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Plan-Um AP®

www.jdsu.com/hbn

Software Instructions



JDSU

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Introduction

Thank you for choosing JDSU's Plan-Um AP® (Advanced Planning) software. Plan-Um AP® allows you to layout and document your cabling projects in minutes.

System Requirements

Plan-Um AP® is an independent stand-alone software program and does not require interoperability with any other software. The following are requirements to successfully run Plan-Um AP® on your computer:

Screen resolution:	800x600 dpi
Operating system:	Windows 2000, Windows XP, Windows Vista Mac OS X 10.4 (Tiger) Linux (tested on Debian 4, Red Hat 9, Ubuntu 7.04) Suse 9.3, Fedora Core 6, and Gentoo
Available Disk Space:	15 Mbytes
Memory:	256 Mbytes minimum
Printing:	Fully supports printing to PDF files, Adobe Acrobat 6.0 or higher

Data Entry Requirements

Field Limitations	20 characters maximum
Character Limitations	None

Installing Plan-Um AP®

Install Plan-Um AP® from the CD onto your PC. Plan-Um AP® does not run directly from the CD.

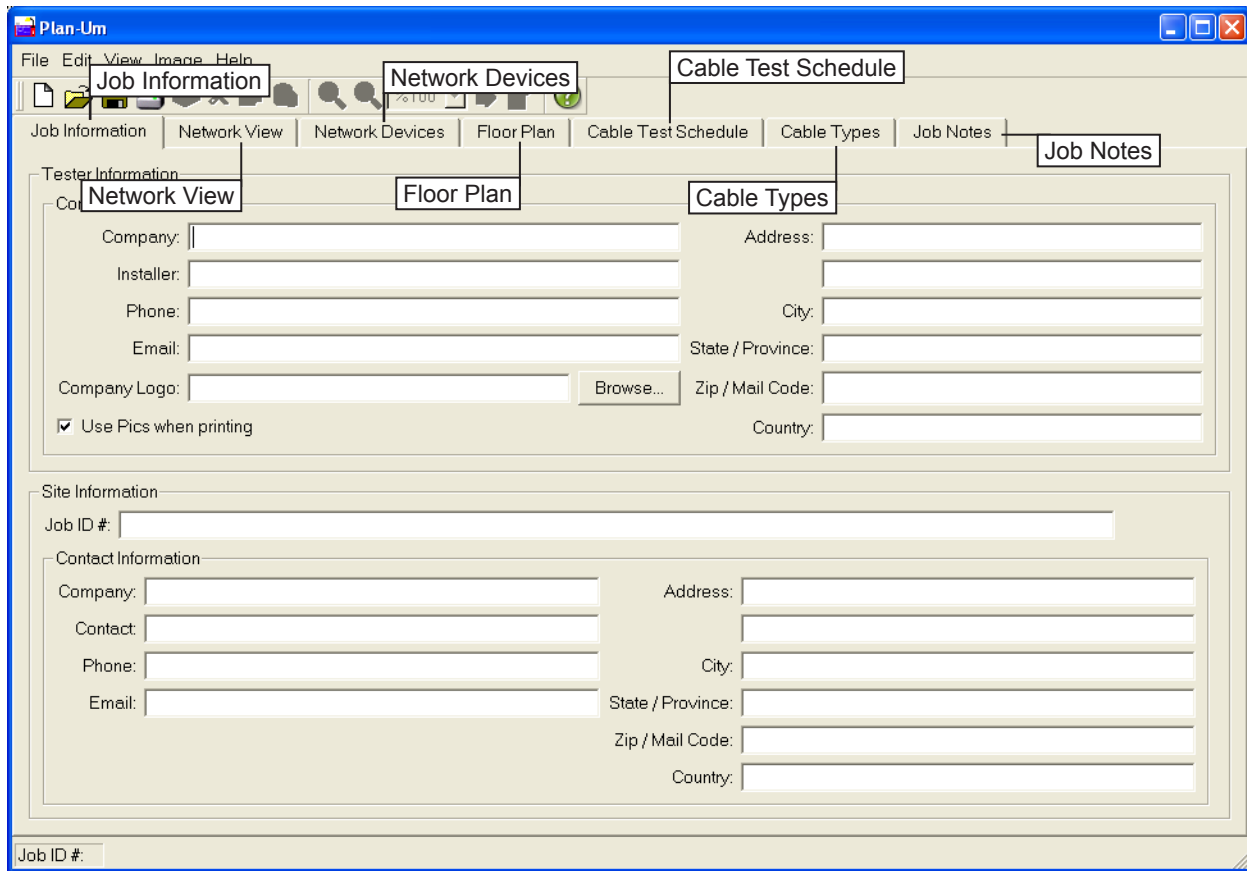
- 1) Close all Windows programs, including all virus-detection and screen saver software.
- 2) Insert the Plan-Um AP® CD into your CD drive. The PC automatically starts the installation.
- 3) Select a language to use for the software installation and Plan-Um AP®.
- 4) Follow the installation instructions and accept the License Agreement to complete the installation
- 5) The installation automatically creates a desktop shortcut to Plan-Um AP®.
- 6) Plan-Um AP® documentation can be downloaded from www.jdsu.com/hbn.

The files are in Portable Document Format (PDF). To view, store, or print the instructions, you must have Adobe Reader™ installed on your pc. Adobe Reader™ is available free from Adobe's web site.

Note: When downloading Plan-Um AP® updates from our web site, please follow the update instructions carefully. JDSU recommends that you un-install the current version of Plan-Um AP® before re-installing the new software release.

Starting Plan-Um AP®

- 1) Double click on the Plan-Um AP® icon.
- 2) The program opens to the Plan-Um AP® dialog box with seven tabs.



Job Information contains Tester Information and Site Information. Tester Information identifies contact information for the company performing the job. Site information contains information about the site you are designing. Tester and Site Information prints on all job reports, and is used for bidding and invoicing.

Network View allows you to create a network topology independent of the cables created in the floor plan view.

Network Devices summarizes the devices from the network view tab. This table is populated as the devices are added and can be printed.

Floor Plan allows you to design a home/office floor plan layout with ports and cable runs.

Cable Test Schedule summarizes the cabling job and creates a test schedule of all cable runs. This information is populated automatically as you design the cable installation in the floor plan.

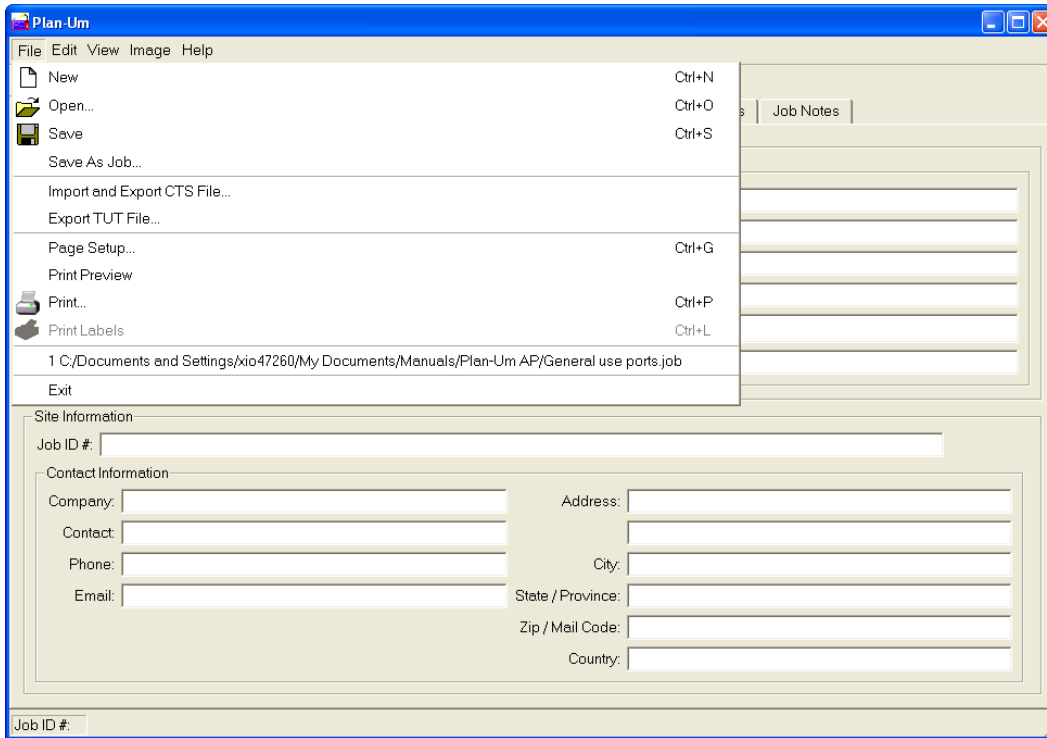
Cable Types allows you to create a custom cable or modify and rename an existing cable definition.

Job Notes can be used to record pertinent job information that may be helpful to the installer in the future.

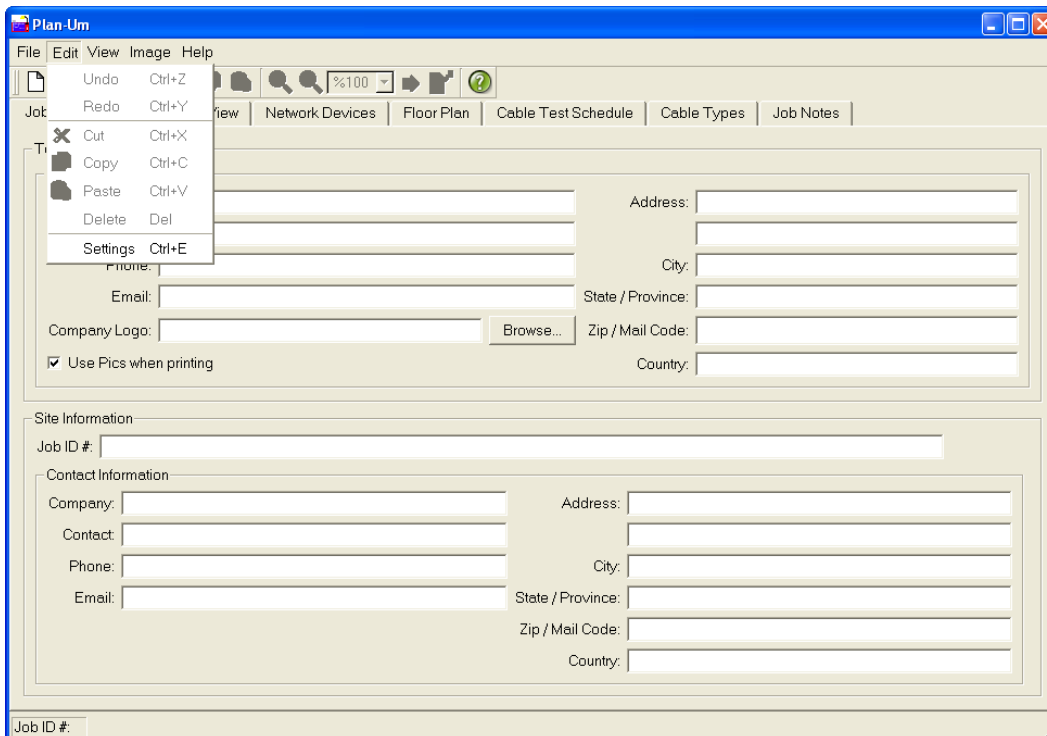
Menu Bar

A menu bar (File, Edit, View, Image, Help) appears at the top of the panel.

File Click to display New, Open, Save, Save As Job, Import and Export CTS File, Export Tut File, Page Setup, Print Preview, Print, Print Labels, and Exit.



Edit Click to display Undo, Redo, Cut, Copy, Paste, Delete, and Settings.



View Click to display Job Information, Network View, Network Devices, Floor Plan, Cable Test Schedule, Cable Types, and Job Notes. Also included are options to Zoom, Show Room Name, Show Room Dimensions, Show Points and Use Metric Units.

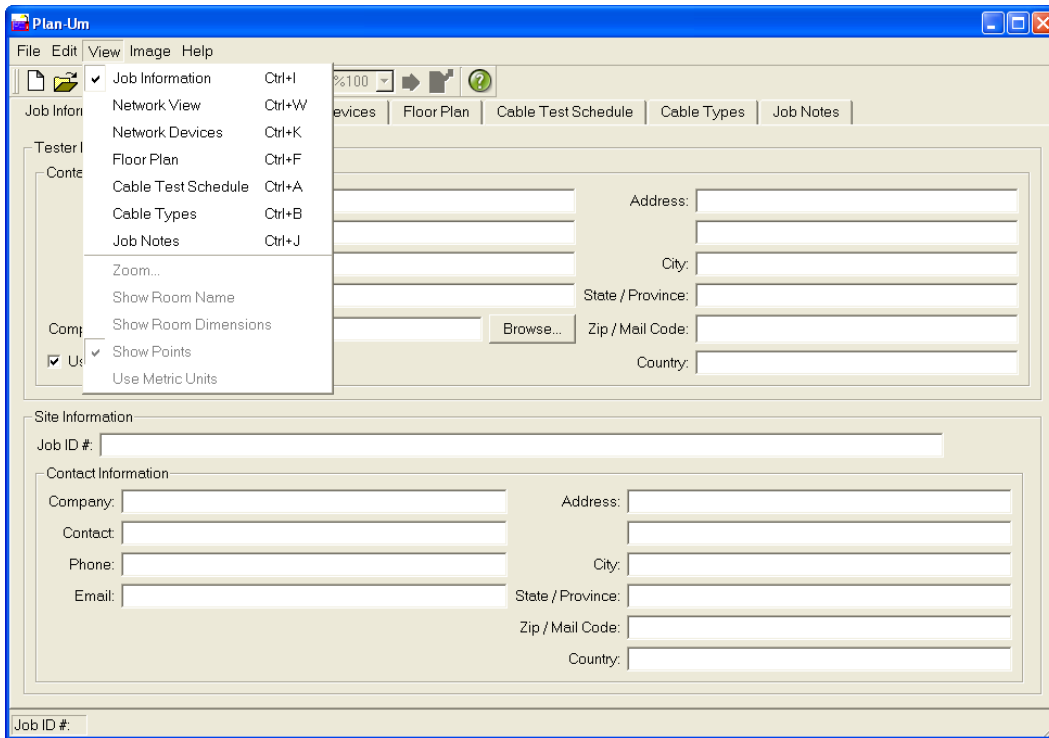
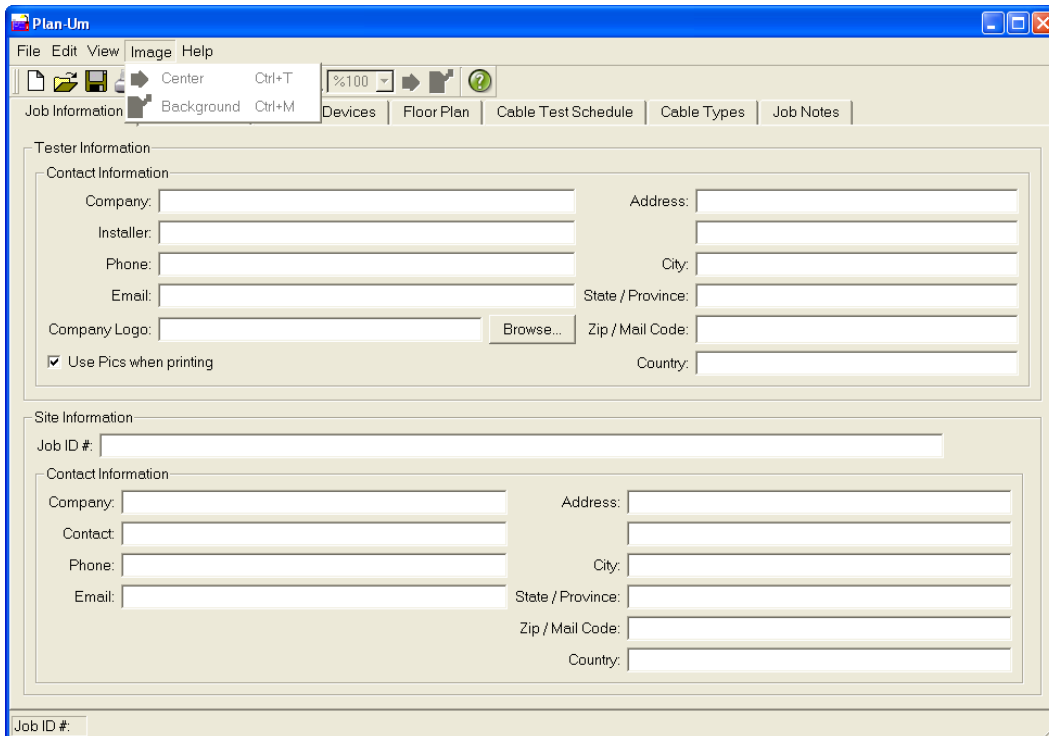
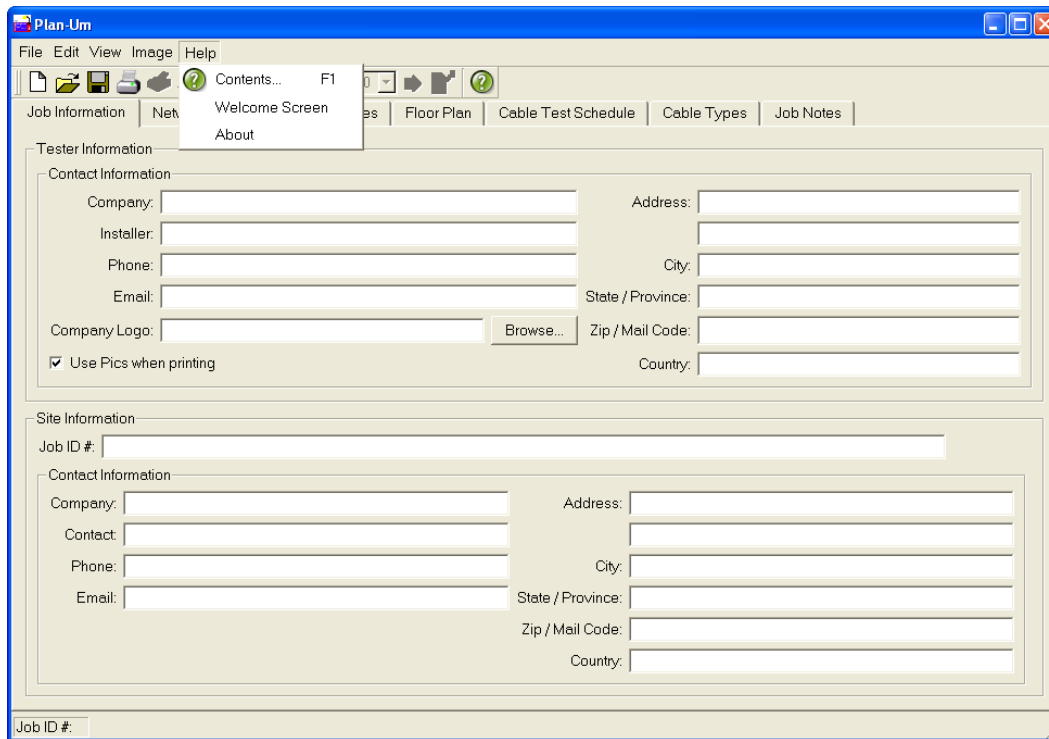


Image Click to display Center and Background.

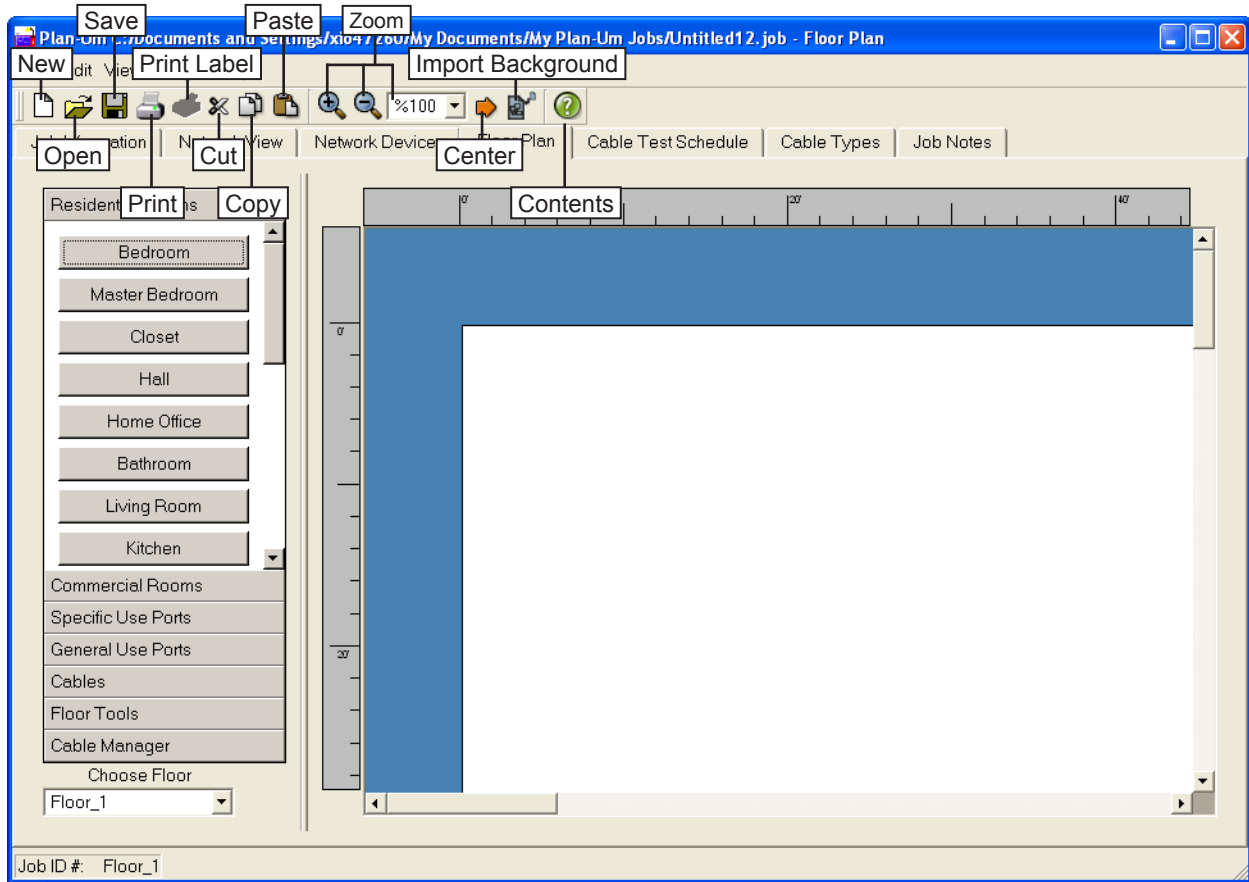


Help Click to display Contents, the Welcome Screen, or About.



Icon Toolbar

Use the icon toolbar as a shortcut to create a new file, open an existing file, save a file to your hard drive, save a file to some other media, and to cut, copy, and paste a floor plan. The last four icons allow you to magnify (Zoom) or shrink the floor plan view, move the floor plan on the desktop drawing canvas (Center), import a background, and verify the software version installed.

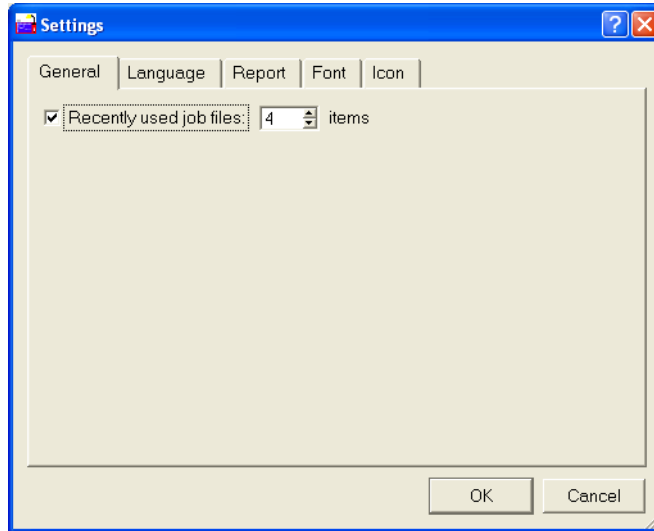


Plan-Um AP® Settings

To change Plan-Um AP® settings go to the edit menu and choose settings. This will bring up the settings dialog. There are five tabs to choose:

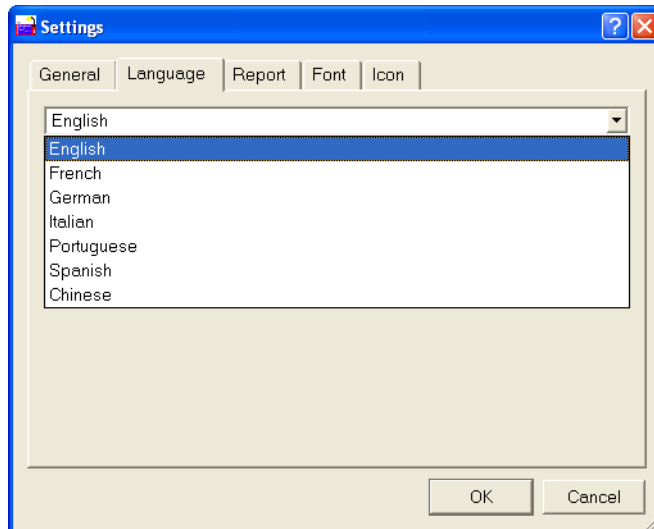
General

This tab allows you to change the number of recently opened job file names that appear in the file menu.



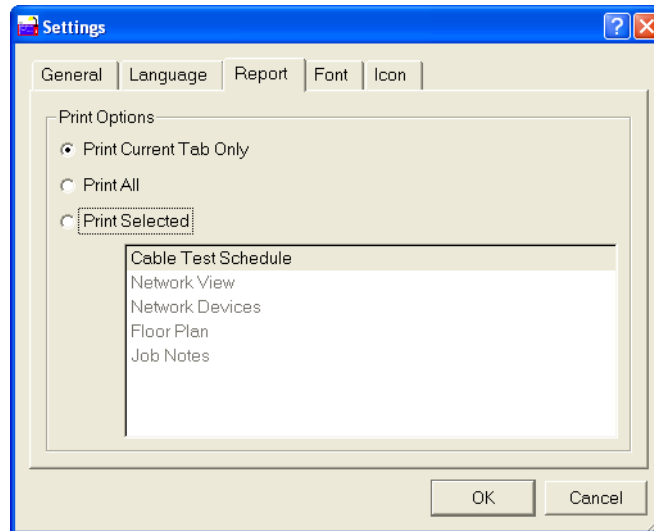
Language

This tab allows you to choose the current language for Plan-Um AP®.



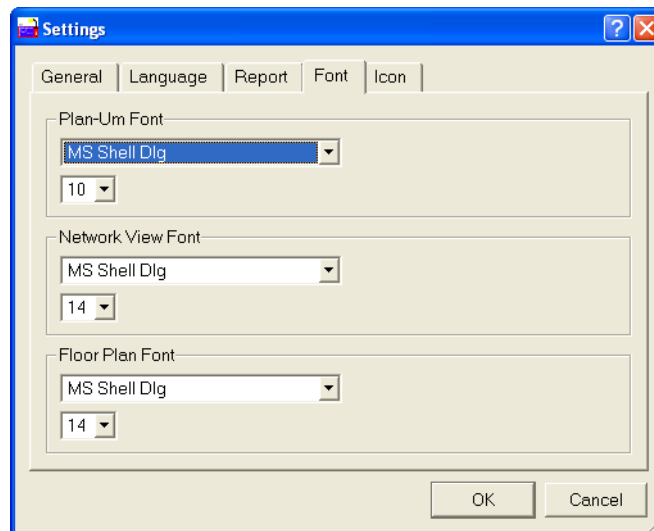
Report

This tab allows you to change the pages that print when you select the print button. The current tab option prints the data displayed on the currently selected tab (i.e., what you see). The print all option will print the entire job report. The print selected option allows the user to print data on selected tabs on a tab-by-tab basis.



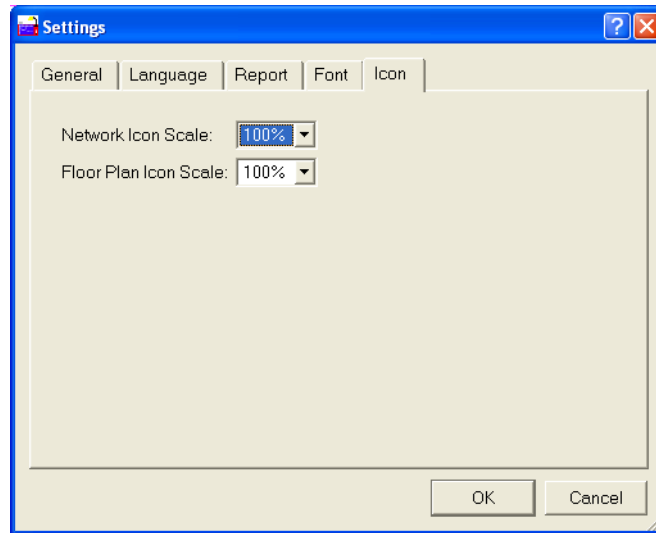
Font

This tab allows you to edit the application font for Plan-Um AP® and the font which appears in the Floor Plan and Network View tabs. Note: not all application fonts look good and are readable.



Icon

This tab allows you to edit the sizes of the Icon scale in the Floor Plan and Network View.



Page Setup and Scale

Plan-Um AP® opens with a default page size, orientation, and scale appropriate to most drawings. However, the Page Setup dialog box allows you to select alternate Print Setup, Page Size, and Drawing Scale options to accommodate various layout sizes for the Floor Plan and Network View menu tabs. For all other menu tabs, the Page Setup allows you to select the paper size and print zoom options only.

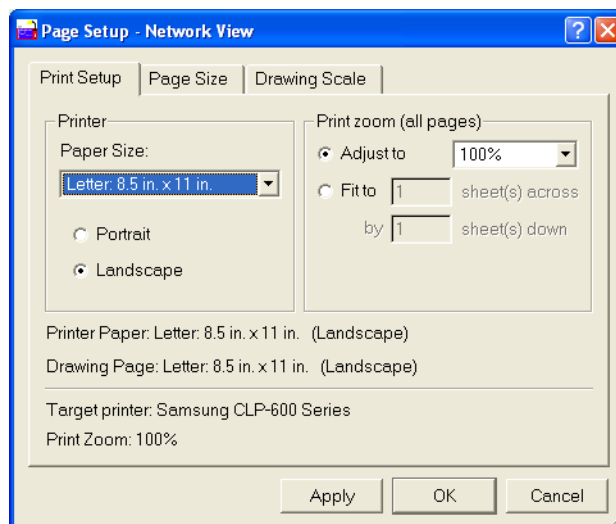
The default print setup for the floor plan is 8.5 x 11 paper, landscape mode, with a drawing scale of 1" equals 20'. To adjust the floor plan Drawing Scale, Page Size, and Print Setup, click the Page Setup dialog from the File Menu and select alternate attributes on each menu tab.

The settings are automatically saved separately for each tab in the job file so that when you reopen the job, or create a new job, the selected Page Setup options remain.

You can also save these settings to a Template so that new job files that require the same settings can be easily reproduced. (See Managing Job Files, Save and Export As Template).

Print Setup

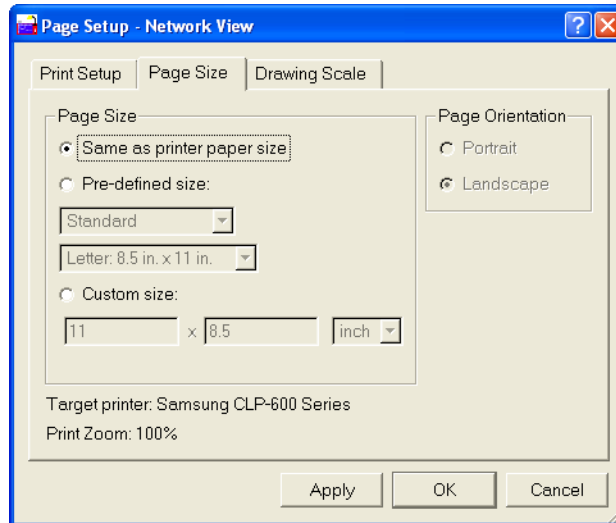
To select a paper size other than 8.5 x 11, click the down arrow and select the paper size you wish to print your drawing on from the list. To change the page orientation from landscape to portrait, click the alternate selection. To change the Print Zoom from 100%, click the down arrow and select the desired zoom from 25% to 400%, from the drop down menu.



Page Size

Typically the drawing page, represented by the white area on your screen, and the image printed on your paper are the same. However, to select a page size for your floor plan that is different than your printer paper, click Predefined Size and using the drop down menu select Standard, Metric (ISO), ANSI Engineering, or ANSI Architectural to adjust the scale for your drawing. Click the down arrow to select Letter, Folio, Legal, or Tabloid paper.

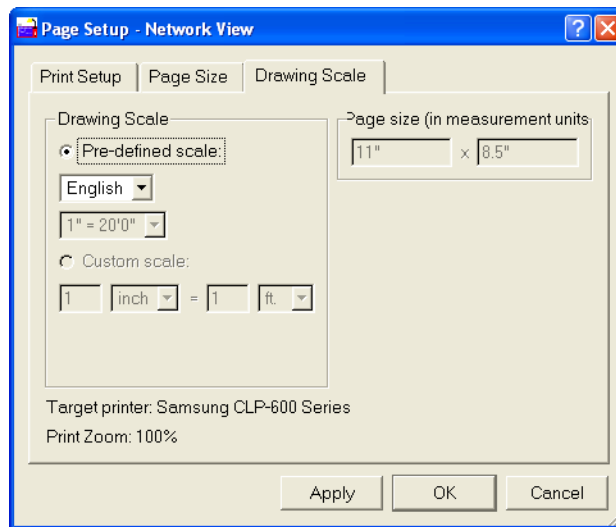
Or, click the Custom Size button and define a page size by entering the dimensions of your choice and selecting unit increments of inches, millimeters, centimeters, pixels, or feet. In addition, you can change the page orientation from landscape to portrait.



Drawing Scale

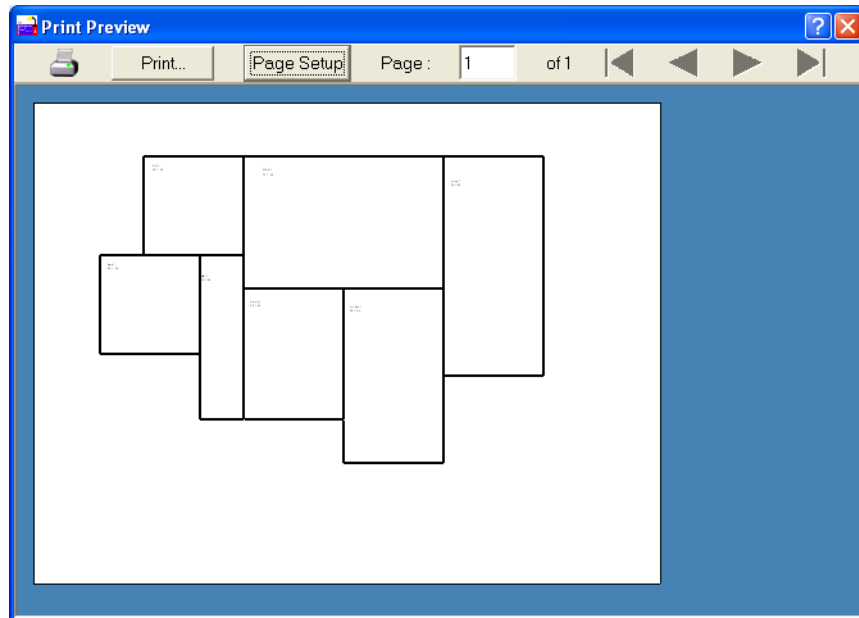
To adjust the drawing scale, select either the Pre-defined Scale or Custom Scale to input a drawing scale of your choice. The Pre-defined scale allows you to select from a list of 6 choices ranging from 1" = 5' to 1" = 50' using English units, or 3 choices using metric measurement units. The drawing scale allows you to adjust the scale on the ruler to the size of the building you are cabling and then add the rooms and cables so that the drawing is appropriately proportioned to the building on the paper you print your job on. Changing these settings modifies the Page Size measurement units.

To display or hide the room dimensions on your drawing, click the View drop down dialog box and select Show Room Dimensions to alternately show or hide the room dimensions using the scale you have selected.



Print Preview

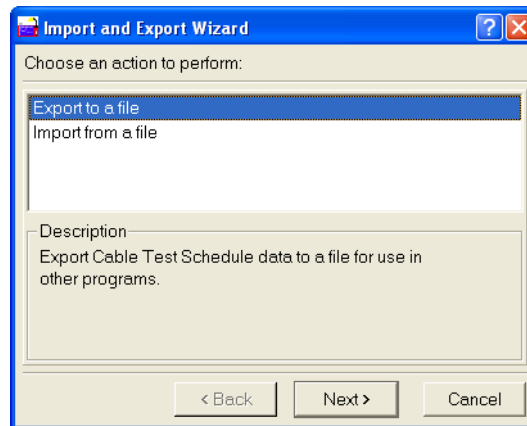
To see what will be printed you can open the print preview. Specify the pages you would like to print using the report tab in the settings dialog and the appearances and paper sizes using the page setup dialog. Print preview serves as a snapshot of what would result by hitting print. At the top of the print preview there are buttons to do a quick print (bypass the print dialog), normal print (shows print dialog first), page setup, and the navigation tools. To navigate one page at a time click the left and right arrows. The arrows with the line go to the first and last pages of the print results. To jump to a specific page edit the number in the line edit and press enter.



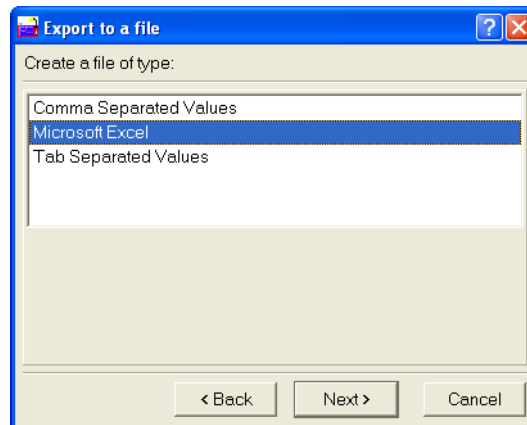
Import and Export CTS File

Plan-Um AP® provides the capability to export cable test schedule data to files and import cable test schedule data from files. Plan-Um AP® can import and export data in three types of file formats – tab delimited format, comma separated format, and Microsoft® Office Excel Workbook format. The following procedures are used to import or export cable test schedule data from Plan-Um AP®:

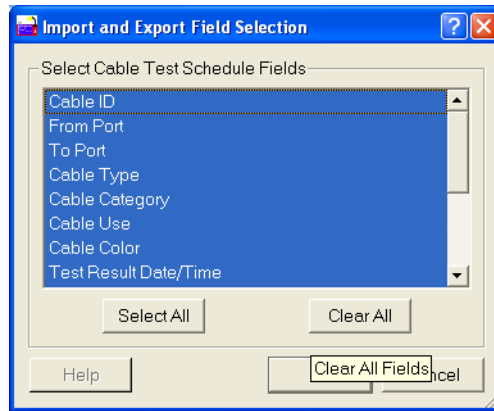
1. Select the 'Import and Export CTS File...' option from the File menu. The 'Import and Export Wizard' dialog appears.
2. Select the option to either import cable test schedule data or export cable test schedule data to a file and select Next.



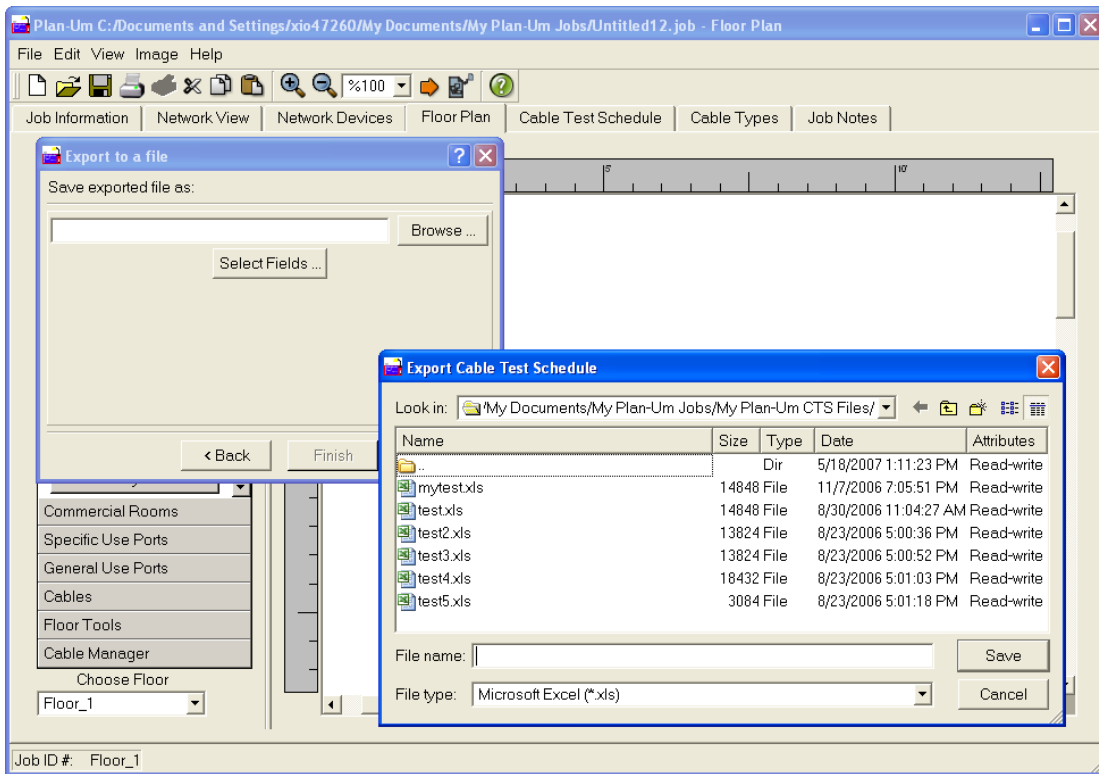
3. Select the file type to import or export and select Next.



