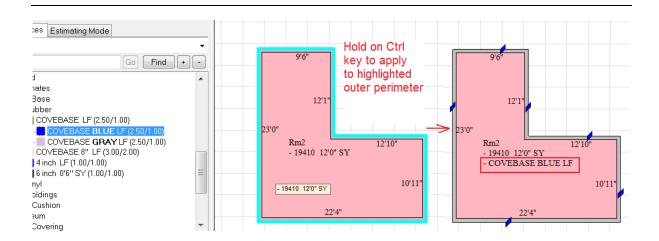


After the assignment, see the annotation on wall sections and the addition to material assignment list under room label.

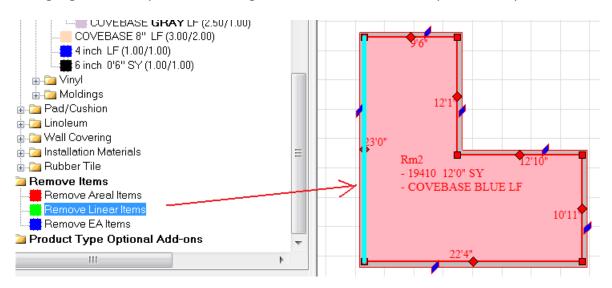




Assign LF items onto OUTER wall base: Press down **Ctrl** key, drag and drop LF item to highlighted outer room perimeter or segment.



Remove LF item from wall perimeter or wall segment: Drag and drop Remove Linear Item to highlighted room perimeter or segment from lower section of product list panel.

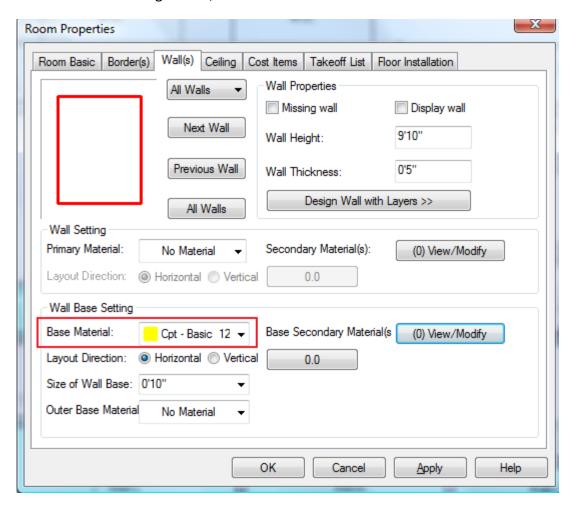


Click <u>here</u> to watch how to remove product assignment

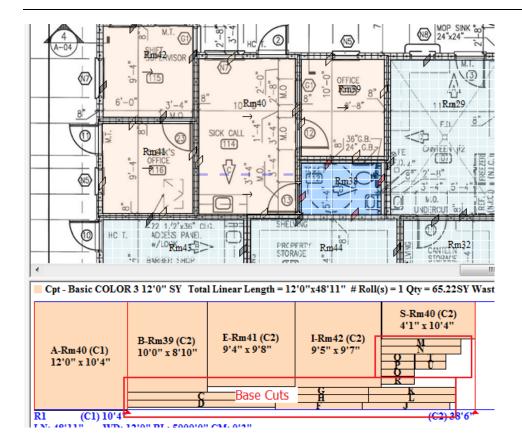
9.4 Apply flooring products (carpet, vinyl, tile, wood) as wall base

It is common practice to use major flooring products (such as carpet, vinyl, tile, etc.) as wall base. Unlike drag-and-drop **linear** base product to room perimeter, one must right click over room and enter Properties window, then Walls tab,

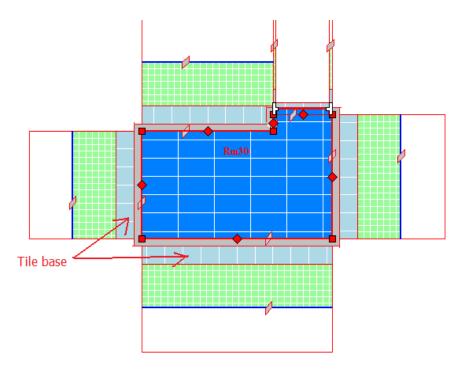
- Select a flooring product from Base Material pull down list, to add additional item to this base, click View/Modify button from Base Secondary Material(s)
- Layout direction can be set to along the wall or against the wall (as annotated by Horizontal or Vertical radio buttons)
- Set base height from Size of Wall Base field
- Select from Outer Base Material pull down list to apply it to outer wall base
- Select to apply to a specific wall segment or all walls by clicking on any wall segment in wall drawing canvas, or click on **All Walls** button.



Carpet cuts used for wall base are allocated and displayed in cut sheet in the same way as floor cuts. For example, here is an example diagram and cut sheet using carpet as wall base.



Using tile as wall base can be set in similar way, and can be best viewed from expanded room view with walls in 2D or from 3D view of the room area. See below for tile base in the expanded view of a room.



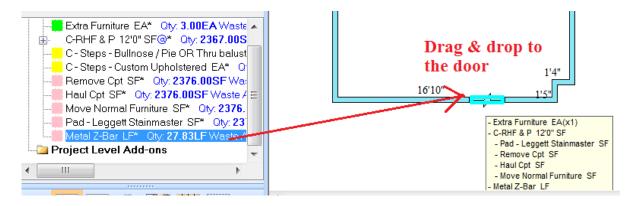
- Click <u>here</u> to watch how to apply linear items and how to apply carpet and tile to the wall base.
- Click here to watch how to remove product assignment

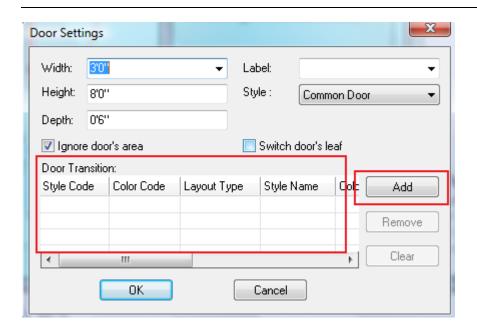
9.5 Apply transition on doors or on border of different products

Transition items are linear-based products with UOM LF (MR in metric) and Layout Type as Add-on Item in material spec, are often applied at these situations:

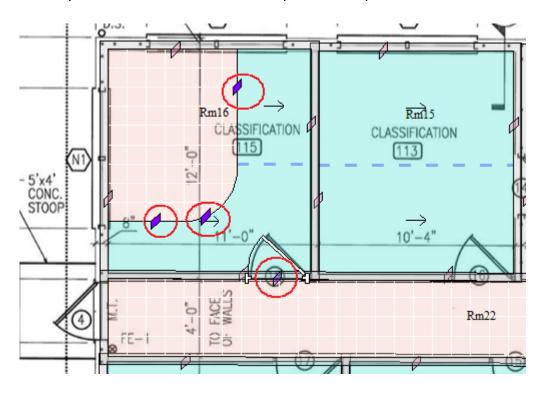
- Drag-and-drop on doorways (or, from Properties window of doorway, click on Add)
- Drag-and-drop on any dividing line of same room area (so divided areas may transit from one product to another product
- Drag-and-drop to any wall segment next to another room area

Transitions can be drag and drop to the door from 2013 version and above. Or one can add the transition from Properties window of doorway, click on Add.





Transition items are graphically displayed with hatch marks on wall segments being applied. See example below with purple coded transition applied on dividing border between tile and vinyl inside Rm16 and on its doorway into hallway.



- Click here to watch how to assign transitions to the doorways
- Click here to watch how to remove product assignment

9.6 Apply subfloor underlayment

Underlayment is a vital factor to the success of the flooring on top of it. Sturdy and smooth surface underneath every finished flooring material is a must. Without smooth and solid subflooring, the finished flooring can fail or look very bad in a short span of time. However, some underlayment is merely used for sound proofing or as a moisture barrier.

Underlayment products are specified with area-based Unit of Measurement **SF or SY (SM** in metric) and Layout Type as **Add-on Item** in estimating spec part of product database.

Assigning underlayment item is the same as applying other area-based add-on products by drag-and-drop to any room area.

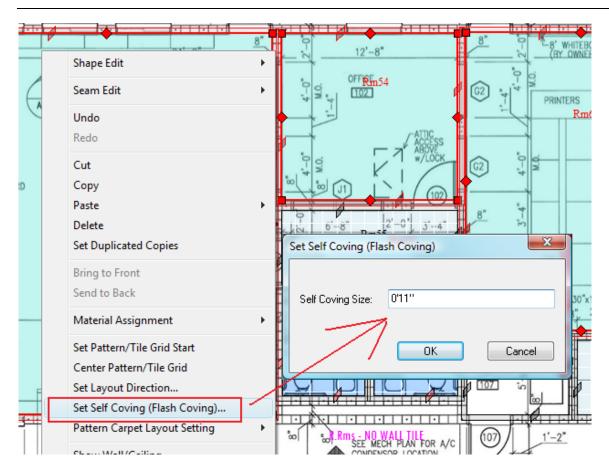
- Multiple different area-based items can be applied to the same area on top of each other
- Same area-based item can be applied to the same area multiple times

Note: Underlayment items can be associated with a major flooring product under its add-on list in product database, and get automatically applied when that major flooring product is applied.

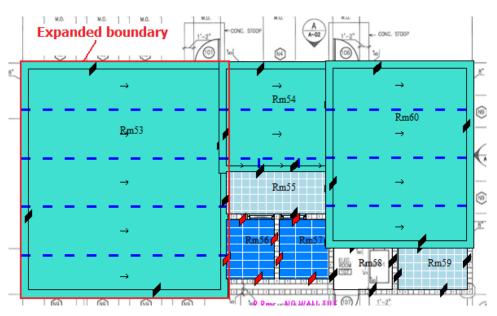
9.7 Set self coving (flash cove) from floor onto walls

For commercial flooring, it is a common practice to expand vinyl sheet goods continuously from floor on to walls as self-coved base.

Select any number of rooms and right click over any of them, select **Set Self Coving** (Flash Coving), then go on to enter coved size.



With wall section hidden, expanded room boundary is viewable which requests extra materials to be added in layout estimating mode to cover self coved wall section.

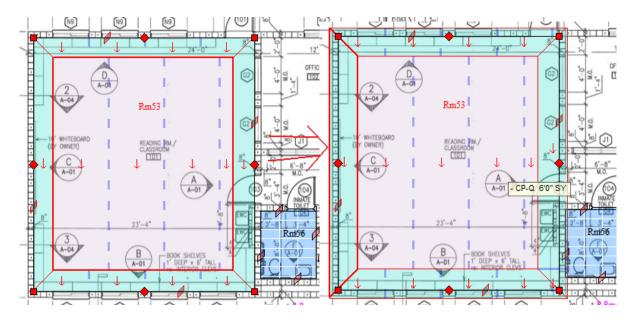


Click <u>here</u> to watch how to set self coving

Set self coving (flash cove) on walls from floor borders

This scenario is similar to setting self coving onto walls except it extends flooring product from floor borders. Two steps to achieve this are

- Use **Divide Floor** feature of room menu to manually create room borders
- Then use **Set Self Coving** of the room to expand it



Note: Automatically border generation from Border tab of room properties does not work for this, as there is a cut between floor border piece and wall cove piece.

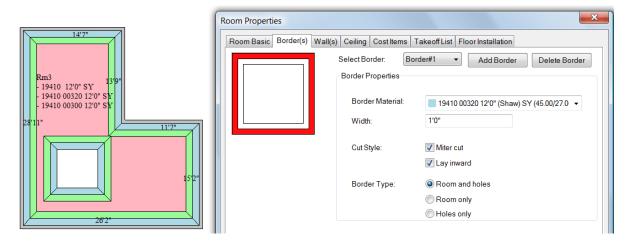
Create and apply product to room borders 9.9

Regular room floor borders can be created from Border tab of room Properties menu. Here are main operations under this window:

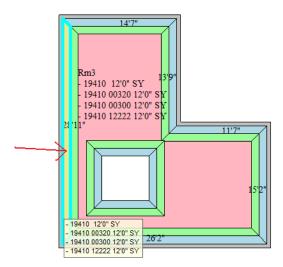
Use Add Border button to create one or more nested borders, and use Delete **Border** to remove

- Select border material from Border Material pull down list
- Check Miter Cut or Lay Inward options for cut style
- Select application option to holes inside room (by default, only apply to **Room Only**)
- Use left mouse cursor to select (highlight) any borders in left drawing panel

Here is an example.



Products can be drag-and-dropped to any border regions to replace its existing assignments or applied to its border lines. For example, this yellow color carpet is applied to outer left border region (highlighted region).



Note: borders generated with this approach cannot be combined with Set Self Coving command to create self-coving unto wall (as there is automatic cut between floor and wall

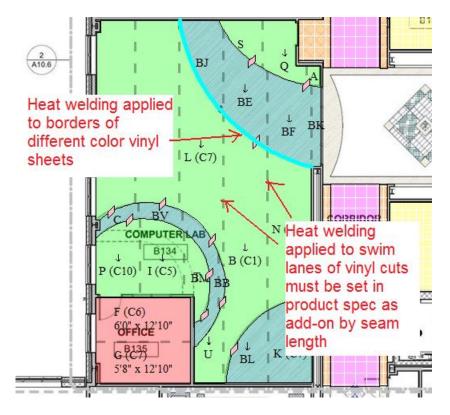
base part instead of continuous cut from floor to wall). Refer to section 9.8 for how to set self coving with borders.

- Click here to watch how to apply materials to borders
- Click here to watch how to remove product assignment

9.10 Apply heat welding rod on borders of sheet vinyl and swim lanes

Heat welding rod is measured by linear length and is normally applied under

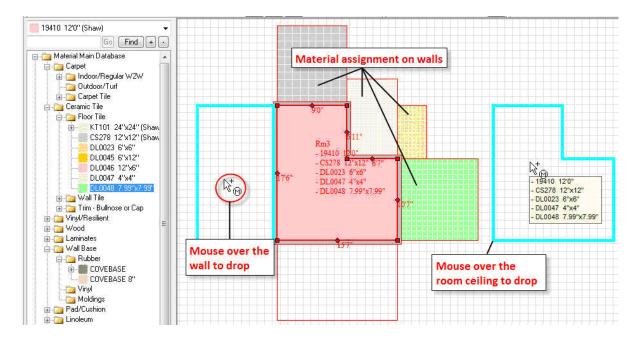
- Border lines of different color sheet vinyl (by drag-and-drop manually, see screen below)
- Swim lanes of sheet vinyl cuts in same floor area. It must be set with sheet vinyl item as an associated add-on item by seam length method. Refer to section in product database setup chapter.
- When properly assigned, linear length usage of heat welding rod is calculated automatically in later layout estimating stage



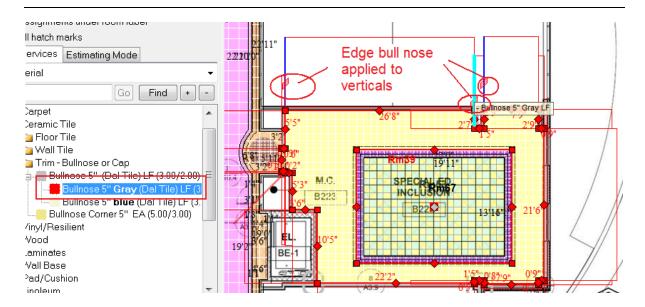
9.11 Apply products on walls and ceiling with expanded room view

Any room area can be expanded to show its walls and ceiling. Click on **Show Walls/Ceiling** icon **Room Tool tab** or right-click over the room, on pop-up menu, select **Show Walls/Ceiling**, drag and drop material item to walls or ceiling (by moving mouse over wall and ceiling areas as highlighted).

Both area-based products (such as tile, carpet, wood, etc) as well as length-based products (such as base, vertical bull nose, molding, etc.) can be applied to wall areas and perimeters (or segments) of walls and ceilings (similar to applying to floor areas).

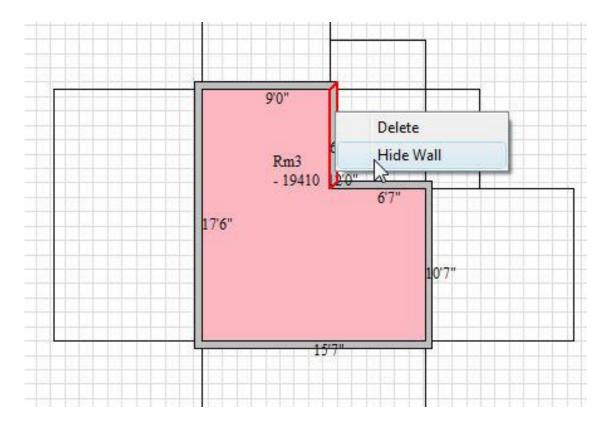


For example, to apply edge bull nose to vertical wall, simply drag it to the expanded view of that vertical wall.

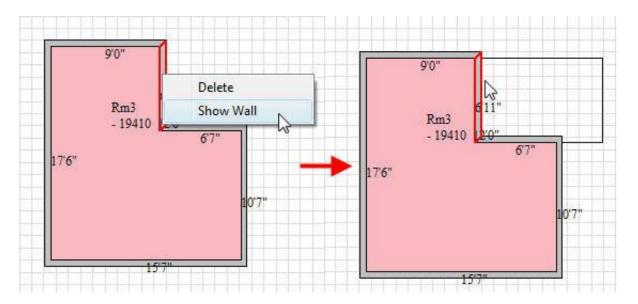


Usually walls overlap with each other in the corner and with all walls shown at same time. Hiding some walls or just showing desired wall helps with applying products to right wall without interfering each other.

To show or hide a single wall, right click over desired wall and select Show Wall or Hide Wall.



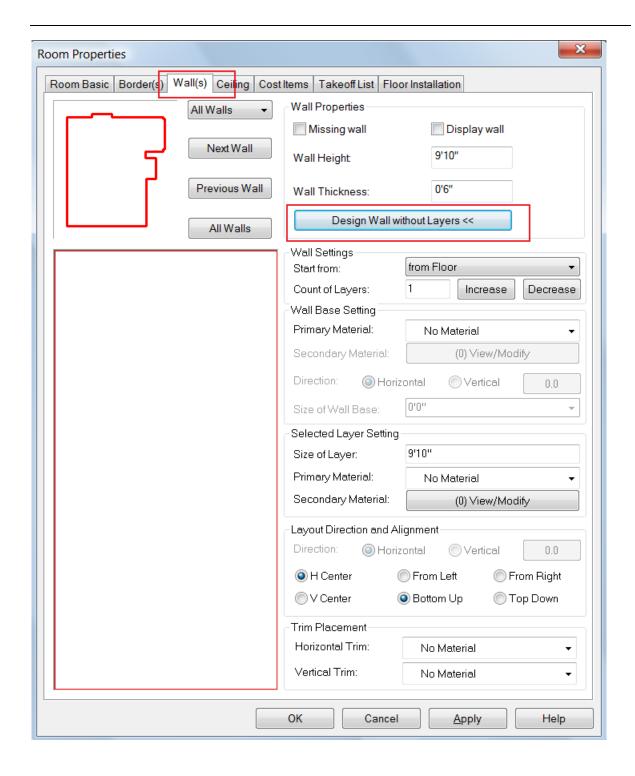
To show the single wall, right click the desired wall and select **Show Wall**.

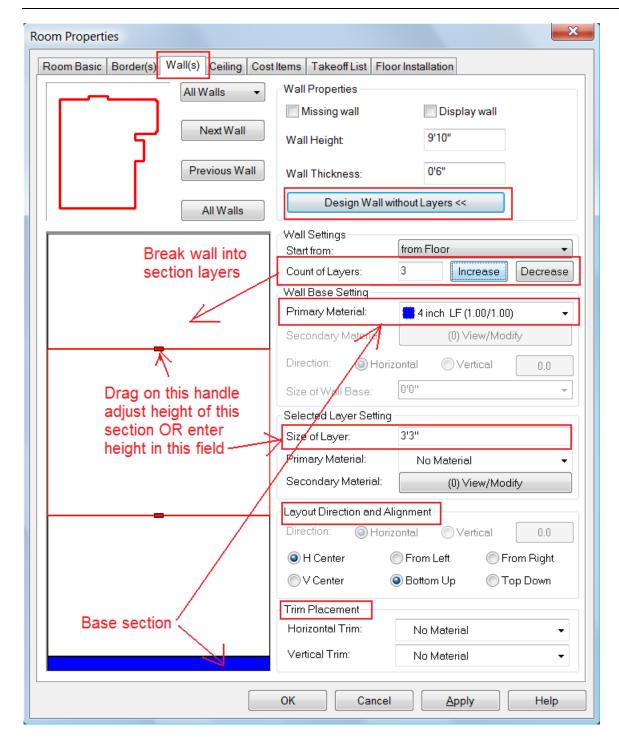


Click <u>here</u> to watch how to apply products on walls and ceiling with expanded room view

9.12 Wall detail design window

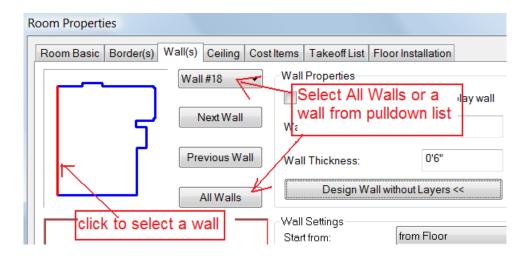
Advanced wall design with details can be achieved from **Design Wall with Layer** window which can be started from **Walls** tab of room **Properties**.



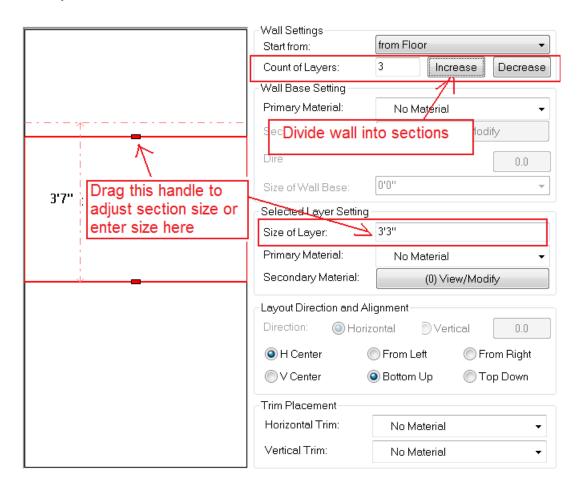


Under this interface, these design functions can be performed:

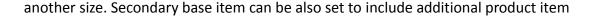
• Make wall selection. Select All Walls or a single wall from wall pulldown list. To select a single wall, left click on a wall in left drawing panel, or use Next Wall or Previous Wall to navigate through the walls

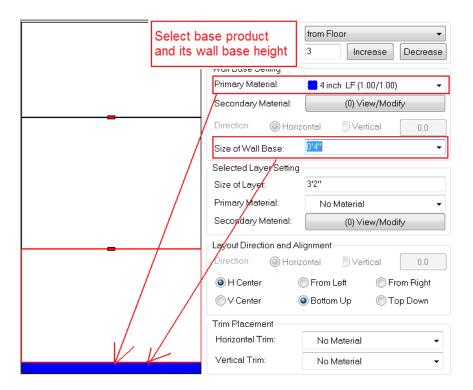


Divide wall into sections for selected wall(s). Click on Increase button to split wall
into section layers. To reverse, use Decrease button. Click on any section by clicking
in it, drag upper mid handle to adjust its size (section height), or enter it on Size of
Layer field for that section

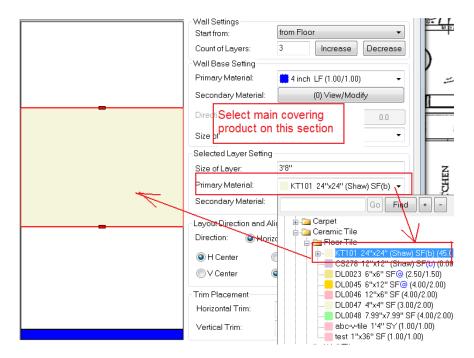


 Select base product and set base height for selected wall(s). Select primary base item and use its width as default size of base (i.e., base height) which can be reset to



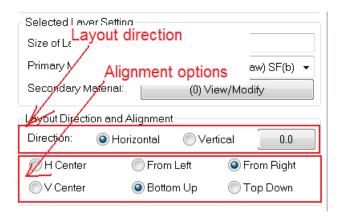


• Select main covering product for selected section. Select item from Primary or Secondary covering products from pulldown list

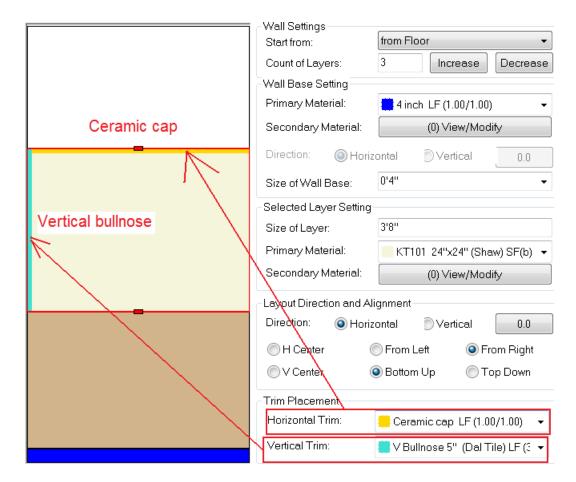


• Set product layout direction and alignment options for selected section. Each

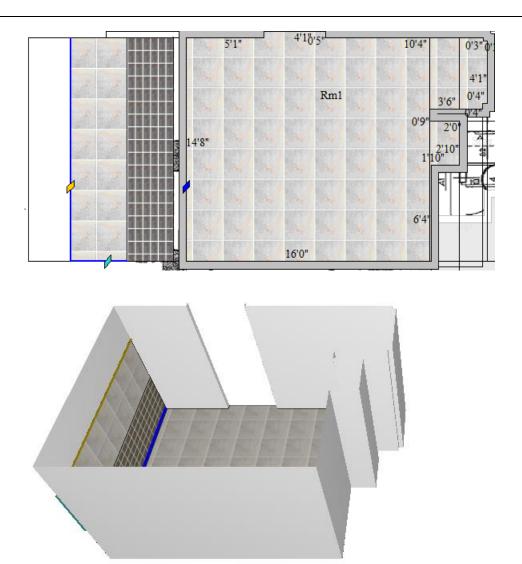
option is self-explanatory on how to align product shape (for example, tile grid) in this rectangular section



 Set Trim Placement on selected section. Place horizontal trim or vertical trim (vertical bullnose, for example) on upper horizontal edge or left vertical edge of selected section



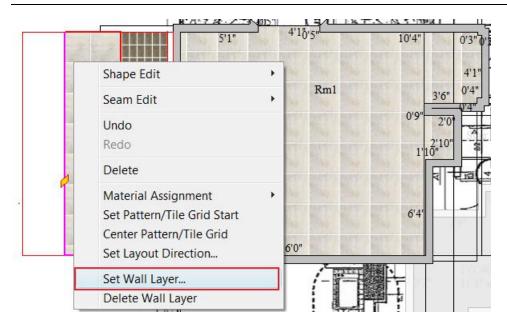
Here are expanded view of the design in 2D and 3D view.

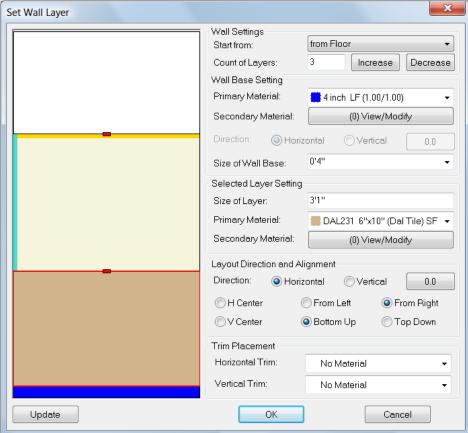


Under **Wall Properties** group at top part of the window, these general functions can be performed:

- **Set open wall.** Check **Missing Wall** box, selected wall(s) are removed, representing an open side
- **Display or hide wall in drawing**: Check **Display Wall** box, show wall(s) in drawing, otherwise hide it
- Wall Height: enter wall height (walls of same room can be with different heights)
- Wall Thickness: enter wall thickness (walls of same room can be with different thickness)

Wall detail design window can also be started from expanded view of room as well. From an expanded wall, right-click and select **Set Wall Layer**.





