



Sell Design Deliver

The image displays several overlapping screenshots of the d-tools System Integrator 5.5 software interface. The top screenshot shows the 'Welcome to System Integrator' screen with options like 'Get Started', 'Set Up Your Application', and 'Administer Your Database'. Below it, another screenshot shows a 'Getting Started' guide. To the right, a screenshot shows the 'SI5.5' logo and the text 'System Integrator 5'. In the foreground, a mobile PDA device is shown displaying the software's interface. The background of the entire page is a dark gradient with a bright orange and yellow arc resembling a sunset or a planet's horizon.

System Integrator SI5.5

TUTORIAL

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Appendix A: Global Vision Process Flow97

Introduction

Prior to beginning the tutorial we suggest that you read the Pre-Implementation Guide located in the SI 5 User Manual. This will help you become familiar with many of the concepts covered in the Tutorial. This Tutorial covers just one of many of possible scenarios. All pricing (MSRP, Unit Cost, and Unit Price) is fictitious and should not be considered accurate.

The Company

Global Vision, Ltd. is a system integration company operating in the middle residential market. Their typical project is less than \$100,000. They do primarily home automation with an emphasis on home theater systems.

Mike is the owner and decision maker. Under him are two sales people, Hans and Franz whose primary responsibility is to meet with potential clients, gather requirements, manage the proposal process and close deals. Dave is their lead installer and serves as project manager. Calvin and Hobbes are the installers. Laura is their designer and works primarily in Visio but dabbles with AutoCAD. Her primary responsibility is to assist the sales team with proposals and then to engineer and document closed projects. Marge is their bookkeeper and uses QuickBooks Premiere to manage their financials. They do not stock inventory for most products with the exception of wire, connectors, back boxes, etc. Any miscellaneous items that they do not show on a proposal are accounted for with a 3.5% Miscellaneous Parts percentage. This percentage is only applied to equipment and not to wire and back boxes installed during the rough-in process (they use a 1% factor for the "Rough-In" phase to account for connectors, wire ties, staples, etc.). They invoice most clients in a three step process according to the following percentages: 30% initial, and 50% upon ordering of primary equipment and 20% upon client approval. They collect 7% sale tax on both goods and services.

Mike and Marge met with the accountant and came up with the following labor rates.


<i>Job</i>	<i>Cost</i>	<i>Selling Price</i>
Installers	\$30.00	\$75.00
Project Manager	\$40.00	\$100.00
Engineer	\$50.00	\$125.00

4 The Company

After analyzing timesheet data, it became clear that Dave was spending 100% and Laura 50% of their time on project related activities. Since there are two installers, .5 hrs of Dave's time and .25 hrs of Laura's time should be included for each install hour. These direct costs need to be included in the labor estimating process. Dave is responsible for training the client once the system is installed and Laura handles all of the programming tasks.

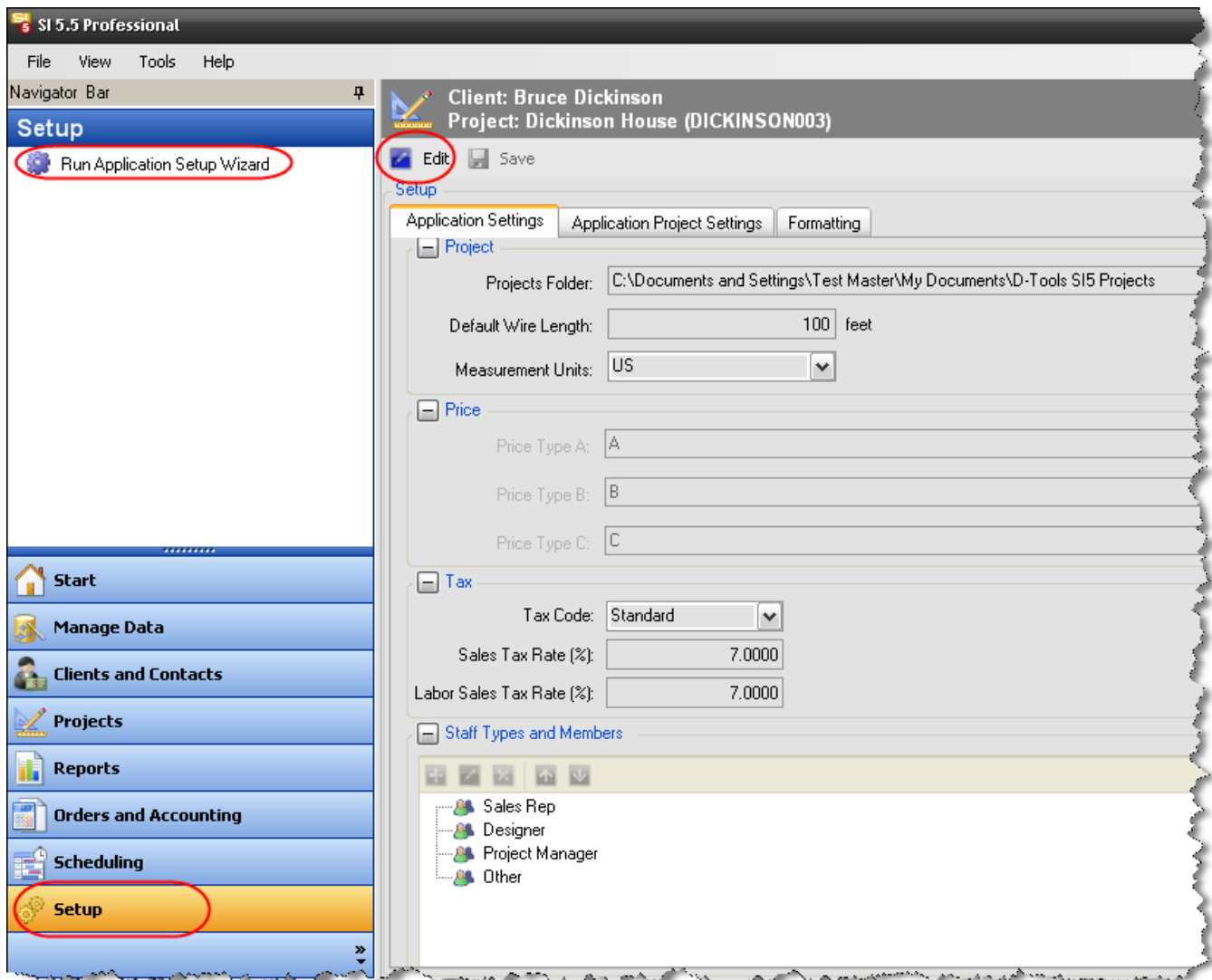
Mike, Laura and Dave spent several hours defining their business process. The results of their work are shown in "Appendix A: Global Vision Process Flow" on page 97.

SI 5 Settings

Laura loaded the SI 5 software and Marge helped with the setup process. They opened the SI 5 Navigator and started with the setup tab. 

Application Settings

Setup tab -> Application Settings tab



2 SI 5 Settings

They setup their Company Information with logo, Misc. Parts Factor and Tax information.

SI 5.5 Professional

File View Tools Help

Navigator Bar

Setup

Run Application Setup Wizard

Client: Bruce Dickinson
Project: Dickinson House (DICKINSON003)

Not Checked Out
Check Out Check In

Edit Save

Setup

Application Settings Application Project Settings Formatting

Company Information

Company Name: Global Vision, Ltd.
Address1: 1313 Mockingbird Lane
Address2:
City: Liverpool
State: NE Postal Code: 90210
Country:
Phone: 555.555.1234
Fax: 555.555.4321
Email: info@globalvisionltd.com
☐ Do not sync company information

Project

Projects Folder: C:\Documents and Settings\Test Master\My Documents\Tools SI5 Projects
Default Wire Length: 100 feet
Measurement Units: US

Price

Price Type A: A
Price Type B: B
Price Type C: C

Equipment +/- (%): 0.00
Misc Parts (%): 3.50

Global Vision LTD

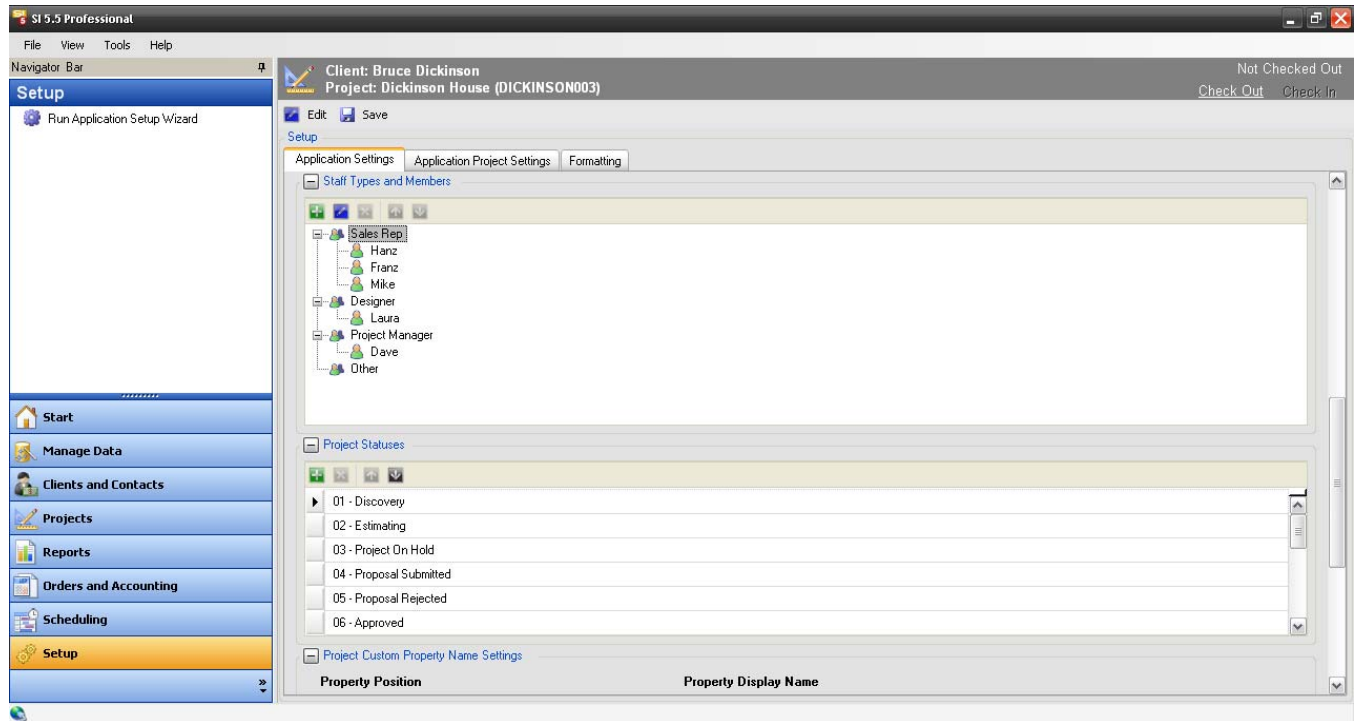
Tax

Tax Code: Standard

Sales Tax Rate (%): 7.0000

Labor Sales Tax Rate (%): 7.0000

Scrolling down in list you see the list of project statuses. Project Statuses are an internal way of communicating where each Project stands. They have determined that these statuses best represent their current business process.



Application Project Settings

Setup tab->Application Project Settings tab

Phases

Then they setup their labor information for each project phase. As noted above, they do not add a Misc. Parts % for items sold in the Rough-In phase. For more information on Misc Parts % as well as Equipment %, see the SI 5 User's Guide.

Client: Bruce Dickinson
Project: Dickinson House (DICKINSON003)

Setup

Application Settings Application Project Settings Formatting

Phase Name: Rough-In

☒ Show 'Head End' Dialog for Wires in Projects ☐ Ignore Labor Calculations for this Phase

	Cost/Hr	Price/Hr	Margin (%)	Factor (%)	Difficulty (%)	Time Multiplier (%)	Factored Cost/Hr	Factored Price/Hr
Base Labor	\$30.00	\$75.00	60.00	100.00	100.00	100.00	\$30.00	\$75.00
Misc. Labor	\$0.00	\$0.00	0.00	0.00	100.00	0.00	\$0.00	\$0.00
Mgt. Labor	\$40.00	\$100.00	60.00	50.00	100.00	50.00	\$20.00	\$50.00
Design Labor	\$50.00	\$125.00	60.00	25.00	100.00	25.00	\$12.50	\$31.25
Factored Totals			60.00			175.00	\$62.50	\$156.25

Phase Specific Adjustments

☒ Override Project Defaults for this Phase

Misc. Parts (%) 1.00 Equipment +/- (%) 0.00

Contract Percentages

Payment Type	Billing Percentage (100%)
Initial Deposit	30.00
Progress Payment	50.00
Final	20.00

Contract Percentages

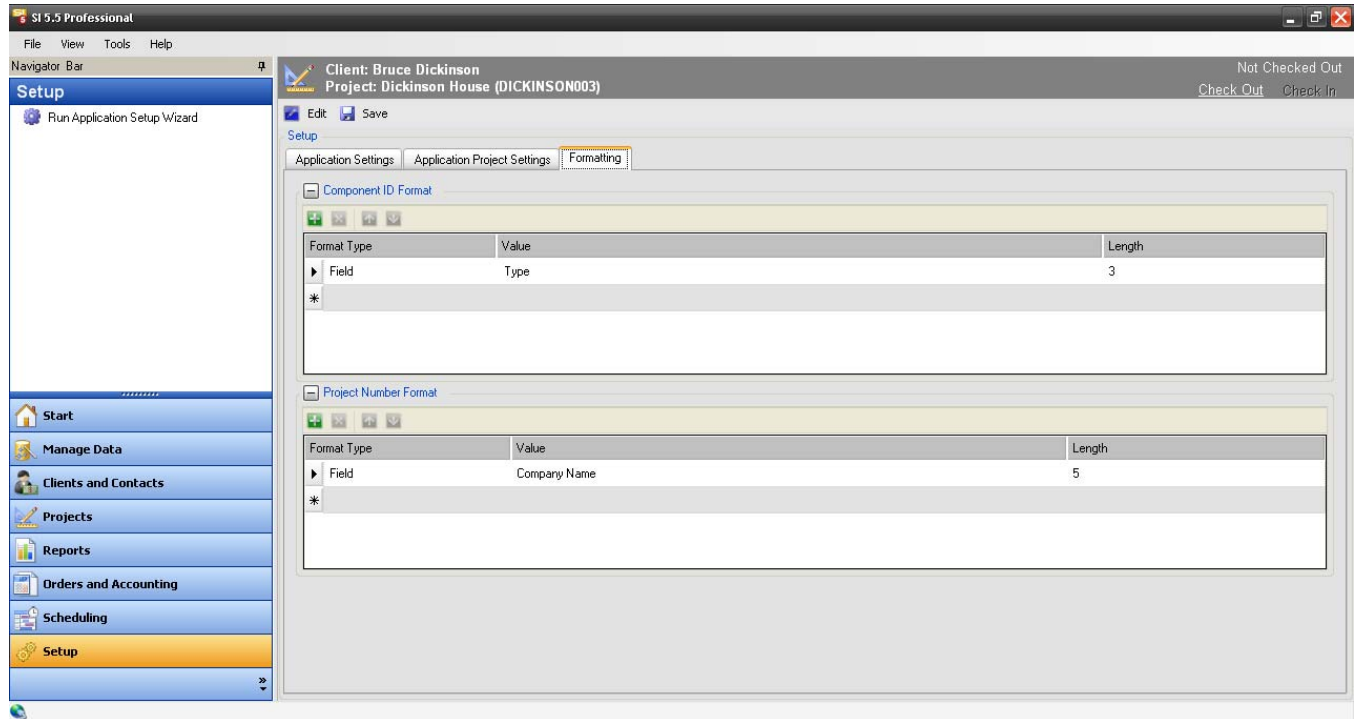
They use the following contract percentages for the majority of their projects:

Contract Percentages	
Payment Type	Billing Percentage (100.00%)
Initial Deposit	30.00
Progress Payment	50.00
Final	20.00

Formatting

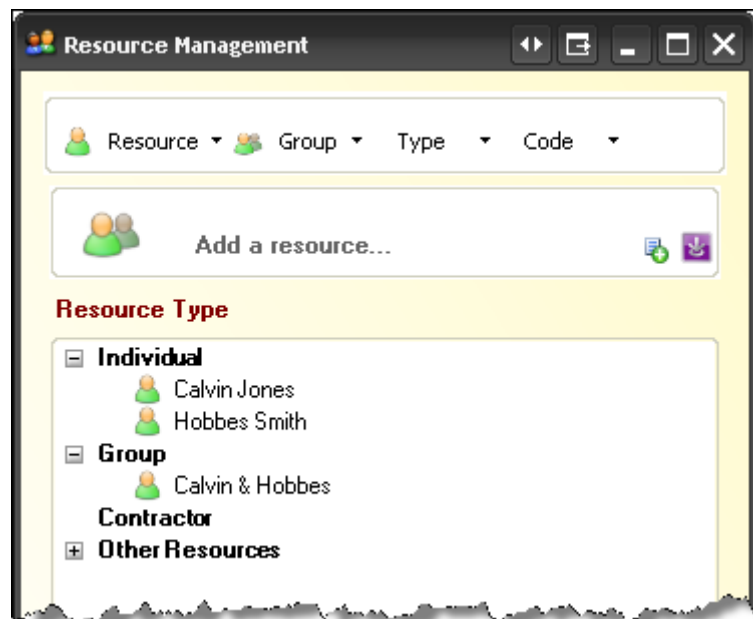
Setup tab -> Formatting tab

They chose the following formats for their Component ID and Project ID:



Work Order Settings

They have setup both Calvin and Hobbes as "resources" for Business Manager. Resources are assigned to Work Orders. They created them as Individuals and also as a Group for when they are sent out to jobs together.



Phase Settings

GVL wants to improve their ability to accurately forecast labor on proposals. They use QuickBooks to track project timesheets and job cost information. Mike and Marge met with the accountant to determine fully burdened labor rates for the staff. They were particularly interested in direct labor costs. These are cost that are directly associated with the delivery of a project.

Database

They spent several days setting up their SI 5 database. Some examples of how they accomplished this are shown here:

Downloading data: <http://www.screencast.com/t/D4qYM0hGlo>

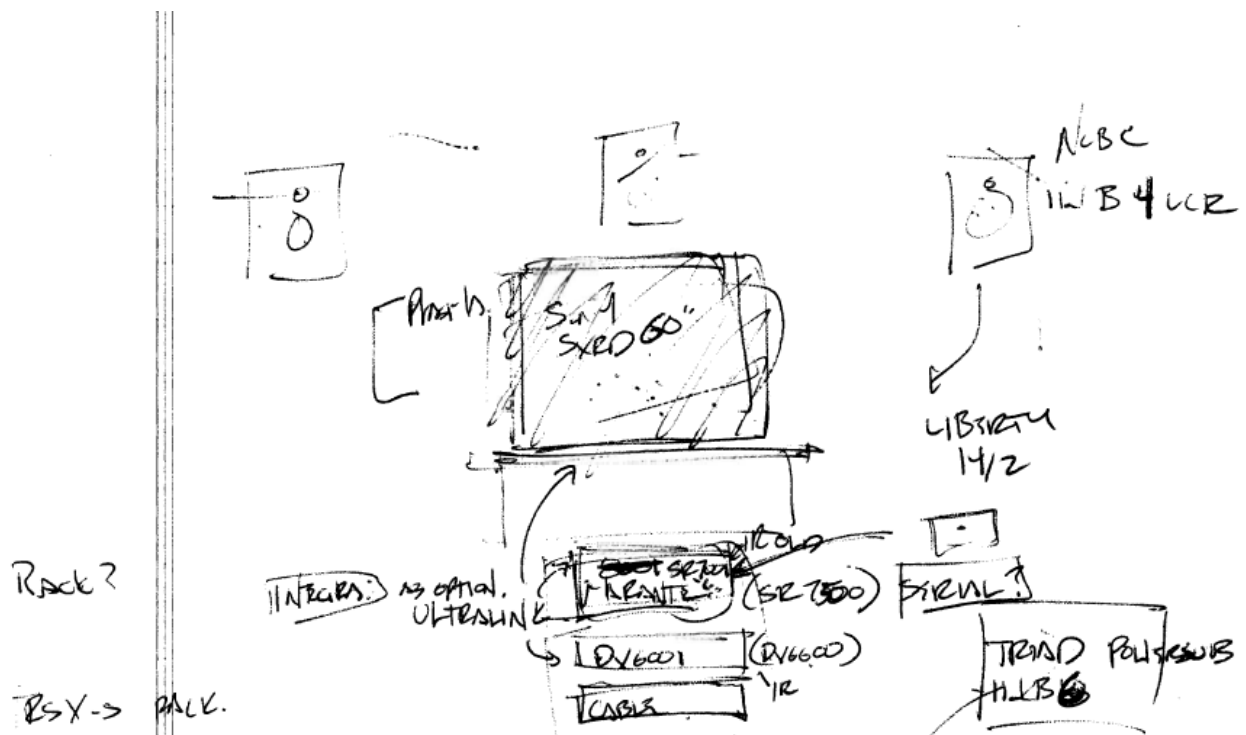
Editing Data: <http://www.screencast.com/t/XQIT17CH8N>

Creating a Package: http://www.screencast.com/t/iZOBHFiC_r

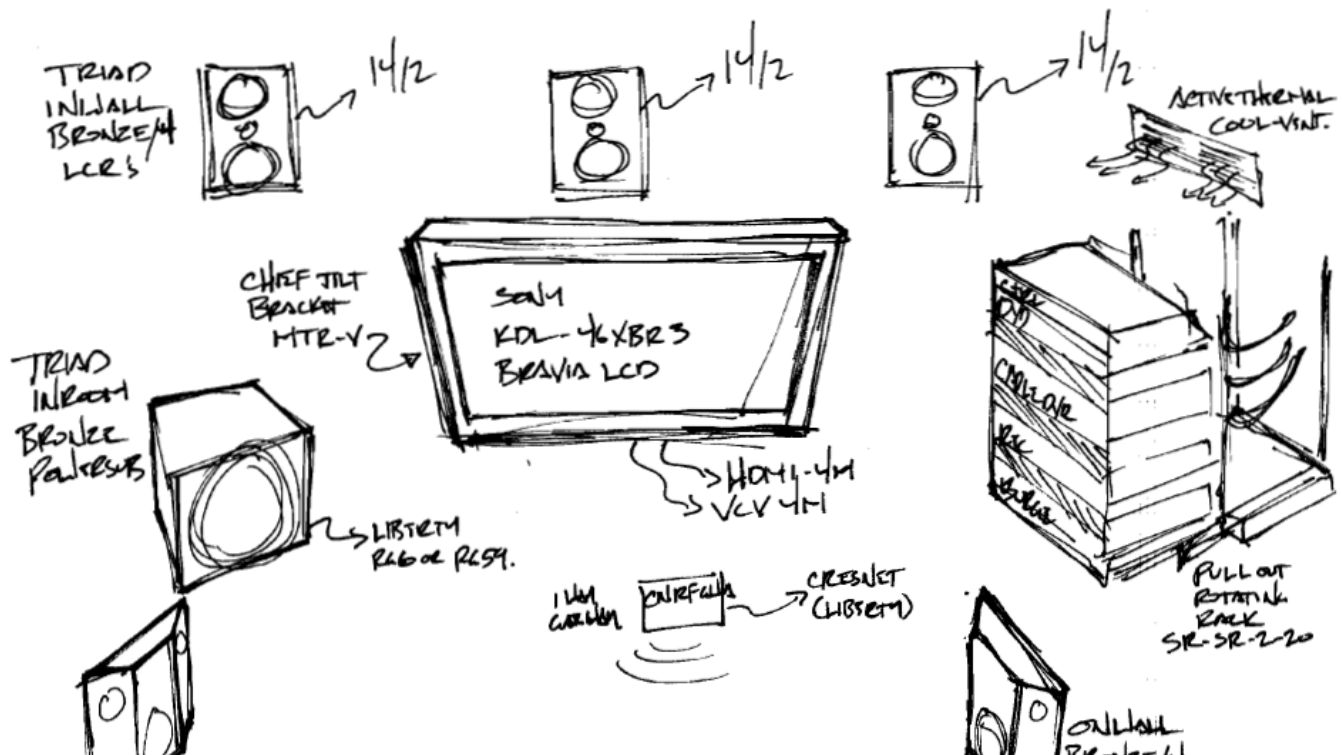
The Project

Discovery with Client

The initial discovery with the client, the MacGowans, went as follows. They are looking for a simple home theater option. They entertain on their covered porch frequently so they would like audio there as well. Their budget is right around \$25,000. They bought the house new five years ago and believe that they can obtain the AutoCAD file of the floor plan from the builder. After the initial discovery, Franz made the initial sketch of the systems that only he and one other person can read:



Not being particularly skilled at drawing, Franz asked Laura to make a better sketch of the systems:




Work now begins on the proposal by starting a Project in SI 5.

Creating the Project

Franz launches SI 5 and is prompted to login:

D-Tools SI 5.5 | Login

 Please Sign In

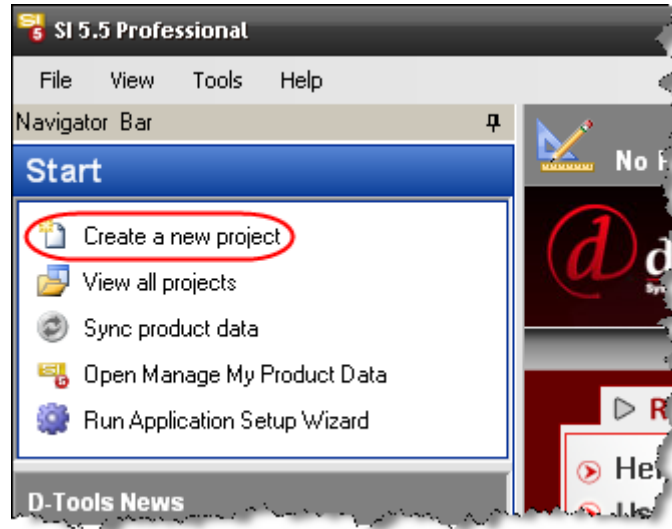
Username:

Password:

Server: ▼

Port:

The SI 5 Navigator opens and the Start tab displays. Click the “Create a new project” link.



The ten step wizard for creating a new SI 5 Project will open to step one. He proceeds to fill in information for each of the ten steps. He wisely consults the “Creating an SI 5 Project” section of the SI 5 User’s Guide.

Step 1: Project Name and Staff Assignments

The screenshot shows a 'New Project Wizard' dialog box with a title bar containing a small 'SI 5' logo and standard window controls. The main title is 'Create a New Project'. Below it, a message states: 'This wizard will walk you through the steps of creating a new project'. The current step is 'Step 1: Give the project a name and assign a project number. If you leave the project number blank, one will be automatically generated for you.' The form is divided into two sections: 'Project Header' and 'Project Contact and Staff'. The 'Project Header' section contains fields for 'Client *' (a dropdown menu with 'The MacGowans' selected), 'Project Name *' (a text box with 'MacGowan Home'), 'Project Number' (a text box with 'MACGOWAN-001'), 'Status' (a dropdown menu with '02 - Estimating' selected), and 'Owner' (a dropdown menu). A note '* (Required)' is next to the Project Number field. The 'Project Contact and Staff' section contains fields for 'Name' (a text box with 'Shane MacGowan'), 'Title' (a text box with 'Wild Rover'), 'Phone' (a text box with '555.555.2145'), 'Email' (a text box with 'shanemac@pm.com'), 'Sales Rep' (a dropdown menu with 'Franz' selected), 'Designer' (a dropdown menu with 'Laura' selected), 'Project Manager' (a dropdown menu with 'Dave' selected), and 'Other' (a dropdown menu). At the bottom of the dialog are four buttons: 'Cancel', 'Previous', 'Next', and 'Save'.

Project Header	
Client *	Status
The MacGowans	02 - Estimating
Project Name *	Owner
MacGowan Home	
Project Number	
MACGOWAN-001	
	* (Required)

Project Contact and Staff	
Name	Sales Rep
Shane MacGowan	Franz
Title	Designer
Wild Rover	Laura
Phone	Project Manager
555.555.2145	Dave
Email	Other
shanemac@pm.com	

Buttons: Cancel, Previous, Next, Save

Step 2: Site Address

New Project Wizard

Create a New Project

This wizard will walk you through the steps of creating a new project

Step 2: Enter the Projects Site Address

Site Address

Address 1
123 Clover Lane

Address 2

City
New Dublin

State
GA

Postal Code
30141

Country

Phone
555.555.2147

Fax

Cancel Previous Next Save

Step 3: Billing Address

The screenshot shows a 'New Project Wizard' dialog box with a title bar containing a small icon and the text 'New Project Wizard'. The dialog has standard window controls (back, forward, close) in the top right corner. The main content area is titled 'Create a New Project' and includes a subtitle 'This wizard will walk you through the steps of creating a new project'. Below this, it indicates 'Step 3: Enter the Projects Billing Address'. A section titled 'Billing Address' contains several text input fields: 'Name' (filled with 'Rose MacGowan'), 'Address 1' (filled with '123 Clover Lane'), 'Address 2' (empty), 'City' (filled with 'New Dublin'), 'State' (filled with 'GA'), 'Postal Code' (filled with '30141'), and 'Country' (empty). At the bottom of the dialog, there are four buttons: 'Cancel', 'Previous', 'Next', and 'Save'.

New Project Wizard

Create a New Project

This wizard will walk you through the steps of creating a new project

Step 3: Enter the Projects Billing Address

Billing Address

Name
Rose MacGowan

Address 1
123 Clover Lane

Address 2

City
New Dublin

State
GA

Postal Code
30141

Country

Cancel Previous Next Save

Step 4: Project Contacts

New Project Wizard

Create a New Project

This wizard will walk you through the steps of creating a new project

Step 4: Enter the contact information for people associated with this project.

Irene Drawthings

Contact

Name: Irene Drawthings

Type: Architect Phone: 555.555.4758

Title: Associate Email: id@id.com

Company

Name: ABC Designs

Address: 456 Protractor Drive

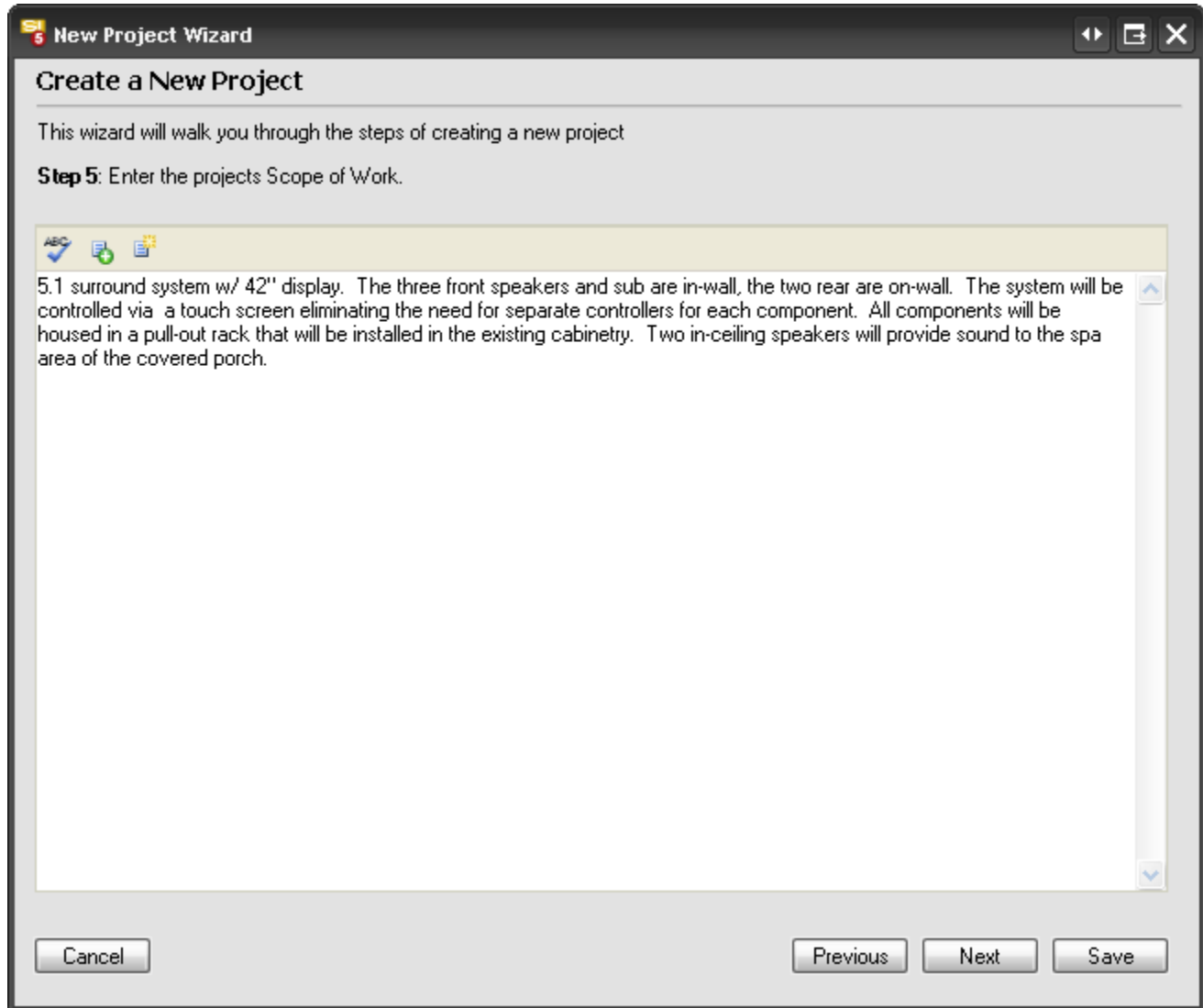
City: Vector State: GA

Postal Code: 30125 Country:

Phone: 555.555.4758 Fax: 555.555.4759

Cancel Previous Next Save

Step 5: Scope Of Work



The screenshot shows a software window titled "New Project Wizard" with a standard Windows-style title bar (minimize, maximize, close buttons). The main heading is "Create a New Project". Below this, a message states: "This wizard will walk you through the steps of creating a new project". The current step is labeled "Step 5: Enter the projects Scope of Work.".

A text area for input is shown, containing the following text:

5.1 surround system w/ 42" display. The three front speakers and sub are in-wall, the two rear are on-wall. The system will be controlled via a touch screen eliminating the need for separate controllers for each component. All components will be housed in a pull-out rack that will be installed in the existing cabinetry. Two in-ceiling speakers will provide sound to the spa area of the covered porch.

At the bottom of the window, there are four buttons: "Cancel", "Previous", "Next", and "Save".

Step 6: Location Types

The screenshot shows a 'New Project Wizard' window with the title bar 'New Project Wizard'. The main heading is 'Create a New Project'. Below it, a message states: 'This wizard will walk you through the steps of creating a new project'. The current step is labeled 'Step 6: Define the location types for this project.'.

Below the text is a list box with a toolbar above it. The toolbar contains icons for adding (+), editing (pencil), deleting (X), moving up (up arrow), moving down (down arrow), and saving (floppy disk). The list box has a header 'Name' and contains one entry, 'Room', which is currently selected.

At the bottom of the window are three buttons: 'Cancel' on the left, and 'Previous', 'Next', and 'Save' on the right.

Step 7: Define Locations

The screenshot shows a 'New Project Wizard' window with the title bar 'New Project Wizard'. The main heading is 'Create a New Project'. Below it, a message states: 'This wizard will walk you through the steps of creating a new project'. The current step is 'Step 7: Define the locations for this project.'.

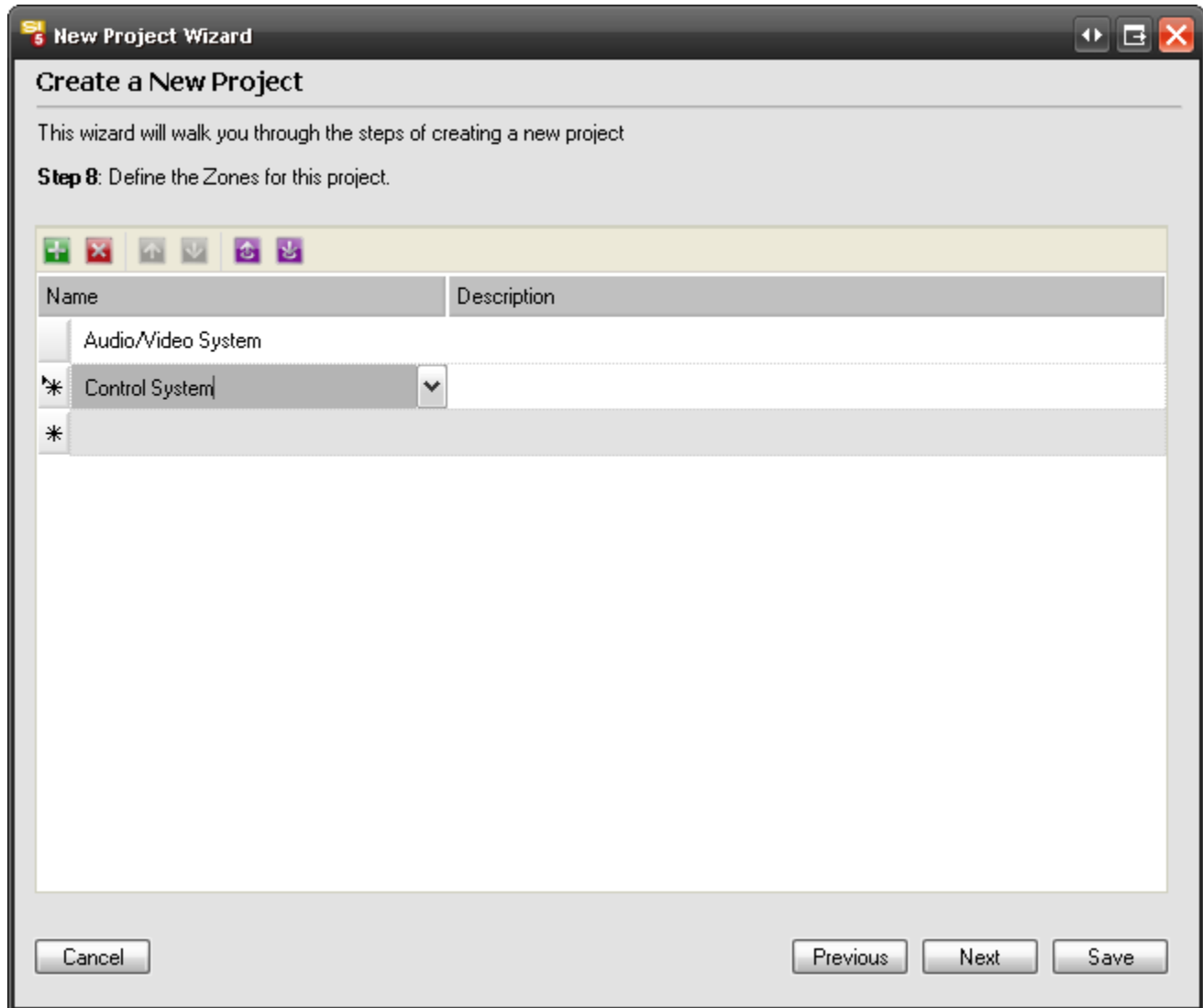
At the top of the main content area, there is a toolbar with a green '+' icon and the text 'Add New Location', followed by several small icons for editing (pencil, eraser, arrows, etc.).

The main area is divided into two panes. The left pane is a tree view showing a hierarchy: 'Game Room' is the parent, and 'Covered Porch' is a child of 'Game Room'. The 'Covered Porch' item is selected and highlighted with a dashed border. The right pane is titled 'Location' and contains three input fields: 'Comp ID' with the value 'COVER', 'Name' with the value 'Covered Porch', and 'Description' which is an empty text area.

At the bottom of the window, there are four buttons: 'Cancel', 'Previous', 'Next', and 'Save'.