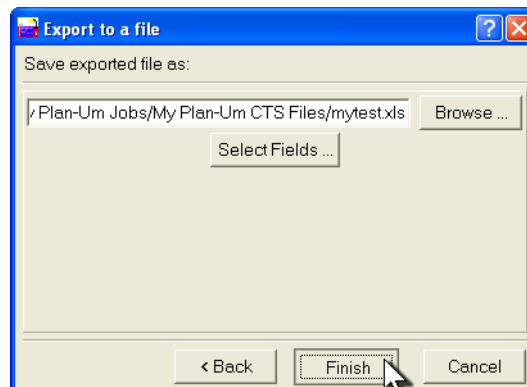
4. By default, all cable test schedule fields are imported or exported. To change the default, select the 'Select Fields' button and select those items desired for import or export. The 'Cable ID' item is always selected for either import or export.



5. Enter a filename into the text field or browse to select a filename.



6. Select Finish to import or export the cable test schedule data to the file.



Defining Job Information

Click the Job Info tab to display the Tester Information and Site Information entry fields. Job information prints on the Cable Test Schedule and Detailed Test Results.

Tester Information

In the upper portion of the Job Info dialog, fill in your Company's contact information.

1. Type the Company Name, the name of the Installer, the Phone Number, and the Email address.
2. If you are including your company's logo on the printed Cable Test Schedule or Detailed Test Results, use the Browse button to locate your company's logo in an image file. Once found, click on the image to fill the Company Logo field with the path to that file location. Plan-Um AP® supports the following image file formats: .PNG, .BMP, .JPEG, .PNM, .MNG, .XBM, and .XPM. The maximum pixel dimensions of the logo you insert should not exceed a width of 200 pixels and a height of 60 pixels. The Use Pics box is a default setting that can be unchecked if printing images causes problems with your printer.
3. Fill in the Address fields on the right side of the screen.

Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/General use ports.job - Job Information

File Edit View Image Help

Job Information | Network View | Network Devices | Floor Plan | Cable Test Schedule | Cable Types | Job Notes

Tester Information

Contact Information

Company: JDSU Address: 808 Calle Plano

Installer: N. Xiong

Phone: (805) 383-1500 City: Camarillo

Email: noah.xiong@jdsu.com State / Province: CA

Company Logo: st-Um Inc/templates/Examples/Company Logo.gif Browse... Zip / Mail Code: 93012

Use Pics when printing Country: USA

Site Information

Job ID #:

Contact Information

Company: Address:

Contact:

Phone: City:

Email: State / Province:

Zip / Mail Code:

Country:

Job ID #:

Site Information

The bottom portion of the Job Info window contains Site Information. Fill in the information about the site you are designing.

1. Type a JOB ID # or name to identify the job on which you are working. The Job ID # appears at the bottom of each screen in the left corner. It also appears on printed documentation associated with the job.
2. Complete the Customer Contact Information: Company Name, Contact, Phone Number, and Email address.
3. Fill in the Address fields on the right side of the screen.

The screenshot shows the Plan-Um software interface. The title bar reads "Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/General use ports.job - Job Information". The menu bar includes File, Edit, View, Image, and Help. The toolbar contains icons for file operations and a search function. The main window has several tabs: Job Information (selected), Network View, Network Devices, Floor Plan, Cable Test Schedule, Cable Types, and Job Notes.

The "Tester Information" section is expanded, showing "Contact Information" with the following fields:

Company:	JDSU	Address:	808 Calle Plano
Installer:	N. Xiong		
Phone:	(805) 383-1500	City:	Camarillo
Email:	noah.xiong@jdsu.com	State / Province:	CA
Company Logo:	st-Um Inc/templates/Examples/Company Logo.gif	Zip / Mail Code:	93012
<input checked="" type="checkbox"/> Use Pics when printing		Country:	USA

The "Site Information" section is also expanded, showing "Contact Information" with the following fields:

Job ID #:	070518		
Company:	Residential	Address:	55555 Calle Plano
Contact:	Joe Smith		
Phone:	(555) 555-5555	City:	Camarillo
Email:	jsmith@home.com	State / Province:	CA
		Zip / Mail Code:	93012
		Country:	USA

The status bar at the bottom left displays "Job ID #: 070518".

Creating a Network View

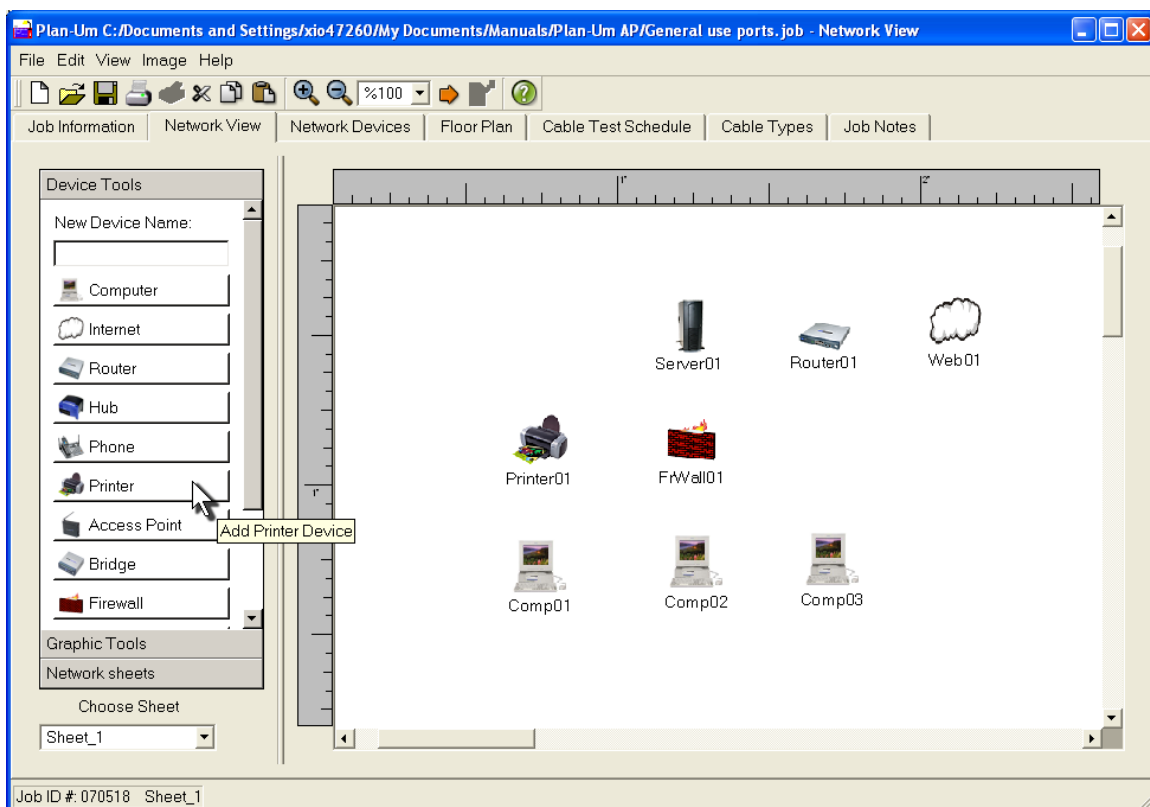
The **Network View** feature in Plan-Um AP® allows you to quickly and easily create a topological representation of your physical network, annotate each piece of equipment, and generally characterize the connection method. It is a simple tool that documents and illustrates network connections independent of the cable run information you may create in the Floor Plan section of Plan-Um AP®.

Network View provides a quick way to see the architecture of your network and document moves, adds, and changes in an organized and effective manner. You can designate a name and add notes to each network device. In addition, the free text features and angled connection features allow you to create a professional looking network diagram for presentation to your customer. It is easy to customize and update equipment notes to record the legacy information so necessary for good network management.

Placing Network Icons

Network icons include computers, telephones, routers, hubs, the internet, printers, access points, bridges, firewalls, servers, and faxes. Use these icons to identify network devices in the layout.

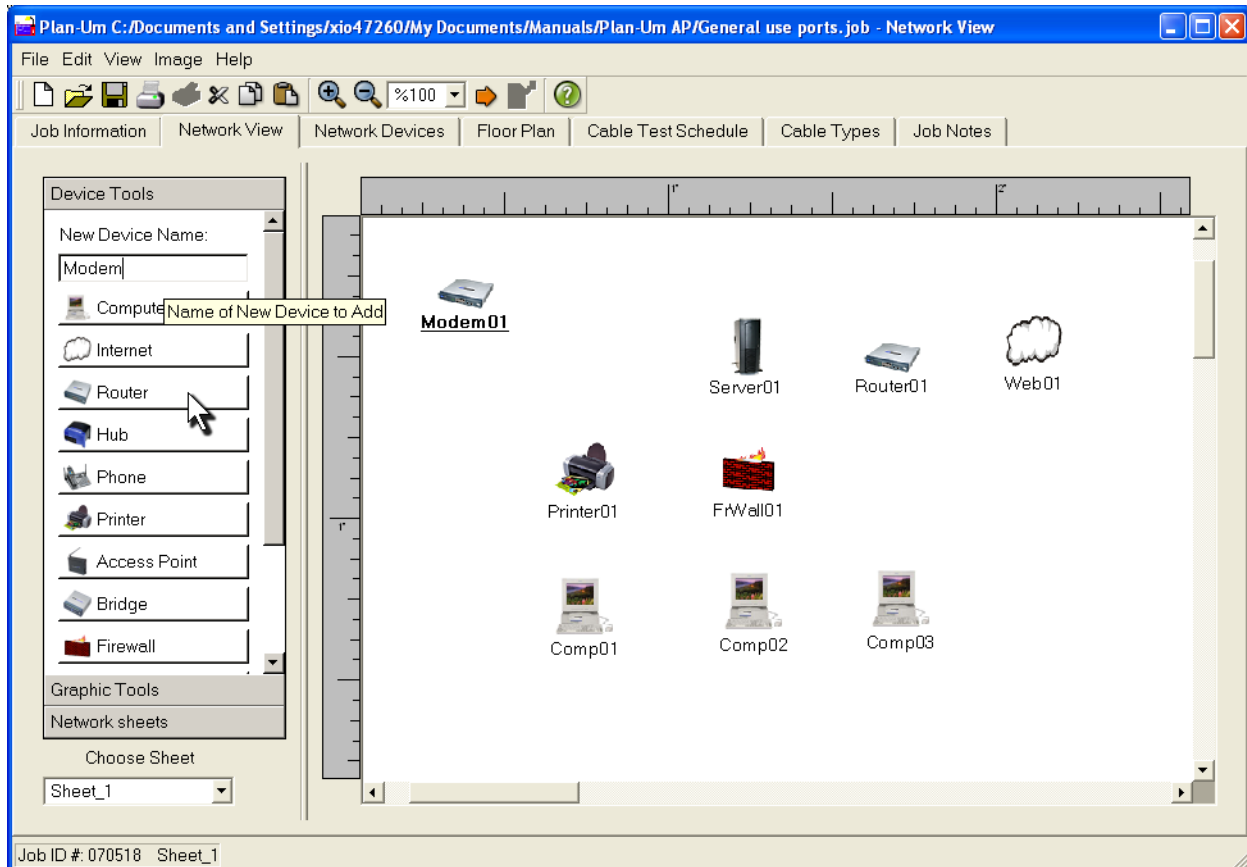
1. When you click an icon on the left tool menu, it pops into the upper left corner of the canvas. Multiple clicks will create multiple icons numbered in the order of your clicks.
2. Click on the Network icon on the canvas again and drag it to the position where you want to place it.
3. Repeat this process with the same or other icons until all Network icons are placed on your layout.



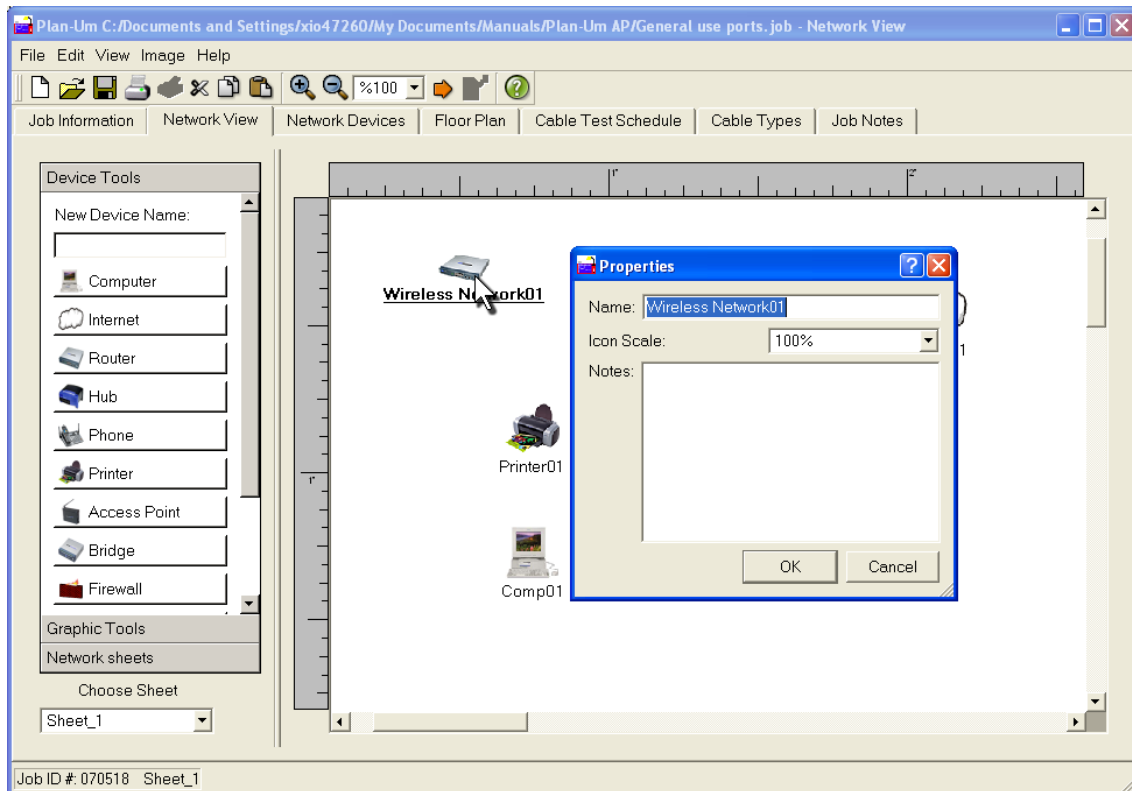
Customizing the Name of the Network Device Icon

You can customize the icon name that displays on the canvas and add notes using different methods.

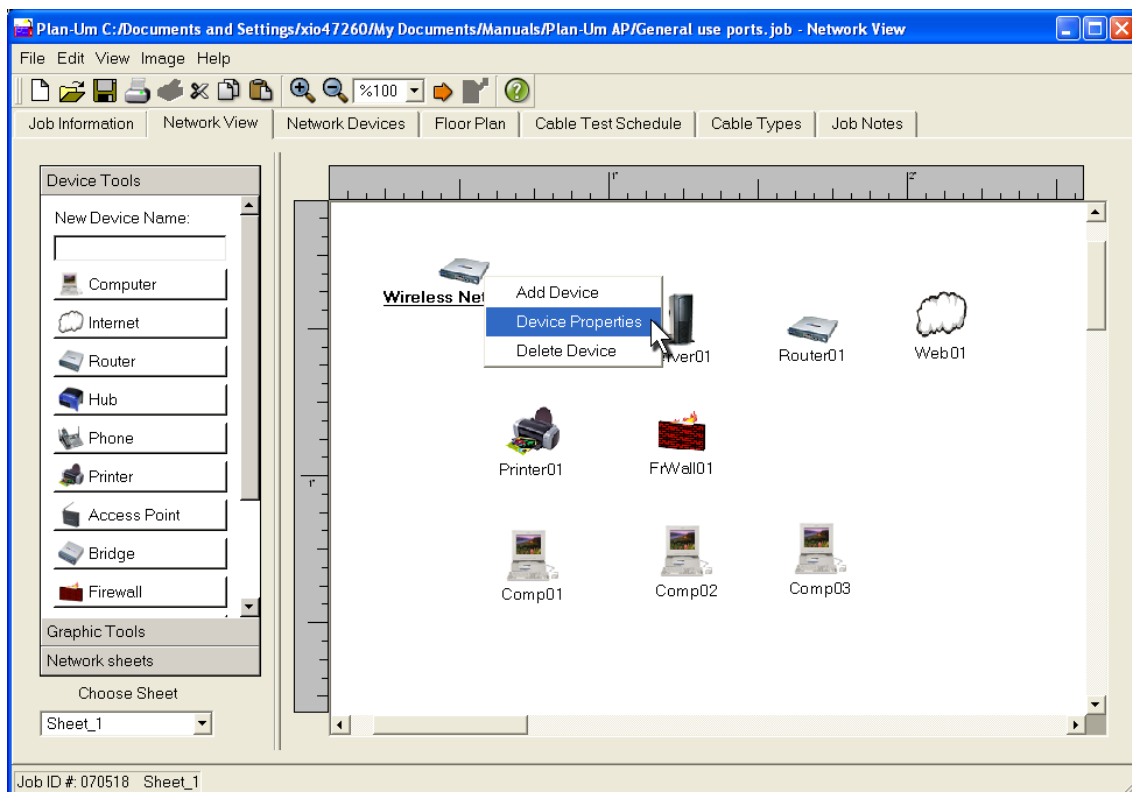
1. Click on the **New Device** dialog box at the top of the left toolbar. Type the Name you wish to specify and then click the icon you wish to add. The custom name will appear on the canvas under the icon. Text entered in the New Device dialog box will automatically be associated with every icon placed on the canvas until you highlight and delete the text from the dialog box.



2. Double click the icon once it is placed on the canvas. A popup dialog box appears titled “**Properties**”. Type the new name information and any notes you want to add. Click OK to display the new name.



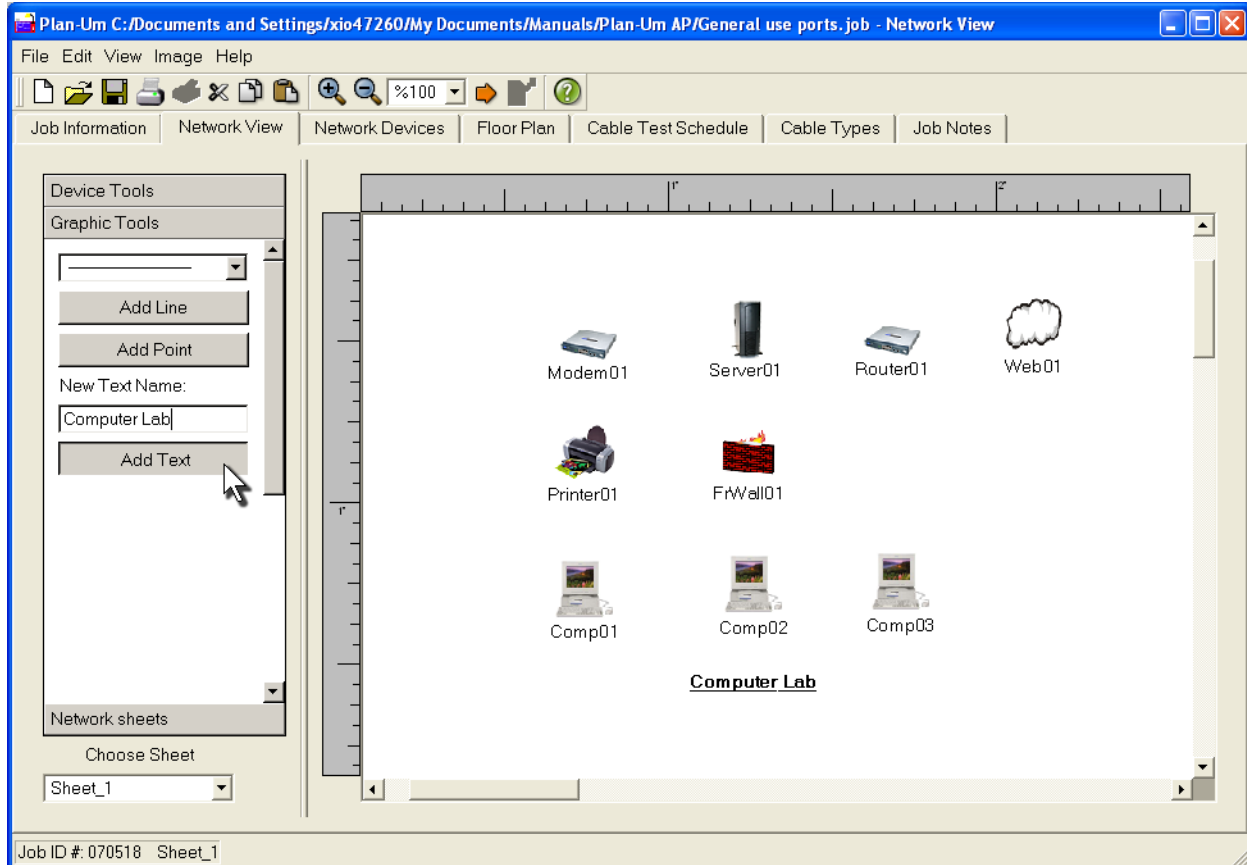
3. You may also right click the icon once it is placed on the canvas, and select **Device Properties**. A popup dialog box appears titled “**Properties**”. Type the new name information and any notes you wish to add. Click OK to display the new name.



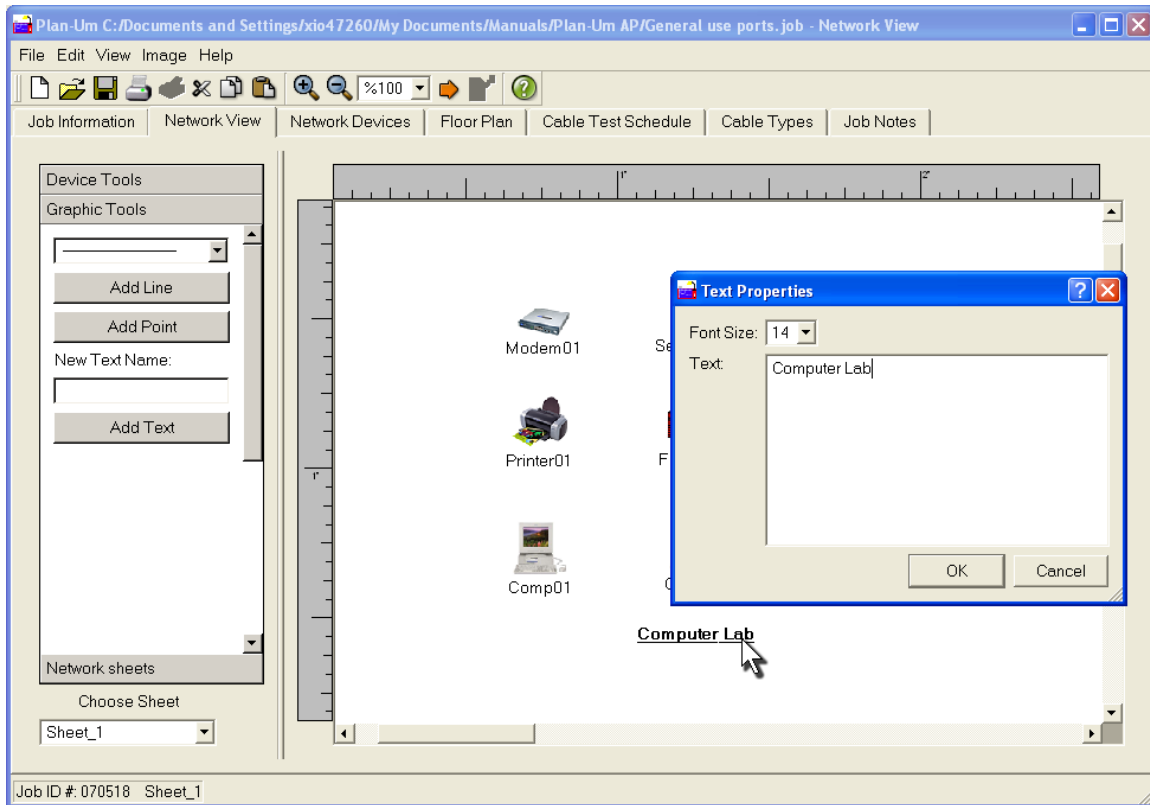
Placing Free Text on the Network View Layout

You can also place text with information regarding the network anywhere on the Network View canvas. For example, you can title your Network View drawing, insert general information about the network, or identify specific user groups, floors, etc.

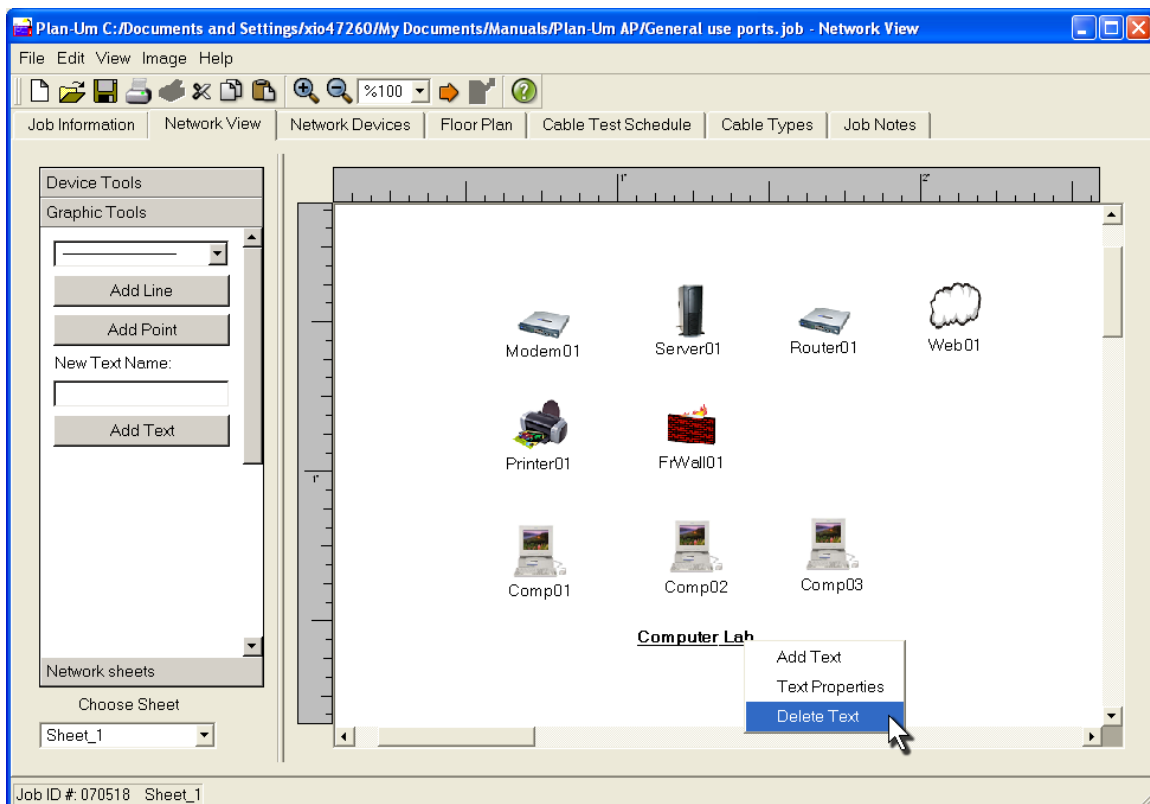
1. Click **Add Text** on the network toolbox in the Graphic Tools page.



2. Double click **Text** once it is placed on the canvas. When the **Properties** dialog box pops up, enter the text, select the font size, and click **OK** to place the text on the canvas. Click and hold the left mouse button to move the text anywhere on the screen.



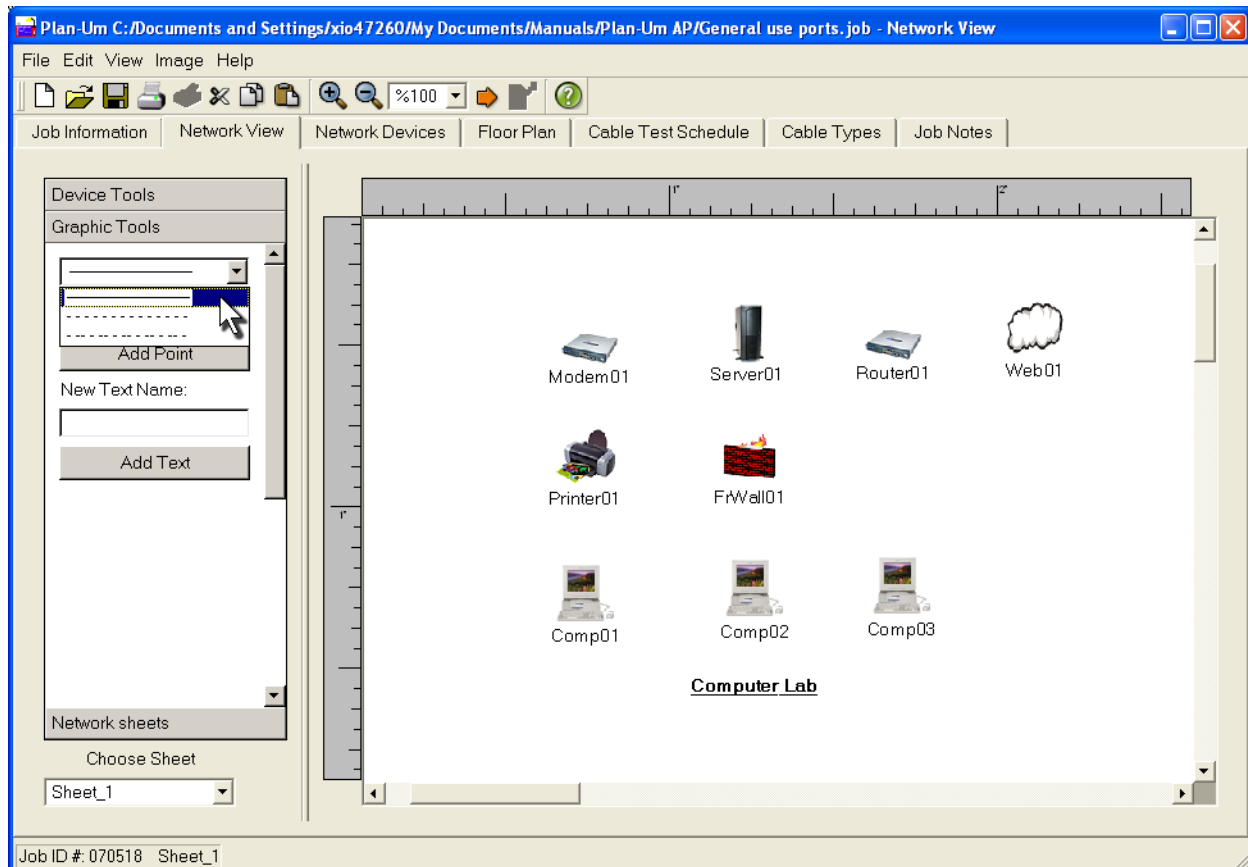
3. To delete text, click on the text on the Network View canvas and press Delete or right click on the text and choose delete text in the context menu.



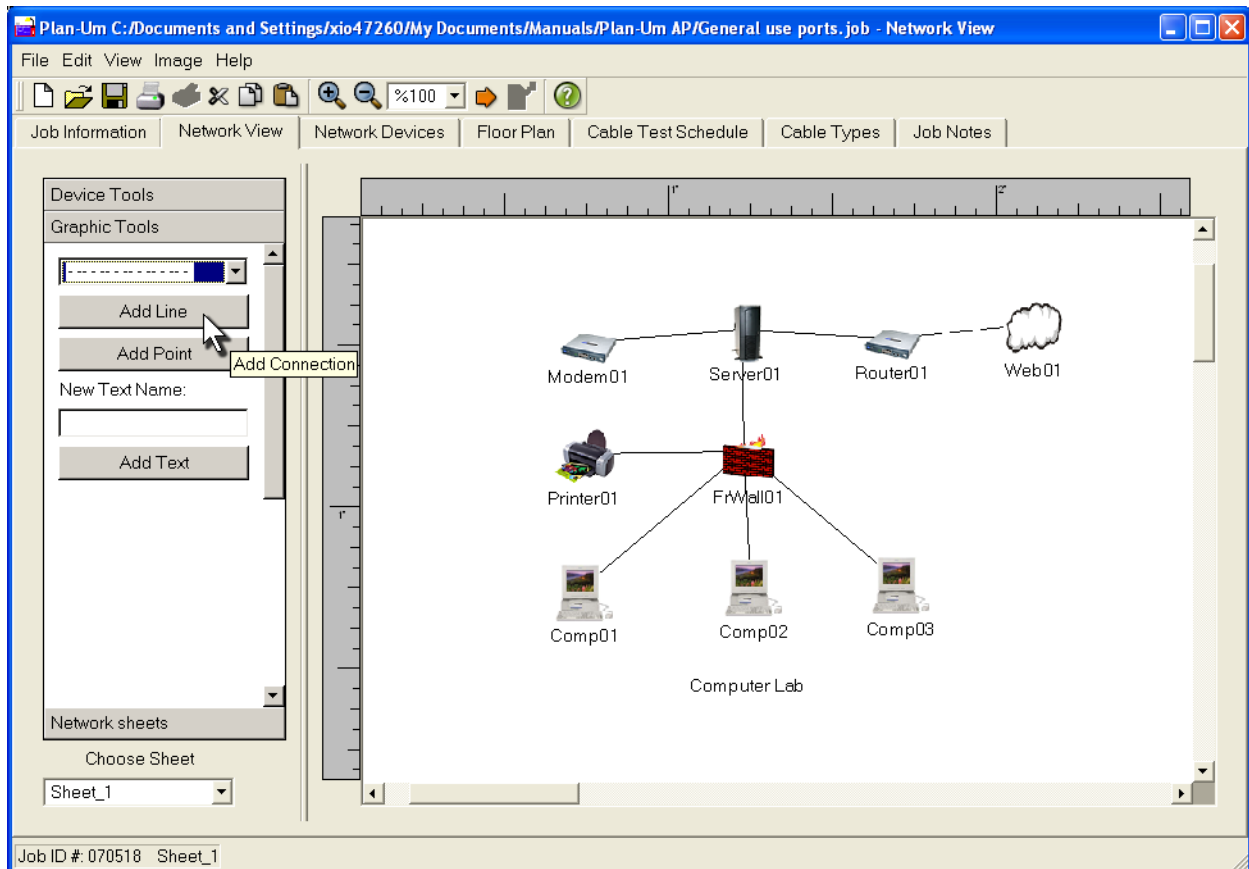
Adding Lines

Once the Network Port icons have been added, draw the lines between each piece of equipment to simulate the physical layout of your network.

1. Click the **Lines** pulldown menu in the Graphic Tools page and select one of three line types. You may differentiate between the types of connections by clicking the down arrow and selecting a dash line, a solid line, or a dash/dot line to denote a connection type of your choice.



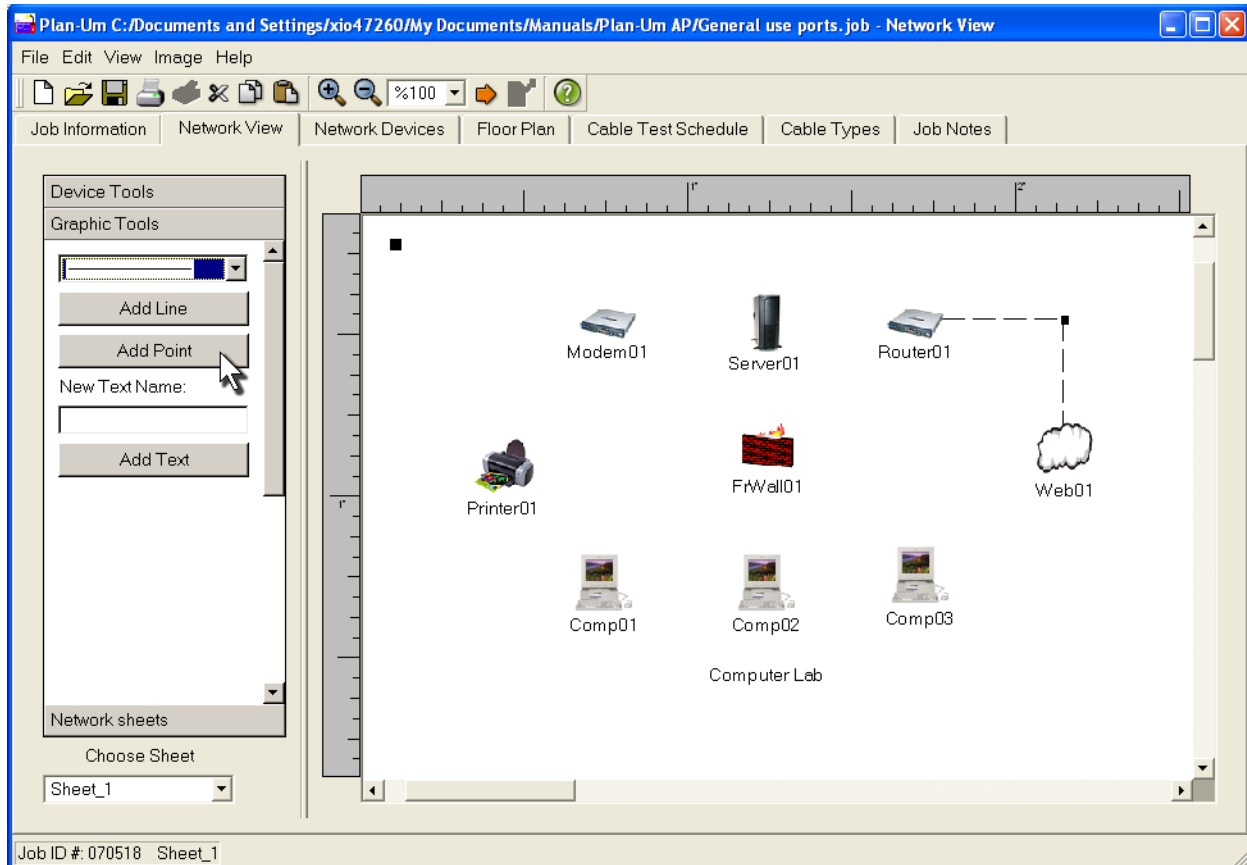
2. Click **Add Line**. When you move the mouse to the floor plan, the cursor changes from a cross to an arrow.
3. Position the cursor over a network icon, hold the left mouse button down, and drag the cursor to the network icon you want to connect to. This creates a line between the two icons.



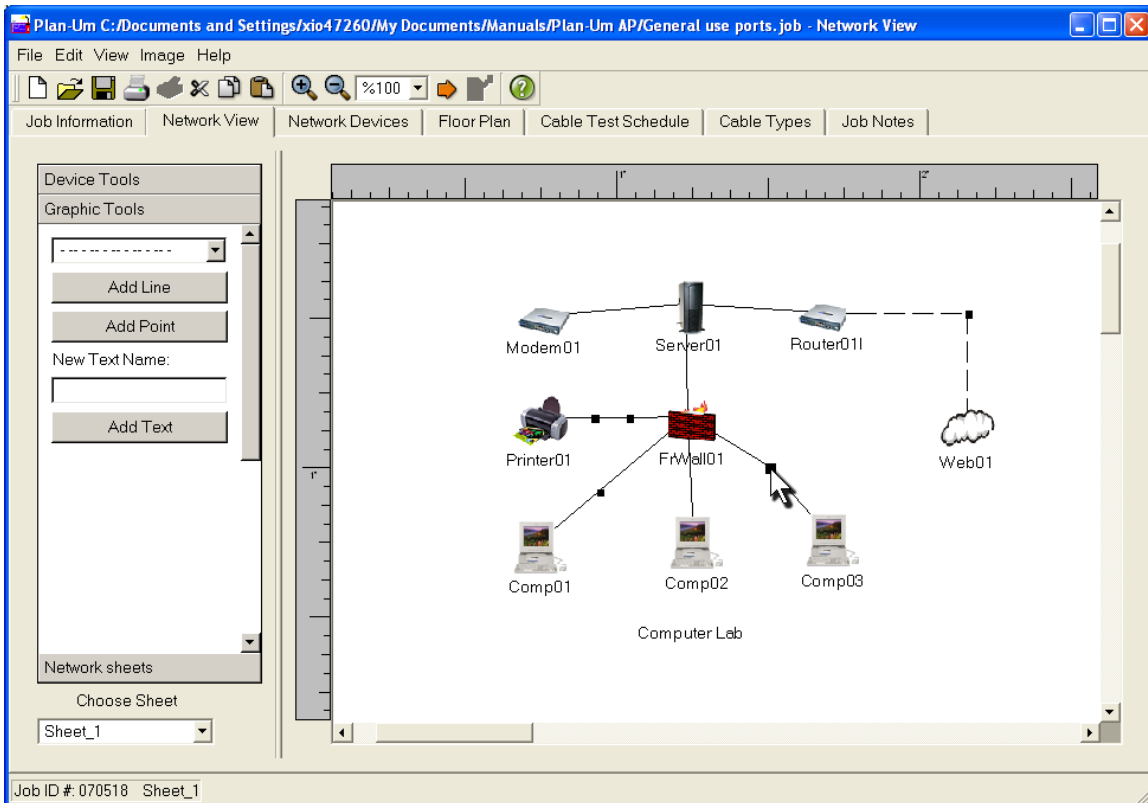
Angling Lines

You may also create angled lines that bend using different methods to allow you to change the direction of the path in any direction. Adding multiple inflection points on a line path allows you to go around devices displayed in the Network View.