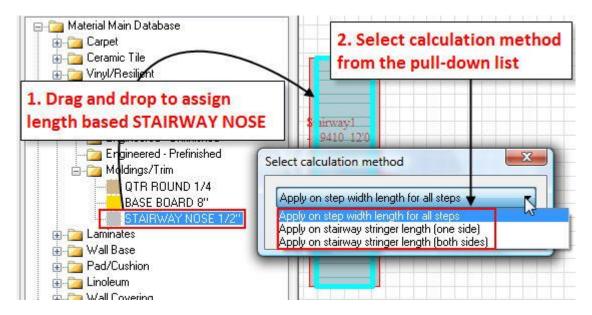
Click <u>here</u> to watch how to design wall layers

9.13 Apply product to stairways

Product items can be applied to stairway by following ways:

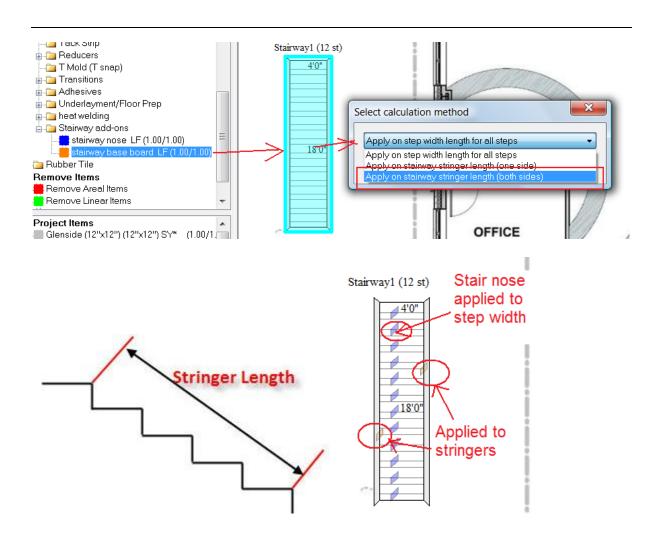
- Area-based product (carpet, wood, etc) can be drag-and-dropped to treads and risers
- **Length-based add-on items** (step bull nose, quarter round, stringer, etc.) can be applied drag-and-dropped to **step width** or one side or both sides of **stringers**
- **EA-based items** (per-step charge or per-stairway charge, etc.) can be drag-and-dropped to step count (by number of steps) or applied to stairway as whole.

For example, drag and drop stairway nose to step width of each step, at pop-up dialog, select **Apply on step width length for all steps**.

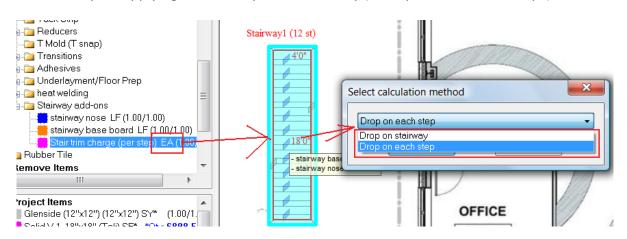


After application, steps are annotated with hatch marks on each step.

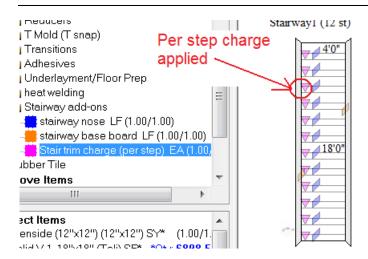
For example, stairway baseboard (LF item) can be applied to stringer length of stairway. After its application, sides of steps are annotated with hatch marks for both sides of the steps.



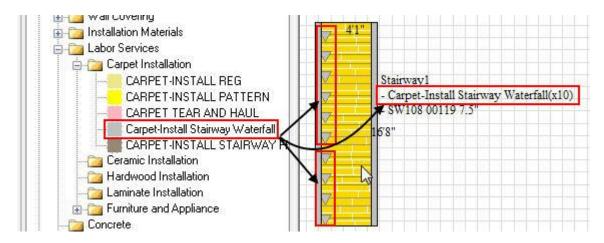
EA based charge item (with Unit **EA**) can be drag-and-dropped to stairway to represent charges by step count or simply by stairway. Two options to select from applying ONCE for the stairway OR applying to each step of the stairway (i.e., by the number of steps)



It is annotated as a triangle mark on steps or on stairway.

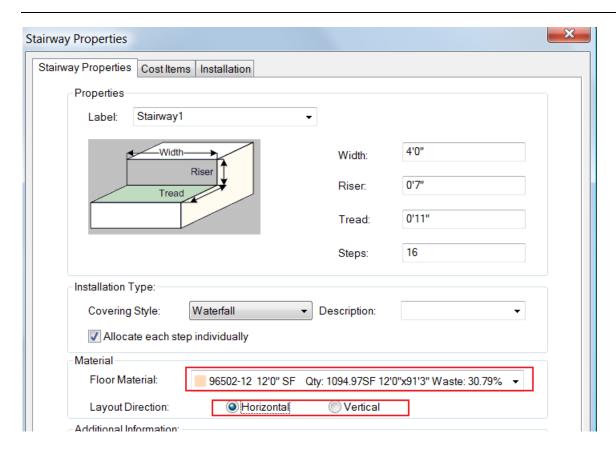


This feature is useful for applying special labor charges that are per step base or per stairway base.

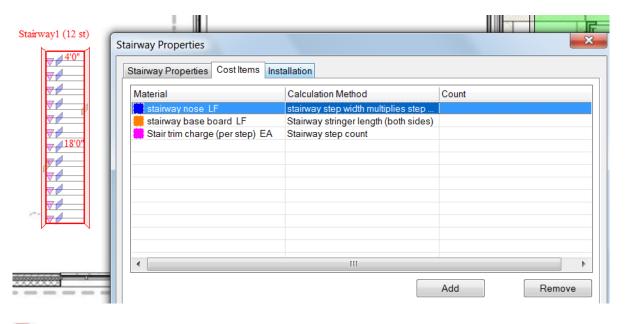


Stairway covering products can also be assigned from **Properties** of stairway right-click menu.

- Layout Direction can be configured either to align along steps or against it (labeled as Vertical or horizontal)
- **Covering Style** can be **Waterfall** or **Full-wrap** (with Full-wrap option, it covers each step with double area of tread and riser.



From **Cost Items** tab, it offers an alternative ways to apply add-on items (instead of dragand-drop). Click on **Add** or **Remove** to add or remove add-on items with different application methods.



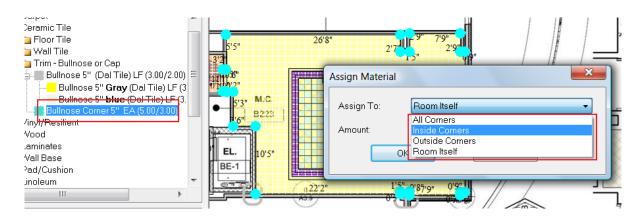
Click here to watch how to assign products to stairway

9.14 Apply corner bullnose to inside or outside corners

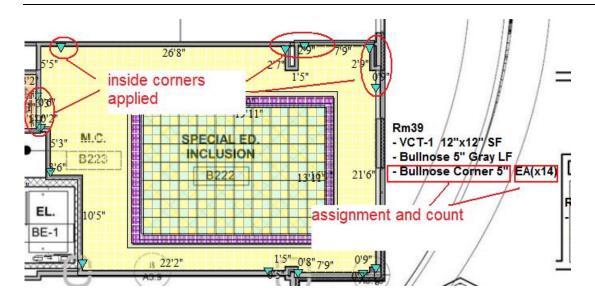
Corner bullnose items are specified as **EA** unit and layout type as **Add-on Item** in product spec, and normally are applied to inside or outside room corners.

Drag-and-drop a corner bullnose item and mouse over a target room area, where corner points are highlighted as below. When drop the item, a pop-up dialog prompts to select type of corners to apply.

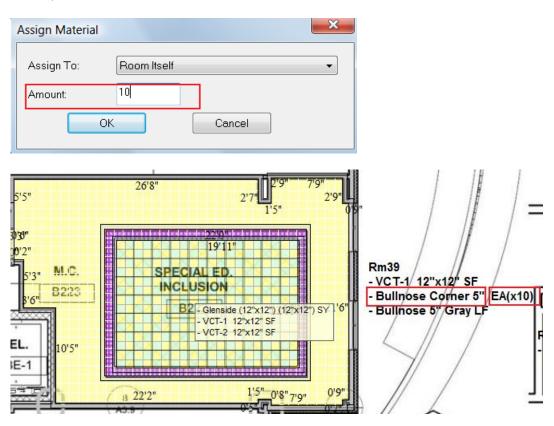
- All Corners. All corner points counted of the room
- Inside Corners. To counted inside corners
- Outside corners. To counted outside corners
- Room Itself. Apply this item at room level



After application, triangle marks are annotated next to applied corners. The item assignment is listed among assignment list under room label. A count number is attached to item name (annotating number of corner points counted, see example below)



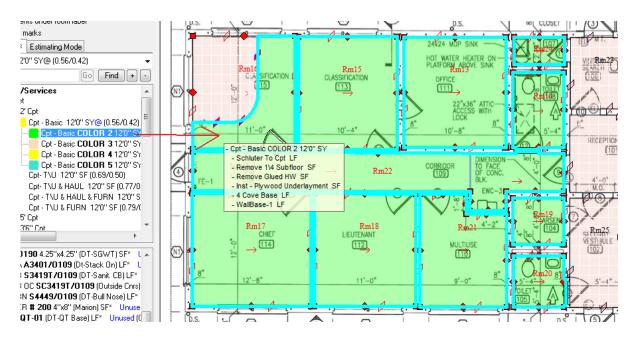
If **Room Itself** option is selected, it allows entering **amount** (number of counts) to apply with that EA item to the selected room(s). The amount number is listed with product assignment under room label for cross reference (for example, **Bullnose corner EA (x10)** below)



Click here to watch how to assign EACH product such as corner bullnose

9.15 Apply product to multiple selected rooms

Press down Ctrl key and left-click to pick multiple rooms (or Ctrl-A to select all rooms, or use rubber band to select rooms in a rectangular region), drag-and-drop product to selected rooms.



9.16 Copy and paste room assignment profile to other rooms

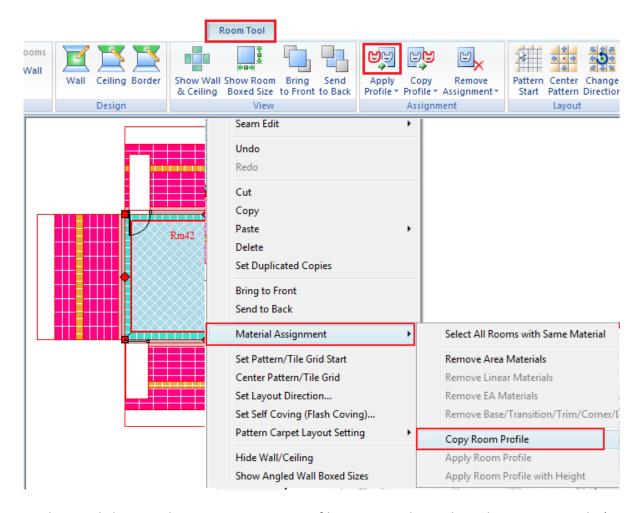
In commercial flooring projects, many room areas share same floor and wall design and product assignments cross all floor layers. This feature substantially speeds up product assignments process when hundreds of similar rooms are in place.

Copy Room Profile. Left-click on the room, go to Room Tool tab and click on Copy Profile icon Or right-click over the room, from Material Assignment submenu, select Copy Room Profile. This command copies

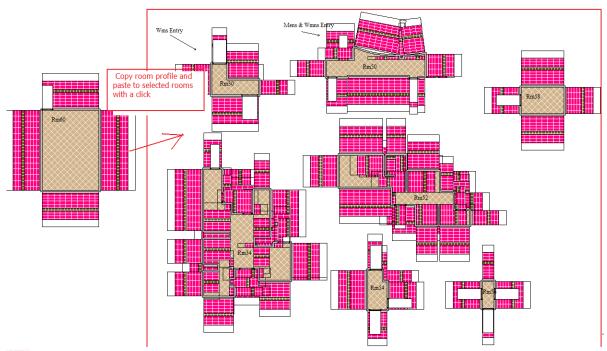
- Room floor product assignments (include tile pattern, layout direction), wall base assignments, border design and assignments (if exist)
- Wall section design (layer sections), wall product assignments, bull nose, trims, decors

Paste Room Profile. Apply copied room profile to one or any number of selected rooms. At pasting, if rooms to be pasted to are with different wall height, wall section heights are automatically scaled proportionally.

Paste Room Profile with Height. Apply copied room profile to one or any number of selected rooms. At pasting, if rooms to be pasted to are with different wall height, original wall section heights are maintained.



With one click, copied room assignment profile are pasted to selected rooms instantly (as shown in example below)

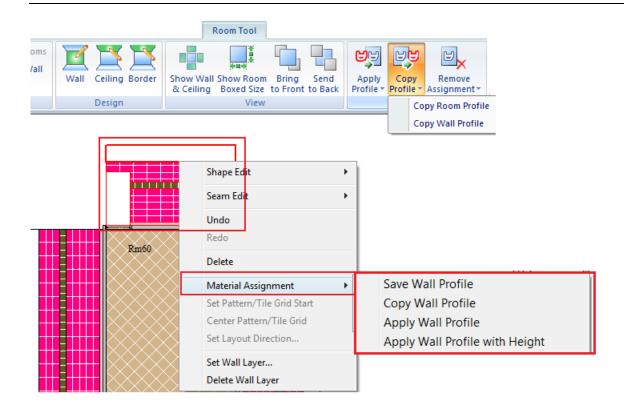


Click <u>here</u> to watch how to copy and paste room profile

9.17 Copy and apply wall profile to other walls

There are often situation that wall design and product assignments is shared among other walls of the same room or walls of other rooms. This feature allows wall section and assignments be copied from one wall and be pasted to other walls.

Copy Wall Profile. Click on or right click over a wall of expanded room view, and select **Copy Room Profile**.

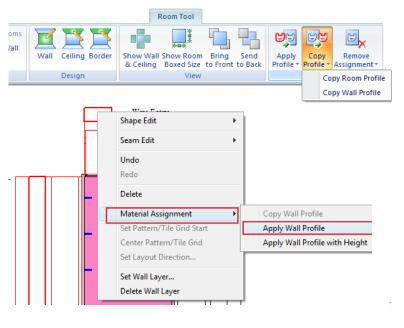


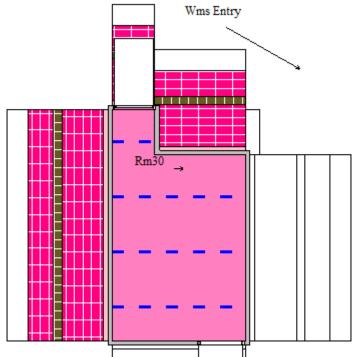
Apply Wall Profile. From expanded wall view of target room, select one or multiple walls (with Ctrl-key), right click and select Apply Wall Profile.

Apply Wall Profile with Height From expanded wall view of target room, select one or multiple walls (with Ctrl-key), right click and select Apply Wall Profile with Height, copied wall section heights are maintained on target walls (instead of scaled proportionally as in Apply Wall Profile)

Apply Wall Profile to All Walls (v2015 feature) Right click on **a room**, select Material Assignment and then select Apply Wall Profile to All walls. Copied wall profile will be applied to all walls of the target room.

Apply Wall Profile to All Walls with Height (v2015 feature) Right click on **a room** select Material Assignment and then select Apply Wall Profile to All with Height. Copied wall profile and the height will be applied to the target room.



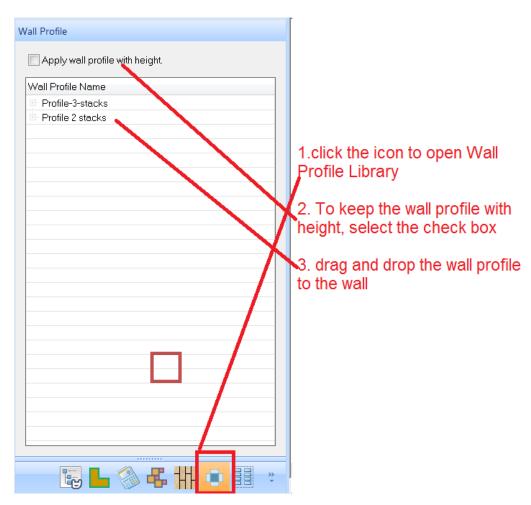


Click here to watch how to copy and paste wall profile

9.18 Wall profile library

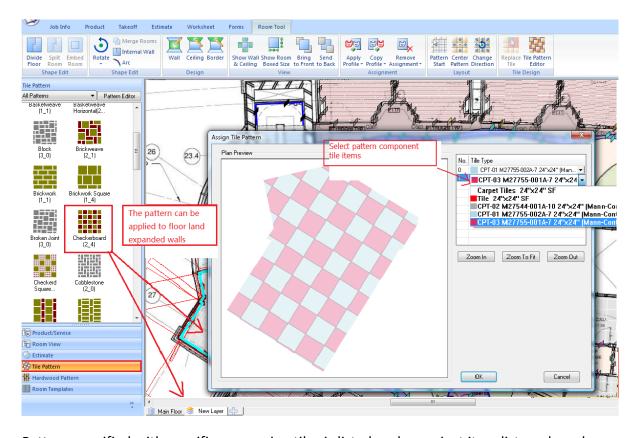
The wall profile library is designed to allow repetitive wall designs to be made and saved for future application to reduce time to perform the same steps multiple times. Once a design is created, you can apply it to other drawings without rebuilding.

- Left click to highlight a room, press "R" key to expand the walls of a room
- Right click on the wall and select Material Assignment-> Save Wall Profile->enter a
 profile name. Then wall design alone with materials will be saved into Wall Profile
 library
- To retrieve saved wall profiles, open the Wall Profile Library as shown below and then drag and drop a wall profile to target wall(s). To keep wall profile height, select "Apply wall profile with height"

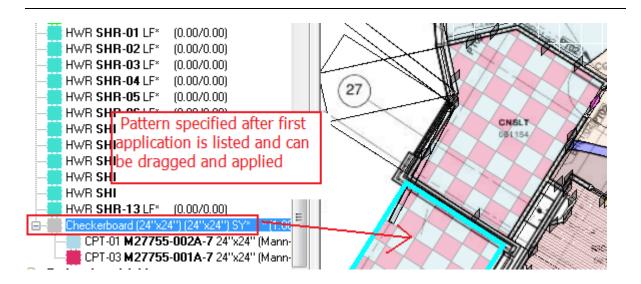


9.19 Apply tile pattern to floor and walls

From Tile Pattern panel, drag and drop desired tile pattern to floor area or expanded wall area. At pop-up preview window, select combining tile items from each component tile cell with desired size and color.



Pattern specified with specific composing tiles is listed under project item list, and can be applied directly to any other areas such as floor and wall areas.



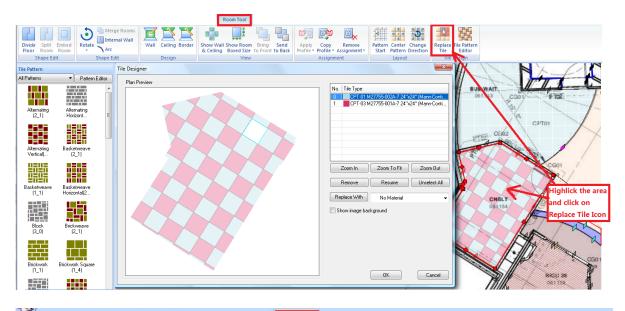
Import a tile pattern from existing project file: open project file that includes the tile pattern, find project item list on Takeoff Tab and right click and select "Import into Tile Pattern". It saves selected pattern to Tile Pattern library.

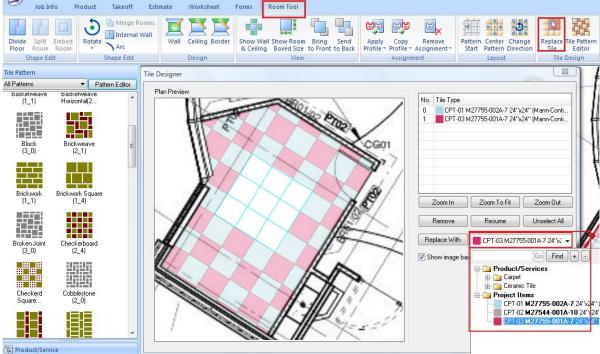
Click here to watch how to apply tile patterns to the wall and ceiling

9.20 Arbitrary tile design with tile designer tool

Highlight any floor area (or expanded wall area) assigned with tile or tile pattern, click on **Room Tool tab** and then click on **Replace Tile**.

In pop-up Tile Designer window, current tile area is shown on left canvas, left click on any tile piece cells to activate them (it turns white), or use rubber-band approach to activate a block of tile cells; to de-activate a tile cell, left click on activated ones to toggle off.



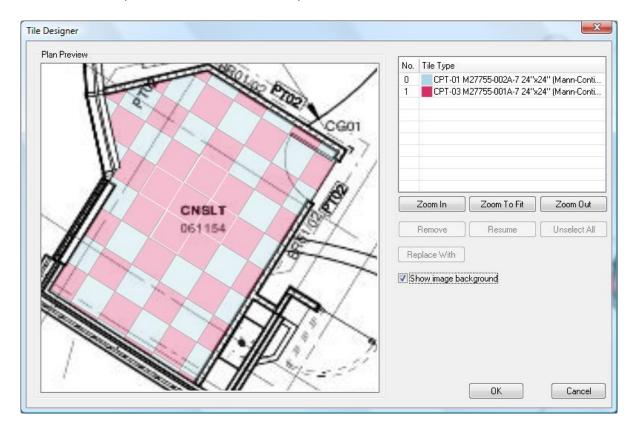


To display background floor plan, check box Show Image Background.

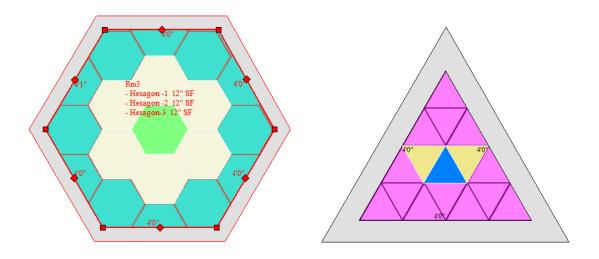
With activated ones, these design operations can be performed:

- Remove: remove activated tiles (shown with red X box)
- Resume: resume original states of activated tiles (same as deactivate cell)
- Replace: replace activated tile cells with selected product from right-side pull-down list. Tile replacement must be made with same sized tile.

Here is an example of activated tile area replaced with another color tile.



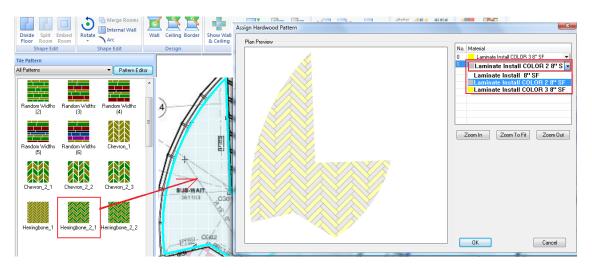
From MeasureSquare 2015 version, it supports hexagon tile and triangle tile replacement.



Click <u>here</u> to watch how to use tile replacement designer

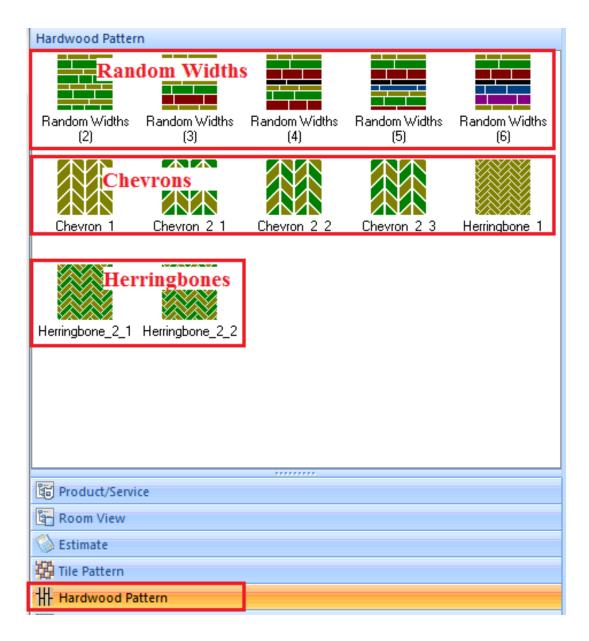
9.21 Apply hardwood pattern

From **Hardwood Pattern** panel, drag and drop desired hardwood pattern to floor area or expanded wall area. At pop-up preview window, double click to select available hardwood items from each pattern component cell with desired width and color.

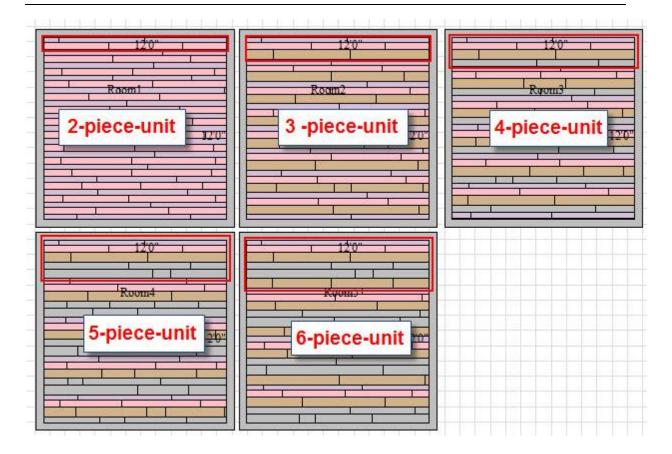




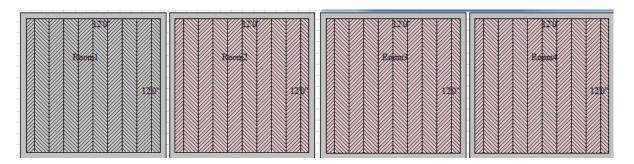
Three types of commonly used hardwood patterns are supported



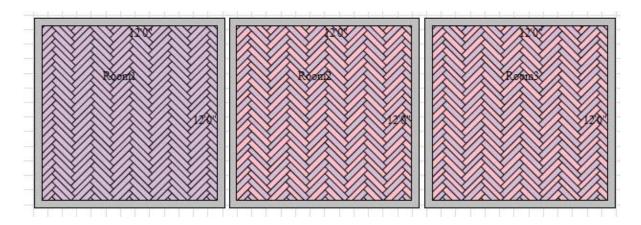
• Random Widths (with 2 to 6 different number of components): the most straightforward wood pattern. Wood boards are installed parallel to each other with a random mixture of floor board widths. Wood item width is specified in product database or from project item list.



Chevron (with 1 one-component pattern, and 3 two-component patterns): It forms
 V shape as it is outlined in the panel with same color wood item or two colors of different alternating placements.



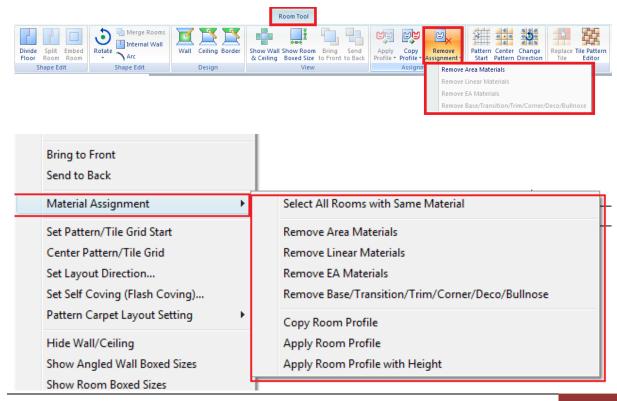
• Herringbone (with 1 one-component pattern, and 2 two-component patterns): It forms a distinctive V-shaped weaving pattern. Most of the herringbone floors are sold unfinished, which is typically installed piece-by-piece in various configurations, either parallel to the room walls or diagonally. Strips of wood flooring are laid in a diagonal zigzag plan that looks like its name says. The layout direction can be set to any directions.



Refer to layout estimating section for calculated area and linear length of wood planks from hardwood pattern assignments.

9.22 Material assignment submenu (under Room pop-up menu)

From **Room Tool Tab** or room right-click menu, Material assignment submenu provides supplement commands to speed up product assignments and removal operations.



Command functions are applied to one or more selected room(s)

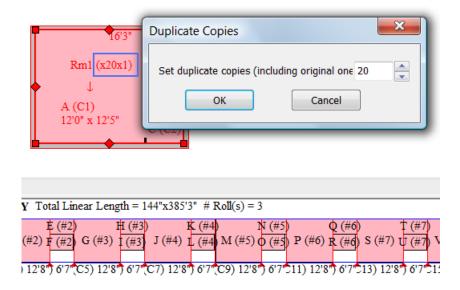
- **Select All Rooms with Same Material**: find and highlight rooms with same floor product applied. So assignments can be verified or be replaced with another product.
- Remove Area Materials: remove all product assignments on floor, walls and ceiling
- Remove Linear Material: remove all length-based product assignments
- Remove EA Material: remove all EA unit based assignments
- Remove Base/Transition/Trim/Corner/Deco/Bullnose: remove all types of add-ons assignments combined

Other commands for copy/paste room profile and wall profile are described in previous sections.

9.23 Multiplier: Set Duplicated Rooms

In situations where product usages of **duplicated rooms** need to be calculated, and at same time, material usages need to be optimized (for example, save carpet/vinyl cut waste, etc).

Right click over a room or selected rooms, click on "Set Duplicated Copies", then enter number of duplicates.



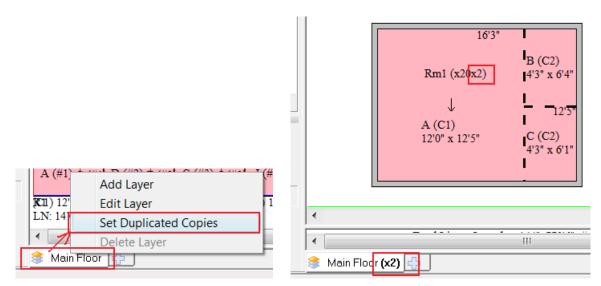
At estimating mode, the program calculates based on number of duplicates and optimizes usages as if they are drawn into the floor area.