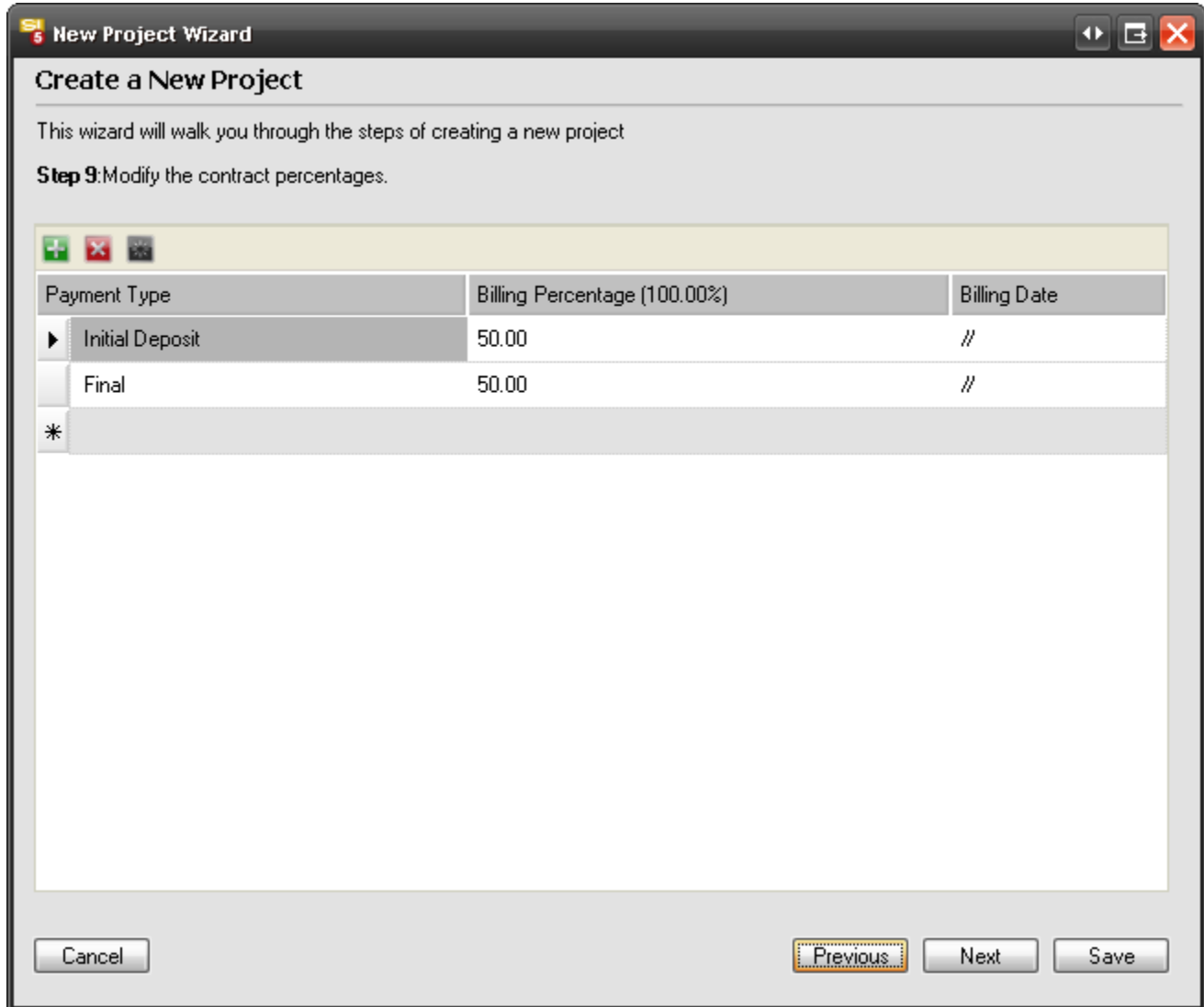
Step 8: Define Zones

See the “SI 5 User Guide” for ideas on how to use Zones. In this case Zones are used to define systems or subsystems.



Step 9: Contract Percentages

It was decided that since this is a small project, they are going to bill for it as 50% Initial payment and the remainder upon completions of work.



New Project Wizard

Create a New Project

This wizard will walk you through the steps of creating a new project

Step 9: Modify the contract percentages.

Payment Type	Billing Percentage (100.00%)	Billing Date
▶ Initial Deposit	50.00	//
Final	50.00	//
*		

Buttons: Cancel, Previous, Next, Save

Step 10: Custom Properties

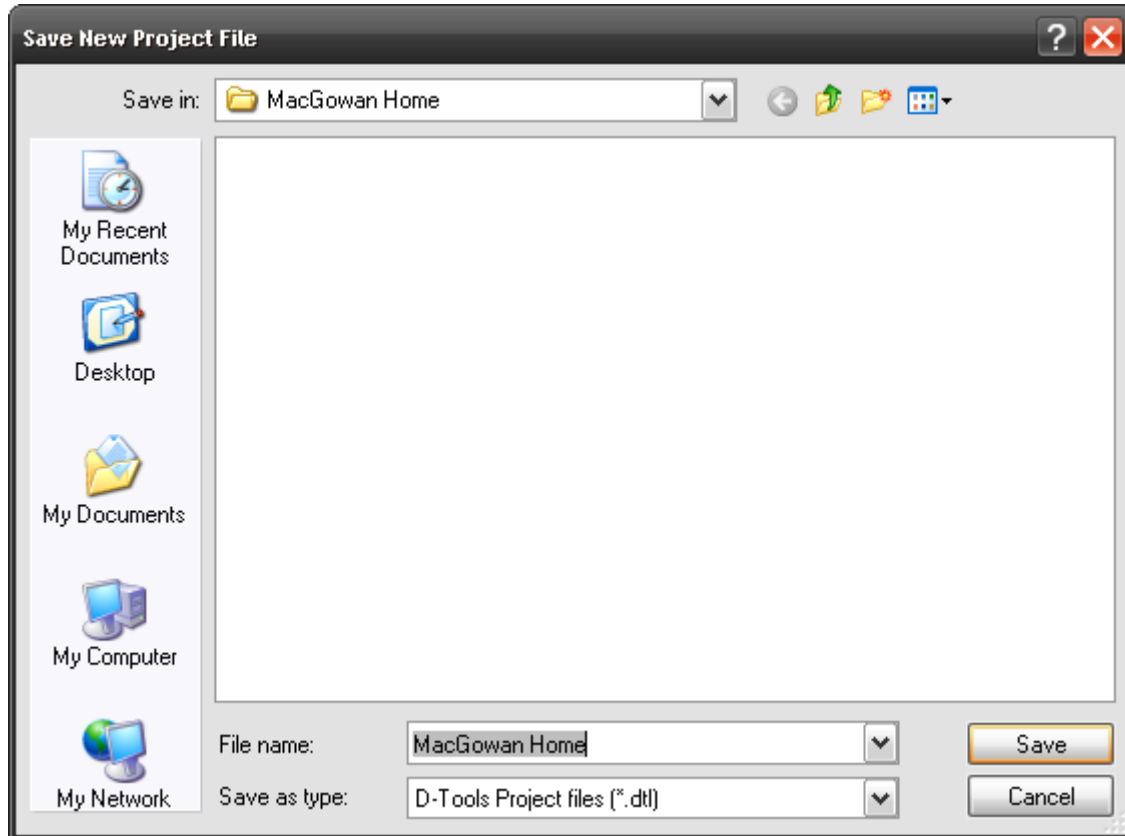
Currently they do not plan to use Custom Project Properties

The screenshot shows a 'New Project Wizard' dialog box with a title bar containing a '5' icon and the text 'New Project Wizard'. The main title is 'Create a New Project'. Below the title, a message states: 'This wizard will walk you through the steps of creating a new project'. The current step is 'Step 10: Set the project custom property values and save your new project file.'.

Custom Property	Custom Property Value
CustomProperty1:	<input type="text"/>
CustomProperty2:	<input type="text"/>
CustomProperty3:	<input type="text"/>
CustomProperty4:	<input type="text"/>
CustomProperty5:	<input type="text"/>
CustomProperty6:	<input type="text"/>
CustomProperty7:	<input type="text"/>
CustomProperty8:	<input type="text"/>
CustomProperty9:	<input type="text"/>
CustomProperty10:	<input type="text"/>

At the bottom of the dialog, there are three buttons: 'Cancel', 'Previous', and 'Save'. The 'Save' button is highlighted with a yellow border.

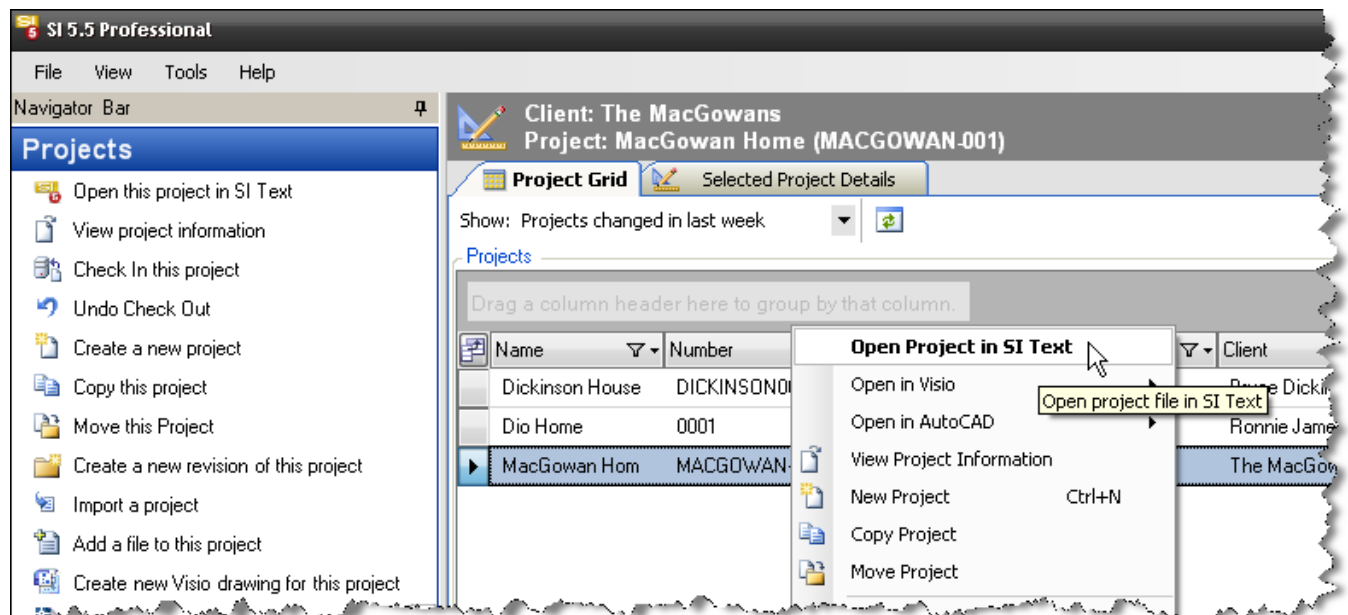
When he finishes entering the information, he clicks **[Save]**.



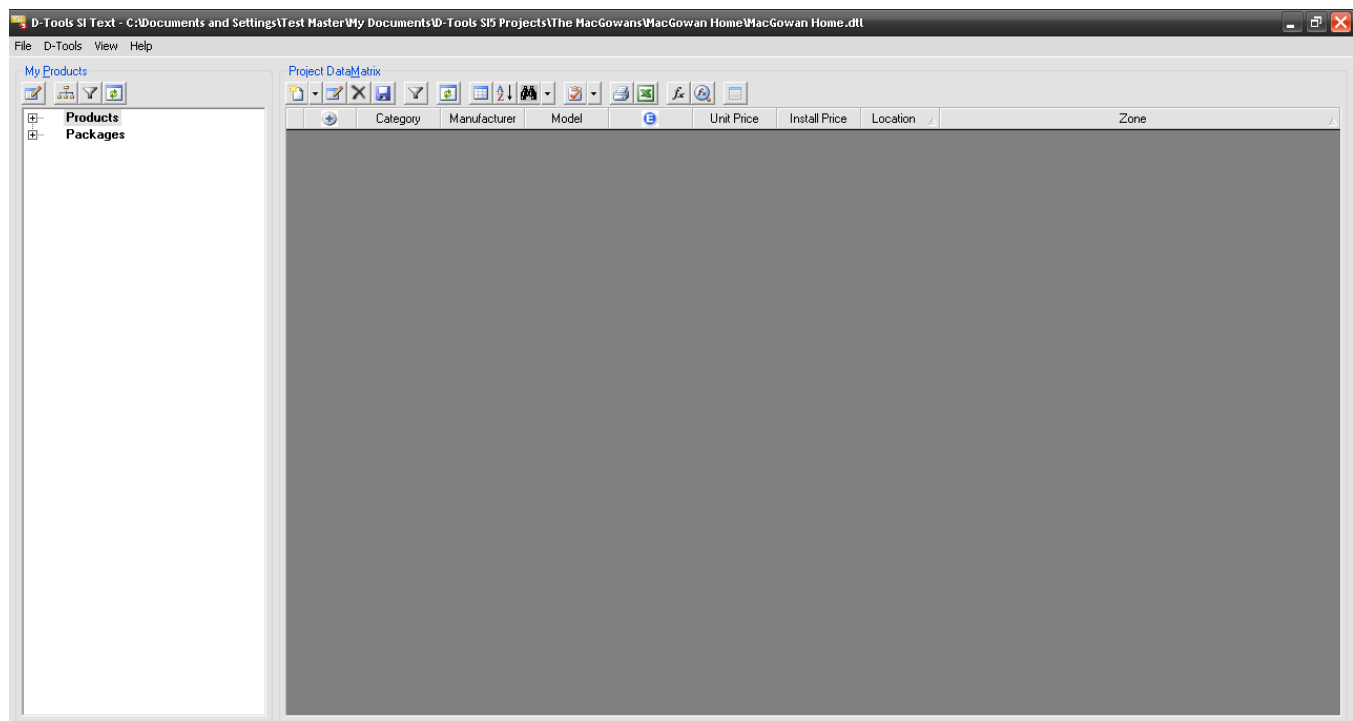
The default save location for a project in SI 5 is C:\Documents and Settings*username*\My Documents\D-Tools SI5 Projects***Client Name******Project Name*** for Windows XP users. For Vista users, the default path is C:\Users*username*\Documents\D-Tools SI 5 Projects\ ***Client Name******Project Name***.

Creating the Proposal

Franz right-clicks the project and selects “Open Project in SI Text”:



The project opens:



Since this is a retro-fit, he needs to make an adjustment to the labor hours since all of the Rough-In wire and cable in their database has the labor set based on new construction. He selects D-Tools→Options then selects "Rough-In" from the dropdown. He adjusts the difficulty factor from 100% to 150% which means that he is charging 50% more hours than is associated with each in the Product database.

D-Tools SI Project Options

Phases | Payment Schedule | Misc Costs | Estimated Taxes | General

Project defaults:

Misc. Parts : 3.50% Equipment +/- : 0.00% Pricing Default : A

Phase:

Rough-In

Labor:

☐ Display Markup ☐ Ignore labor calculations for this phase

	Cost/Hr	Price/Hr	Margin	Factor	Difficulty	Time Multiplier	Factored Cost/Hr	Factored Price/Hr
Base Labor	\$30.00	\$75.00	60.00%	100.00%	150.00%	150.00%	\$45.00	\$112.50
► Misc Labor	\$0.00	\$0.00	0.00%	0.00%	150.00%	0.00%	\$0.00	\$0.00
Management Labor	\$40.00	\$100.00	60.00%	50.00%	100.00%	50.00%	\$20.00	\$50.00
Design Labor	\$50.00	\$125.00	60.00%	25.00%	100.00%	25.00%	\$12.50	\$31.25
Factored Totals			60.00%			225.00%	\$77.50	\$193.75

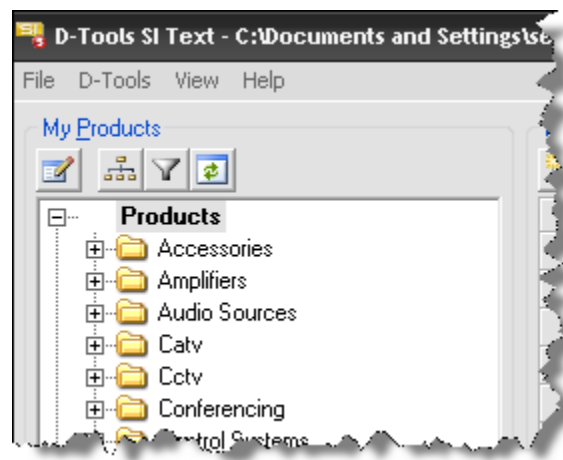
Equipment:


☒ Override project defaults for this phase

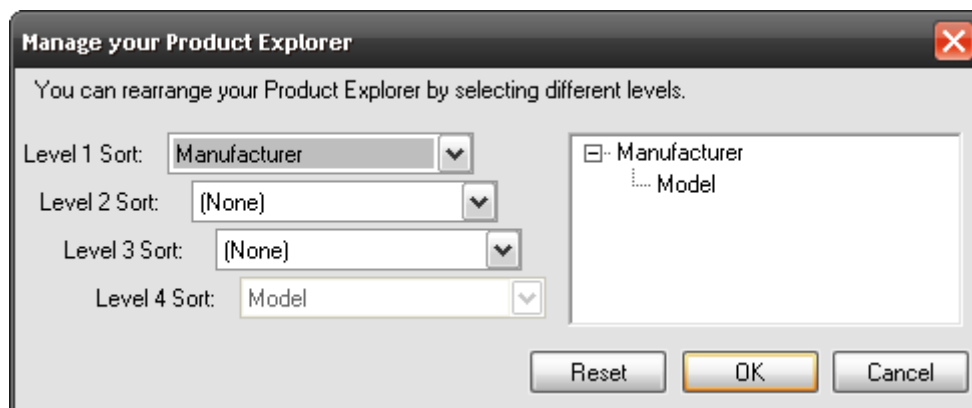
Misc. Parts : 1.00% Equipment +/- : 0.00%

Buttons: Add Phase, Save Phase, Save Default, Restore Default, Save, Cancel

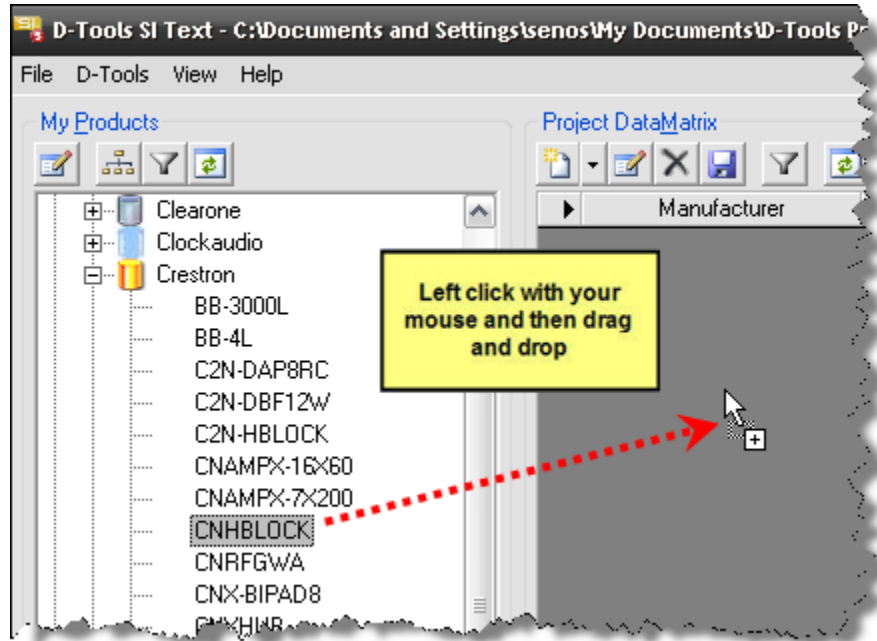
After that, Franz uses the **[+]** next to “Products” to expand the list and notices that the hierarchy of how the Products list begins with Category.



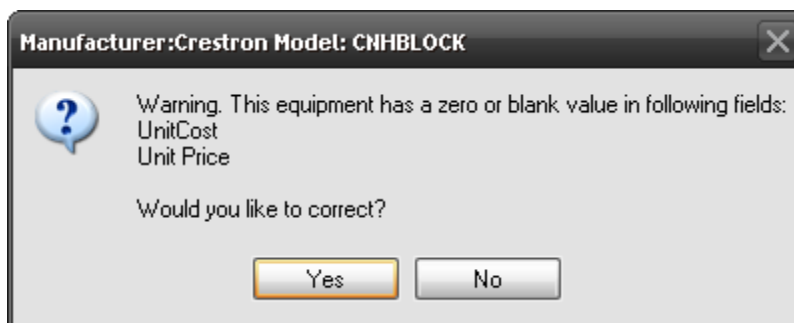
His preference is to have the Products list by Manufacturer→Model Number. He clicks the  button and makes the adjustment:



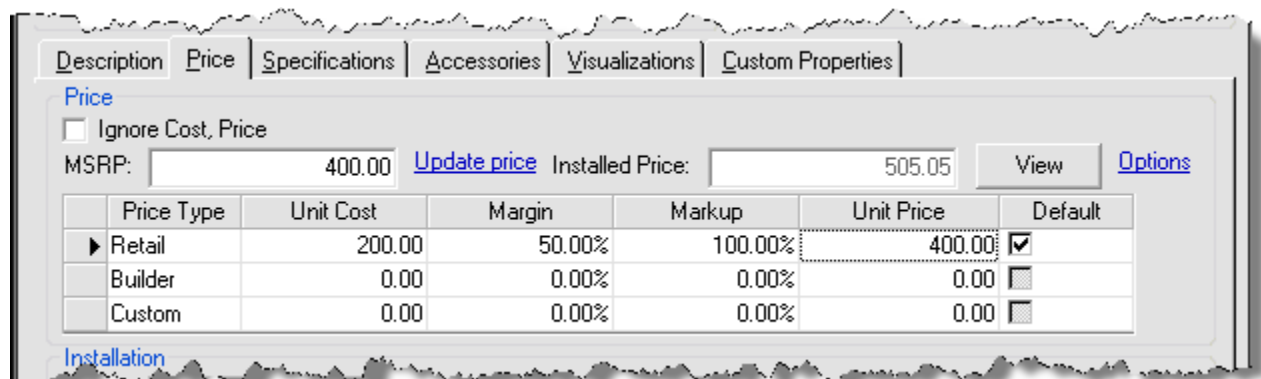
He then begins adding Products to the Project DataMatrix (PDM) by dragging and dropping:



He gets a message stating that the Unit Price is missing:



He chooses **[Yes]** and the SI Product Properties form opens with the Price tab selected. He clicks the Price tab and, after verifying the pricing with Marge, makes the adjustment:

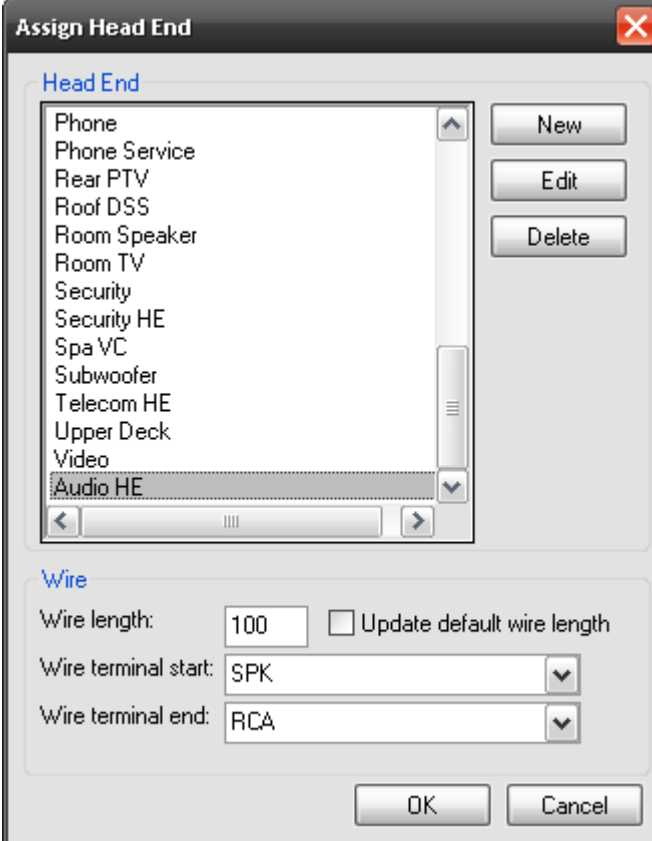


While inside of the Properties, he decides to assign the Location and Zone for the product. To do this he clicks the Description tab and then selects the proper Location and Zone. When finished he clicks **[Save]**.

The screenshot shows a software window with a tabbed interface. The 'Description' tab is active. The window contains the following elements:

- Product Description:** A text box containing 'Rack Mountable Multitype Cresnet Distribution Block'.
- Client Description:** A text box containing 'Rack Mountable Multitype Cresnet Distribution Block NOTE - All Pricing is for Demonstration and Training Purposes Only. Do Not Use On a Client Proposal.'
- Location:** A list box with three options: '_Unassigned', 'Game Room' (which is highlighted), and 'Covered Porch'.
- Zone:** A dropdown menu currently showing 'Control System'.

He then continues to add Products to the PDM by dragging and dropping until he has all of the Products that he feels completes the Project. When he dragged wire to the PDM, he was prompted to select a Head End, wire length, and a terminal start/end:



The image shows a software dialog box titled "Assign Head End" with a red close button in the top right corner. The dialog is divided into two main sections: "Head End" and "Wire".

Head End Section:

- A list box on the left contains the following items: Phone, Phone Service, Rear PTV, Roof DSS, Room Speaker, Room TV, Security, Security HE, Spa VC, Subwoofer, Telecom HE, Upper Deck, Video, and Audio HE. "Audio HE" is currently selected and highlighted.
- To the right of the list box are three buttons: "New", "Edit", and "Delete".

Wire Section:


- The label "Wire" is in blue text.
- "Wire length:" is followed by a text input field containing "100" and an unchecked checkbox labeled "Update default wire length".
- "Wire terminal start:" is followed by a dropdown menu showing "SPK".
- "Wire terminal end:" is followed by a dropdown menu showing "RCA".

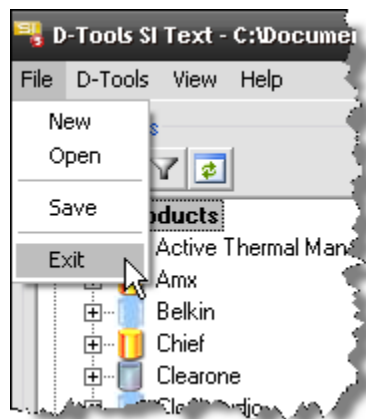
At the bottom of the dialog are two buttons: "OK" and "Cancel".

When Franz is finished, the proposal looks like this:

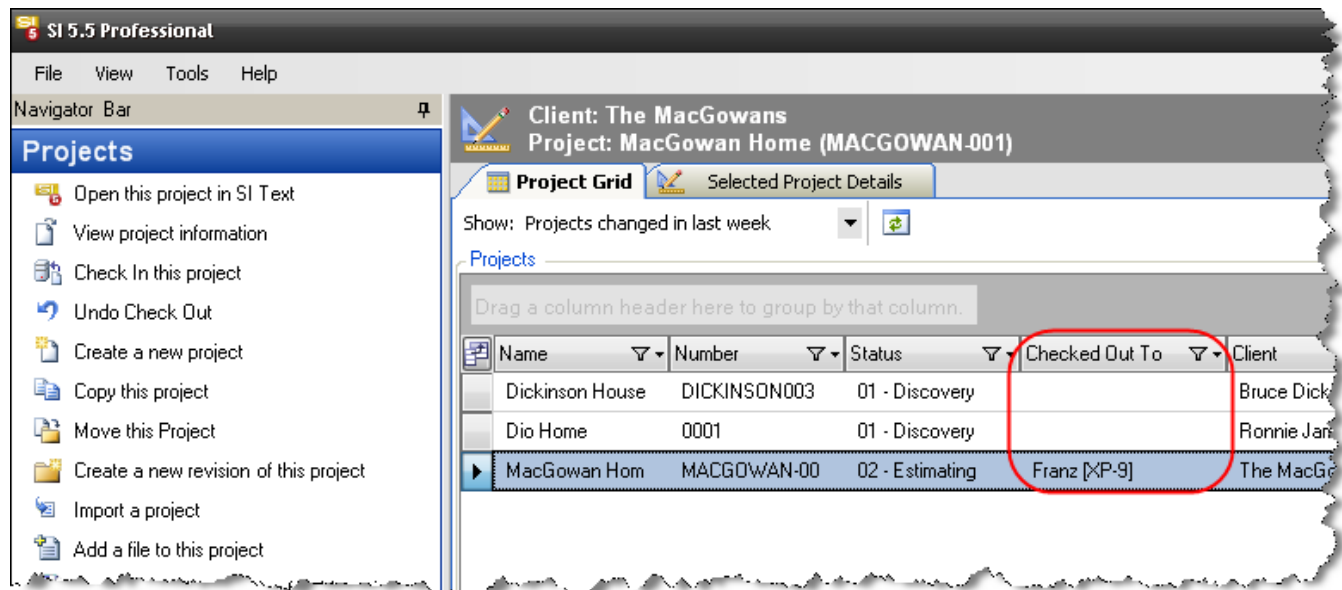
The screenshot shows the 'D-Tools SI Text' application window. On the left is a 'My Products' tree view listing various manufacturers like Active Thermal Management, Amx, Belkin, Chief, Clearone, Clockaudio, Crestron, Da-lite, D-Tools, Inc., Extron, Ge Security, Generic, Global Vision Ltd, Gyration, Hubbell, Integra, Intellisense, Jbl Pro, Klipsch, Liberty Cable, Marantz, Middle Atlantic Products, Nec, Netgear, Panamax, Panasonic, Powerware, Premiere, QSC, RDL, Request Multimedia, Runco, Scientific Atlanta, Sennheiser, Smart Technologies, and Sonance. The main area is the 'Project DataMatrix' table.

Manufacturer	Model	Category	ComponentID	Room	Install Price	Zone
Covered Porch (Installed Price: \$2,803.92)						
Audio Video System (Installed Price: \$1,316.62)						
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-010	Covered Porch	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-011	Covered Porch	\$86.05	Audio Video System
SpeakerCraft	AIM7 TWD	Speakers	CEI-002	Covered Porch	\$572.26	Audio Video System
SpeakerCraft	AIM7 TWD	Speakers	CEI-001	Covered Porch	\$572.26	Audio Video System
Control System (Installed Price: \$1,487.30)						
Crestron	CT-1000	Control Systems	TOU-004	Covered Porch	\$1,487.30	Control System
Game Room (Installed Price: \$26,400.72)						
Audio Video System (Installed Price: \$15,658.12)						
Active Thermal Management	COOL-VENT I	Hvac	VEN-001	Game Room	\$326.35	Audio Video System
Chief	MTR-V	Equipment Racks	MOU-001	Game Room	\$208.43	Audio Video System
Global Vision Ltd	24810	Wire And Cable	AUD-003	Game Room	\$0.00	Audio Video System
Global Vision Ltd	24810	Wire And Cable	AUD-002	Game Room	\$0.00	Audio Video System
Global Vision Ltd	24810	Wire And Cable	AUD-001	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-006	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-003	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-005	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-002	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-007	Game Room	\$0.00	Audio Video System
Global Vision Ltd	POWER CABLE	Wire And Cable	POW-004	Game Room	\$0.00	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-009	Game Room	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-012	Game Room	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-005	Game Room	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-008	Game Room	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-007	Game Room	\$86.05	Audio Video System
Liberty Cable	14-2C-GRY	Wire And Cable	AUD-006	Game Room	\$86.05	Audio Video System
Marantz	SR7001	Receivers	SUR-002	Game Room	\$1,722.70	Audio Video System
Middle Atlantic Products	-C	Accessories	KIT-002	Game Room	\$63.34	Audio Video System
Middle Atlantic Products	HW100	Equipment Racks	KIT-003	Game Room	\$68.56	Audio Video System
Middle Atlantic Products	LDP 1A	Equipment Racks	RAP-001	Game Room	\$74.55	Audio Video System

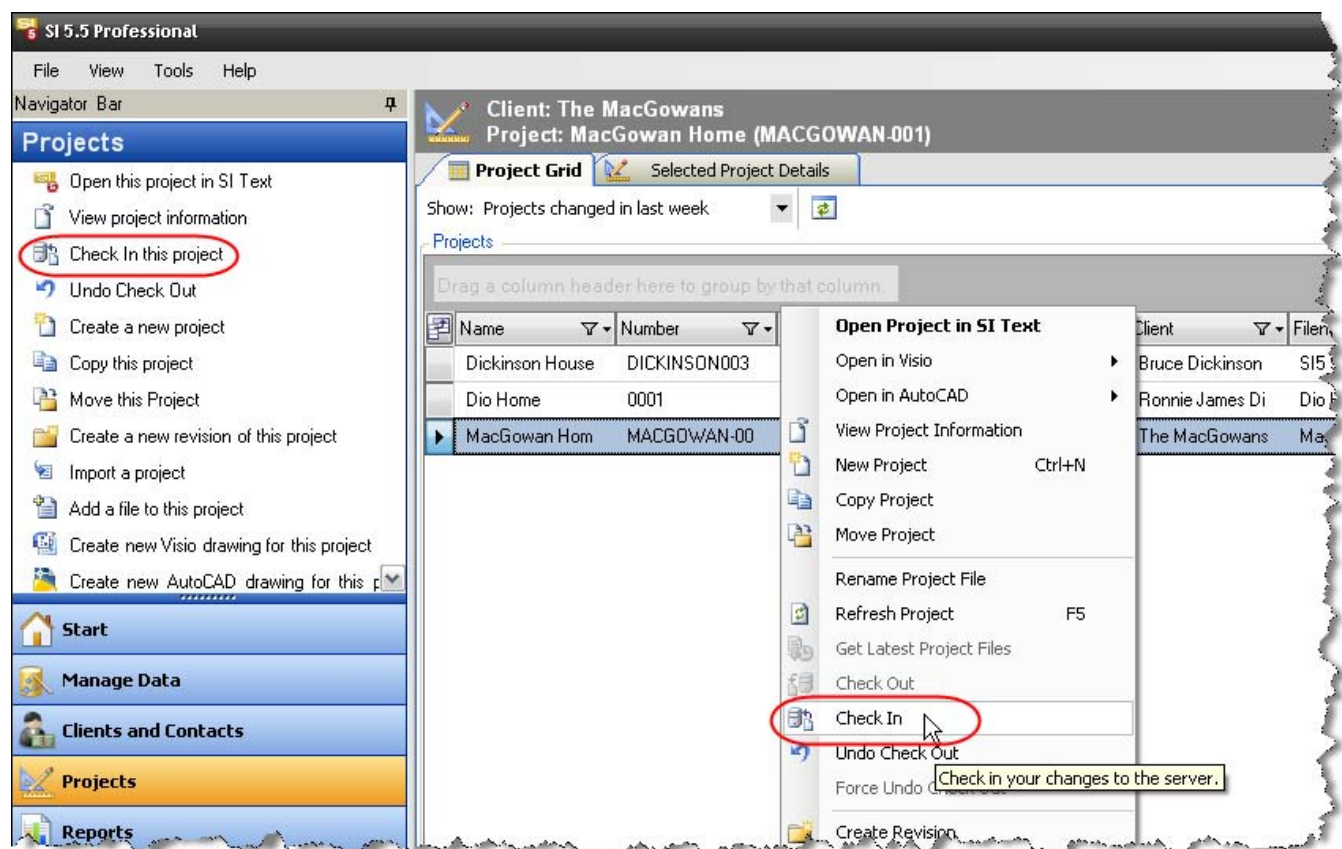
Although he has been saving frequently (that just might be sage advice), he clicks  one more time then closes the Project by selecting File->Exit:



The project displays in the project grid. The project is still checked out to Franz. This is indicated in the **Checked Out To** column.

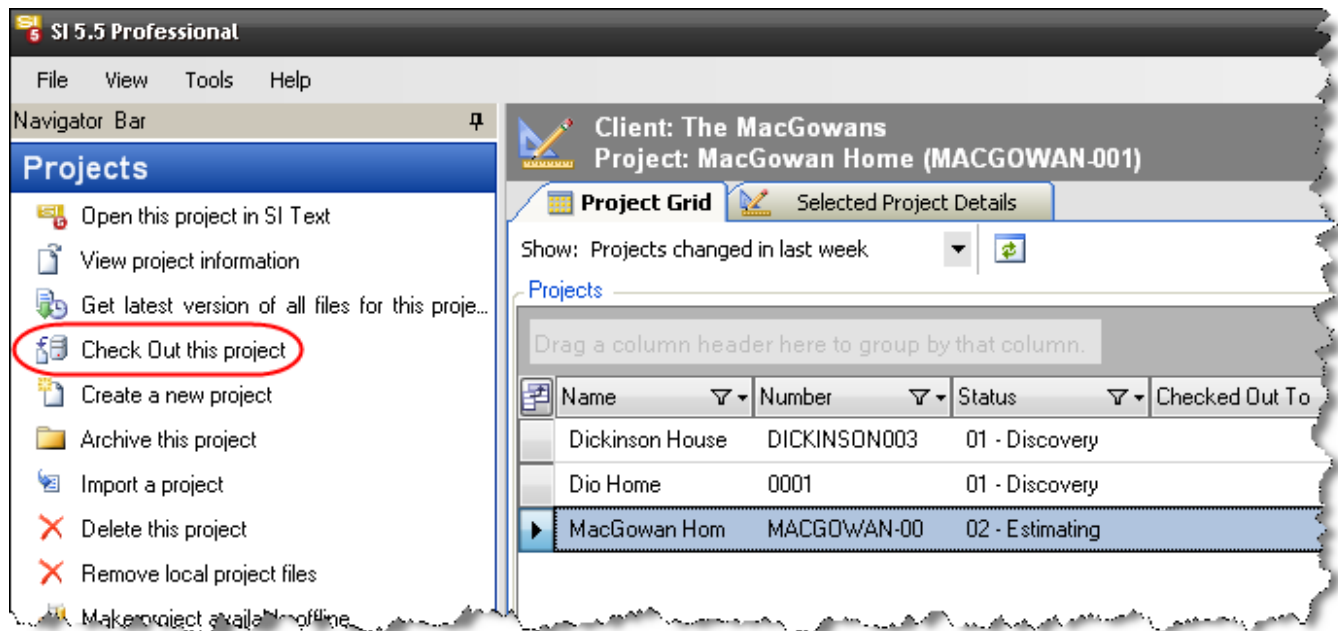


In order to allow other users access to the project, Franz selects the project right-clicks and selects "Check In" (he could have also used the "Check In this project" link):

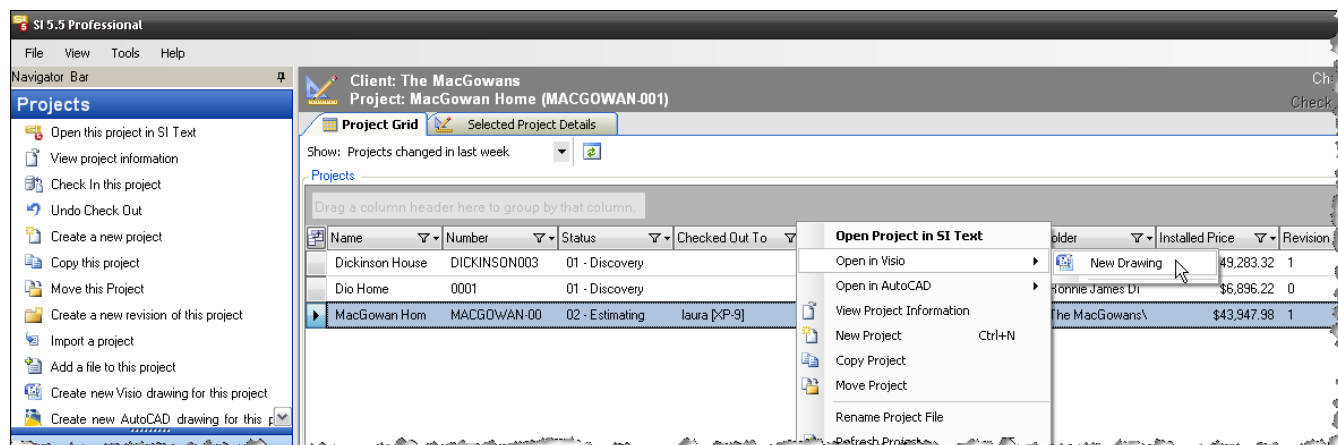


Line and Elevation Drawings

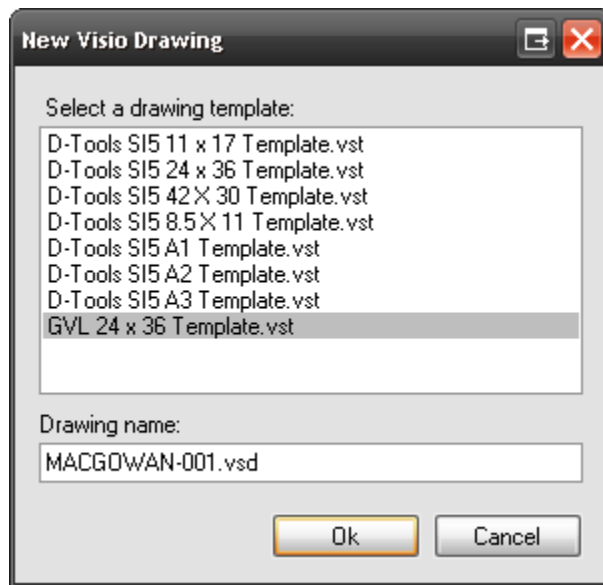
Laura then launches SI 5 on her machine and is prompted to login. She has been assigned a license of SI 5 Standard. She clicks the Project tab then selects the project in the Projects section of the screen and clicks "Check Out this project" so that she has "custody" of it.