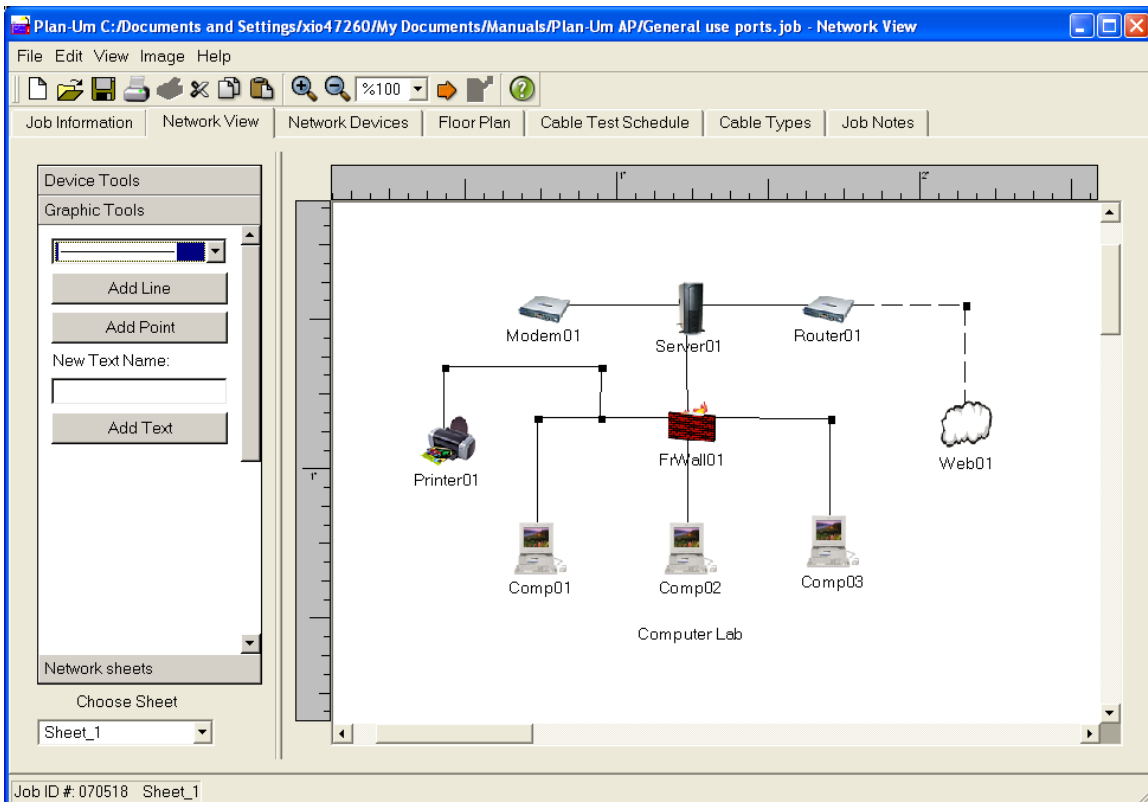
1. Click the **Add Point** button in the Graphic Tools page. The point pops up into the upper left corner of the canvas. Click on the point and drag it to a position where you want to place it. Select a line and connect the line from a network icon to the point, and then add a connection from the point to another network icon creating an angled line.



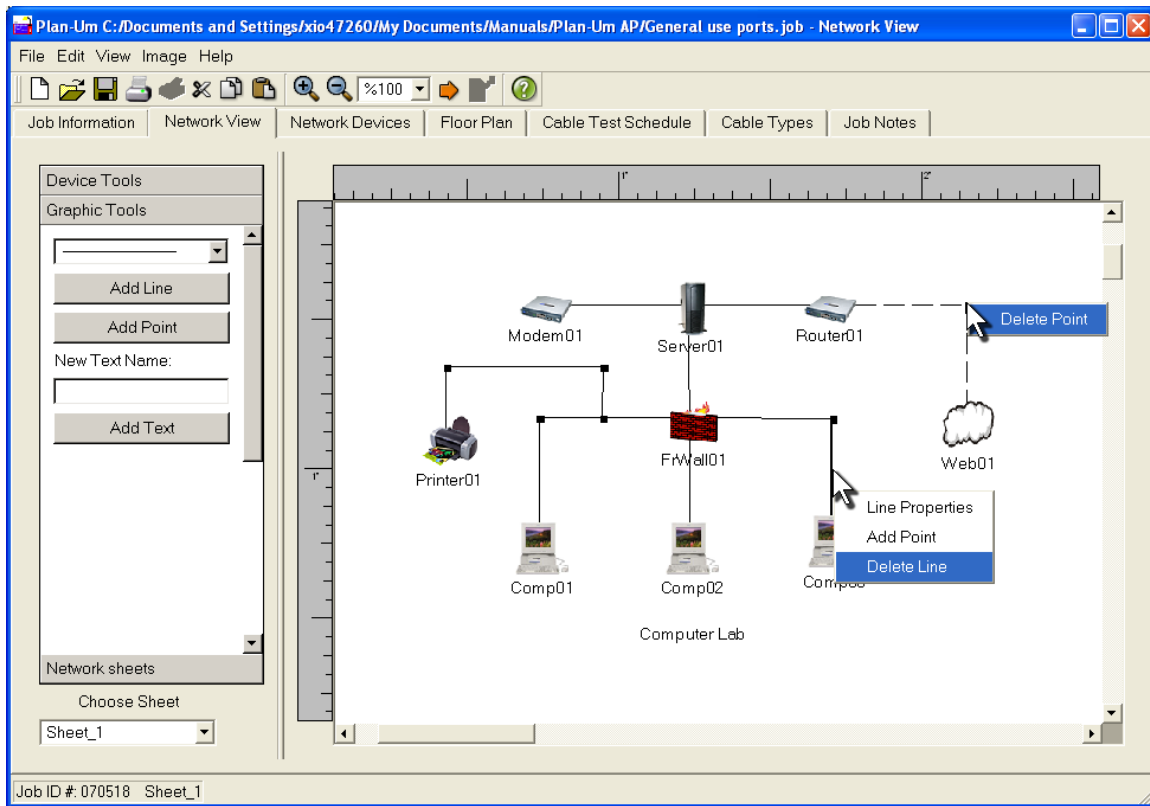
2. Double click on a line at a point where you would like to bend the line to create an inflection point or right click and select add point. You can drag the point to any desired location. Note that the point may disappear if the “Show Points” option is not checked on the View menu.



3. You can add as many inflection points as you want to create complex paths.



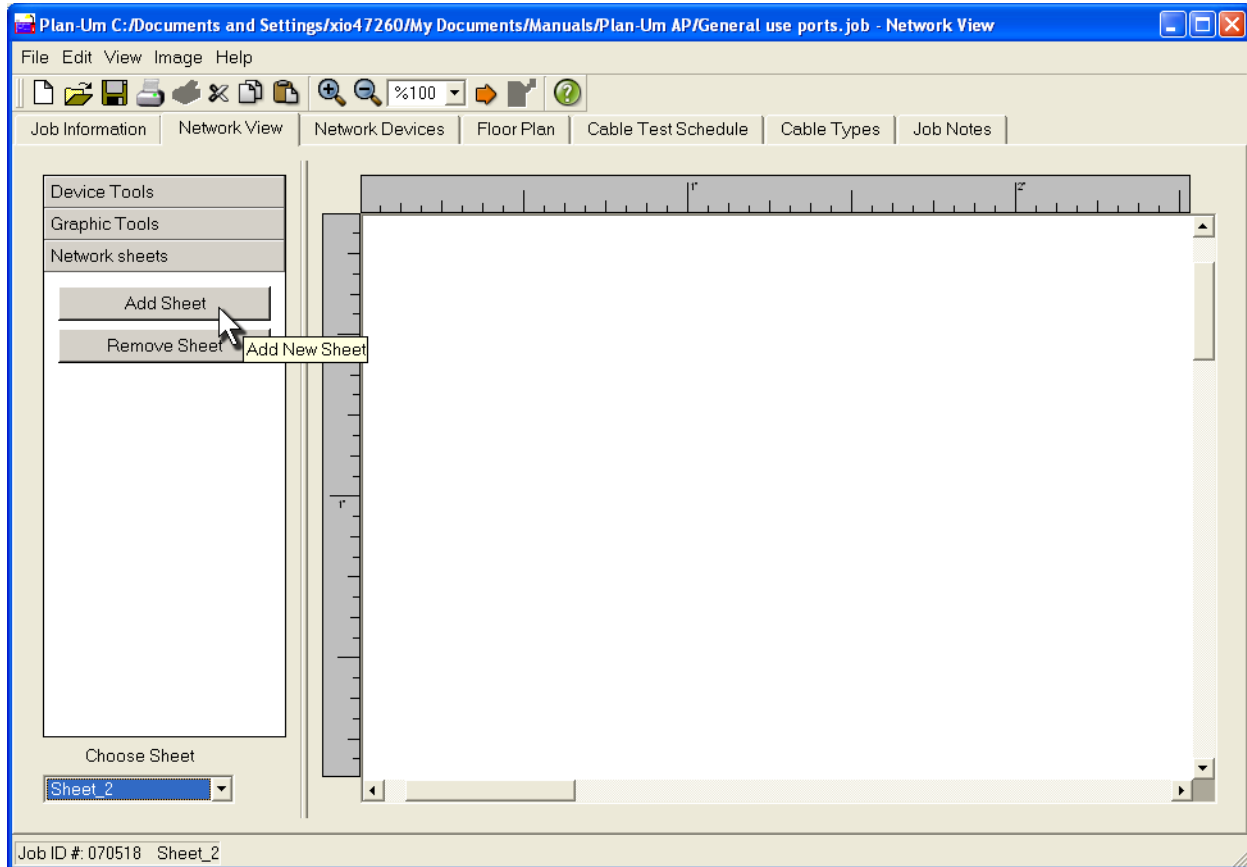
- To delete a line segment left click on the segment and press delete or right click on the segment and choose delete line or to delete a point choose delete point. Deleting a line will only delete the line selected, delete the point to delete both line connection.



Adding Network Sheets to the Topological View

Depending upon the complexity of the network layout you create, you may require additional Network View sheets to depict other portions of the network or other floors. For example, you could create separate topologies for phone, computing, security, or by department, campus location, or floor. Select the **Network Sheet** you wish to print with your job.

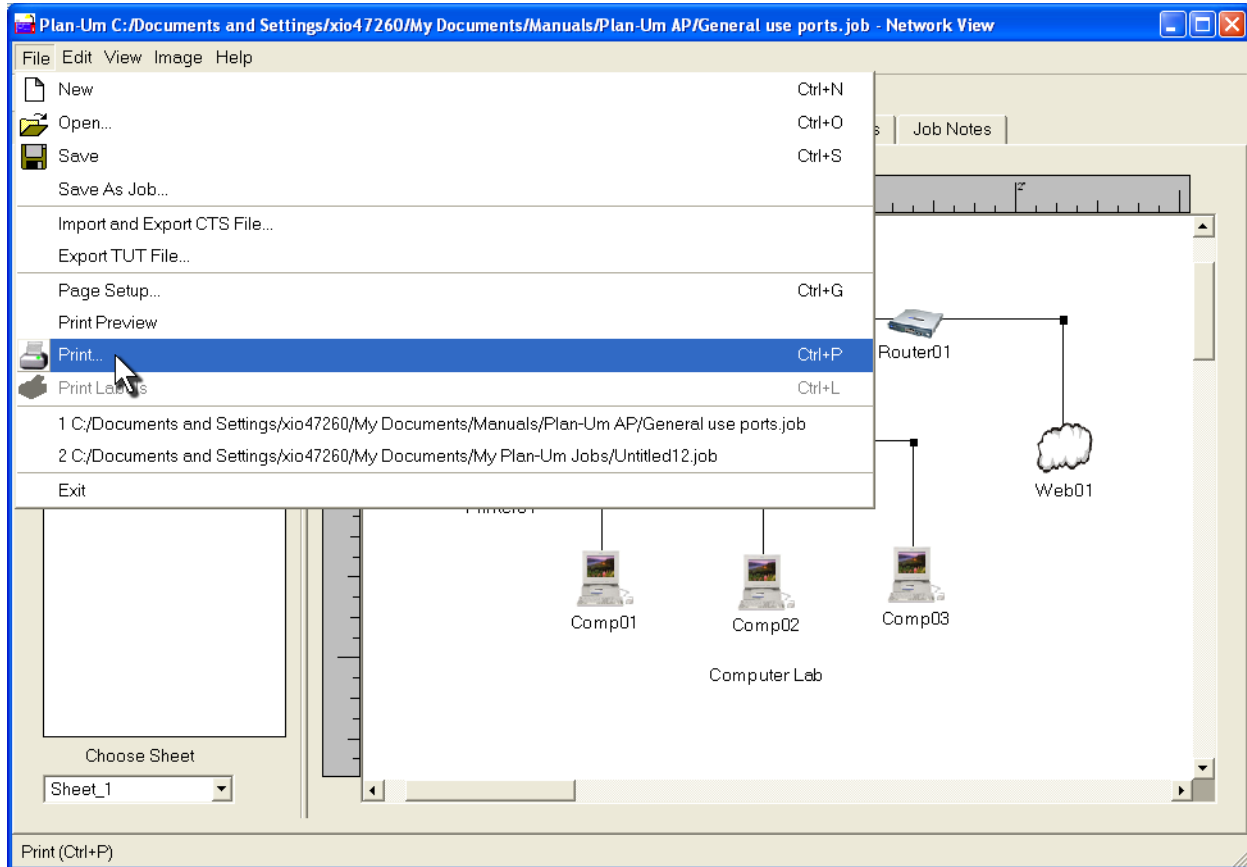
1. On the bottom left toolbar, click **Network Sheets**. Three menu tabs appear, Add Sheet, Remove Sheet, or Refresh Layout. Select the desired sheet option.



Printing the Network Topology

The Network View can be printed to illustrate the Network Topology. Attach the network sheets to your End of Job Report, including the floor plan and test results, present it to your customer with your invoice, and keep a copy for your records. Unless otherwise specified, Network Sheets will print on 8.5" x 11" paper in landscape mode.

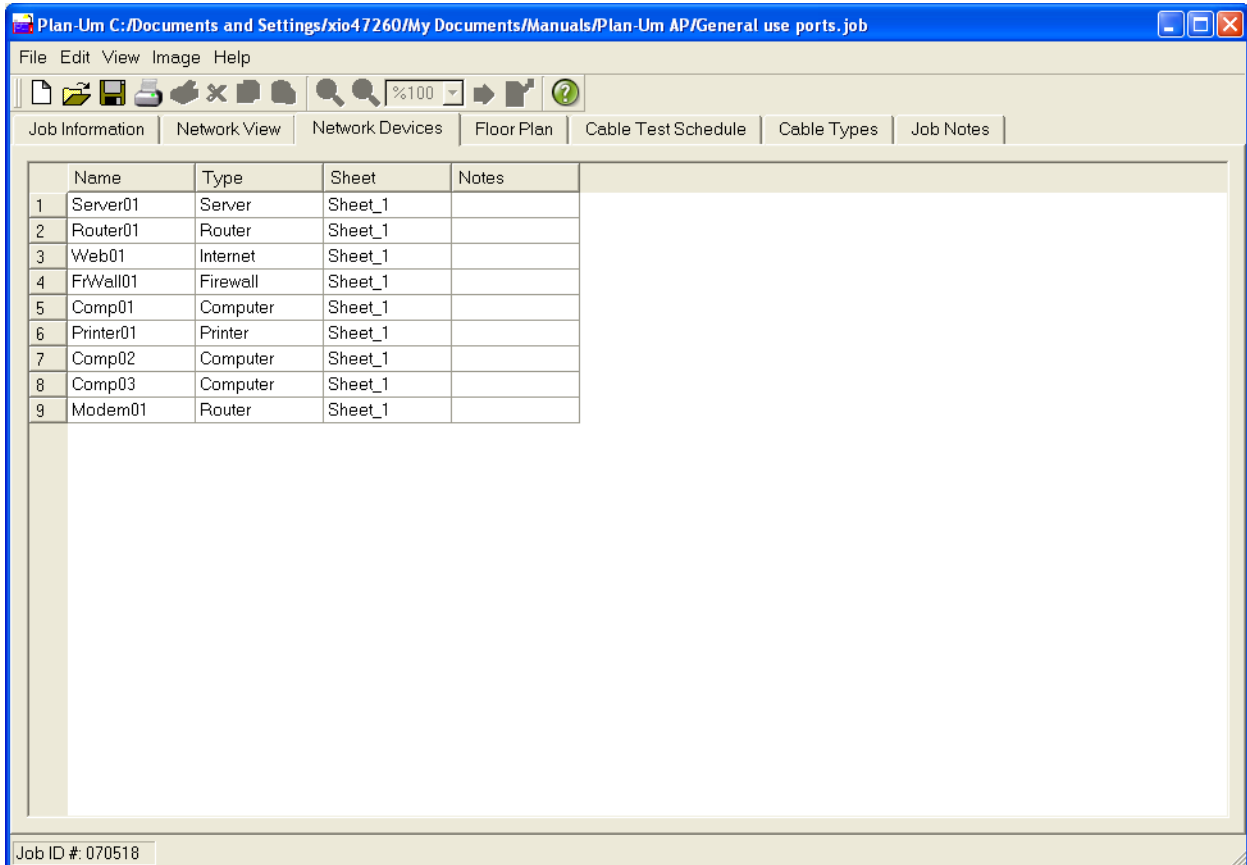
1. Select **Print** from the File pull down menu.



2. Or, use the print icon on the main toolbar.

Using Device Notes

The device notes tab contains a read-only table for viewing devices along with their type, sheet, and corresponding notes. This table is populated as the devices are added to the Network View and can be printed.



The screenshot shows the Plan-Um software interface. The title bar indicates the file path: C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/General use ports.job. The menu bar includes File, Edit, View, Image, and Help. The toolbar contains various icons for file operations and a search function. The main window has several tabs: Job Information, Network View, Network Devices, Floor Plan, Cable Test Schedule, Cable Types, and Job Notes. The 'Job Notes' tab is active, displaying a table with the following data:

	Name	Type	Sheet	Notes
1	Server01	Server	Sheet_1	
2	Router01	Router	Sheet_1	
3	Web01	Internet	Sheet_1	
4	FWall01	Firewall	Sheet_1	
5	Comp01	Computer	Sheet_1	
6	Printer01	Printer	Sheet_1	
7	Comp02	Computer	Sheet_1	
8	Comp03	Computer	Sheet_1	
9	Modem01	Router	Sheet_1	

At the bottom left of the window, the 'Job ID #' is displayed as 070518.

Defining the Floor Plan

The Floor Plan tab allows you to draw a simple floor plan to scale and place the ports and cables to be installed. Drawing a room layout adds to the documentation of the job, making it very clear what cables and ports are being installed, and where they will be placed. The ports and cables placed on the floor plan are used to automatically create a Cable Test Schedule.

As an alternative to drawing the room layout using the Plan-Um AP® tools, a background image can be imported from a CAD or other drawing software tool. See the section in this document titled Adding a Background Image for the details of that approach. In either case, placing ports and cables over the room layout or background image is the easiest way to create a Cable Test Schedule manually.

Note that by using the Cable Test Schedule tab you can enter a cable list directly, without creating the Floor Plan if you prefer. See the section in this document titled Creating a Cable Test Schedule Manually.

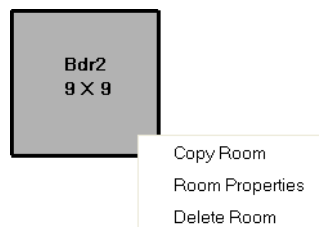
The following steps detail the process of creating the optional room layout for the Floor Plan:

Adding Rooms

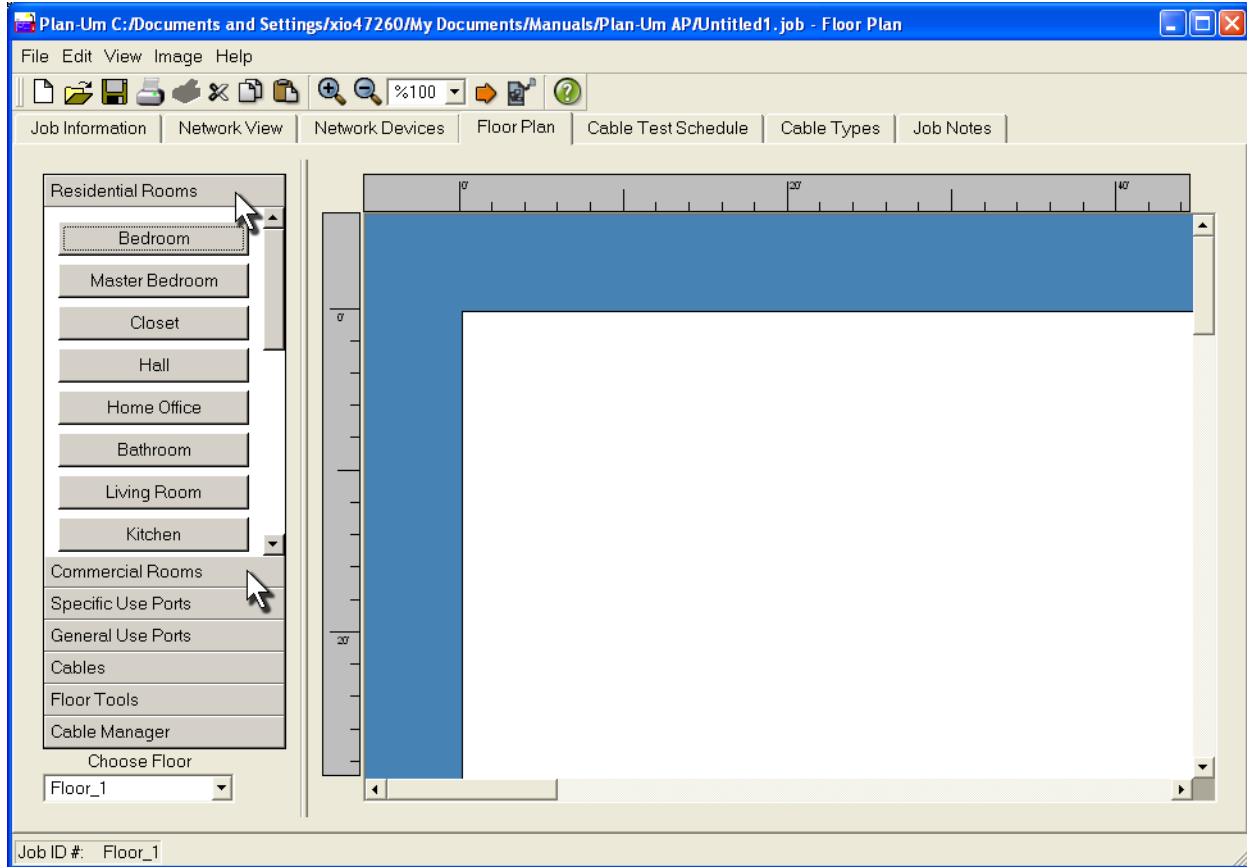
1. Click the Floor Plan tab. A toolbar menu appears in the left panel with several labeled buttons. Use the vertical scroll bar to the right of the buttons to view all buttons, including those that do not display in the initial view. The list of buttons includes Residential Rooms, Commercial Rooms, Specific Use Ports, General Use Ports, Cables, Floor Tools, and Cable Manager.

The list of Residential Rooms includes a living room, family room, home office, kitchen, bathrooms, bedrooms, and closets. Additional icons are available to create a garage, wire closet, foyer, etc. The list of Commercial rooms includes a lab, cubicles, offices, a conference room, bathrooms, warehouse, hallways, and wiring closets. Plan-Um AP® gives you the opportunity to change the name of any room by placing the cursor on the room, then clicking the right mouse button to display a pop-up menu that lists 3 options: Copy room, Rename Room, or Delete Room.

- Copy Room makes a copy of the room. Click on the room and place it anywhere on the floor plan.
- When you click Rename Room, a dialog box appears which allows you to type a unique name for the room, and then click the OK key. Plan-Um AP® replaces the name of the room with the new name.
- Delete Room removes the room from the floor plan.



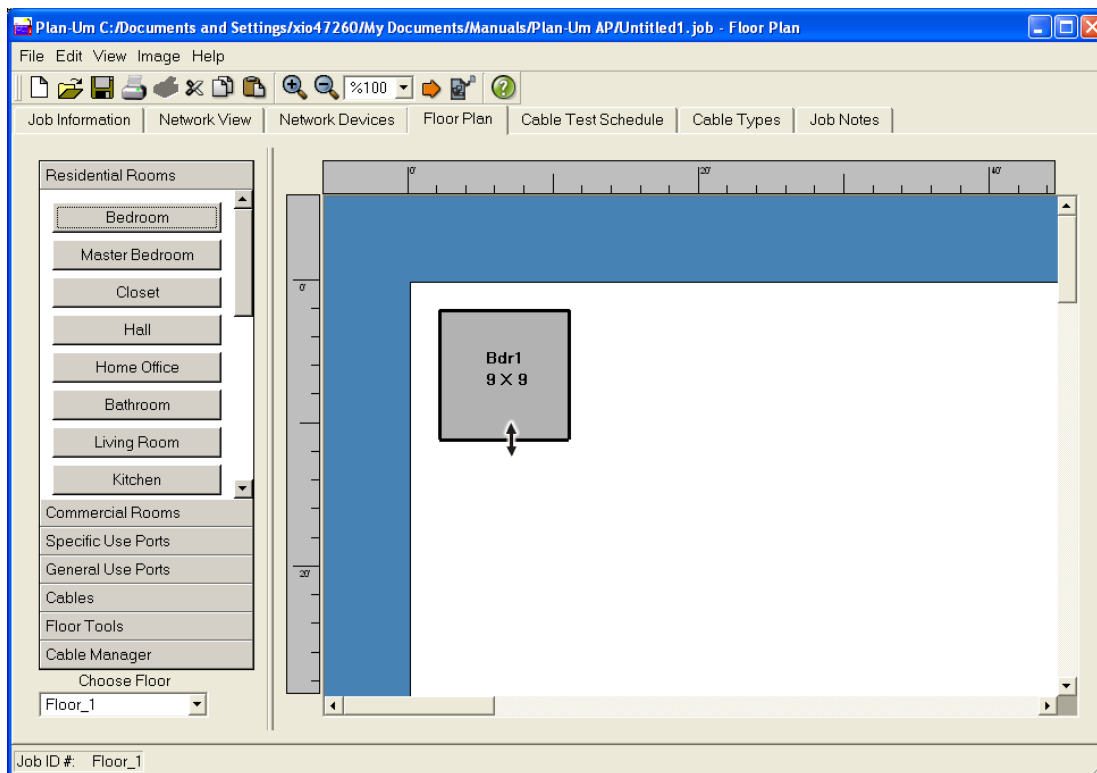
2. Begin by selecting either a Residential or Commercial floor plan. Whichever you choose, a list of rooms appears in the left column. Use the vertical scroll bar to see the entire list.



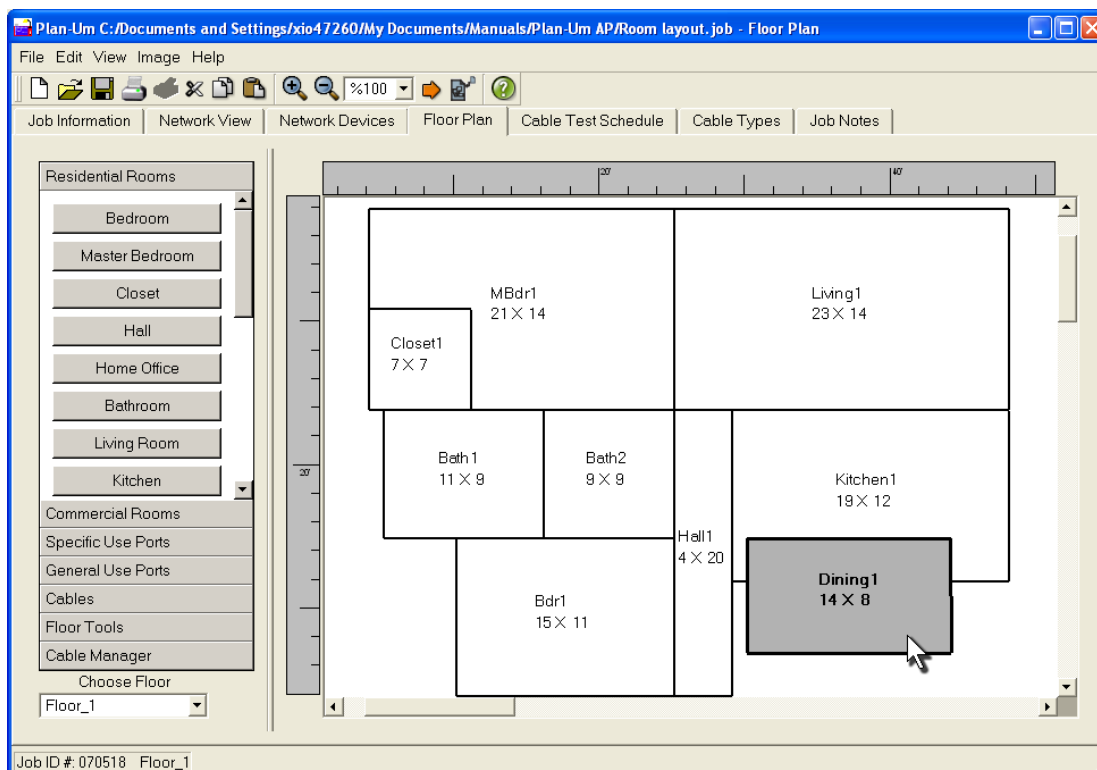
3. Plan-Um AP® opens with a default drawing scale of 1" equals 20' and a print zoom of 100%. The upper left hand corner of the drawing canvas is viewable on your screen. To view the page as it would print, select the Page print zoom from the zoom drop down menu on the toolbar. See the Page Setup and Scale section of this manual for details on how to manipulate these options.

Note: The Page Setup and Scale settings are automatically saved for each tab in the job file so that when you re-open the job or create a new job, the selected Page Setup options remain.

4. Except when the default print zoom of 25% or Page is selected, when you click a room name, the room displays in the upper left hand corner of the drawing canvas. Each room defaults to a pre-defined size and appears on the canvas based on the drawing scale you select. Resize the rooms by placing the cursor over a horizontal or vertical wall line. When the cursor changes to a double arrow, drag the wall to expand or contract the size of the room.

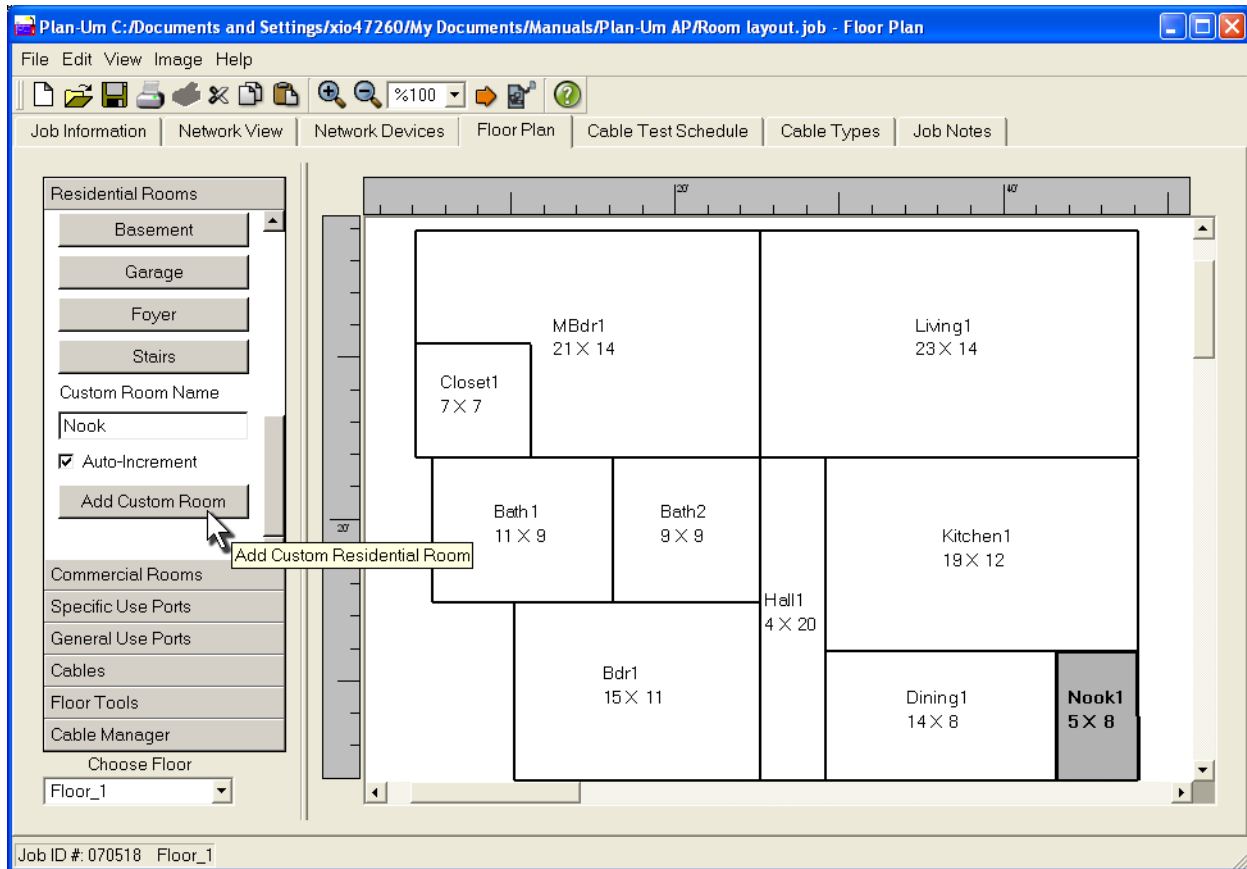


5. Continue to add rooms, dragging and placing them anywhere on the floor plan area according to the actual layout of the office or home.



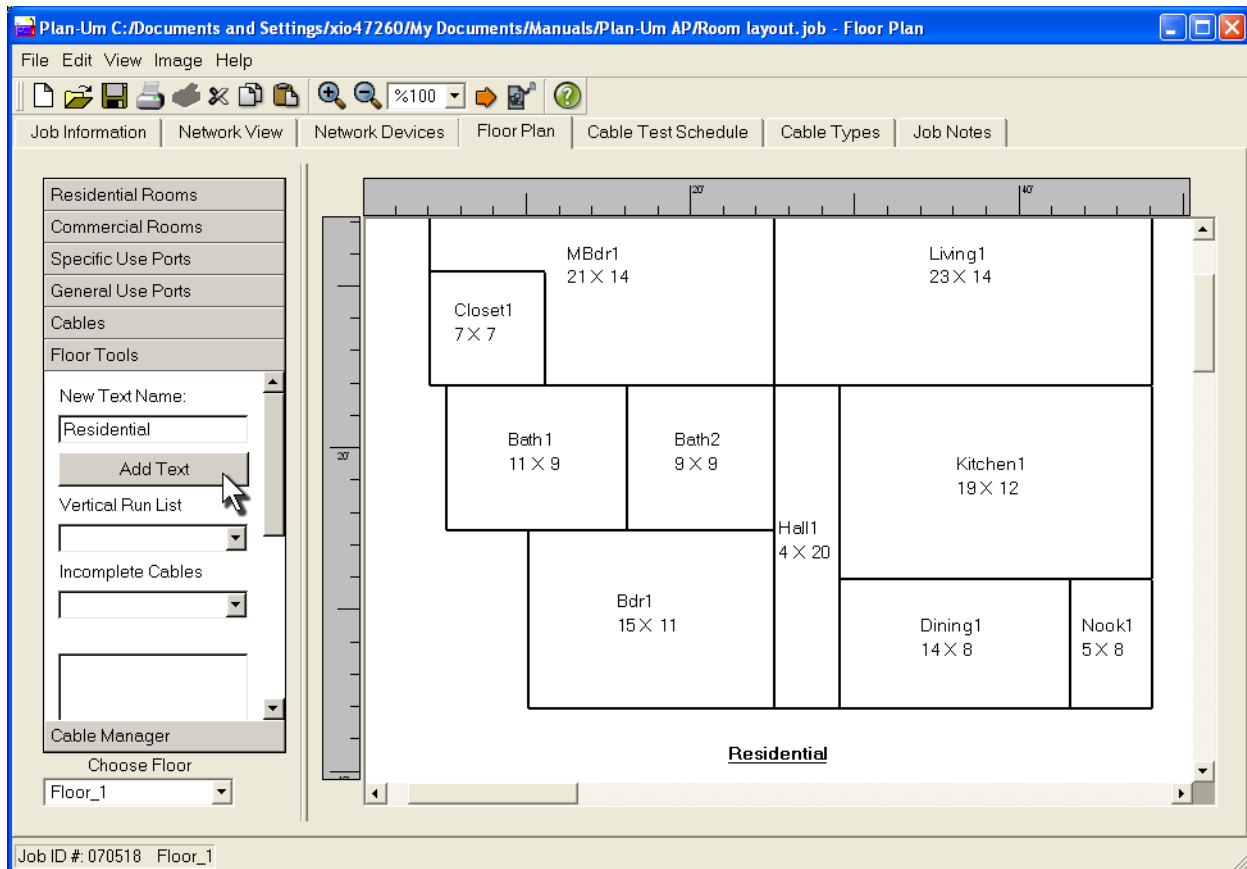
Adding Custom Rooms

1. To add custom rooms, click inside the blank box labeled Custom Room Name at the bottom of the rooms list. Type the name of the room, such as a Gym or Loft. The name of the room is limited to 20 characters. Then click the Add Custom Room button. Place and size it as described above.
2. If you add more than one room with a custom label, Plan-Um AP® will automatically increment the room number by clicking the Auto Increment check box.



Adding Free Text

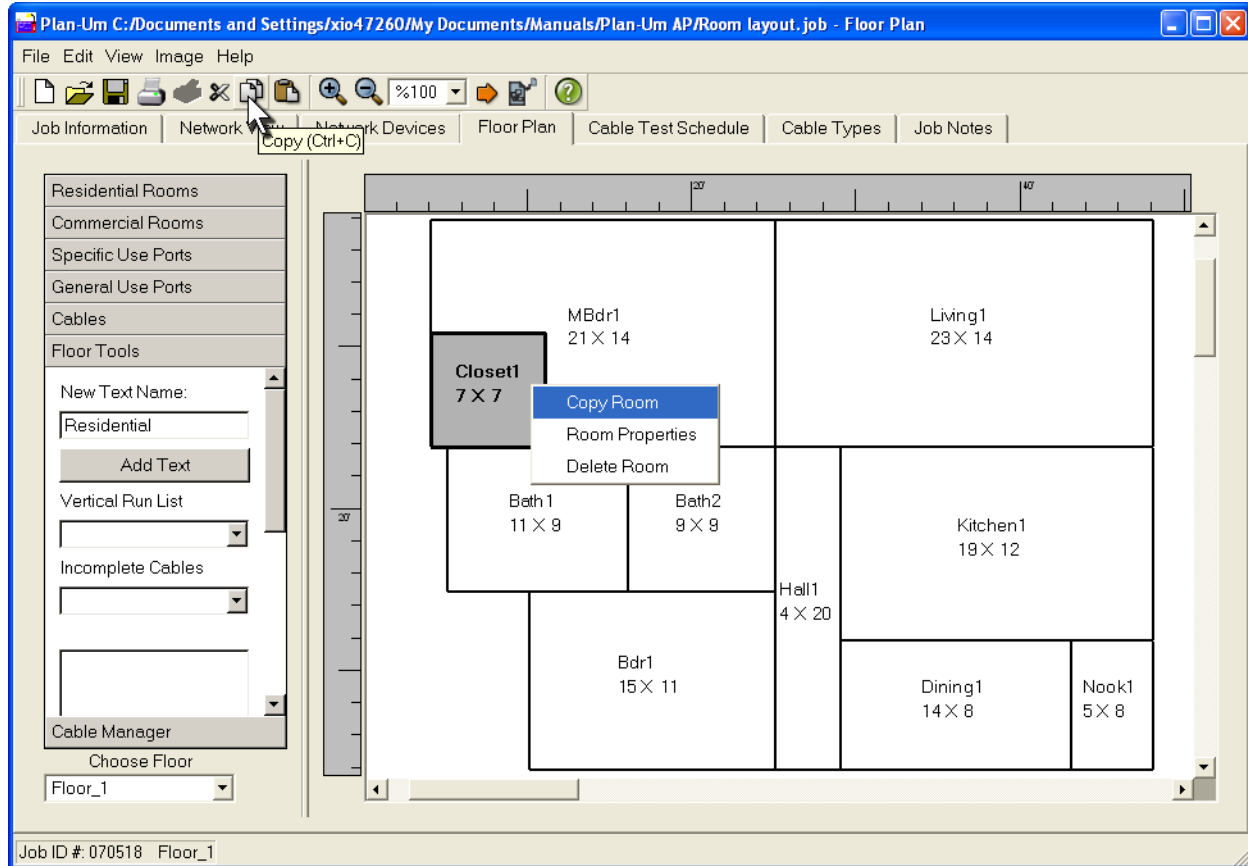
1. To add free text to the Floor Plan go to the Floor Tools page of the toolbox and click the **Add Text** button. The text behaves the same as the text from the Network View Tab.