9.24 Multiplier: Set Duplicated Layers

In situations where product usages of duplicated floor layers need to be calculated, and at same time, material usages need to be optimized (for example, save carpet/vinyl cut waste, etc).

Right click over a floor layer tab, click on "Set Duplicated Layers", then enter number of duplicates. After the number is set, it shows with tab name with the count and with a count number attached to all rooms of that floor.

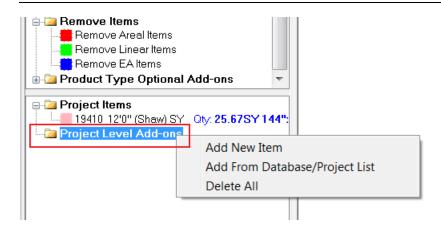
Set duplicated layers can be combined with Set duplicated room command within a floor.



Click here to watch how to duplicate layers

9.25 Extra product add-ons at project level

From V2013, a Project Level Add-ons folder is added to project list panel to hold items that are to be added at project level (so they are not assigned to any rooms). Right click over the folder name to pop up commands.



This list is to contain all extra charge items that are not assigned to any rooms and also for estimated items where extra quantities need to be ordered. Also refer to 10.18 in Layout Estimating chapter.

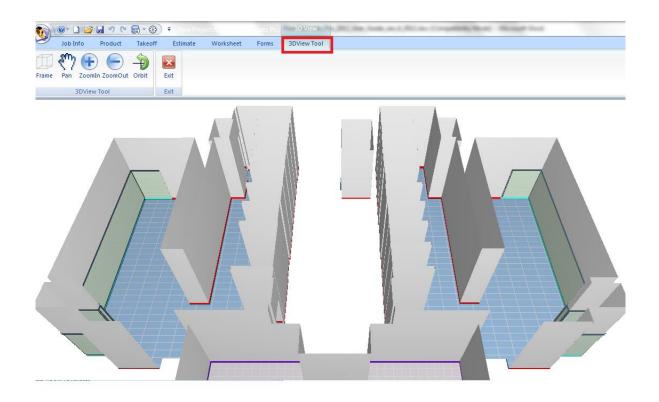
9.26 Inspect and verify product assignment in 3D

Product design and assignments on floor are easy to inspect and verify with 2D layout. As products can be applied to walls, 3D visualization feature enables viewing and rotating floor and wall assignments in 3D so it can be a useful tool to verify and communicate with customers as well.

Select any number of rooms on floor to show in 3D (if no room is selected, whole floor is to be displayed). Click on 3D command icon on toolbar to enter 3D mode,

- Turn on **Orbit** icon and then press left button and shift mouse cursor left/right to rotate rooms, shift cursor from up/down to rotate around another axis for different views
- Click on and icon or use mouse wheeler to zoom in and out
- Click on icon or press mouse wheeler down to toggle panning mode on and off
- Click on icon to see the frame of the selected room(s)
- Click on Exit

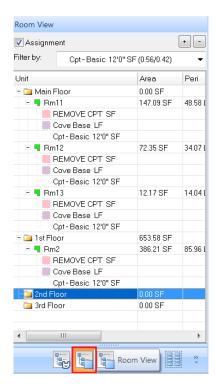
 to return back to 2D mode



Click <u>here</u> to watch how to review floor plan in 3D

9.27 Room View

Rooms view retains expansion status at the room and floor level. It displays Room labels Attachment labels, line segments alphabetically under Room View



To select multiple rooms in the Room View by holding down on the **CTRL** key on the keyboard and clicking on the desired rooms. The corresponding rooms in the floor plan will be selected. Conversely, rooms selected in the floor plan will also be selected in the Room View.

To switch among layers in Room View, click on folder with layer's name

To re-arrange sequence of layers in Room View, click up/down buttons to change the ordering of layers

10 Seam Layout and Estimating

With room takeoff and material assignment are in place, the next step is layout estimating. This section introduces the steps on how to generate accurate estimate on material usage

(such as linear length, square footage, boxes of tiles, etc.), seam layout and cut sheet for roll goods like carpet and vinyl.

10.1 Entering layout and estimating mode

Click on the **Estimate** to enter layout and estimating mode.



Click on icon, the program enters into layout estimating mode, and pops up with a list of items that are already assigned to this project.

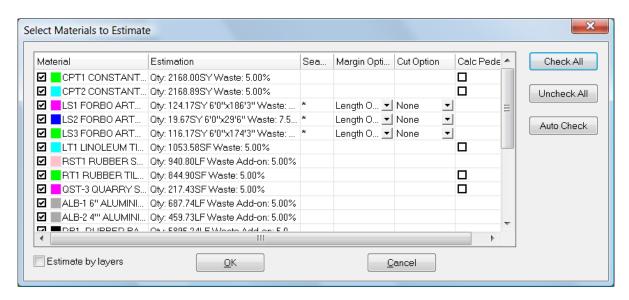


Figure 10-1

Click on **OK** button to proceed. Then left panel switches from Product Services tab to Estimating mode tab, and under estimating mode tab, estimated quantities of project items, waste %s, linear footage and number of tile counts, etc., are listed. On the right main diagram window, rooms with roll goods are laid out with seams.

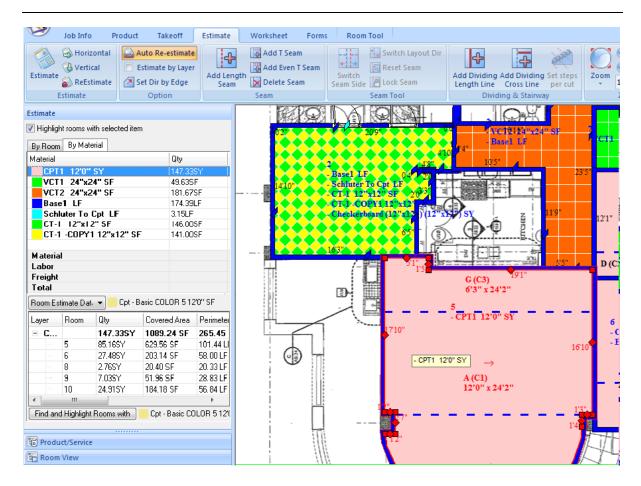


Figure 10-2

Estimating Mode Window Framework:

Estimation Data Panel: material usages (SY/SF), linear length (LF), net floor area, floor perimeter (less door openings), waste ratio.

Alternative List Panel: contains room estimate data, roll cut list and room cut list views (click on pull-down list to switch two views)

Diagram Window: Seam layout diagram on top of rooms

Cut Sheet Window: Stock cut view from laid roll of carpet/vinyl (double click over the cut sheet window on the bottom can separate it from work area)

Seam Editing Tool Bar: refer to the tool bar tips

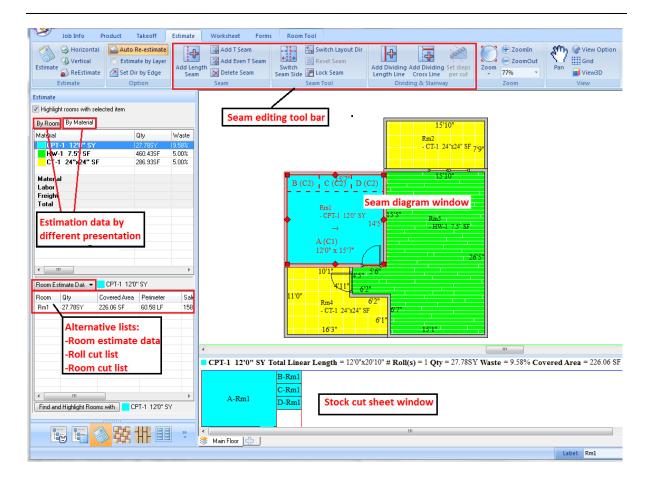


Figure 10-3

Here is a list of operations that can be performed under layout estimating mode:

- (1) Review estimating data.
- (2) Review item assignments by room vs. estimating data.
- (3) Change layout directions for roll item or tile goods
- (4) Seam Manipulation. Adjust seam location on diagram, add or remove different seams
- (5) Waste reduction. Optimize waste for roll good items (carpet, vinyl)
- (6) **Review and adjust cut sheet**: optimize cuts and waste on cut sheet
- (7) Adjust stairway cuts or layout direction to optimize waste
- (8) Adjust tile grid location or snap starting point to any point on floor
- (9) Pattern carpet matching. Adjust pattern carpet first cut, or pattern repeat margins for cuts, optimize cuts for hall ways
- (10)Set "Estimate by layer" mode



Click here to watch introduction to Estimation tab

10.2 Review estimating data

Upon entering estimating mode, all estimating data are filled under Estimating Mode tab on left panel.

- One may drag right border of this panel to adjust width, and to find more columns of estimating data.
- Drag any column title and drop it to location to adjust its order
- Click on any item on left panel to review list of rooms with this item assigned in the panel below, also rooms are highlighted in the diagram panel. If this is roll good, a cut sheet window shows under diagram window
- Click on any room area on diagram, item applied to this room is selected on left panel; meanwhile if it is a roll good, the corresponding cut sheet window is shown at lower section

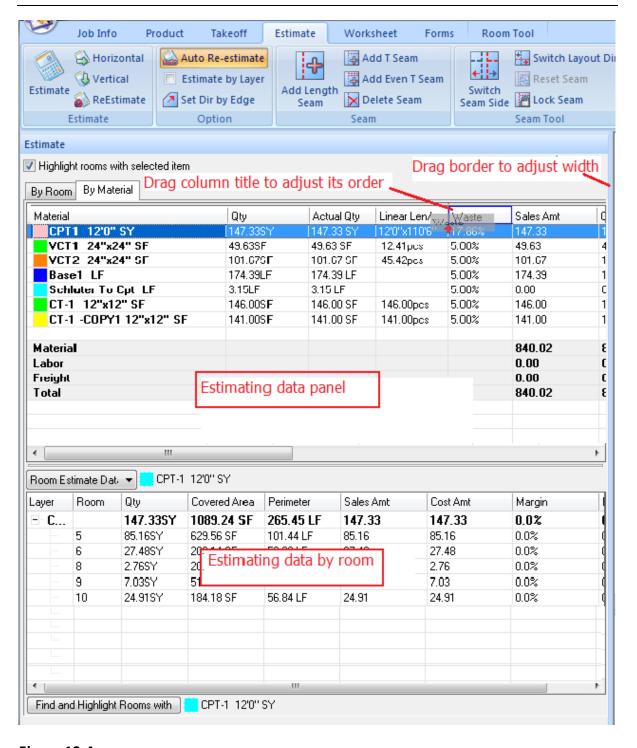


Figure 10-4

For Roll Cut List and Room Cut List details, click on the pull down list under Room Estimate Data (see below)



Figure 10-5

10.3 Change layout direction for roll goods

It is common practice to compare different layout directions. To change layout direction of a roll good, click on one area with that item (so it is highlighted), then click on **Horizontal** or **Vertical layout** button to redo layout with that direction. **These two commands apply to all rooms of the same floor.**

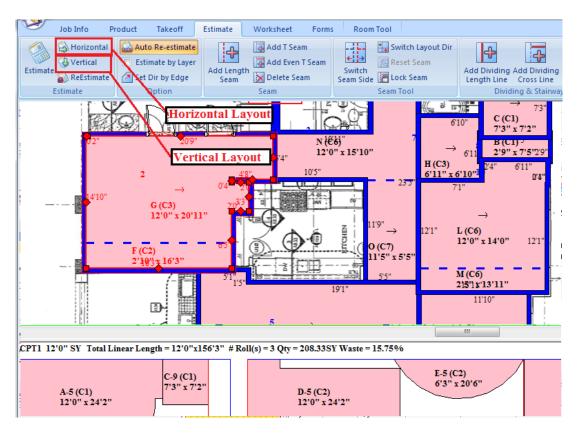


Figure 10-6

To change layout direction on one or more selected rooms, press on CTRL-key then LEFT-pick to select rooms, and then right click to pop up command menu, select **Set Layout Direction**.

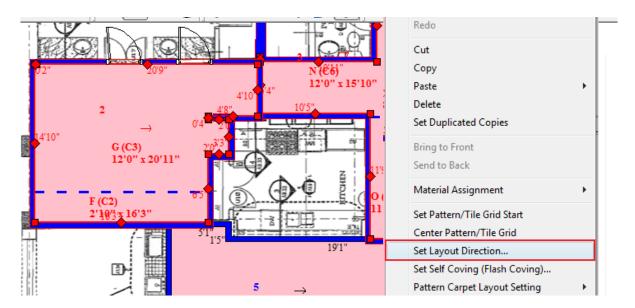


Figure 10-7

At pop up window (see below), click on an any arrow direction button, or simply enter an angle, then OK.

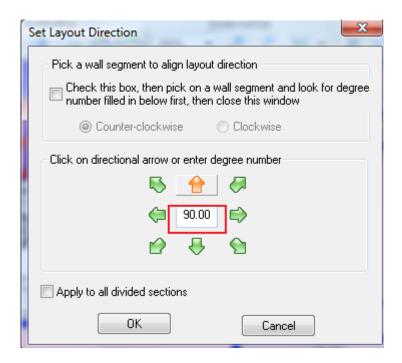


Figure 10-8

Align layout direction along any wall direction. Click to toggle on Set Dir by Edge icon on Estimate tab, then move cursor to any wall segment of any individual room (until it gets highlighted, move cursor to either ends of segment to get an arrow direction), left click to take effect. It is in a continuous mode until this icon is toggled off or simply by right-click.

This command applies to any product types in addition to carpet and vinyl.

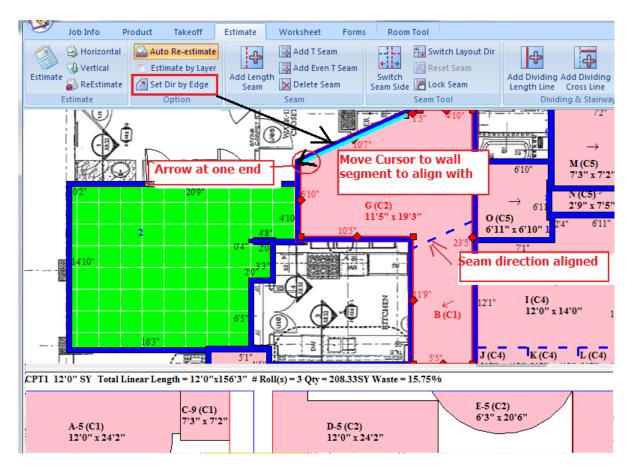


Figure 10-9

10.4 Seam Manipulations

Drag and drop seam on diagram. Seams placed on rooms can be dragged and dropped at any location. And it can be snapped to any corner points or aligned with any wall segments automatically when that corner point or wall is highlighted.

Delete seam. Seam can be removed or deleted by drag-and-drop off a room.

Seam Edit menu. Right click over any selected room(s) to pop up a full list of seam editing commands, each of them are self-explanatory. There is a corresponding seam editing icon

toolbar on the Estimate tab that serves as shortcut for this seam edit menu.

Move mouse cursor over icons to see its functional tip.

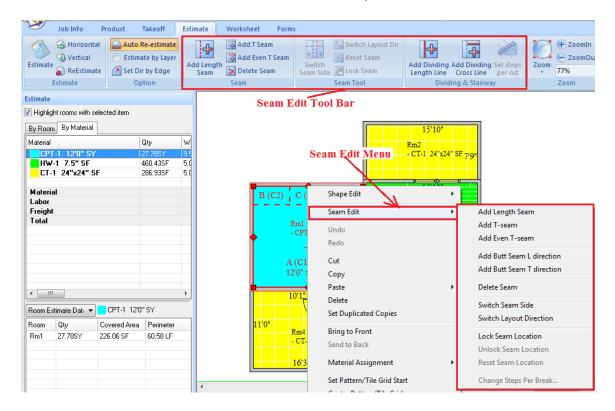


Figure 10-10

Seam Edit Menu Reference

- Add Length Seam: place a seam in roll length layout direction
- Add T-Seam: place a cross seam against roll layout direction
- Add Even T-Seam: place any specified number of even-length T-seams

Add Dividing Length Line: place section-dividing length-line at roll layout direction (shown in solid line vs. regular dashed seam line).

Add Dividing Cross Line: place section-dividing cross Line (shown in solid line vs. regular dashed seam line)

Delete Seam: pick and delete seam

Switch Seam Side: switch seam layout from one side to another side (for example, from left to right, or from top to bottom, vice versa)

Switch Seam Layout Direction: switch layout direction (for example, from vertical to horizontal, vice versa)

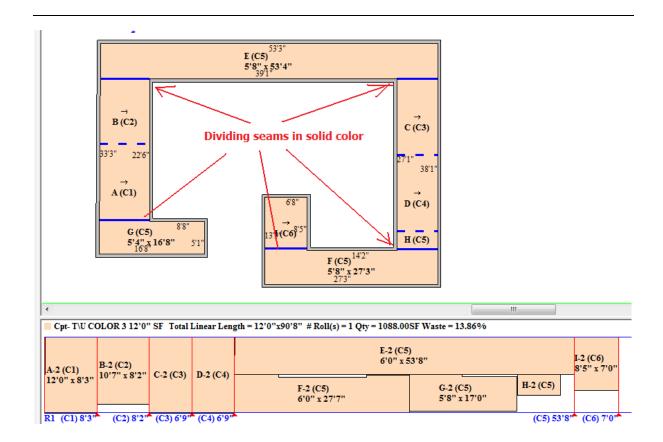
Change Step Per Break for Stairway: set number of steps per cut for stairway (button active only when a stairway is selected).

Lock Seam: lock seam location of selected room(s)

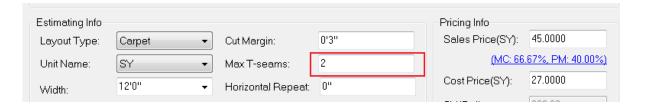
Reset Seam Location: Reset existing seam locations and re-estimate whole plan

What is dividing line (or section dividing line)?

Dividing line is used to divide a floor area into separate sections so that seams within each section can be placed and edited individually. This feature is helpful in placing seams on complicated shapes such as long hallways or connected corridors. Below is an example for its usage (dividing seams are in solid color)

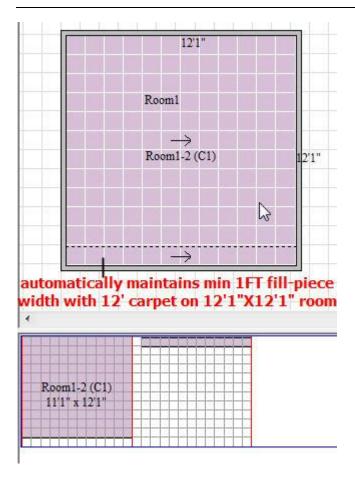


To control number of T-Seams at room level: At the material spec window, enter maximum allowed number of T-seams in a room area.



To reset layout direction of multiple rooms at once: highlight multiple rooms (with CTRL-key pressed, or select with rubber band). Right click to select any seam editing commands (similar to setting layout direction).

Minimum Fill-Piece Width: The program maintains 1' (1 FT) minimum fill-piece width when arranging the initial cuts. User can re-adjust the cut by drag-and-drop.



Click <u>here</u> to watch how to manipulate seam location

10.5 Cut sheet manipulation

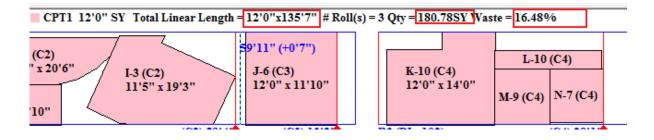
Cut sheet window shows roll stock cuts of selected roll goods item from floor diagram.

Stock cut sheet is generated by the program automatically. However, user can manually adjust cuts in the cut sheet window with these operations, and therefore affect Total Linear Length, Qty and Waste %:

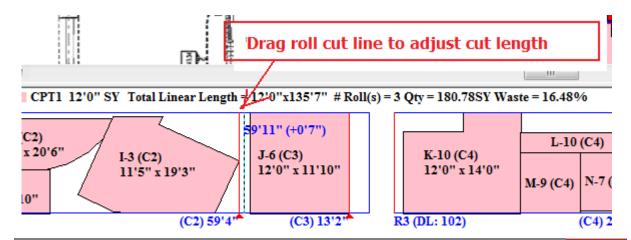
- Round up roll cut length to the nearest 3",6"or 1' if the option is selected from System Setting -> Material Layout tab.
- Move to front/end of a roll to move a cut to the beginning or to the end of a roll (right click over a cut)
- **Consolidate the waste** command to squeeze out the gaps among cuts as to reduce the waste (right click over a cut)

- Zoom to room to zoom window view to locate where a cut comes from (right click over a cut)
- Option to re-arrange the cuts after placing an T seam on the cut (2015 feature)
- Drag to move a block of roll cuts (press down CTRL key)
- Rotate cut right click over a cut to rotate it
- Cross reference cuts on floor and cut sheet. Click on any cut on cut sheet to cross show corresponding cut in floor diagram (highlighted)
- **Zoom in and out** in cut sheet window (use mouse wheeler)
- Drag and shift roll cut line to adjust cut length
- Drag-and-drop single cut to different locations in cut sheet (even across rolls)
- Drag a block of cuts and shift to right (press down SHIFT-key)
- Add a new roll by dragging a cut to a blank space
- Open cut sheet in a separate floating window (click on icon at upper right corner)
- Add T-seam on cut in cut sheet

While using these commands, observe changes in Total Linear Length, Qty, and Waste % to achieve optimized results.



Drag and shift roll cut line to adjust cut length



Drag and shift a single cut

Figure 10-11

Drag and shift a block of cuts to right section

Press down SHIFT key; drag a cut to shift a block of cuts to the right.

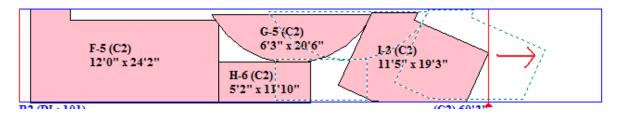


Figure 10-12

Rotate cut in cut sheet (v2012 feature)

There are situations that cuts made by program layout can be optimized by rotating on cut sheet. Right click over the cut, select one of rotation angle.

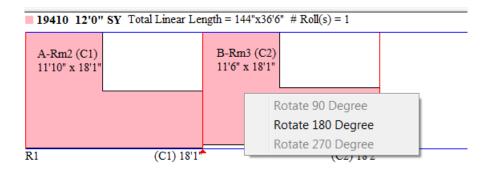
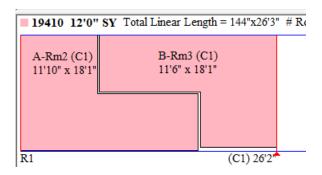


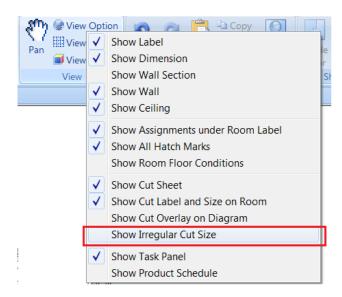
Figure 10-13

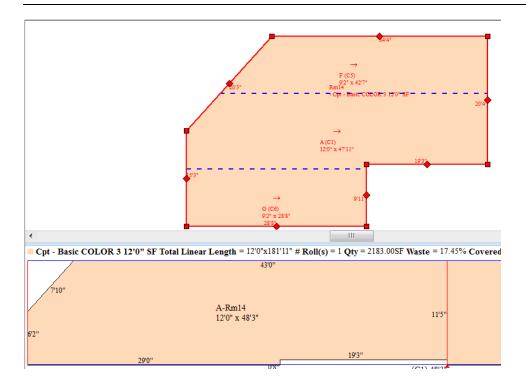


In this example, after rotating 180 degree, the second cut can be dragged to plug into the first cut, optimized for waste reduction.

Show irregular cut in cut sheet (2013 feature)

If a room is not rectangular, the cuts of it can be irregular-shaped, too. It is useful to show the dimension of irregular cuts so that the installer will know how to arrange and cut the sheet goods. To achieve this goal, from View Option icon, select **Show Irregular Cut Size**.





Float cut sheet window

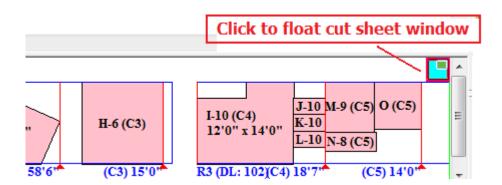


Figure 10-14

Click on upper right corner icon OR or double click in cut sheet window can float the window so it can be dragged to another screen or working area. Scroll mouse wheeler up and down can zoom out and zoom in cut sheet. Closing floating window makes it back to original place.

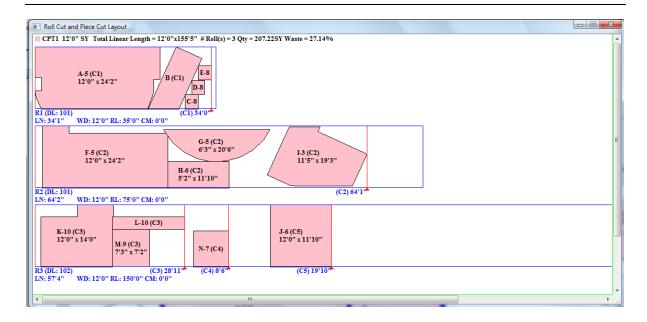
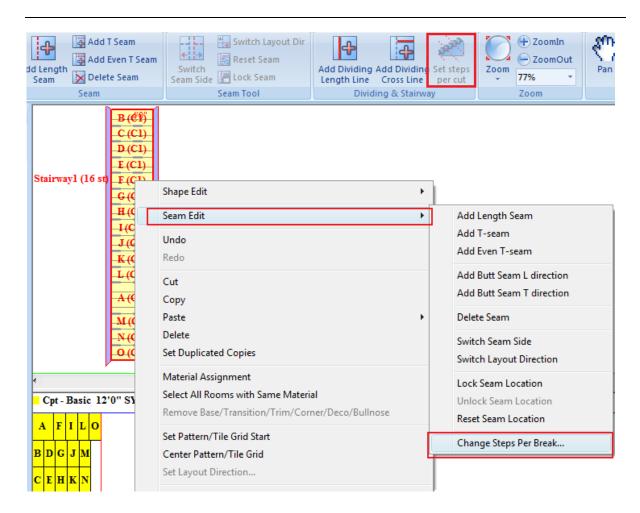


Figure 10-15

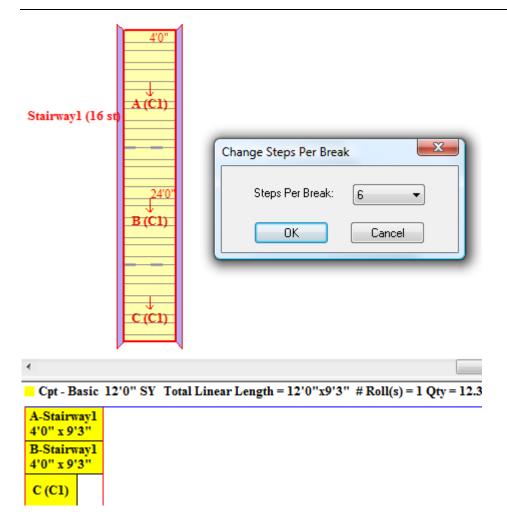
- Click here to watch how to manipulate cut sheet
- Click here to watch how to open cut sheet in a separate window

10.6 Set stairway cut break by steps

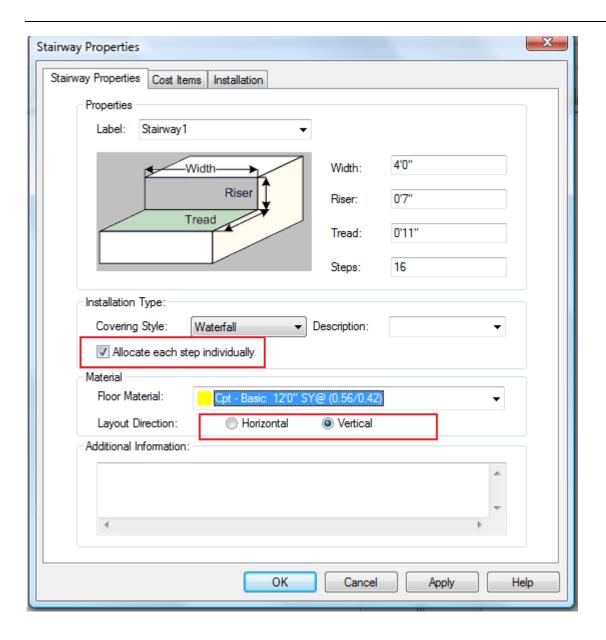
By default, carpet cuts for stairway are made individually for each steps to optimize on cut waste. But it may not be the best layout. To set cut per several steps, click on **Set steps per cut** or right-click to pop up menu over stairway, and select **Seam Edit** then **Change Steps Per Break**.



In this case, set 6 steps by cut, it generates better installation plan without incuring extra labor cost for seaming.



Another way to control stairway cuts and layout direction is to double click to pop up its **Properties**, then check box "Allocate each steps individually" or check "Layout Direction" radio button to change layout direction.



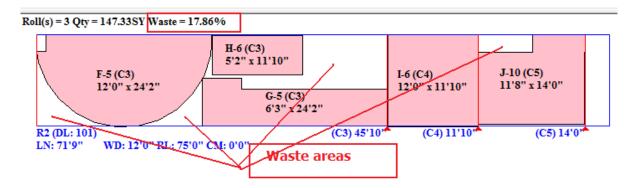
Set smaller steps per break on stairway to fully use room cut waste.