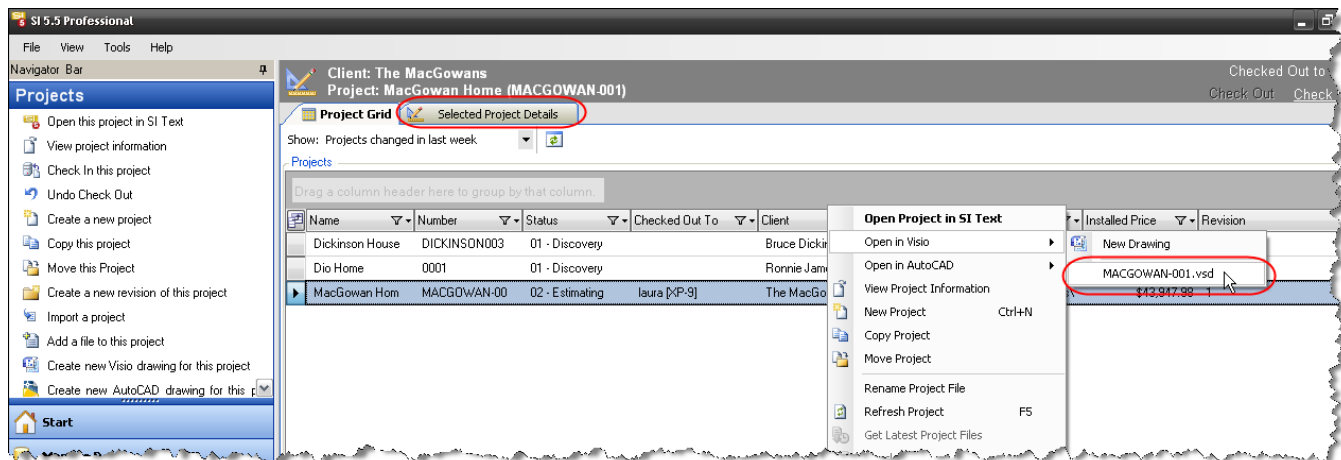
She selects the project and then right-clicks and selects Open in Visio->New Drawing:



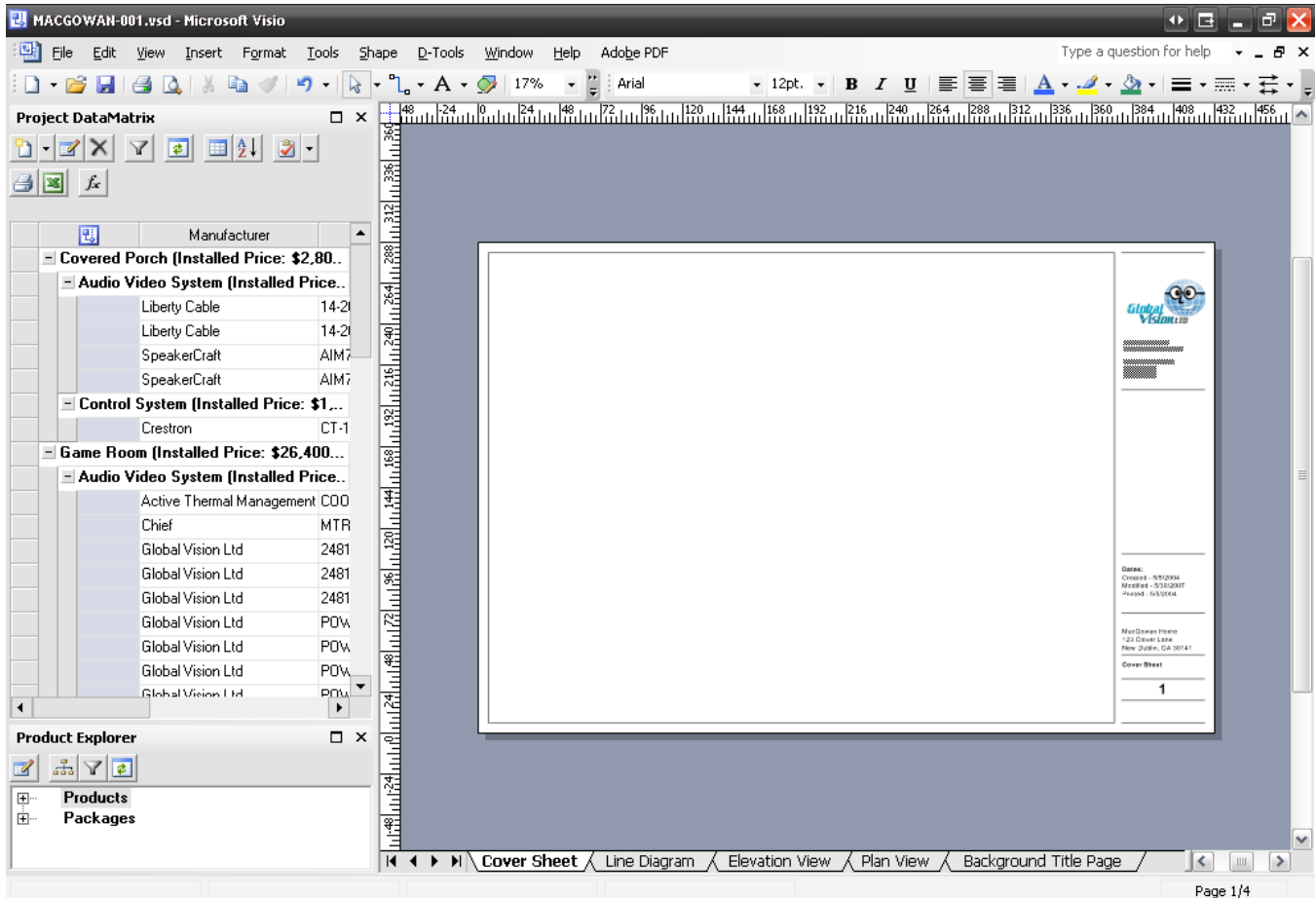
She selects their custom template and adds a name to the drawing. The naming convention they use for all project files is to add the Project Number to the file name.



The file that was created does not display on the **Project Grid** tab but can be viewed via the **Selected Project Details** tab. She selects the project right-clicks and then selects Open in Visio->MACGOWAN-001.vsd. She could have also opened the file via the **Selected Project Details** tab:

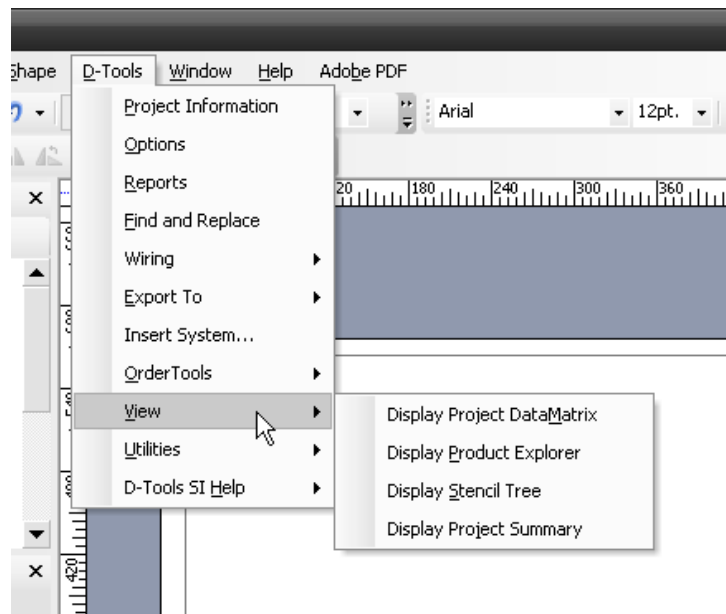



The Project that Franz created is now opened as a Visio Project file:

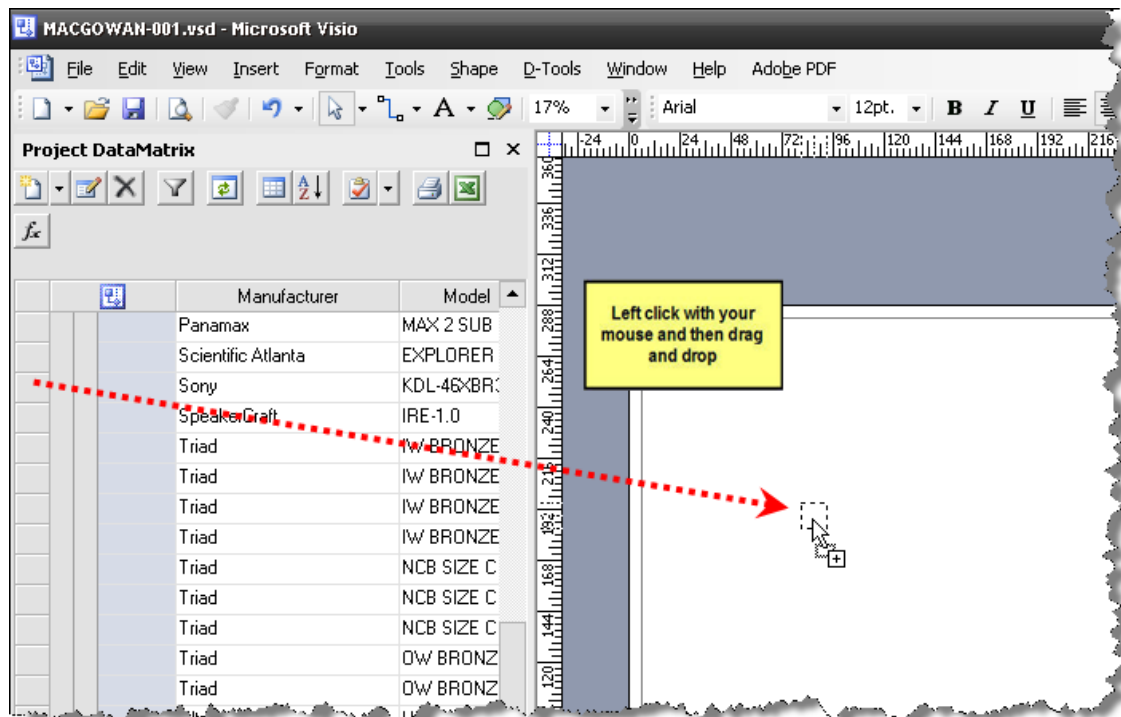


Note: the interface windows docked along the left side of the screen and the toolbars that are displayed will vary from machine to machine depending on changes the user

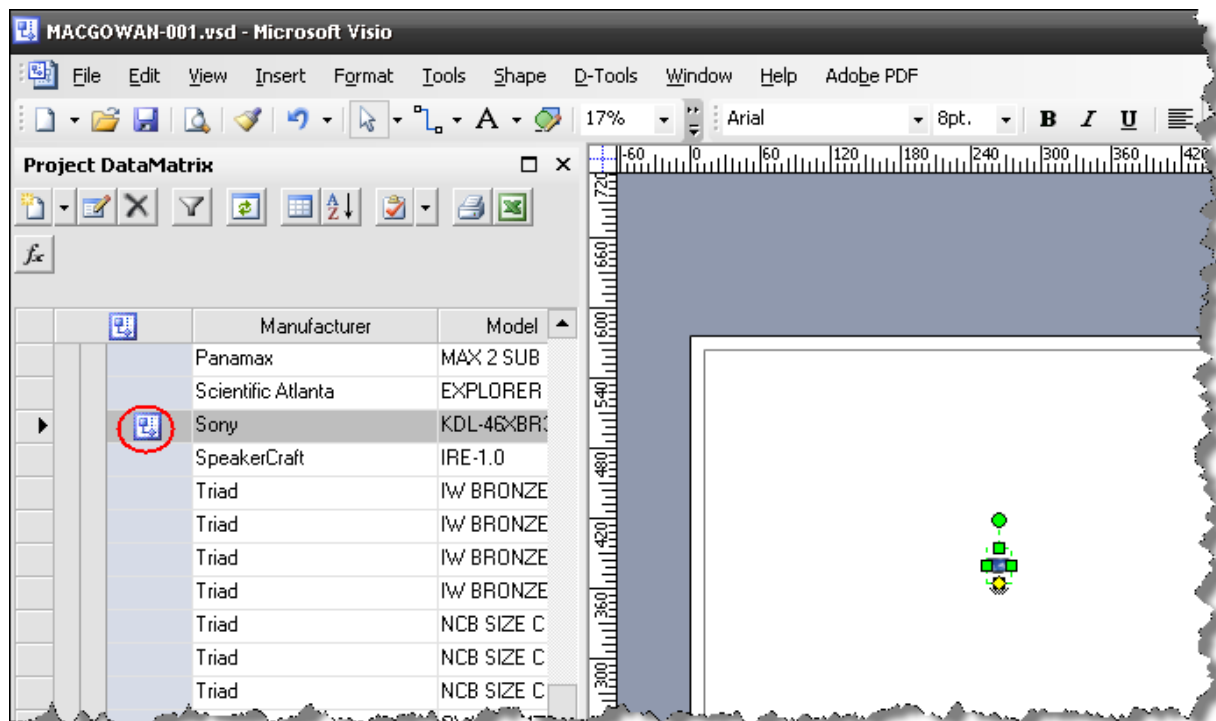
has made to the interface. If you do not see an interface window mentioned in this tutorial you can display them by Selecting D-Tools→View:



Laura then clicks the Line Diagram tab in order to create a flow diagram of the Game Room system based off the sketches made earlier. The first Product she drags from the PDM to the drawing page is the plasma: 

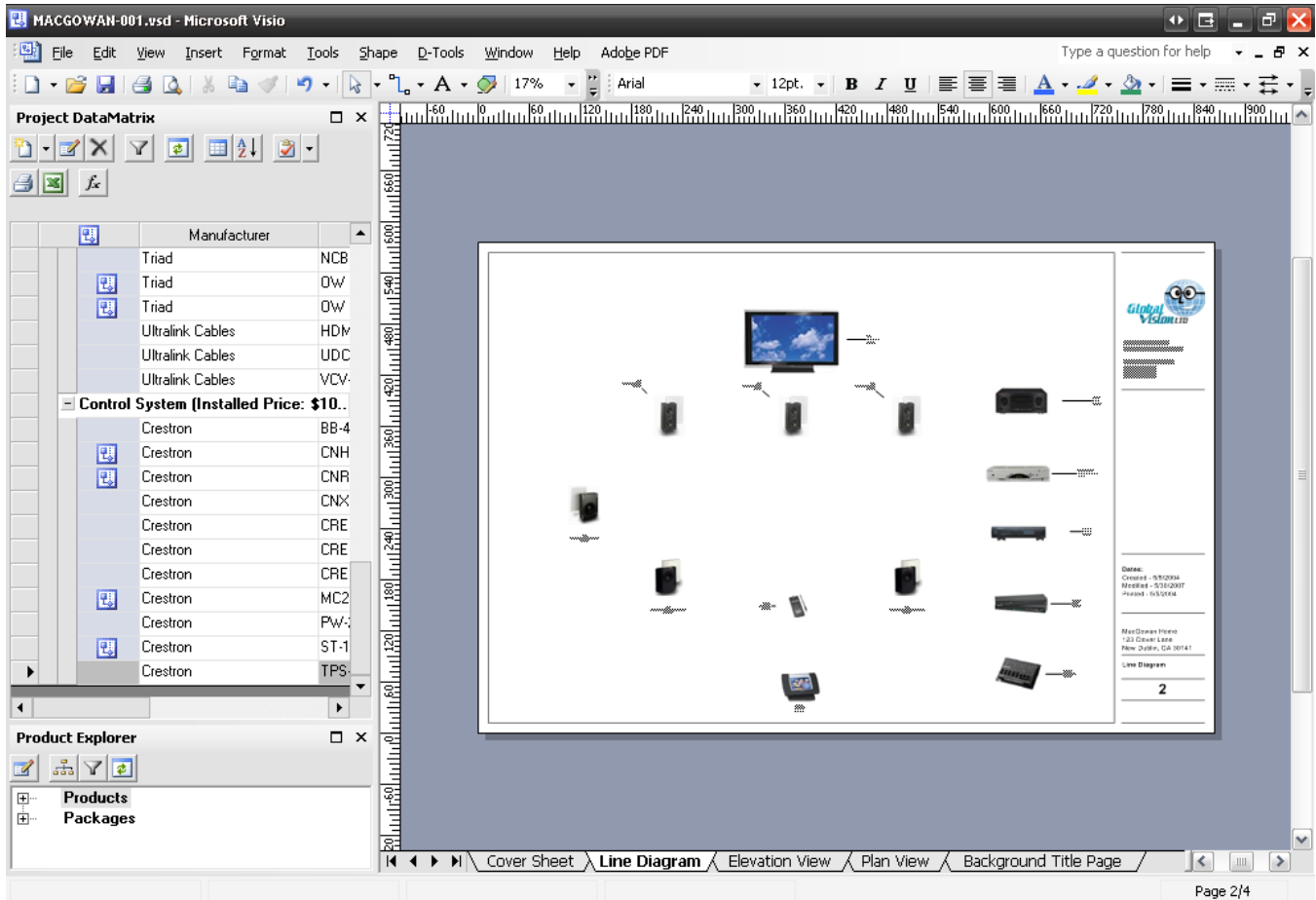


The default shape for this page type uses the .jpg image that can be associated with products. The Visio symbol next to the product in the PDM indicates that the product is on the page:

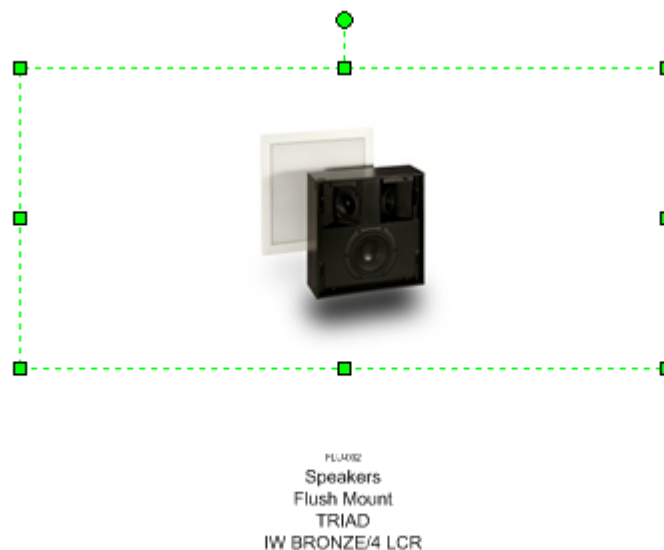


34 The Project

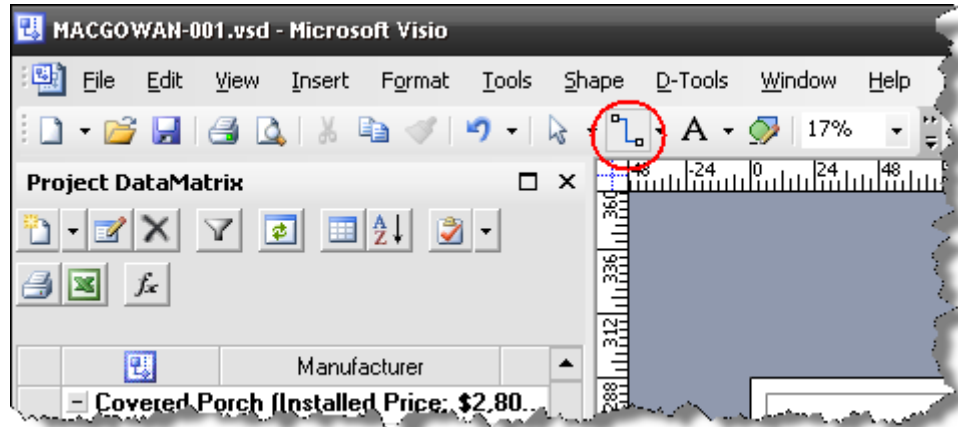
She continues dragging the Products to the page that she wants to show in this view:



Because this is a Line page type, she can resize these shapes by dragging the selection handles:



She then uses the Connector Tool in Visio to make the connections between products:



Tip: The cursor displays like this



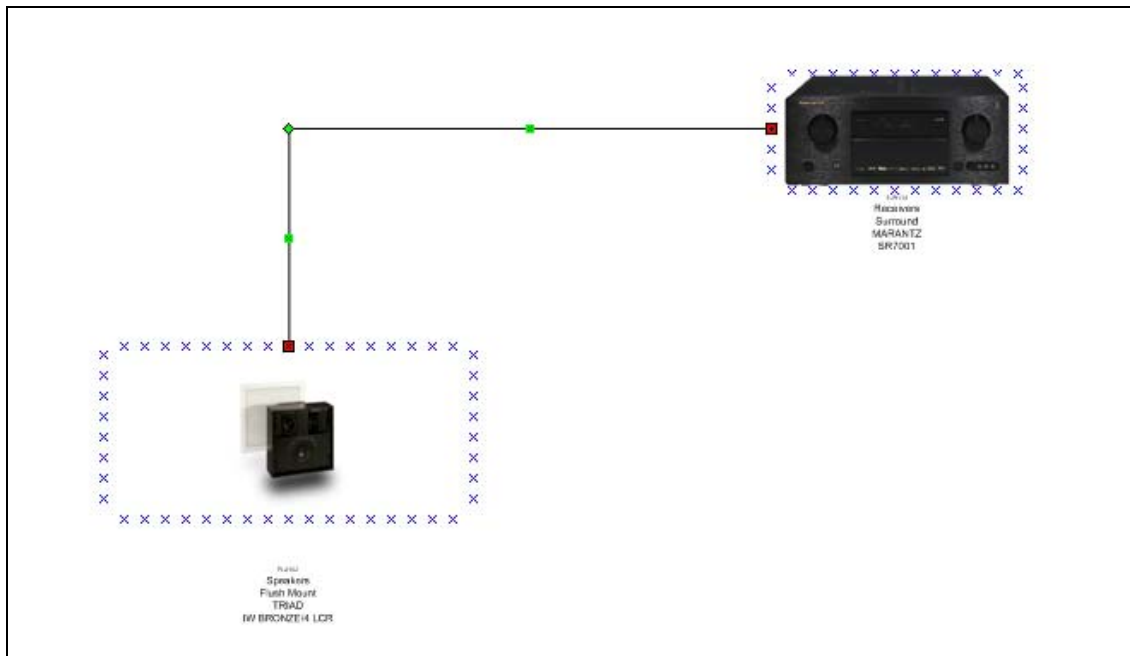
when you are using the Connector Tool.

When you move the cursor over a Connection Point on a shape, the point turns red:

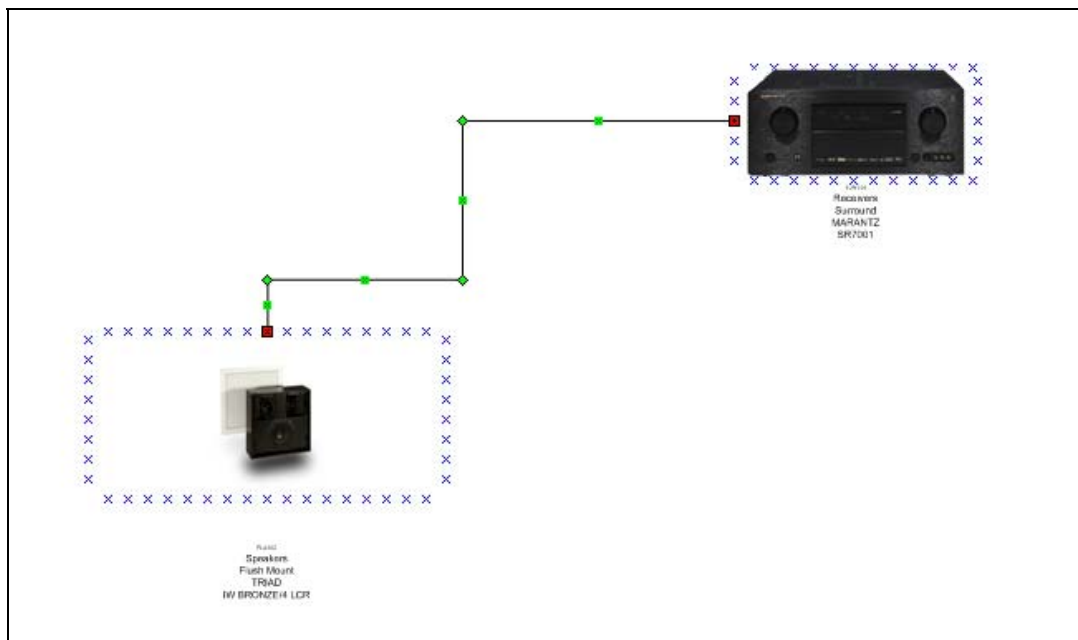


SA-10
Speakers
Surround
TRIAD
CW BRONZE SURROUND-BASIC

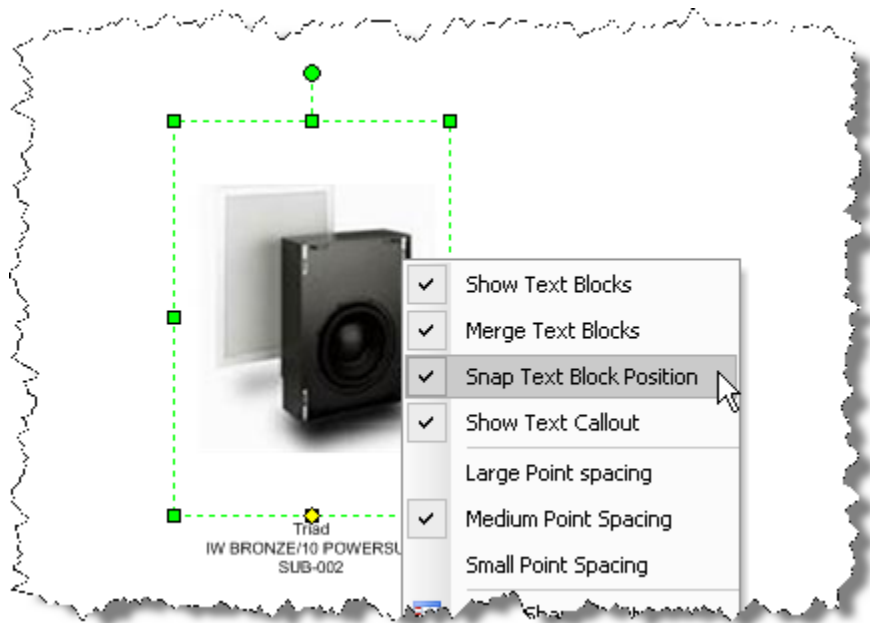
When the point turns red, left mouse click and hold, then move the cursor to a connection point on another shape until it turns red then release:



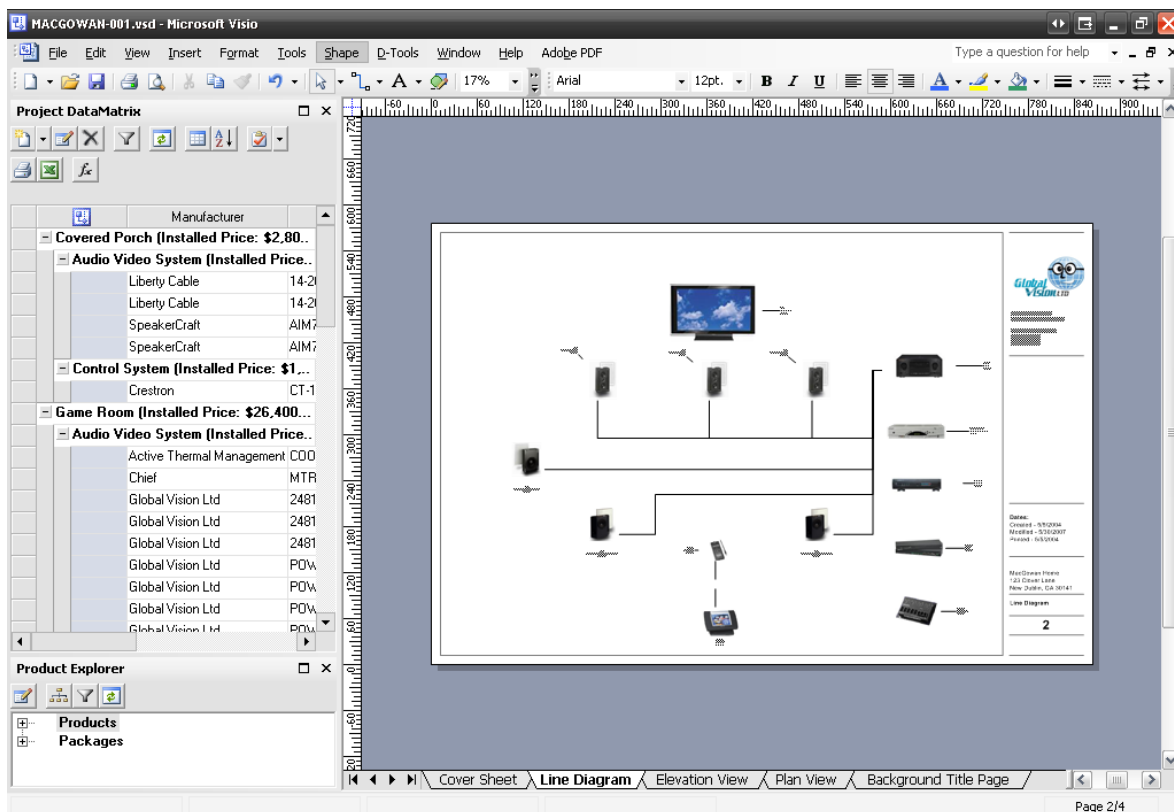
You can use the green handles on the line to reposition the line as desired:



To change the position of the text block, right click the shape and uncheck "Snap Text Block Position". Then use the yellow handle to position the text to your liking.

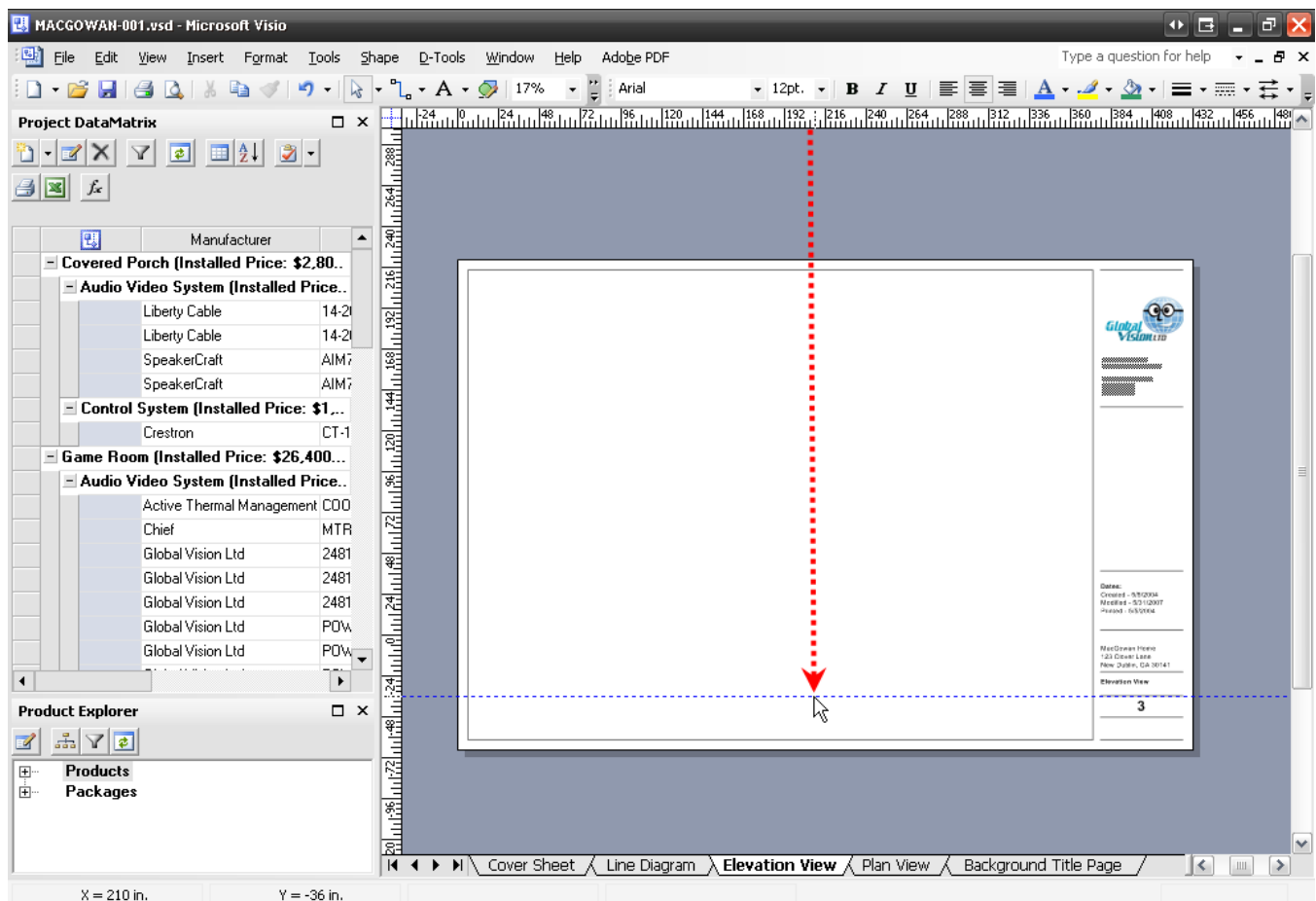
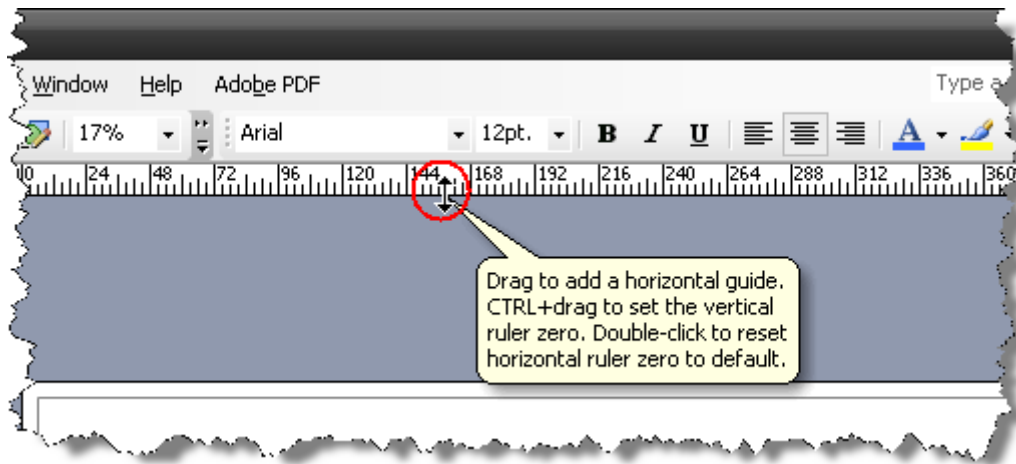


When finished, the drawing looks like this:

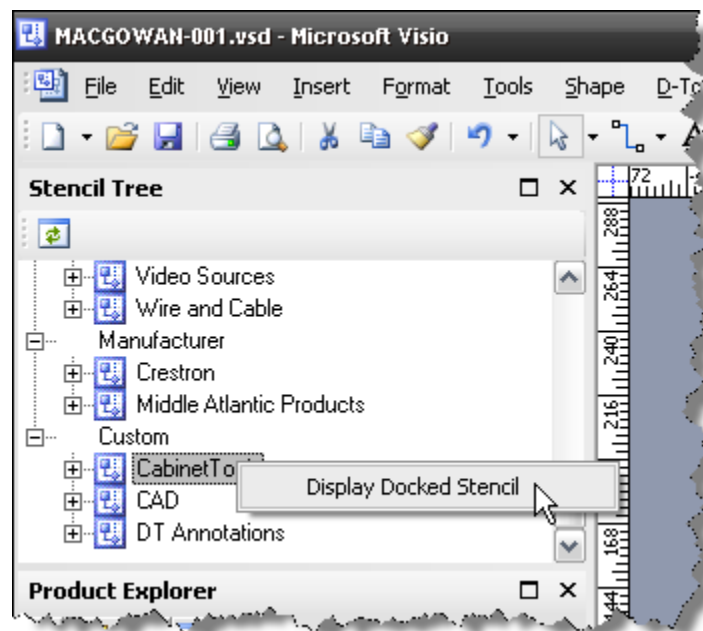


Laura then begins work on an Elevation view by clicking the Elevation tab. This system will be incorporated around an existing fireplace that houses a fish tank filled with many species of fish

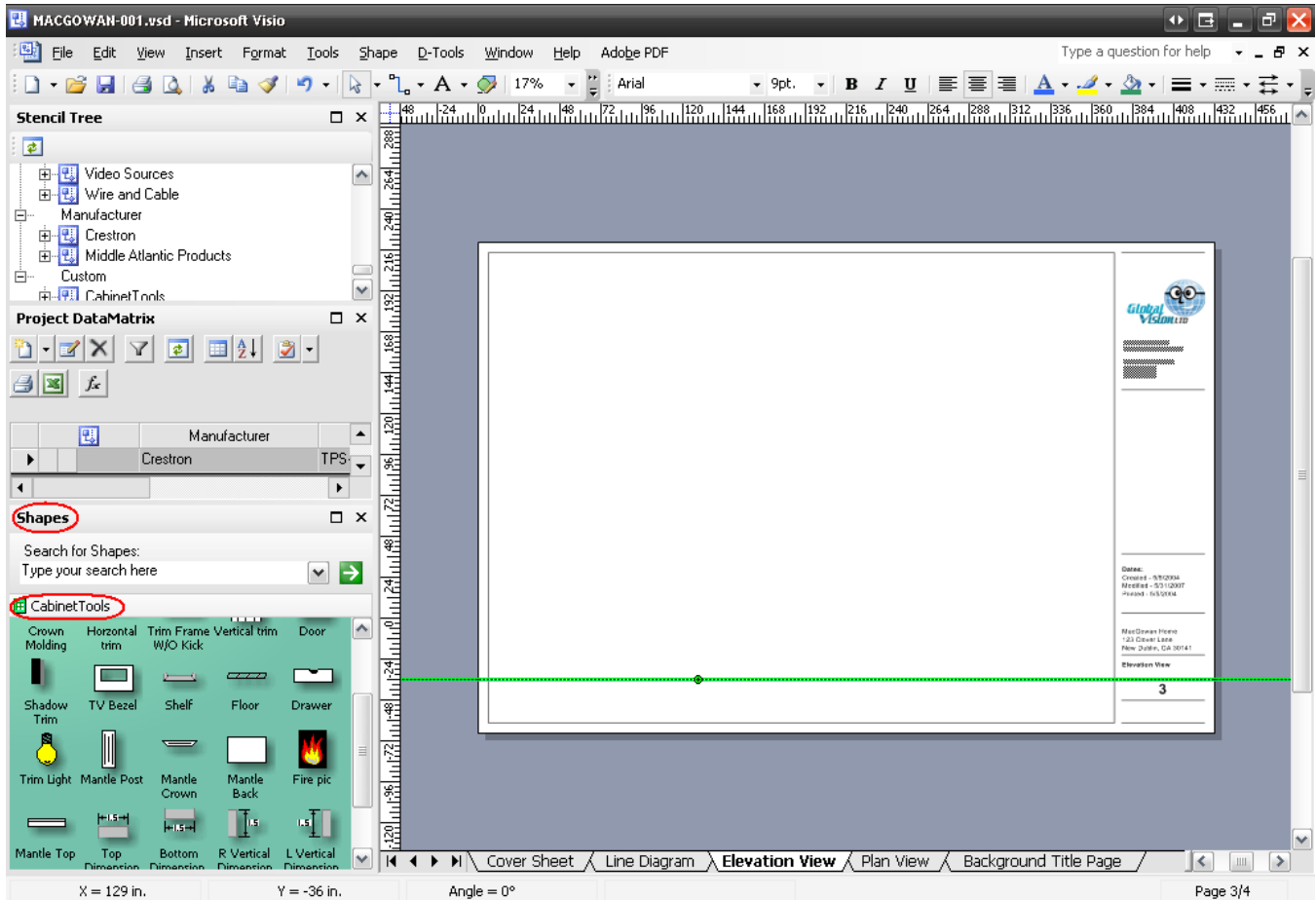
including a killer crayfish. How a crayfish lives in a saltwater tank is a mystery to scientists. Fortunately Franz took photos of the room while he was at the MacGowan's house so she has a basis for the drawing. She begins this drawing by dragging a guideline down from the ruler to the page to help line up shapes. To do this, left-click and drag when the cursor turns into a double arrow:



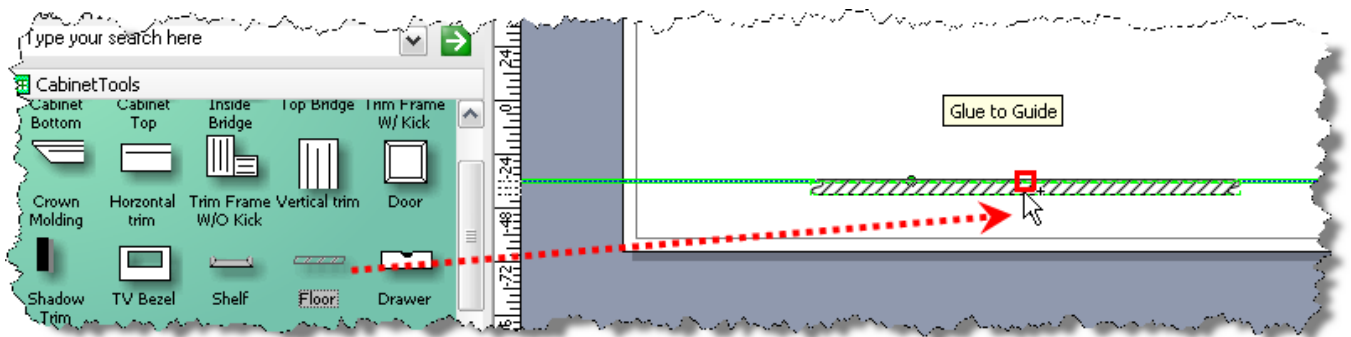
She then right-clicks the Cabinet Tools stencil in the Stencil Tree and selects “Display Docked Stencil”.