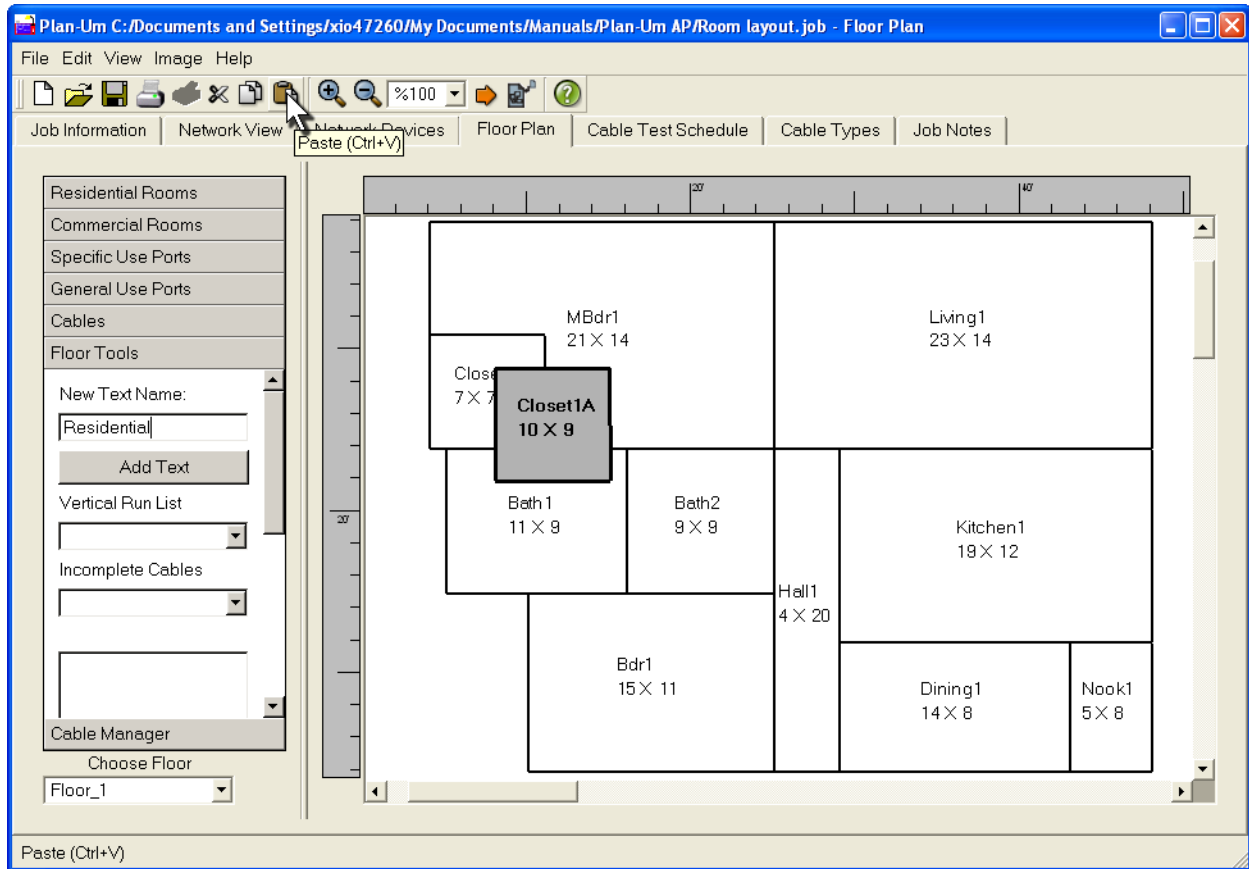
Copying and Pasting Rooms

When there are multiple rooms of the same size to place on a floor, such as cubicles, you can copy one or more and paste them in specific locations. This eliminates the need to place and size each cubicle separately.

1. To copy the same type of room click on the room you want to copy on the floor plan, and then click the Copy icon on the menu bar. You can perform the same function by selecting the Copy option on the Edit menu or right clicking on the room and selecting Copy Room from the pop-up menu.



- To complete the Copy Room function after selecting the room you want to copy, click the Paste icon. The new room appears on the floor plan. Click on it and move it to the location you want. The Paste option on the Edit menu performs the same function.

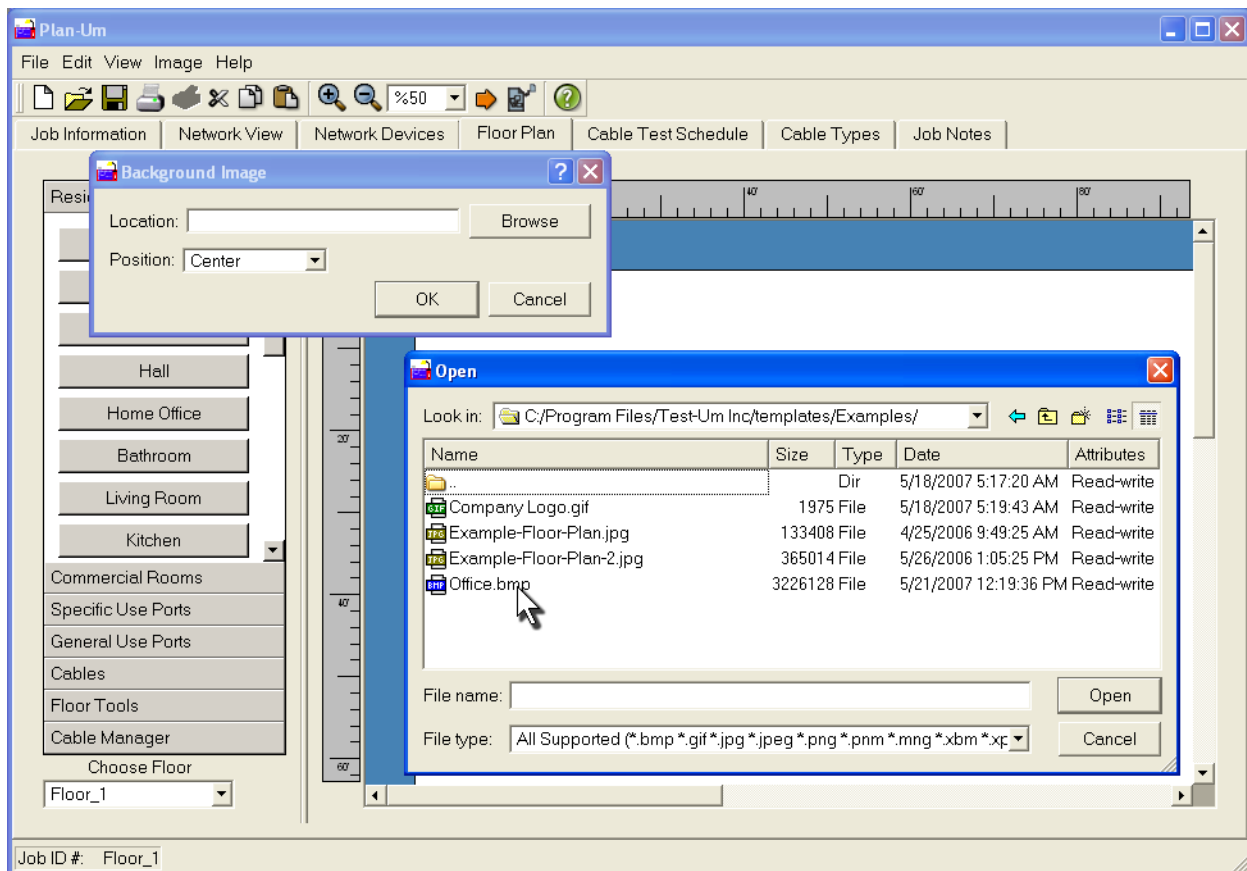


Adding a Background Image

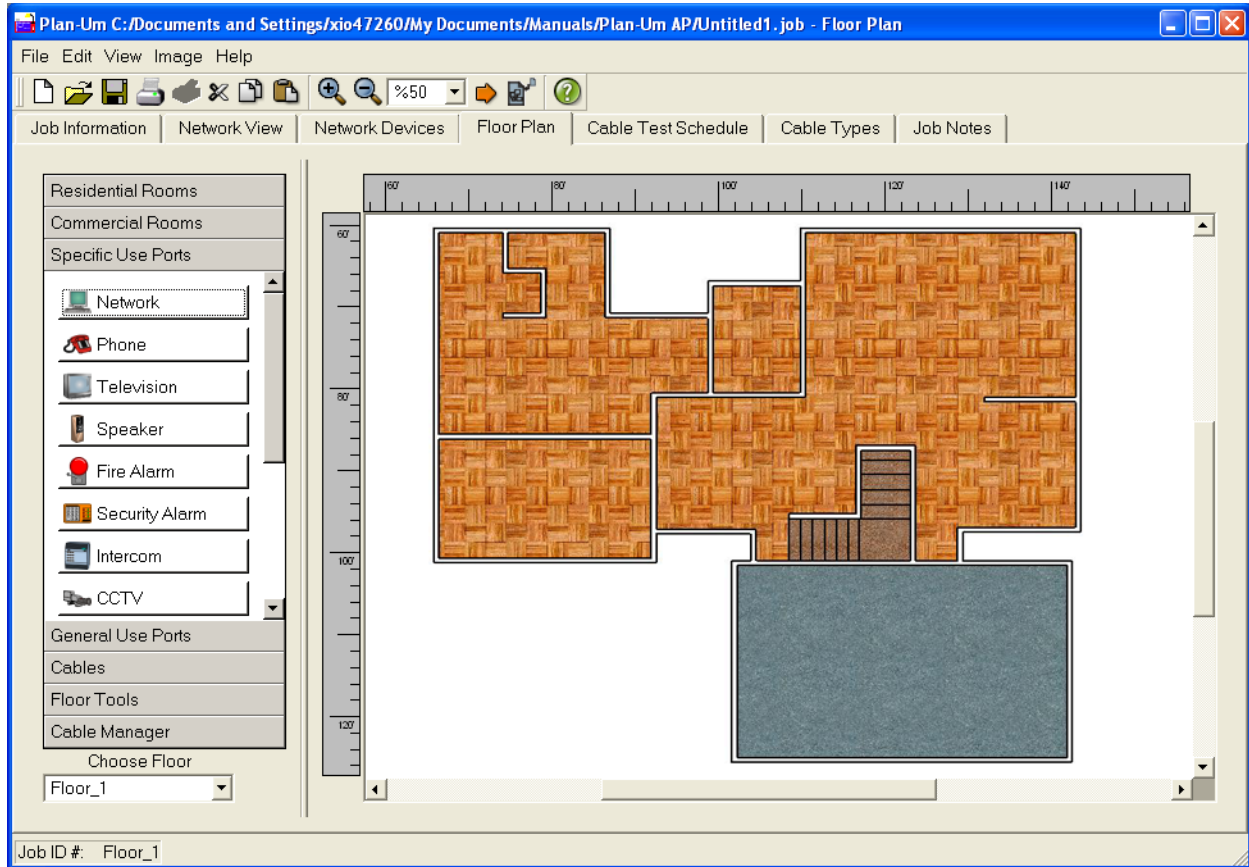
Although Plan-Um AP® software operates completely independently, you can also export a CAD or other drawing software floor plan to a .png, .bmp, or .jpg file, and import the image for your design layout. Use this design layout instead of creating rooms to define your job. All other advanced features and functions of Plan-Um AP® work in the same manner with this image.

Follow these instructions to import a background image:

1. Click on the Background Image icon on the toolbar.
2. Use the Browse button to locate the image file you wish to insert. Once found, click on the file name to populate the Background Image field with the path to that file location.



3. Press OK and the image file you selected appears as a background image on your screen. If images are moved in the directory, re-linking the image will be required.



Defining the Port Layout

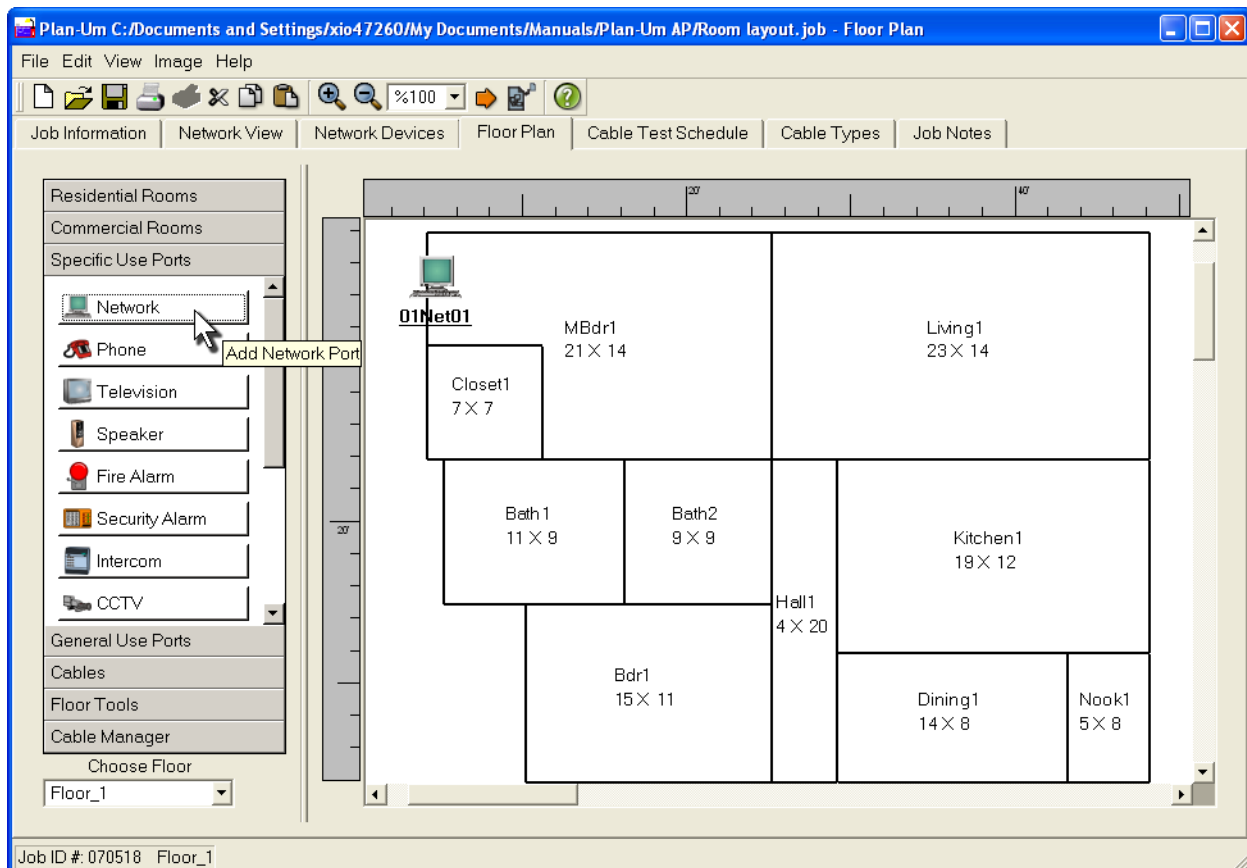
After you design the room layout, you must now identify the ports in each room that the cabling supports. This process is the key to generating a Cable Test Schedule that can be uploaded to the Validator. To create cables using the Floor Plan Tab, you must first add Ports that are the termination points for cables. The ports represent wall plates or other cable termination hardware. The ports can be added to a room layout, placed on top of a background image, or simply placed on an empty canvas. Once the ports are placed on the canvas, cables can be connected between them.

On the left tool menu, there are two buttons, Specific Use Ports and General Use Ports. The difference between the specific and general use ports is both the appearance of the icons, and the Use attribute that is shown on the Cable Test Schedule.

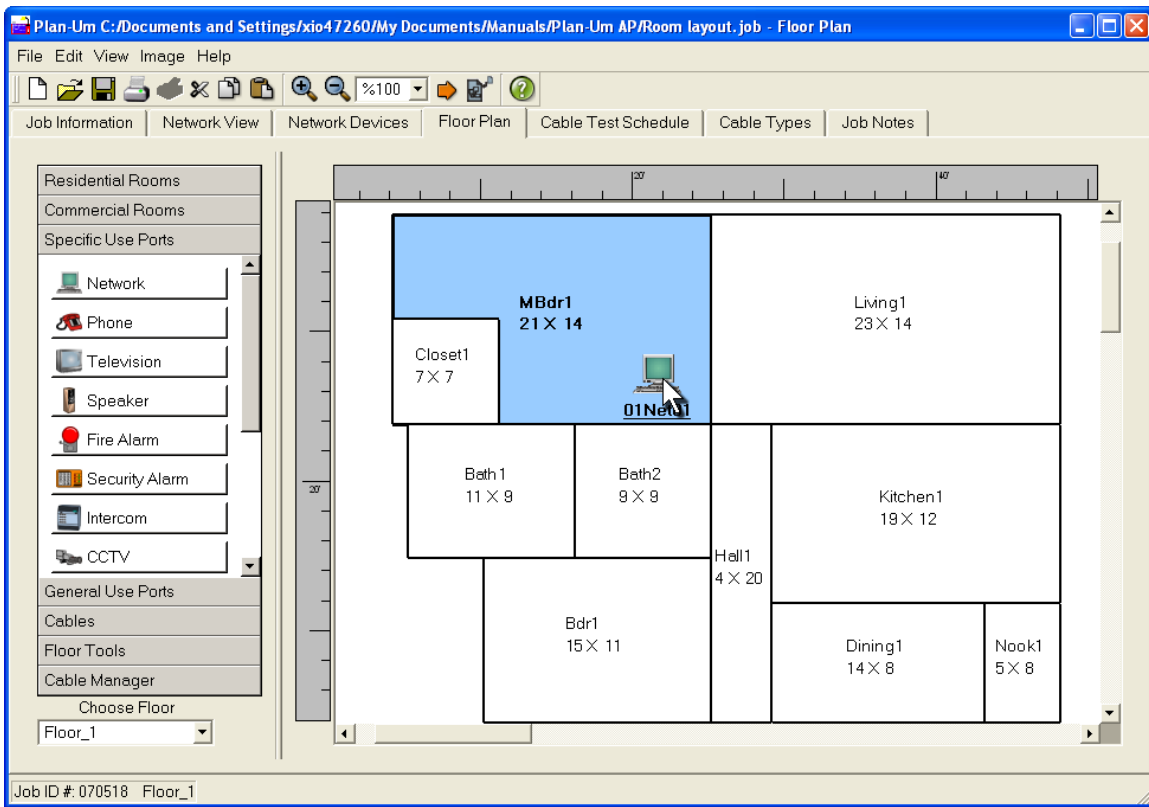
Placing Specific Use Ports

Specific use ports include fire and security alarms, cable televisions, telephones, speakers, satellite dishes, computers, and other equipment. An icon appears next to each. There is also an Add Custom Port box that works like the Custom Room box described above.

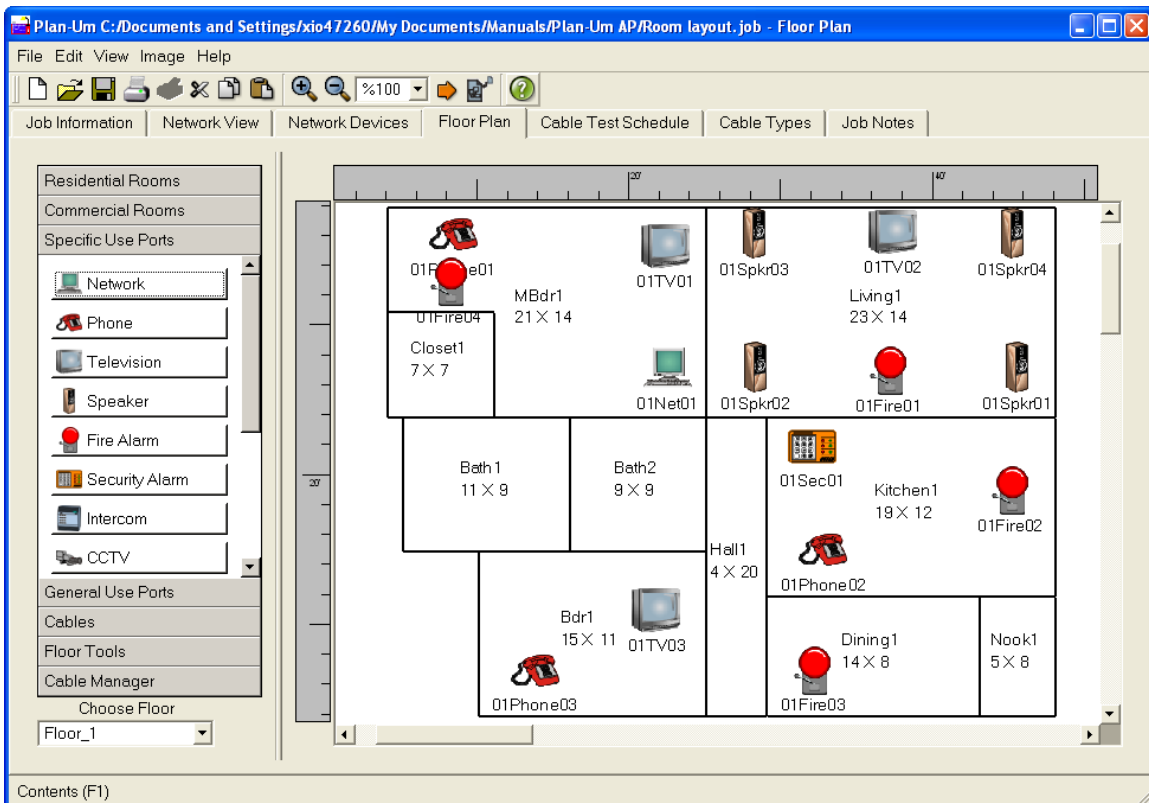
1. When you click an icon, it pops into the upper left corner of the floor plan.



2. Click on the port icon on the canvas again and drag it to the position where you want to place it.



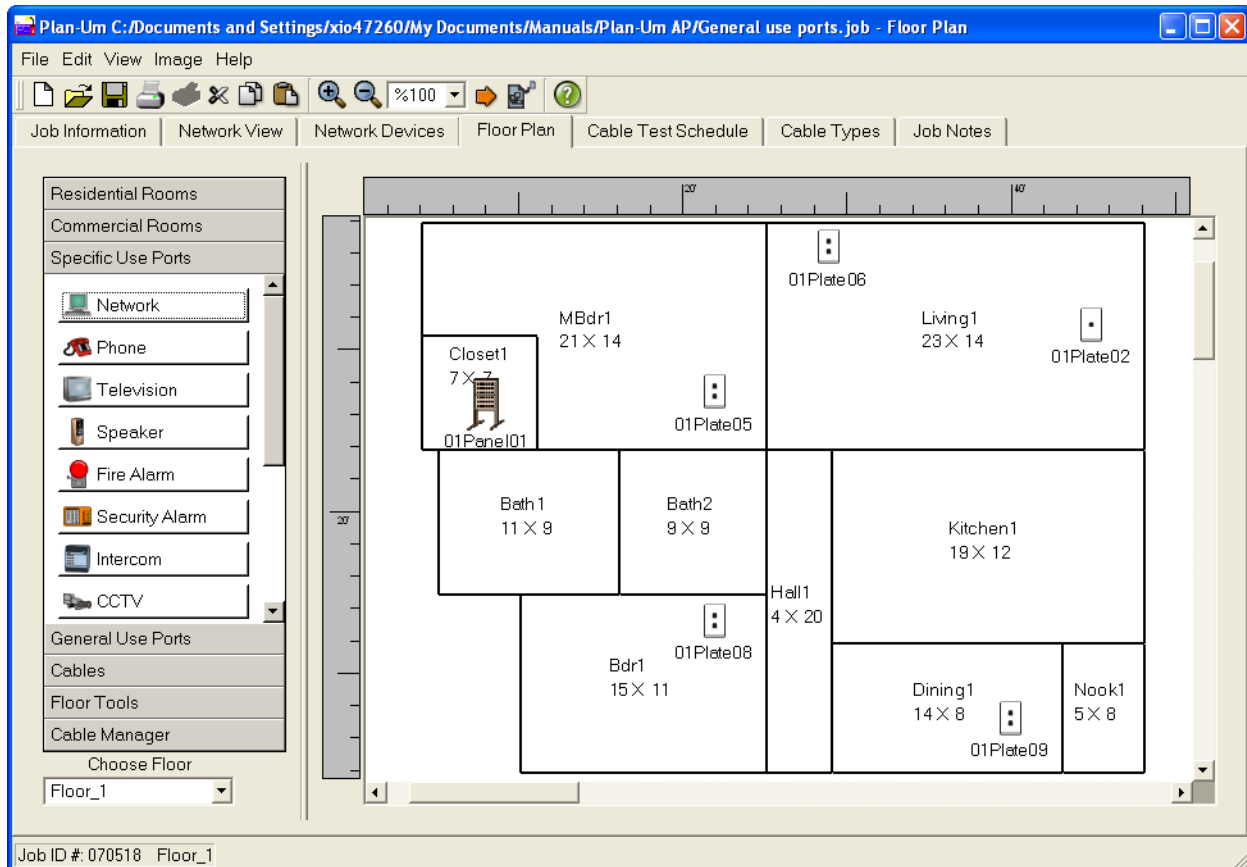
3. Repeat this process with the same or other icons until all specific use ports are placed appropriately.



Placing General Use Ports

General use ports are wall plates with one to six jacks, patch panels, or a communications center. An icon represents each port.

1. When you click on a port, it pops into the upper left corner of the floor plan.
2. Click on the port icon on the canvas again and drag it to the location where you want to place it.
3. Repeat this process with the same or other icons until all specific use ports are placed.

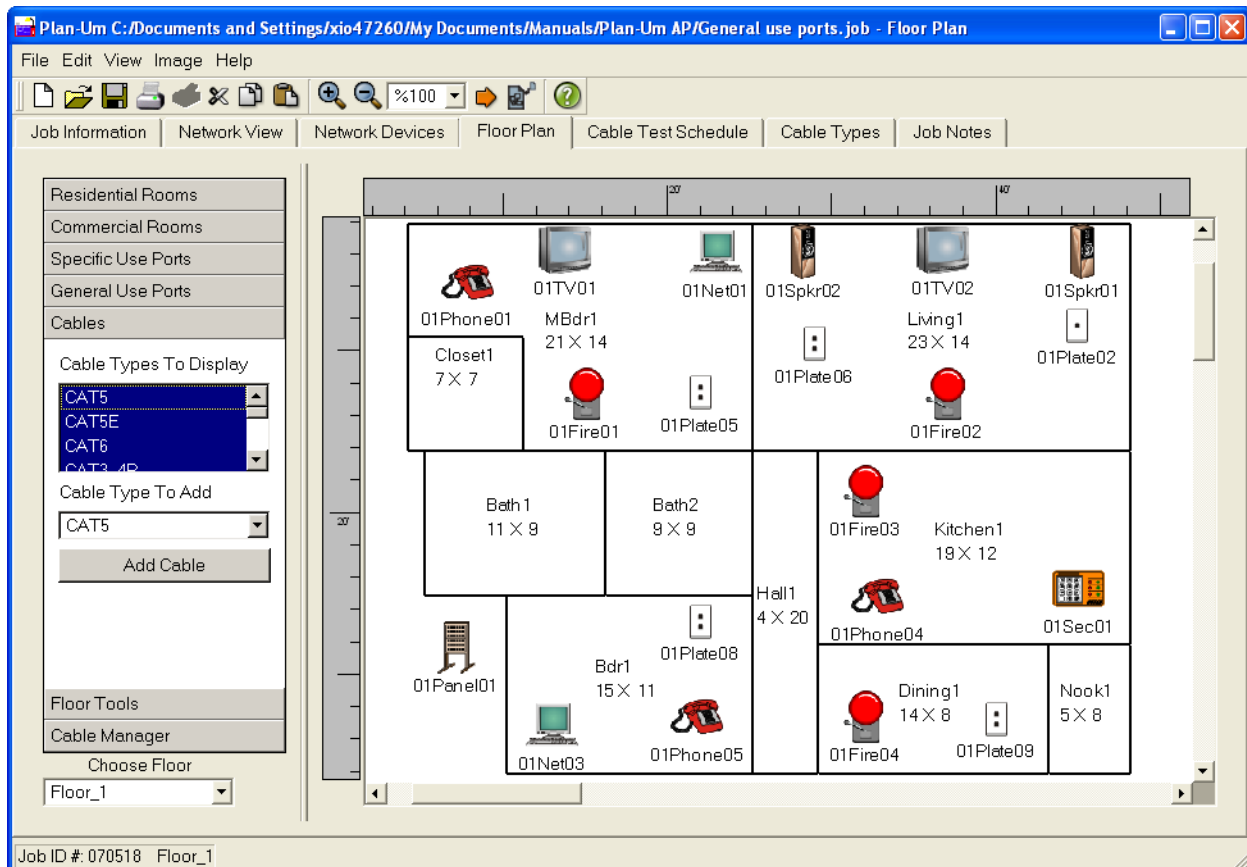


Adding Cables

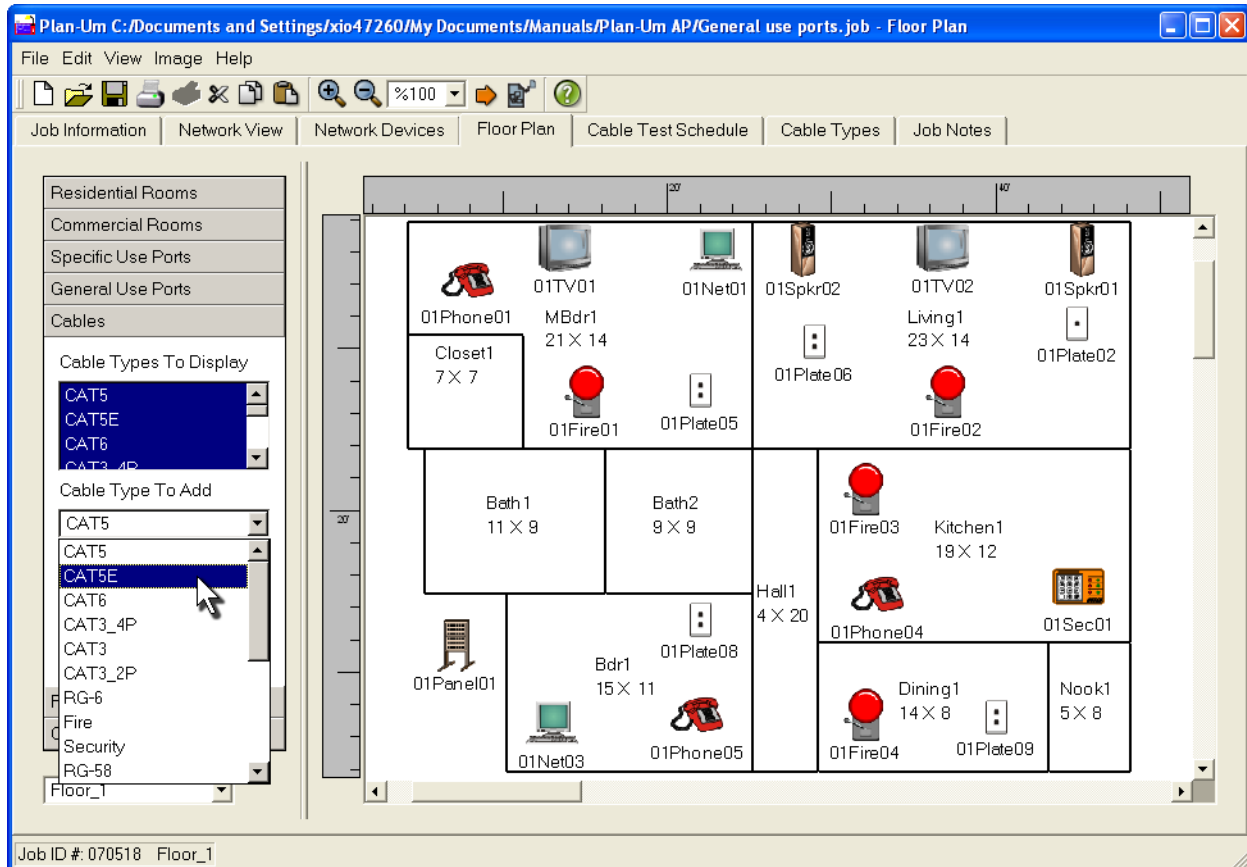
Once ports have been added to the floor plan, the next step is to connect cables between the ports. In addition to adding cables one at a time, the Cable Manager tool allows you to connect multiple cables between one port, referred to as the End Point (To port) and any number of other ports.

To Add One Cable At A Time

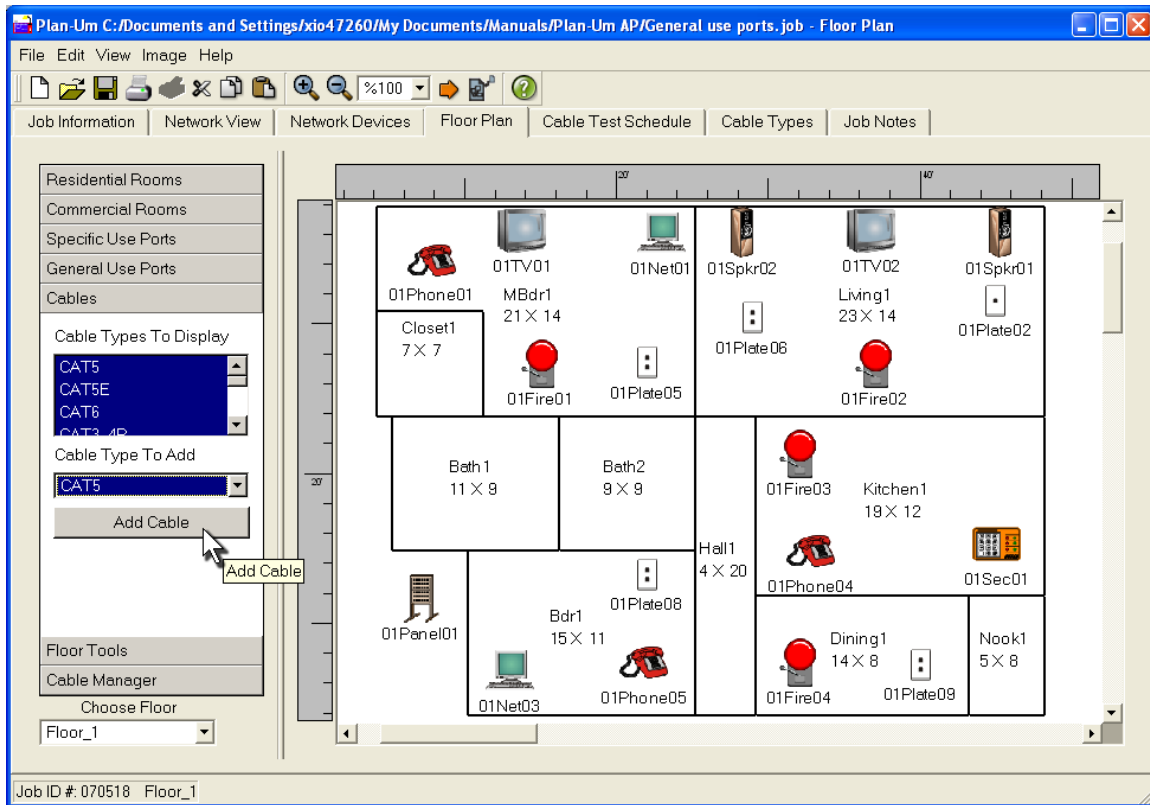
1. Click the Cables button on the left tool menu. This displays the Cable Types to Display and the Cable Type to Add fields.



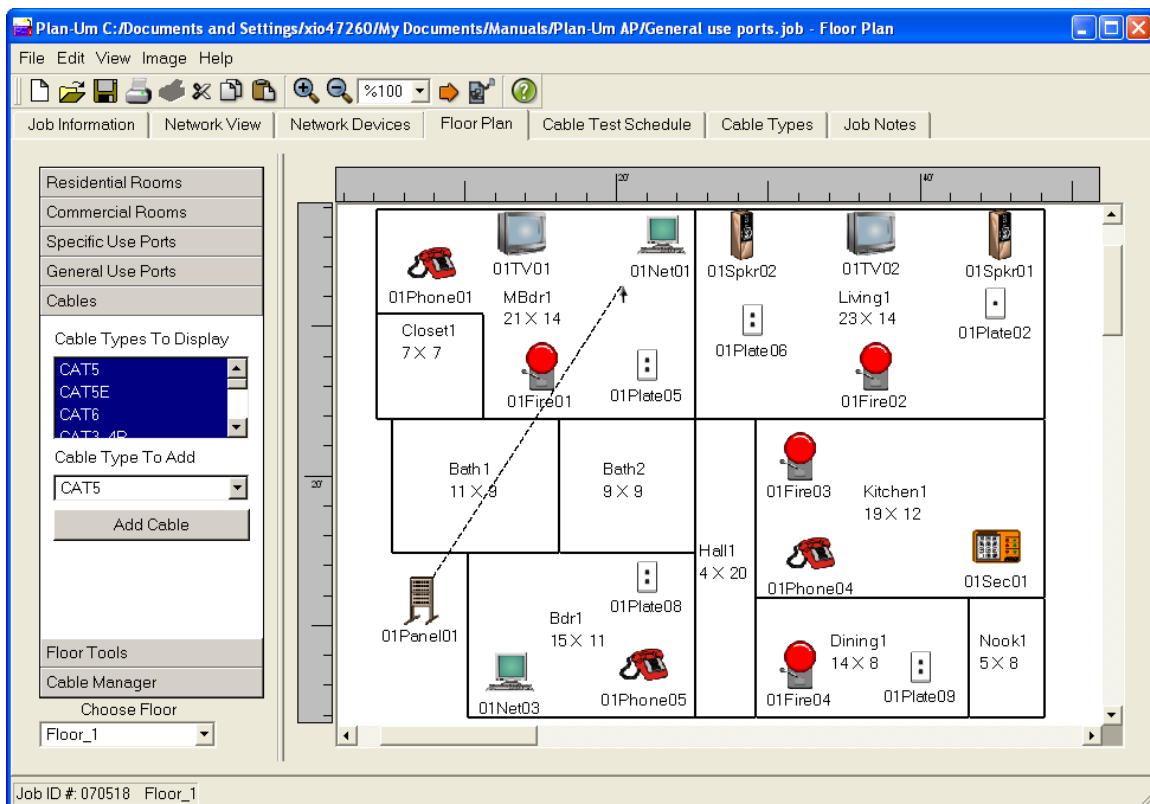
2. When you click the down arrow on the Cable Type to Add field, a list of Cable Types displays. The available Cable Types are CAT5, CAT5E, CAT6, CAT3_4P, CAT3, CAT3_2P, RG-6, RG-59, RG-58, Fire, Security, Audio, Tel_Cord, CAT5STP, CAT5ESTP, and CAT6STP. If the type needed is not on the drop down list, you can define a custom cable type. This feature is discussed in the Advanced Features section of this document, Adding Custom Cables.



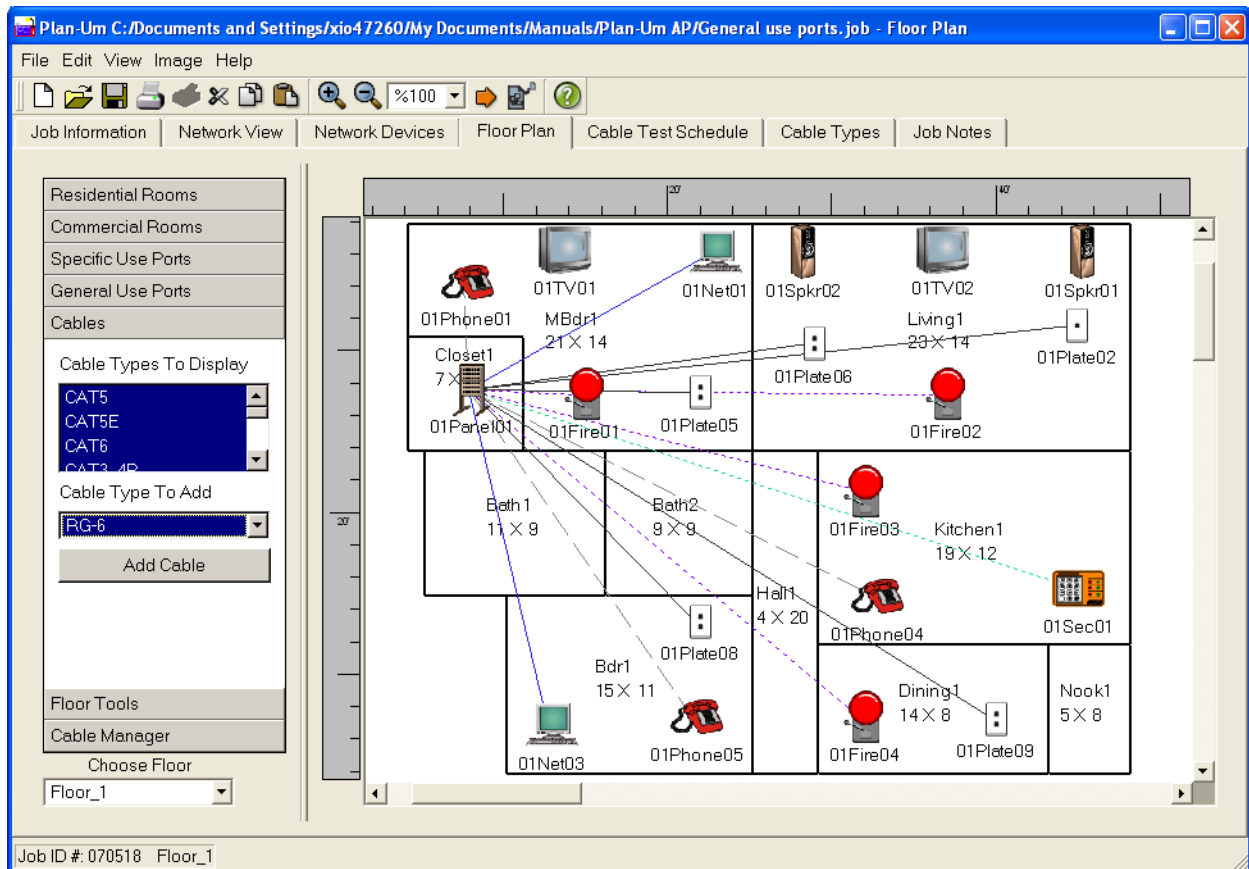
3. Click Cable Type to Add and select a cable type from the drop down list and click the Add Cable button. When you move the mouse to the floor plan, the cursor changes from a cross to an arrow.