Click here to watch how to change steps per cut

10.7 Waste reduction approaches for roll goods

As waste ratio directly impacts material usage, therefore the to-be contracted amount for bidding a project, it is important to optimize layout to reduce waste ratio to competitive level meanwhile not sacrificing installation quality.

Origin of Waste Cuts: final wastes are the remnant cuts that cannot be fit with any floor room area including stairway. Wastes are shown in while areas in stock cut sheet window.



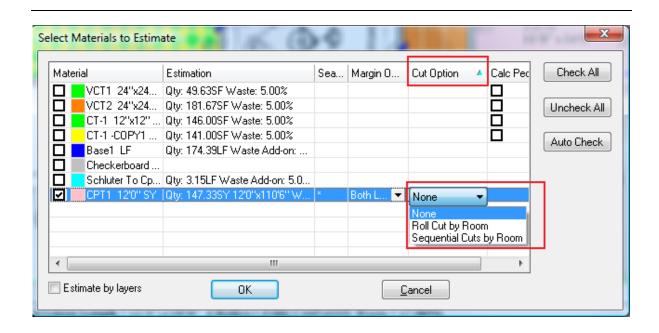
Alternative Approaches to Waste Reduction (used in combination):

- Try different layout direction at individual room level
- Relocate seams and add fill-pieces on diagram using seam manipulation techniques at individual room level
- **Divide and conquer**: divide complicated room shape into regular shape areas by adding butt seams (section dividing seams)
- Manipulate cut pieces in cut sheet window to reduce waste area, total linear length: shift and regroup cut pieces, add additional cuts on cut sheet view
- Breakdown stairway steps into individual steps for material allocation as waste filler

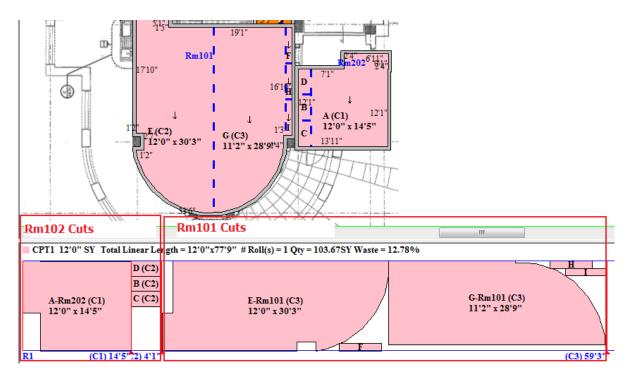
10.8 Control cut options by business rules

There are cut control options built in the program layout algorithm based on predefined business requirements. At estimating pop-up window, under **Cut Option** column, click on a roll good cell, two cut options are available:

- **Roll Cut by Room**: allocate cuts of a room in same continuous section of cut sheet (and not to share waste with other rooms)
- **Sequential Cuts by Room**: allocate cuts of a room sequentially across its area (and allocate them sequentially in cut sheet)



Here is an example of **Roll Cut by Room** where consecutive roll cuts for a room are next to each other and not mixed with cuts of other rooms.



Click <u>here</u> to watch advanced cut options

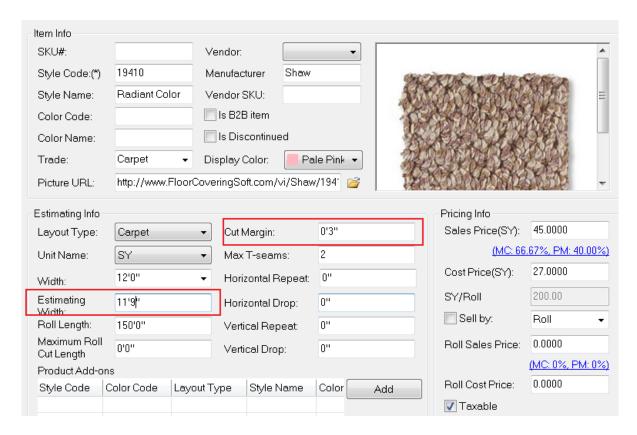
10.9 Control cut margins

For roll goods, cut margin (or trimming margin) should always be considered at either roll or piece cuts to avoid material short and installation quality.

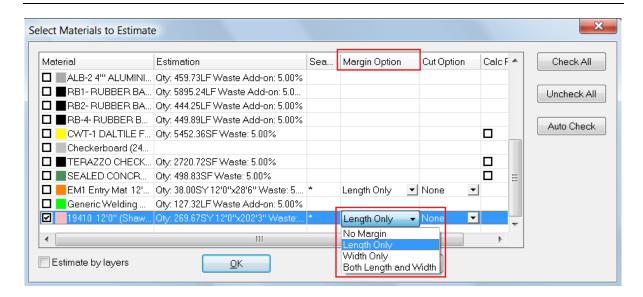
Cut Margin can be specified by several ways in the program (depending on one's best practice).

At Material Spec level (depicted in the material spec screen below):

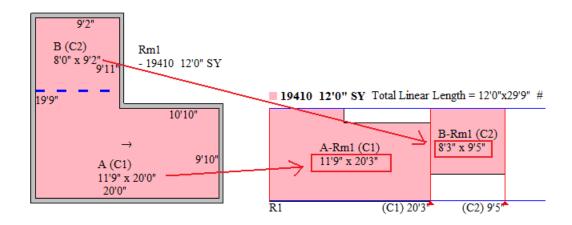
- Enter a smaller **Estimating Width** than the nominal width of material to allow width level margin (this will accommodate trimming on both sides of carpet), for example, 11'8" for 12' carpet. <u>Secondly</u>,
- Enter **Cut Margin** size (so to accommodate trimming at either length or width direction which is to be set at entering Estimating Mode)



When clicking on layout estimating button, at item list pop up window, under Margin Option column, click on the cell of selected roll goods to open cut margin selection, then select one of options (No Margin, Length Only (**default**), Both Length and Width)



In this example, below, selecting cut margin option "Both Length and Width", it adds 3" to both length and width of the fill piece.



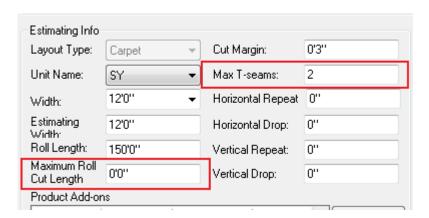
At **Measurement** level, many estimators accommodate cut margin by adding a few inches (say 3") to each of room size measurements at the time of drawing rooms.

10.10 Control maximum cut length, maximum number of T-seams in a room

In flooring installation practice, a roll of carpet must be cut into pieces to be transported and be carried into installation area. There is need to set maximum length of a cut.

Maximum cut length can be set at product specification under "Maximum Roll Cut Length". Its default value is 0.0 (meaning it uses its roll length as maximum cut length).

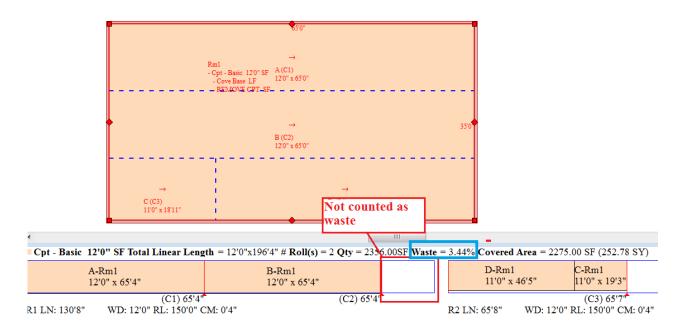
Maximum number of T-seams can be set under **Max T-seam** field that controls maximum number of auto-generated T-seams in a single room area.



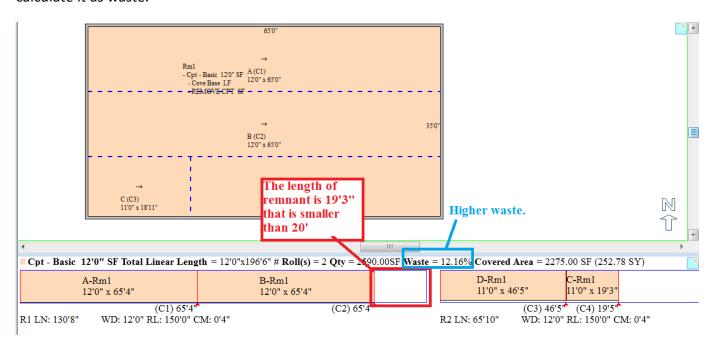
10.11 Roll Waste Calculation Option

In some cases, if the remnant of a roll is a whole piece, it won't be counted as waste because it can be used for another job. But in other cases, such remaining portion will be calculated as waste. To address the need to calculate waste of sheet goods, the program provides **Roll Waste Calculation Option** to estimate the sheet goods.

For example, there is a room of 65' by 35' with carpet whose roll length is 150 feet. If Roll Waste Calculation Option is set to ZERO, and if the remnant of a roll is a whole piece, it won't be counted as waste.



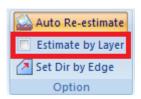
Suppose the Roll Waste Calculation Option is 20 feet. And if the length of remnant of a roll is smaller than 20 feet, the program will count 20 feet as waste. In this example, the length of remnant is 19 feet 3 inches which is smaller than 20 feet, so the waste ratio is higher. Otherwise, if the length of the remaining portion is greater than 20 feet, the program won't calculate it as waste.



10.12 Estimating by layers

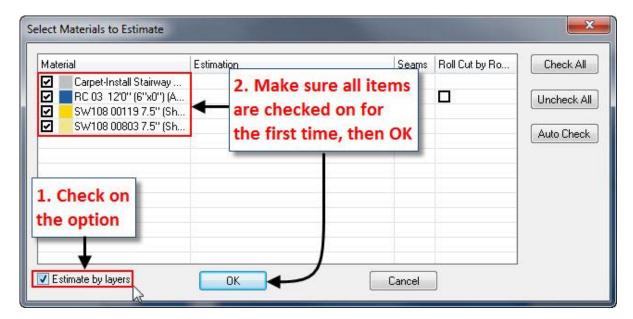
In many cases, there is need to estimate and quote a job by floor layers so a job can be sold and installed by floors and at different installation phases. When estimate by layer, it assumes that material roll and cuts (therefore the waste cuts) are not shared between layers. Normally, the waste factor is higher.

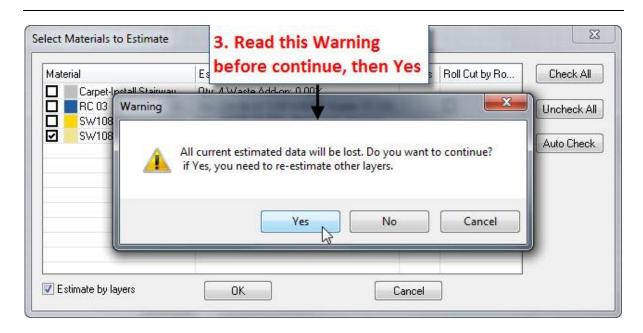
To enter **Estimate by layer** mode, when click layout estimating button, check on **Estimate by layers** at the bottom of pop-up dialogue box. Or just check **Estimate by layer box** on **Option** tool bar under **Estimate tab**.



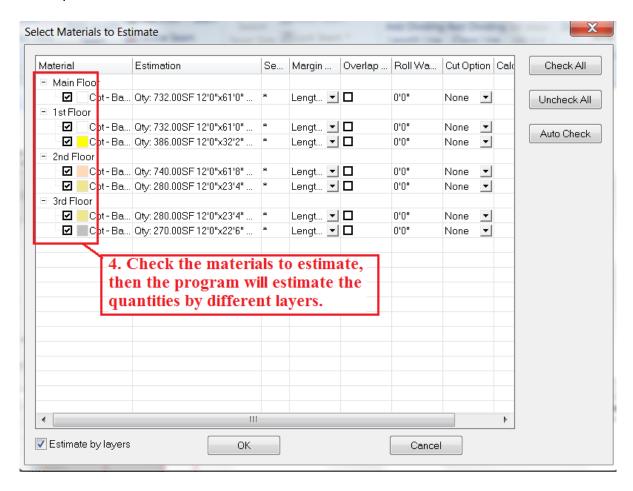
NOTE: If project has been estimated under regular mode (not estimate by layer), entering Estimate by layer mode will erase existing estimation data, cut sheet and seam diagram.

• Make sure to switch to each layer tab and click on layout estimating button to regenerate estimation data, cut sheet and cut diagram.



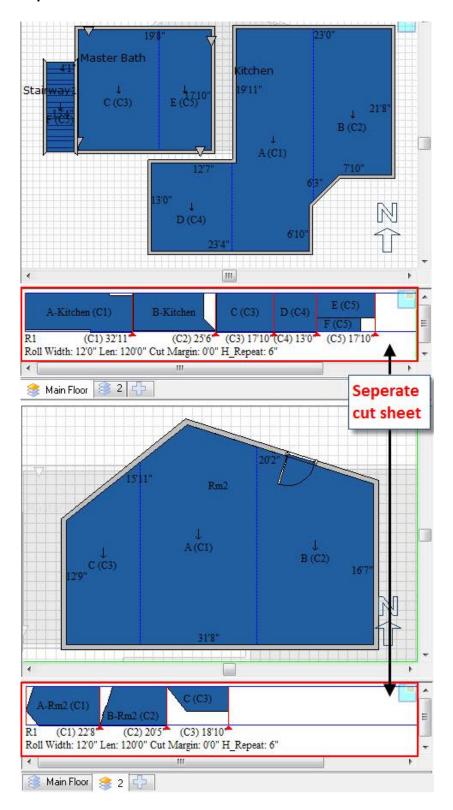


From M2 2013, when Estimate by layer is checked, it allows one to select which layer(s) and which products to estimate in "Select Material to Estimate" window.

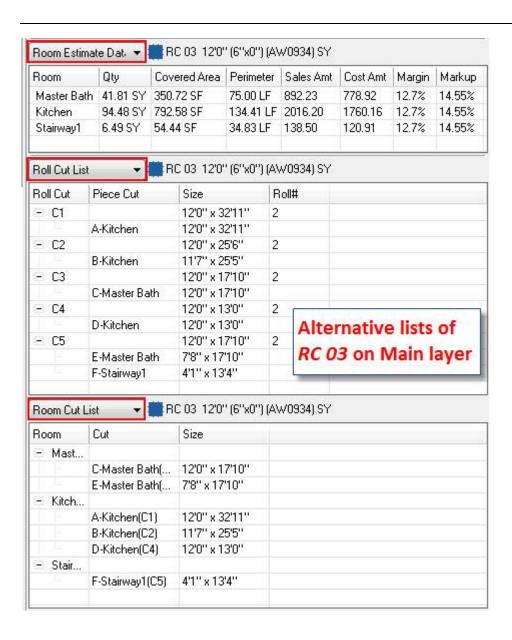


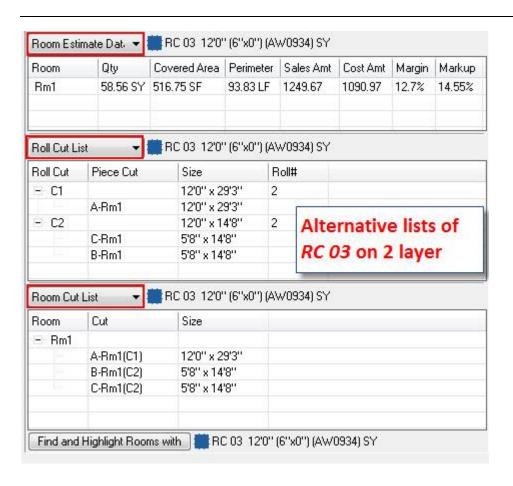
A two-floor layer example, estimated by layer:

Separate cut sheet

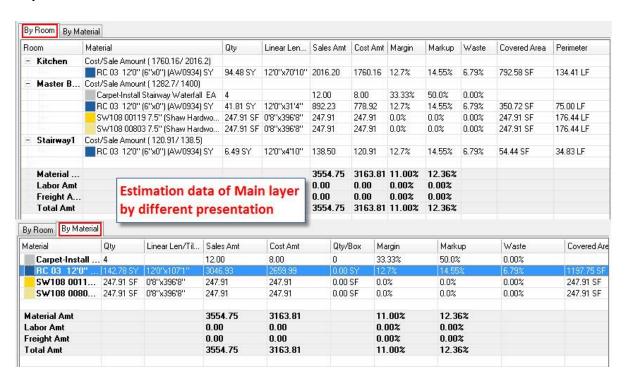


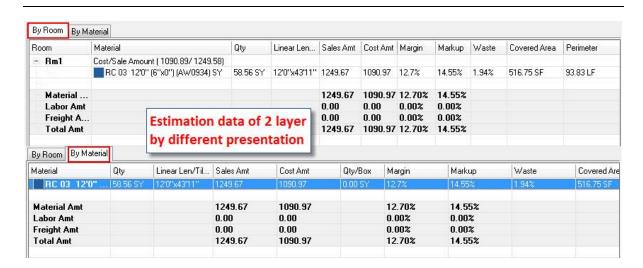
Separate estimating data lists



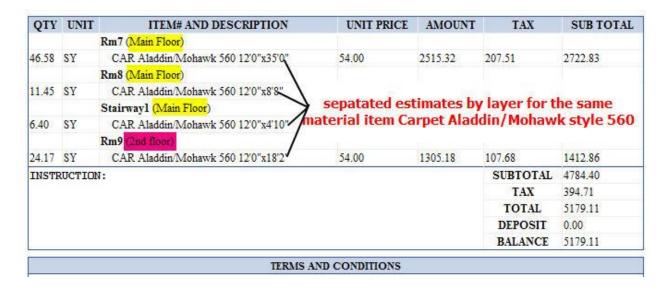


Separate estimation data in Worksheet tab





The portion of quotation forms with materials separated by floor layers.

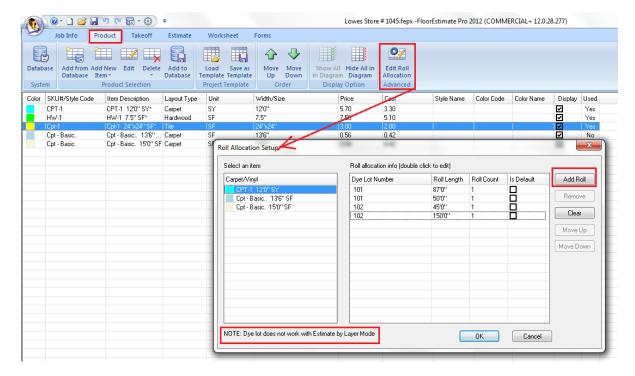


10.13 Roll allocations with different roll lengths and dye-lots

Regular layout of carpet and vinyl roll goods assumes the same pre-defined roll length in that item specification for all needed rolls in cut planning. In reality, flooring business may have same roll goods in stock with different roll lengths, even different dye lot.

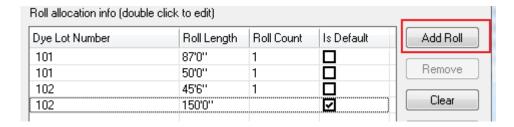
MeasureSquare COMMERCIAL edition has a feature to accommodate this in cut planning algorithm. The business rule is to ensure NOT putting cuts of different dye-lots on to the same room area.

To set up roll allocation and dye-lot, go to Project Setting tab, under Project Materials tab, click **Set Roll Allocation** button.

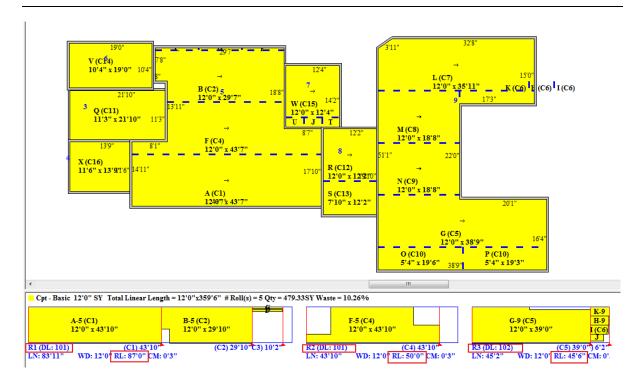


At pop-up windows, all roll goods items are listed on left panel, select one to set roll allocation. The complete steps are

- Click Add Roll button multiple times to add number of rolls to be used
- Double click on cells to edit Roll Length, Roll Count, and Dye Lot number (can be any numbers)
- One entry must be checked with "Is Default" (meaning when all rolls specified are not enough at planning, program uses this roll length and dye-lot as additional supply.



Here is an example of cut sheet layout with roll lengths and dye-lot setting above. Roll number, dye-lot number (DL) and roll length (RN) are annotated on cut sheet.



NOTE: When project is set at "Estimate by Layer" mode, roll allocation feature is disabled.

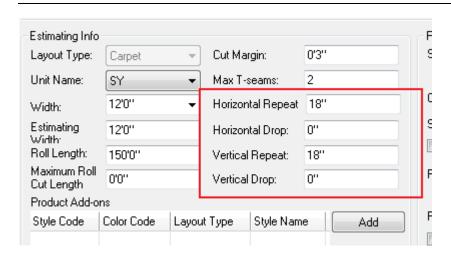
10.14 Pattern carpet layout setting

Pattern carpet can be specified in product specification database with **pattern repeat** parameters:

- Horizontal repeat (carpet width direction)
- Vertical repeat (roll length direction)

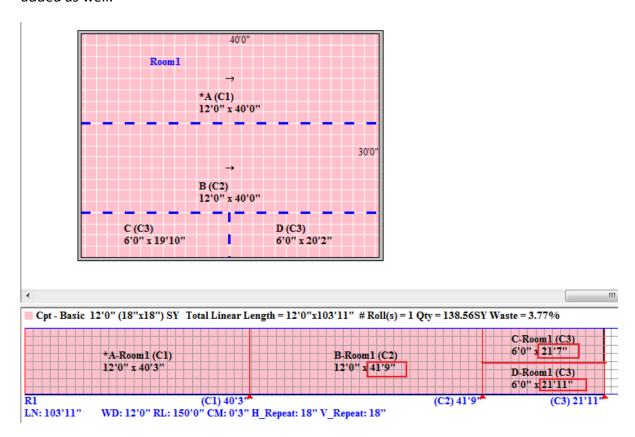
Pattern drop parameters are used for graphical display and are not used in cut planning and estimating. They are rarely used.

- Horizontal drop (shift in width direction)
- Vertical drop (shift in length direction)



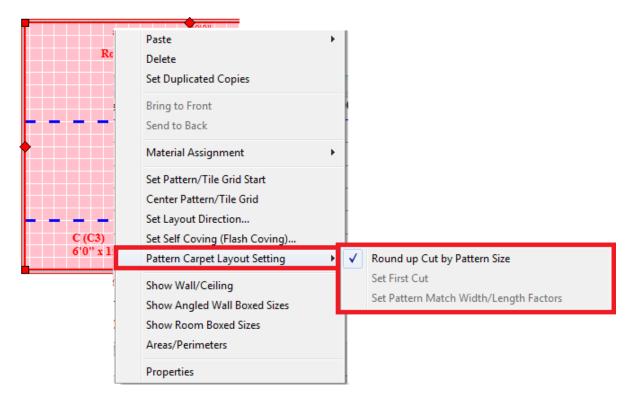
Pattern carpet cut algorithm. At layout estimating mode, by default, EXCEPT for the first cut, the program automatically adds extra repeat margin (Vertical Repeat size) in roll for each additional cut applied to any room area.

In this example below, first cut (A Cut) is 40'3" without repeat margin added; second cut (B cut) is added with 18" vertical repeat margin, two fill piece cuts are with repeat margin added as well.

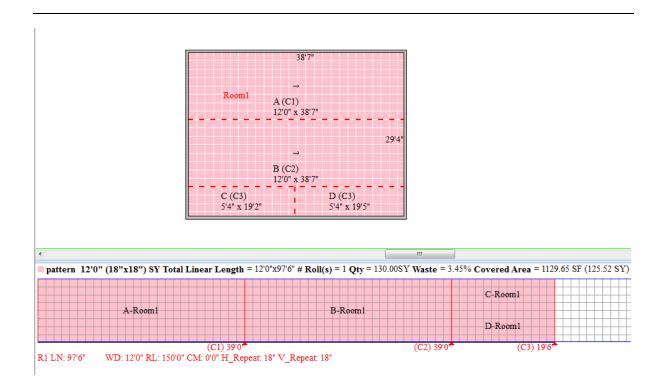


If cut margin field (for trimming) is specified with the pattern carpet, it is added on top of pattern repeat margin. In the example, 3" cut margin is added to all cuts including the first cut.

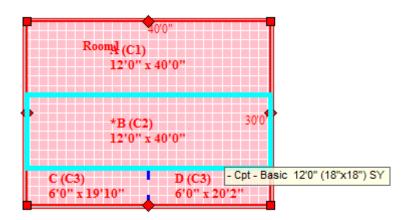
Configure Pattern carpet cut algorithm. Select **Pattern Carpet Layout Setting** from right-click menu of any room.



Round up Cut by Pattern Size to round up each cut to next full pattern size along both width direction.

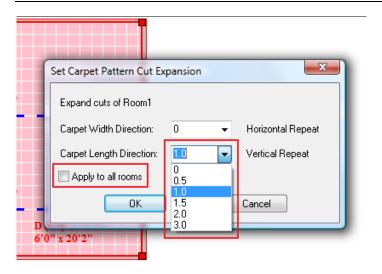


Set First Cut, then move cursor to select any cut as first cut (so to eliminate repeat margin on that cut). First cut is labeled with * ahead of cut label (for example, *B(C2))



Set Pattern Match Width/Length Factors to change default setting of repeat margin formula. Change Horizontal Repeat factor or Vertical Repeat factor from their pull down list (or type in a factor) to control repeat margin additions, the program uses these factors to multiply their corresponding repeat size to get final repeat margin.

For example, 0.5 in Vertical repeat means to add half pattern size to roll length cut, 1.0 means adding a full pattern, etc.

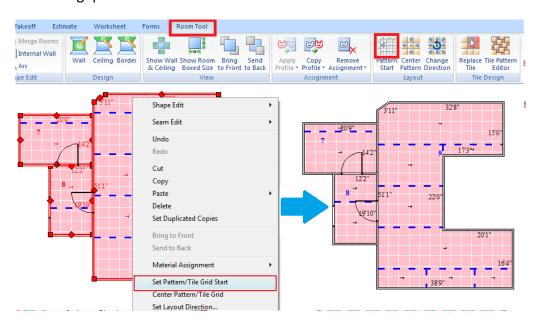


- Click here to watch how to pattern carpet layout
- Click here to watch optional pattern carpet layout

10.15 Match pattern carpet drawing across connected rooms

Select multiple rooms with the same pattern carpet, click right click, go to

Pattern/Tile Design and select Set Pattern/Tile Grid Start. Click on any point or snap to any corner point to take effect. Pattern carpet grid is synchronized across room borders. This feature is for graphical layout and presentation, and does not affect seam cuts and estimating quantities.



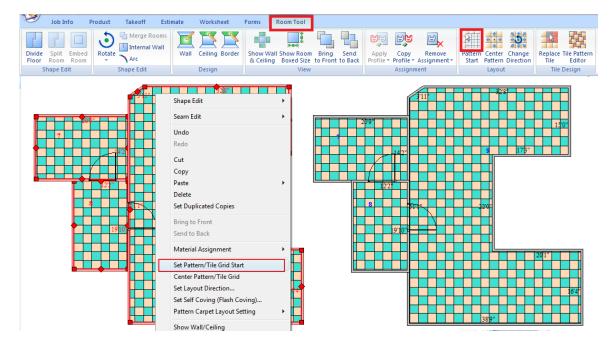
Click here to watch how to match pattern across different rooms

10.16 Match tile grid across connected rooms

Select multiple rooms with the same tile or same sized tile patterns, left-click over a room,

go to **Room tool tab** and click on or right click, go to **Pattern/Tile Design** and select Set Pattern/Tile Grid Start. Click any point or snap to any corner point to take effect. Tile grid is synchronized across selected room borders. This feature is for graphical layout and presentation, and does not affect seam cuts and estimating quantities.

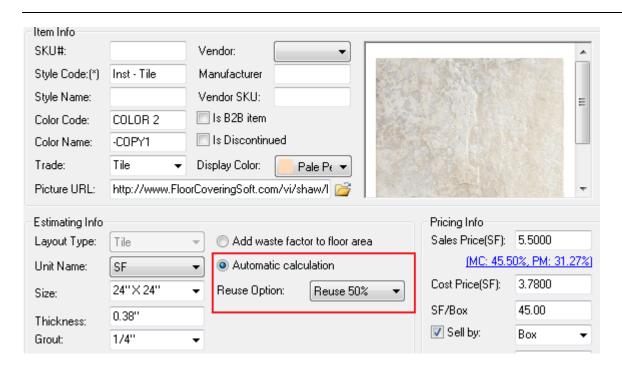
Tip: while picking a location as tile grid start point, use Arrow keys on key board to finetune grid location, at desired location, hit Esc key to pin down location



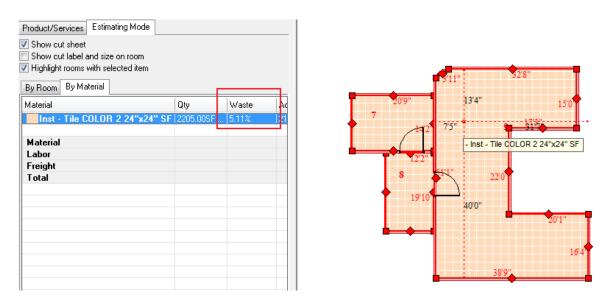
Click here to watch how to match pattern across different rooms

10.17 Reduce tile layout waste by fine-tuning tile grid

At estimating mode, for tile item with waste calculation method set as Automatic calculation which calculates tile waste based on actual cuts and reuse ratio, there is approach to optimize waste by fine-tuning tile grid for optimized cuts.