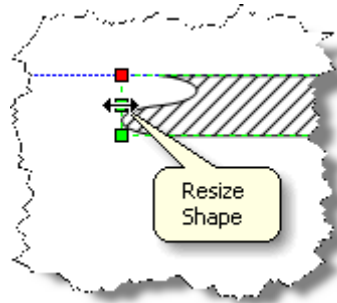
The shapes in the Cabinet Tools stencil are displayed in the Shapes window:



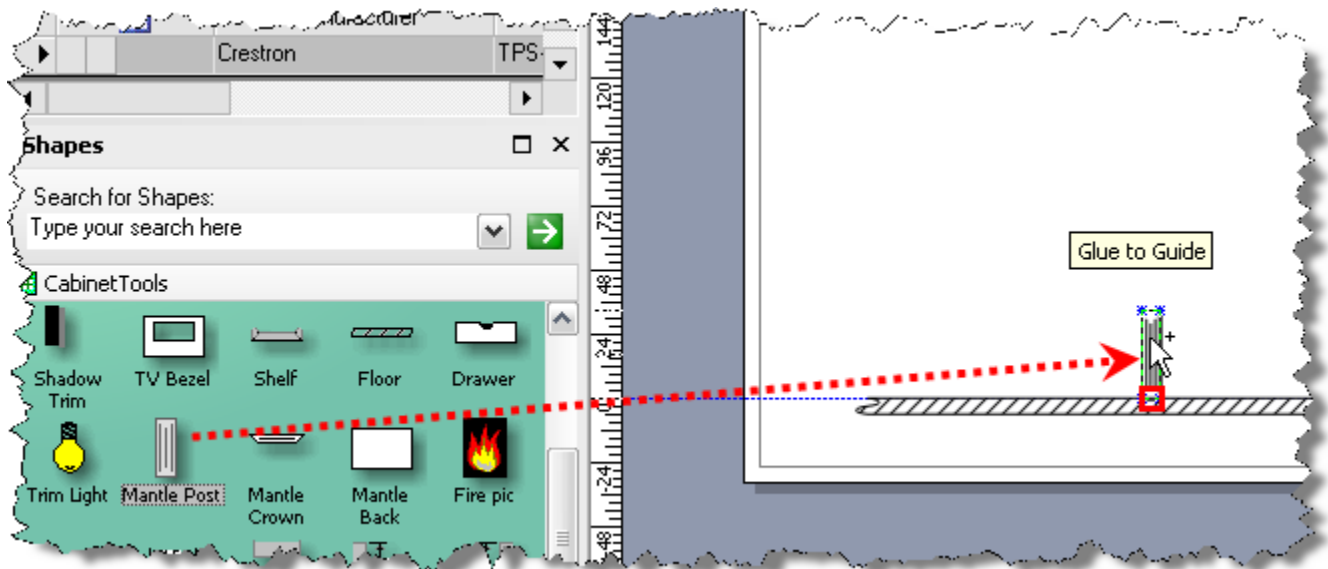
She then drags the Floor shape from the stencil to the drawing page:



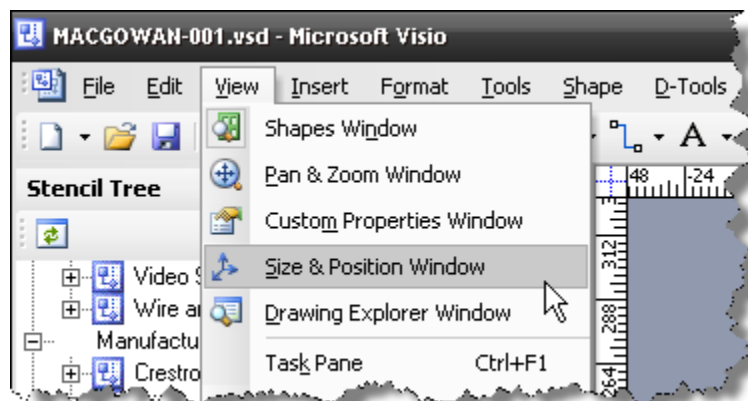
The Floor shape is resized using the handles on either end of the shape:



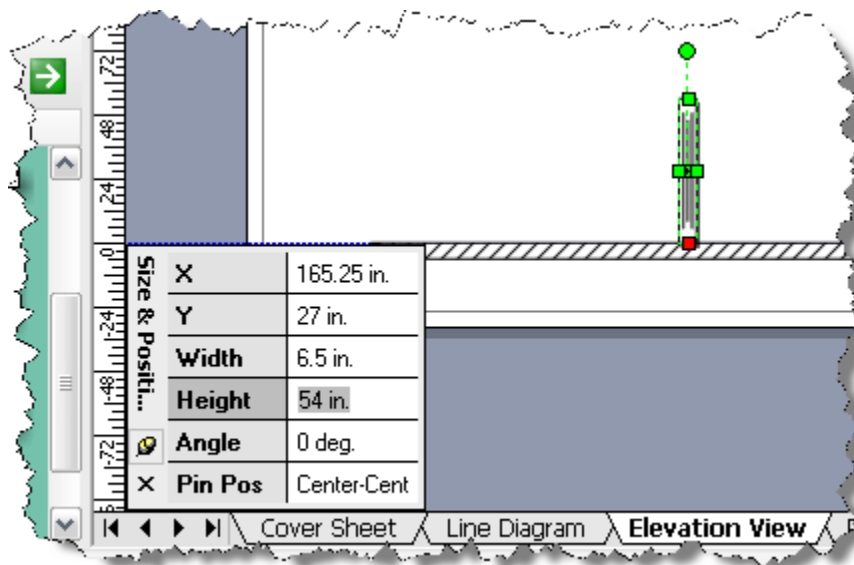
The next things that she lays out are the fireplace and existing cabinetry in the room. She begins by dragging out the Mantle Post shape to the page:



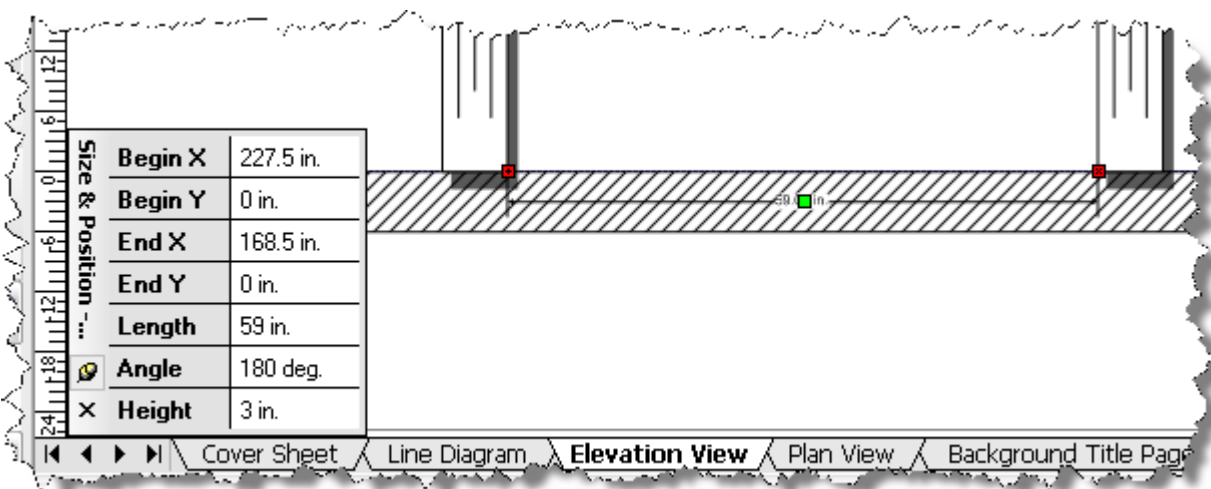
To make sure that the mantle is the proper size, she selects View->Size & Position Window:



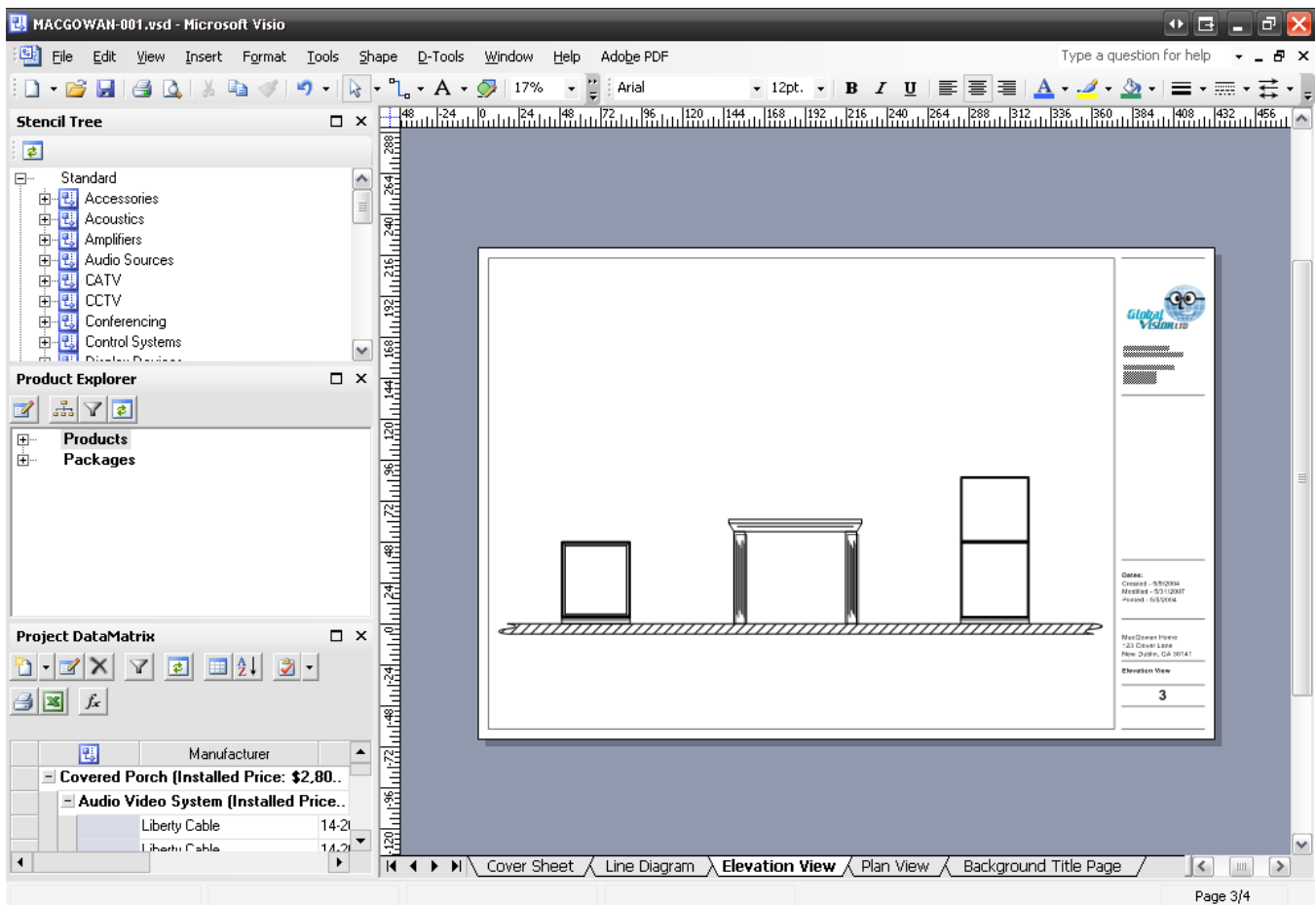
With the shape selected, she then enters in the proper height in the “Height” field of the Size & Position Window:



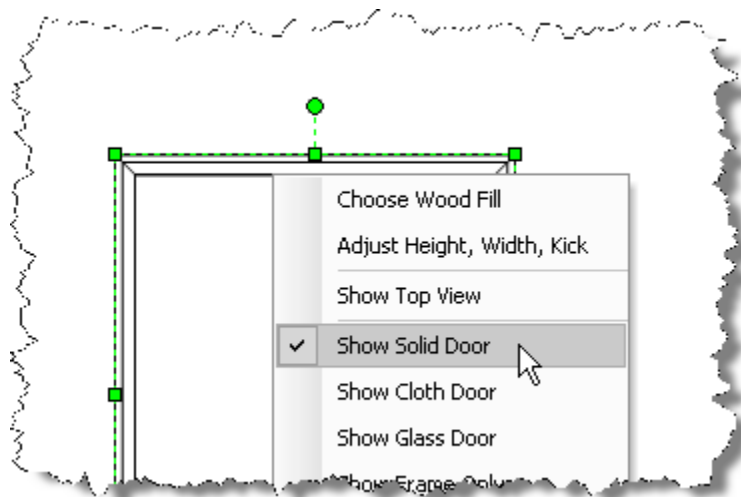
She then copies and pastes the shape to represent the other side of the mantle. To assure a proper distance between the mantle posts she drags the Bottom Dimension shape to the page. She types in the dimension in the Size & Position Window and snaps the Bottom Dimension shape to one Mantle Post shape then moves the second Mantle Post into position:



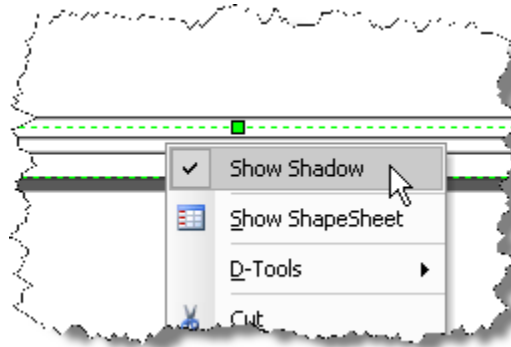
Once positioned correctly, she deletes the Bottom Dimension shape from the page. She continues to drag shapes from the Cabinet Tools stencil to complete the fireplace and cabinets:



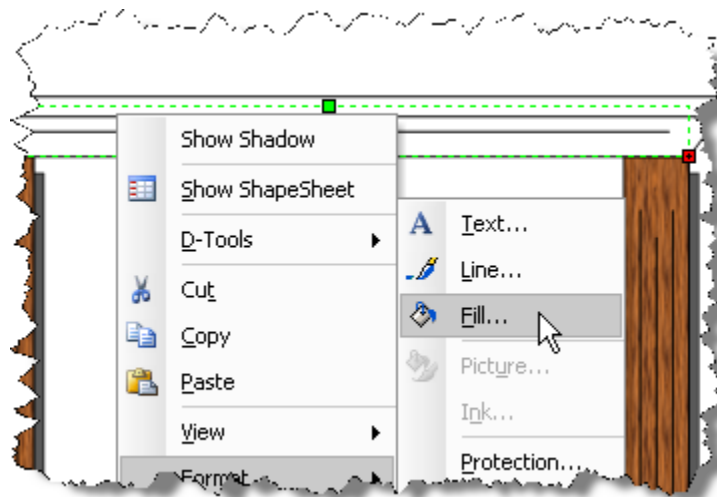
She keeps the cabinet bottom on the right open to show where the rack will go and adds a door to the cabinet on the left by right-clicking the shape and selecting "Show Solid Door":



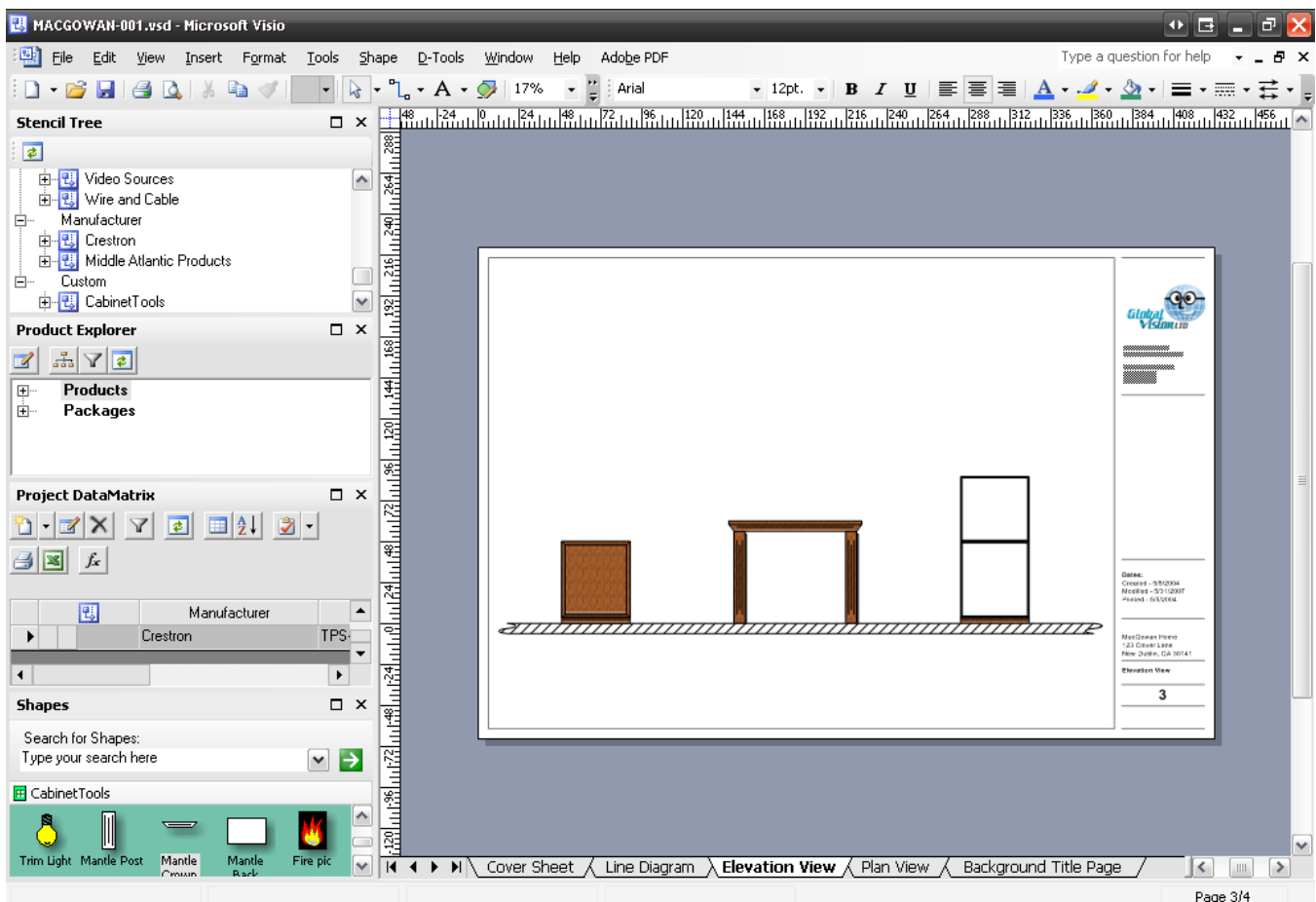
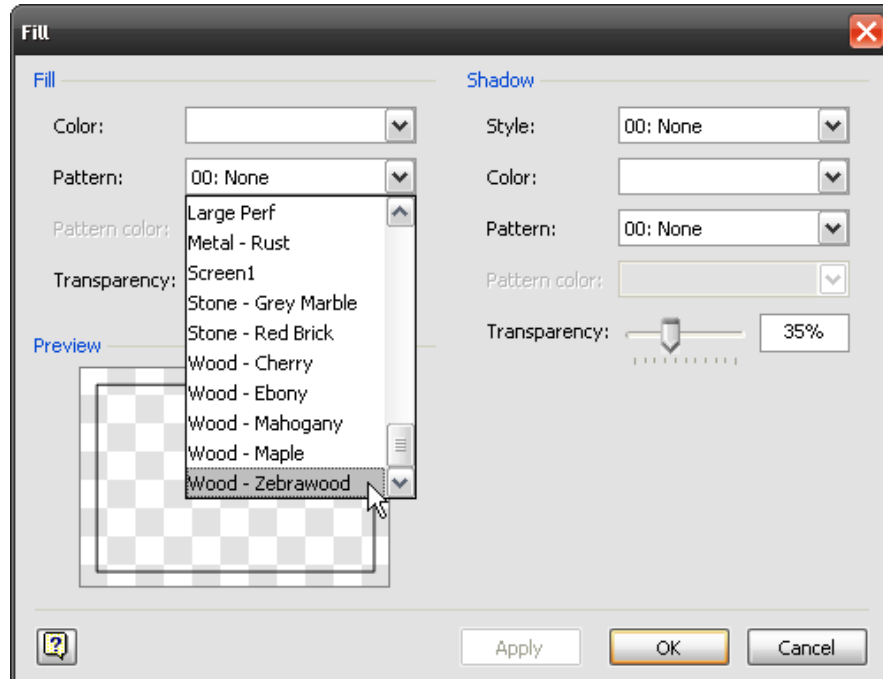
To remove the shadow from a shape, right-click and uncheck "Show Shadow":



To fill in the color for the cabinets, she selects each shape then right-clicks and selects Format->Fill:

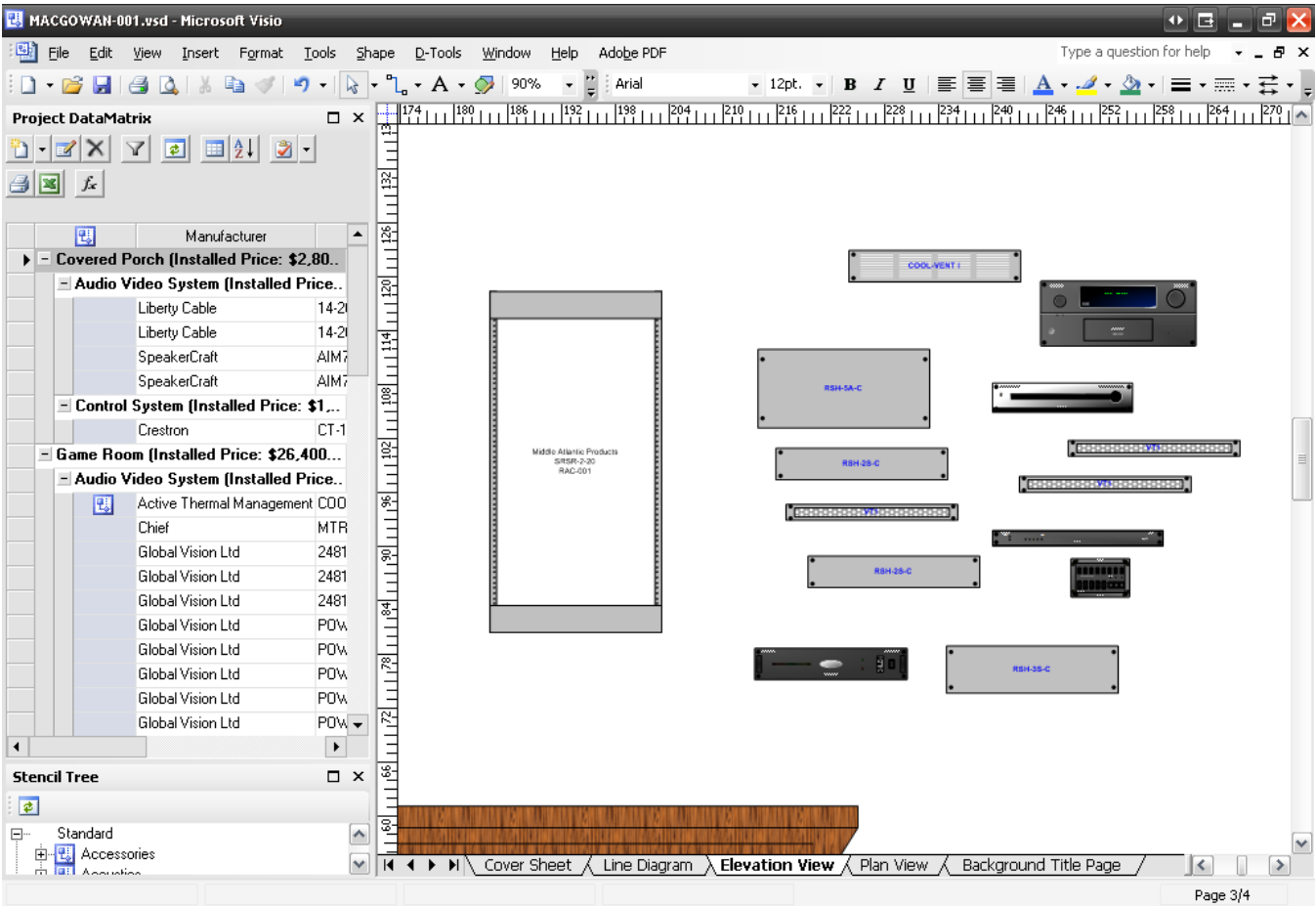


She then selects “Wood – Zebrawood” from the “Pattern” dropdown:

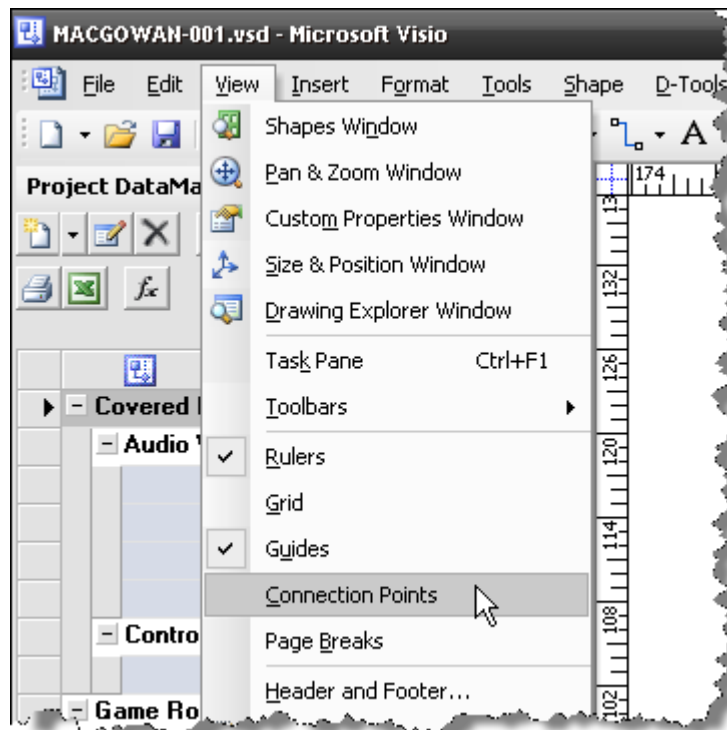


46 The Project

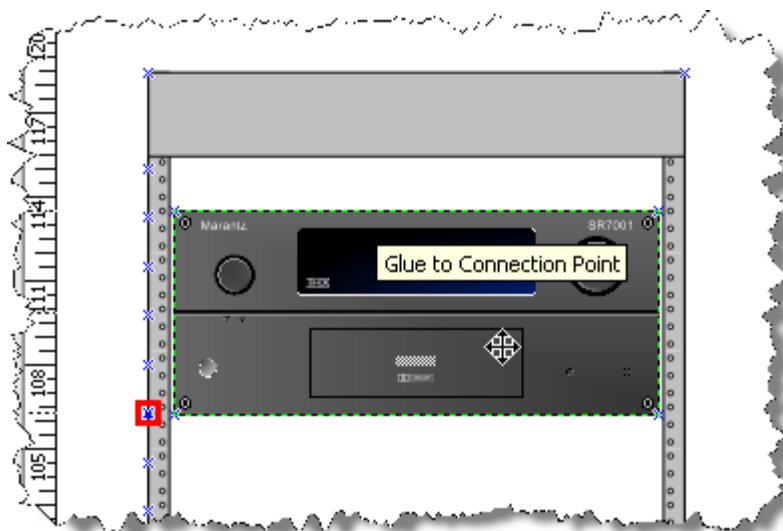
She then begins work on building the rack. She begins by dragging over the rack and rack components from the PDM to the drawing page:



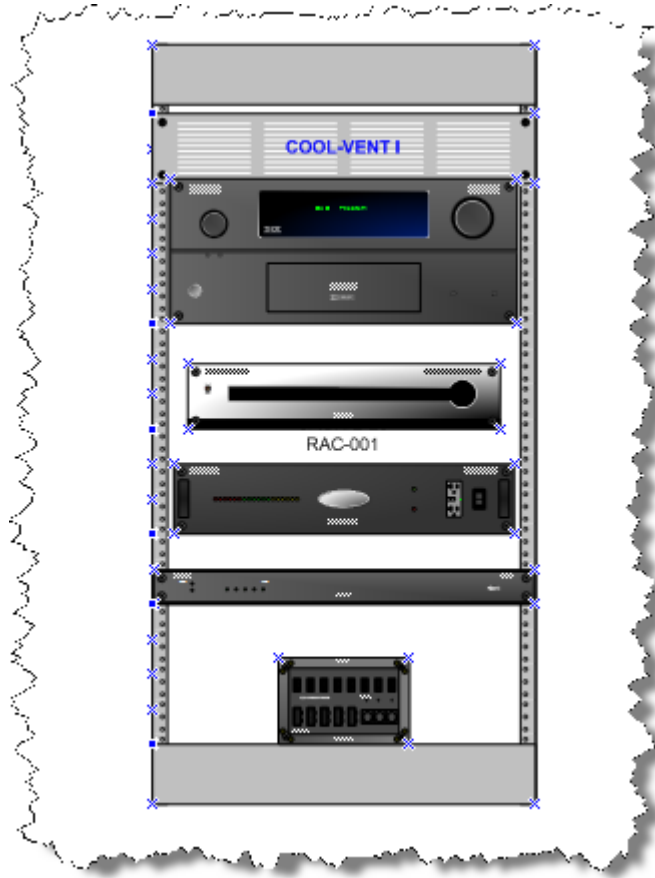
She begins assembling the rack by first positioning the electronics. Each elevation shape has a connection point for snapping to the connection points on the rack which are spaced out at 1.75" intervals. To see the connection points she selects View->Connection Points:



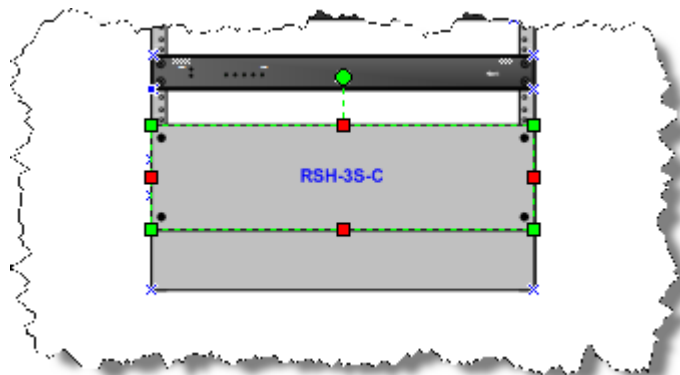
A red box indicates when two connection points are connected:



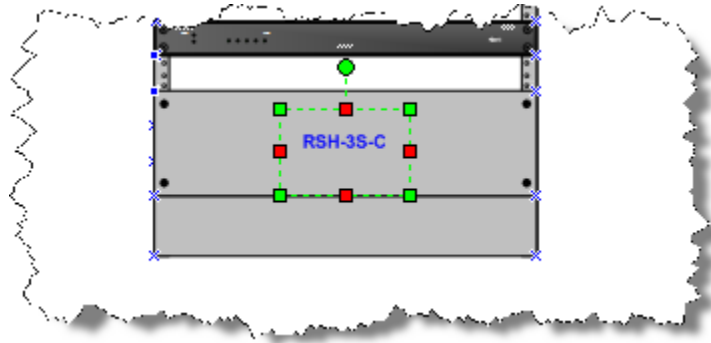
She continues positioning the electronic components including the vent at the top of the rack:



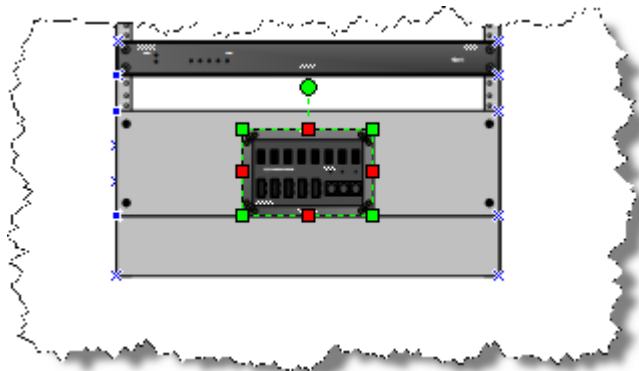
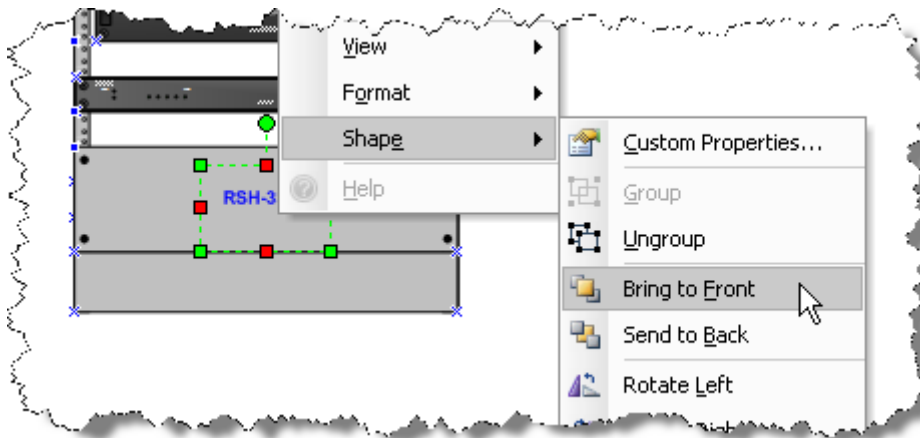
Next she drags over the rack shelves and positions them around the components. When a shape covers another shape, she uses the Visio "Bring to Front" and "Send to Back" commands. Clicking once selects the foreground shape:



She pauses then clicks in the center of the shape to select the shape behind the shelf:

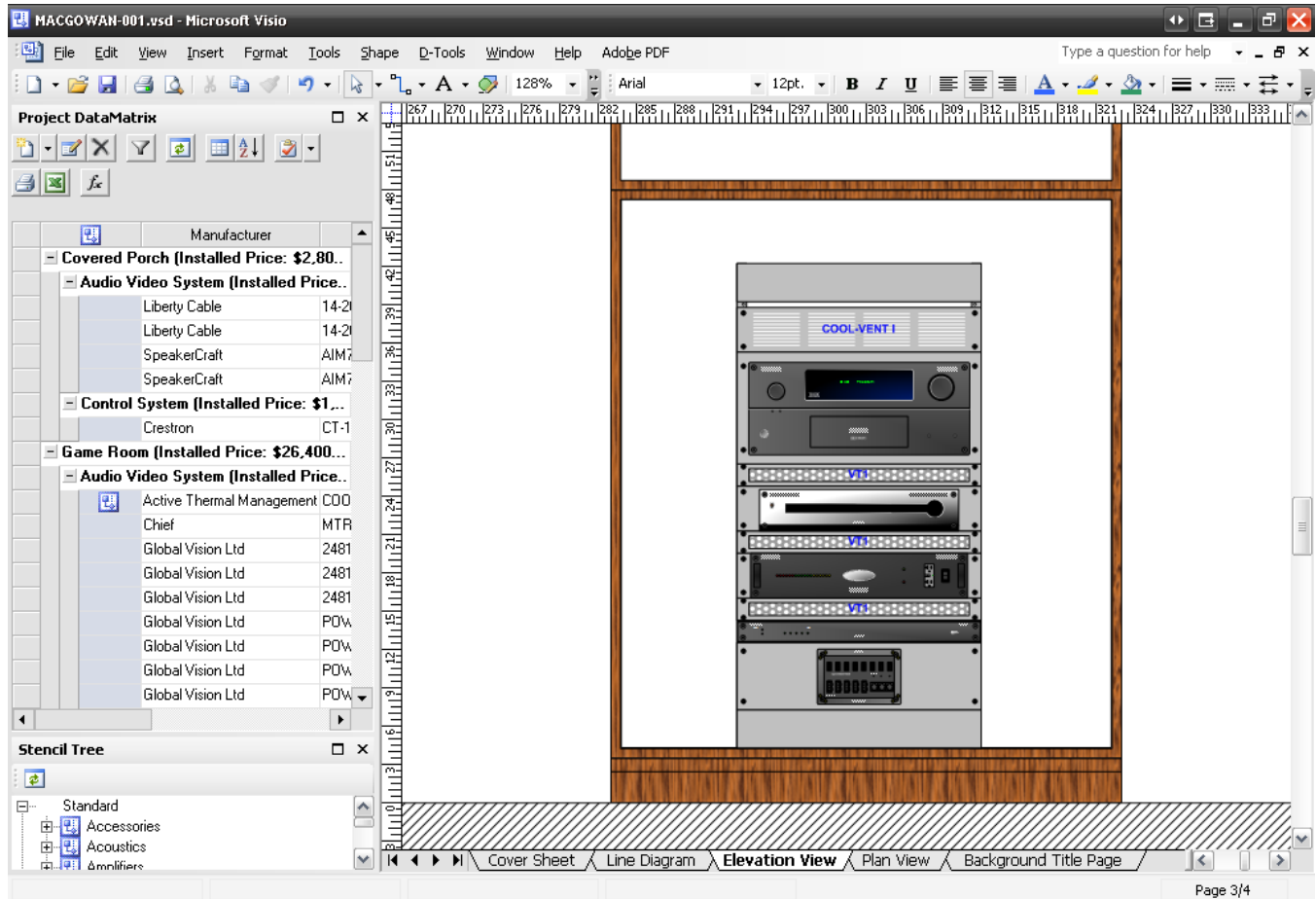


She then right-clicks and selects Shape->Bring to Front:

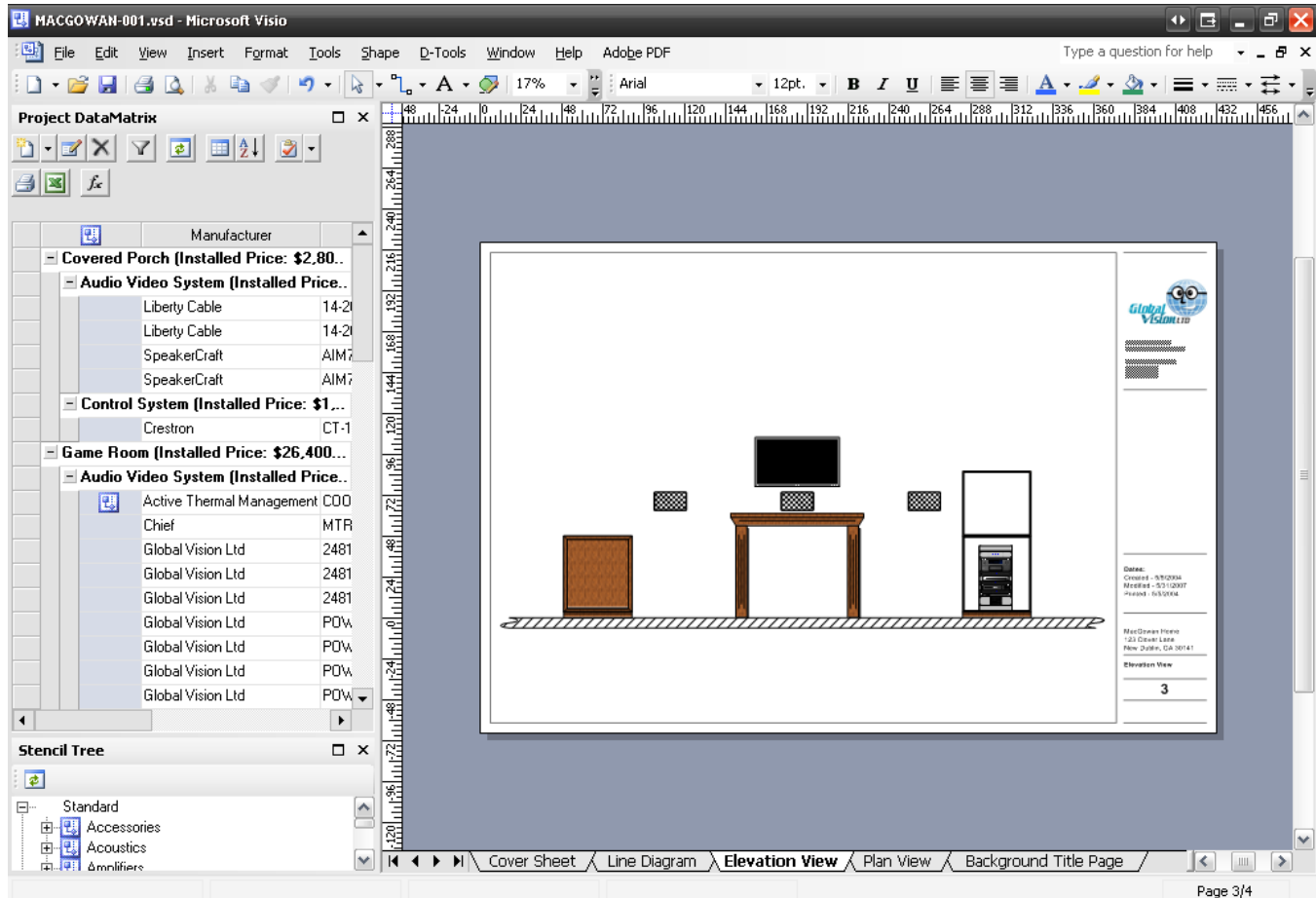


50 The Project

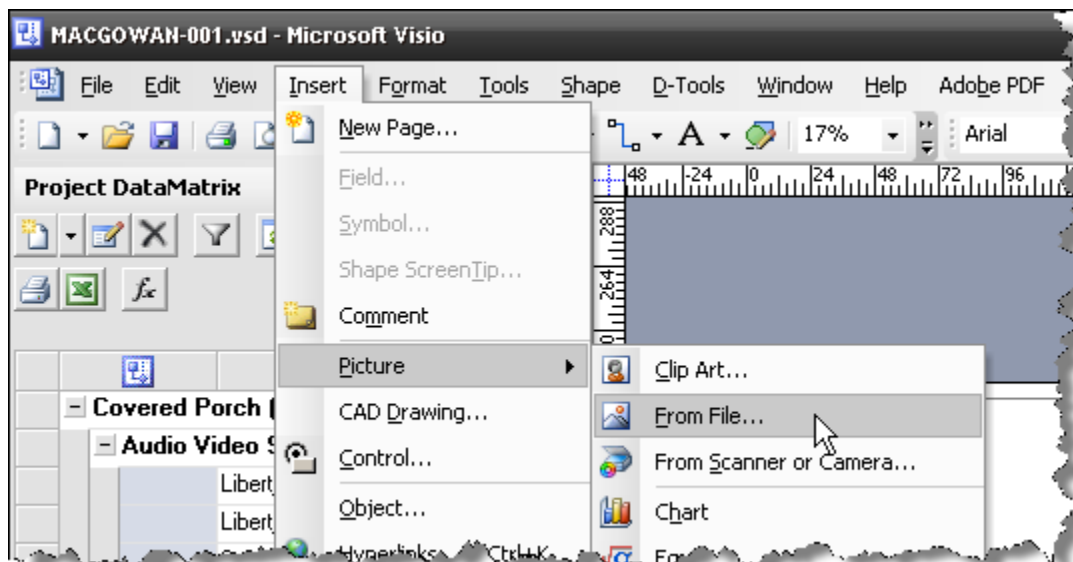
When finished, she selects all of the rack shapes and moves them to the cabinet shape:



She then drags over the plasma and front speakers and positions them:

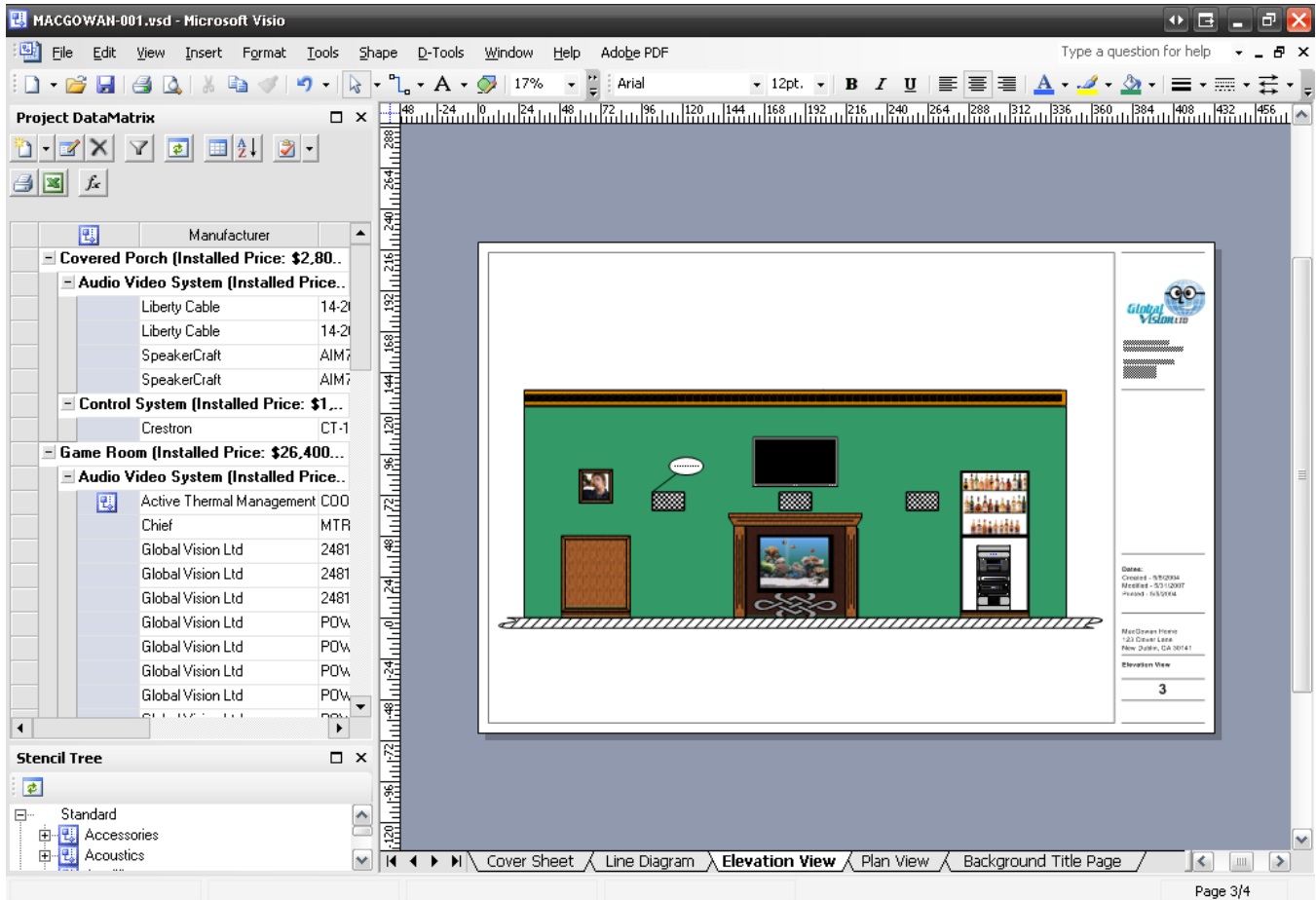


The final touches are added to the drawing. She uses the Insert->Picture->From file... command to add some images to personalize the drawing for the client:



52 The Project

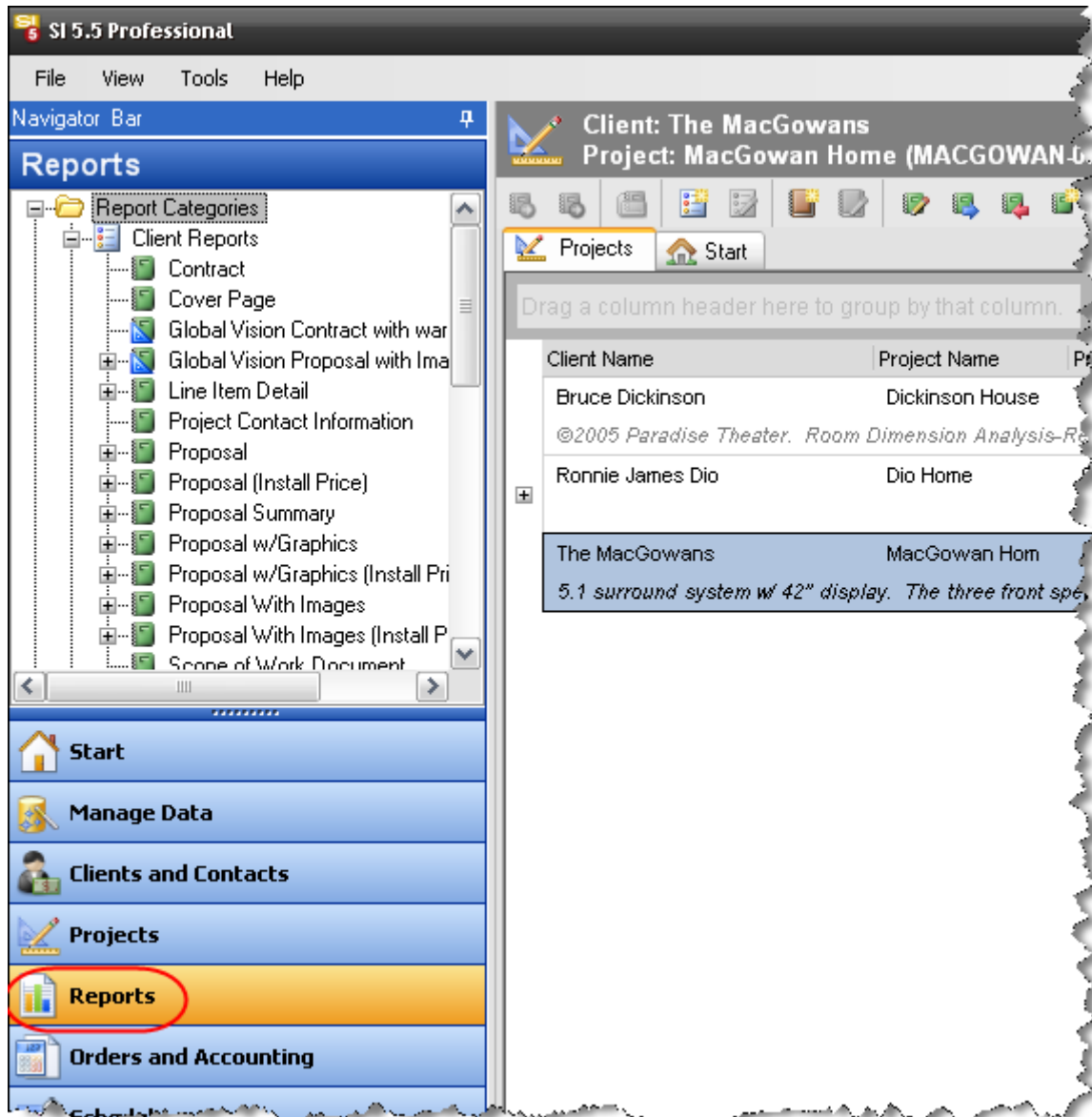
When finished, the elevation drawing looks like this:



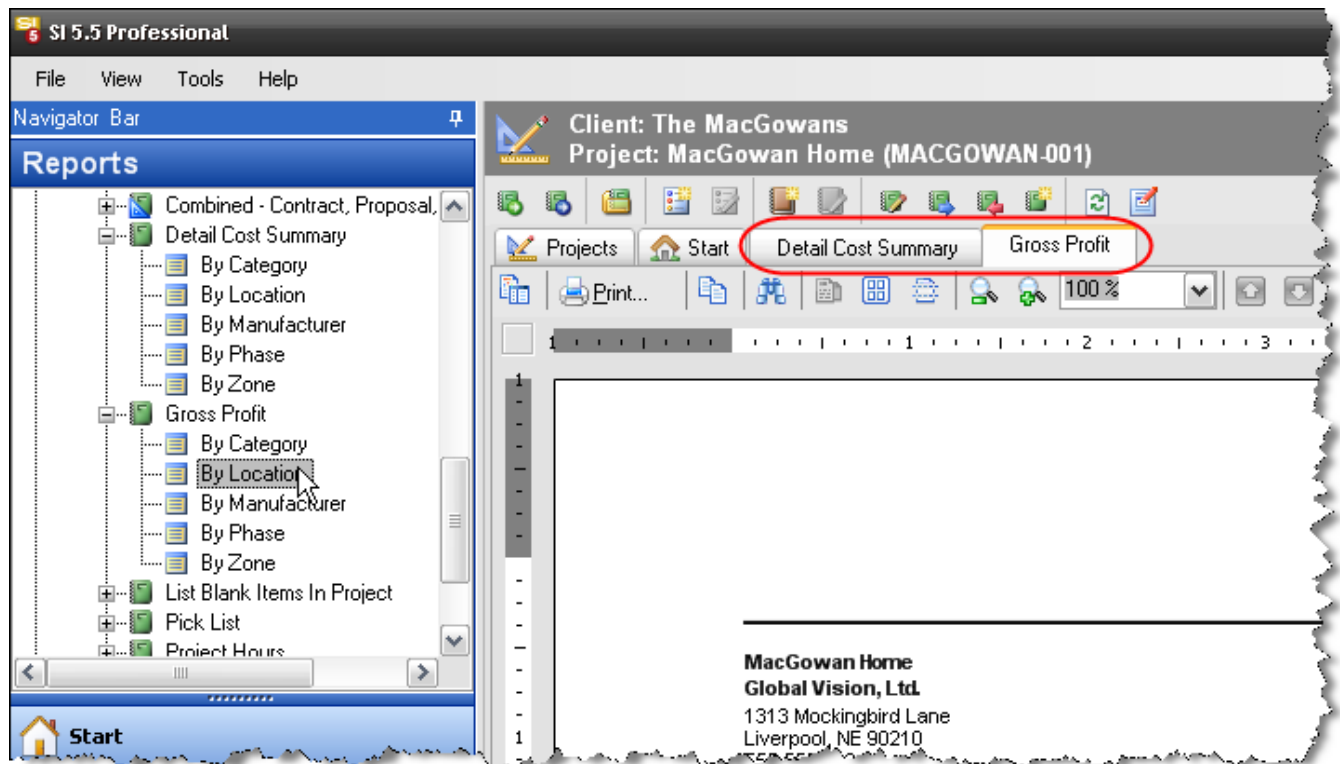
Laura then saves, closes, and Checks in the project.


Internal Approval

Dave then opens SI 5 on his machine and logs in with his license. He clicks the Reports tab then selects the project in the Grid:



The reports he generates are the Detail Cost Summary and Gross Profit by Phase reports. To generate the reports, he selects the Project and then double clicks the report definition from the Report List. The reports display on separate tabs:



After reviewing, he clicks the **[Export To PDF]** () button and then emails these reports to Mike for approval. Mike is lounging on the beach in Hawaii but takes time to review these and sends back his word of approval.



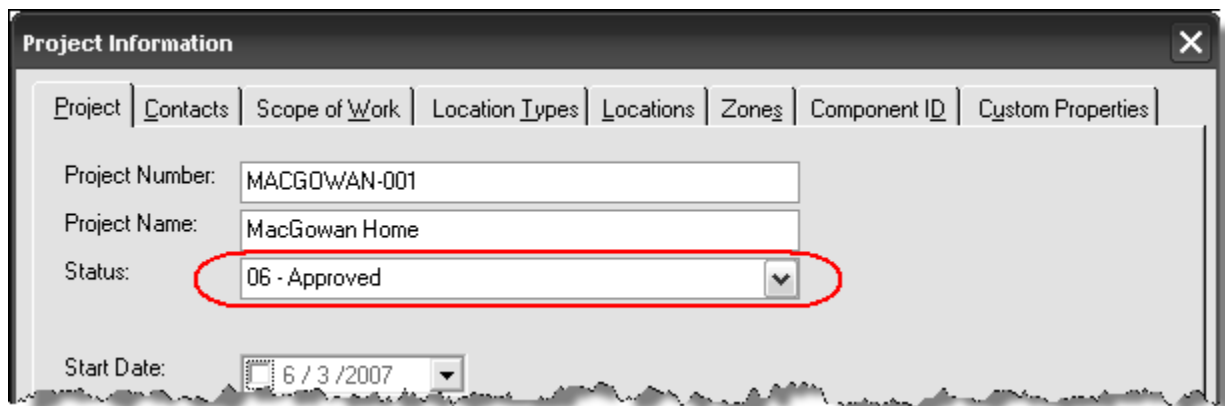
Dave then runs additional reports that will be presented to the client: Proposal, Contract, Cover Page, and Scope of Work. In addition to these reports, he prints the Line and Elevation pages created by Laura.

Client Approval

Franz then meets with the client to present the Proposal and drawings. The MacGowans are beside themselves and sign off on the Project. While there, he takes even more photos of the MacGowan home to assist Laura in the design and engineering of the project.

Accounting

Dave opens SI 5 and opens the Project. He selects D-Tools->Project Information and changes the status to "06 – Approved":

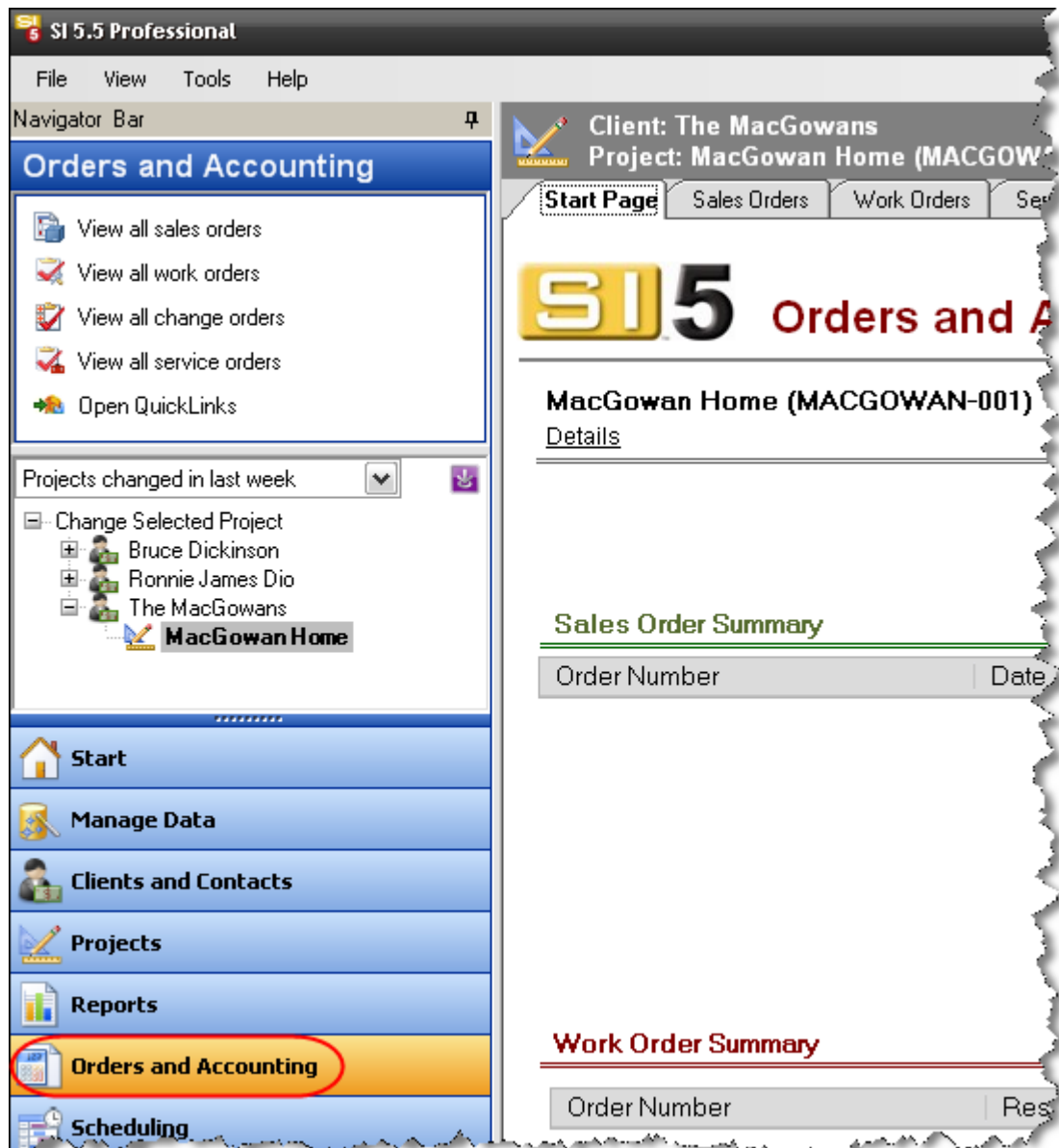


The screenshot shows the "Project Information" dialog box with the following fields:

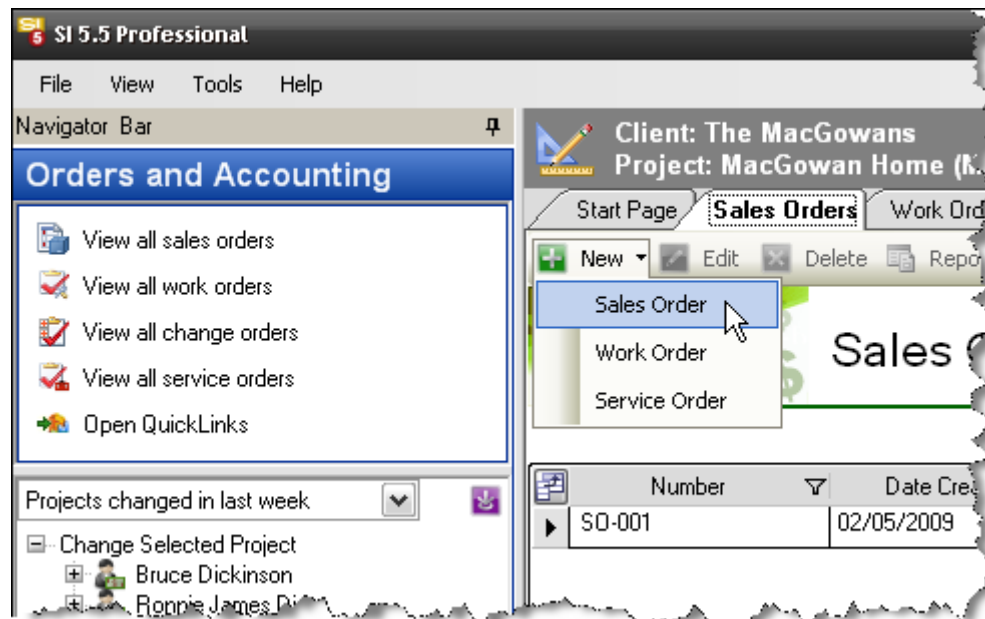
- Project Number: MACGOWAN-001
- Project Name: MacGowan Home
- Status: 06 - Approved (circled in red)
- Start Date: 6 / 3 / 2007

The dialog box has tabs for Project, Contacts, Scope of Work, Location Types, Locations, Zones, Component ID, and Custom Properties. The Status field is a dropdown menu.

He then saves, closes, and checks in the project. Dave then creates a Sales Order for the project that will be used to transfer an estimate over to QuickBooks. With the project still selected on the Projects tab he clicks the Order and Accounting tab:



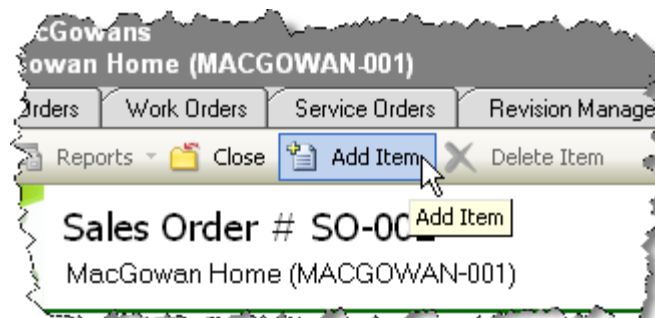
He clicks the Sales Orders tab and then clicks **[New]** -> SalesOrder:



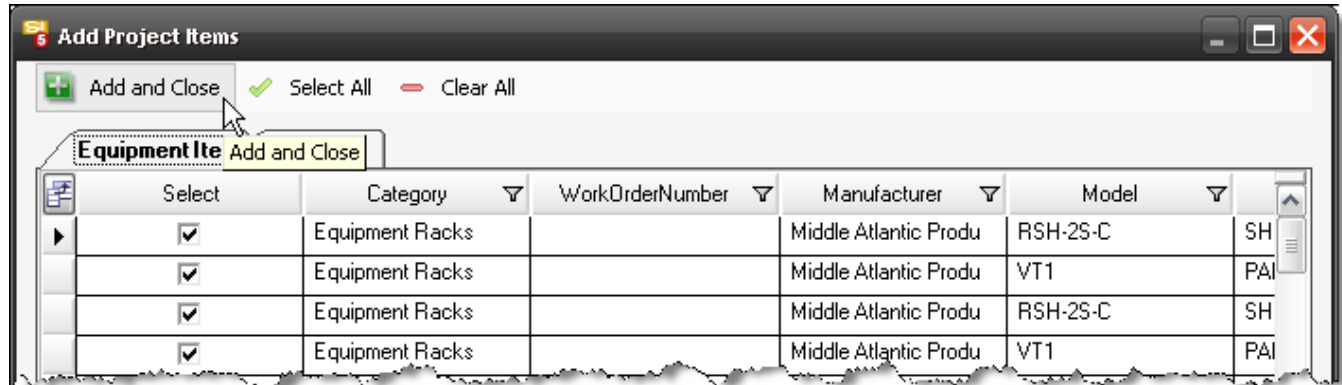
A new tab is created for the Sales Order:



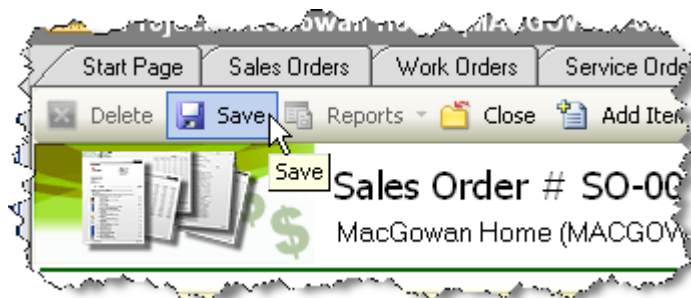
Dave then clicks **[Add Item]**:



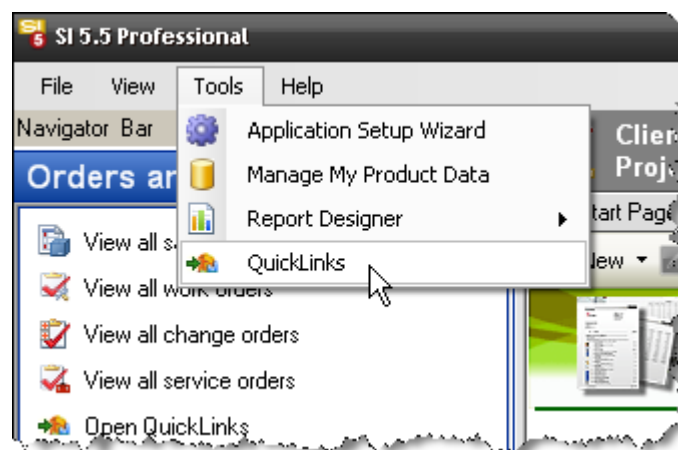
He chooses to select all of the products then clicks **[Add and Close]**:



He then Saves the Sales Order:



After creating the SO, it is time to push the SO over to QuickBooks as an Estimate via the LinkTools – QuickBooks (also known as QuickLinks) interface. Although not necessary, he opens QuickBooks on his machine so the process will move quicker. In the Navigator he selects Tools->QuickLinks:



The D-Tools QuickLinks form opens. Since he wants to create an estimate, he selects "Estimate" from the View dropdown and then clicks **[New]**:

He then selects the proper Sales Order and clicks **[OK]**:

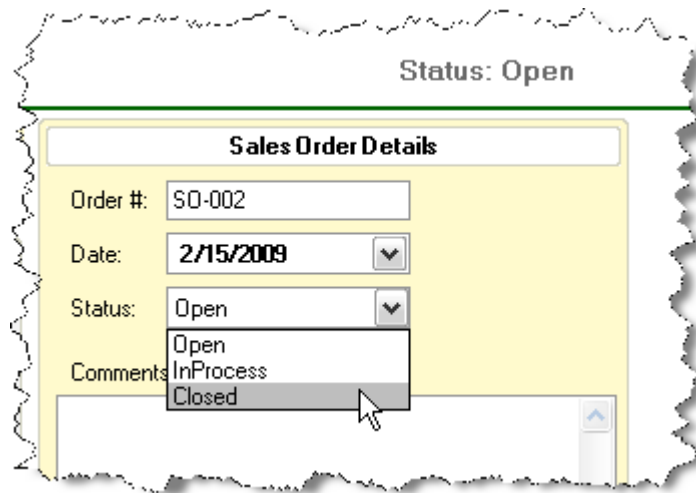
SO #	Date	Status	Project Name
SO-002	2/15/2009	Open	MacGowan Home
SO-001	2/5/2009	Open	Dickinson House

The QuickLinks Estimate form opens. He assigns the Customer:Job and adds all of the products from the Sales Order to the Estimate. All of these products have been sold by them before and are therefore linked to QuickBooks items. He clicks **[Save]** to transfer the estimate over to QuickBooks:

Category	Manufacturer	Model	Item	Description	Quantity	Cost	Amount	Markup	Total	Tax
Accessories	Crestron	BB-4L	CRESTRON:B..	Back Box for I..	1	\$60.00	\$60.00	40.5	\$100.50	Tax
Accessories	Crestron	CNXRMAK	CRESTRON:C..	Rack Mount Ki..	1	\$90.00	\$90.00	60.75	\$150.75	Tax

Once the estimate is transferred to QuickBooks, he emails Marge to inform her of the transaction. Since all of the products were added to the Sales Order, he wants to change the status of the Sales Order to "Closed". He clicks the Orders and Accounting tab->Sales Order tab and double-clicks the

Sales Order to open it. He then uses the dropdown to change the status and then saves the Sales Order:



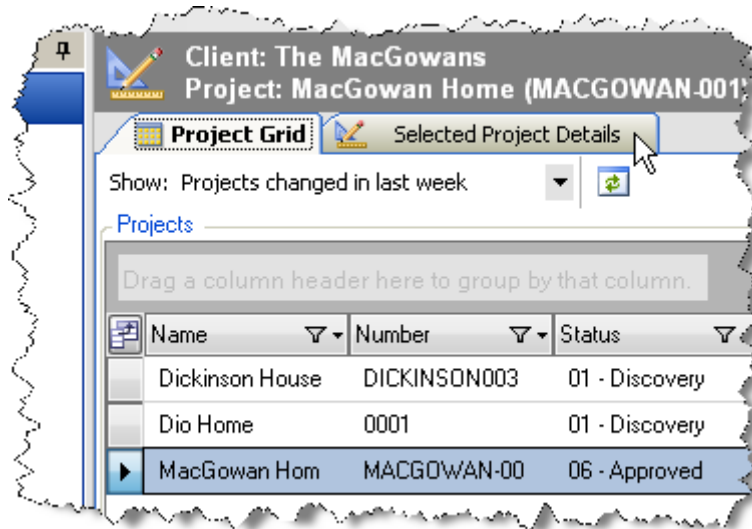
The image shows a screenshot of a web application interface for a 'Sales Order Details' form. At the top, there is a status indicator that reads 'Status: Open'. Below this, the form is titled 'Sales Order Details' and contains several input fields: 'Order #' with the value 'SO-002', 'Date' with the value '2/15/2009', and 'Status' with the value 'Open'. A dropdown menu is open for the 'Status' field, showing three options: 'Open', 'InProgress', and 'Closed'. A mouse cursor is pointing at the 'Closed' option. There is also a 'Comments' field which is currently empty. The form has a yellow background and a green border.

Since the Estimate is over in QuickBooks, Marge does not even need to interact with SI 5. She opens QuickBooks on her machine and reviews the Estimate before creating Invoices and Purchase Orders.

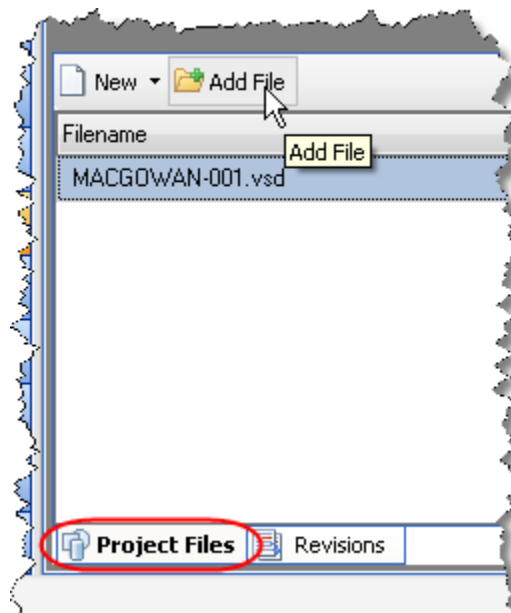
Plan and Schematic Drawings

Meanwhile, Franz has been in communication with the architect, Irene Drawthings, who designed the MacGowan's house. She does not want to provide the .dwg file since it is her intellectual property but would be happy to provide a printed copy of the plans. After explaining that they just want the two rooms that they working on, the architect agrees to give them a partial floor plan and an elevation in .dwg format. Franz sent Irene a handy .pdf file (that he downloaded from the D-Tools forum <http://www.d-tools.us/showthread.php?t=1041>) detailing the commands that must be run on the file in order to import into Visio. At first she did not want to spend the two minutes required to run these commands but a phone call from an angry Mrs. MacGowan helped.