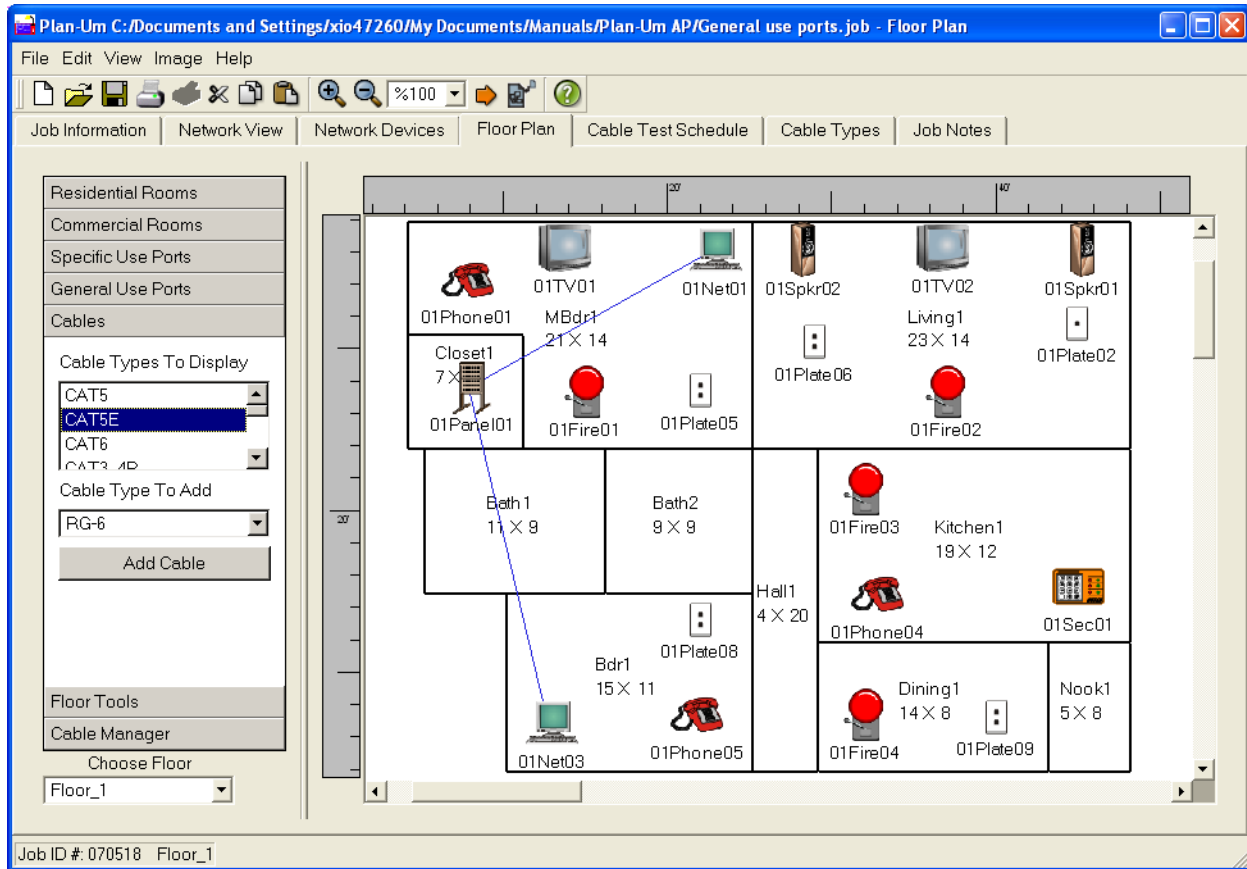
4. Position the cursor over the port icon which will be one end of the cable, hold the left mouse button down, and drag the cursor to the port icon which will be the other end of the cable. This creates a color-coded cable "run" (a line between the two ports).



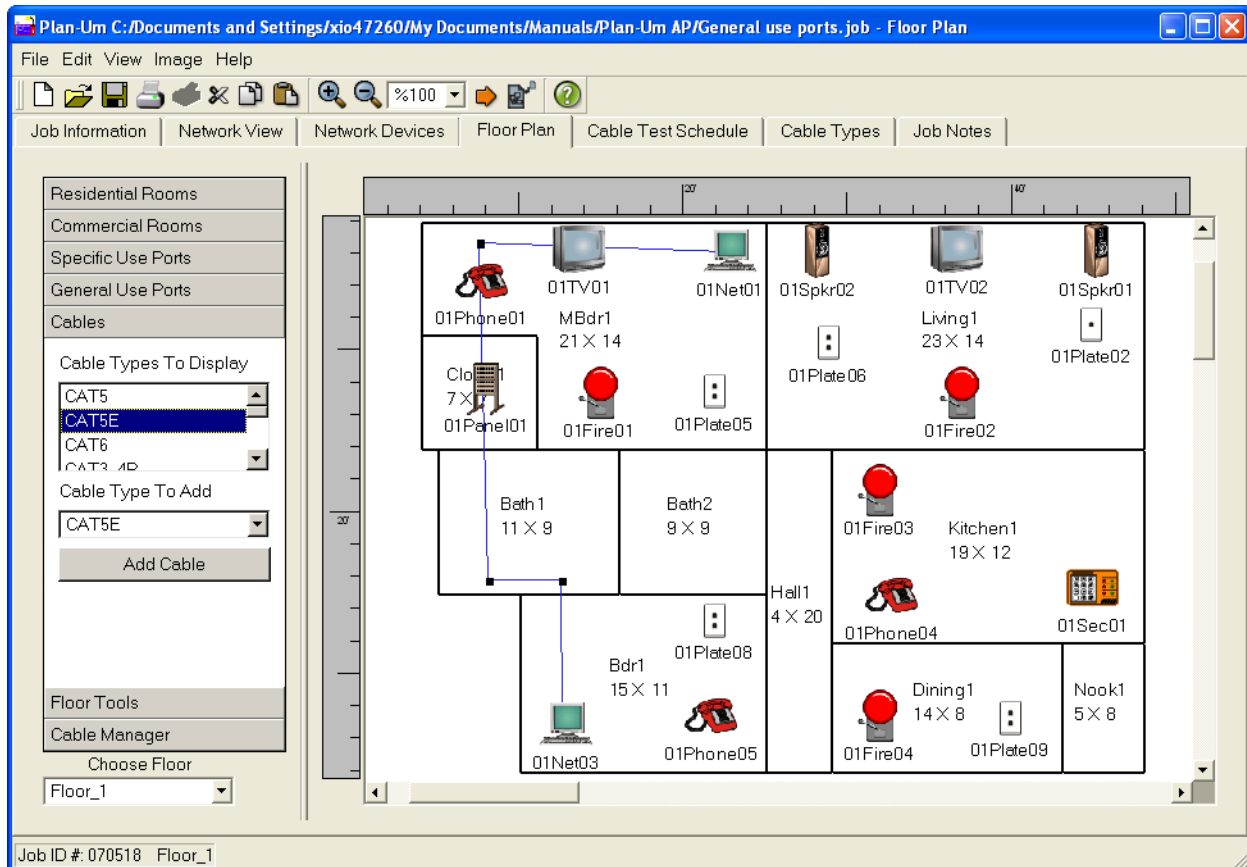
5. There are three basic Cable Types supported by the Validator, Data, Phone, and 2-Wire. Each cable type is assigned a specific color: Data cables are solid gray lines, Phone cables are blue-dashed lines, and 2-Wire cables are green-dotted lines.



- Each time you add a cable run, a line is displayed on the floor plan. If the floor plan becomes cluttered or difficult to view, click the down arrow on the Cable Type to Display field and select the cable types which you want to view at the time. Ctrl+right click allows you to select single cables, and shift+right click allows you to select all cables.



7. If you click the left mouse button on empty space while adding cables a point will be created to create a bend in the cable. You can add as many points as needed or hit escape or right click in empty space to cancel creating that cable. Clicking on another port finishes creating that cable run.
8. You can also double click on an existing line at a point where you would like to bend the line to create an inflection point or right click and select add point. You can drag the point to any desired location. Note that the point may disappear if the "Show Points" option is not checked on the View menu.

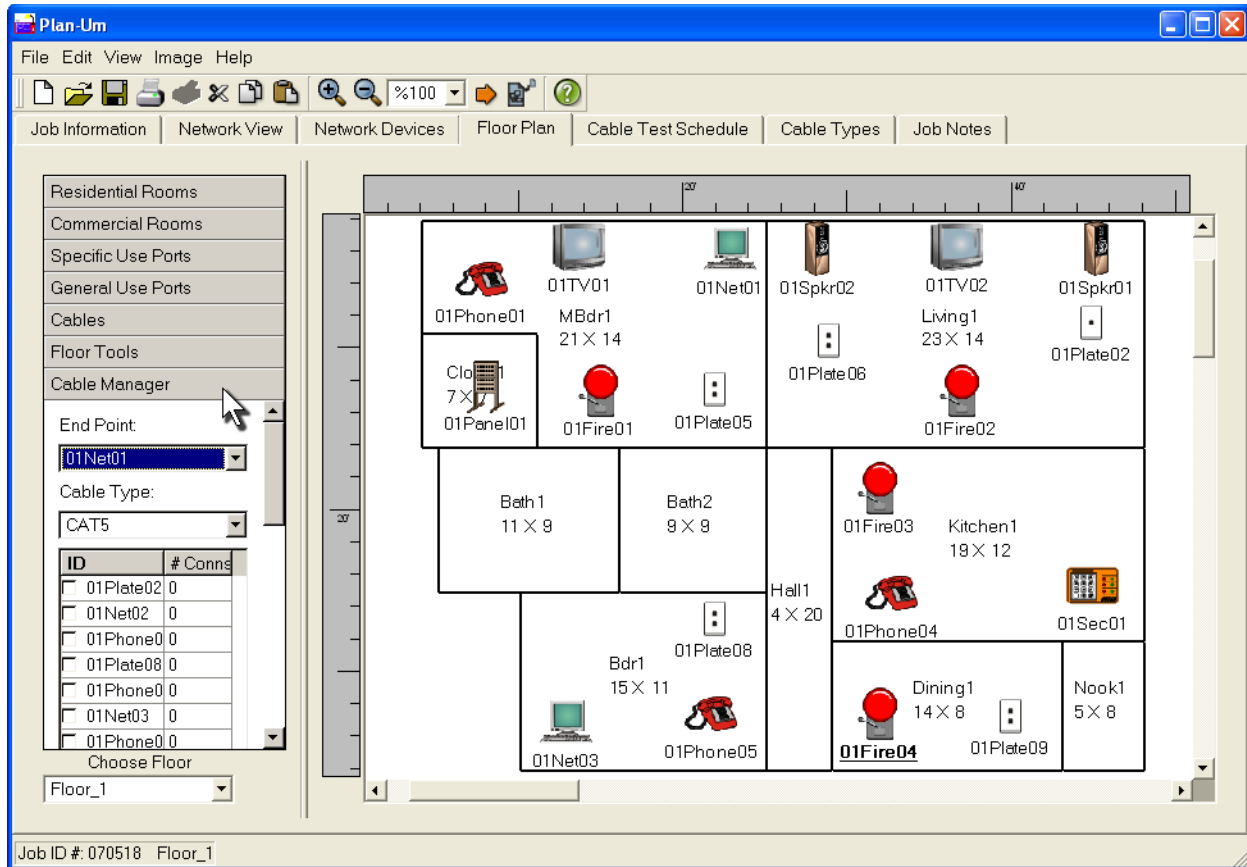


Adding Bundled Cables

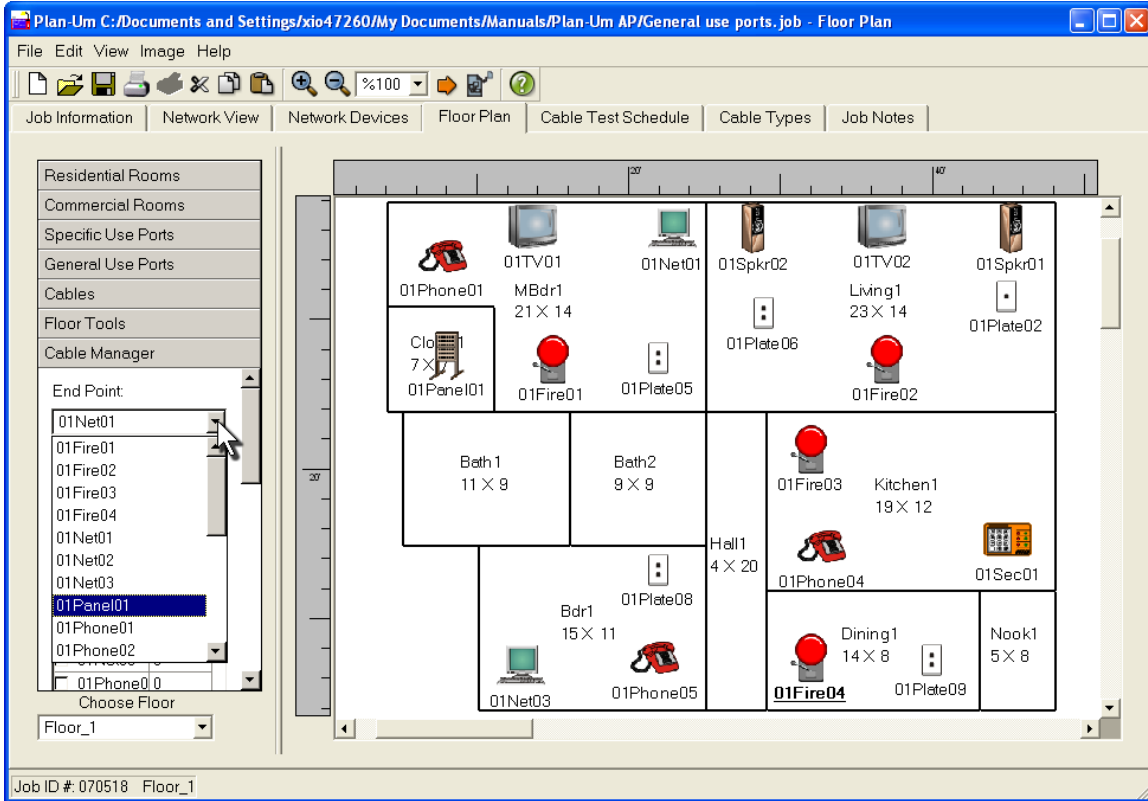
When you need multiple cables grouped together you want to use a Bundled Cable. Bundled Cables are added the same way as regular cables and look like one cable on the Floor Plan but show up as multiple cables in the Cable Test Schedule.

To Add Cables Using the Cable Manager

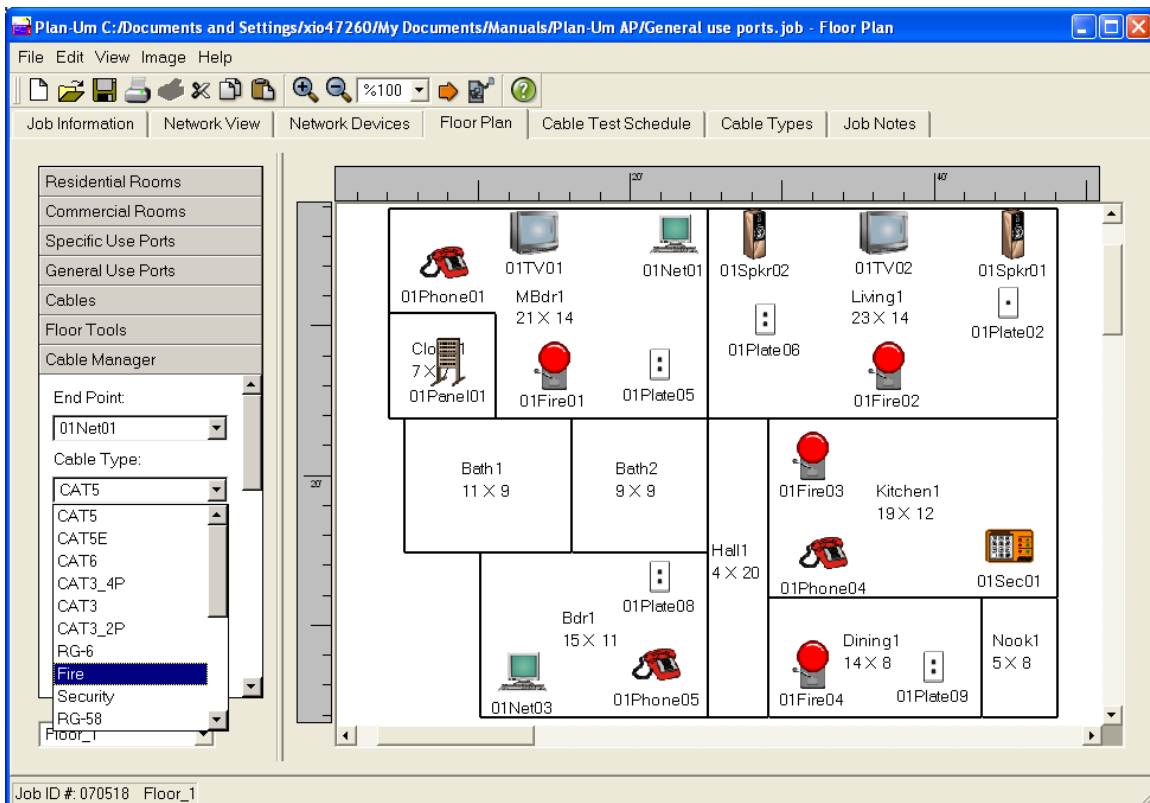
1. Click the Cable Manager button on the left tool menu. This displays the End Point, Cable Type, Port ID Checkbox, Short by and the Auto-Check fields. To Add Cables Using the Cable Manager.



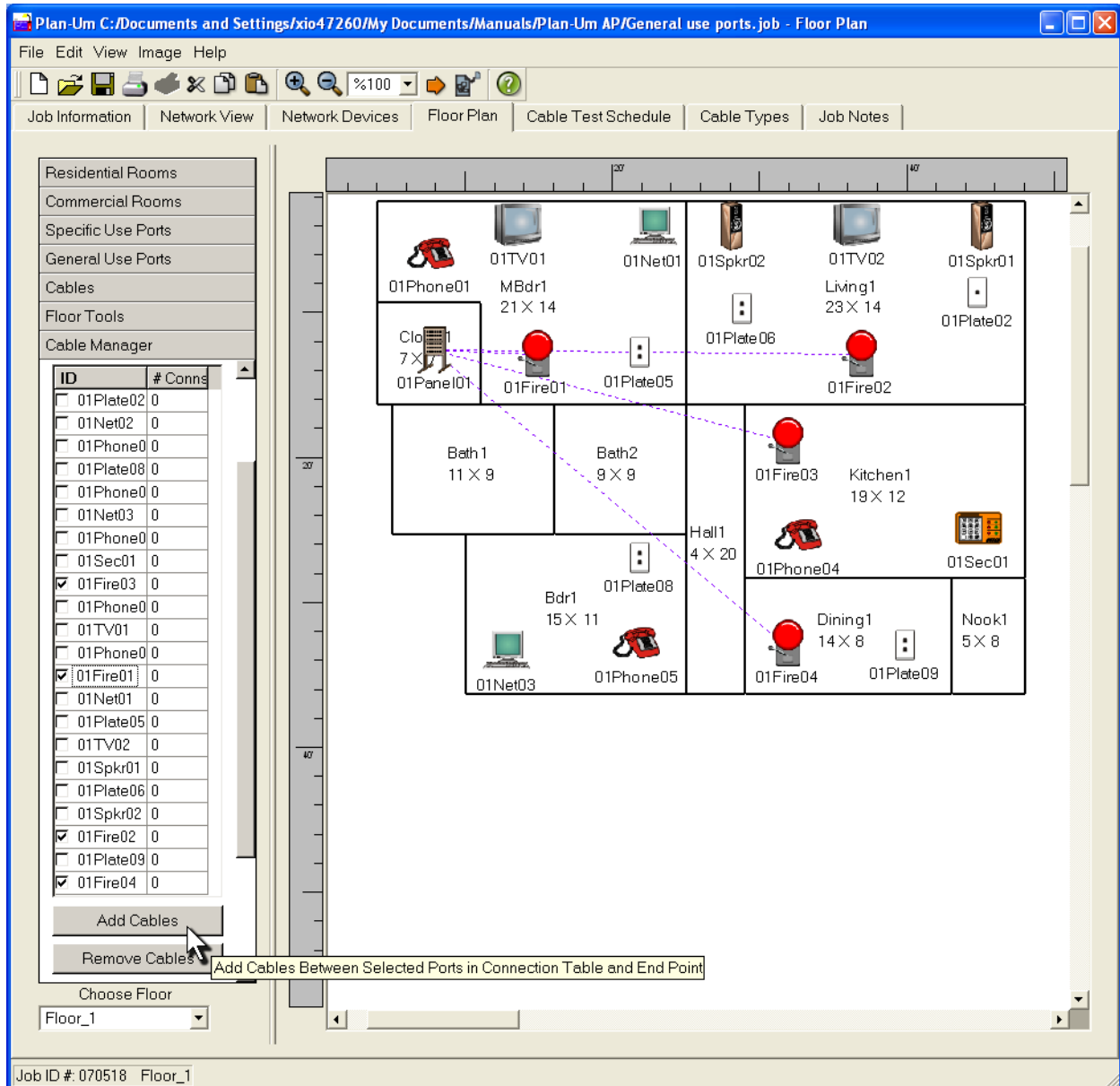
- Using the **End Point** drop down menu on the left toolbar, select the End Point you wish to connect your cables to. This port will be the “To” port on the Cable Test Schedule.



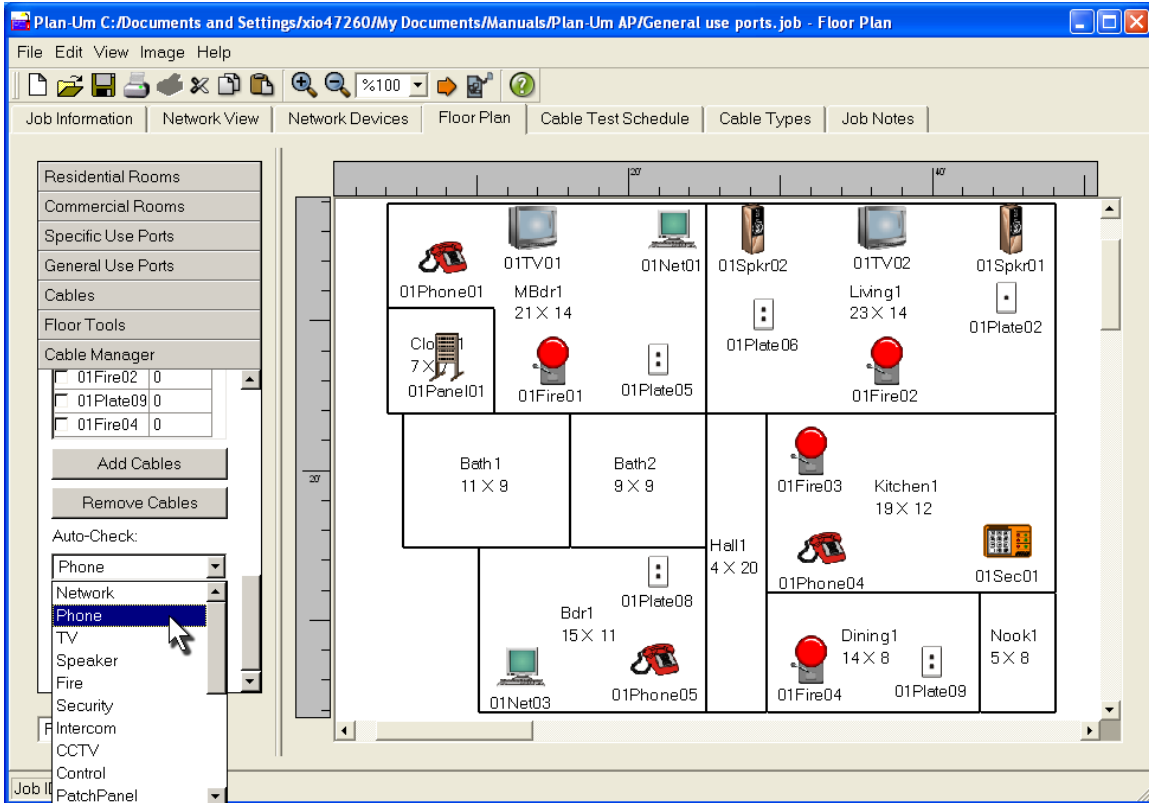
- Use the **Cable Type** drop down menu to select the Cable you wish to add.



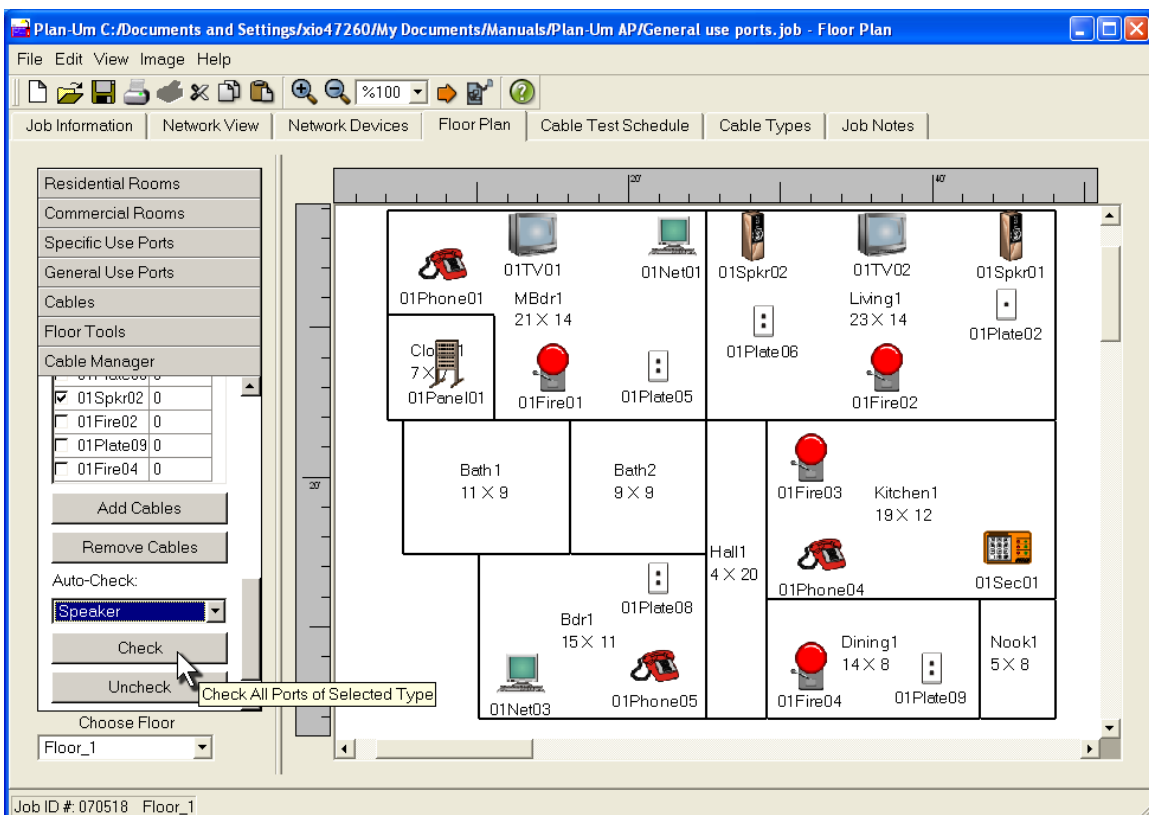
4. Select the Port ID check boxes from the list that you wish to connect to the End Point.
5. Click Add Cables to add cable connections from the selected ports to the selected End Point using the Cable Type you selected. The number of connections for each Port ID are automatically updated in the table.



- The Auto-Check drop down menu allows you to automatically check all Cable IDs of a particular Cable Type and click check to select or uncheck to deselect these Cable IDs.

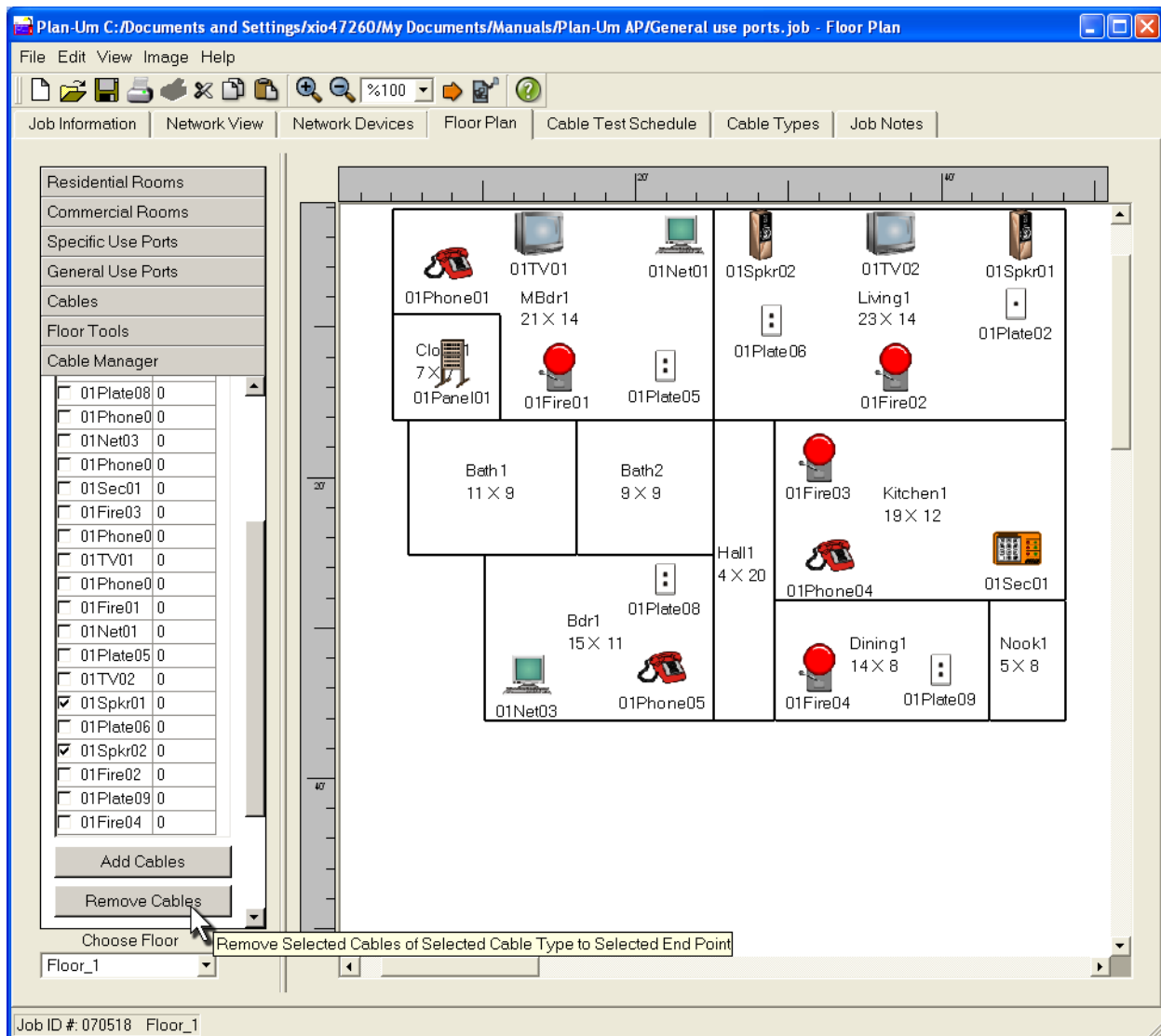


For example, to check all of the phone ports in the connection table, select Auto-Check Phone, and click on Check. To uncheck all of the phone ports, select Uncheck. Click Add Cables to complete the operation.



To Remove Multiple Cables Using the Cable Manager

1. Use the drop down dialog box to select the End Point you connected cables to. For port reference, click on the Cable Test Schedule tab and look at the To port ID.
2. Select the Cable Type you wish to remove from the Cable Type drop down menu.
3. Select the port ID check boxes you want to remove. Note that even though all port ID boxes can be checked, the only cables that will be removed are the ones that actually have a connection to the selected End Point.
4. Click Remove Cables to remove all of the cables of the selected cable type. The numbers of connections for each Port ID are updated in the table.



Advanced Features

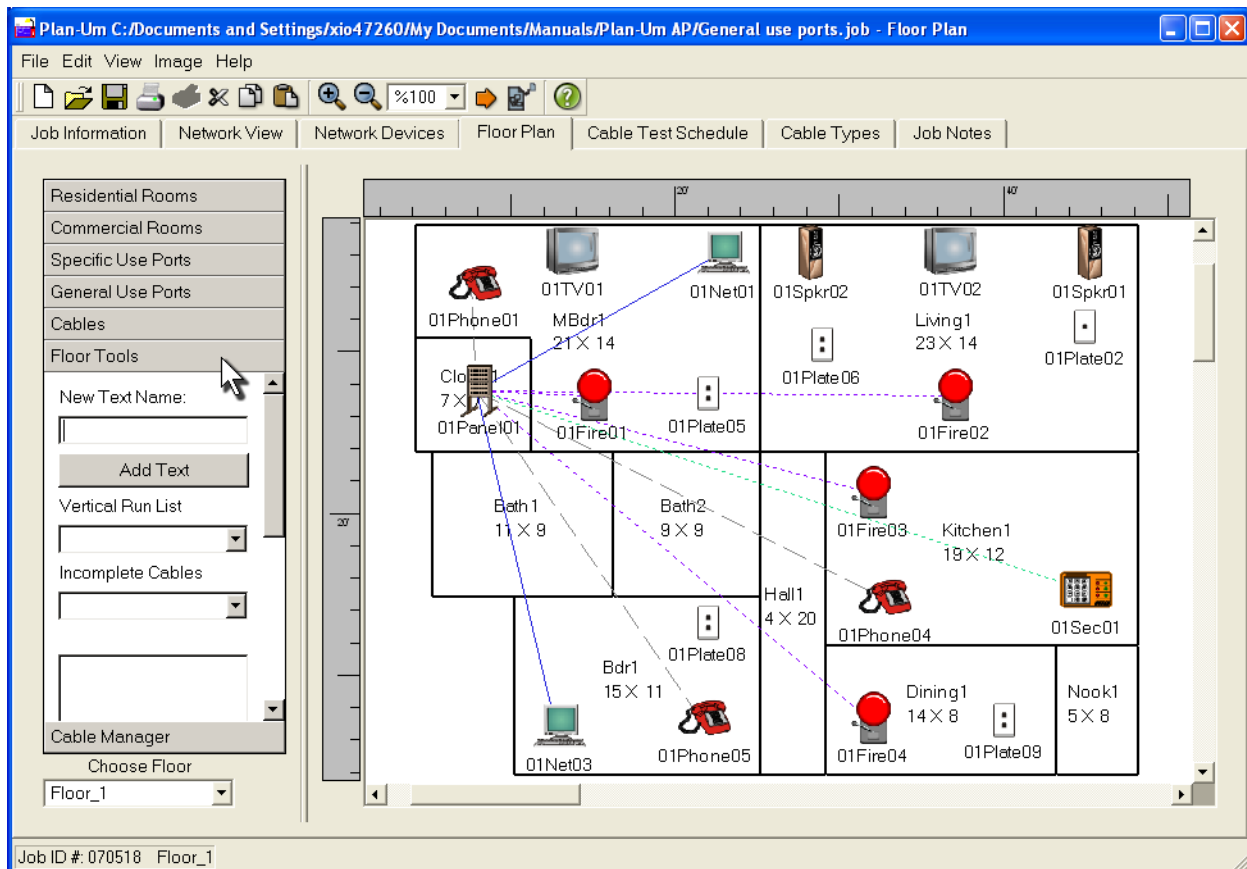
In addition to the basic functions for designing room layouts and placing ports and cables, Plan-Um AP® provides advanced features in the Floor Plan Tab to allow you to design a multiple-floor home or commercial building and connect cables between floors. There are also Floor Plan tools to allow the importing of image files created in other CAD or drawing programs, shrink or expand the floor plan view (using Zoom) and move the objects on the floor plan around on the canvas (using Center.)

There is also another Tab, the Cable Types Tab with a set of tools to allow you to add custom cables.

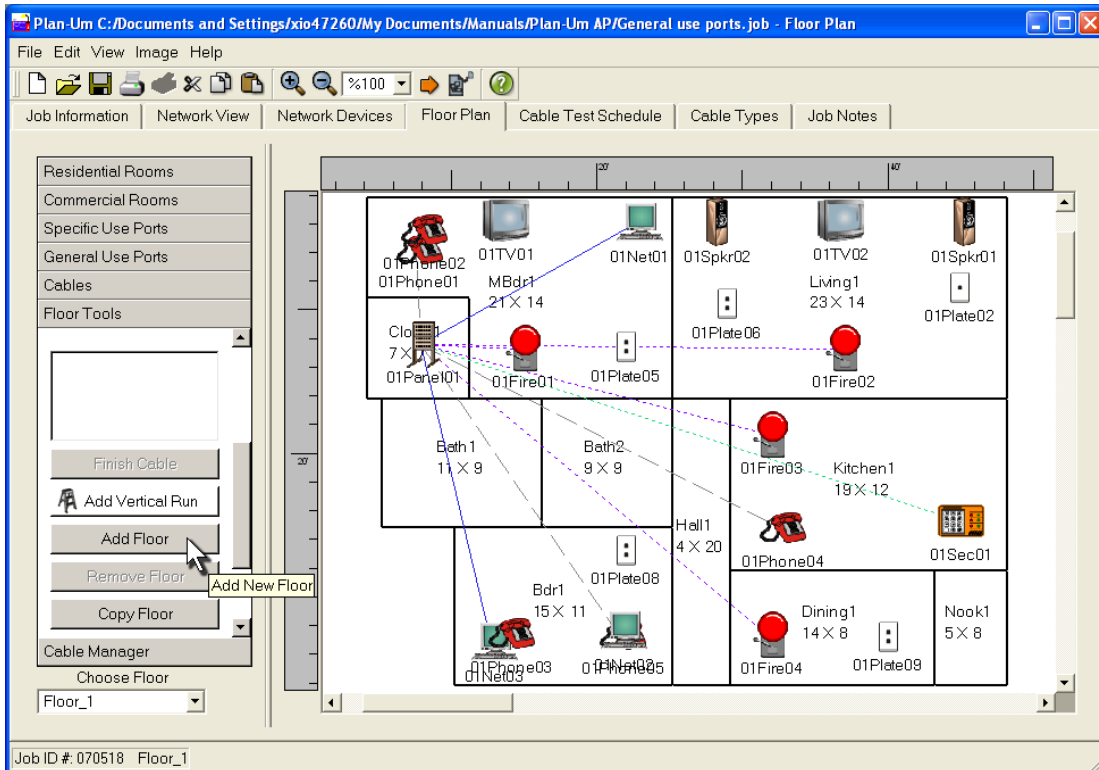
Adding, Removing, and Copying Floors

Follow these instructions for adding a floor.

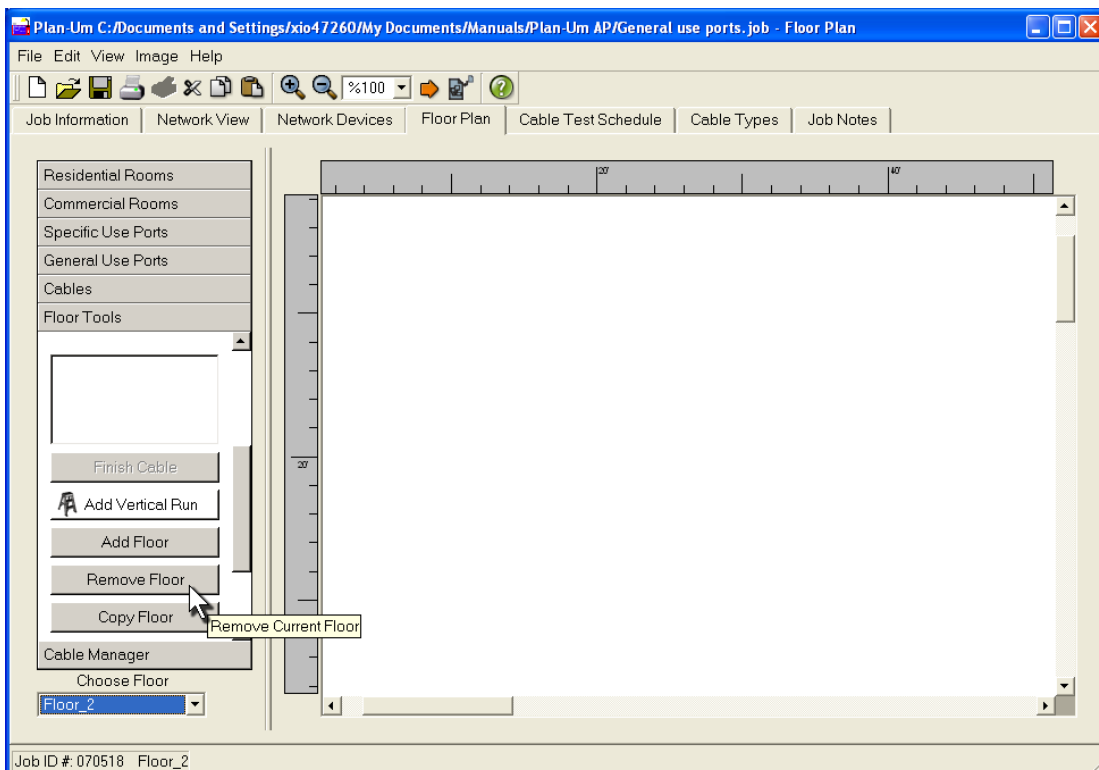
1. Click the Floor Tools button to display the Vertical Run feature, and options for adding, removing and copying a floor. The Choose Floor field initially displays Floor_1.