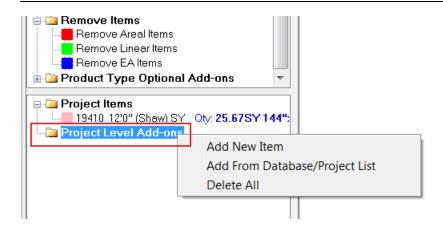


Select rooms assigned with the same tile or tile pattern, right click and select **Set Pattern/Tile Grid Start**, then use arrow keys (up/down/left/right) to shift tile grid, meanwhile **observe waste factor changes** on the left estimating panel (or project item panel), hit Esc key to lock to the desired location.

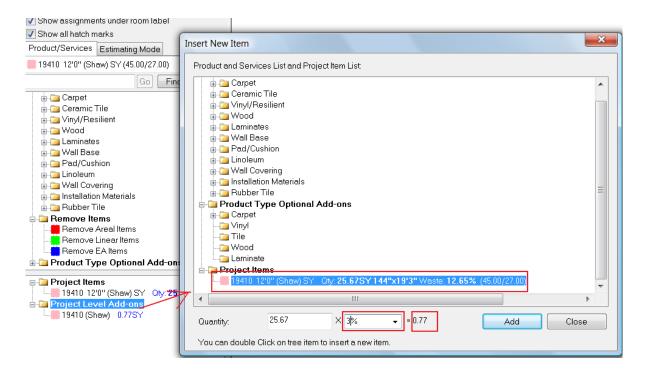


10.18 Extra product add-ons at project level

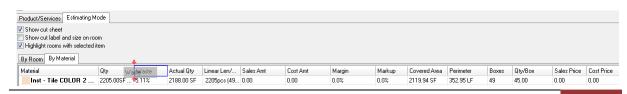
From V2013, a Project Level Add-ons folder is added to project list panel to hold items that are to be added at project level (so they are not assigned to any rooms). Right click over the folder name to pop up commands.



Any items from Database or Project Item List can be added to Project Level Add-ons List with any specified quantity. If that item is also applied and calculated with any rooms, it can also be added to Project Level Add-ons list by certain percentage. In commercial jobs, clients also request some extra percent of amount to be ordered as extra stock.



10.19 Estimating Data Panel



At estimating mode, estimating data panel can be expanded by dragging its right border, and all its data columns can be viewable. Also, columns can be dragged-and-dropped to switch their orders.

The definition of data columns:

Material: style code, item code, width, manufacturer and unit

Qty: calculated usage quantity (rounded up to full box, when sell-by-box is checked in material specification)

Actual Qty: calculated usage quantity without rounded up even if sell-by-box is on

Linear Length/Tile Count: linear length with roll width for roll goods OR tile piece count and number of boxes for tile and if sell-by-box is on

Waste: percentage of actual covered floor area divided by material usage quantity (for roll goods: carpet/vinyl), OR waste factor set by material specification.

Covered Area: net floor, wall or ceiling area covered by this product

Perimeter: total perimeter length of floor, wall or ceiling areas applied with this product (door widths are included)

Boxes: number of boxes (when sell-by-box in material spec is on)

Sales Amt: sales amount (sales price X qty)

Cost Amt: cost amount (cost price X qty)

Sales Price: sales price as defined in material spec

Cost Price: cost price as defined in material spec

Qty/Box: quantity per box (or any container type)

Margin: percentage of profit in sales price, Margin= ((sales price – cost price)/sales price) %

Markup: percentage of profit in cost price, Markup = ((sales price – cost price)/cost price) %. In other words, sales price = cost price + cost price X Markup

10.20 Complete estimating commands on estimating toolbar

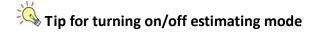


- Estimate Layout with optimal waste. Automatically choose horizontal and vertical layout direction with smaller waste.
- Layout estimating with horizontal direction (East/West)
- Layout estimating with **vertical** direction (North/South).
- Reallocate existing cuts and re-plan cut sheet while keeping all current cut piece size and seam locations.
- Switch from layout estimating mode to room drawing mode so no seam layout or cut label is displayed. To switch back to estimating mode, click on the same icon again which keeps previous seam locations.
- When toggled on (by default), program re-generates cut sheet and usage
 quantity automatically upon any seam adjustments or room editing changes. When
 off, one needs to click on button to re-allocate stock cuts to reflect change
 effects on seams and rooms.
- Estimate by Layer toggled on, estimate item quantities separately by floor layer.
- Set Dir by Edge when toggled on, move cursor over either ends of a wall then left-click to set layout direction along that wall.
- Check on Estimate by layer to enable program calculate estimates by layer
- Clear Estimate data to clear estimation data of current layer. If you want to clear estimate data of the whole project, you have to go over layer by layer.

Tip for estimating big project

When you work on bigger projects, it is recommended to toggle off so as to avoid reestimating time upon each seam or room adjustment. Make all necessary seam adjustments, then click on to re-allocate stock cut sheet while keeping all current changes (instead of

using three layout buttons that would clear all current change and estimate the computer way).

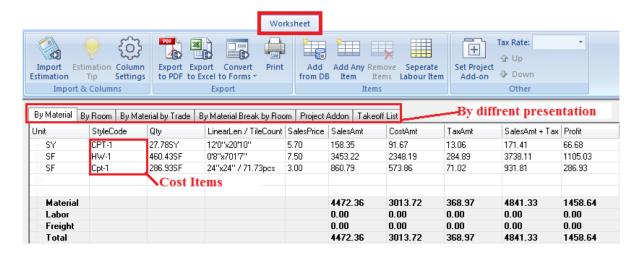


After exit estimating mode by use re-estimate button to come back that will keep all current seam changes.

11 Work with Estimating Data in

Worksheet

When layout estimating step is done, move to next stage on **Worksheet tab**.



Under Worksheet tab, these functions can be performed:

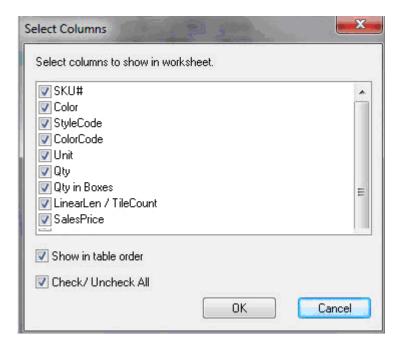
- Group estimating data by By Material, By Room, By Material by Trade or By Material Break by Room
- Review total estimate summary including material, labor, freight, tax, sales, cost breakdowns and profit and margin percentages
- Import Estimation in worksheet from latest estimating result in diagram
- Estimation Tip for whether the estimation data is modified or not
- Column Settings to customize columns (show or hide columns
- Export worksheet and save it as PDF file
- Export worksheet into Excel file so one can copy and paste the data into other bidding templates
- Convert to Forms (Quotation, Work Order, Purchase Order, Invoice) to create

partial forms from worksheet.

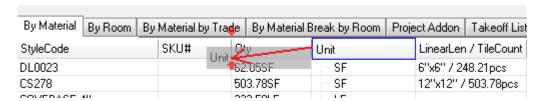
- Add from Database to add item(s) from product and services database.
- Add any items to worksheet from product services database or from scratch
- Remove Items to remove selected item(s) from worksheet.
- Separate Labor Item to show labor items in separate section from other item types
- Set Project Add-on to Add extra project-level items under Project Add-ons tab
- Move item up
- Move item down
- Click here to watch introduction to worksheet

11.1 Configure Worksheet Data Columns

Click on icon and select columns to display or hide from worksheet table.



To shift order of columns, drag column title and drop to any other locations. For example, drag Unit and move it in front of Qty column.



11.2 View estimating data by different groupings

Estimating data are presented by one of four grouping types: By Material, By Room, By Material By Trade, By Material Break by Room, Roll Cut List.

- **By Material** tab, a full list of project items with usage quantities and sales data without room and floor layer info
- **By Room** tab, a full list of floor layers and rooms under, and project items assigned are listed under each room labels Under
- **By Material by Trade** tab, a full list of trades, under each trade, project items marked by that trade are listed
- By Material Break by Room tab, a full list of project items broken down its usage under each assigned rooms
- Roll Cut List tab, a full list of roll cuts size and room label are listed.

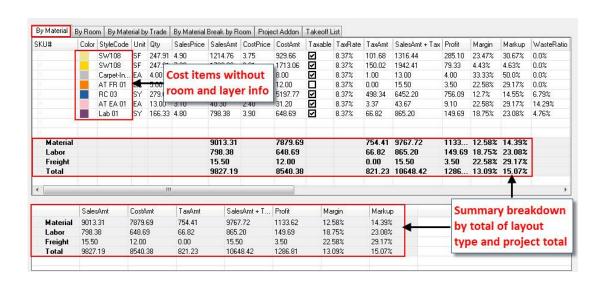


Figure 11-1 By Material View

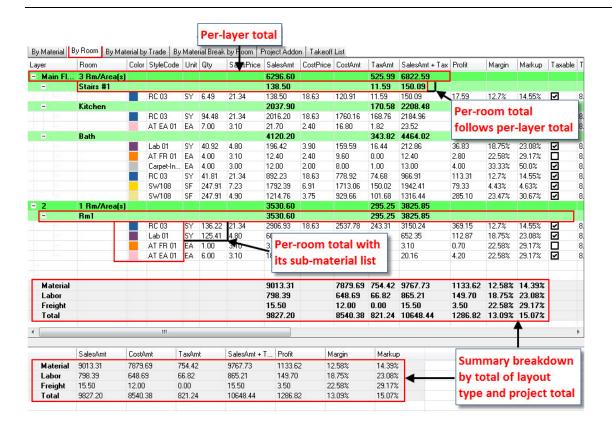


Figure 11-2 By Room View

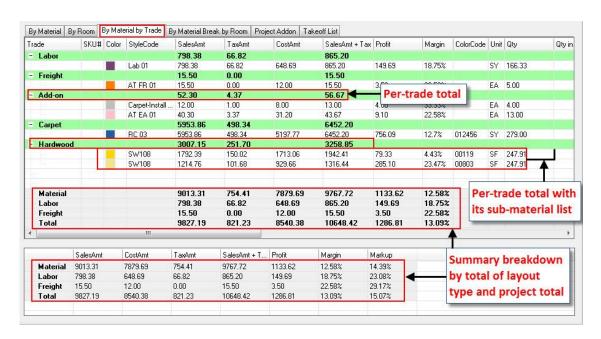


Figure 11-3 By Material By Trade

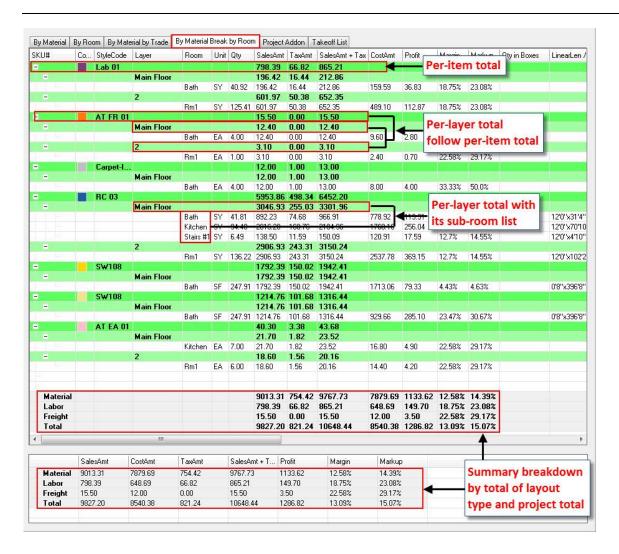


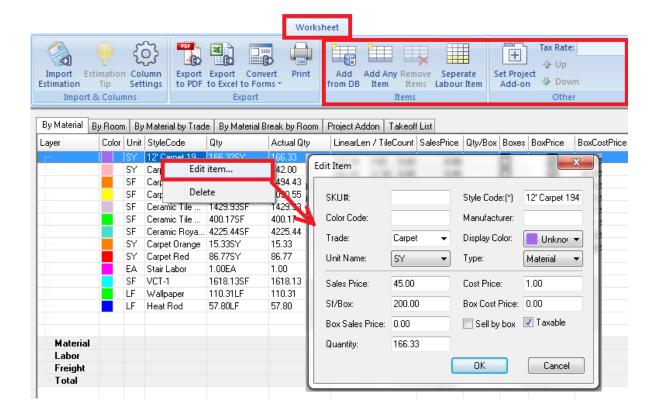
Figure 11-4 By Material break by Room

11.3 Manipulate items in worksheet

Although it is not generally recommended (because Refreshing data from diagram clears all manually added items or field changes), worksheet data can be modified manually by adding new items, removing items, or making changes to existing items.

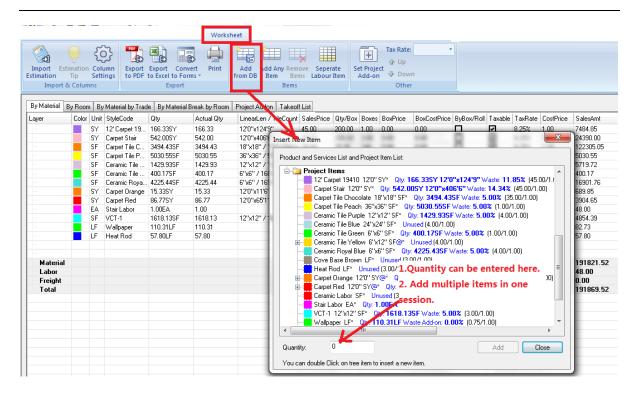
- Add items from database or from scratch (see next two sections)
- Click on Edit icon or right-click over an item in worksheet and select Edit Item to edit detail info. For example, changing its Trade field affects grouping by Trade.
- Separate labor items: list labor items separate from material items

- Remove item(s)
- Set named tax rate for tax column: reset tax rate for all items



11.4 Add extra items to worksheet

Extra items can be added to worksheet from database or from scratch using **Add from DB** buttons.



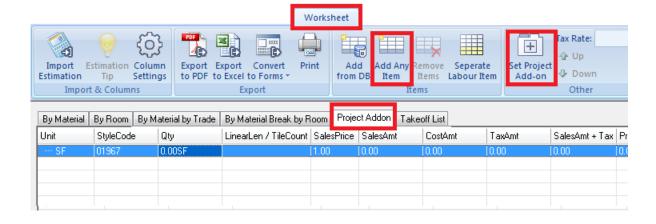
When add from database, a pop up window shows to select an item and enter quantity. Multiple items can be added before closing the window

Items added from database or from scratch can be edited by editing data cells.

Click here to how to add extra items on worksheet

11.5 Manage project-level add-ons

Project-level add-on items are brought over under **Project Add-on** tab under Worksheet.



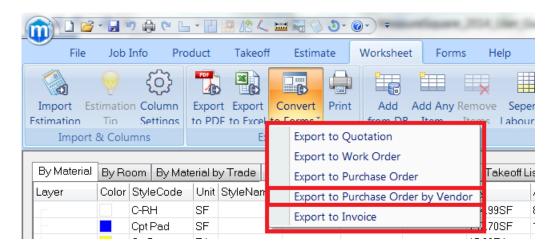
Additional project-level add-on item can be added here as well. Click on Set Project Add-on button on left panel or switch to Project Add-ons tab first, and then select from

Add from Database or from scratch from Add Any Item button

Click here to how to add project –level add-ons

11.6 Convert estimating data into items of order forms

On top **Export** tool bar, there is group of commands that serve as shortcuts of loading estimating data into item tab of respective order forms (refer to Quotation, Work Order, Purchase Order, Invoice chapters)



Create purchase order form by vendor: from MeasureSquare 2015 version, the user has an option to export items on the worksheet to create purchase order by vendor.

Click here to how to convert worksheet into order forms

11.7 Export worksheet to Microsoft Excel

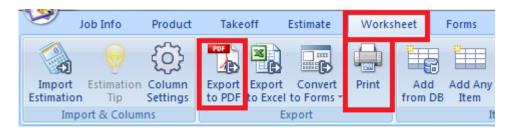
Click the green **Export to Excel button** on the toolbar, navigate to target directory, type in file name, and it saves current presentation of worksheet into Excel format.

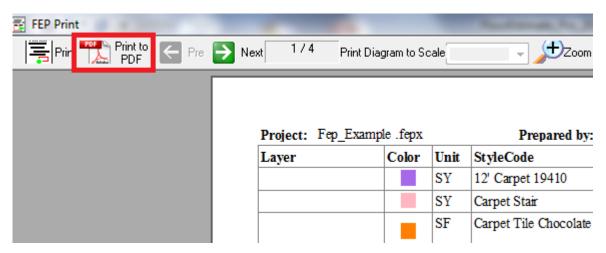
Note: Data exported to MS Excel do not include formula for total calculation. One may need to build formula for future recalculation need with exported Excel file.

Click here to how to export and print the worksheet

11.8 Print worksheet and print to PDF

Click on to export worksheet into PDF file.Or click on print icon while under Worksheet tab. To save it to PDF file, at preview window, click on **Print to PDF** and save it to PDF file.





Click here to how to export and print the worksheet

11.9 Refresh estimating data

Estimating data once loaded in worksheet are saved for any project. When takeoff and product assignments are changed and re-estimated in diagram, click on **Import Estimation** button or the icon on toolbar to reload latest estimating data into worksheet.

If there are any changes in diagram, Estimation Tip icon is highlighted when entering Worksheet tab until the user click on Import Estimation icon to refresh Worksheet.

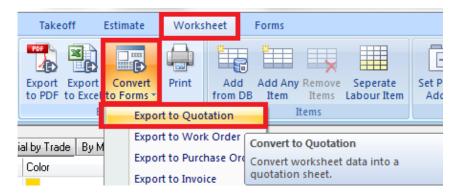


Note: All existing manually added items in worksheet are removed when refreshing estimating data into worksheet.

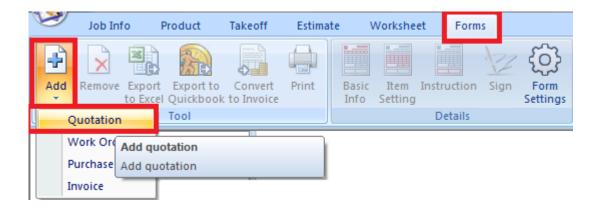
12 Create a Quotation

There are two ways to create a Quotation.

1. Under Worksheet tab, click on Convert to Forms, and select Export to Quotation to convert worksheet data into a quotation sheet.



2. Under **Forms** tab, click on **Add**, select **Quotation** then the program will launch a quotation generation wizard.



Under Details section on **Forms tab**, four functional icons are used in preparing a quote:

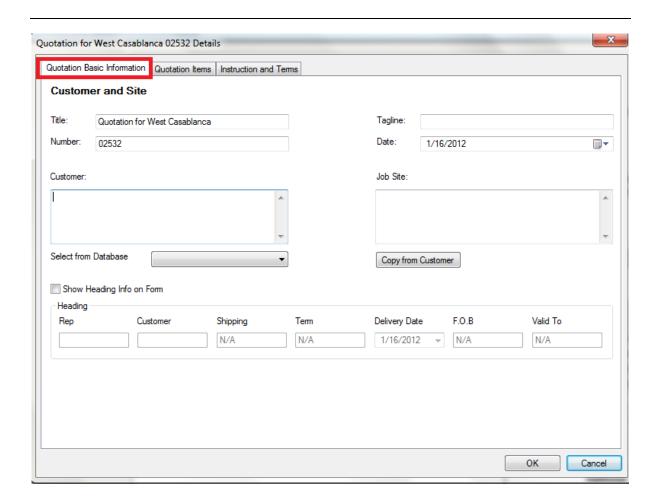
Basic Info to set up customer and info information on quotation sheet

- Item setting to set up items, margin/markup, tax and grouping methods for quotation sheet
- Instruction to set up terms and instructions for quotation sheet
- Sign to capture signer's name, sign date and signature
- Form settings to set up default form configuration
- Click here to watch introduction to create a quotation

12.1 Customer/Site Info tab

Click on **Basic Info** to open **Customer/Site Info** tab to set up customer and job site information which show on quotation sheet. These functions can be performed under the tab:

- Select from database allows to select customer from Customer Database
- Edit Customer and Jobsite area
- Enter customer **Print Name** and **Date**
- Check **Show Heading Info on Form** box to show heading information such as Rep, customer, shipping, term, delivery date and so on.

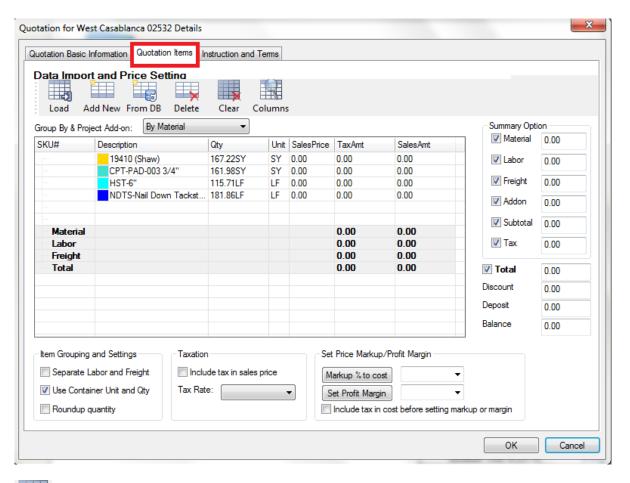


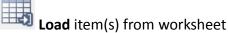
To add a customer on printout quotation sheet, you can fill in text box with related info, which is saved with the project and not in **Customer Database**; or select an existing customer from **Customer Database**.

12.2 Preparing Quotation Items

Click on **Item setting** icon to show **Quotation Items** tab where these functions can be performed:

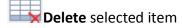
- Select a grouping method (select from **By Material/By room,** etc., for example)
- Load from Worksheet to load estimating data from worksheet
- Use **Add New Item** or **Add from Database** button to add extra items
- Set up data fields to display or hide in summary section (enter deposit amount, etc.)
- Set up other data fields on the form







Add new item(s) from Product and services database

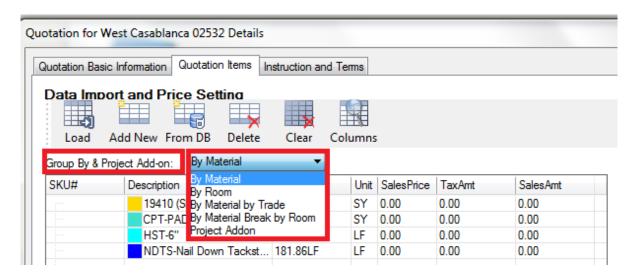




Configure columns to display or hide on main quotation sheet

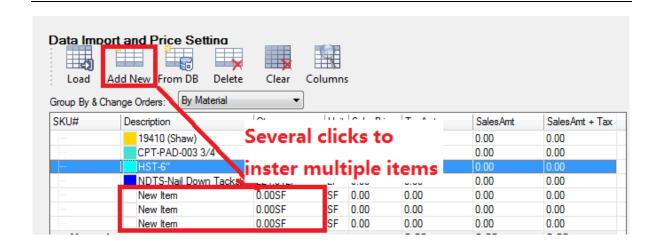
Please be aware that Load from Worksheet can discard previous modification in current sheet. If you want to create anther quotation with all previous modification kept, read here.

Group by & Project Add-on pull-down menu: allows showing items on quotation sheet by material, by room, by material by trade, by material break by room or project add on.

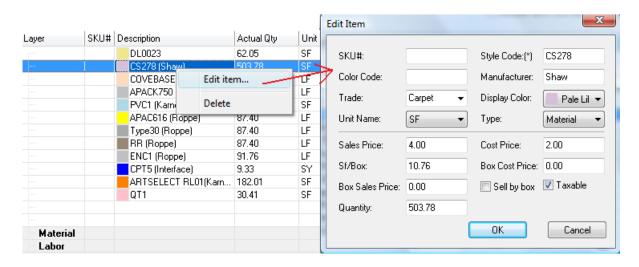


To add initial item(s) with Add new icon, follow the steps:

- 1. Click Add New Item to insert an initial item; several clicks insert multiple items
- 2. Right click over one of them to Edit item...
- 3. Edit its properties, then OK to save and quit
- 4. Repeat step 2) 3) until all are finished



Edit item details: right click over item and select Edit item...



To add item(s) from Product/Services Database, follow the steps:

- 1. Click Add from Database to pop up Insert new item;
- 2. Navigate Product/Services Database and its sub-folders to select a desired item
- 3. Input Quantity
- 4. Click over **Add** or double-click over it to add with Quantity; several clicks to insert multiple items
- 5. Repeat step 2) 4) to add multiple items; click over Close to quit



Change column orders. Simply drag target column header and drop to a desired location. Move Qty column for example:

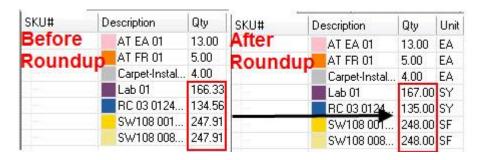


Data control panel: adjusting data items in item table, each checkbox and data fields are

self-explanatory



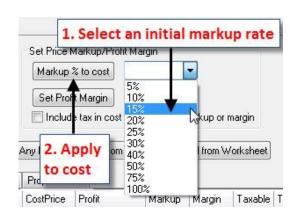
- Check on Separate Labor and Freight to list items with layout type Labor and Freight separately
- Check on **Round up quantity** box to round qty column number to next integer number (for example):

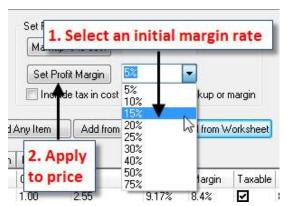


- Select from Tax Rate pulldown list to apply user defined tax rate (using tax name list defined in System Setting)
- Check on **Include tax in sales price** box to show sales amount with tax included (instead of separately)

Set up markup and profit margin for selected line item(s):

- Hold Ctrl key and left-click to select line item(s)
- Apply markup percentage to cost price to get adjusted sales price. Pick up a markup rate and then click Markup % to cost button apply to all items
- Set profit margin of a sales price based on cost price. Pick up a profit margin rate and then click on Set Profit Margin button to apply to all items





Merge multiple line item(s)

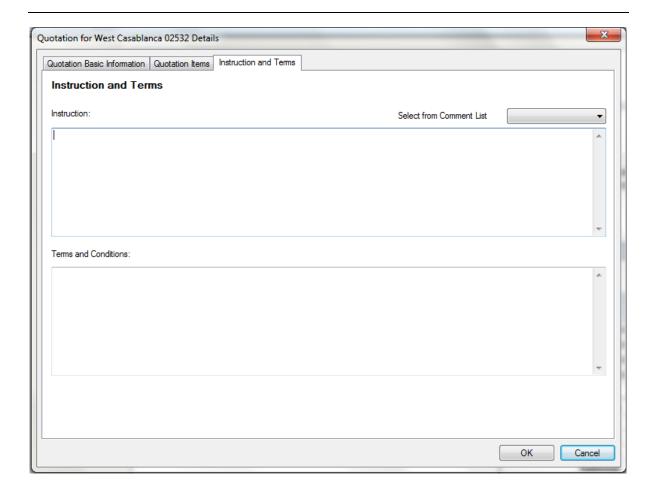
To merge multiple line items, hold Ctrl key and select desired items and click "Merge Items" button. Select item charges will be merged into one line and names of merged items will be displayed under "Description". Double click "Description" cell to re-name line item.

Remove items

Highlight the desired item, or with CTRL to pick up multiple items and then click over **Delete.** Click on **Clear All** can delete all the listed items and this operation cannot recover.

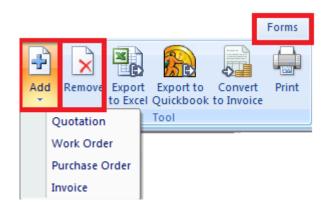
12.3 Instructions and terms

- Enter Instructions to show on quotation sheet
- Edit **Terms and Notes** area (from default one in System Setting)



12.4 Manage multiple quotations

Click on **Add New Quotation** or **Remove Quotation** button on top tool bar to manage quotation sheets. To select a quotation, click on any item on the left panel so corresponding details are shown on right main panel.



To add new quotation, follow the steps:



- 1. Add a quotation sheet by click over toolbar button
- 2. Select quotation
- 3. Prepare quotation items
- 4. Repeat 1) 3) to create multiple alternative quotations

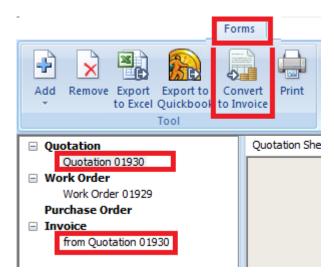
To remove an existing sheet, follow the steps:

- 1. Highlight the desired form on the left active window
- 2. Click over toolbar button remove the selected sheet.