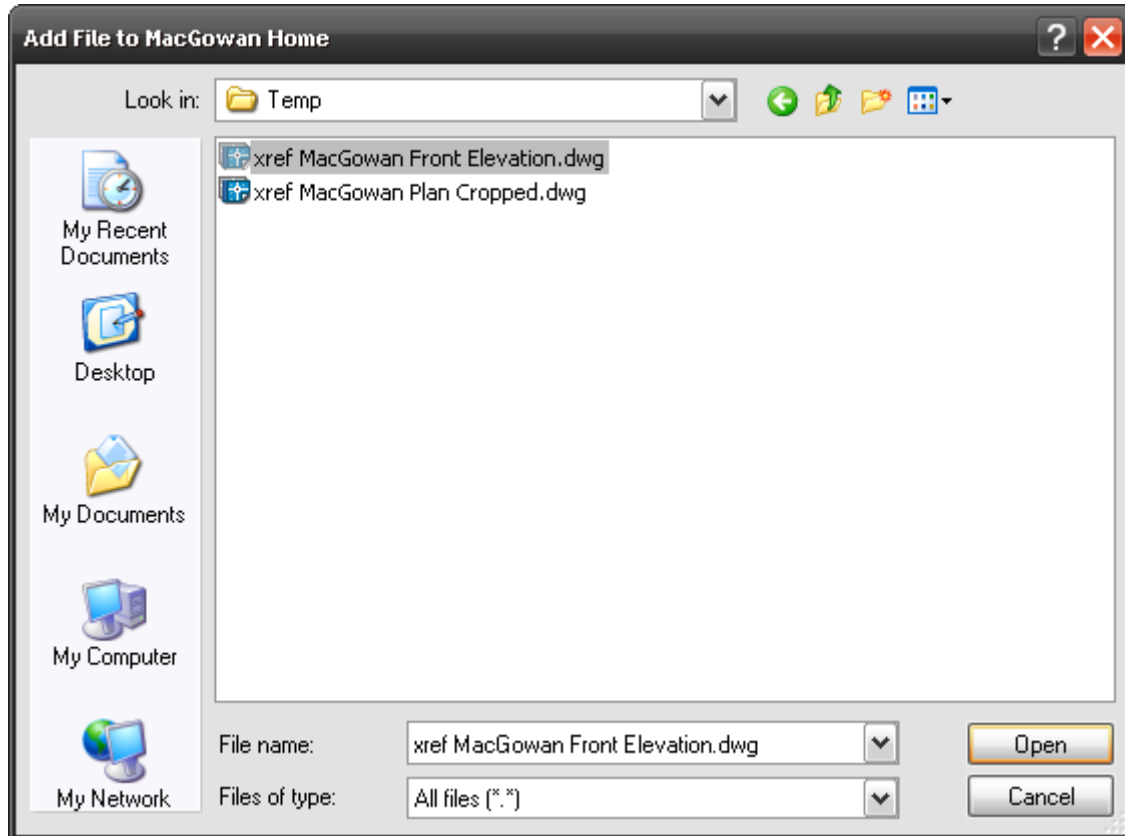
Once he receives the email with the .dwg files, he downloads them to his machine and renames them. Since these are not actual SI 5 project files, they do not name these files with the project number as they do for SI 5 project files. To keep all files together he launches SI 5 and then clicks the Projects tab. He selects the project in the Project Grid and then clicks the Selected Project Details tab:



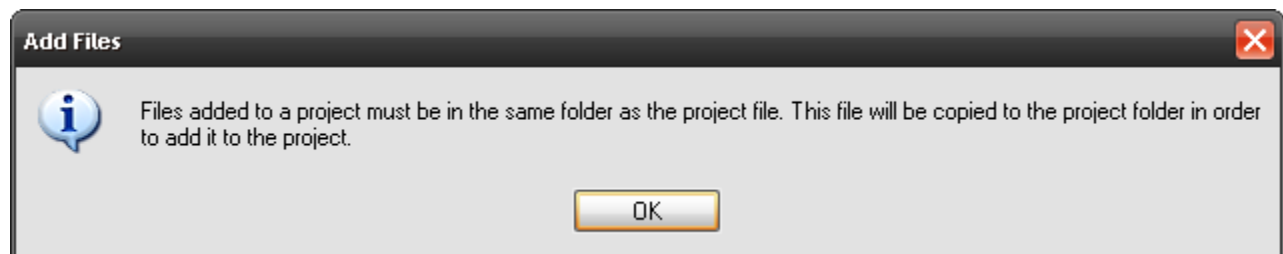
He then clicks the **[Add File]** button:



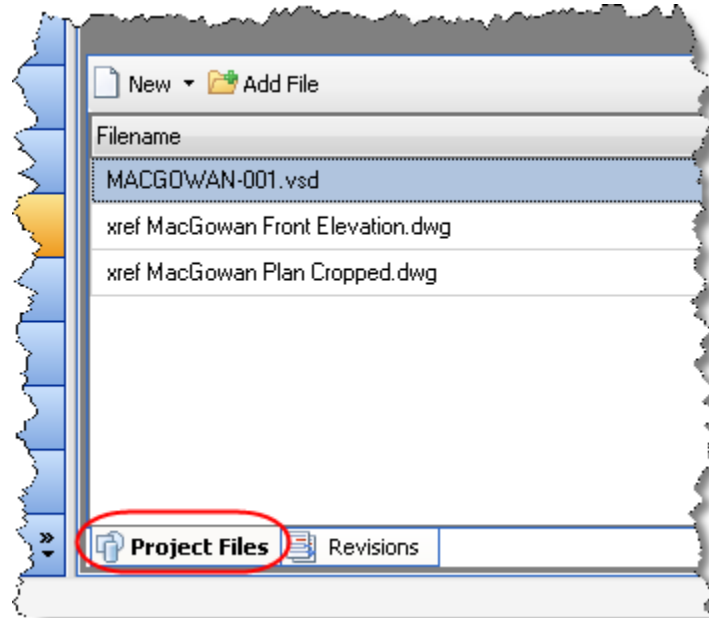
The Add File form opens and he browses to the file and then clicks **[Open]**:



He clicks **[OK]** for the message stating that the files will be copied to the same directory as the project file:

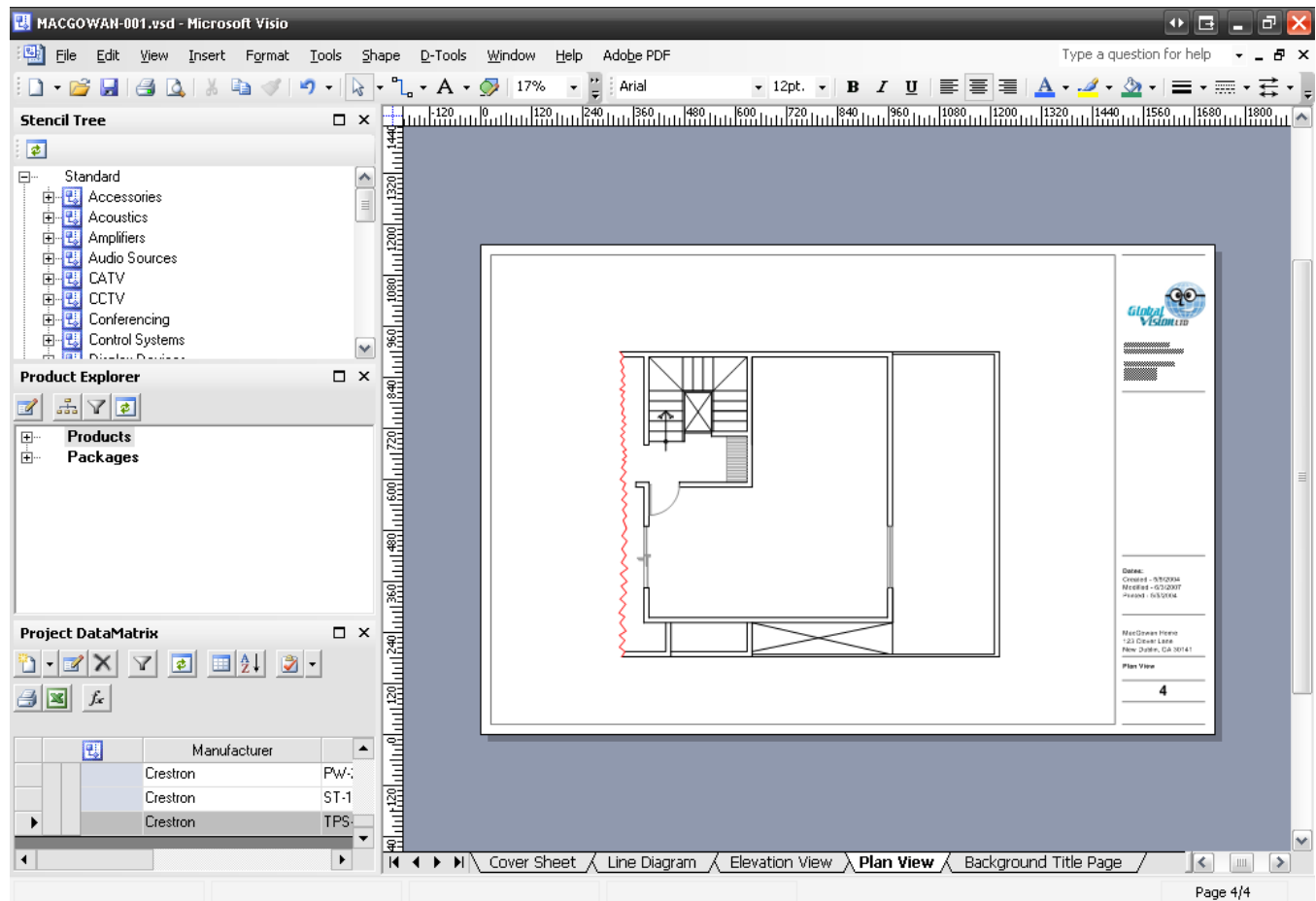


The files that he added are now displayed in the “Projects files for:” section:

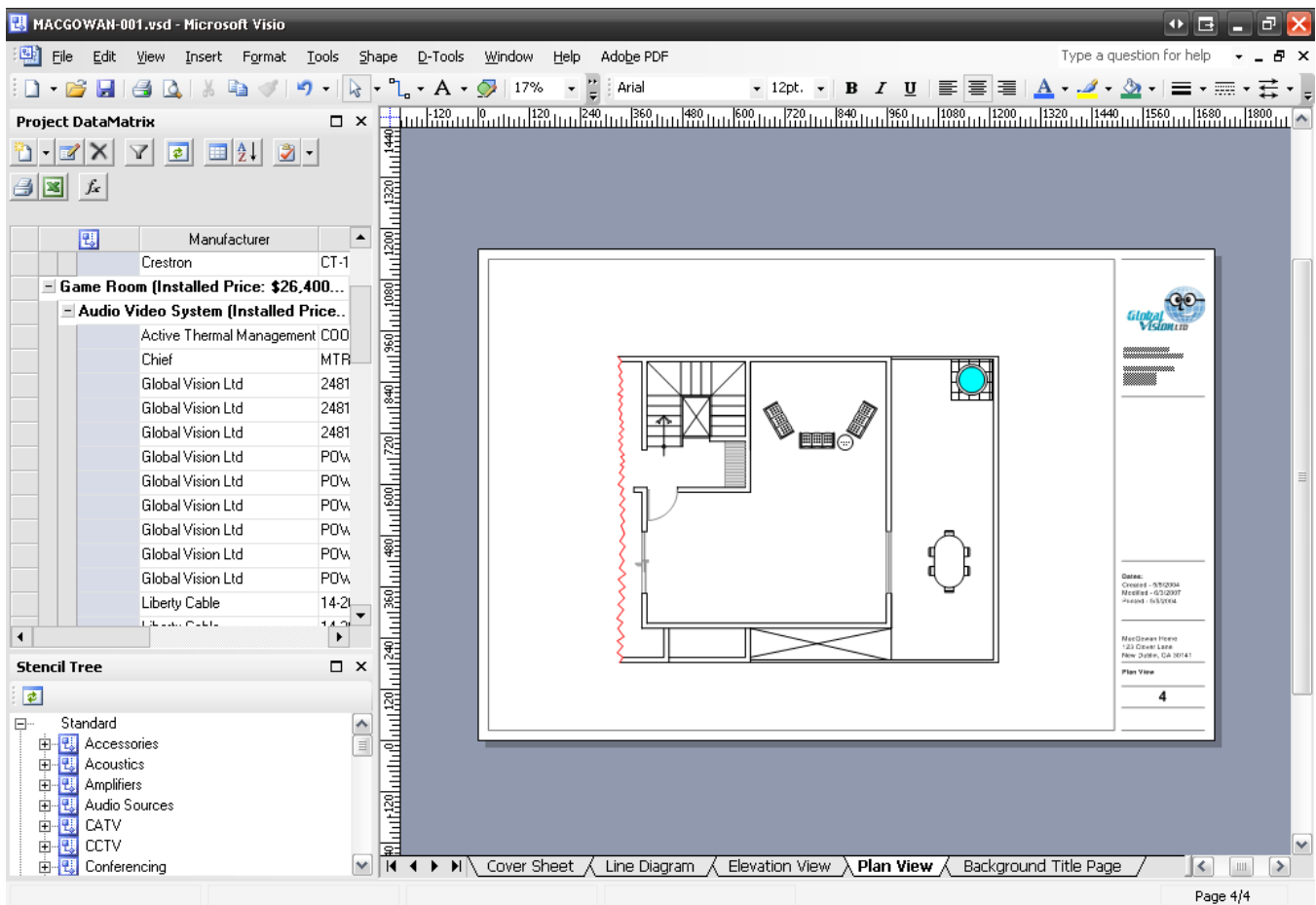


While he is in SI 5, he also changes the status of the Project to “Engineering” and lets Laura know that it is her time to shine.

Laura then opens the Visio file for the Project and clicks the Plan View tab. Her first order of business is to insert the AutoCAD file onto a Plan page type in Visio. Laura is kind of a geek and actually read the user's guide for SI 5 and she follows the instructions for this (see Visio Interface section of the SI 5 User's guide for details).



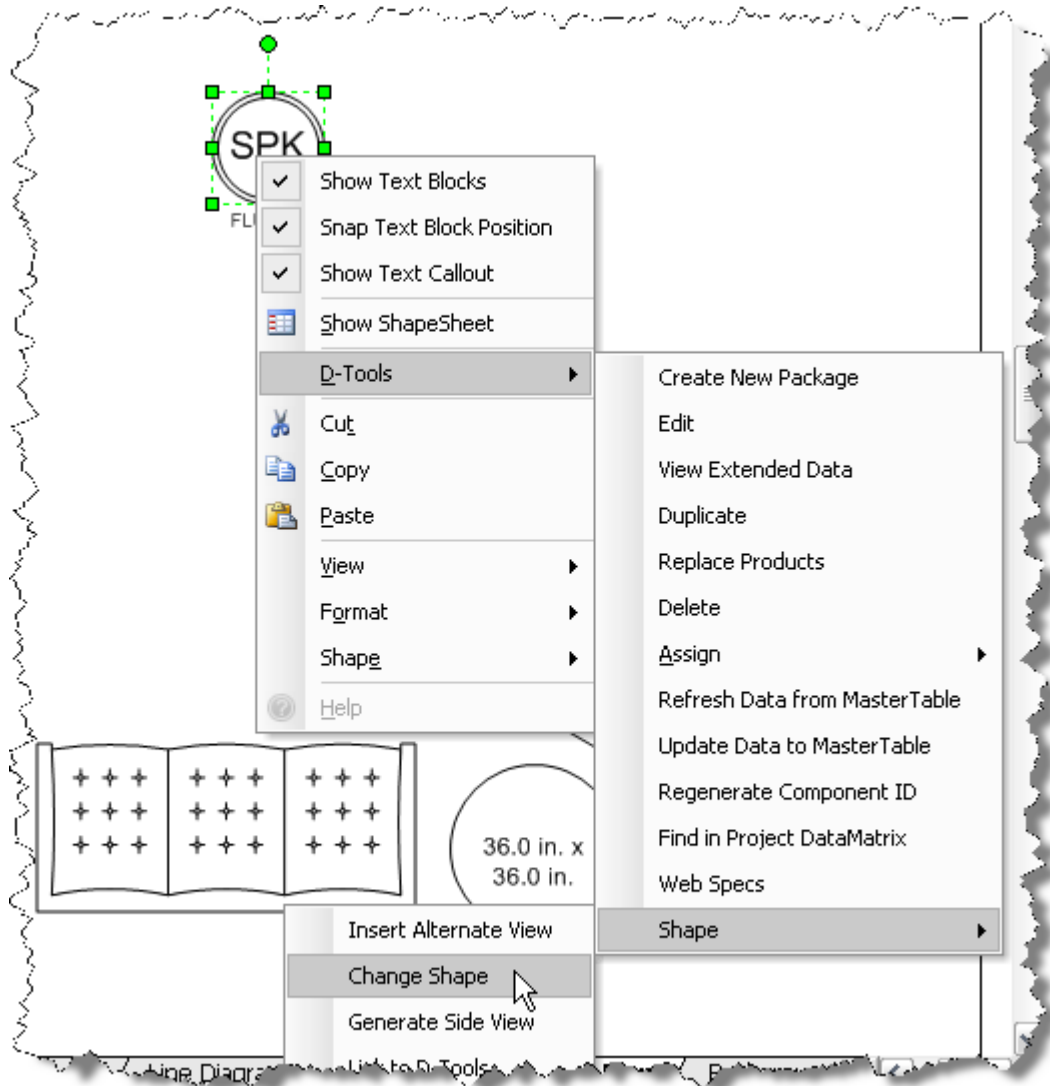
She begins by dragging out some stock Visio shapes to represent the furniture in the house (Laura uses Visio 2003 Professional so she has access to many stock Visio shapes):



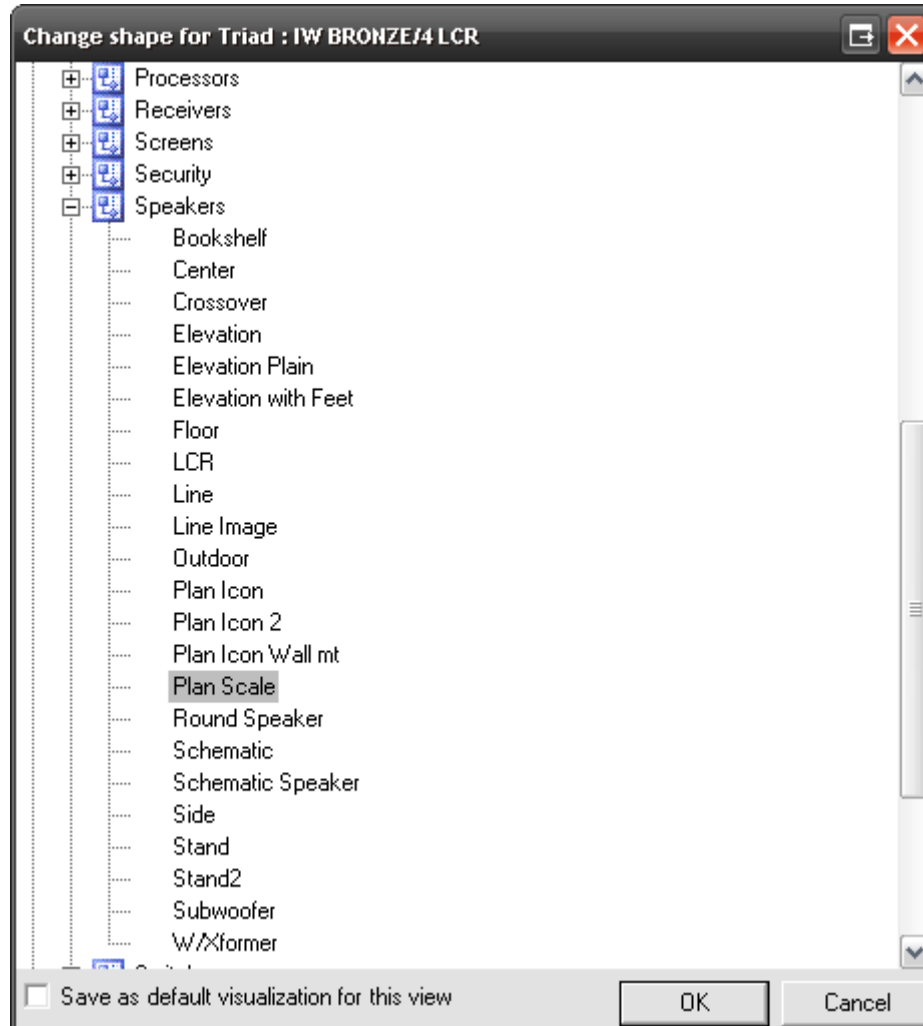
She then drags out one of the front speakers for the surround system. The default Plan shape for a speaker drops:



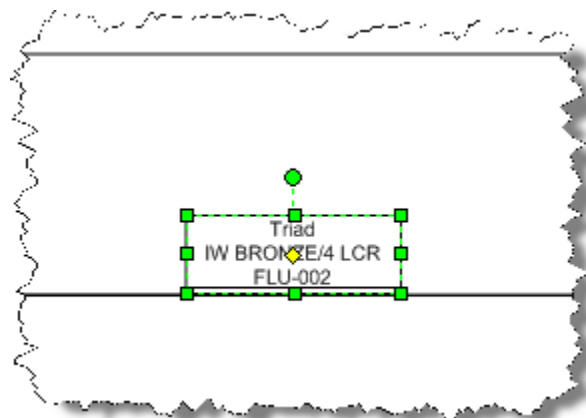
For the in-wall and on-wall speakers in projects, she prefers to show a scaled shape instead of the default Plan speaker shape. To change the shape, she right-clicks the shape and selects D-Tools->Shape->Change Shape:



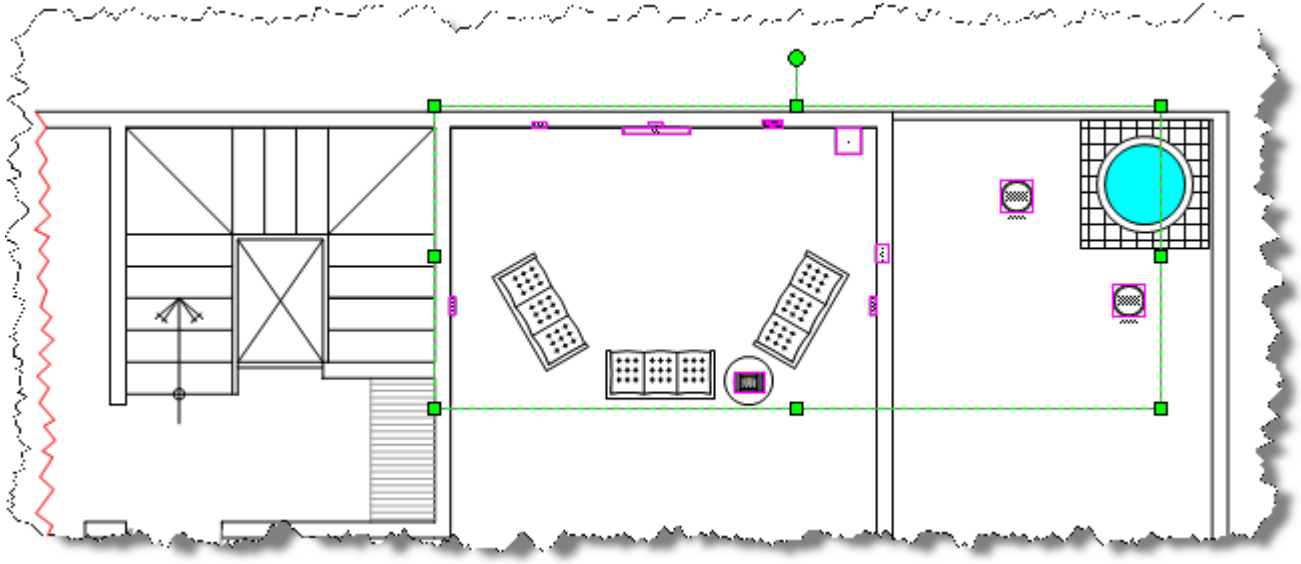
She selects the "Plan Scale" shape and clicks **[OK]**:



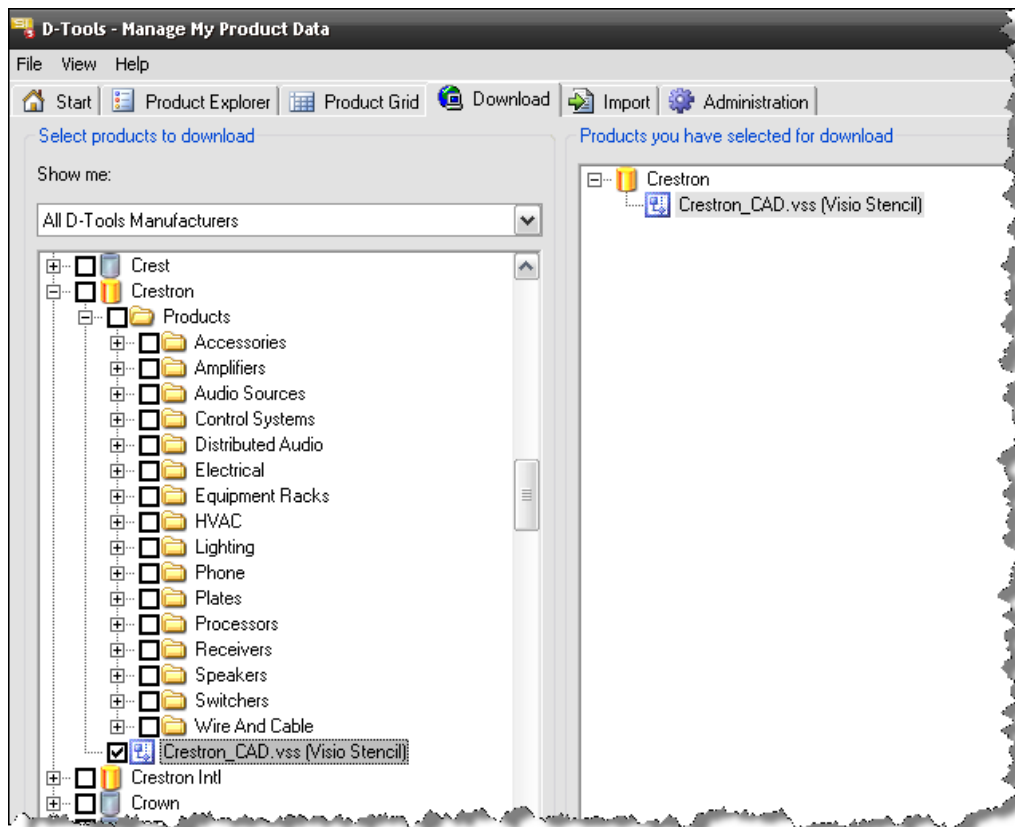
The shape is then changed to a scaled shape that she then positions in the wall of the drawing:



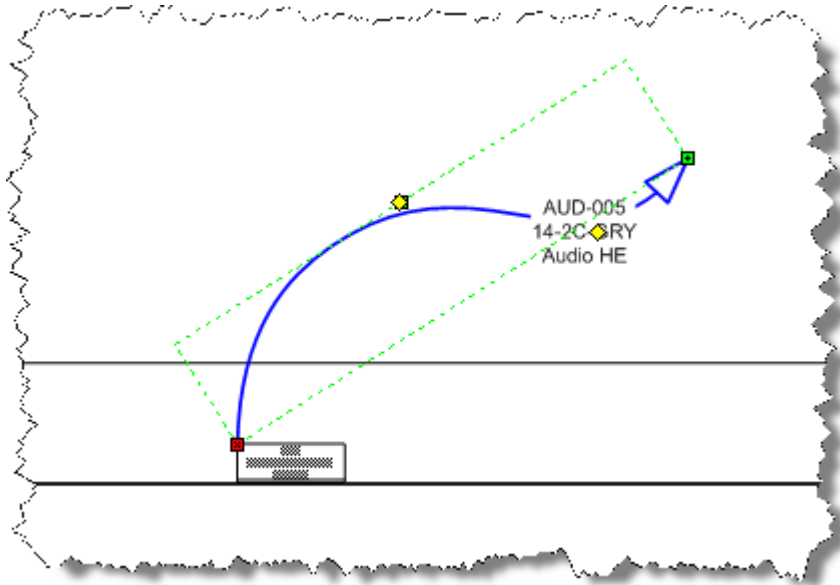
She continues adding all of the speakers to the page. For the in-ceiling speakers on the porch she leaves the default Plan shape. She then adds the touch panel, plasma, and the rack to the page (all products are selected below to make them easier to see):



The touch panel is a specific Manufacturer shape rather than the stock generic shapes in SI 5. When GLV downloaded their Crestron data from D-Tools, they chose to download the Manufacturer specific Visio stencil as well:

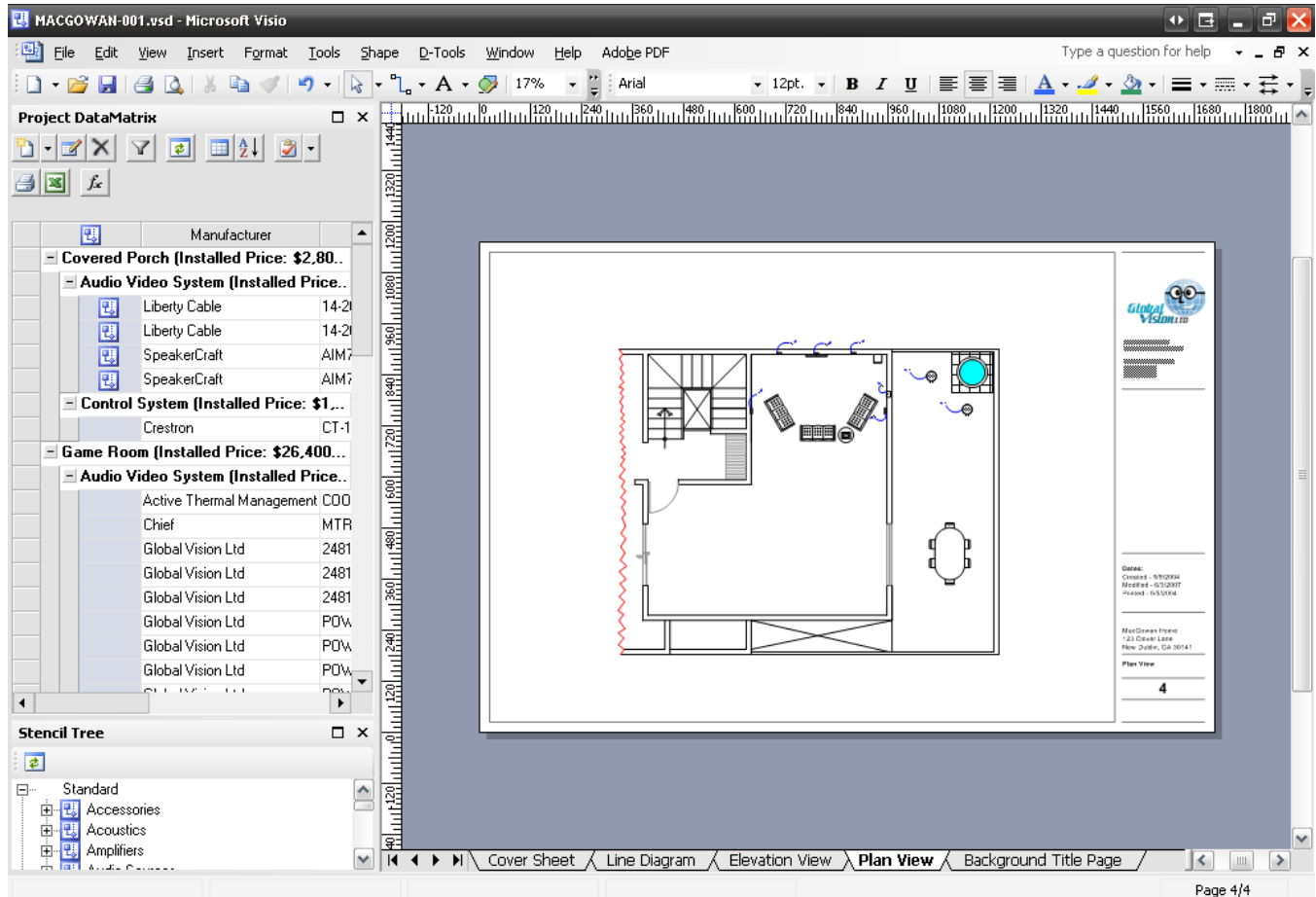


The next products that she drags over to the page are the wires for the products. She then connects the wires to the shapes. When the green connection point turns red, the shapes are connected:

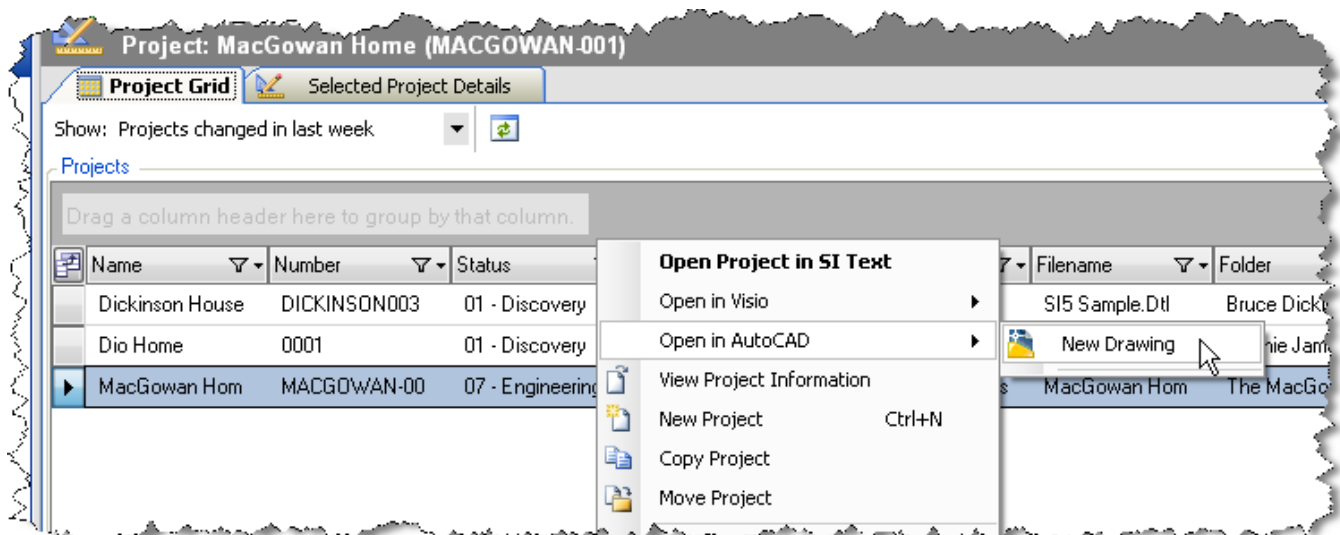


70 The Project

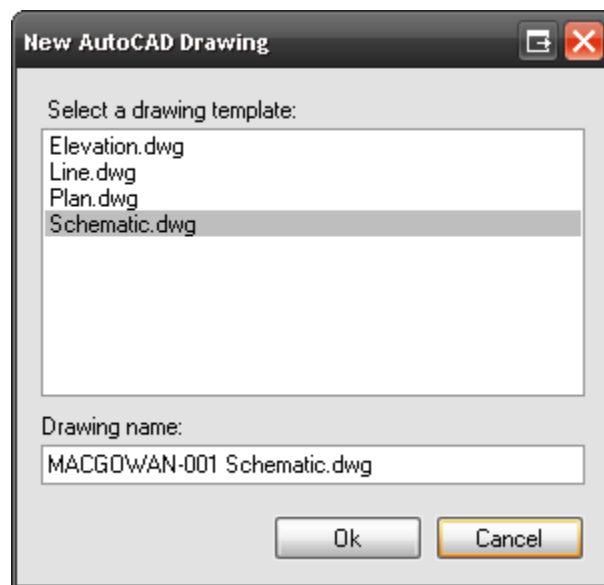
When finished, the page looks like this:



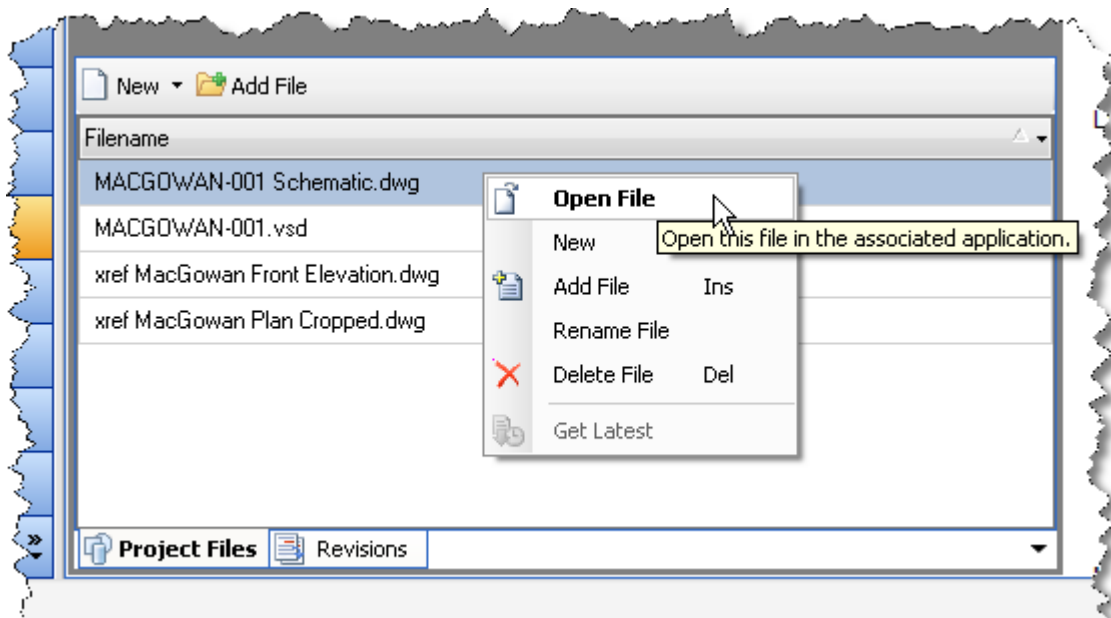
When she finishes, she saves and closes the Project. She is going to create a Schematic drawing for the system but wants to use AutoCAD for this. She selects the Project in the Project Grid and then right-clicks and selects Open in AutoCAD->New Drawing:



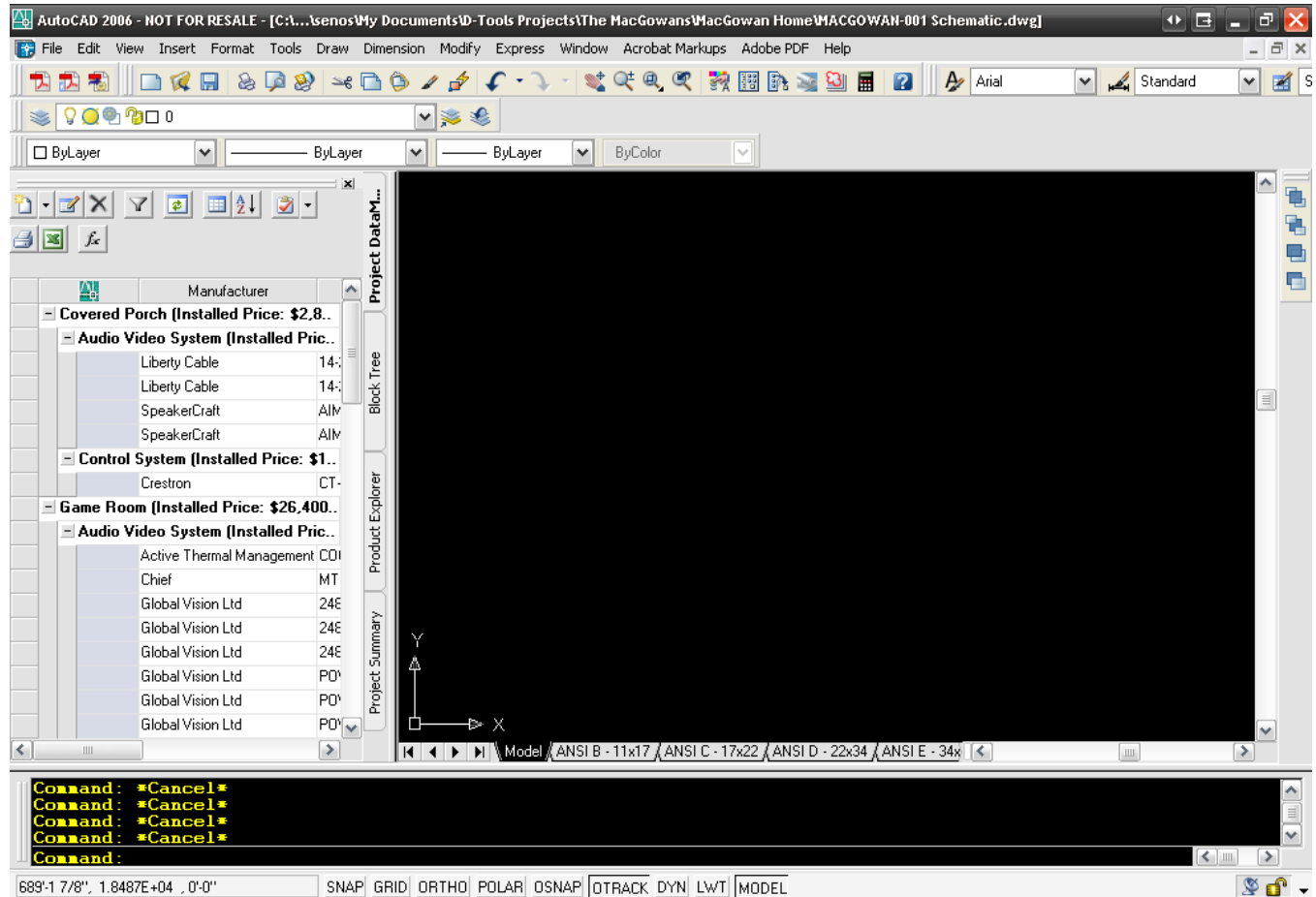
She is then prompted to pick a drawing template. She selects the Schematic.dwg template, types in a file name, and clicks **[OK]**:




The file was added to the Project Files list. She then selects the file right-clicks and selects Open File:



The Project launches in AutoCAD:



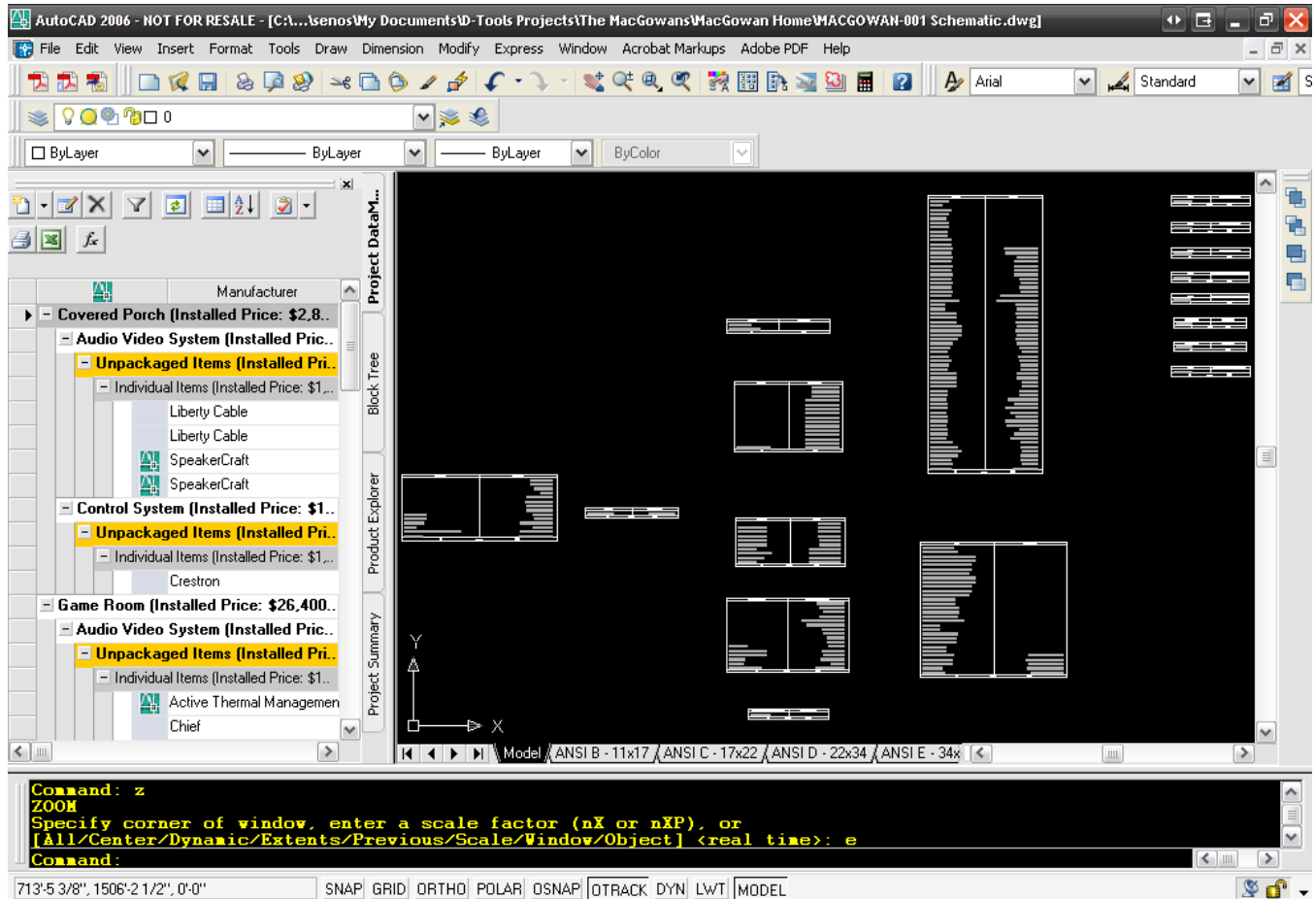
The display settings above are based on my personal settings. Your AutoCAD interface may vary slightly depending on your settings.