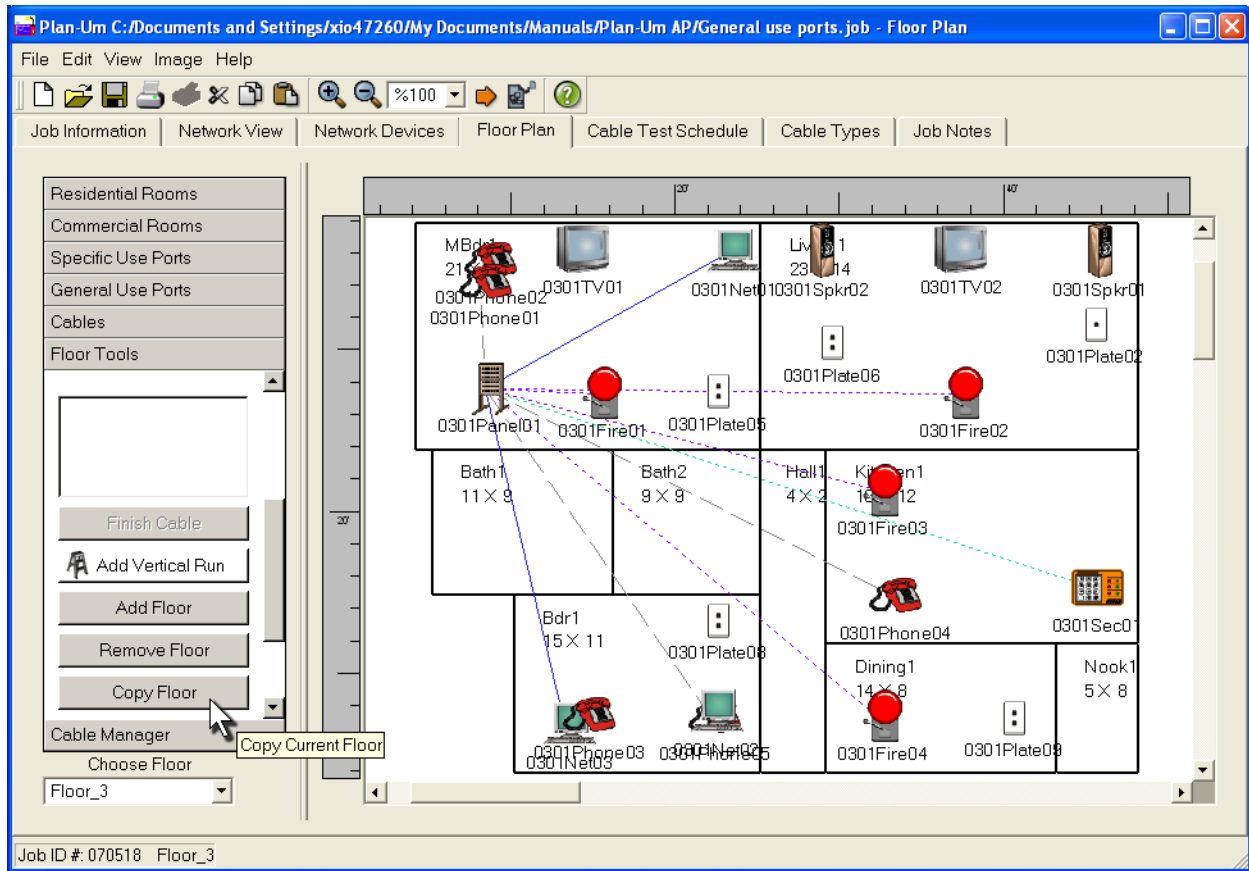
- To add a floor, click the Add Floor button. The floor number in the Choose Floor field changes from Floor_1 to Floor_2 and displays a blank floor plan on the desktop. Click the down arrow under Choose Floor; Floor_1 and Floor_2 appear as selections. To select the floor plan you want to work on, click the appropriate floor. The selected floor plan appears on the screen



- If you defined multiple floor plans and want to delete one, click the down arrow on the Choose Floor field, select the floor you want to remove and click the Remove Floor button.



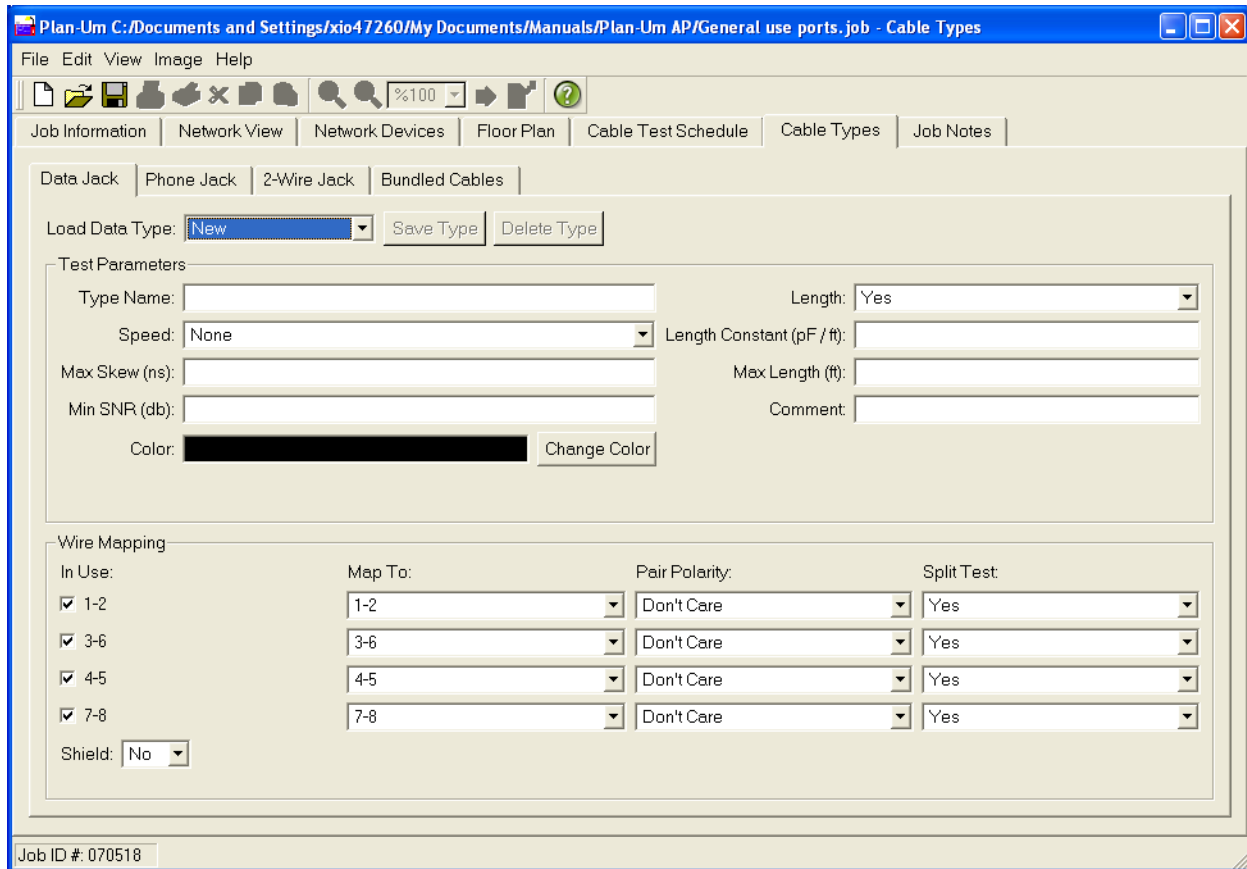
4. You can also add a floor that is identical to an existing floor by displaying the floor layout you want to copy in the Choose Floor field. When you click the Copy Floor button, the Floor number automatically increments and appears in the Choose Floor drop down box. The same floor plan, port layout and cable runs appear on the copied floor.



5. If any of the ports or rooms differs from the original floor plan, you can delete and add by using the instructions above, thereby creating a unique layout.

Adding Custom Cables

The Validator is designed to verify that cables meet specifications defined in a very flexible fashion. The specifications set for a cable type define the tests that must be passed by a cable of that type for it to be given a “Pass” result. Any test which a cable fails causes that cable to be given a “Fail” result. Many standard cable types are pre-defined in the default list provided with the Validator. In addition to the default types, you can define new types by creating new or modifying existing cable type definitions. To define a new cable type, open the **Cable Types** tab. This displays the Cable Types window shown below.



The screen shows four tabs: **Data Jack**, **Phone Jack**, **2-Wire**, and **Jack Bundled Cables**. The first three tabs define the basic cable categories that the Validator supports, and correspond to the three test jacks on the Validator and its remote unit. The bundled cable tab is used to define a grouping of multiple cables that the Validator supports, and may correspond with either the three test jacks on the Validator and its remote unit. Choose the cable category tab for which you are creating a custom cable type.

Data Jack Tab

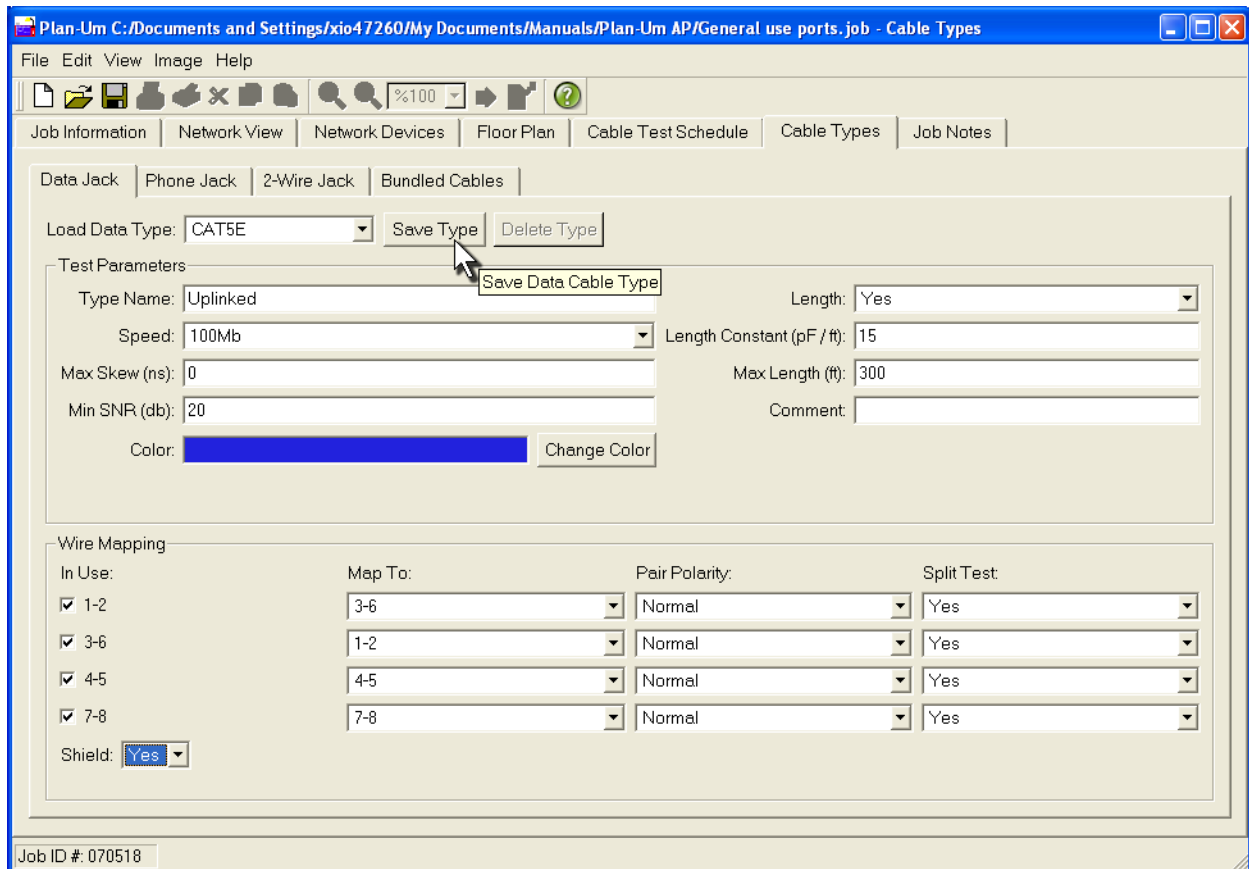
The Data Jack tab controls the detailed specifications for 8 wire, 4 pair cables that are normally terminated with RJXX connectors and used for Ethernet. Inserting them into the 8-pin connector on the Validator tests cables in this category. The mapping in this connector is standard Ethernet pairing 1-2, 3-6, 4-5, 7-8.

1. To start creating a new cable type in this category, choose a type from the drop down list in the Load Data Type field. If you select New, you must enter data manually in all other fields. If you choose an existing type, the pre-defined specifications for that type populate the fields on the rest of the form.

The screenshot shows the 'Cable Types' configuration window in Plan-Um. The 'Data Jack' tab is active. The 'Load Data Type' dropdown is set to 'New', and its menu is open, showing options: 'New', 'CAT5', 'CAT5E', 'CAT6', 'CAT5STP', 'CAT5ESTP', and 'CAT6STP'. A mouse cursor is pointing at 'CAT5'. Below the dropdown are 'Save Type' and 'Delete Type' buttons. The 'Test Parameters' section includes fields for 'Type Name', 'Speed', 'Max Skew (ns)', 'Min SNR (db)', 'Color', 'Length', 'Length Constant (pF / ft)', 'Max Length (ft)', and 'Comment'. The 'Wire Mapping' section has a table with columns for 'In Use', 'Map To', 'Pair Polarity', and 'Split Test'. The 'Shield' dropdown is set to 'No'. The 'Job ID #' is 070518.

In Use:	Map To:	Pair Polarity:	Split Test:
<input checked="" type="checkbox"/> 1-2	1-2	Don't Care	Yes
<input checked="" type="checkbox"/> 3-6	3-6	Don't Care	Yes
<input checked="" type="checkbox"/> 4-5	4-5	Don't Care	Yes
<input checked="" type="checkbox"/> 7-8	7-8	Don't Care	Yes

2. Modify the specifications and save a new cable type by typing a unique name in the Type Name field. The default types included with Plan-Um AP® cannot be modified and stored under the original type name, but can be stored with a new name.



Test Parameters

Date Jack Cables are primarily for testing Ethernet cables, the *Speed* specification determines what data rate the Validator will use to test for proper operation. Validator supports SNR and BERT testing at either 100Mb or 1000Mb. If you want to define an 8-wire type which is not for Ethernet use and does not need to have a speed verified, the speed can be set to None, and no BERT test will be run.

The *Max Skew* (ns) is the maximum difference in delay allowed between pairs in nanoseconds. This specification only applies to 1000Mb Ethernet, and is only applicable to a cable that can support that data rate. 40nS is the absolute maximum allowed due to the symbol rate at 1000Mb. This specification can be set to 0 to allow cables to pass the testing without requiring this parameter to be met.

Min SNR is the minimum signal-to-noise ratio allowed. Generally, 20db is the minimum acceptable level in 100 Mb and 1000Mb mode. It can be set higher to require the testing to show a higher margin in the noise level. This specification can be set to 0 to allow cables to pass the testing without requiring this parameter to be met.

The *Length* field allows you to specify whether the Maximum Length field will be checked during testing. If this field is set to “Yes”, the measured cable length will be compared to the Maximum Length specification, and the Pass/Fail result will be stored. If this field is set to “Don’t Care”, the length will be measured and recorded, but the Maximum Length is not checked. Note that the pF/ft (length constant) must be set to match the characteristics of the cable for the length measurement to be accurate.

The *pF/ft.* field specifies the length constant used for capacitive length measurements in Pico farads per unit length. This measure can display as meters if you selected Metric on the View menu. Length of cable is rounded to feet or .5 meters.

The *Connector* field is simply a comment field for the operator.

Wire Mapping

The section labeled Wire Mapping defines the connection between the pin assignment of the wires in the connections between one end of the cable and the other. If the In Use box is checked, the pair will be tested. If it is not checked, that pair is not tested. By default, all boxes are checked.

The *Map To* field defines the pair at the remote end to which the main unit pair is connected. Each pair can be used only once.

Pair Polarity indicates whether or not the connection is Normal, Reverse, or Don’t Care. For example:

1-2 Map To: 1-2 Normal means 1 goes to 1 and 2 goes to 2

1-2 Map To: 1-2 Reverse means 1 goes to 2 and 2 goes to 1

1-2 Map To: 1-2 Don’t Care means either normal or reverse is acceptable

The *Split Test* field determines that the cable wire pairing is verified and must be correct for the cable to “Pass”. Don’t care means that pairing is unimportant.

Shield defines Shield continuity will be tested and required for the cable to “Pass”. If Yes is selected in the Shield box, shield continuity will be tested. If No is selected, the shield continuity is not a Pass/Fail criteria.

Phone Jack Tab

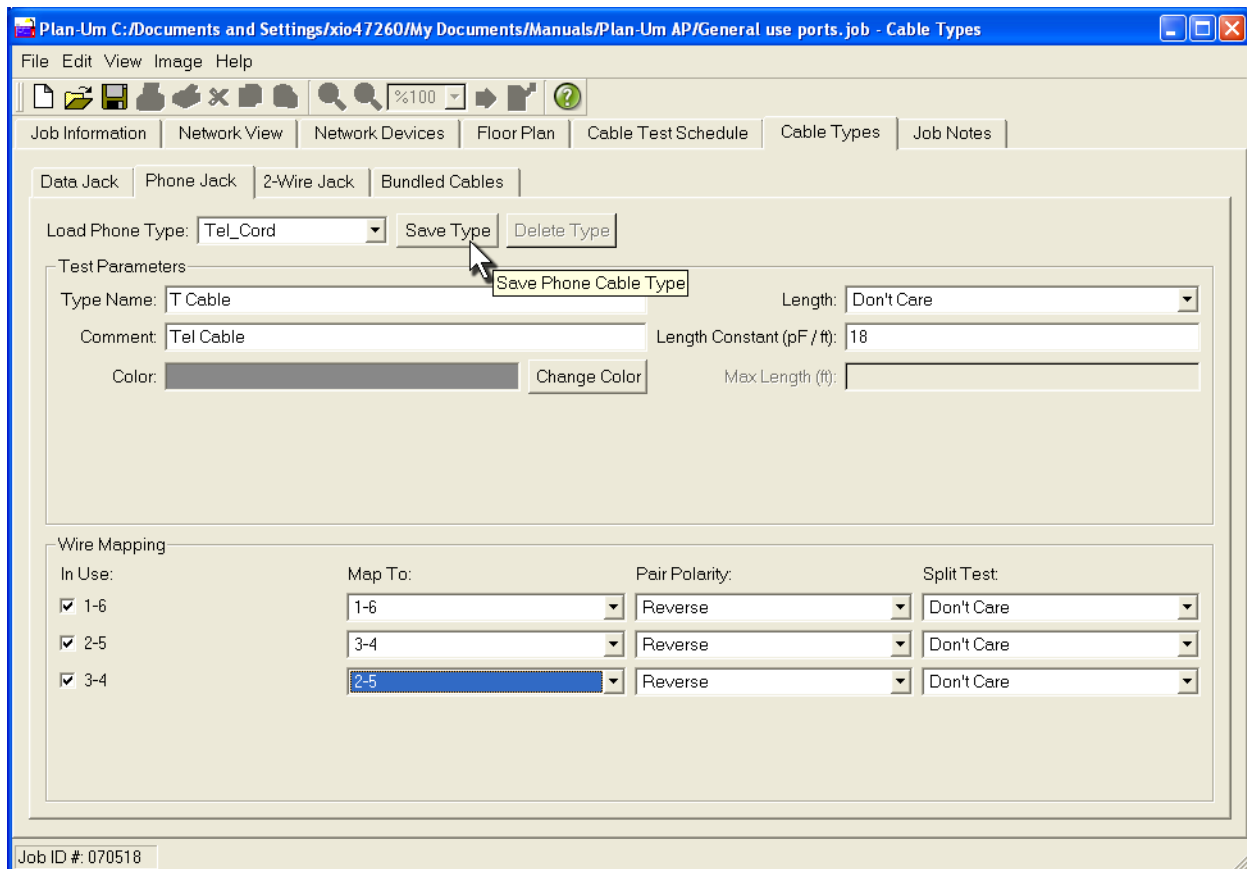
The Phone Jack tab controls the detailed specifications for 6 wire, 3 pair cables that are normally terminated per USOC 3-pair definition, and used for telephone connections. Cables in this category are tested by inserting them into the 6-pin connector on the Validator. As described above, a new type can be defined by selecting an existing type from the drop down list to modify, or New, to define a new type from scratch. As with Data Types, the default types included with Plan-Um AP[®] cannot be modified and stored under the original type name, but can be stored with a new name.

You can customize types in the phone jack category by modifying or entering new specifications into the Connector, Length, pF/ft, and Max Length (ft) fields.

See descriptions in the Data Jack Table on page 26.

Wire mapping is defined as 1-6, 2-5, and 3-4. Remaining fields and check boxes are the same or similar to the data jack definitions described on page 27.

When the specification of the new type is complete, a unique Type Name can be entered, and the new type saved in the .job file.

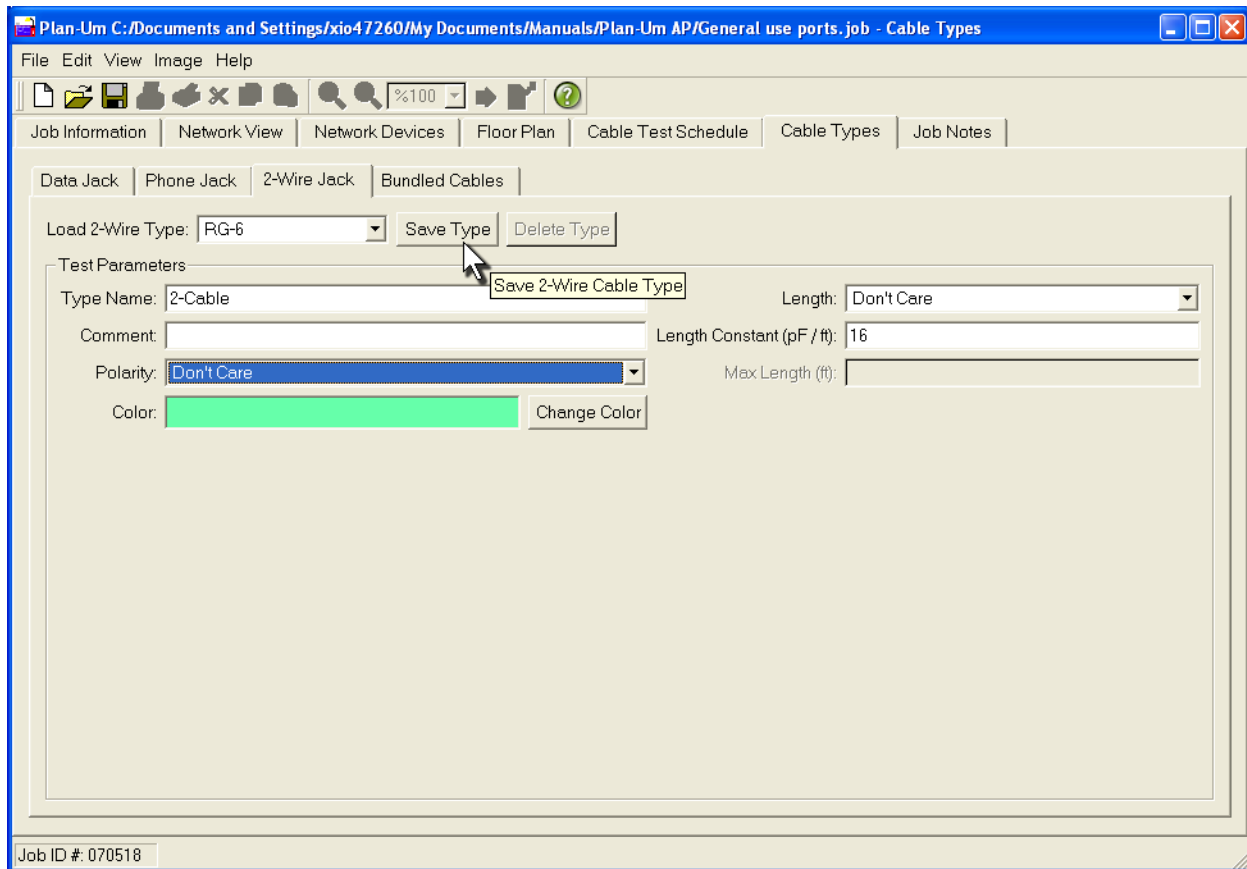


2-Wire Jack Tab

The 2-Wire Jack tab controls the detailed specifications for 2 wire, single pair cables. Cables in this category are tested by inserting them into the F-connector or connecting them to the banana jacks on the Validator. As described above, a new type can be defined by selecting an existing type from the drop down list to modify, or New, to define a new type from scratch. As with Data Types, the default types included with Plan-Um AP® cannot be modified and stored under the original type name, but can be stored with a new name.

2-Wire category cables are only tested for continuity and length. Accurate length testing relies on the 2 wires in the cable forming a single pair, such as coax and 2-wire twisted security cables. The Polarity selection box determines whether the Pass/Fail criteria for this type, is point-point (Normal), Reverse or Don't Care.

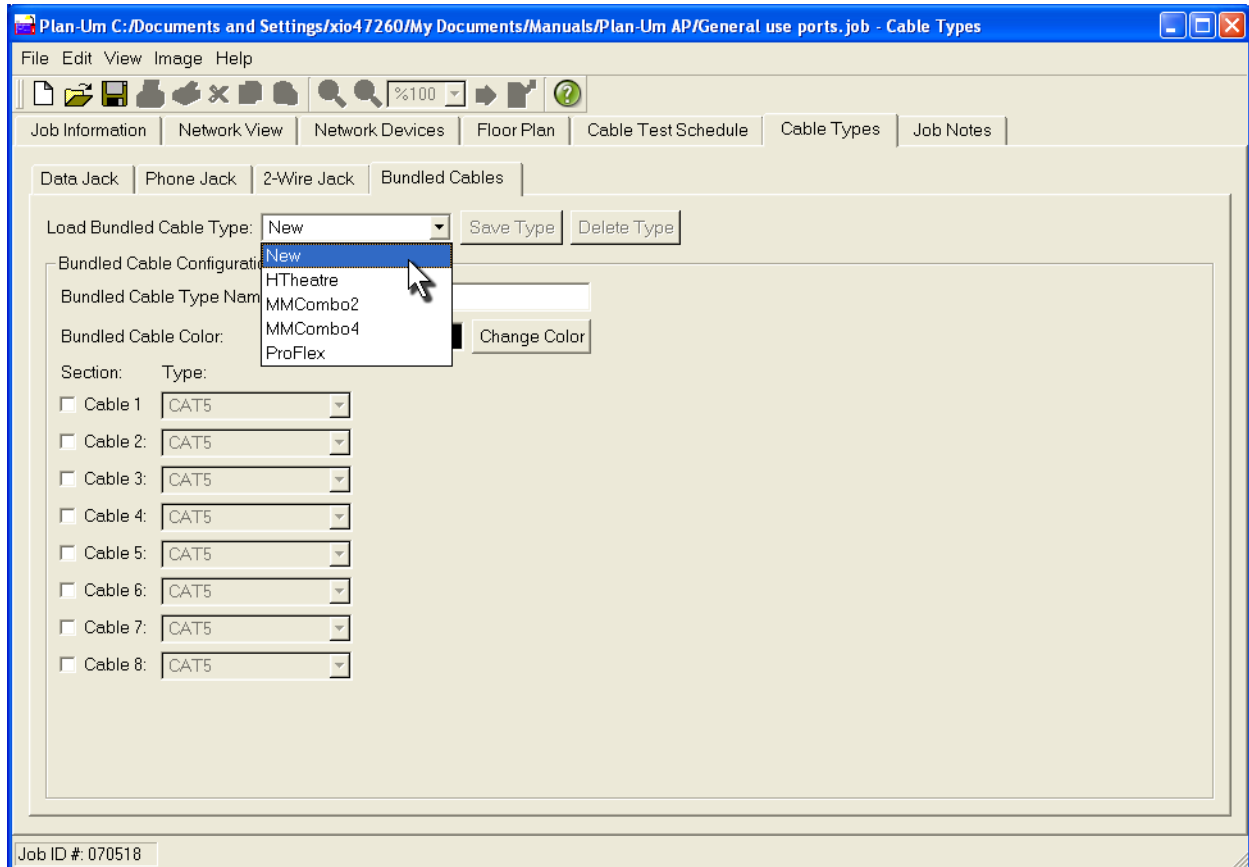
The Connector field for this category is shown on the Test Results screen on the Validator and can be used to define a visual check for the technician at the job site to verify that the proper termination is on the cable.



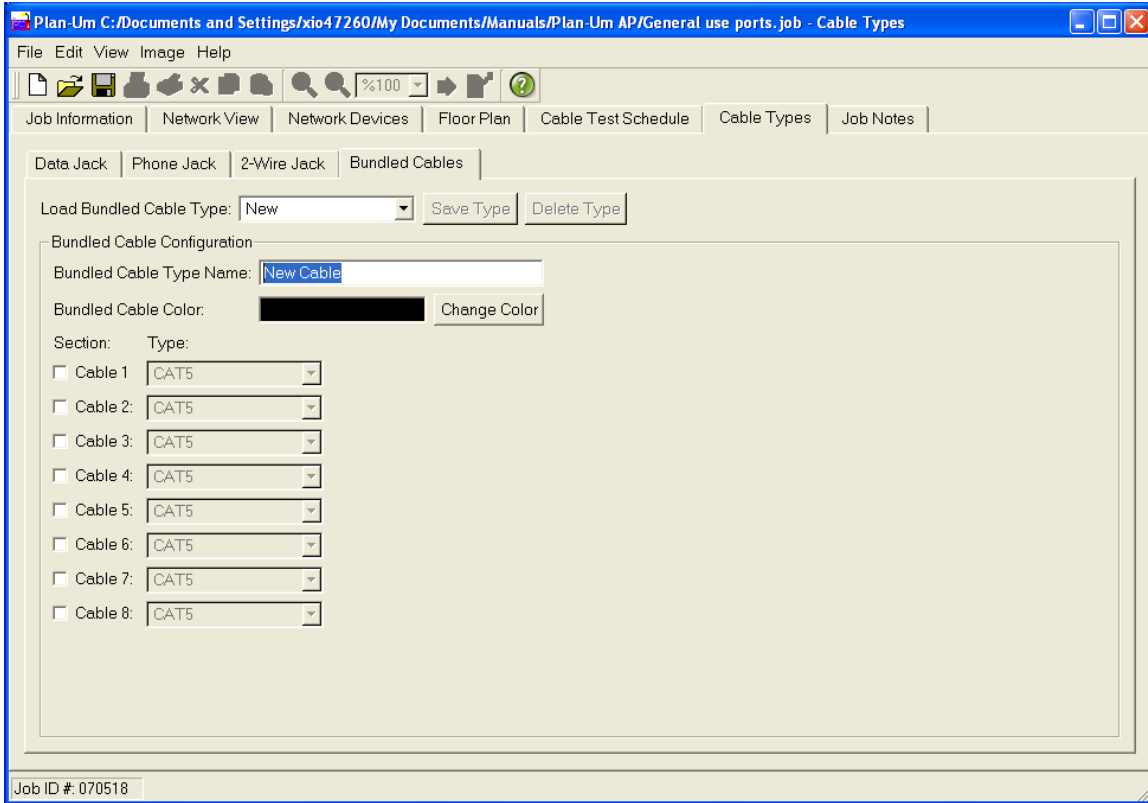
Bundled Cable Tab

You can create bundled cable types and give them a name, a color, and between 2 and 8 default and/or custom cable type categories. The user shall be able to save this bundled cable type to the job file and to delete this bundled cable type from the job file. The user shall be able to select a bundled cable type that was previously saved and change the name, color, and the number and/or types of cables used in the bundle.

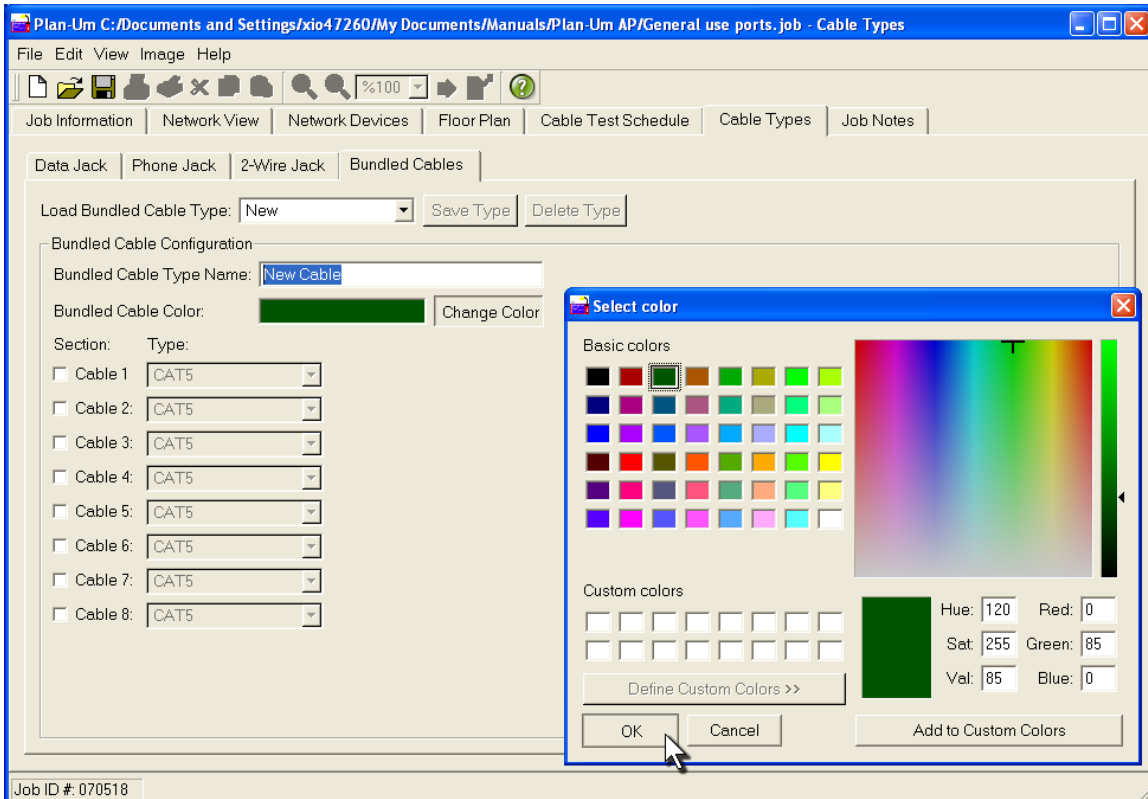
1. Select a cable from the **Load Bundled Cable Types** to edit or select New.



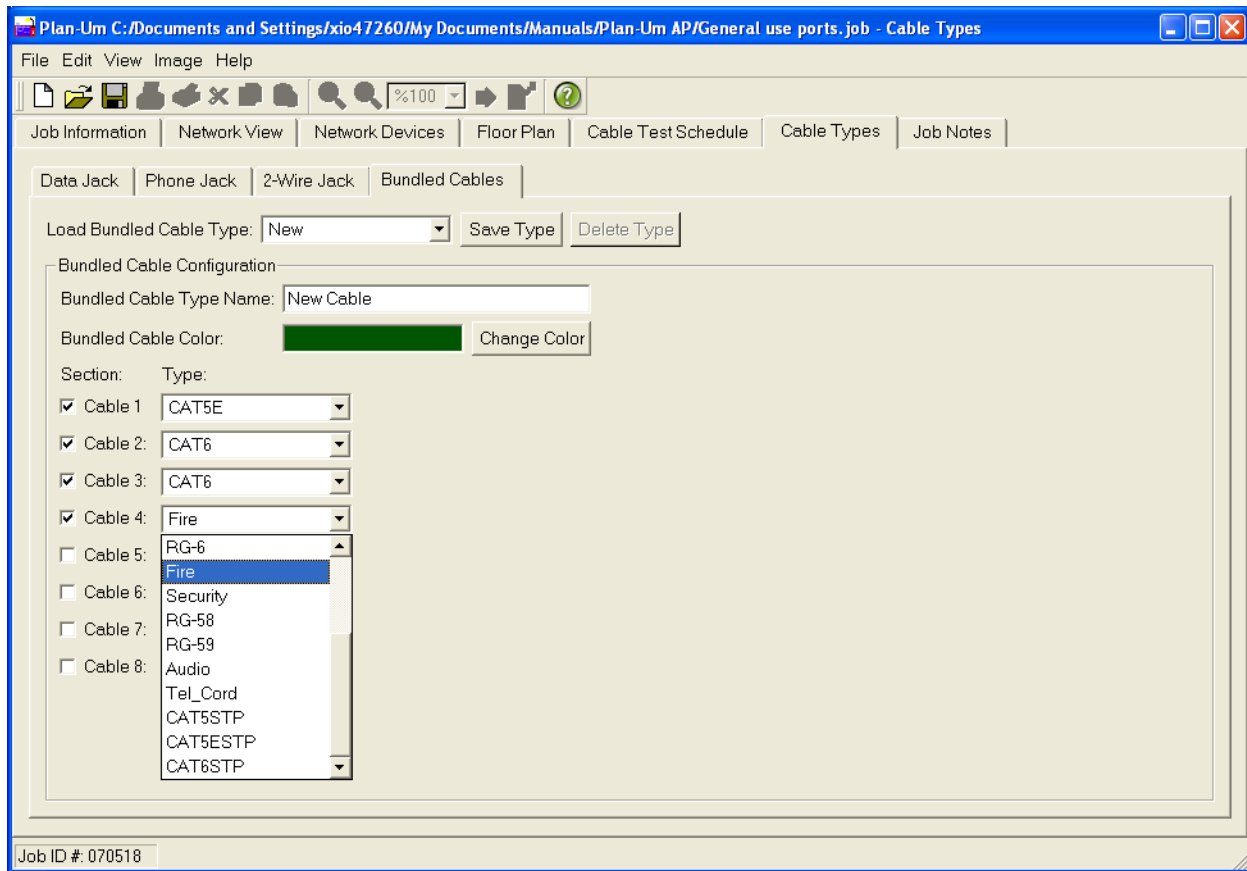
2. Enter a name in the line edit next to the **Bundled Cable Type Name** label. If you selected a cable to edit you must enter a new name to be able to edit the selected cable and then save.



3. To Select a Bundled Cable Color, click the **Change Color** button. Select colors from the basic colors or create your own colors, then press OK.



- Choose at least 2 cables of any type (except other bundled cables) as part of the bundle. The eight cable check boxes to the left must be checked in sequence and unchecked in reverse sequence. If the user has the first 4 check boxes checked, you can only check Cable 5 or uncheck Cable 4.

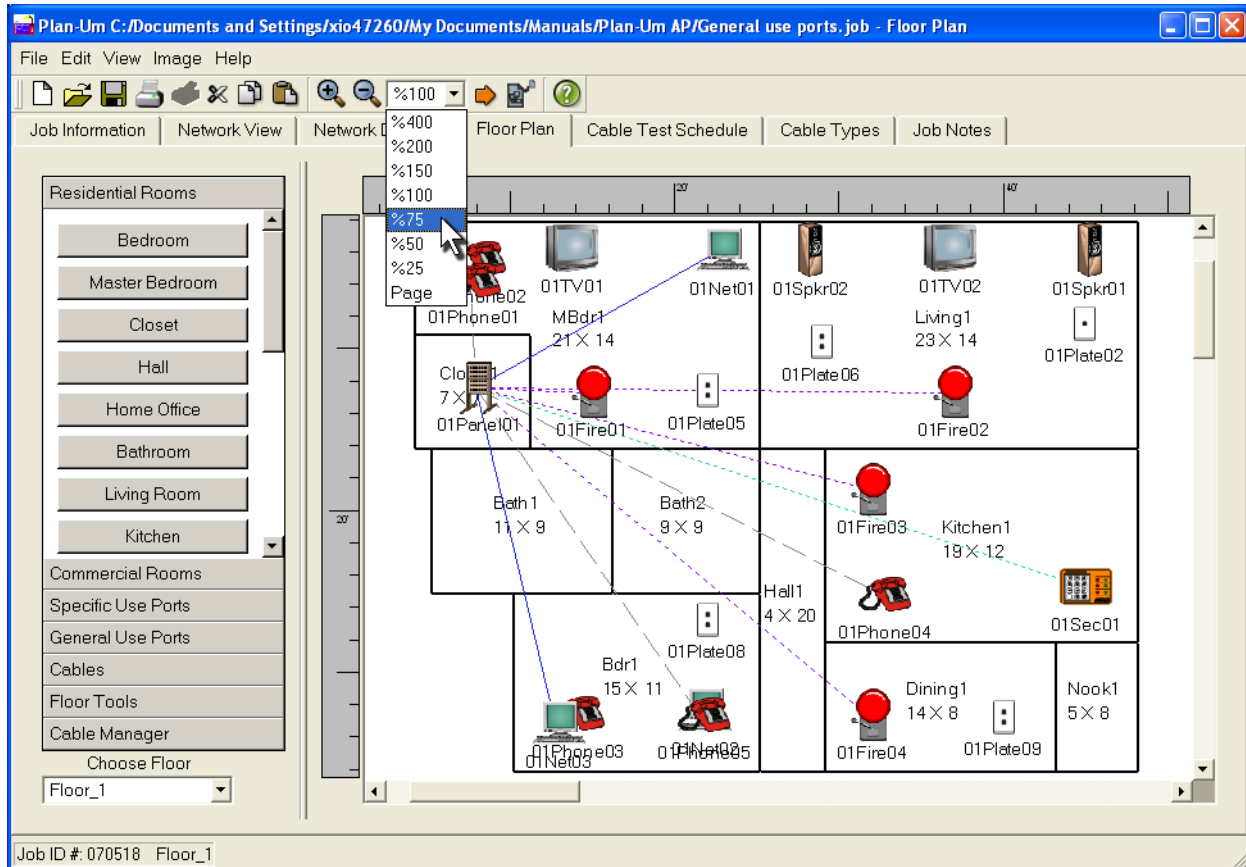


- Click **Save Type** to save cable.