Proceed with popping up warning

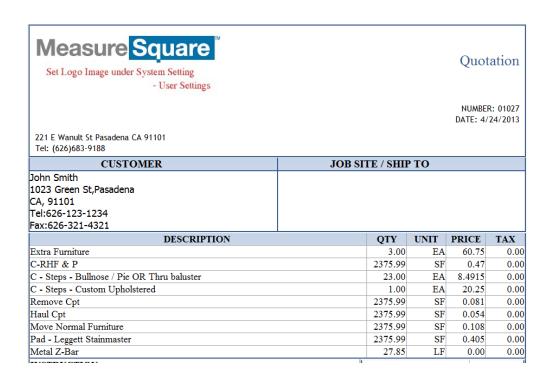
12.5 Convert quotation to invoice

Click **Convert to Invoice** button to turn current quotation sheet into an invoice sheet under Invoice tab.

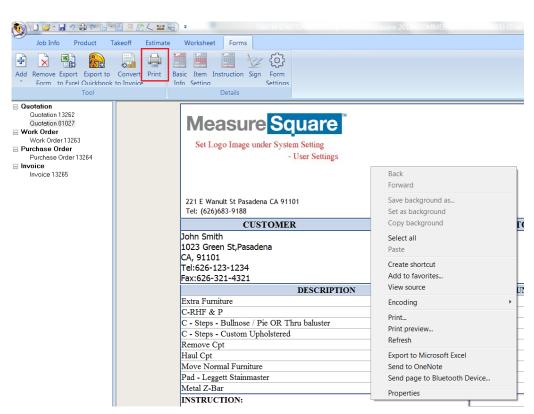


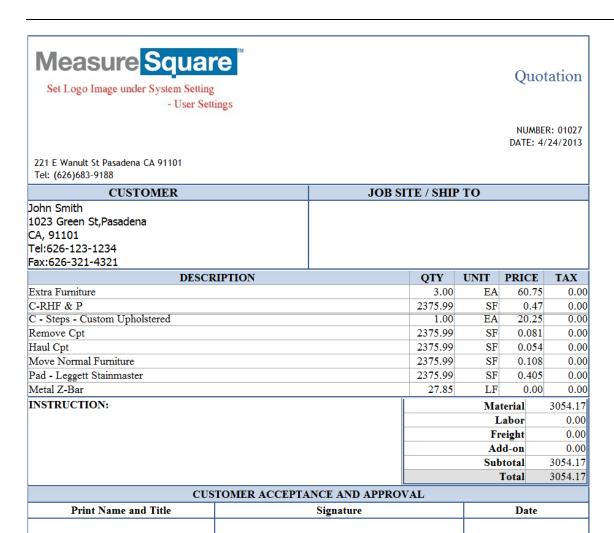
12.6 Print quotation sheet

Click on quotation name on left panel to show actual quotation.



Click on Print and select **Print** or **Print Preview** to initiate printing process.





12.7 Export to Microsoft Excel

Click **Export to Excel** button or icnon on toolbar to export present quotation sheet into MS Excel file.



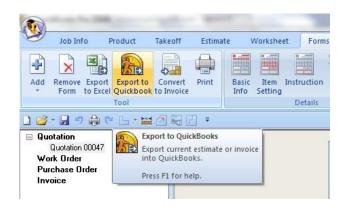
4/24/2013

12.8 Export to QuickBooks

MeasureSquare enables one-click transfer of current quotation sheet into your QuickBooks accounting system, avoiding double entry and further enhancing flooring sales productivity.

Step 1: Start QuickBooks before making estimate transfer from MeasureSquare and have one company working profile open.

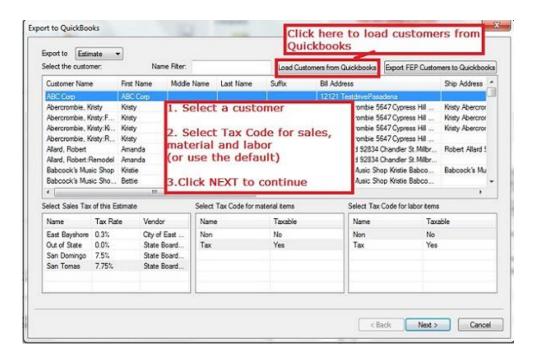
Step 2: From M2 Forms Tab, click on Export to QuickBooks button



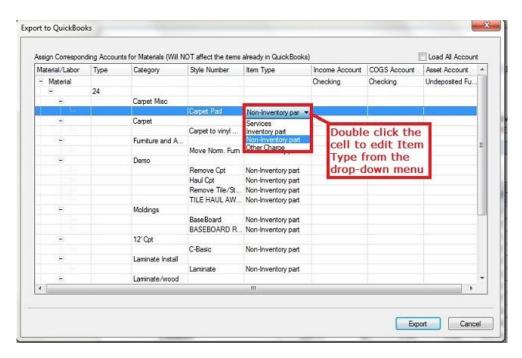
Step 3: At the first time, QuickBooks will prompt for permission to allow MeasureSquare access to QuickBooks. Select 'Yes' to allow data transfer



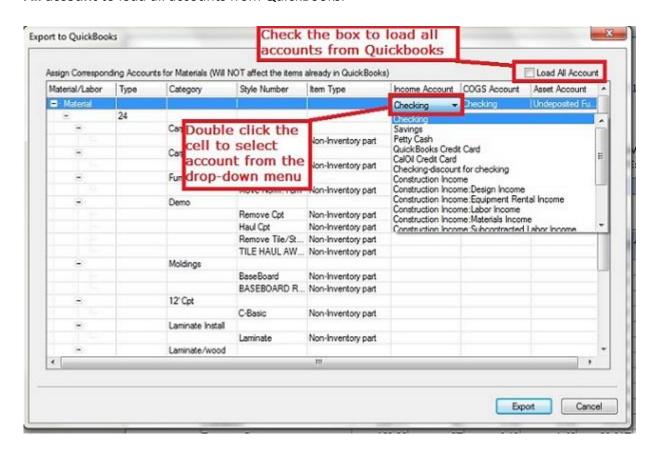
Step 4: The M2 pops a window to allow select a customer from existing QuickBooks customer list, then select Sales Tax rate, Material Item Tax item and Labor Tax Item from current QuickBooks settings



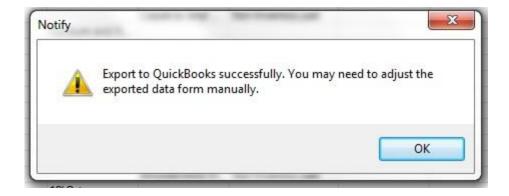
Step 5: Click on NEXT button to associate Item type with each products. By default, all material items are defined as **Non-inventory Part**, labor items as **Services**. To change item type, double-click on **Item Type** cell and select from dropdown menu.



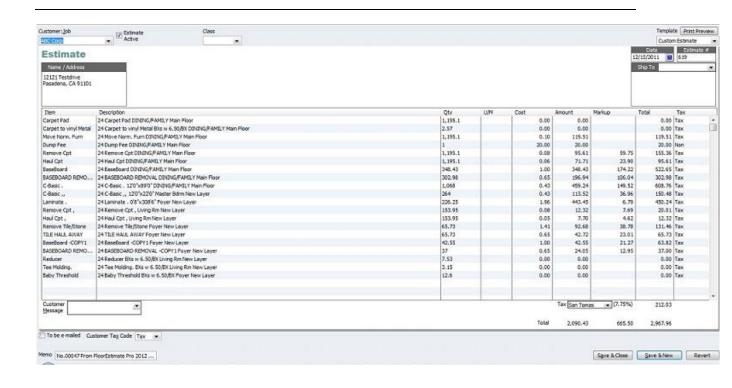
Step 6: Double click on the cell under **Income Account**, **COGS Account** or **Asset Account** to select an account to associate with each product. If you didn't find the account, check **Load All account** to load all accounts from QuickBooks.



Step 7: Successful data transfer will be acknowledged.



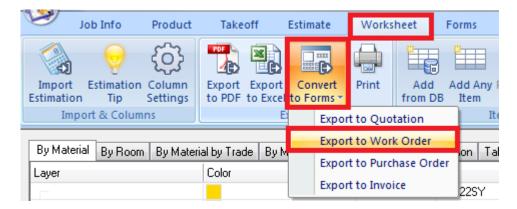
Step 8: Open Quickbooks->Customer Center->Select the customer->You will see transferred estimates/invoice can be found.



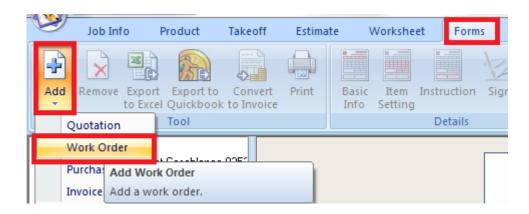
13 Create a Work Order

There are two ways to create a Work Order.

1. Under Worksheet tab, click on Convert to Forms, and select Export to Work Order to convert worksheet data into a work order sheet.



1. Under **Forms** tab, click on **Add**, select **Work Order** then the program will launch a work order generation wizard.



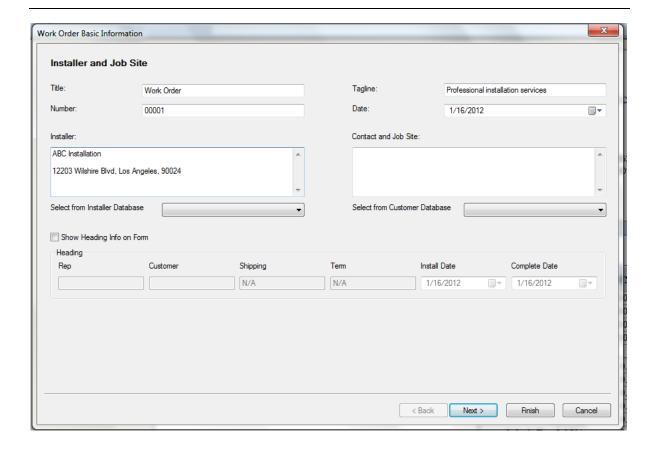
Under Details section on **Forms tab**, four functional icons are used in preparing a work order:

- Basic Info to set up customer and info information on work order sheet
- Item setting to set up items, margin/markup, tax and grouping methods for work order sheet
- Instruction to set up terms and instructions for work order sheet
- Sign to capture signer's name, sign date and signature
- Form settings to set up default form configuration

13.1 Installer and Job Site

Click on **Basic Info** to open **Installer/Job Site** tab to set up customer and job site information which show on work order sheet. These functions can be performed under the tab:

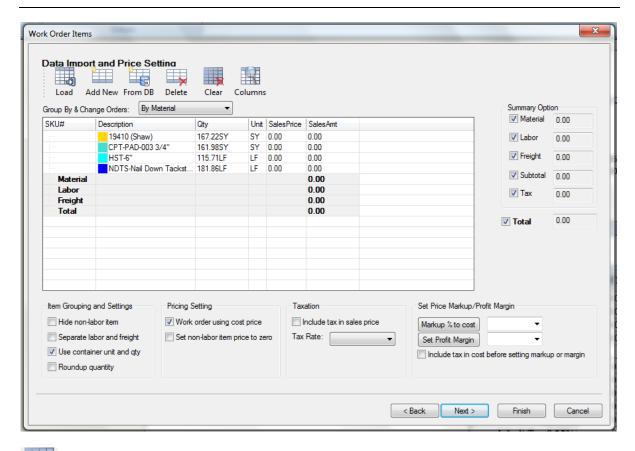
- Select from database allows to select installer from Installer Database
- Edit Installer and Jobsite area
- Enter installer's **Print Name** and **Date**
- Check **Show Heading Info on Form** box to show heading information such as Rep, customer, shipping, term, install date and so on.

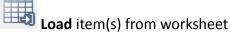


13.2 Preparing installation items

Click on **ltem setting** icon to show **Work Order Items** tab where these functions can be performed:

- Select a grouping method (select from **By Material/By room,** etc., for example)
- Load from Worksheet to load estimating data from worksheet
- Use **Add New Item** or **Add from Database** button to add extra items
- Set up data fields to display or hide in summary section
- Set up other data fields on the form

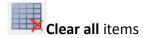






Add new item(s) from Product and services database

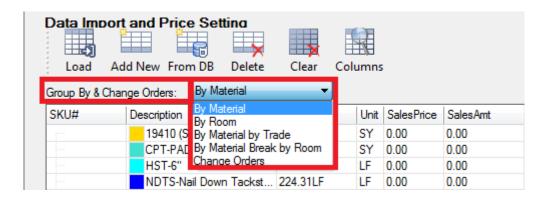




Configure columns to display or hide on main quotation sheet

Please be aware that Load from Worksheet can discard previous modification in current sheet. If you want to create anther work order with all previous modification kept, read here.

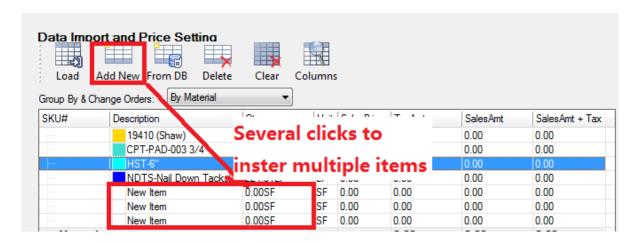
Group by & Project Add-on pull-down menu: allows showing items on work order sheet by material, by room, by material by trade, by material break by room or project add on.



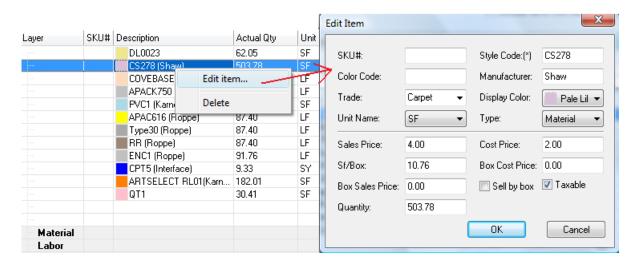
Add extra installation items

To add initial item(s) with , follow the steps:

- 1. Click **Add New Item** to insert an initial item; several clicks insert multiple items
- 2. Right click over one of them to Edit item...
- 3. Edit its properties, then OK to save and quit
- 4. Repeat step 2) 3) until all are finished

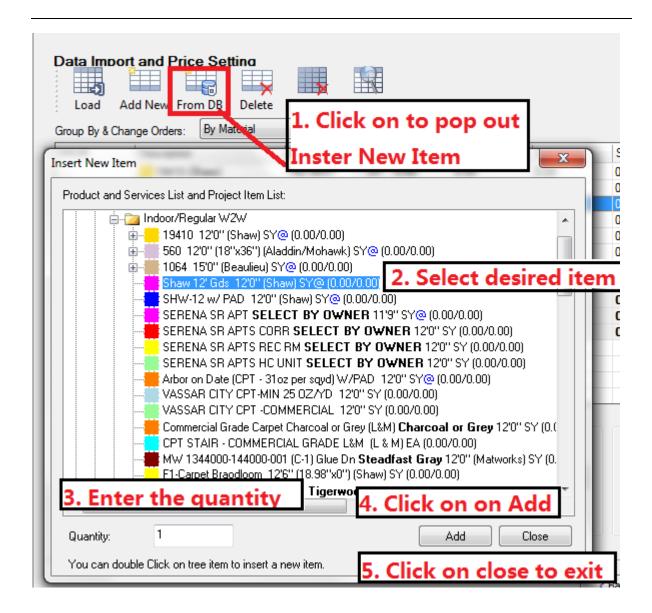


Edit item details: right click over item and select Edit item...

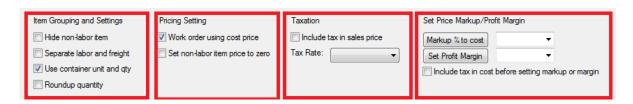


To add item(s) from Product/Services Database, follow the steps:

- Click Add from Database to pop up Insert new item;
- 2. Navigate Product/Services Database and its sub-folders to select a desired item
- 3. Input Quantity
- 4. Click over **Add** or double-click over it to add with Quantity; several clicks to insert multiple items
- 5. Repeat step 2) 4) to add multiple items; click over Close to quit



Data Control Panel: adjusting data items in item table, each checkbox and data fields are self-explanatory



- Check on Hide non-labor item to hide all-non labor item
- Check on Separate Labor and Freight to list items with layout type Labor and Freight separately
- Check on Use container unit and qty to show items by roll, by box and so on

 Check on Round up quantity box to round qty column number to next integer number (for example):

Apply user defined tax

Select a tax rate, check on **Include tax in sales price** if needed, and then the related fields (TaxRate, TaxAmt etc) in tab update correspondingly.



Please note that the tax rate can be set up in **System Settings**

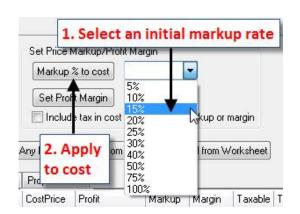
Modify column in order

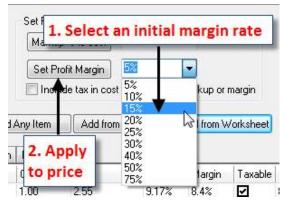
Simply click the target column header to drag and drop to your desired place. Move Qty column for example:



Set up markup and profit margin for selected line item(s):

- Hold Ctrl key and left-click to select line item(s)
- Apply markup percentage to cost price to get adjusted sales price. Pick up a markup rate and then click Markup % to cost button apply to all items
- Set profit margin of a sales price based on cost price. Pick up a profit margin rate and then click on Set Profit Margin button to apply to all items





Merge multiple line item(s)

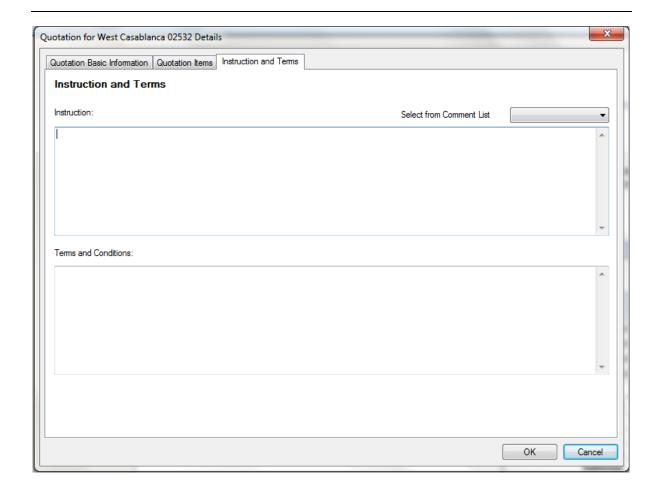
To merge multiple line items, hold Ctrl key and select desired items and click "Merge Items" button. Select item charges will be merged into one line and names of merged items will be displayed under "Description". Double click "Description" cell to re-name line item.

Remove items

Highlight the desired item, or with CTRL to pick up multiple items and then click over **Delete.** Click on **Clear All** can delete all the listed items and this operation cannot recover.

13.3 Instructions and terms

- Enter Instructions to show on work order
- Edit **Terms and Notes** area (from default one in System Setting)



13.4 Creating alternative work order

Click on **Add** or **Remove** button on top tool bar to manage quotation sheets. To select a work order, click on any item on the left panel so corresponding details are shown on right main panel.

To add new work order, follow the steps:

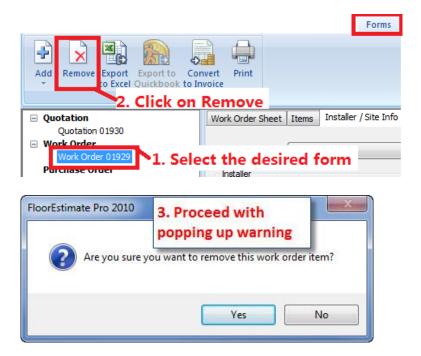




- 6. Select the work order
- 7. Prepare work order items
- 8. Repeat 1) 3) to create multiple alternative work orders

To remove an existing sheet, follow the steps:

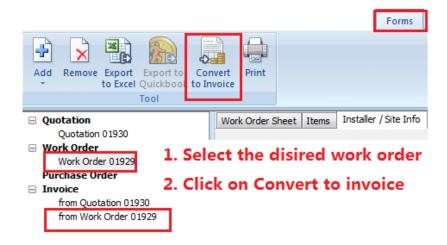
- 3. Highlight the desired form on the left active window
- 4. Click over toolbar button remove the selected sheet.
- 5. Proceed with popping up warning



Be aware that removed sheet cannot recover.

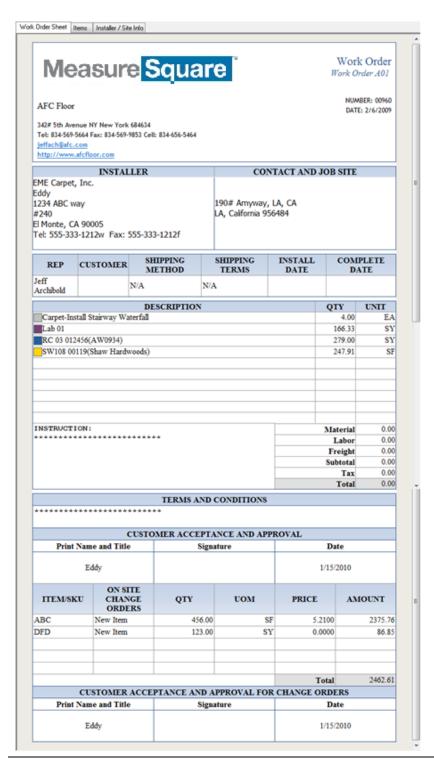
13.5 Creating partial invoice

Click over **Convert to Invoice** helps you quickly prepare an invoice sheet based on the current work order.



13.6 Print work order

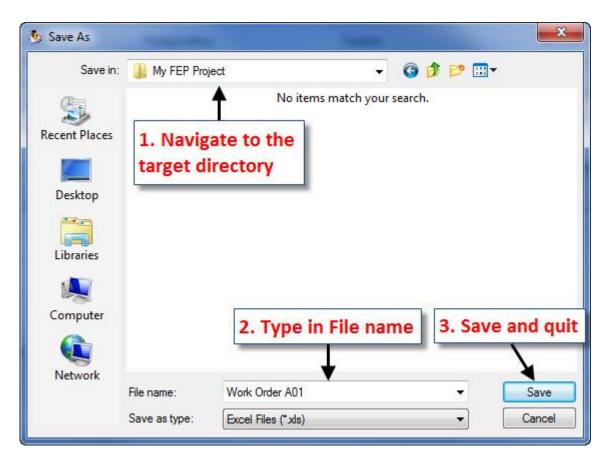
Click on the work order name on left panel to show **Work Order Sheet** .Then, the prepared work order sheet is like:



Click on Print and select **Print** or **Print Preview** to initiate printing process.

13.7 Exporting to Microsoft Excel

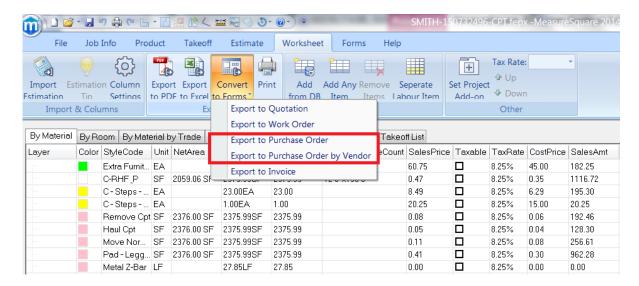
Click the green **Export to Excel button** on the tool bar; navigate to the target directory, type in **File Name** and **Save**.



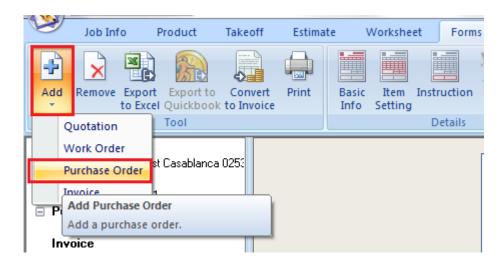
14 Create a Purchase Order

There are two ways to create a Purchase Order.

Under Worksheet tab, click on Convert to Forms, and select Export to Purchase
 Order or Export to Purchase Order by Vendor to convert worksheet data into a
 work order sheet.



2 Under **Forms** tab, click on **Add**, select **Purchase Order** then the program will launch a purchase order generation wizard.



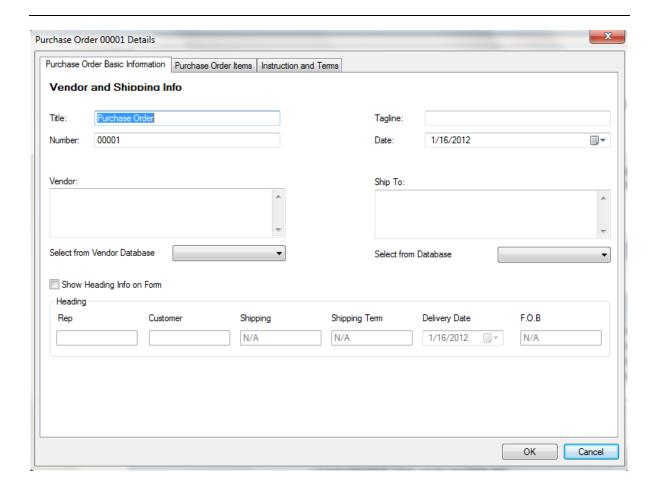
Under Details section on **Forms tab**, four functional icons are used in preparing a purchase order:

- Basic Info to set up customer and info information on purchase order sheet
- **Item setting** to set up items, margin/markup, tax and grouping methods for purchase order sheet
- Instruction to set up terms and instructions for purchase order sheet
- Sign to capture signer's name, sign date and signature
- Form settings to set up default form configuration

14.1 Vendor and Shipping Info

Click on **Basic Info** to open **Vendor and shipping Info** tab to set up vendor and customer information which show on purchase order sheet. These functions can be performed under the tab:

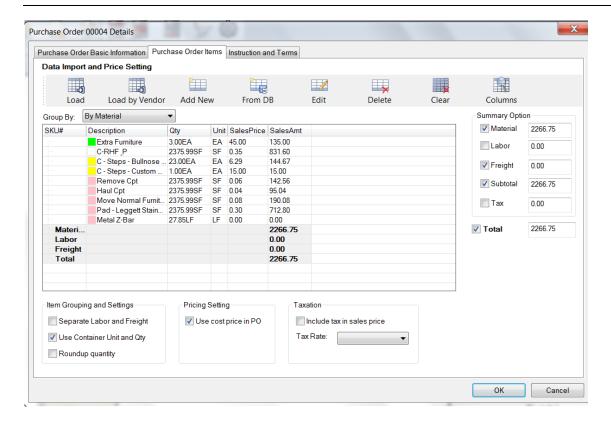
- Select from database allows to select vendor from Installer Database
- Edit Vendor and shipping area
- Enter vendor's **Print Name** and **Date**
- Check **Show Heading Info on Form** box to show heading information such as Rep, customer, shipping, term and so on.

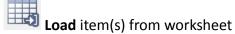


14.2 Prepare purchase order

Click on **Item setting** icon to show **Purchase Order Items** tab where these functions can be performed:

- Select a grouping method (select from **By Material/By room,** etc., for example)
- Load from Worksheet to load estimating data from worksheet
- Use **Add New Item** or **Add from Database** button to add extra items
- Set up data fields to display or hide in summary section
- Set up other data fields on the form

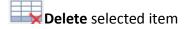








Add new item(s) from Product and services database

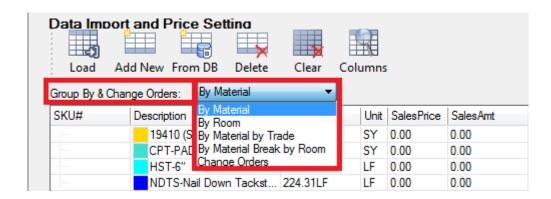




Configure columns to display or hide on main quotation sheet

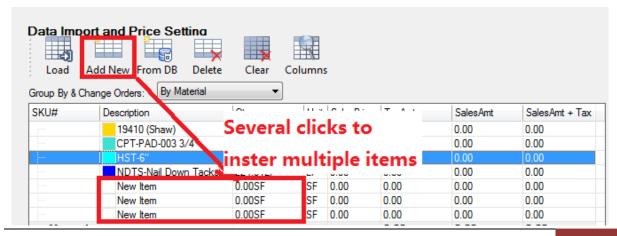
Please be aware that Load or Load item(s) by Vendor from worksheet can discard previous modification in current sheet. If you want to create anther purchase order with all previous modification kept, read here.

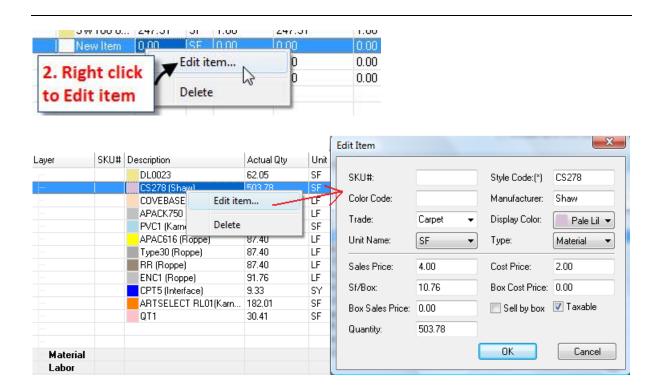
Group by & Project Add-on pull-down menu: allows showing items on purchase order sheet by material, by room, by material by trade, by material break by room or project add on.