She begins by dragging out the all of the products that she wishes to wire.  The Schematic blocks in SI 5 list the inputs on the left side of the block and the outputs on the right side of the block. Each I/O has a connection point next to it:

Creston	MC2E
I/O 4-CTRL-TERM BLOCK	DB9-RS-232-COM B
I/O 3-CTRL-TERM BLOCK	DB9-RS-232-COM A
I/O 2-CTRL-TERM BLOCK	TERM_BLK-IR-IR D
I/O 1-CTRL-TERM BLOCK	TERM_BLK-IR-IR C
COMPUTER-RS-232-DB9	TERM_BLK-IR-IR B
LAN-DATA-RJ45	TERM_BLK-IR-IR A
NET-CRESNET-TERM BLOCK	TERM_BLK-CTRL-RELAY 4
POWER-24VDC-3.5 MM	TERM_BLK-CTRL-RELAY 3
IR-IR-TERM_BLK	TERM_BLK-CTRL-RELAY 2
	TERM_BLK-CTRL-RELAY 1
IN	OUT

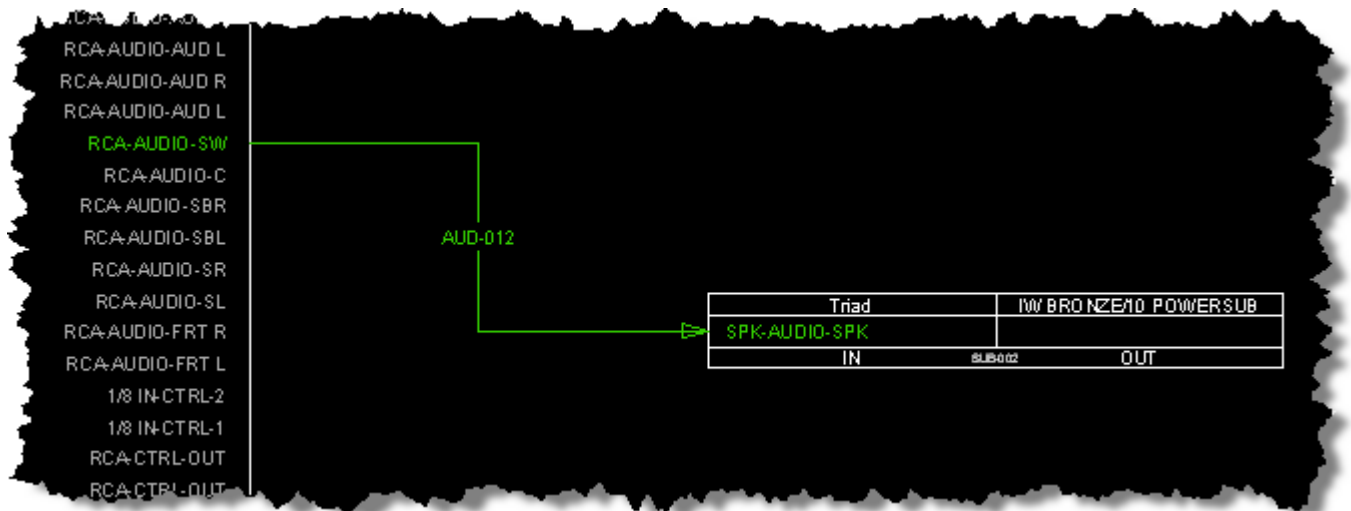
CO 11-001

She moves and positions the blocks on the sheet until they are in the desired positions:

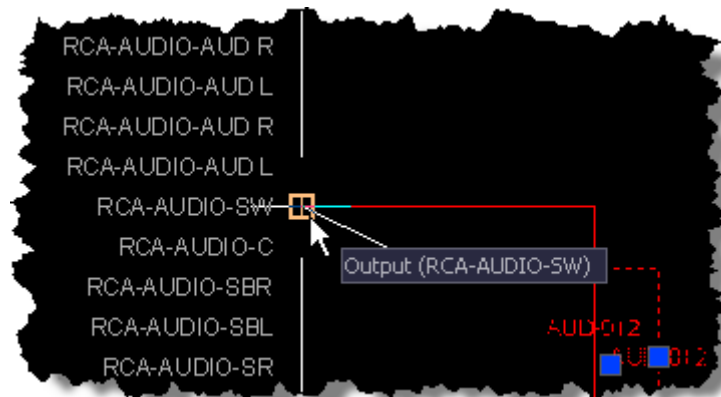


She then drags out the wire blocks. The wire blocks used on Schematic sheets in SI 5 are red when not connected to I/Os, and turn green when both ends are connected to I/Os:

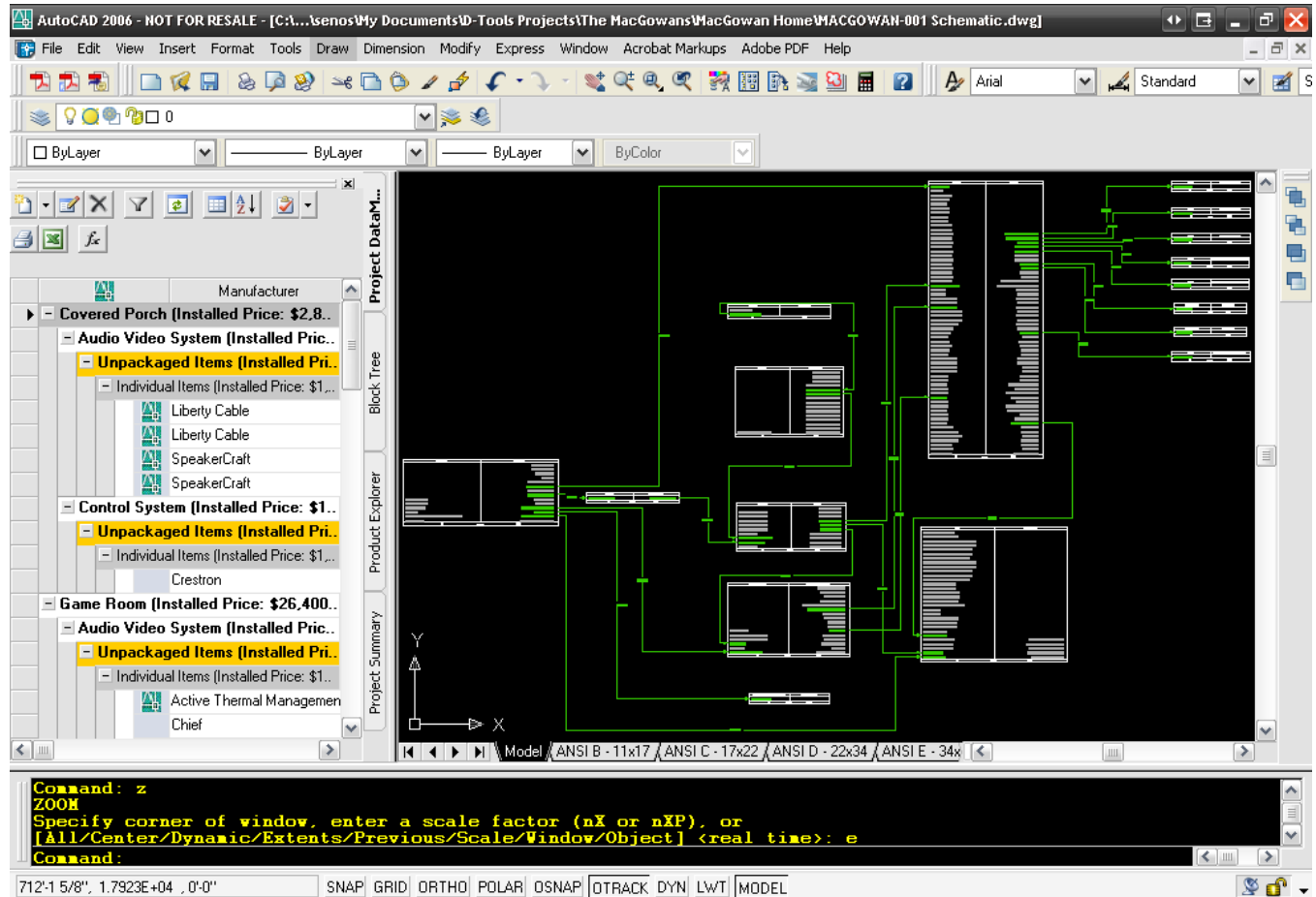




When you move and end of the wire block to an I/O connection point, an orange box displays:

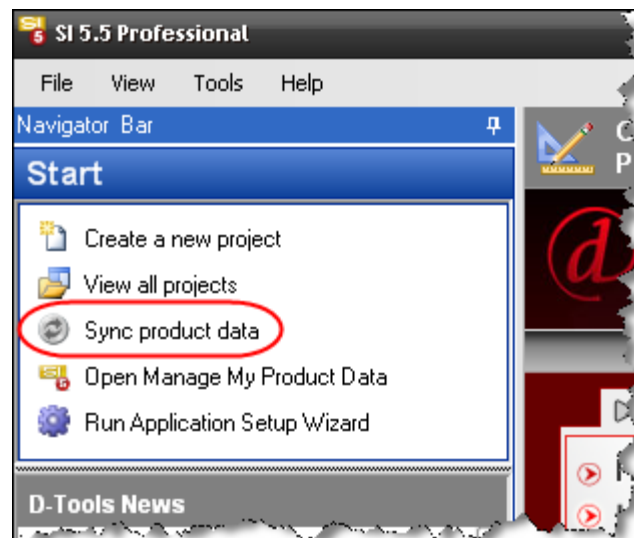


When she is finished making connections, the drawing looks like this:

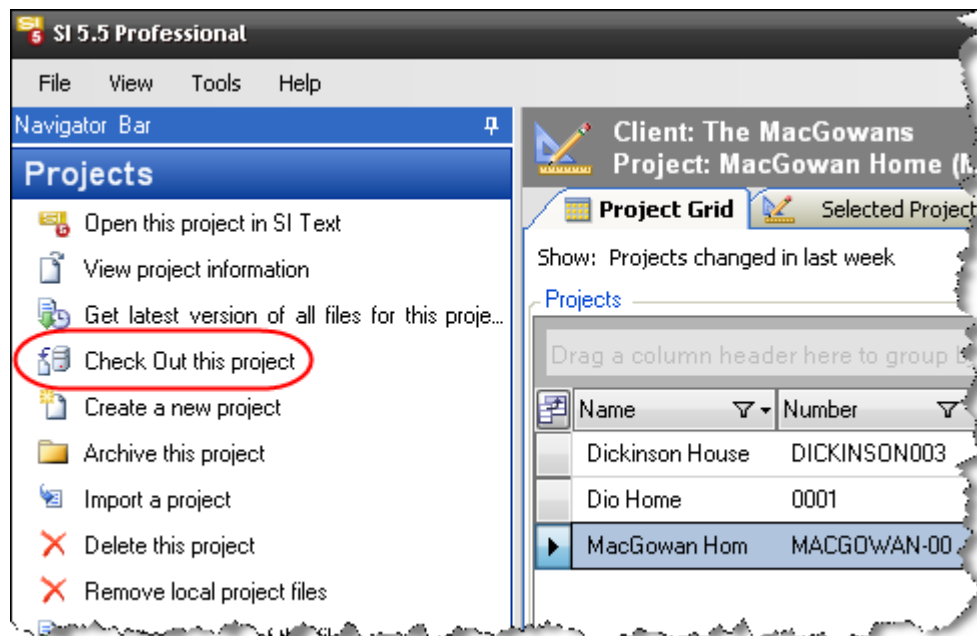


Second Internal Approval

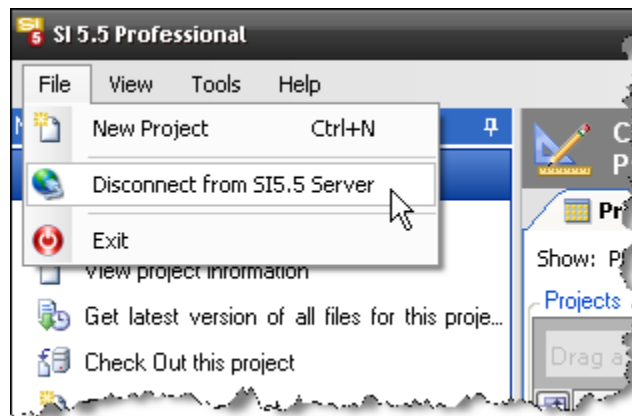
After finishing, Laura then saves, closes, and checks in the project and lets Dave know that it is ready for review. They decide to do a “working lunch” so Dave logs into SI 5. He then synchronizes his database:



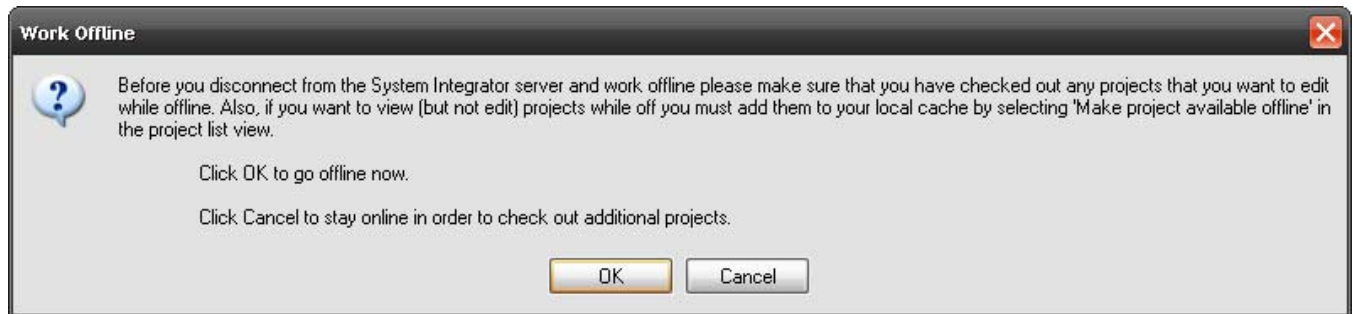
He checks out the project.



Since he wants to be able to work “offline” (not connected to the network), he selects File->Disconnect from SI5.5 Server:



He gets prompted to make sure he's done everything needed before disconnecting from the server:



He closes SI 5 and then shuts down his laptop. They head over to a familiar coffee joint to discuss. Laura points out that they have done similar systems to this one many times with a few minor differences depending on the Project. They decide to create a Package in SI 5 so that they can “re-sell” this system in the future without having to build it from scratch each time.

The Package Properties form opens and he adds a name and description. Since this fancy coffee shop has internet access, he scours the web for a picture of a surround system and adds it to the package properties:

MacGowan Home Package Properties -

Package Details

Package name:


Description:

Report Options

☐ Summarize in client reports

☐ Ignore labor calculations on equipment and wire products (Use labor type products only for labor in package)

Image



[Add](#) | [Remove](#)

Package Contents

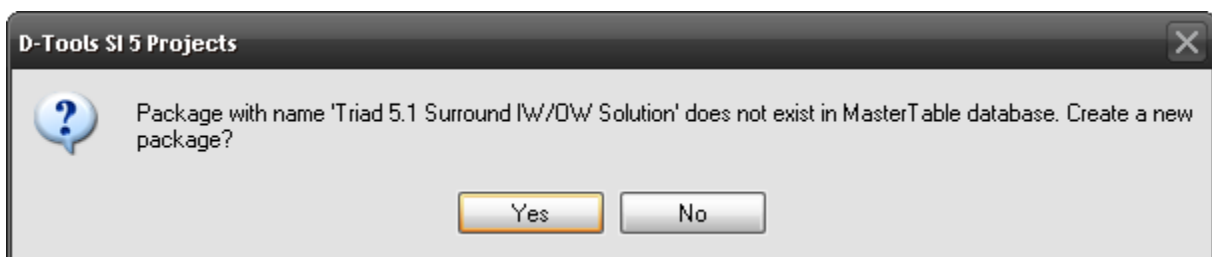
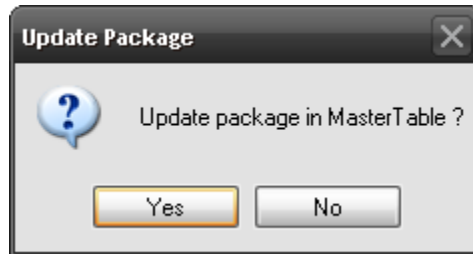
Category	Manufacturer	Model	CompID	UnitPrice	MSRP	WireLength	H
- Items without Accessories							
Wire And Cable	Liberty Cable	14-2C-GRY	AUD-009	0.23	0.23	75 A	
Wire And Cable	Liberty Cable	14-2C-GRY	AUD-012	0.23	0.23	75 A	
Wire And Cable	Liberty Cable	14-2C-GRY	AUD-005	0.23	0.23	75 A	
Wire And Cable	Liberty Cable	14-2C-GRY	AUD-008	0.23	0.23	75 A	

Base Price: **Location:**
Discount: %
Package Price:

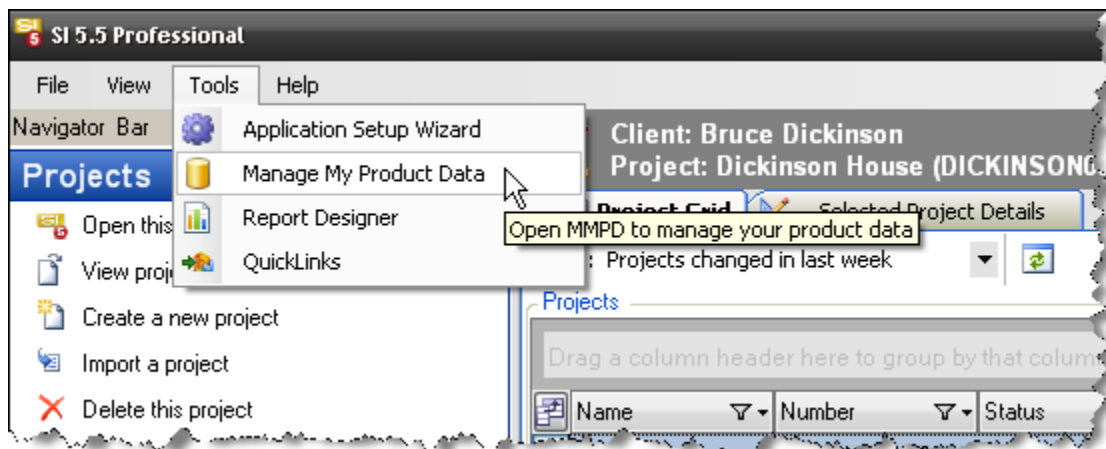
☐ Equipment in Package can be in different Location/Zone

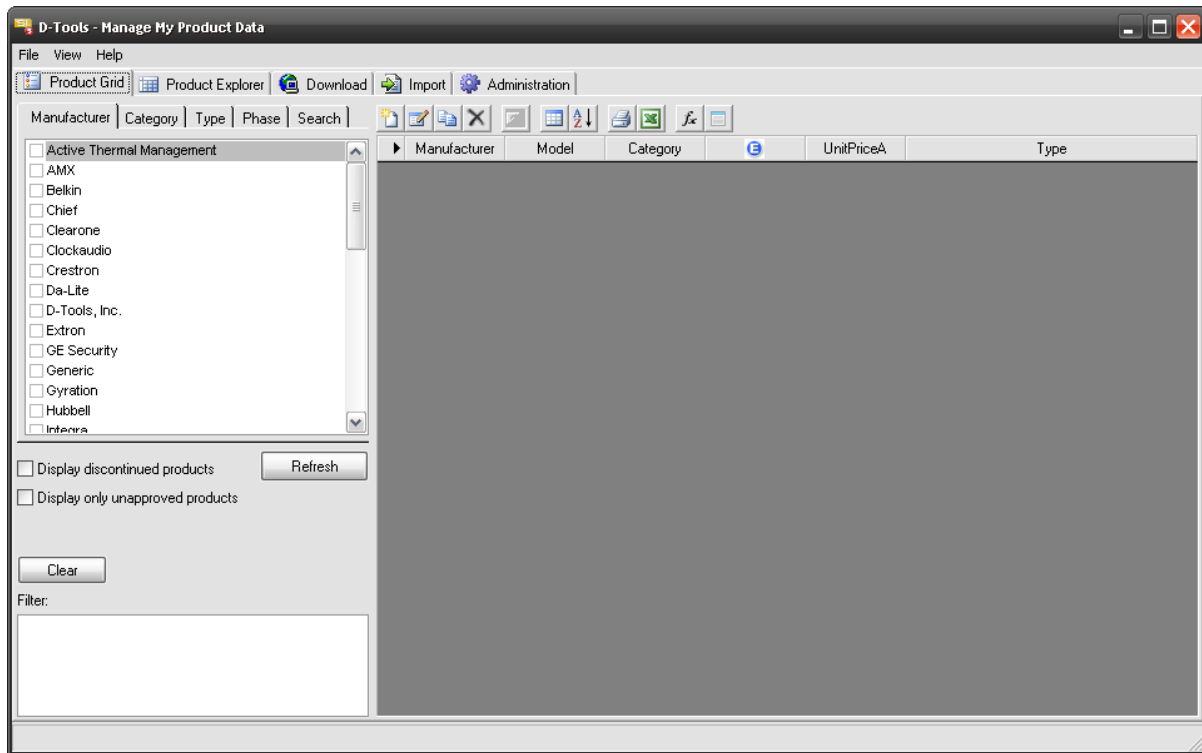
Zone:

Since he is within a project, he makes sure to select the Location and Zone for these products and then clicks **[Save]**. He clicks **[Yes]** when prompted to update the MasterTable and then **[Yes]** when prompted to add the package to the MasterTable:

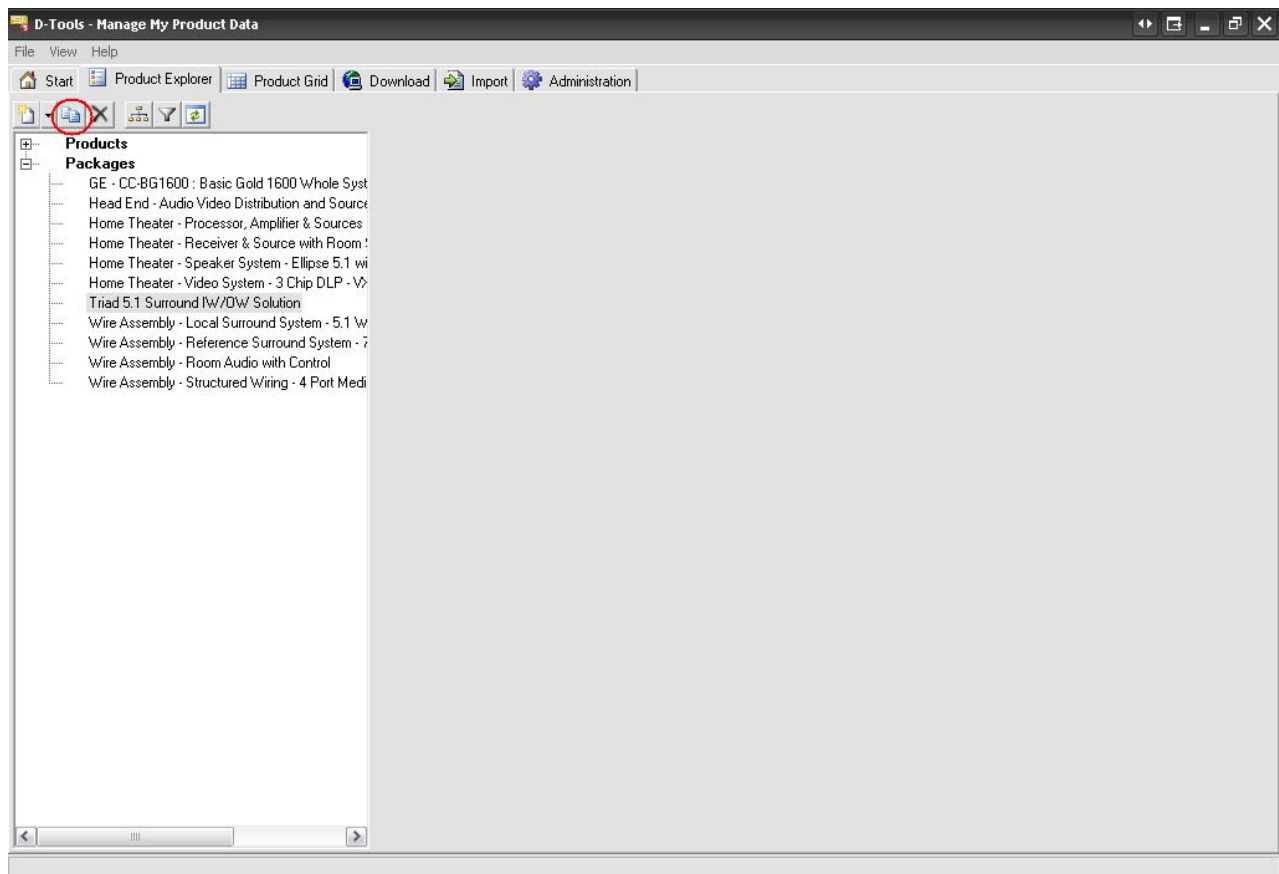


They realize that this package could be the basis for some complete solutions including a receiver and a display device. Dave Tools->Manage My Product Data in the Navigator. The MMPD interface opens in its own window:

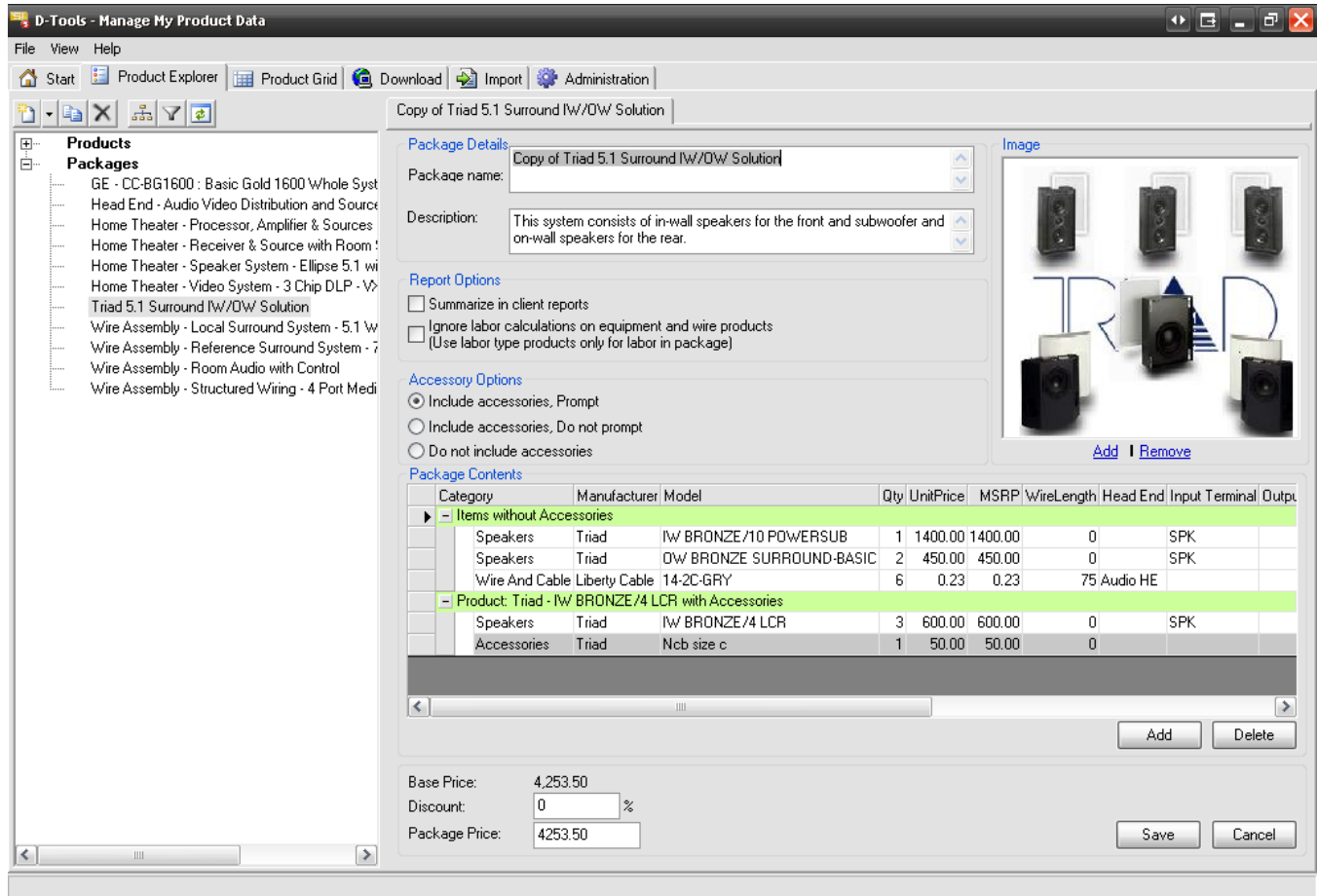




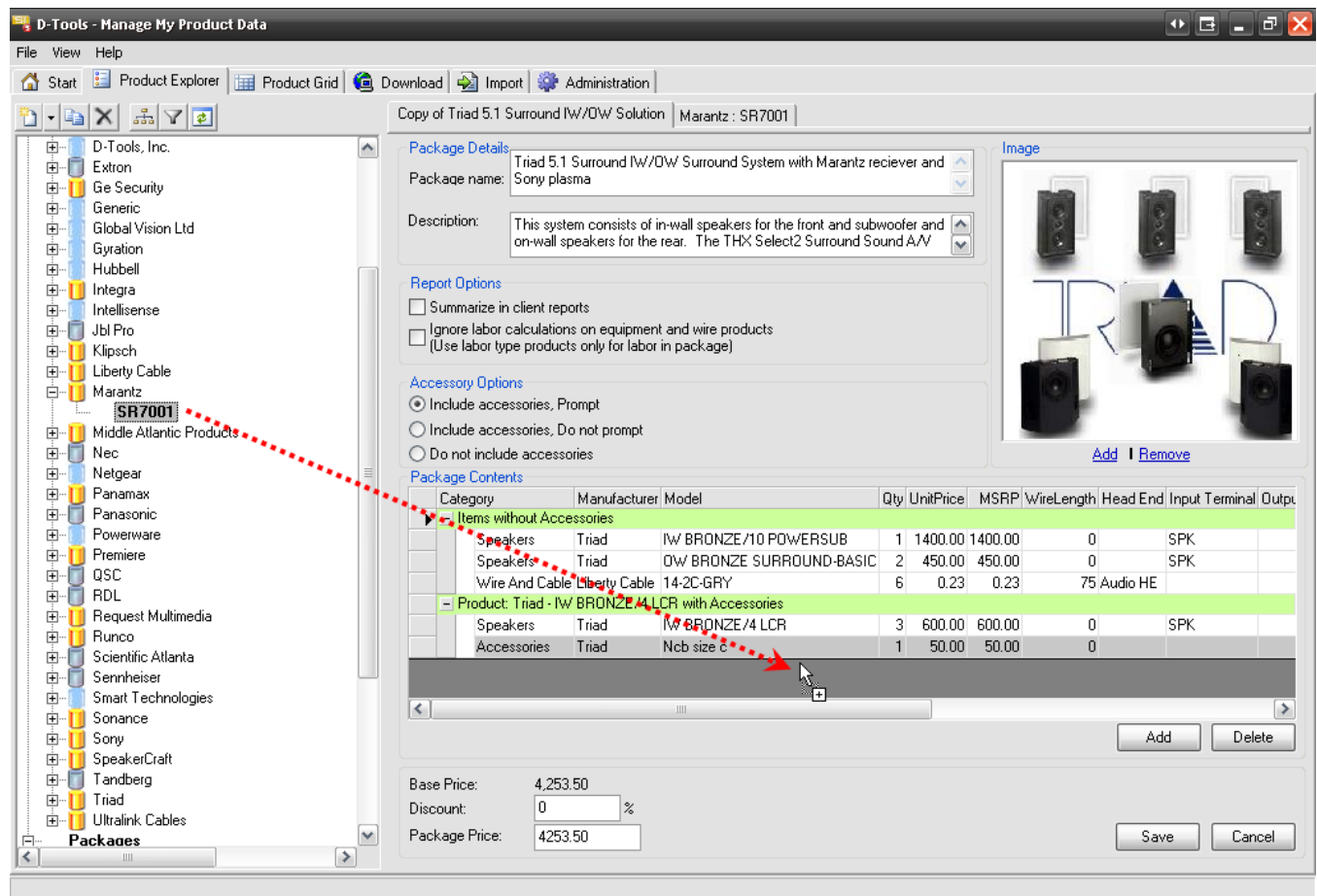
He then clicks the Product Explorer tab, selects the package then clicks the  button:



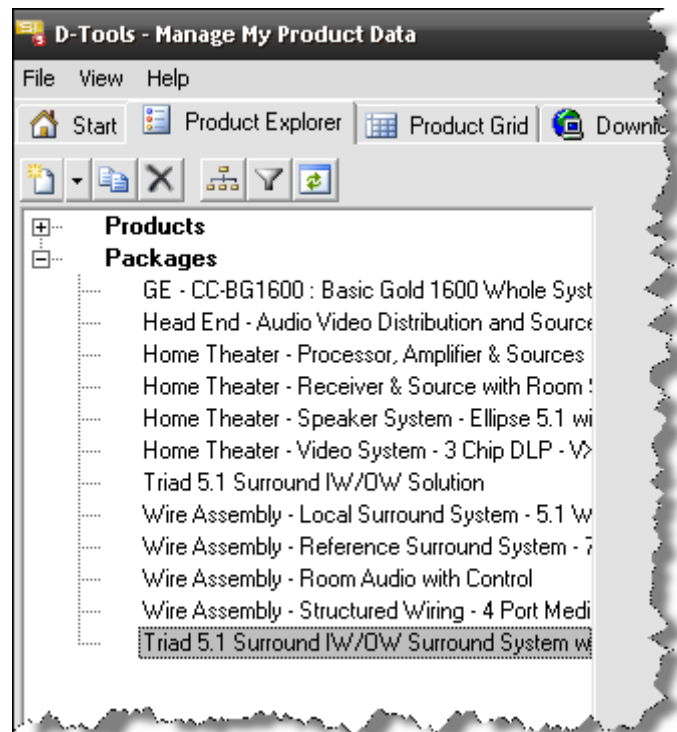
A copy of the package is displayed on a tab in the right-hand side of the screen:



He modifies the name and description for the package and then adds the receiver from the project to the package by locating it in the Product Tree and dragging it over to the “Package Contents” section:

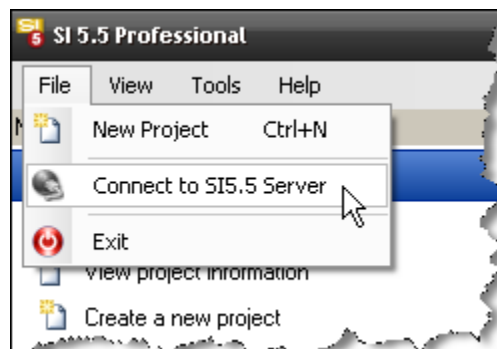


He repeats that for the display device then clicks **[Save]**. The package he just created now displays in the MMPD interface and is available for use in projects:

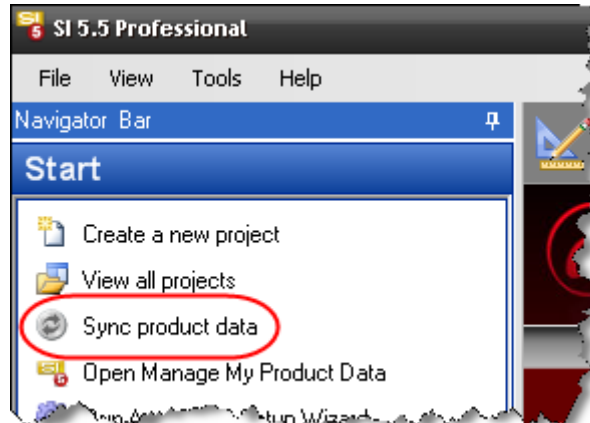


Work Orders

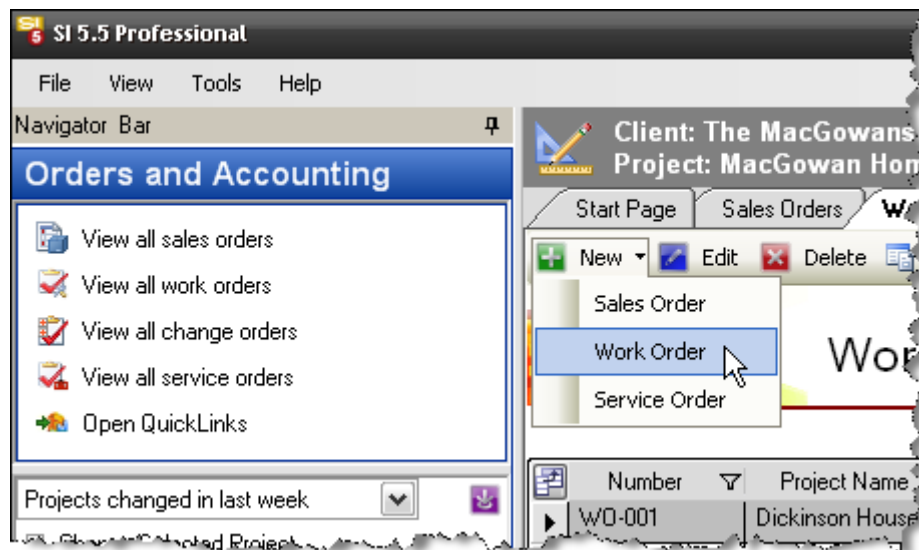
They shut down SI 5, finish their lattes and head back to the office. When they get back to the office, Dave connects his laptop to the network and opens SI 5. Since he is disconnected from the SI5.5 Server, he is not prompted to login. To put himself back "online" he selects File->Connect to SI5.5 Server:



He then synchronizes his data:



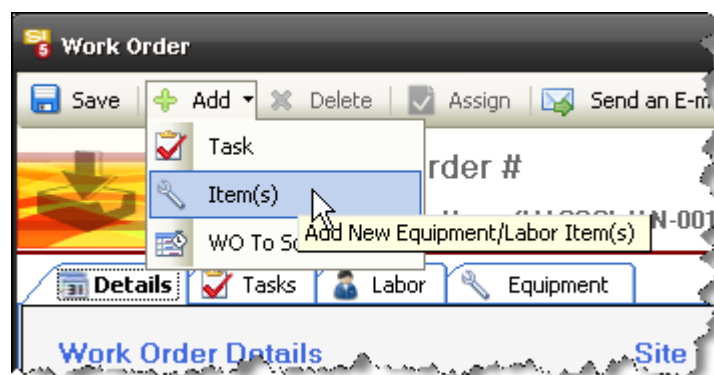
After a conversation with Marge, Dave knows that the Products for the Project are on order and will be arriving next week. Dave then changes the status of the Project to "08 - Production". He then checks in the project so he can create Work Orders for the project. To create a Work Order, he clicks Orders and Accounting tab->Work Orders tab->New->Work Order:



The Work Order form opens:

The screenshot shows a web-based 'Work Order' form. At the top, there is a toolbar with icons for Save, Add, Delete, Assign, Send an E-mail, and Reports. Below the toolbar, the form is titled 'Work Order #' and 'MacGowan Home (MACGOWAN-001)'. To the right of the title, there are three summary boxes: 'Est. Work' (0), 'Act. Work' (0), and '% Complete' (0). The status is 'Open'. Below the title bar, there are tabs for 'Details', 'Tasks', 'Labor', and 'Equipment'. The 'Details' tab is selected. The form is divided into two main sections: 'Work Order Details' and 'Site Information'. The 'Work Order Details' section includes fields for 'Work Order #', 'Date' (2/15/2009), 'Assigned To', 'Status' (Open), and a checkbox for 'Use Actual Install Hours in Sales Order'. The 'Site Information' section includes fields for 'Client' (The MacGowans), 'Address1' (123 Clover Lane), 'Address2', 'City' (New Dublin), 'State' (GA), 'Postal Code' (30141), and 'Country'. Below these sections is a large text area labeled 'Action Required (Description)'. The form has a standard Windows-style window with a title bar and window controls.