Using the Zoom Feature

The default page setup is set to 100% zoom which allows the user to view the top left corner of the drawing canvas. The more complex the floor plan, the more difficult it becomes to view the complete floor plan. To adjust the view, click the Plus or Minus Zoom button on the icon toolbar while on the floor plan. You may also click the down arrow on the Zoom dialog box and select a specific percentage rate for viewing the image, from 25% to 400%. Or, to see the entire drawing page as it will print with the current Page Setup and Scale options, select Page.

Plan-Um AP® remembers the last selected zoom used for the floor plan and Network View when you exit the program, and reopens the program with those zoom settings.

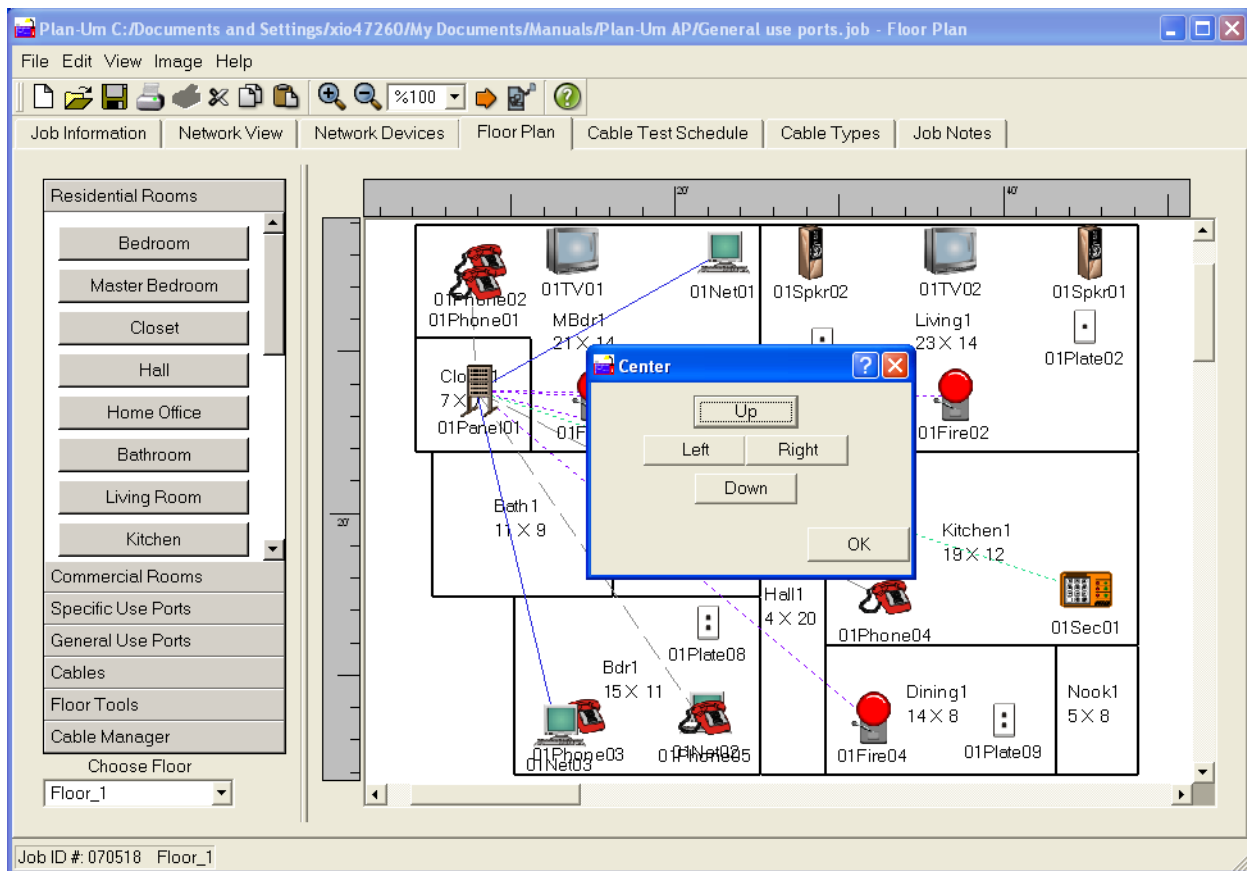


Centering the Image

The Center feature on the Icon Toolbar allows you to center the reduced or enlarged image on the desktop. When you click the Center icon, a dialog pop-up appears showing four buttons labeled Up, Left, Right, Down. Click the appropriate buttons as many times as needed to center the image on the desktop. When it is positioned where you want it, click the Close button.

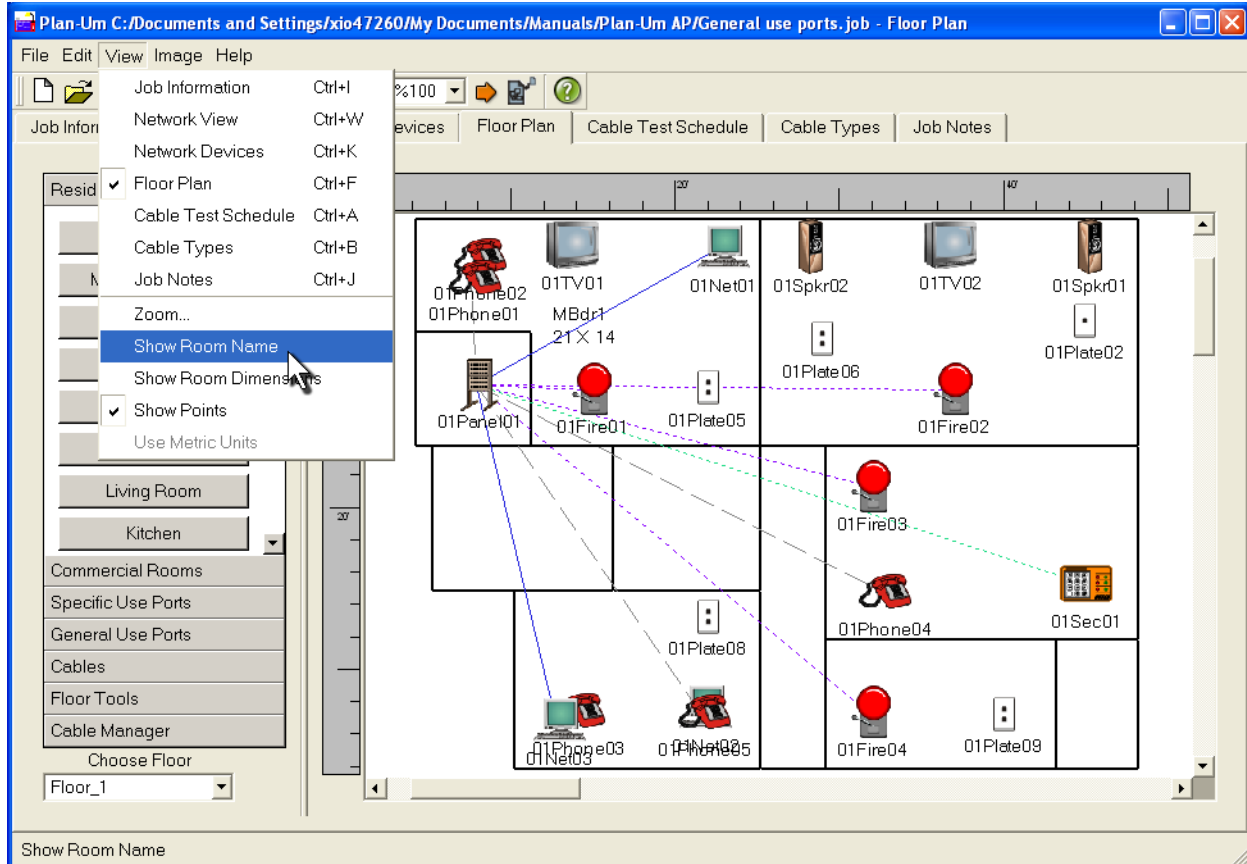
Showing Room Dimensions

To improve the visibility of other details on the Floor Plan, room dimensions can be hidden. On the Floor Plan tab, click the View drop down dialog box and select Show Dimensions to alternately show or hide room dimensions.



Showing Room Information

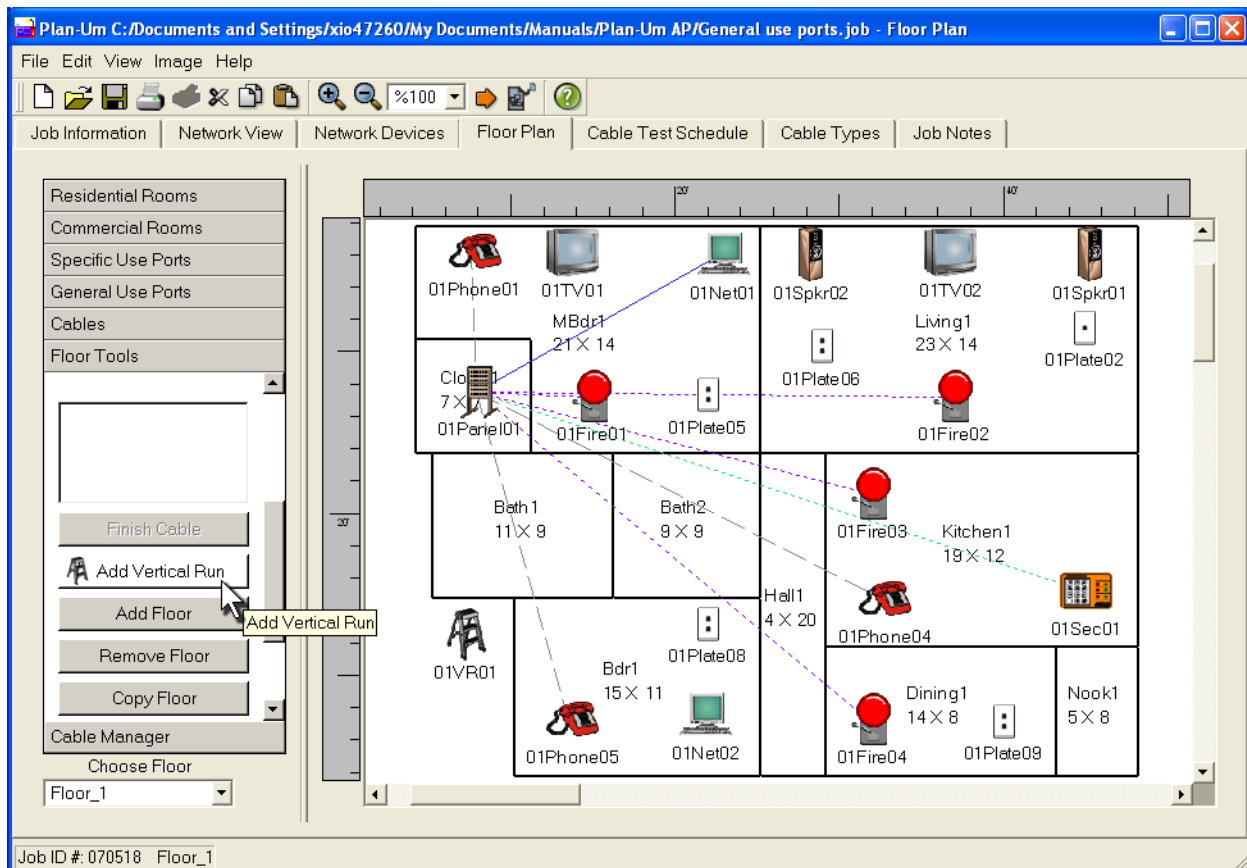
To improve the visibility of other details on the Floor Plan, room dimensions and room name can be hidden. On the Floor Plan tab, click the View drop down dialog box and select Show Dimensions to alternately show or hide room dimensions and room name. The free text will still appear for more flexible text creation.



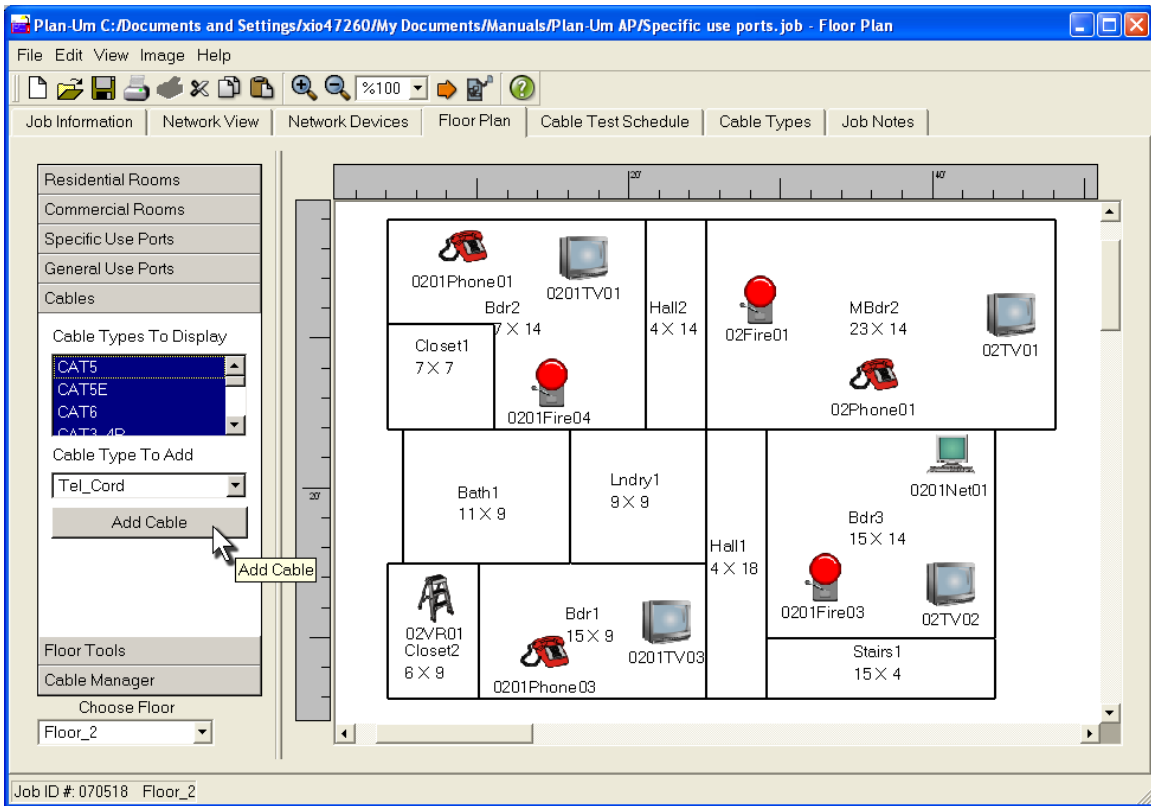
Cabling Between Floors (Vertical Run Feature)

You can run cabling from one floor to another with the Vertical Run feature. This allows you to have one main patch panel as a single point of concentration for floor plans with multiple floors. Use these steps to set up vertical runs.

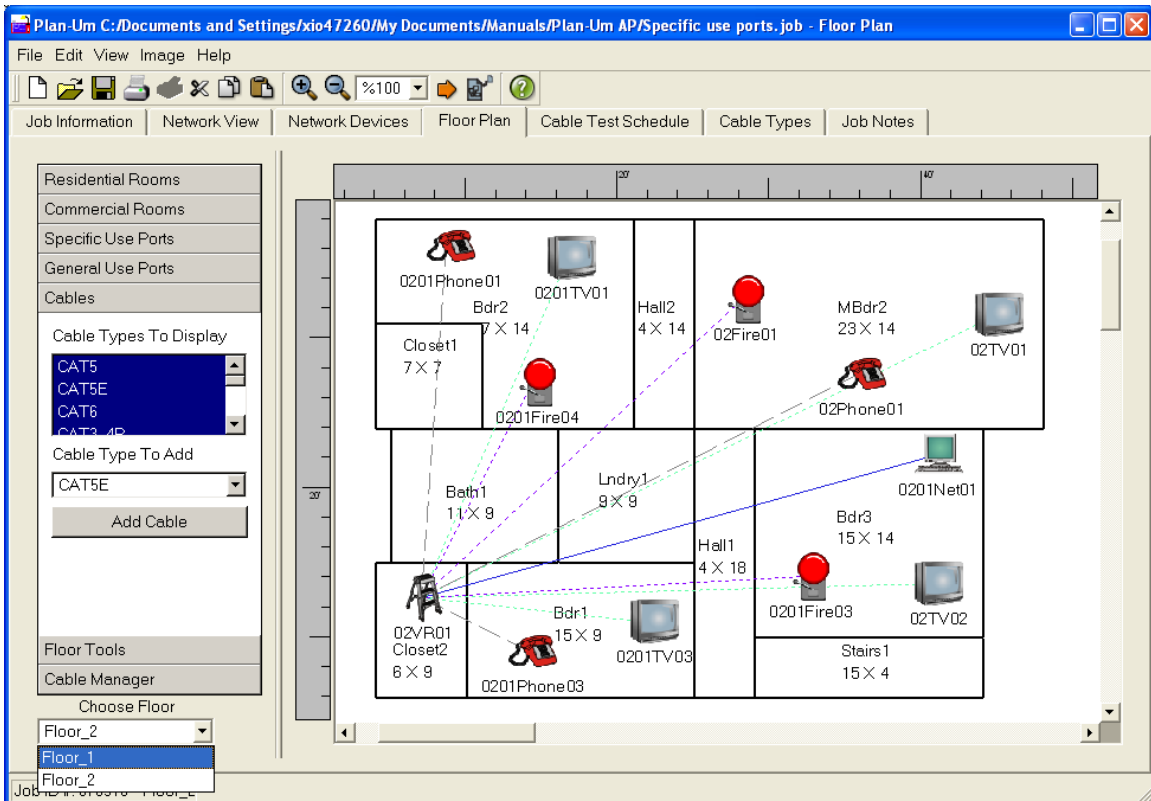
1. Create multiple floors and define the ports on each floor.
2. Since you are creating vertical runs between floors, identify the floor where the main concentrator panel for the building is located. For example, this is often Floor 1. On the floor where the main concentrator panel is located, create the cable runs from the ports to the patch panel.
3. Click the Add Vertical Run button on the Floor Tools menu. A icon labeled Vertical Run appears on the floor plan. Drag and drop a vertical run box to each floor. A label appears depicting the floor number, VR for Vertical Run and 01 for the first occurrence.



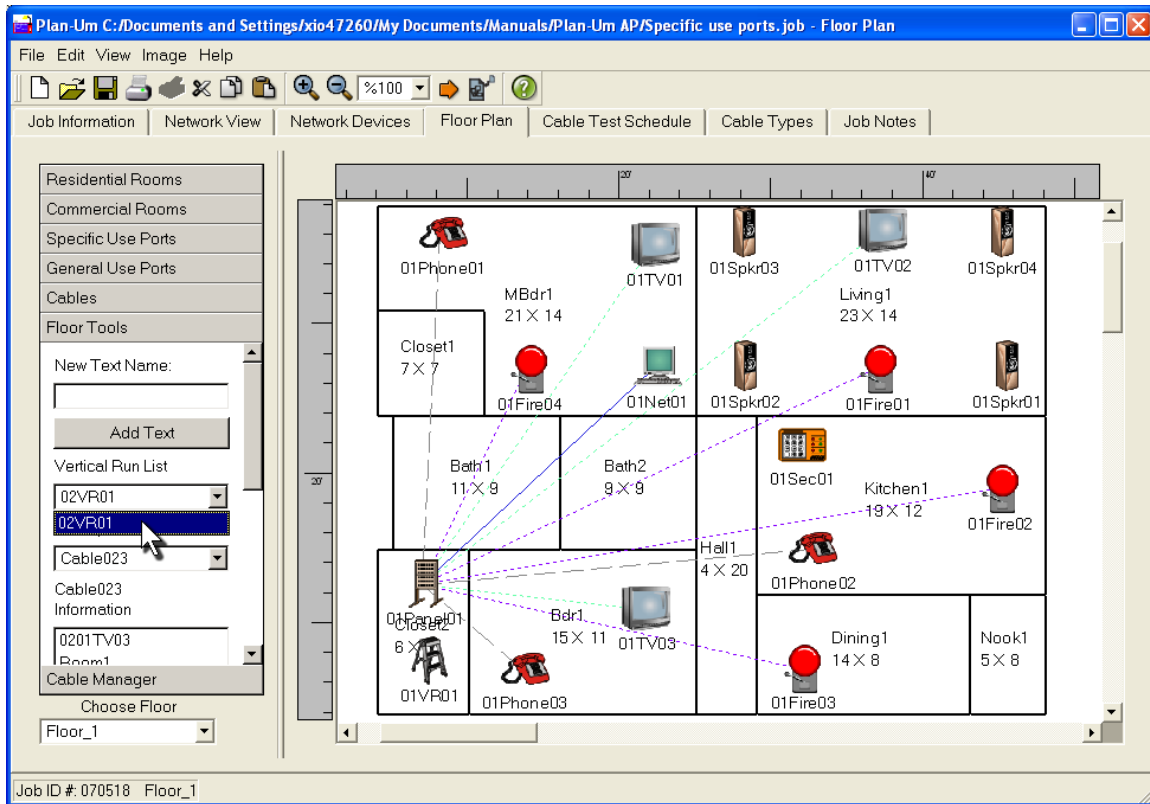
4. Terminate the cable runs designated to be run between floors at the VR icon on that floor.



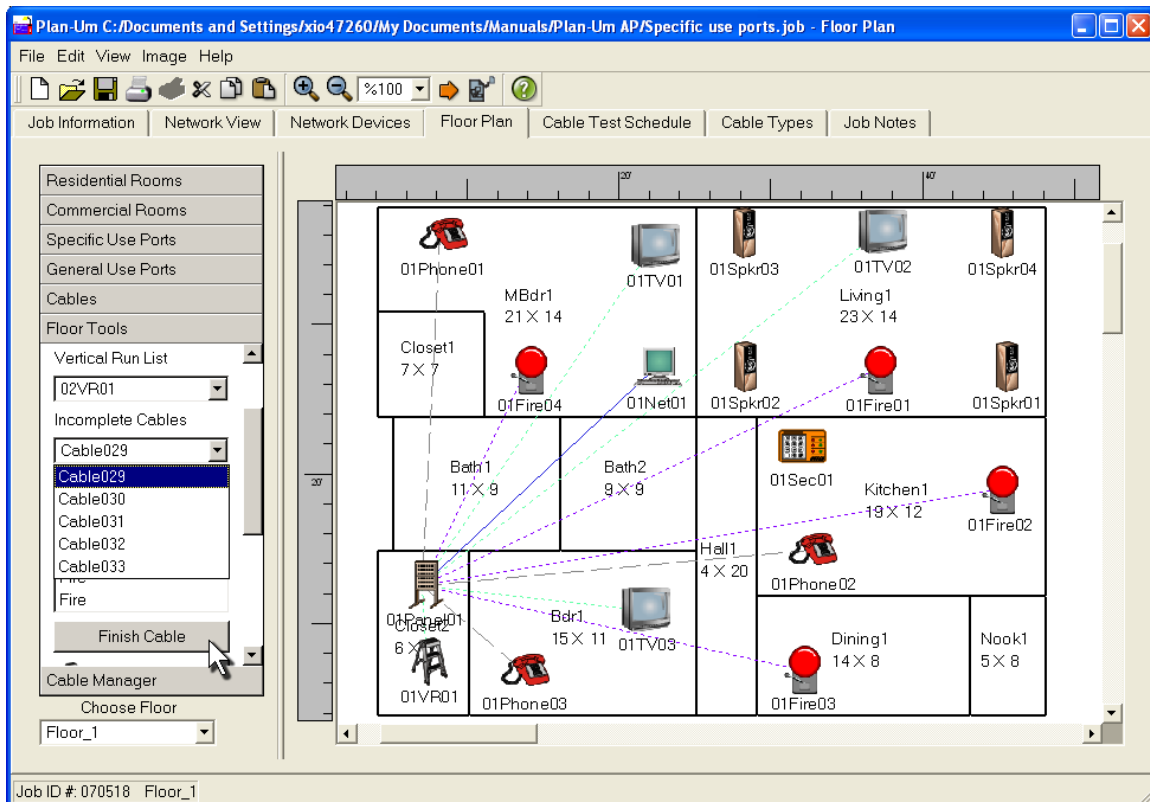
5. When complete, click the Choose Floor button and select the Floor where the cabling will terminate.



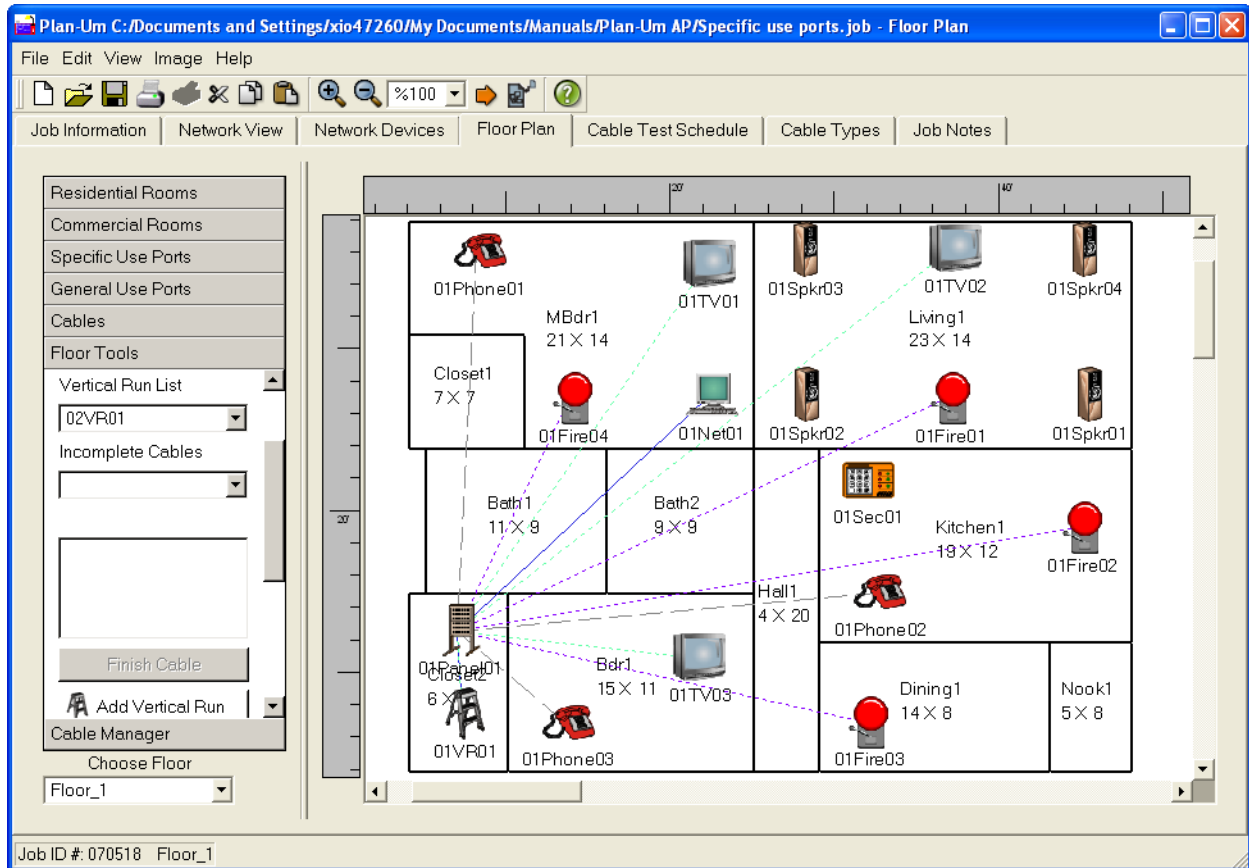
6. Click the Vertical Run drop down box and select the VR from which the cable originated.



7. An Incomplete Cables field on the Floor Tools menu displays cables that are not yet terminated. Select the cable you want to terminate from this list, then click the Finish Cable button and drag it from the Vertical Run icon to the concentrator panel.



8. Repeat this step until all incomplete cables are terminated to the patch panel.



Cable Test Schedule

As each cable run is created, it is recorded in the Cable Test Schedule, the third tab on the Plan-Um AP® desktop. This test schedule, including results, becomes the job report that the customer receives.

Test each cable, using any one of jdsu's network testers, and enter the Cable Test Results using the drop down dialog box in the Results column. In addition to jdsu's Validator product line, the following jdsu products perform standard cable tests and are recommended for cable testing: Testifier™ (TP350), LanRoamerPRO™ (TP600), Lanscaper™ (NT700), and Resi-Tester™ (TP300).

Viewing the Cable Test Schedule

To see the complete list of defined cables, click the Cable Test Schedule tab.

Each cable in the Cable Test Schedule includes a cable ID, the port ID of the To and From terminations, Type, Use, Length, and Results. The Length and Results columns are populated manually by the tester.

You can sort the cable list in ascending or descending order, grouping the same cable types for testing. To sort the cable list, click on the Type heading.

The screenshot shows the 'Cable Test Schedule' window in Plan-Um software. The window title is 'Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/Specific use ports.job - Cable Test Schedule'. The interface includes a menu bar (File, Edit, View, Image, Help), a toolbar, and several tabs: Job Information, Network View, Network Devices, Floor Plan, Cable Test Schedule (selected), Cable Types, and Job Notes. Below the tabs are buttons for 'Add Cable(s)' and 'Define Cable(s)'. The main area contains a table with the following columns: ID, From, To, Type, Test Jack, Use, Length, Result, Bundle Type, Bundle #, and Color. The table lists 23 cables with various configurations and test results.

ID	From	To	Type	Test Jack	Use	Length	Result	Bundle Type	Bundle #	Color	
1	Cable001	01Panel01	01Net01	CAT5E	Data	Network	0 ft	Untested	NA	NA	Blue
2	Cable002	01Phone03	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
3	Cable003	01Phone02	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
4	Cable004	01Phone01	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
5	Cable005	01TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
6	Cable006	01TV01	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
7	Cable007	01TV02	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
8	Cable008	01Fire02	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
9	Cable009	01Fire04	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
10	Cable010	01Fire01	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
11	Cable011	01Fire03	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
12	Cable012	0201TV03	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
13	Cable013	0201Phone03	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
14	Cable014	0201Phone02	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
15	Cable015	0201Fire02	02Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
16	Cable016	0201Phone01	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
17	Cable017	0201TV01	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
18	Cable018	0201Fire04	02Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
19	Cable019	0201TV02	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
20	Cable020	0201Fire01	02Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
21	Cable021	0201Fire03	02Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
22	Cable022	0201Panel01	02Net01	CAT5E	Data	Network	0 ft	Untested	NA	NA	Blue
23	Cable023	0201TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green

Job ID #: 070518

Editing the Cable Test Schedule

Individual cells or rows on the Test Schedule can be edited using cut, copy, paste or delete. Plan-Um AP® does not allow you to select and edit multiple cells at once. A Cable Test Schedule which has been generated using the Floor Plan tools is linked to that floor plan, and editing entries on the Test Schedule screen can affect the floor plan.

1. The Cable ID field can be edited. A new Cable ID must not match another ID already on the Test Schedule.

ID	From	To	Type	Test Jack	Use	Length	Result	Bundle Type	Bundle #	Color	
1	Cable001	01Panel01	01Net01	CAT5E	Data	Network	0 ft	Untested	NA	NA	Blue
2	Cable002	01Phone03	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
3	Cable003	01Phone02	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
4	Cable004	01Phone01	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
5	Cable005	01TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
6	Cable006	01TV01	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
7	Cable007	01TV02	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
8	Cable008	01Fire02	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
9	Cable009	01Fire04	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
10	Cable010	01Fire01	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
11	Cable011	01Fire03	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
12	Cable012	0201TV03	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
13	Cable013	0201Phone03	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
14	TCble01	0201Phone02	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey

- The To and From Port ID's can be edited on this screen, but the floor plan will not automatically update. If you enter a Port ID that matches one on the same floor as the original port on the floor plan, the cable termination will move to that port. To move a cable from one port to another, edit the end of the cable that is to move, and enter the port name of the desired termination port.

If you enter a Port ID that does not match one on the floor plan, the cable will not be visible on the floor plan.

The screenshot shows the Plan-Um software interface. The title bar reads "Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/Specific use ports.job - Cable Test Schedule". The menu bar includes File, Edit, View, Image, and Help. The toolbar contains various icons for file operations and a search function. The main window has several tabs: Job Information, Network View, Network Devices, Floor Plan, Cable Test Schedule (selected), Cable Types, and Job Notes. Below the tabs are buttons for "Add Cable(s)" and "Define Cable(s)". The central area contains a table with the following data:

ID	From	To	Type	Test Jack	Use	Length	Result	Bundle Type	Bundle #	Color	
1	Cable001	01Panel01	01Net01	CAT5E	Data	Network	200 ft	PASS	NA	NA	Blue
2	Cable002	01Phone03	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
3	Cable003	01Phone02	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
4	Cable004	01Phone01	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
5	Cable005	01TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
6	Cable006	01TV01	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
7	Cable007	01TV02	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
8	Cable008	01Fire02	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
9	Cable009	01Fire04	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
10	Cable010	01Fire01	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
11	Cable011	01Fire03	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
12	Cable012	0201TV03	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
13	Cable013	0201Phone03	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
14	TCble01	05Phone01		Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey

At the bottom left of the window, the text "Job ID #: 070518" is visible.

- Cable Types can be changed by clicking on the drop down box, and then selecting a Cable Type in the list.

Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/Specific use ports.job - Cable Test Schedule

File Edit View Image Help

Job Information Network View Network Devices Floor Plan Cable Test Schedule Cable Types Job Notes

Add Cable(s) Define Cable(s)

ID	From	To	Type	Test Jack	Use	Length	Result	Bundle Type	Bundle #	Color
1	Cable001	01Panel01	01Net01	CAT5E	Data	Network	200 ft	PASS	NA	NA
2	Cable002	01Phone03	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA
3	Cable003	01Phone02	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA
4	Cable004	01Phone01	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA
5	Cable005	01TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA
6	Cable006	01TV01	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA
7	Cable007	01TV02	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA
8	Cable008	01Fire02	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA
9	Cable009	01Fire04	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA
10	Cable010	01Fire01	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA
11	Cable011	01Fire03	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA
12	Cable012	0201TV03	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA
13	Cable013	0201Phone03	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA
14	TCble01	05Phone01		Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA

Job ID #: 070518

4. The Test Jack field cannot be edited, as it is set to display the connector on the Validator, which is used to test cables of the Type selected in that field.
5. The Use field is informational only, and can be set to any of the built-in Uses by clicking on the drop down box, then clicking on the desired Use. A Use is automatically assigned to a cable when a cable is connected between 2 Specific Use ports or 1 Specific Use and 1 General Use port on the floor plan. If a cable is connected between 2 different Specific Use ports or 2 General Use ports, no Use is assigned to that cable.

Plan-Um C:/Documents and Settings/xio47260/My Documents/Manuals/Plan-Um AP/Specific use ports.job - Cable Test Schedule

File Edit View Image Help

Job Information | Network View | Network Devices | Floor Plan | Cable Test Schedule | Cable Types | Job Notes

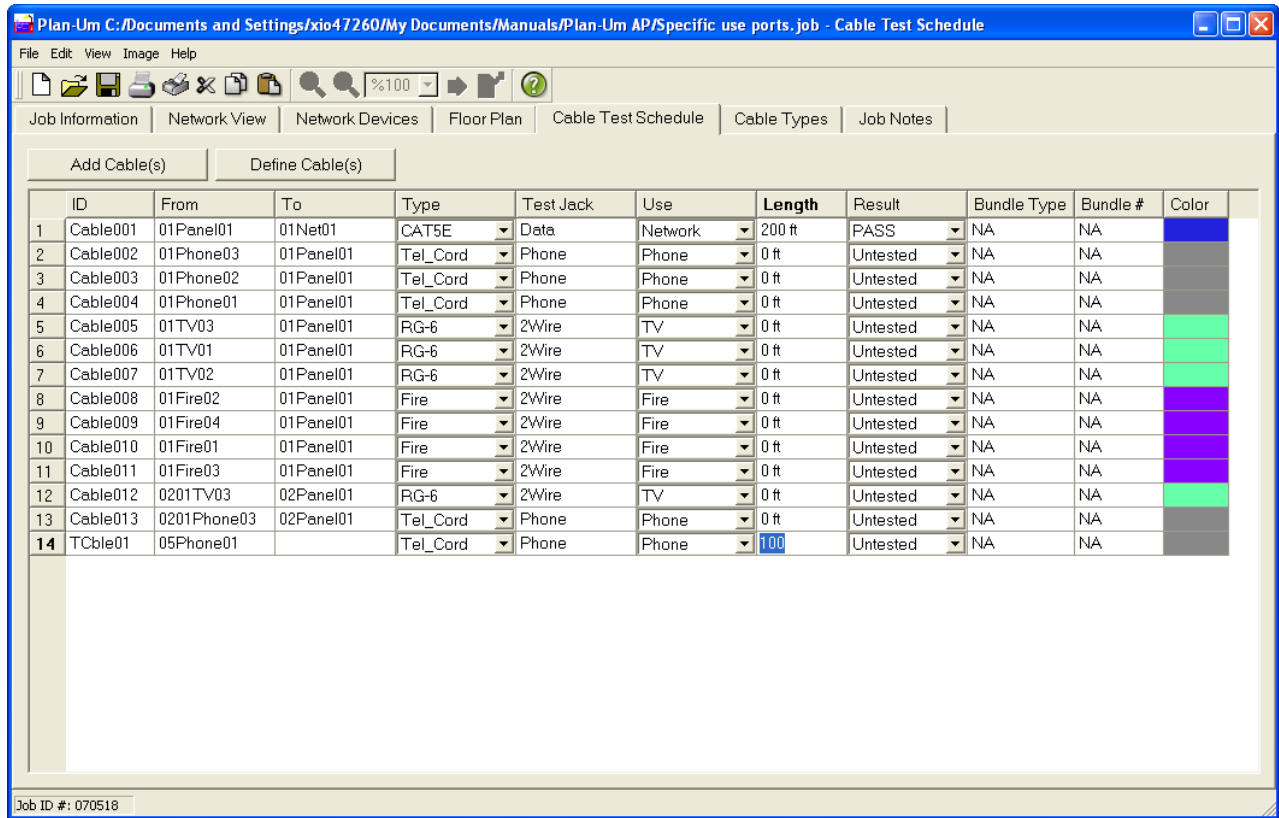
Add Cable(s) | Define Cable(s)

ID	From	To	Type	Test Jack	Use	Length	Result	Bundle Type	Bundle #	Color	
1	Cable001	01Panel01	01Net01	CAT5E	Data	Network	200 ft	PASS	NA	NA	Blue
2	Cable002	01Phone03	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
3	Cable003	01Phone02	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
4	Cable004	01Phone01	01Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
5	Cable005	01TV03	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
6	Cable006	01TV01	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
7	Cable007	01TV02	01Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
8	Cable008	01Fire02	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
9	Cable009	01Fire04	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
10	Cable010	01Fire01	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
11	Cable011	01Fire03	01Panel01	Fire	2Wire	Fire	0 ft	Untested	NA	NA	Purple
12	Cable012	0201TV03	02Panel01	RG-6	2Wire	TV	0 ft	Untested	NA	NA	Green
13	Cable013	0201Phone03	02Panel01	Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey
14	TCble01	05Phone01		Tel_Cord	Phone	Phone	0 ft	Untested	NA	NA	Grey

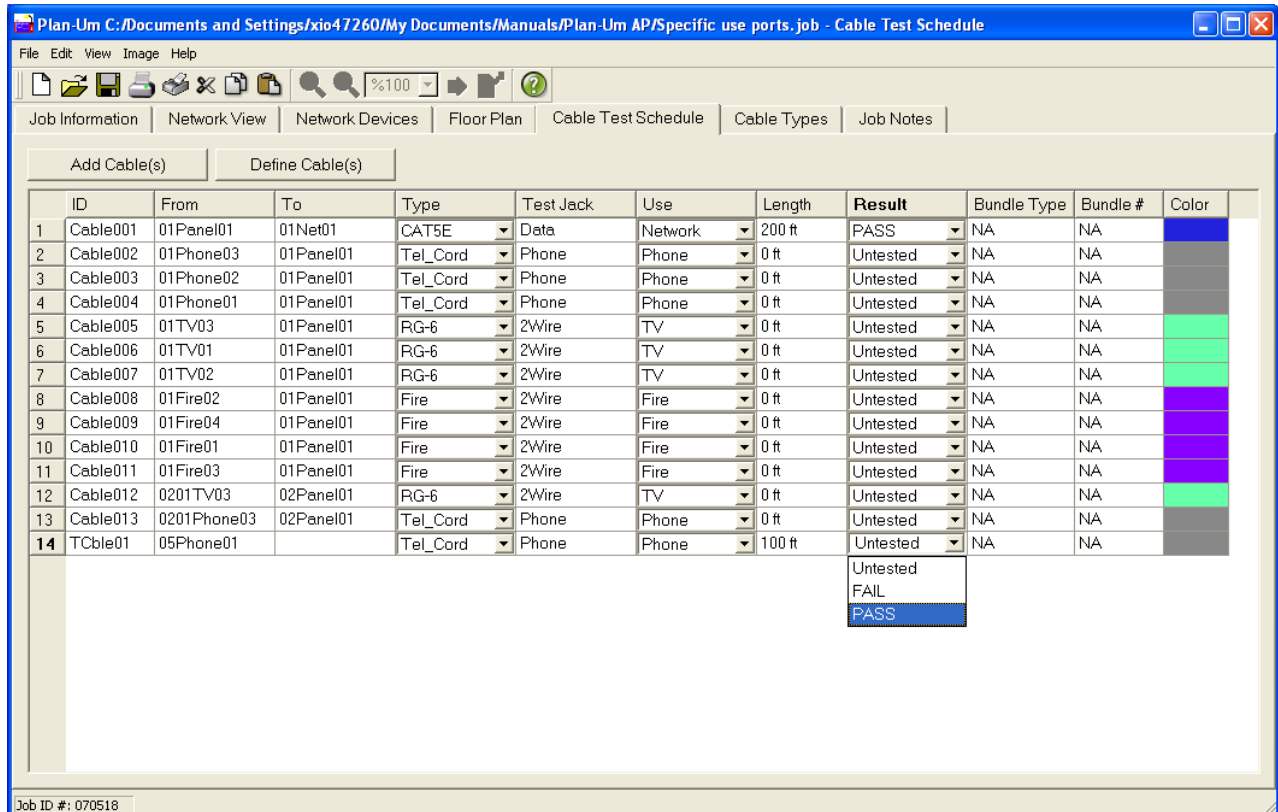
Phone
TV
Speaker
Fire
Security
Intercom
CCTV
Control
Satellite
NA

Job ID #: 070518

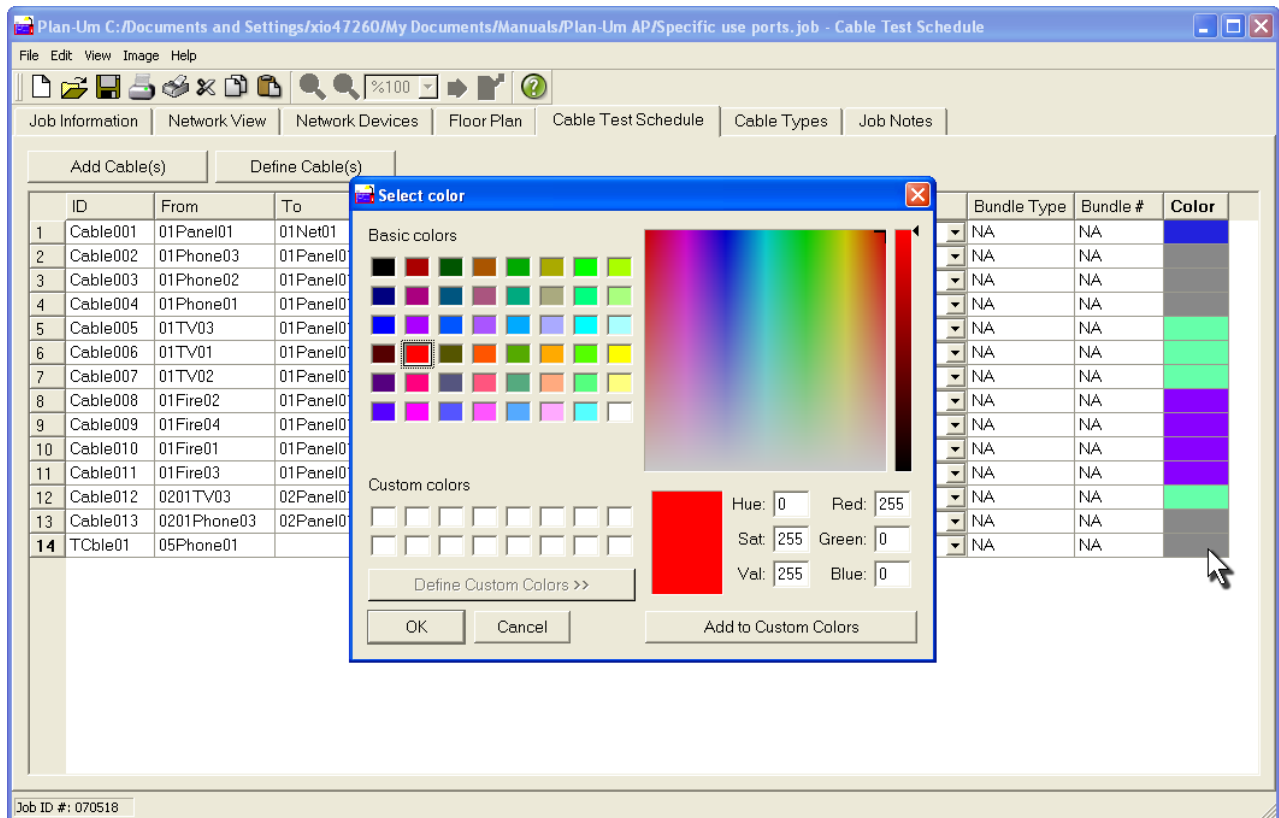
6. The Length field can be edited by clicking on the field and entering up to 9 numeric characters.