To add initial item(s) with Add new , follow the steps:

- 1. Right click over one of them to **Edit item...**
- 2. Click **Add New Item** to insert an initial item; several clicks insert multiple items
- 3. Edit its properties, then OK to save and quit
- 4. Repeat step 2) 3) until all are finished



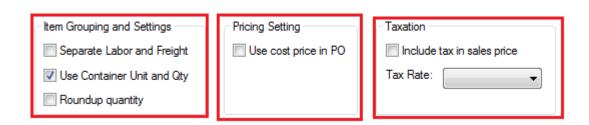


To add item(s) from Product/Services Database, follow the steps:

- Click Add from Database to pop up Insert new item;
- 2. Navigate Product/Services Database and its sub-folders to select a desired item
- 3. Input Quantity
- 4. Click over **Add** or double-click over it to add with Quantity; several clicks to insert multiple items
- 5. Repeat step 2) 4) to add multiple items; click over Close to quit



Data Control Panel: adjusting data items in item table, each checkbox and data fields are self-explanatory



Apply user defined tax

Select a tax rate, check on **Include tax in sales price** if needed, and then the related fields (TaxRate, TaxAmt etc) in tab update correspondingly.



Please note that tax rate can be set up in **System Settings**

Change column orders. Simply drag target column header and drop to a desired location. Move Qty column for example:

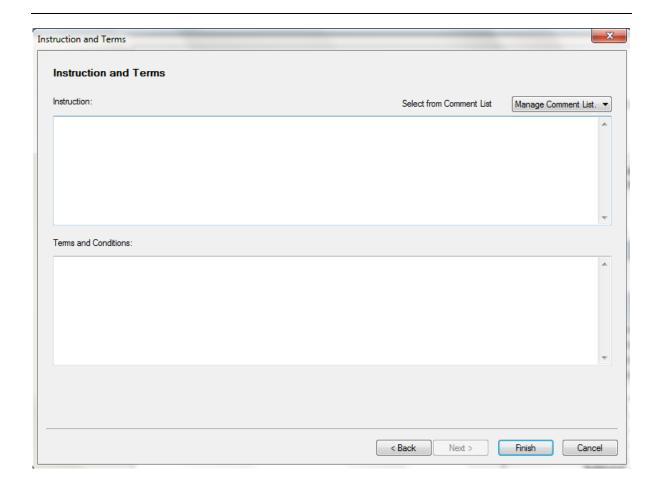


Remove items

Highlight the desired item, or with CTRL to pick up multiple items and then click over **Delete.** Click on **Clear All** can delete all the listed items and this operation cannot recover.

14.3 Instruction and terms

- Enter **Instructions** to show on purchase order
- Edit Terms and Notes area (from default one in System Setting)



14.4 Creating alternative purchase orders

To add new purchase order, follow the steps:

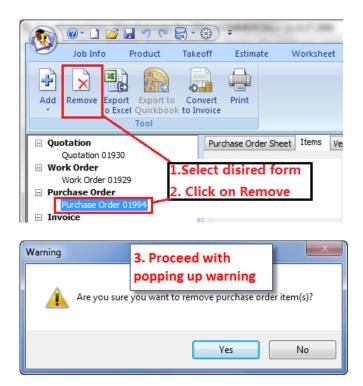


- 1. Add a purchase order sheet by click over toolbar button
- 2. Select the purchase order
- 3. Prepare buying items
- 4. Repeat 1) 3) to create multiple alternative purchase orders

To remove an existing sheet, follow the steps:

- 1. Highlight the desired form on the left active window
- 2. Click over toolbar button remove the selected sheet.

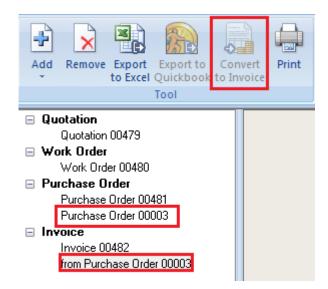
3. Proceed with popping up warning



Be aware that removed sheet cannot recover.

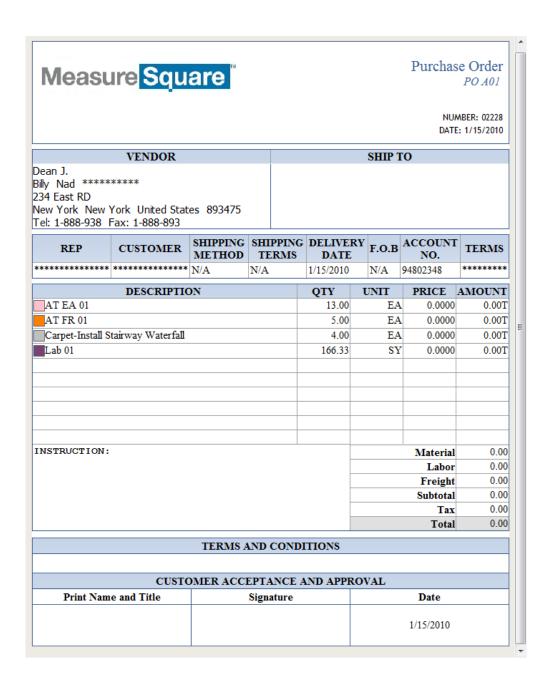
14.5 Create partial invoice

Click over **Convert to Invoice** helps you quickly prepare an invoice sheet based on the current purchase order.



14.6 Print purchase order

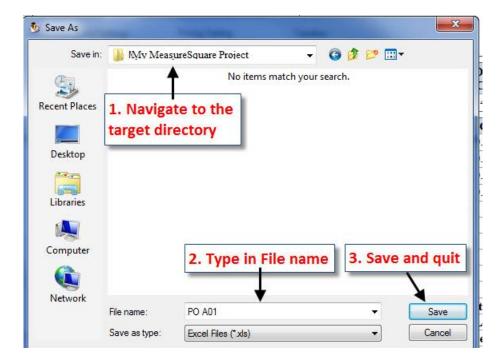
Click on the purchase order name on left panel to show **Purchase Order Sheet** .Then, the prepared purchase order sheet is like:



Click on Print and select **Print** or **Print Preview** to initiate printing process.

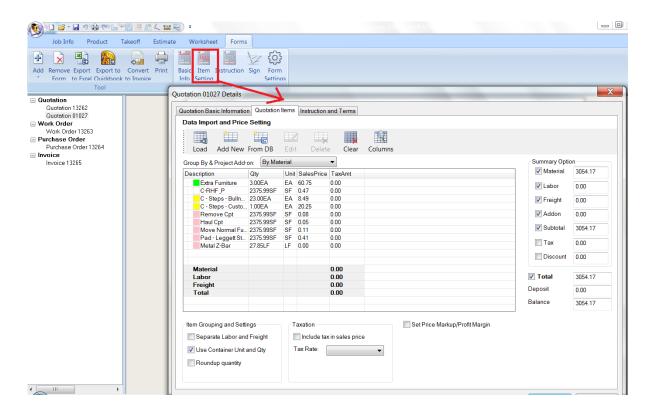
14.7 Exporting to Microsoft Excel

Click the green **Export to Excel** shortcut on the toolbar, navigate to target directory, type in file name and **Save**.



15 Create an Invoice

Once a Quote is apporved by the customer, the document is transformed into Sales Order; and then for billing purposes, later transformed into an Invoice or Invoices when it involves partial billing. You can just change the document name form Quote to Sales Order. However, in most cases, Sales order is being dropped and Quotes are being directly transpose into an Invoice.



15.1 Customer and Job Site Info

Click on **Basic Info** to open **customer and Job site Info** tab to set up customer and job site information which show on invoice. These functions can be performed under the tab:

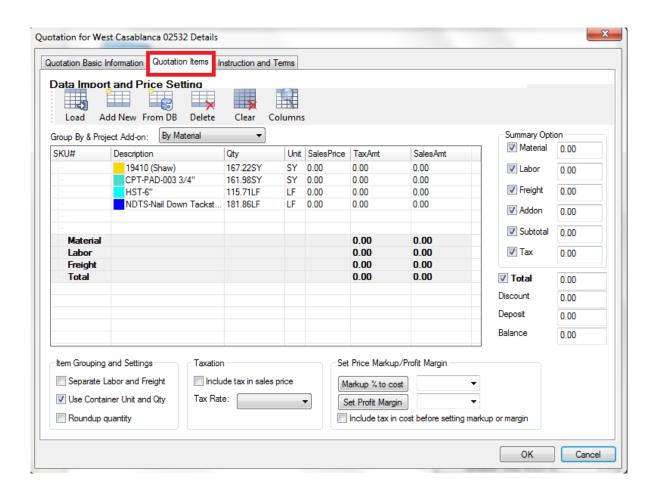
- Select from database allows to select customer from Customer Database
- Edit customer and job site area
- Enter costomer's Print Name and Date
- Check Show Heading Info on Form box to show heading information such as Rep,

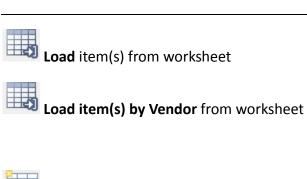
customer, shipping, delivery date, term and so on.

15.2 Preparing invoice sheet

Click on **ltem setting** icon to show **Invoice Items** tab where these functions can be performed:

- Select a grouping method (select from **By Material/By room,** etc., for example)
- Load from Worksheet to load estimating data from worksheet
- Use Add New Item or Add from Database button to add extra items
- Set up data fields to display or hide in summary section (enter deposit amount, etc.)
- Set up other data fields on the form







Add new item(s) from Product and services database

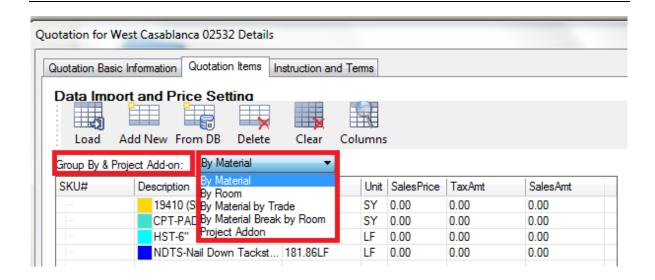






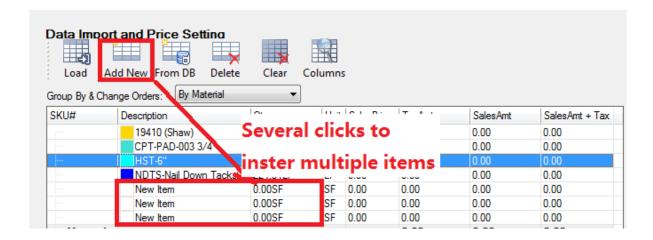
Please be aware that Load from Worksheet can discard previous modification in current sheet. If you want to create anther invoice with all previous modification kept, read here.

Group by & Project Add-on pull-down menu: allows showing items on invoice sheet by material, by room, by material by trade, by material break by room or project add on.

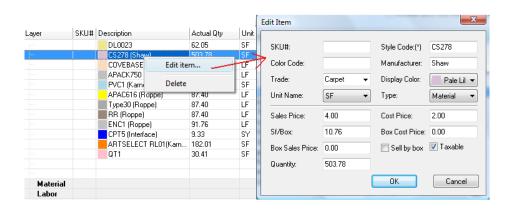


To add initial item(s) with Add new icon, follow the steps:

- 5. Click **Add New Item** to insert an initial item; several clicks insert multiple items
- 6. Right click over one of them to Edit item...
- 7. Edit its properties, then OK to save and quit
- 8. Repeat step 2) 3) until all are finished

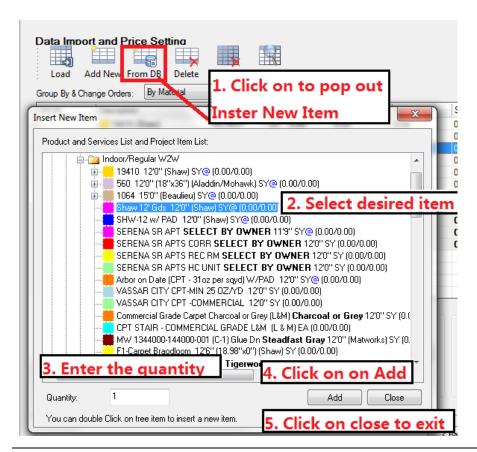


Edit item details: right click over item and select Edit item...



To add item(s) from Product/Services Database, follow the steps:

- 6. Click Add from Database to pop up Insert new item;
- 7. Navigate Product/Services Database and its sub-folders to select a desired item
- 8. Input Quantity
- Click over Add or double-click over it to add with Quantity; several clicks to insert multiple items
- 10. Repeat step 2) 4) to add multiple items; click over Close to quit



Change column orders. Simply drag target column header and drop to a desired location. Move Qty column for example:



Data control panel: adjusting data items in item table, each checkbox and data fields are self-explanatory



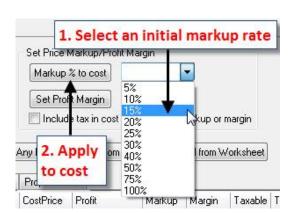
- Check on **Separate Labor and Freight** to list items with layout type Labor and Freight separately
- Check on **Round up quantity** box to round qty column number to next integer number (for example):

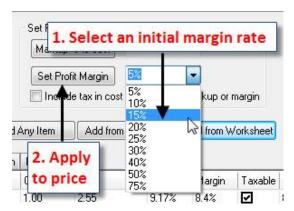


- Select from Tax Rate pulldown list to apply user defined tax rate (using tax name list defined in System Setting)
- Check on **Include tax in sales price** box to show sales amount with tax included (instead of separately)

Set up markup and profit margin for selected line item(s):

- Hold Ctrl key and left-click to select line item(s)
- Apply markup percentage to cost price to get adjusted sales price. Pick up a markup rate and then click Markup % to cost button apply to all items
- Set profit margin of a sales price based on cost price. Pick up a profit margin rate and then click on Set Profit Margin button to apply to all items





Merge multiple line item(s)

To merge multiple line items, hold Ctrl key and select desired items and click "Merge Items" button. Select item charges will be merged into one line and names of merged items will be displayed under "Description". Double click "Description" cell to re-name line item.

Remove items

Highlight the desired item, or with CTRL to pick up multiple items and then click over **Delete.** Click on **Clear All** can delete all the listed items and this operation cannot recover.

15.3 Creating alternative invoice sheets

To add new invoice, follow the steps:



- 1. Add an invoice sheet by click over toolbar button
- 2. Select the invoice

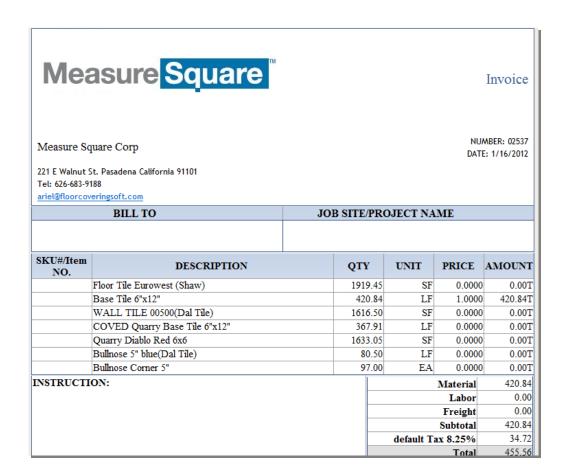
- 3. Prepare invoicing items
- 4. Repeat 1) 3) to create multiple alternative invoice sheets

To remove an existing sheet, follow the steps:

- 1. Highlight the desired form on the left active window
- 2. Click over toolbar button it to remove the selected sheet
- 3. Proceed with popping up warning

15.4 Print Invoice

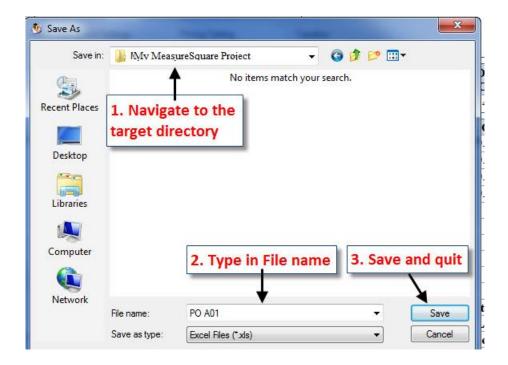
Click on invoice name on left panel to show actual invoice.



Click on Print and select **Print** or **Print Preview** to initiate printing process.

15.5 Exporting to Microsoft Excel

Click the green **Export to Excel** shortcut on the toolbar, navigate to target directory, type in file name and **Save**.

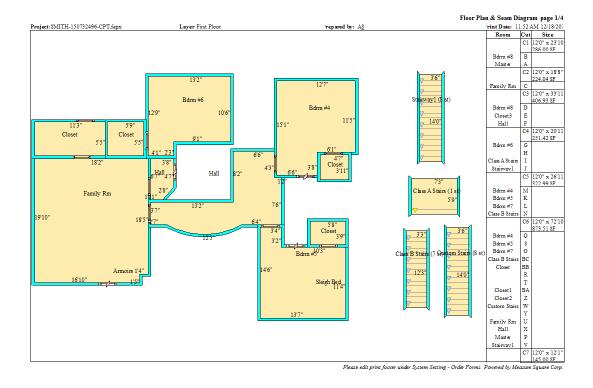


16 Project Printout and Report

Installation diagrams are vital to the quality of installation job. It is often attached with work order and must be followed by installers. Before printing diagram page, click **File menu**

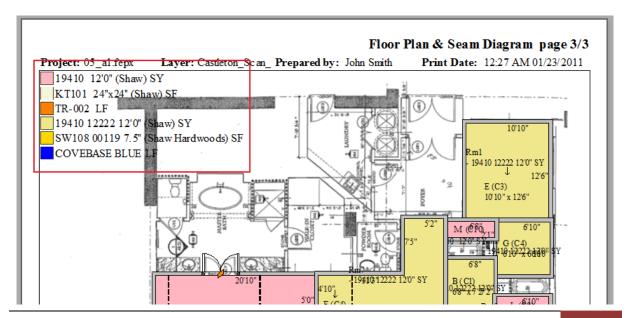
, then go to **Print Setting and Preview** to set up Print Options.

From V2015, added "Cut List with diagram" option that prints the roll cuts with the diagram



From V2013, added "Photo Attachment" option that prints the photos attached to the room.

From V2011, added "**Print legend with diagram**" option, that prints item color legend with each diagram pages.



Another key enhancement is that program remembers last selected checkbox options selected of previous print.

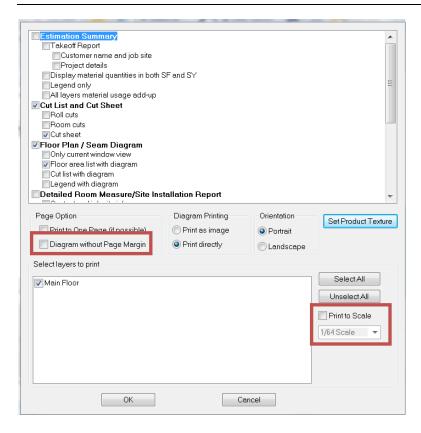
16.1 Print options before preview

When you click on Print, you have the options to

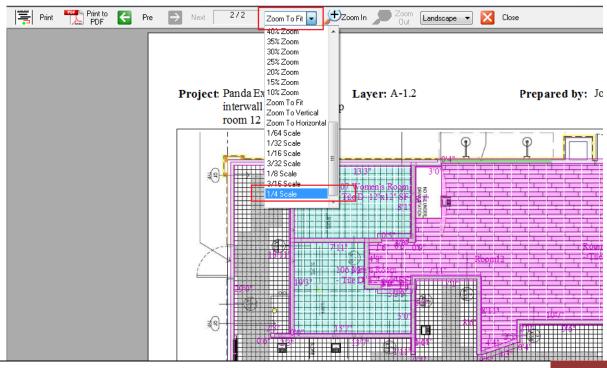
- Print the all set of Estimation Summary, Cut List/Cut Sheet, Floor Plan/Seam
 Diagram or print any selected part of them
- Select to consolidate and print Cut List/Cut Sheet and Plan Seam Diagram onto One Page (normally for smaller jobs)
- Print directly or print as image
- Print selected layer(s)
- The **Print Options** are grouped by:
- Estimation Summary
- Cut List and Cut Sheet
- Floor Plan/Seam Diagram (with color legend option)
- Detailed Room Measure/Site Installation Report
- 3D View
- Worksheet
- Quotation
- Work Order
- Purchase Order
- Invoice

16.2 Print diagram page to scale

From print option dialog window, select check box on **Print to scale** and select a scale factor from pull down list and check **Diagram without Page Margin**.



Another way is at print preview window, navigate to diagram pages, and from pull down list, select or type in scale number.

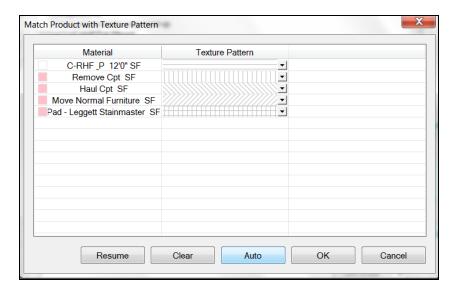


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16.3 Print black and white product texture on diagram

From MeasrueSquare 2015, it allows printing black and white product texture on the diagram.

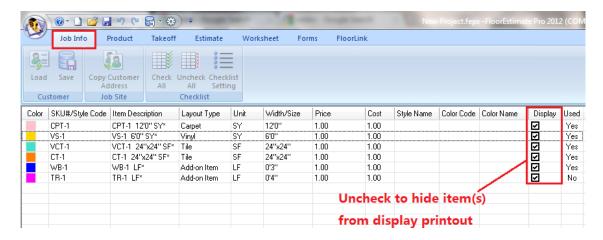
- Go to Print Setting and Preview to open Print Option window, click Set Product
 Texture button
- In the Match Product with Texture Pattern window:
 - To assign pattern to product, click the pull-down list to associate a pattern with the product. Click **Auto** button, it will automatically assign texture pattern to each product
 - To cancel the selection, click Clear button, it will display the original color of each product



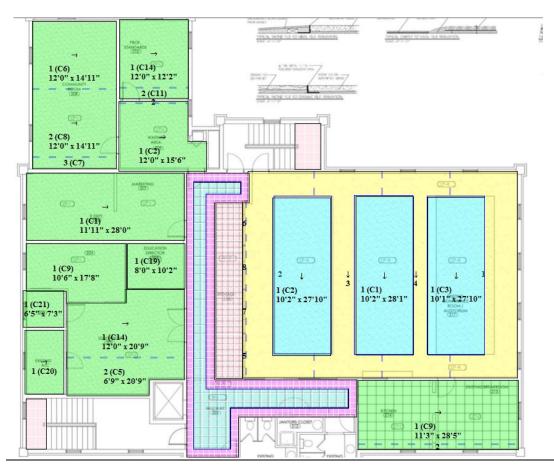
 After matching the pattern with product, proceed to print and the program will replace the color with textures on the diagram

16.4 Print without showing some products

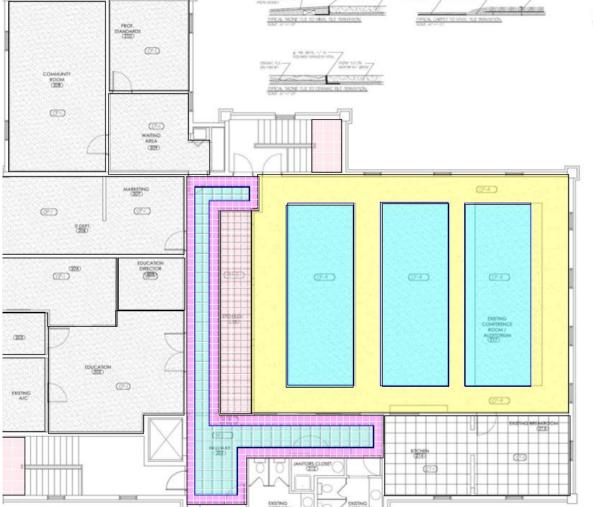
Under **Product tab**, uncheck **Display** box column of items to hide from displaying in diagram window, therefore also in printout as well. This is useful when generating printout for installation crews of certain product types.



This is original display with all product items displayed (and in printout).



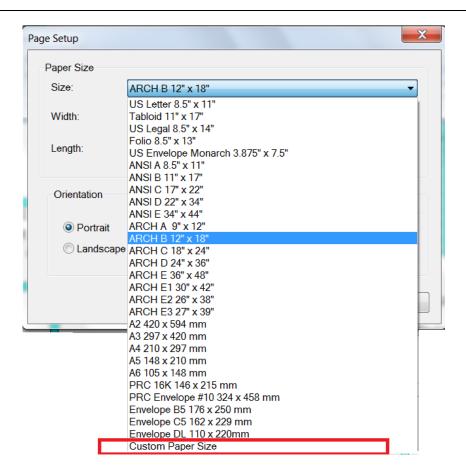
This is later display with that green product removed from display and printout.



16.5 Print to PDF with any paper size

From MeasureSquare 2015 version, it supports to print diagram to PDF with any paper size.

- To set up the paper size, open Page Set Up, select the paper size from the list
- If the paper size is not listed, select Customize Paper Size and enter the paper size
- Then proceed to print the diagram drawing into a PDF file.



In programs that prior to version 2015, when Print to PDF, it is normally limited to available paper sizes of currently installed printers. To print diagram to a large scale paper (blueprint scale paper), one may need to install some virtual PDF printer.

Here is one solution:

- Install freeware PDF995 from www.pdf995.com (download the freeware and install it), after installation, PDF995 will show up in your printer list
- From MeasureSquare Print Preview window, click on Print button, then select printer PDF995 from printer list, then click on Properties (on the right size), then click on Advanced button, then click Paper Size to select paper size.
- Then proceed to print the diagram drawing into a PDF file.

There can be other freeware or commercial PDF printers program available.

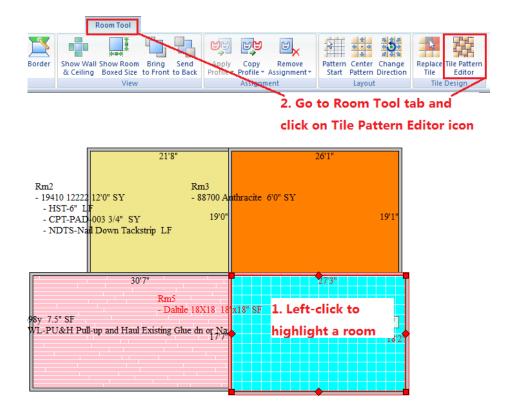
17 Tile Pattern Editor

Tile pattern editor enables custom tile pattern to be created by users themselves, and be placed to existing tile pattern template library. New tile patterns can be dragged and applied in the same way as system ones.

17.1 Create custom tile pattern

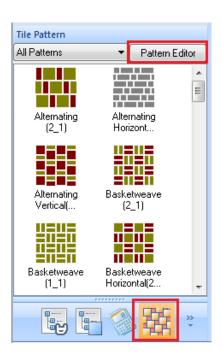
Besides the default tile pattern, commercial users now can design their own patterns with **Pattern Editor**. There are two ways to launch the **Tile Pattern Editor**:

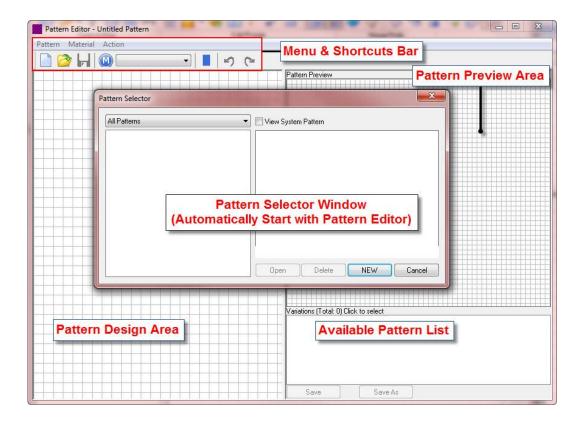
1. Left-click over a room to highlight it, go to Room Tool Tab then click on Tile Pattern Editor Icon



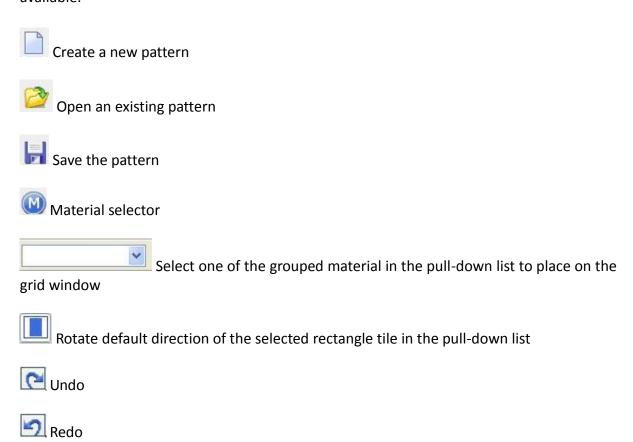
2. Click on Tile Pattern Editor on the bottom-left then click on Pattern Editor Button

Pattern Editor





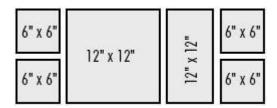
When the shortcuts in the toolbar become selectable, commands related to them are available.