To add products to the Work Order, he selects Add->Item(s):



He plans on creating two Work Orders, one for the Rough-In and Trim Phase, and one for the rest of the work. When the "Add Items to Order" form opens, he uses the filter in the Phase column to filter to "Rough-In":

Component ID	Location	Zone	Wire Length	Phase
SHE-004	Game Room	Audio Video System	0	(All)
PAN-003	Game Room	Audio Video System	0	(Custom)
SHE-003	Game Room	Audio Video System	0	(Blanks)
PAN-004	Game Room	Audio Video System	0	(NonBlanks)
PAN-005	Game Room	Audio Video System	0	Finish
MOU-001	Game Room	Audio Video System	0	Rough-In
KIT-003	Game Room	Audio Video System	0	Trim

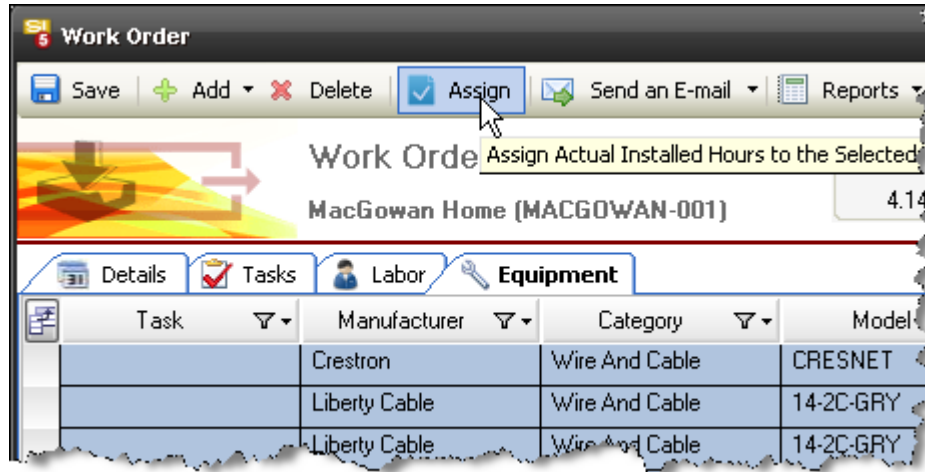
He then clicks **[Select All]** followed by **[Add and Close]**:

Select	Estimated Install Date
<input checked="" type="checkbox"/>	02/15/2009
<input checked="" type="checkbox"/>	02/15/2009
<input checked="" type="checkbox"/>	02/15/2009

The Equipment displays on the Work Order form:

Task	Manufacturer	Category	Model	Component ID
	Crestron	Wire And Cable	CRESNET	CON-004
	Liberty Cable	Wire And Cable	14-2C-GRY	AUD-01
	Liberty Cable	Wire And Cable	14-2C-GRY	AUD-01

He selects all of the products and then clicks **[Assign Properties]**:



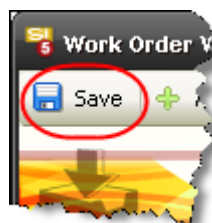
On the Work Order Item Properties form, he assigns the team and the expected install date then clicks **[OK]**:

The screenshot shows the 'Work Order Item Properties' dialog box. It has a title bar 'SI 5 Work Order Item Properties' and a close button. The form contains the following fields:

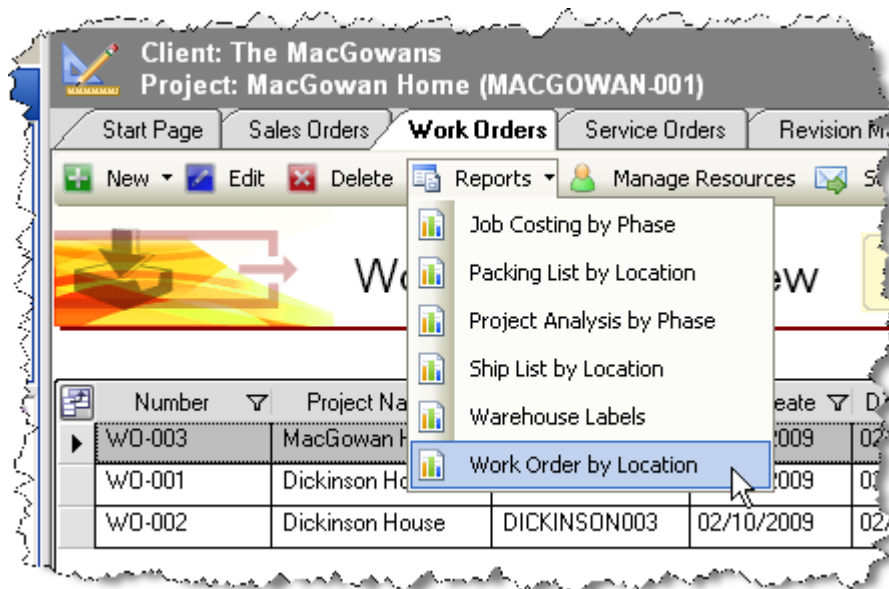
- Assigned To: Calvin & Hobbes (dropdown menu)
- Expected Install Date: 2/15/2009 (dropdown menu)
- Actual Install Date: (none) (dropdown menu)
- Actual Hrs. (text input field)
- ☐ Actual Install Hrs will be divided pro rata to all selected rows based on estimated hrs.

At the bottom, there are 'OK' and 'Cancel' buttons.

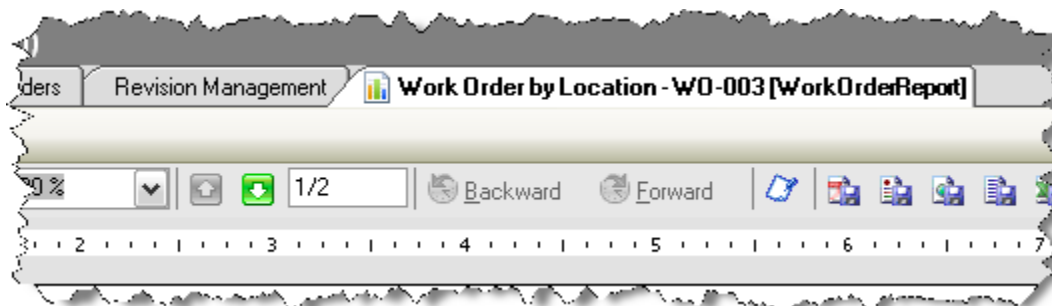
When finished, he clicks **[Save]**:



The work order then displays in the grid. He selects the Work Order he just created and clicks **[Reports]**->Work Order by Location:



The report generates on a tab. He prints two copies of the Work Order, one for each installer:



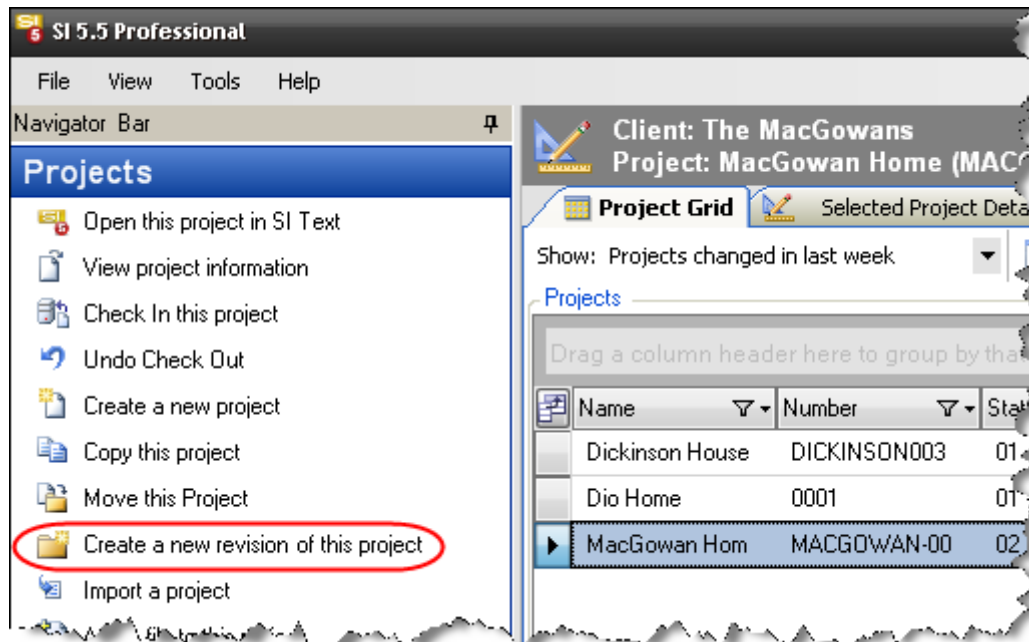
He then repeats the above procedure to create a Work Order for the following day for the rest of the products in the project.

He wants to print additional reports for the install team so he clicks the Reports tab in the Navigator then launches the Reporting Center to run their installation reports: Pick List, Brother Wire Labels, Checklist by Location, etc... He also prints the Elevation, Plan, and Schematic pages to send with the installers.

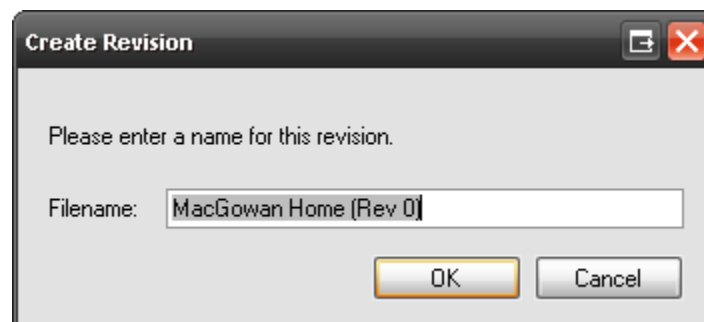
Installation and Change Order

A week later the equipment arrives and the project is now ready for install. Calvin and Hobbes load the truck, make the trek, and begin the install. While there, Mrs. MacGowan mentions that she would like a separate controller for the covered porch so they don't have to constantly remember to bring the ST-1700 outside with them.

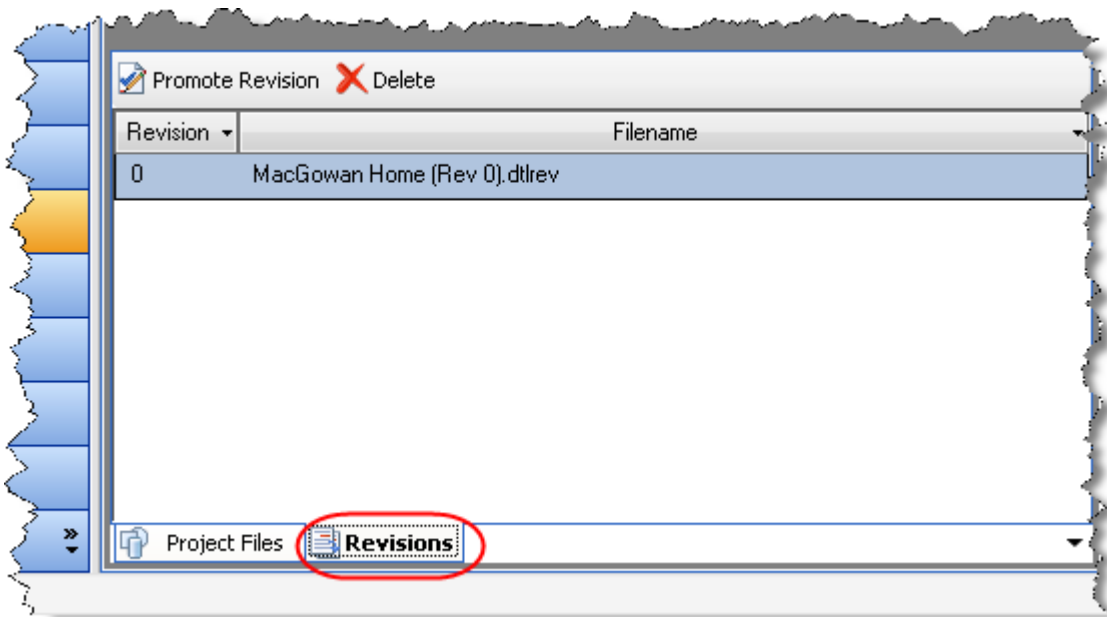
Hobbes calls Franz to let him know about the requested change. Franz sits down with Dave and they decide, based on the client's budget constraints, that they will add a Crestron CT-1000 next to the Jacuzzi. Dave opens SI 5 and checks out the project. He then clicks "Create a new revision of this project":



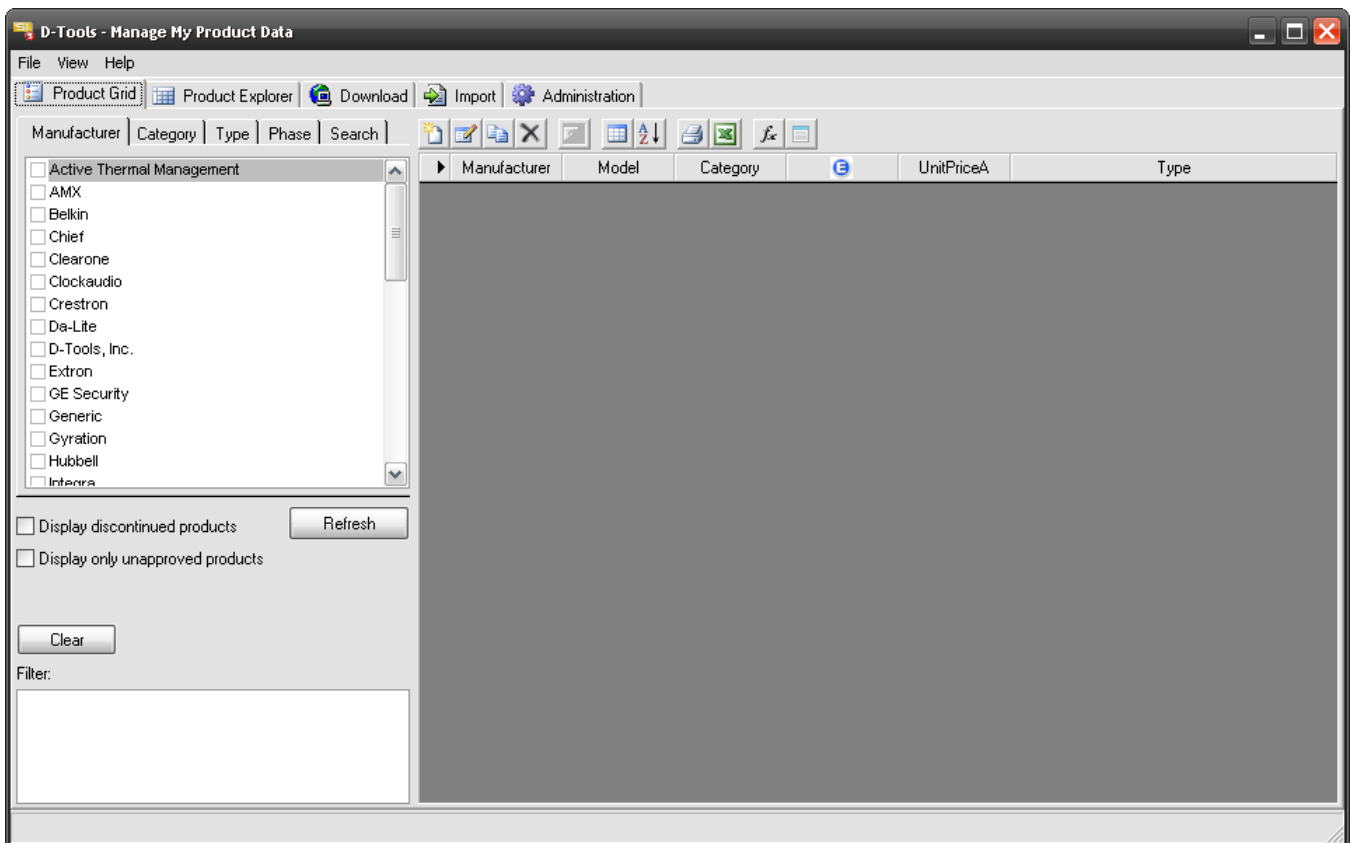
The following screen opens. They leave the default file name for revisions so he clicks **[OK]**:



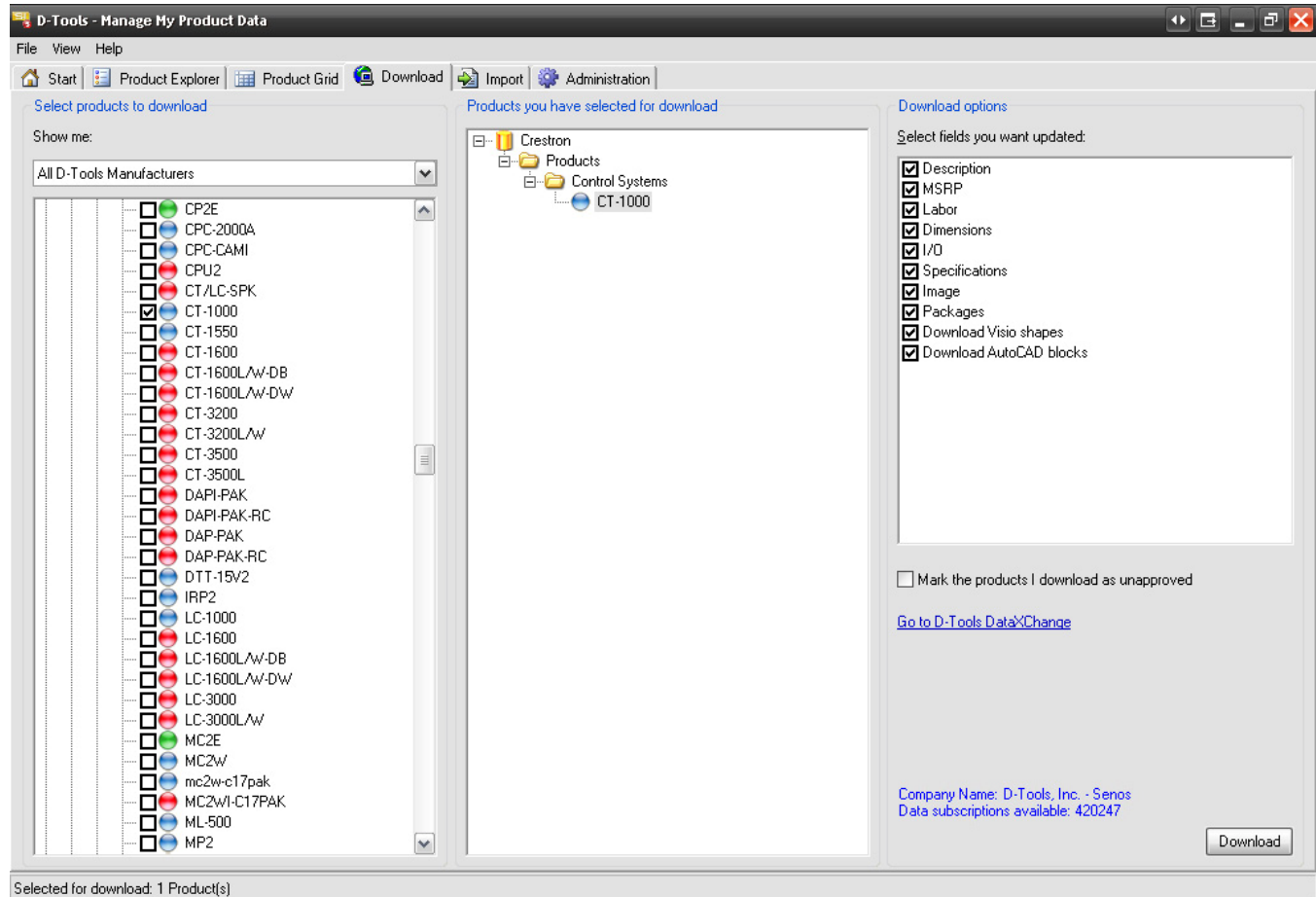
Revisions display on the Selected Project Details tab:



Dave then opens the project and attempts to add the CT-1000 to the project but it is not in their database. He selects File->Manage My Product Data:

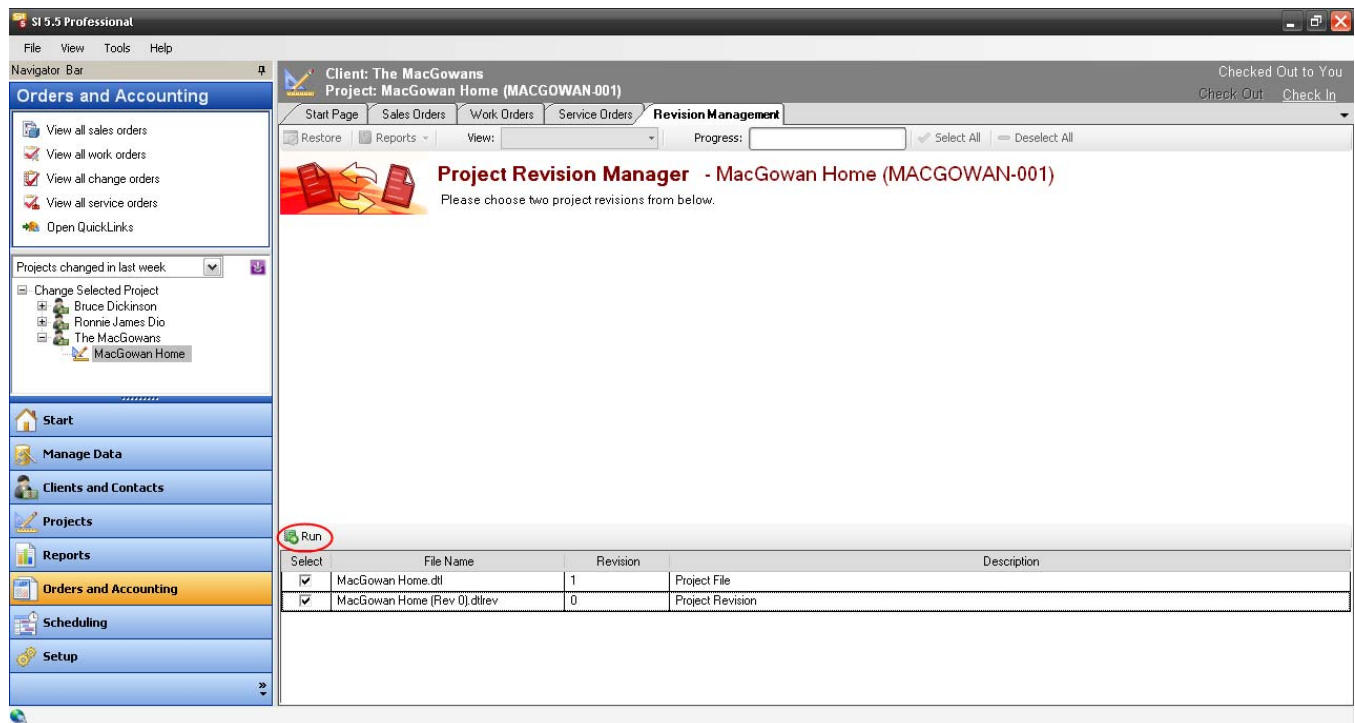


He then clicks the Download tab, selects the product for download and then clicks **[Download]**:

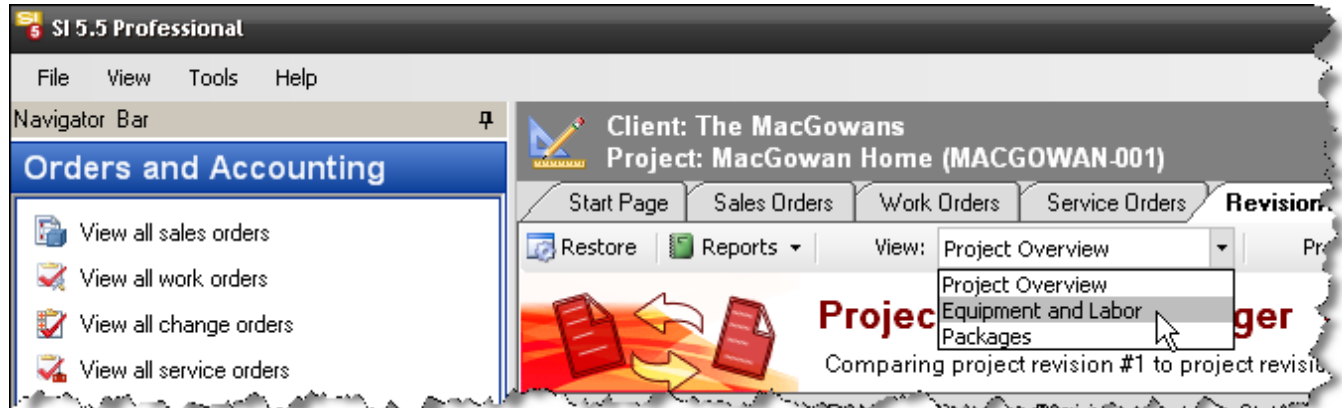


He calls Marge to confirm the pricing and install hours then clicks the Product Explorer tab to edit the product. Once he edits the product, he adds it and a Cresnet run to the project. He then saves, closes, and checks in the project.

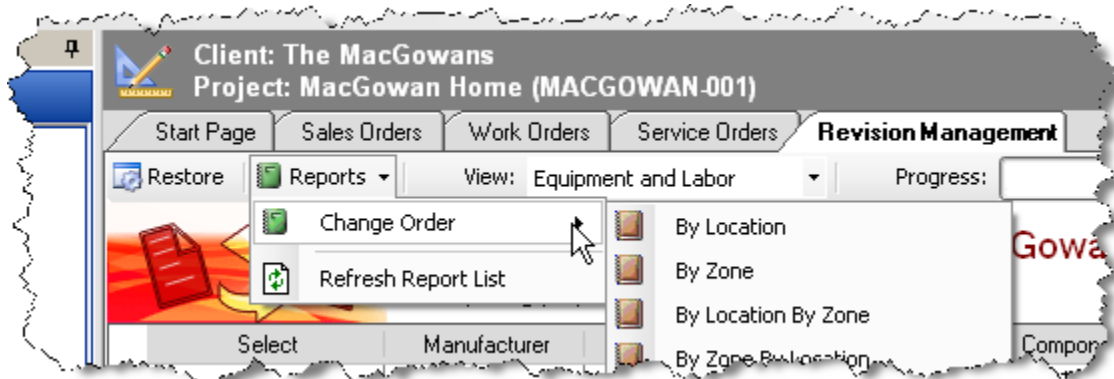
He then wants to create a Change Order for the client to sign before they proceed. He selects the project in the lookup and then clicks the Business Manger tab->Revision Management tab. He checks the two revisions and clicks **[Run]**:



The display defaults to "Project Overview" so he selects "Equipment and Labor" from the dropdown:



He then checks both products and clicks Reports->Change Order:



The Create Change Order form opens, click **[Create]**:

The 'Create Change Order' form is displayed. It includes the SI5 logo and the title 'Create Change Order'. Below the title, it says 'Create a Change Order for the selected items.' and 'The selected items will be added to your Change Order.' The 'Preview' dropdown is set to 'Equipment' and the 'Progress' field is empty. A table lists the selected items:

Select	Manufacturer	Model	Category	ComponentId	Change Type
<input checked="" type="checkbox"/>	Crestron	Crestron	Control Systems	TOU-005	Added
<input checked="" type="checkbox"/>	Crestron	Crestron	Wire And Cable	CON-006	Added

At the bottom right, there are 'Cancel' and 'Create' buttons.

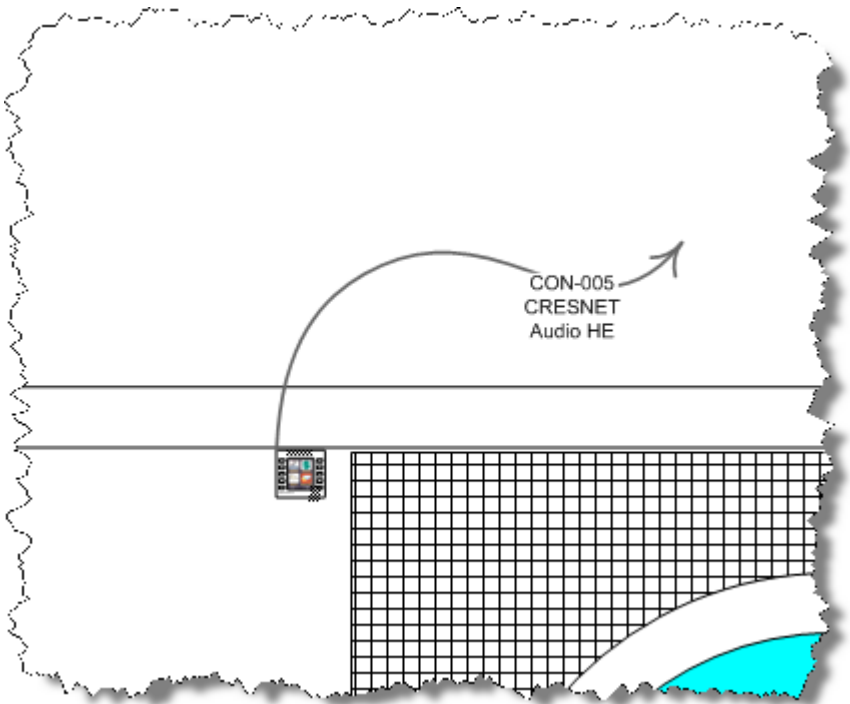
The Change Order displays on a tab:



He prints the report and Franz then meets with the client's to discuss and to get a signature.

Updating the Documentation and Closing the Project

Laura wants to update the drawings to account for the added touch panel so she opens the MACGOWAN-001.vsd file and drags out the CT-1000 and Cresnet products to the Plan View page and positions them next to the Jacuzzi:



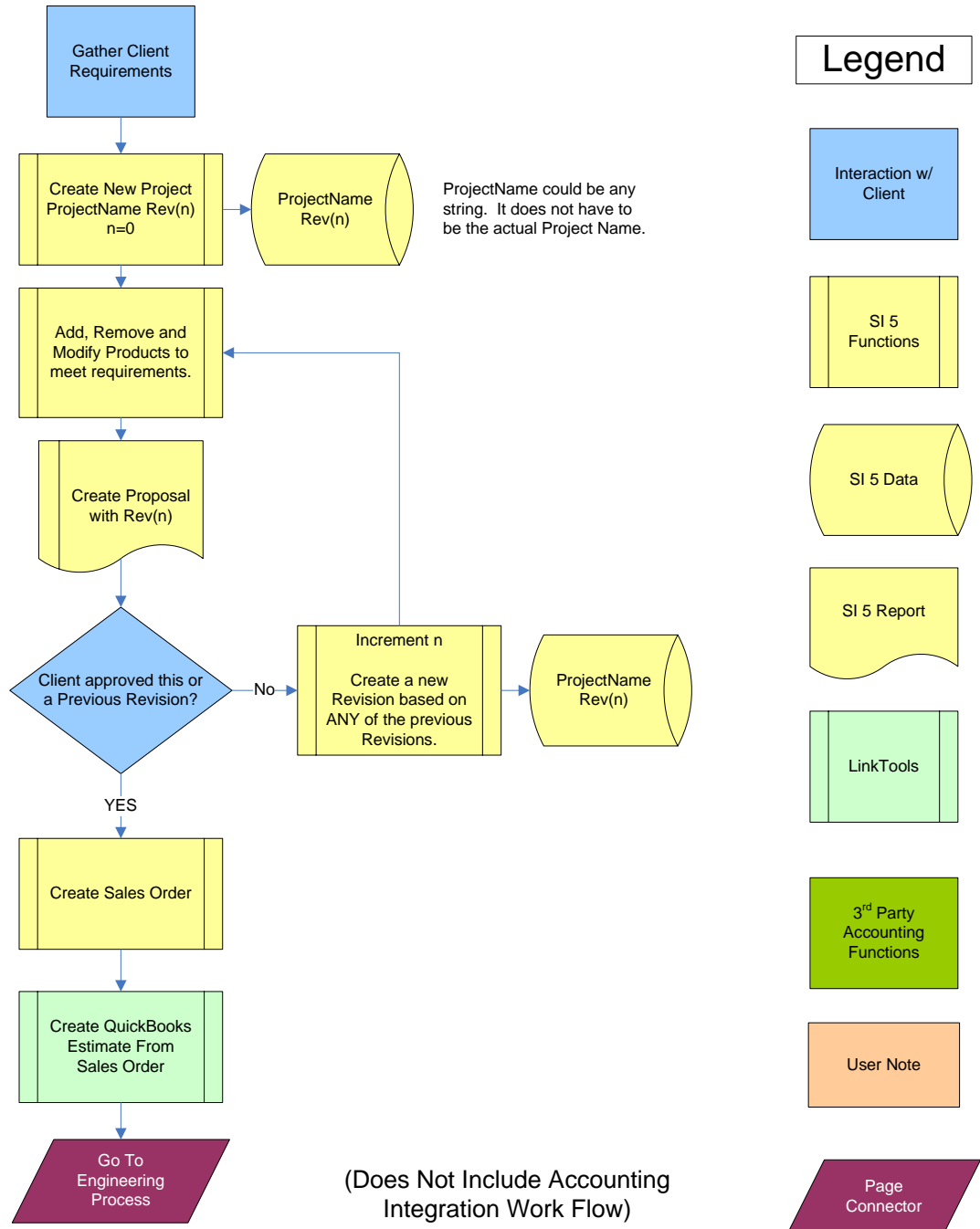
When finished, she saves and closes the file and then launches the MACGOWAN-001 Schematic.dwg file to add them to the schematic drawing:



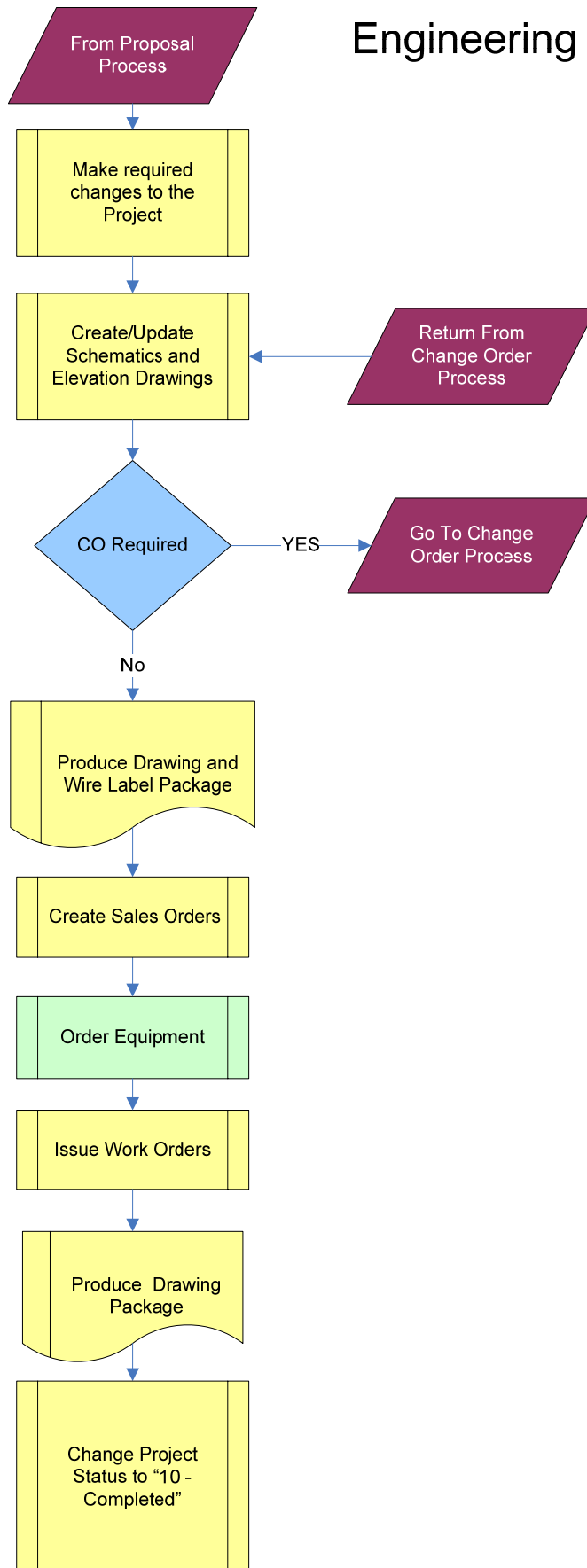
When finished, she changes the project's status to "10 – Completed" and then saves and closes the project file. Time for lunch!

Appendix A: Global Vision Process Flow

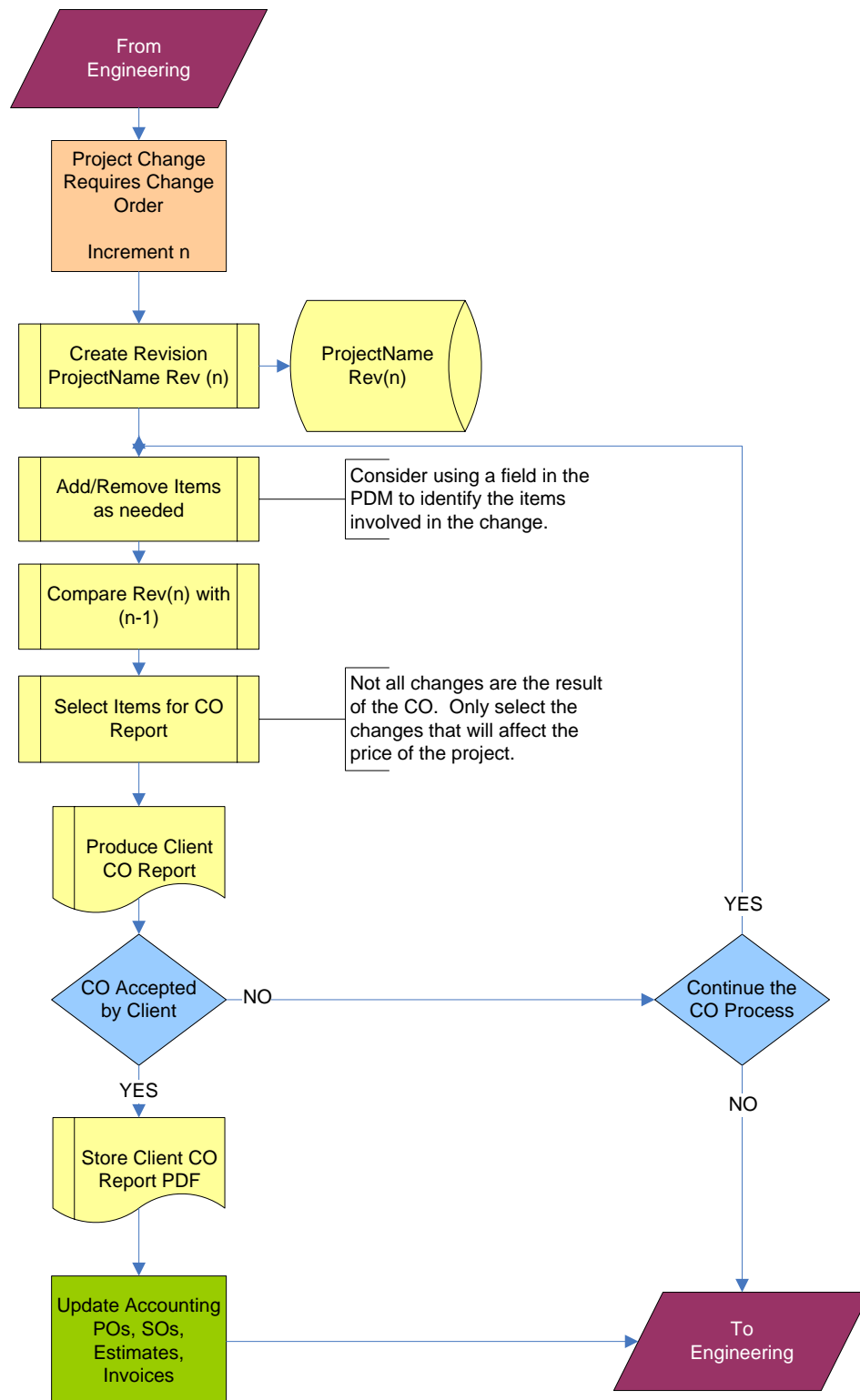
Proposal Process Flow



Engineering Process Flow



Change Management Process Flow



Appendix B: Help Videos

<http://www.d-tools.com/site/downloads/SI%205%20Help%20Videos.pdf>