Main path to design a new tile pattern

Open Material Selector→Collect Desired Tile Types and Define Logic Size→Place on Pattern Design Area→Preview Available Unit→Save the Desired Pattern

Create a pattern of 3 tiles as in the example below



Open Material Selector

Material Selector automatically starts with Pattern Editor by default. Besides, one can open up Material Selector by:

Click the shortcut woor

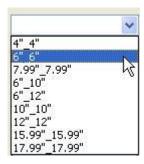
Click the command 'Select Material' from the menu bar



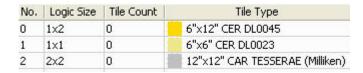


Collect Desired Tile Types

Continuously select materials from the pull-down list as needed



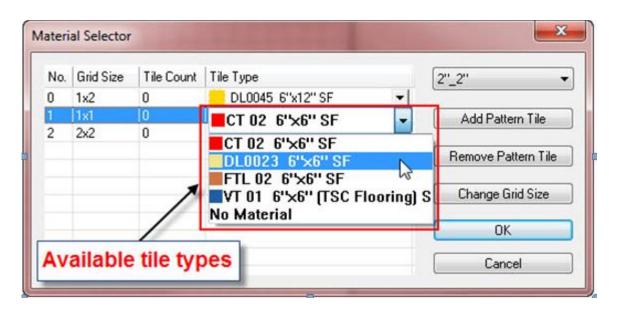
Selected material types will be listed on the left side of the dialogue box.





Tip: Change Tile Type

Tile Type can be changed by clicking on desired item or by being selected in the pull-down list if available.

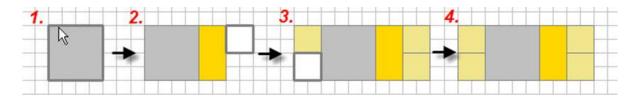


Place on Pattern Design Area

Select a tile type in the pull-down list as below



Moving cursor over the design area shows the selected tile. Place the selected tile on Pattern Design Area. Repeat the action above to complete a design.



Note: Tiles should be placed to each other.

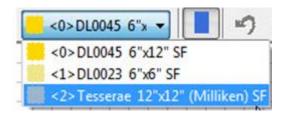


Tip: Rotate Rectangle Tile

button on or off help you place the selected rectangle tile at or across the default direction; right click over the placed tile help you rotate it.

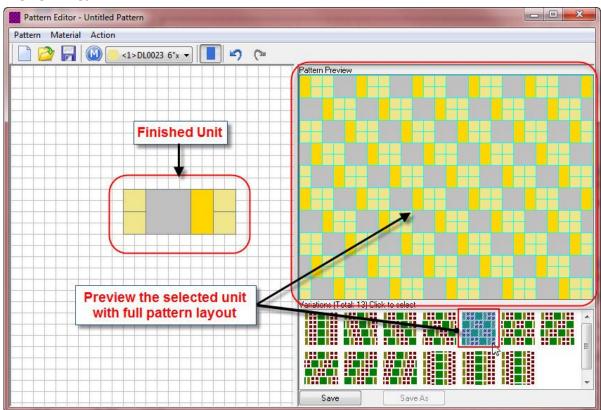
Add an insert

Select a tile type in the pull-down list as below



Preview Available Unit

Preview the finished design on **Pattern Preview Area**. If there're several available pattern units, select one of them from **Available Pattern List** to preview the full layout on **Pattern Preview Area**.

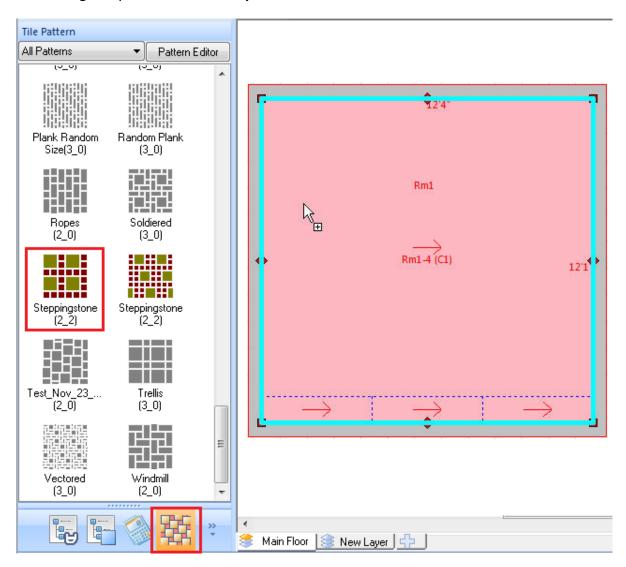


To save the desired pattern unit, (1) click the Save button , or select it from the menu bar as shown below; (2) type in desire **Pattern Name** and Ok.



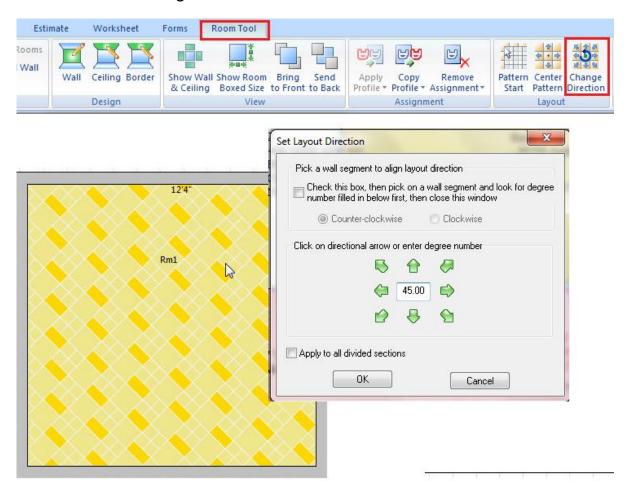
Locate the newly-created pattern sample listed in the pattern window. Simply pick it up and then drag and drop to the desired room.

Click on right-top red cross icon to quit Pattern Editor.



Pattern layout direction can be defined by using **Change Direction** icon under **Room Tool tab.**

Plan Rotated with 45 Degree Clockwise like below:

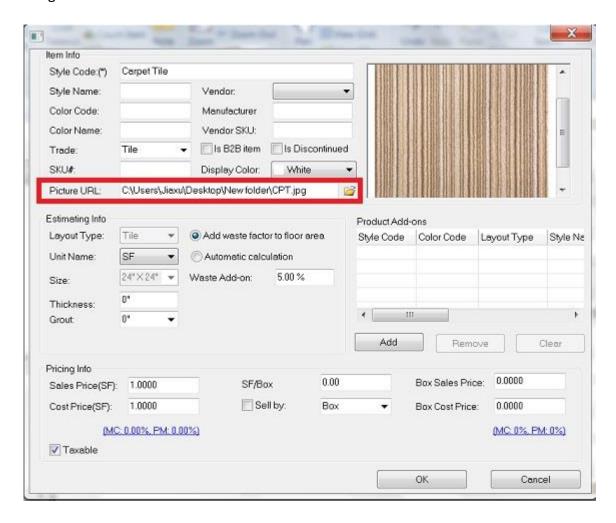


Click here to watch how to use tile pattern editor

17.2 Create quarter turn pattern

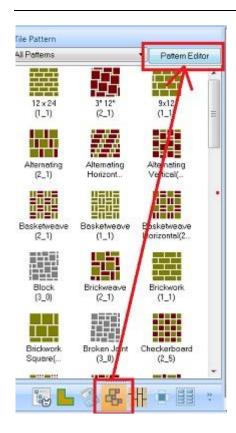
In order to create a quarter-turn pattern, multi-family or commercial edition is required. Below is an example showing how to create a quarter-turn carpet tile pattern.

Step 1: Product tab->Add Tile->edit name and size of a tile->click "folder" icon to upload an image to Picture URL.

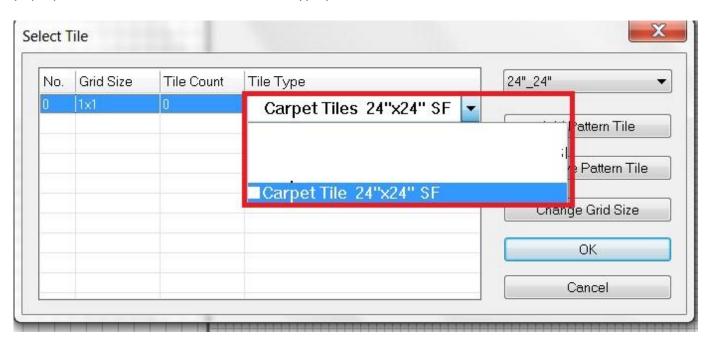


Step 2: File menu->System Setting->Material layout->check "show Tile image"

Step 3: From lower-left corner->Pattern Library->Tile Pattern Editor



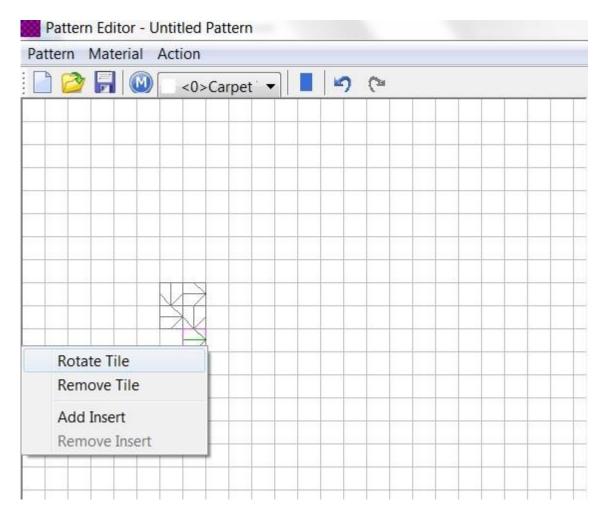
Step 4: In Pattern Editor window-> New->Select tile size from pull-down list on top-right of pop-up window ->click Add Tile->click Tile Type pull-down list to select desired tile->OK.



Step 5: Move the cursor to locate a cell to start and then an arrow appears, which indicates tile direction.

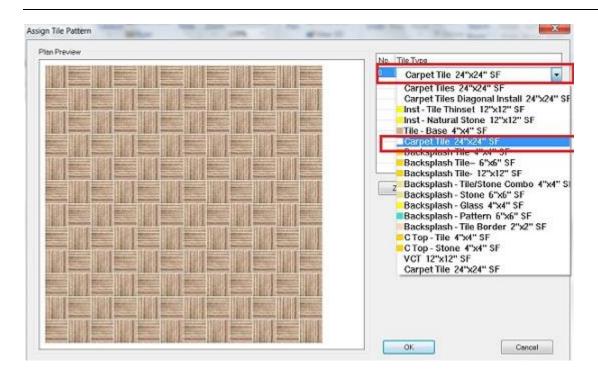
Step 6: Left click to drop a tile to grid. To change the direction of a particular tile, right-click on the tile->rotate tile.

Step 7: repeat step 5 and step6 to complete the pattern:

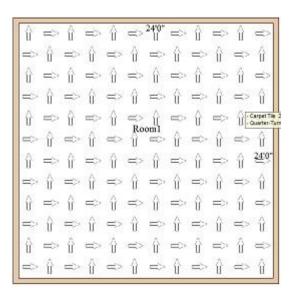


Step 8: The program will automatically generate all possible combinations of tiles on lower-right corner. Select one to rename and save. Close Pattern Editor window

Step 9: drag a pattern and drop it to a room->on pop-up window, select desired tile to apply.



If you want to show installers how the quarter-turn pattern should be installed, you use image with an arrow instead of pattern texture.



18 Site Measuring with Disto Meter

MeasureSquare RETAIL and upper-tier editions are integrated to work with several Leica Disto meter models that are **Bluetooth** enabled. The PC or tablet running MeasureSquare must also be Bluetooth enabled to receive measurement data wirelessly transferred from the Disto.

Key benefits for Disto drawing are:

- Precision and efficiency with laser measurements to prevent human errors resulting from measuring tapes
- Seamlessly measure large areas including rooms with obstructing objects such as furniture or warehouse stacks

Supported Disto Models: D8, 330i, Disto A6, Disto Plus

Instructions on how to set up MeasureSquare and a Disto 330i for onsite measurement:

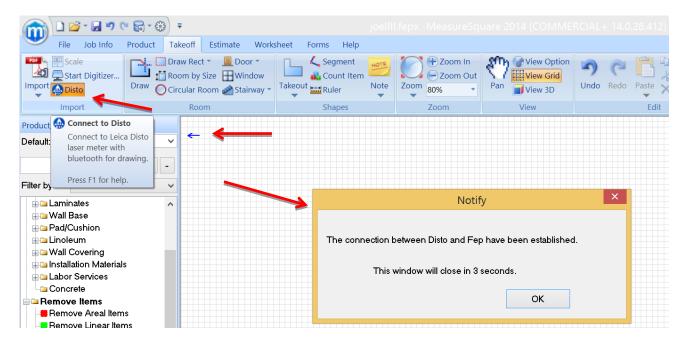
Step 1: Turn on Disto: Power on laser meter and press the bluetooth button to enable the connection to pair. A flashing Bluetooth icon will appear on the Disto screen if connection has been enabled.



<u>Step 2:</u> Computer Bluetooth Setup: Enable the bluetooth connection on the PC/Tablet via Control Panel/Settings. Under the "Bluetooth Settings," add/pair the PC with the new Disto device. (Pairing code is usually 0000) ***Previously paired devices will be stored to PC settings, therefore *pairing* is only essential for first time Disto usage



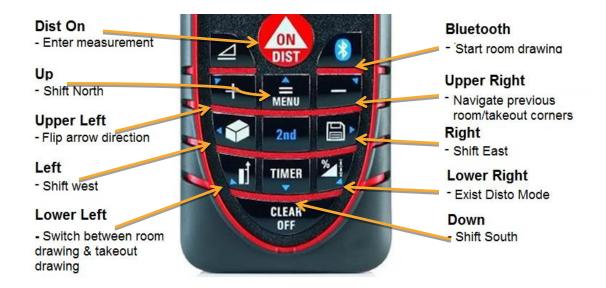
<u>Step 3:</u> Connect MeasureSquare to Disto: In MeasureSquare, on the Takeoff tab, click on the "Disto" icon to establish the software connection with the Disto. If the connection was successful, a notification will pop-up and a blue arrow will appear.



*** If the Disto disconnects at any point beyond this step, in MeasureSquare click the Disto icon to reestablish a connection

<u>Step 4:</u> Start Point Picking Mode: On the Disto, press the "2^{nd"} button to activate 2nd mode commands. "2nd" will appear on the screen indicating the mode is activated. Move the blue arrow to the desired starting point by shifting up, down, left, or right.

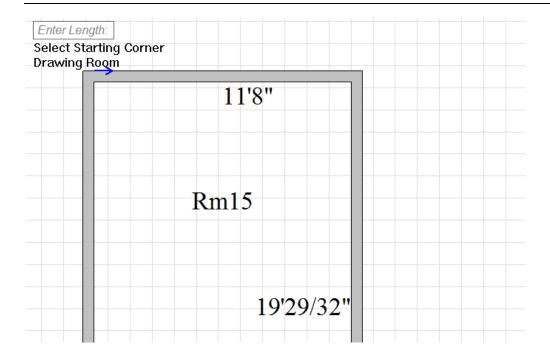
Below are the 2nd command functions in "Picking Mode," when the arrow is blue:



Disto Point Picking Mode

- ***If the Lower Left key is accidentally pressed, user will enter "Takeout Drawing" Refer to **Draw Takeout** command to switch back into "Drawing Mode"
- ***To reselect a starting point after entering drawing mode, press the Upper Left / + Button. The red arrow will turn blue.

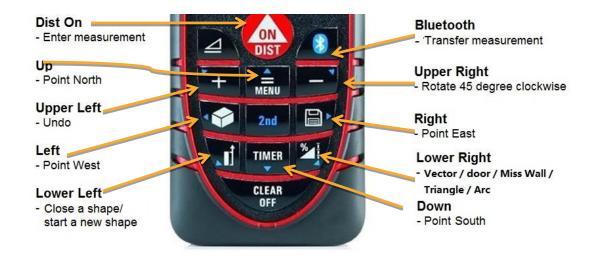
<u>Step 5:</u> Measure / Draw Room: Press the bluetooth button to enter "Drawing Mode"; the blue arrow will turn red. The red arrow can be rotated up, down, left, right, or 45° to desired wall direction. Press the On/Disto to capture the first measurement then press the bluetooth button again to transfer the data. The first wall will appear on the drawing diagram screen, continue measuring wall to wall until room is enclosed by capturing each wall measurement and transferring the data via the Bluetooth button. The last wall does not need to be measured, Press the Lower Left key to close room. An enclosed room is represented with grey walls and the arrow will turn blue as shown below.



***To draw additional rooms repeat **Step 4 & Step 5.** Rooms can be drawn separately and organized into place after measurements are complete after exiting Disto Mode.

Commands available via Disto 330i:

The key commands below will allow you to measure, draw rooms, and control the data transferred with the Disto in Drawing Mode. It is essential that "2nd" mode remain activated in order for the controls listed below to work.



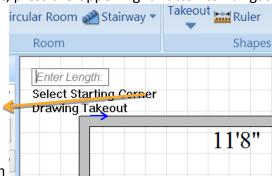
Disto Drawing Mode Key Map

In Drawing mode you can:

- Rotate 45° Clockwise to change drawing direction
 - Press the Upper Right button until desired direction
- **Undo** to retract one wall measurement
 - Press the Upper Left button
- Close a shape without measuring the last wall, allowing you to start a new shape
 - Press the Lower Left button
 - If the room is a perfect square/rectangle, collect **two** measurements, then press then Lower Left button
 - To close a room with one wall that has an unknown angle, start measuring from one end of the angled wall and measure away so that the last measurement needed is the angled wall, after all other measurements have been collected press the Lower Left button and the program will calculate the angle
- Add a door
 - Press the Lower Right Key <u>once</u>, this will convert the last measurement into a door. The wall color will change <u>blue</u>. (Doors can also be added outside of Disto Mode with the Mouse cursor)

Create an opening

- Press the Lower Right Key <u>twice</u>, this will convert the last measurement into an opening/missing wall. The wall color will change green.
- **Draw Take out** to remove an area within an enclosed room (Since 2014 version, M2 allows users to draw takeout for areas such as counter tops, sinks, tubs, and so on from the Disto)
 - After closing a room the red arrow will turn blue again, press the Lower Left key to enter "Drawing Takeout" mode
 - > Select starting point, press the Upper Right Button to navigate to interior

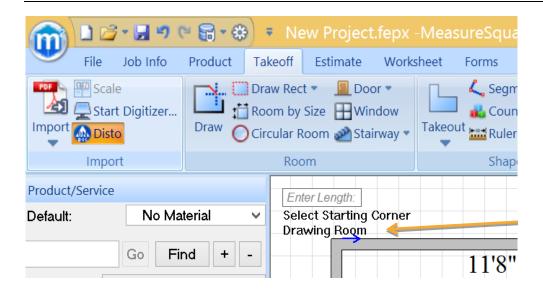


corners of the room

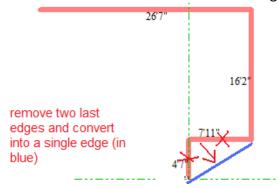
- ➤ Hit the bluetooth button to enter "Drawing Takeout"; the blue arrow will turn red. The red arrow can be rotated up, down, left, right, or 45° to desired direction. Capture the first measurement and press the bluetooth button again to transfer the measurement data. The first segment will appear on the PC screen, continue measuring segment to segment until takeout area is enclosed.
- ***"Takeout" may be drawn outside of the room then dragged inside the room and the program will automatically deduct products assigned in that area

***To Exit "Takeout mode" press the Lower Left key when the arrow is blue.

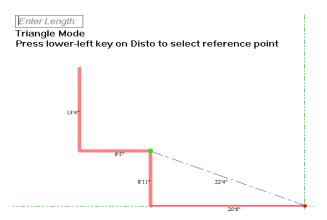
MeasureSquare will now be in "Drawing Room" mode and allow for a new start pointpicking mode.



- Enter Vector Mode / Convert an angle to convert last two measurements into an angled wall
 - Collect two measurements from the same reference point (shown in picture with red X's)
 - Press the Lower Right Key <u>three</u> times; this will convert the last two measurements into one angled wall. (Shown in picture with blue line)



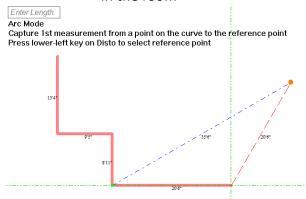
- Draw in Triangle Mode to adjust the unknown angle of the wall
 - Measure two or more corners of a room then press the Lower Right Key <u>four</u> times.
 - Press the Lower Left button to cycle through corners until desired reference point is selected. Capture the distance, shown in a dashed blue lines and transfer via Bluetooth.



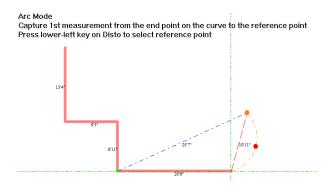
*** If a room has multiple angles that are unknown, draw all the angles at 45 degree and verify that product estimates accommodate the net area.

Measure an arc or curved wall

- Press the Lower Right Key five times
- Select a random reference point along the curve (indicated with the orange dot in picture below) and press the Lower Left button until the green dot appears at the same corner that the laser is pointing to, shown in the blue dashed line below
- Capture the measurement and transfer it via Bluetooth
- From the exact same spot, repeat the two steps above to a different corner in the room



- The second reference point will be on the end point of the curve (Indicated with the orange dot, shown below) and press the Lower Left button until the green dot appears at the same corner that the laser is pointing, shown in the blue dashed line below
- > Capture the measurement and transfer it via Bluetooth
- From the exact same spot, repeat the two steps above to different corner in the room



> Press the lower left button to confirm the arc shown on the PC screen in green



Step 6: Exit and Re-entering Disto Mode. To quit Disto drawing mode click the Disto icon under the "Takeoff" tab MeasureSquare, this will disable the bluetooth connection. MeasureSquare will now be in Drawing mode with the mouse cursor connected to the PC. To re-enter Disto drawing mode, click the Disto icon.

***Hold down "Clear/Off" to power off the Disto.

Click here to watch how to draw with Laser Disto

19 Blueprint Takeoff with Digitizers

As many commercial builders and contractors are still using paper-based blueprints to communicate their flooring requirement and measurements. GTCO Digitizers are the best platform to accurately takeoff room areas with fastest speed.

MeasureSquare 2015 COMMERCIAL program supports GTCO Digitizers through its TabletWorks interface.

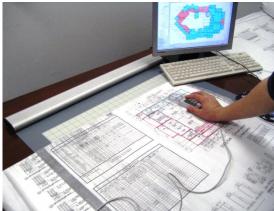


19.1 Use of GTCO Digitizer Hardware

GTCO digitizer is a digital pad hardware that blueprints can be placed on top of the pad for takeoff. With a connected digitizer stylus pen or 16-button cursor, corners points of any room shapes can be accurately scaled and drawn into the program, just as if it is drawn onto the screen from a mouse button.

Here is a GTCO Rollup III digitizer with a style pen and 16-button cursor (normally select from one of two, 16-button is recommended for better accuracy and functionality).





19.2 Installing GTCO TabletWorks Digitizer Driver

If you have a GTCO Rollup III (or earlier Rollup II) or SuperL digitizers, you need to install its TabletWorks drivers from www.FloorCoveringSoft.com/download.shtml

After TabletWorks driver is installed properly and with digitizer connected to computer, you should see the icon (in red box) at Window task bar.



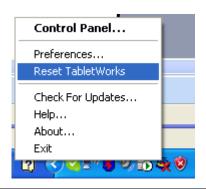
If there is a RED **X** over the icon, it means the digitizer is not connected or not configured properly. MeasureSquare COMMERCIAL cannot connect to the digitizer if that that red cross mark is there. Here is the check list for resolution:

Check if digitizer USB cable is connected to both digitizer and the computer (normally when it is connected, it beeps four times)

Right-click over TabletWorks icon, select **Reset TabletWorks** (as depicted below)

If both don't work, restart the computer





19.3 Troubleshooting

Possible problems:

Red X on TabletWorks icon: Re-connect digitizer USB cable, right-click over the TabletWorks icon and select **Reset TabletWorks**

Drawing Doesn't Close or Stop: hit Esc key to guit the drawing

Computer Mouse Doesn't Move properly: disconnect digitizer USB cable

19.4 Starting Digitizer on MeasureSquare Commercial

STEP 1: Start Digitizer

From Project menu, select **Start Digitizer**, and then follow up to set up the takeoff parameters.



STEP 2: Setup Takeoff Scale and Drawing Modes

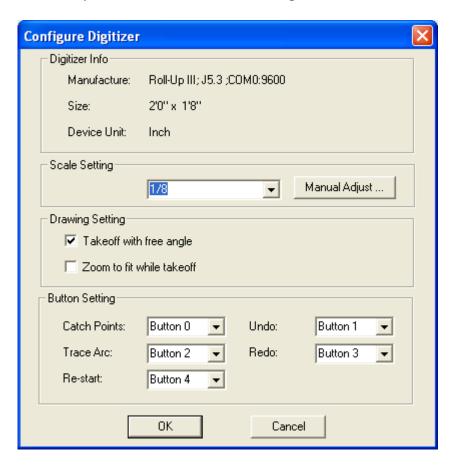
Read the scale factor from blueprint, and then select it from the scale pull-down list or if it is not on the list, type it into the scale field. (**Manual Adjustment Option**: to set up the takeoff scale manually, click on the button, sampling two points on the blueprint, and enter the size to set up the scale)

Check Takeoff with free angle option if the room areas are having angles other than 45/90

degree angles (recommended). Otherwise, line drawing is enforced in 45 or 90 degree angle that makes it easy to draw straight or diagonal lines.

Check **Zoom to fit while takeoff** option if takeoff scale is 1:8 or smaller, so the program dynamically adjusts the drawing to fit into the drawing window while takeoff (making it easy to view each room taken off during the process)

One may reset the default button settings for each functional button.



Button Settings:

Catch Points button: to catch/sample corner points

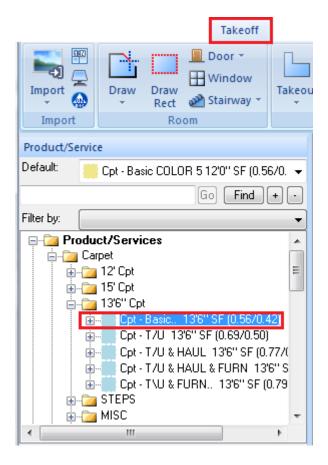
Undo button: to back up or undo a corner point sampling

Redo button: to redo a corner point sampling

Trace Arc button: to hit to start drawing arc segment

Re-start button: quit current room drawing, and start a new drawing

STEP 3: Pick a Default Material for this Area Section



20 Trouble Shooting and Technical

Support

Please visit product technical support site at http://www.measuresquare.com/support.html for latest information on product update and support.

20.1 Frequently asked questions and answers

Problems	Solutions
Toolbar buttons grayed out	From Help menu, click on Check Product License Info
Some buttons grayed out	Check with edition comparison, some feature buttons may not be available on lower editions
Plan image does not show	Right click over room area, click Show/Hide Plan Image

20.2 MeasureSquare 2015 Shortcut Sheet

Onscreen Plan Takeoff Functions

Wheeler Zoom in and out

Wheeler Down Pan and shift rooms and plan

Plus/Minus (+,-) Keys Zoom in and out

Room Selection

Ctrl+A Select all rooms in the current layer

Ctrl+Left Mouse Button Pick to select multiple rooms

Left-Mouse Ruber- Drag out rectangular area to contain rooms to

band highlight

Freedraw Mode

Undo one step (before freedraw finishes, or

Ctrl+Z reopen a closed room)

Space, or Right-click,

or Double Click

Close freedraw shape
Esc or Right-click

Quit freedraw mode

Stop drawing, allow to re-start drawing by

P key clicking on either end points

R key Turn current drawing segment into curve
Q key Align line perpendicular to previous segment
T key Create a rectangular room against one line

Shift down Hold to swing line to any angle
Wheeler Scroll to zoom in/out, hold down pan

Insert Doorway

Space key Flip side

X key Toggle different door leaf style

Shift key Switch door leaf axis

Delete Rooms or Fixtures

Delete any highlighted items (rooms or

Delete key fixtures)

Shift Selected Rooms

Arrow keys Shift highlighted items up, down, left, right

Cut, Copy, Paste Rooms

Ctrl-X Cut selected rooms

Ctrl-C Copy selected rooms Ctrl-V Paste copied rooms

Show Wall Base Section, Walls

Button 9

To show or hide wall base sections of all

S key rooms

To show or hide walls and ceilings of selected

W key rooms in 2D

GTCO Digitizer 16-Button Configuration

	Pick corner point while in freedraw mode	
Button 0	(beep once)	
Button 1	Undo pick corner while in freedraw	
		Toggle
Button 2	Trace arc/curve wall	On/Off
Button 3	Redo corner pick	
Button 4	Restart freedraw (abandon current points)	
Button 5	Close freedraw shape	
_		Toggle
Button 6	Enter into rectangular shape takeoff	On/Off
	Enter into attachment takeoff (takeaway	Toggle
Button 7	areas, holes, insets, etc)	On/Off
	Enter into doorway takeoff (pick two door	Toggle
Button 8	width points, second point with door leaf)	On/Off
	Enter into stairway takeoff (start from first	
	step, pick four points: first two points define	
	stairway width, third point AND 2nd point	
	defines a single tread length, fourth point	Toggle

AND 1st point defines the total tread length.

On/Off