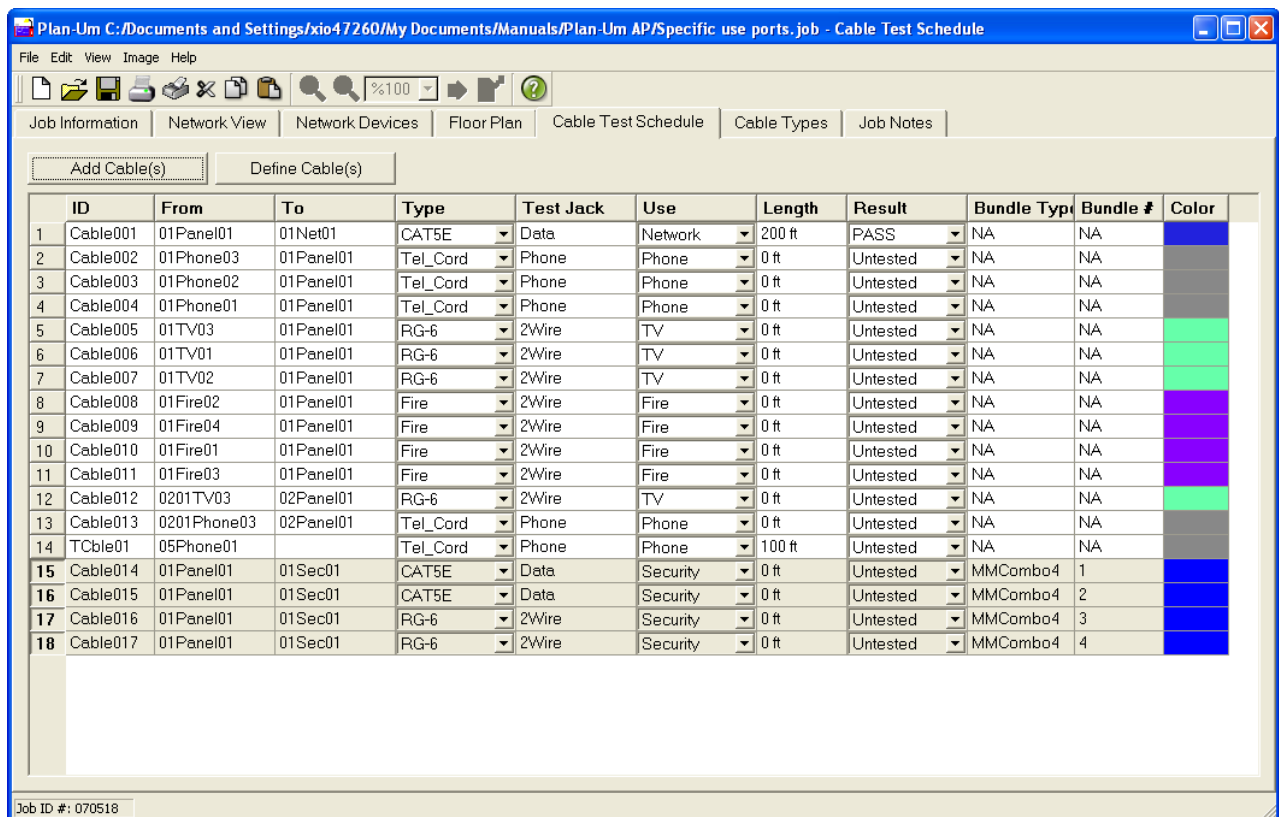
7. The Result field can be changed by clicking on the drop down dialog box and selecting Untested, Fail, or Pass.



- Each cable on the Cable Test Schedule has a color attribute which can be edited by left clicking on the cell showing the color.



- If the cable is in a bundled cable, the type of bundled cable and the number of the cable in the bundle will be displayed in the Bundle Type and Bundle # columns, respectively.



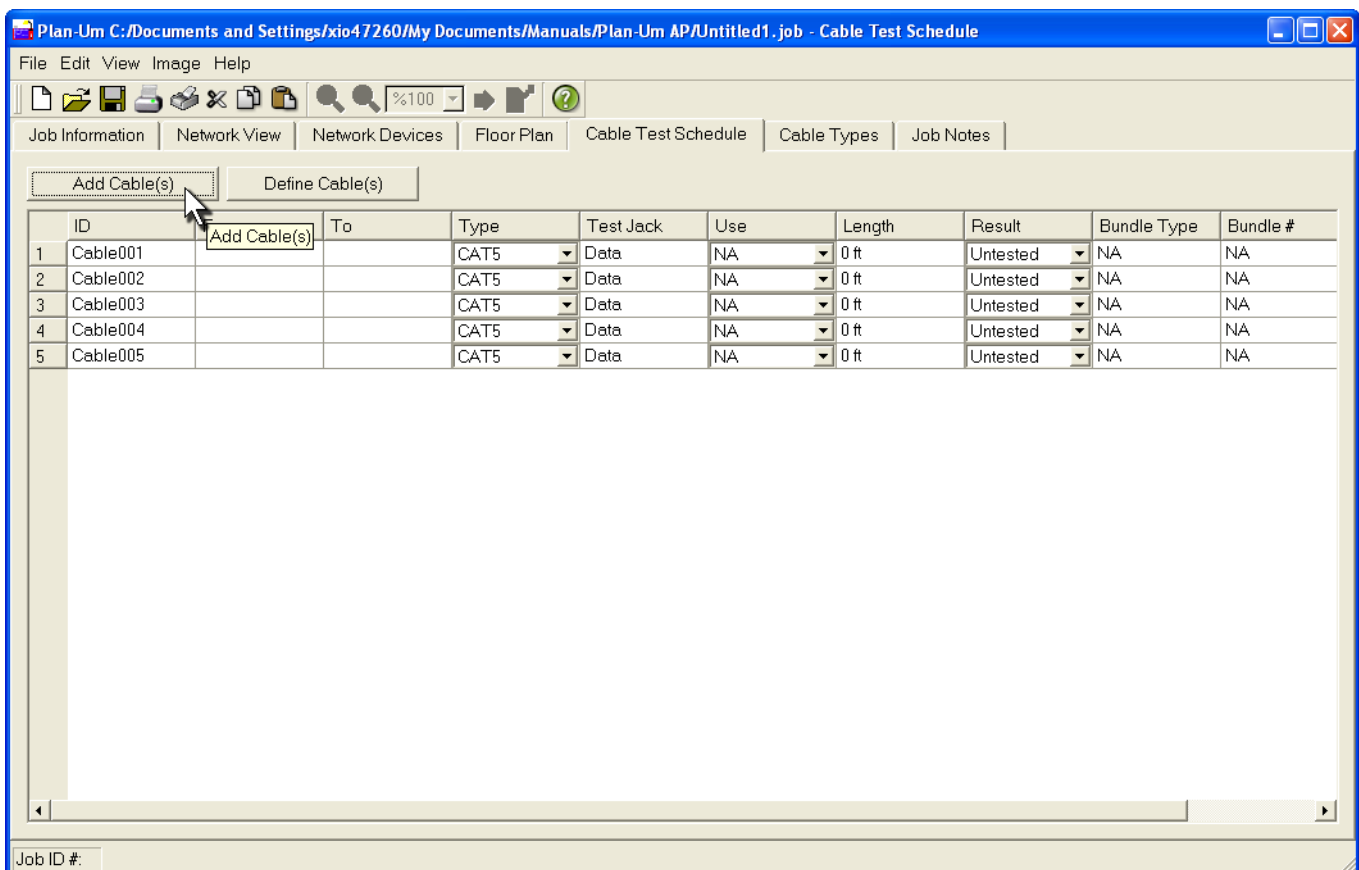
Creating a Cable Test Schedule Manually

Rather than generating a cable list using the Floor Plan tools, a complete Test Schedule can be created using the Add Cable(s) or Define Cable(s) features to automatically assign the next incremental Cable ID.

You can also manually enter Cable IDs and select a Type for each cable, or copy and paste selected Cable IDs on the Cable Test Schedule to create identical cable runs that can be edited. The remaining fields are completely optional.

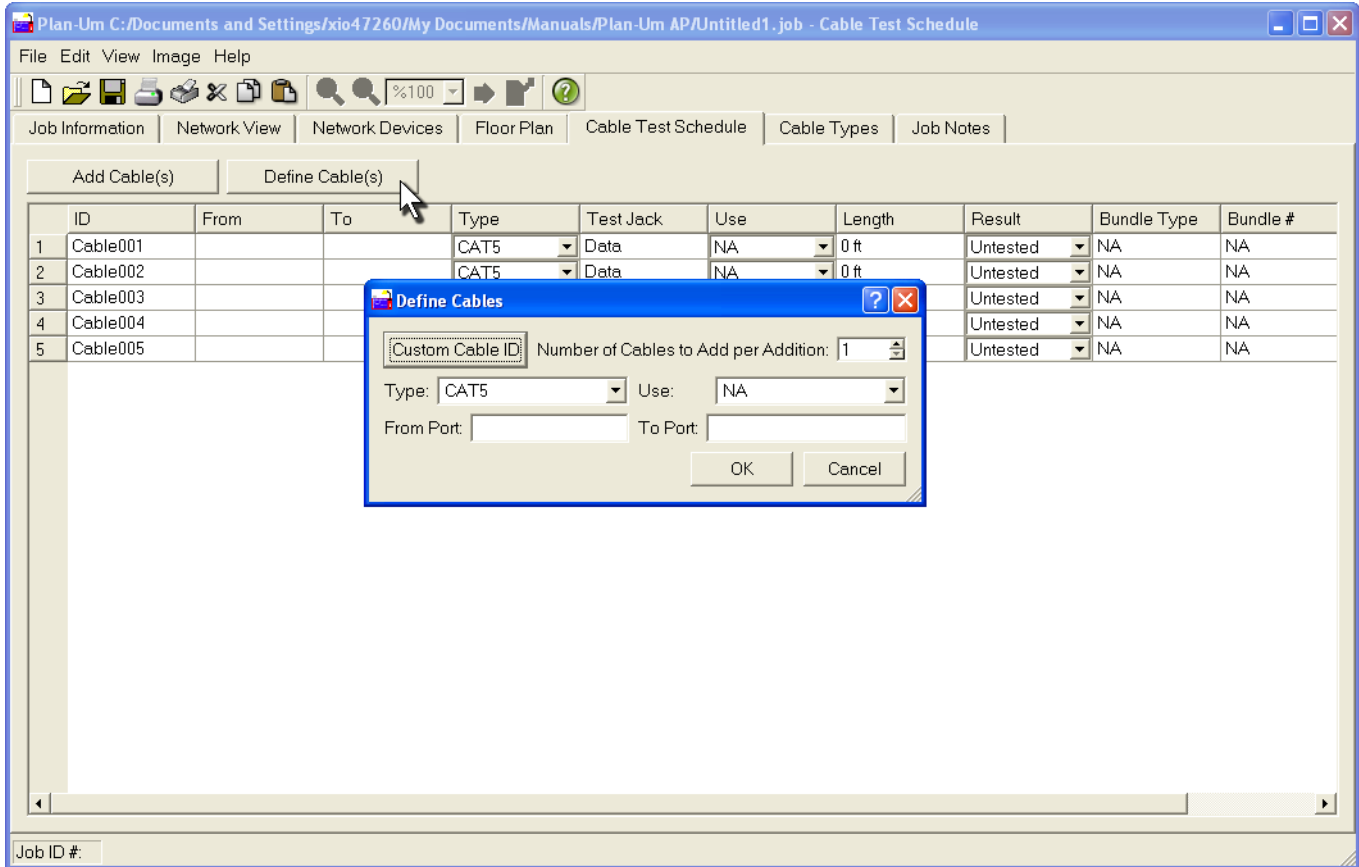
Add Cable(s)

On the Cable Test Schedule tab, click the Add Cable(s) button to add a cable of the selected type. Use the drop down dialog boxes to edit the Type or Use fields.



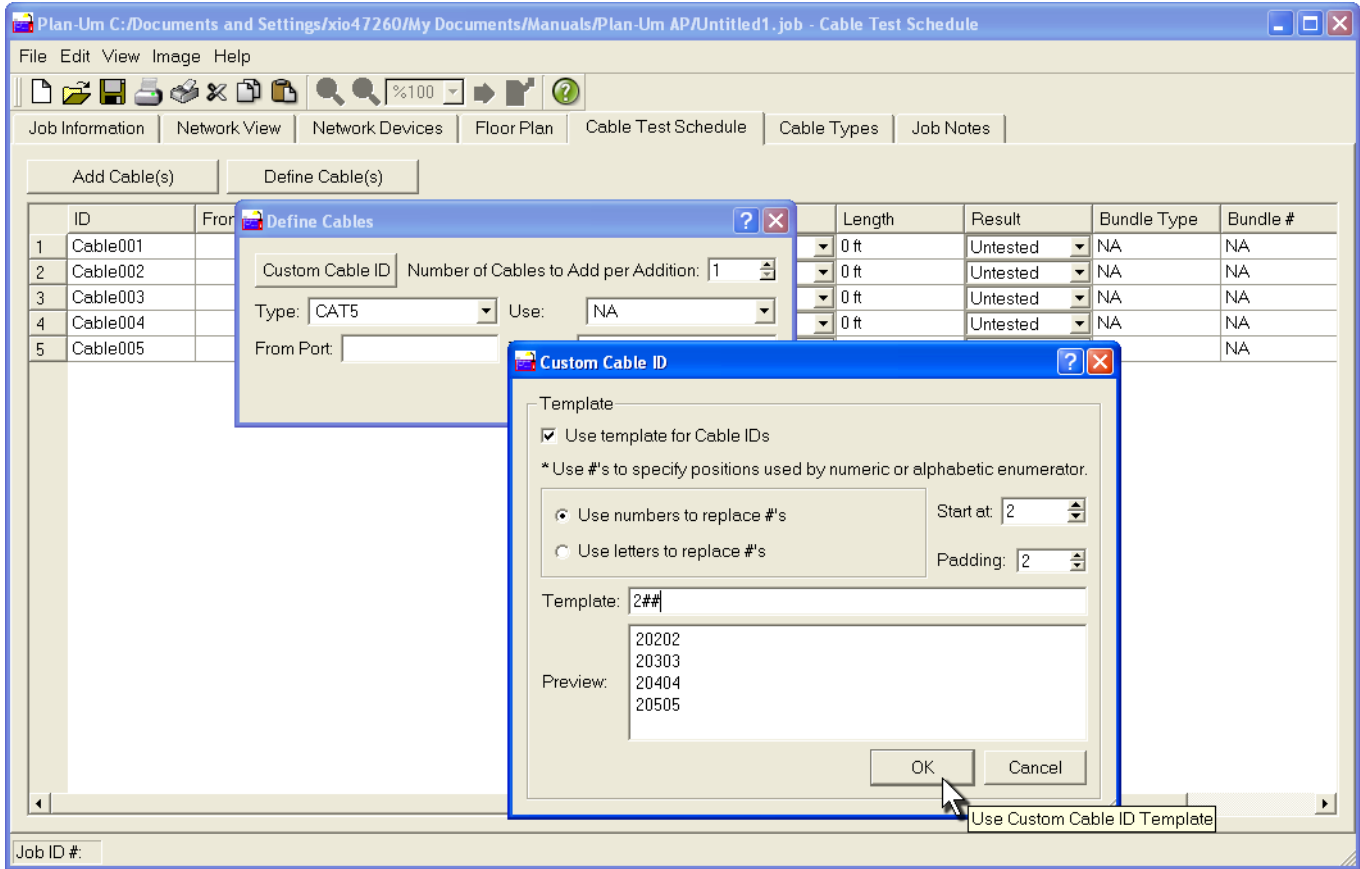
Define Cable(s)

On the Cable Test Schedule tab, click the Define Cable(s) button. A dialog box pops up that allows the user to select the Number of Cables to Add using the default Cable ID format of Cable001, Cable002, etc., or to select a Custom Cable ID template and define the Cable ID sequence they wish to add. Click OK and Add Cable(s) on the Cable Test Schedule and the Cable IDs you created will appear on the Cable Test Schedule.



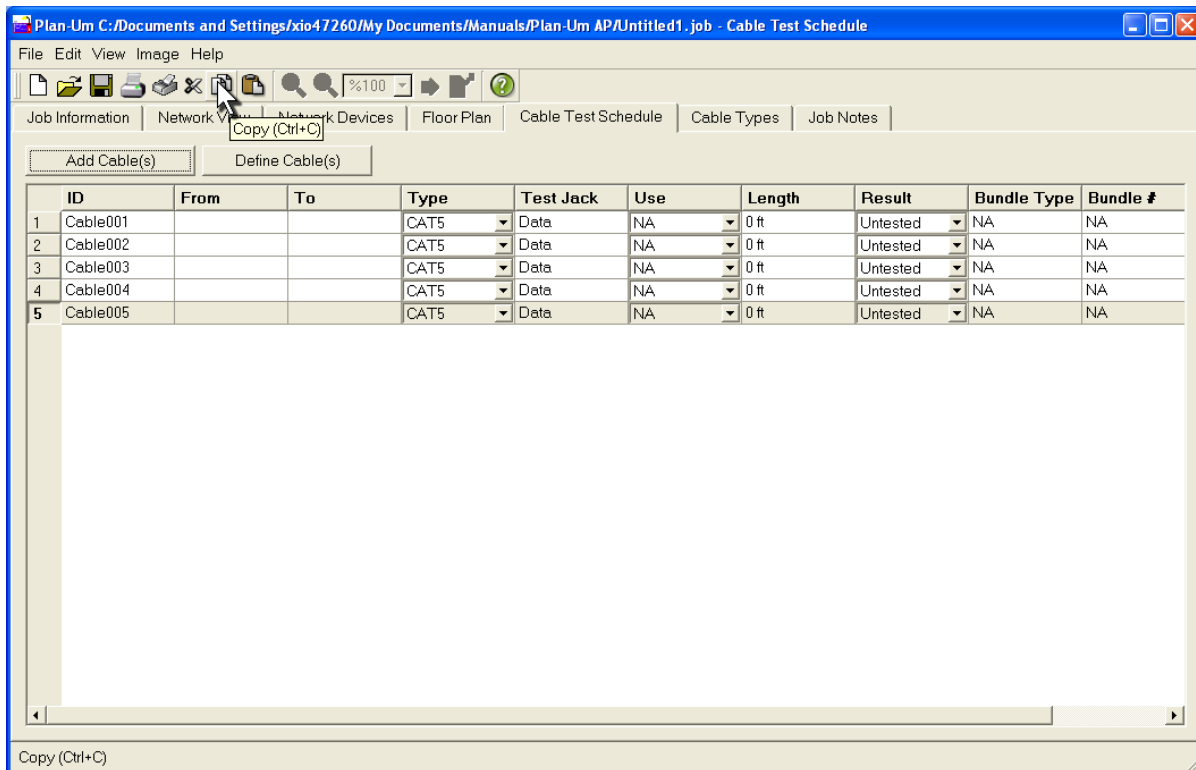
Define Custom Cable ID

To define a Custom Cable ID template, click the Custom Cable ID button on the Define Cable(s) dialog box. Click Use template for Cable ID, choose numbers or letters, the beginning number or letter in the sequence, and the number of padding digits (Max 5). In the template box, type the root Cable ID and the # sign to indicate the letter or number digits to sequentially add. Click OK. Click OK again, and then click Add Cable(s) on the Cable Test Schedule and the Cable IDs you just created will appear on the Cable Test Schedule.

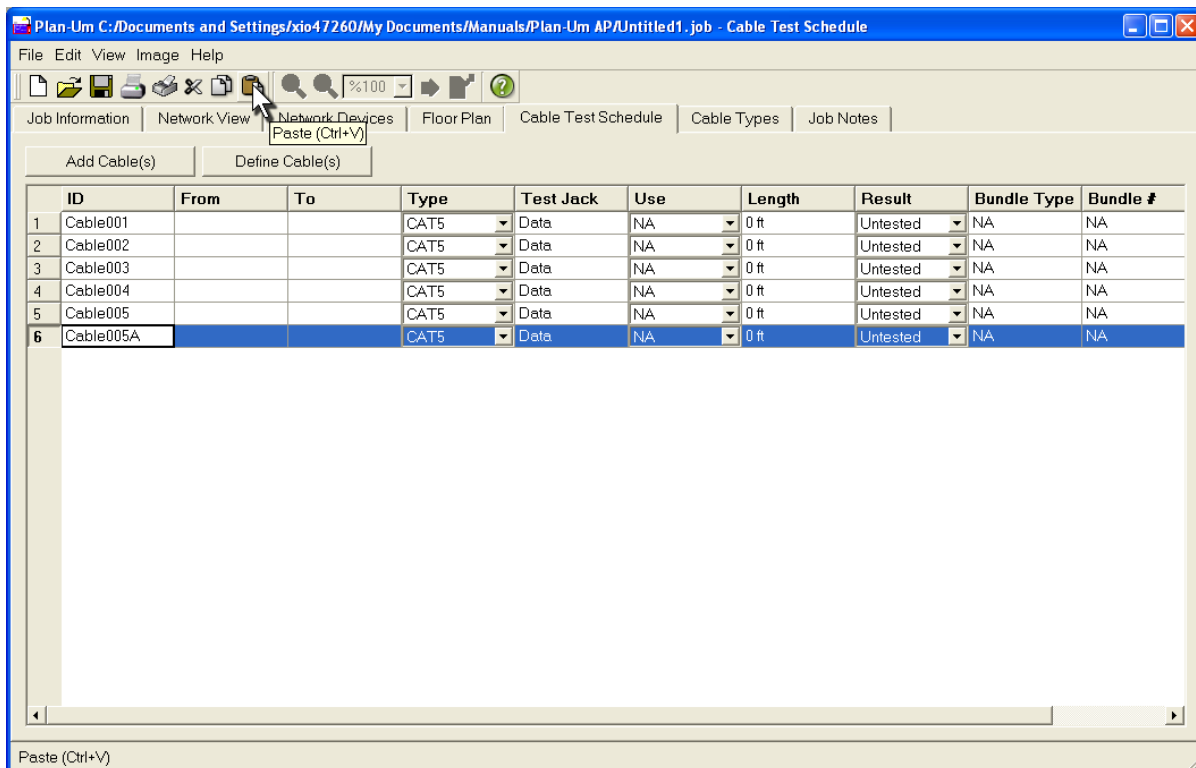


Copy and Paste Cable IDs

1. On the Cable Test Schedule tab, click on the cable or cables you want to copy and then click the Copy icon on the menu bar. You can perform the same function by selecting the Copy option on the Edit menu or right clicking on the Cable ID and selecting Copy from the pop-up menu.



2. To complete the Copy function, click the Paste icon. The Paste option on the Edit menu performs the same function.

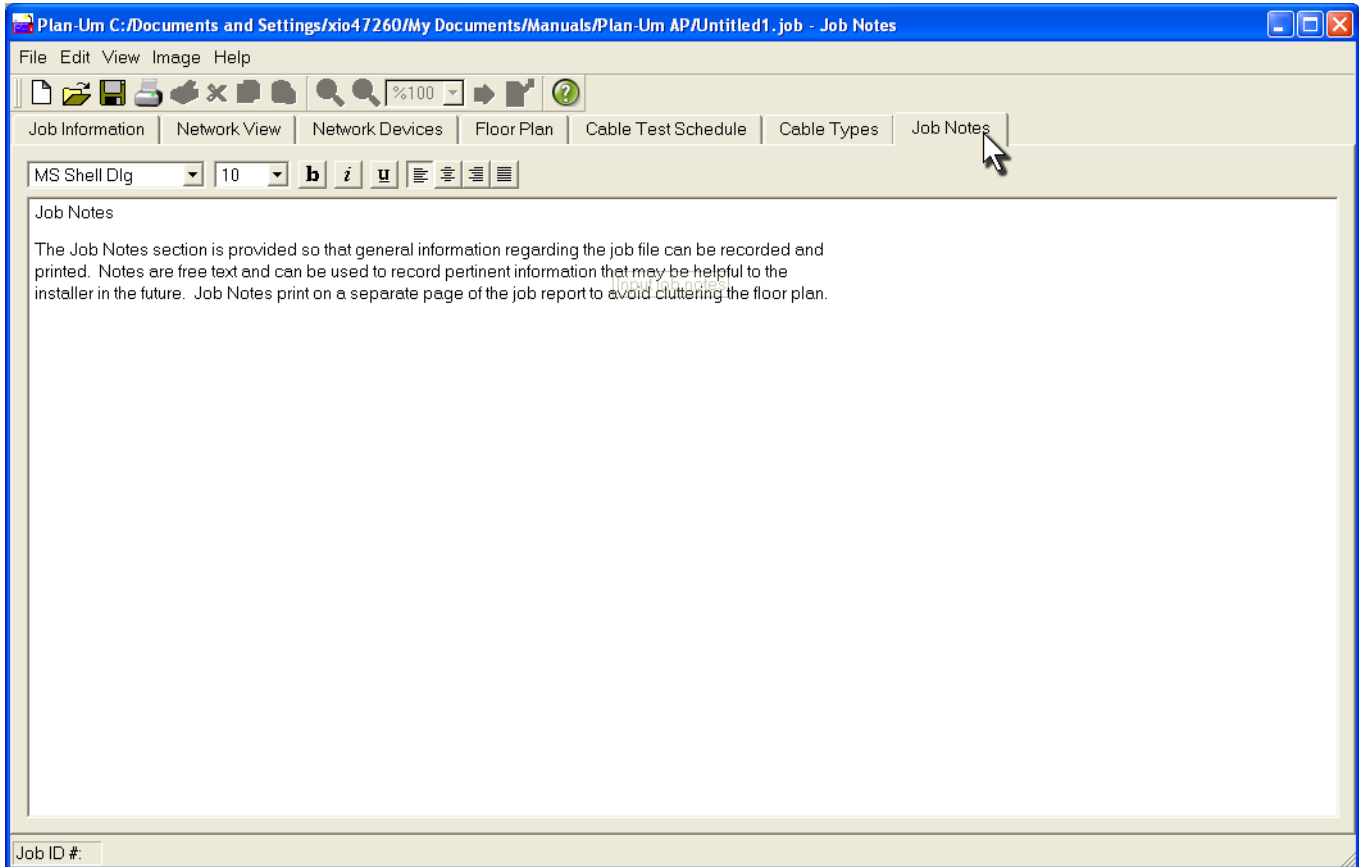


Job Notes

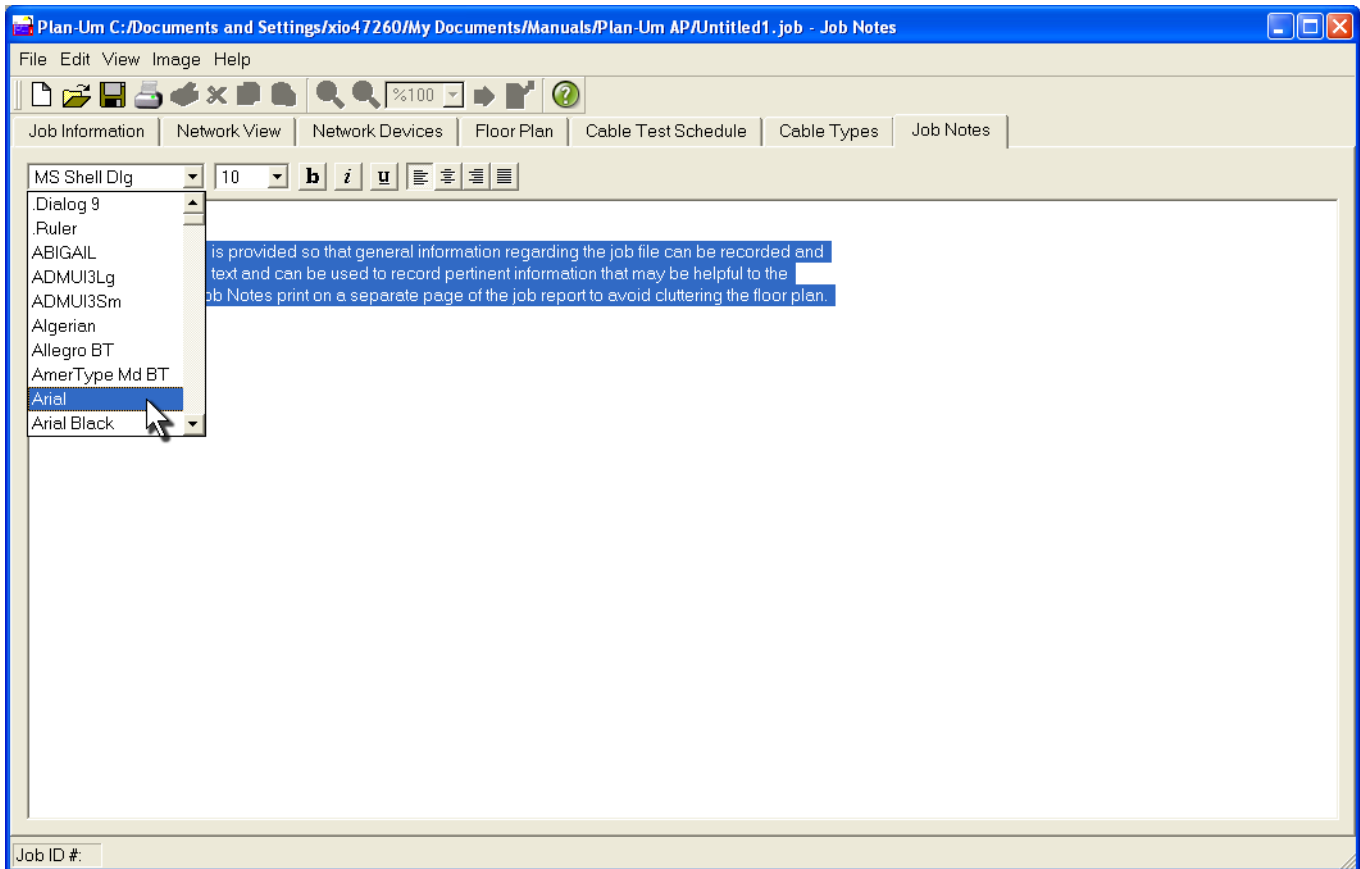
The Job Notes section is provided so that general information regarding the job file can be recorded and printed. Notes are free text and can be used to record pertinent information that may be helpful to the installer in the future. Job Notes print on a separate page of the job report to avoid cluttering the floor plan.

Note: Device Notes created in the Network View section of Plan-Um AP® print separately from text entered in the Job Notes section of Plan-Um AP®.

1. Click Job Notes and type the desired text on the canvas.



2. You can select alternate font and point sizes by clicking on the respective drop down menus on the formatting toolbar. You can also apply bold or italic formatting, underline, or right, left, or center justify the text by clicking on the formatting icons on the toolbar.



Managing Job Files

Plan-Um AP® uses several different types of files, each identified by a specific filename extension.

Job Files (*.job) - The basic file type which stores Job Information, Cable Test Schedule (with test results), Floor Plans, and Custom Cable Types.

Jdsu Template Files (*.tut) - save the Contractor Information and any Custom Cable Types defined in a .job file for use when creating a new job. Use of the template (*.tut) file simplifies creation of a new job because you can load the template instead of reentering the information when a new job is created.

You can also import images as described in the section titled Defining Contractor Information. Image files (.PNG, .BMP, .JPEG, .PNM, .MNG, .XBM, and .XPM) are used for adding a custom logo to printed job reports, and displaying a floor plan from another drawing program in the floor plan view.

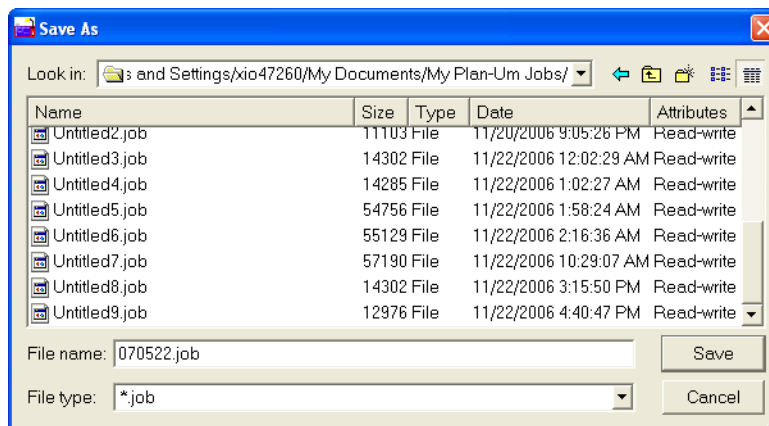
The following paragraphs describe the details of using the tools available in the File menu that is accessed by clicking the word File in the upper left hand corner of the Plan-Um AP® screen.

Note: As with any software, it is always recommended to Save data occasionally

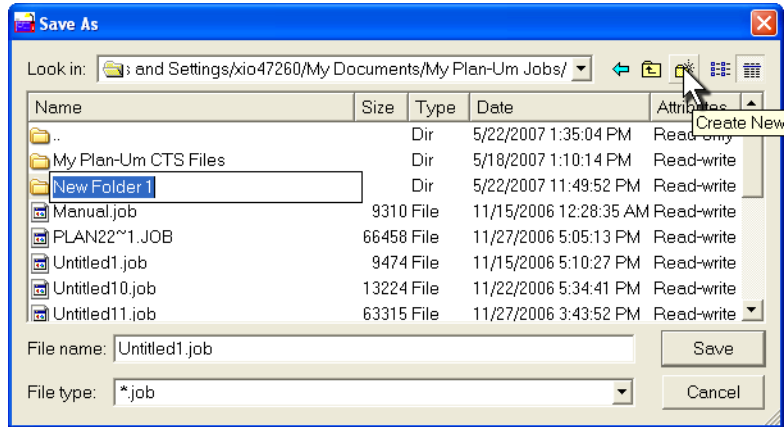
Save As Job

Use the Save As Job option to save a .job file on the PC under a new filename. For example, you may want to use the Job ID as the file name.

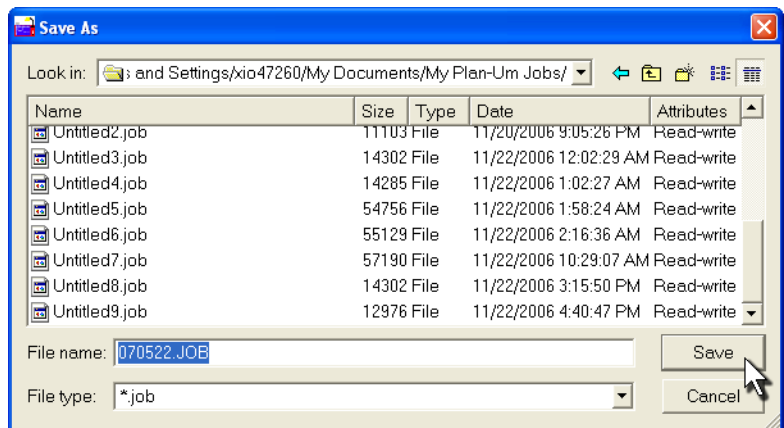
1. Click File on the menu bar and select Save as Job. This displays the standard Windows Save As dialog box. When Plan-Um AP® is started for the first time the default Save In folder is My Documents>My Plan-Um AP® Jobs.
2. Plan-Um AP® remembers the last folder used to save or open a .job file and returns to that folder on subsequent .job file operations. You can save the job here or in a folder of your choice.



- To optionally create a new folder, click the Create New Folder icon. A New Folder appears on your screen. Type a unique name for the new folder in the box and press enter.



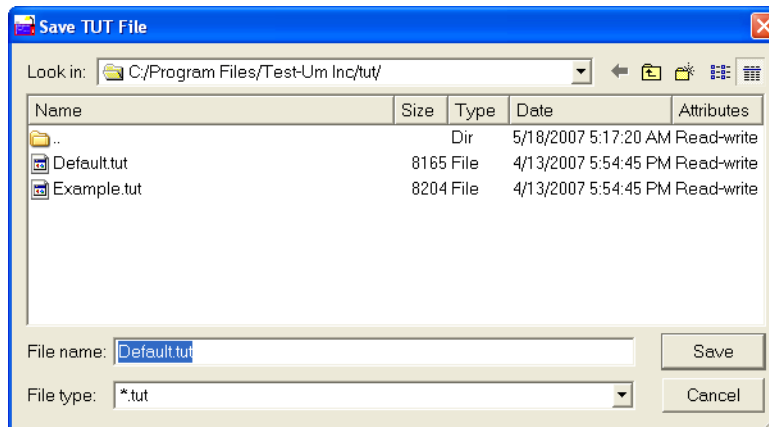
- To complete the Save As operation, drop down to the File name field and type in a new filename and click the Save button.



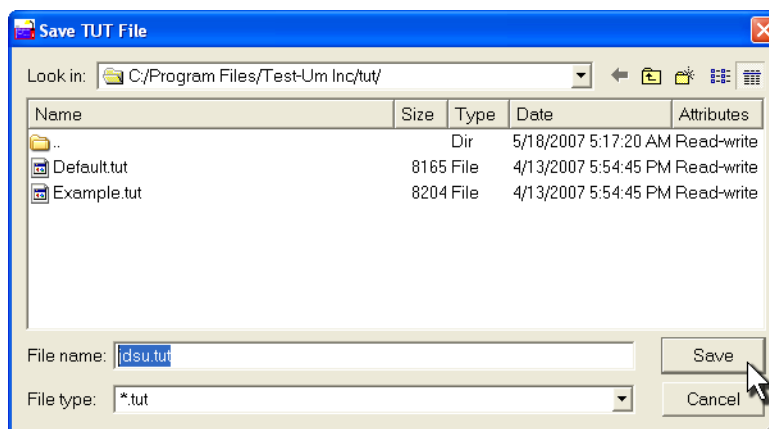
Save and Export as Template

Export Tut is used to save the Contractor Info, Custom Cable Types, and Page settings defined in an open .job file for use when creating a new job. To save this information as a template:

1. Select Export Tut on the File menu. When you select this option, the Windows Save As dialog box appears.
2. When Plan-Um AP® is started for the first time, the default folder used for .tut files is C:\Program Files\Test-Um Inc\tut if the installation was done to the default folder. Plan-Um AP® remembers the last folder used to select a .tut file for a new job and returns to that directory on subsequent .tut file operations.

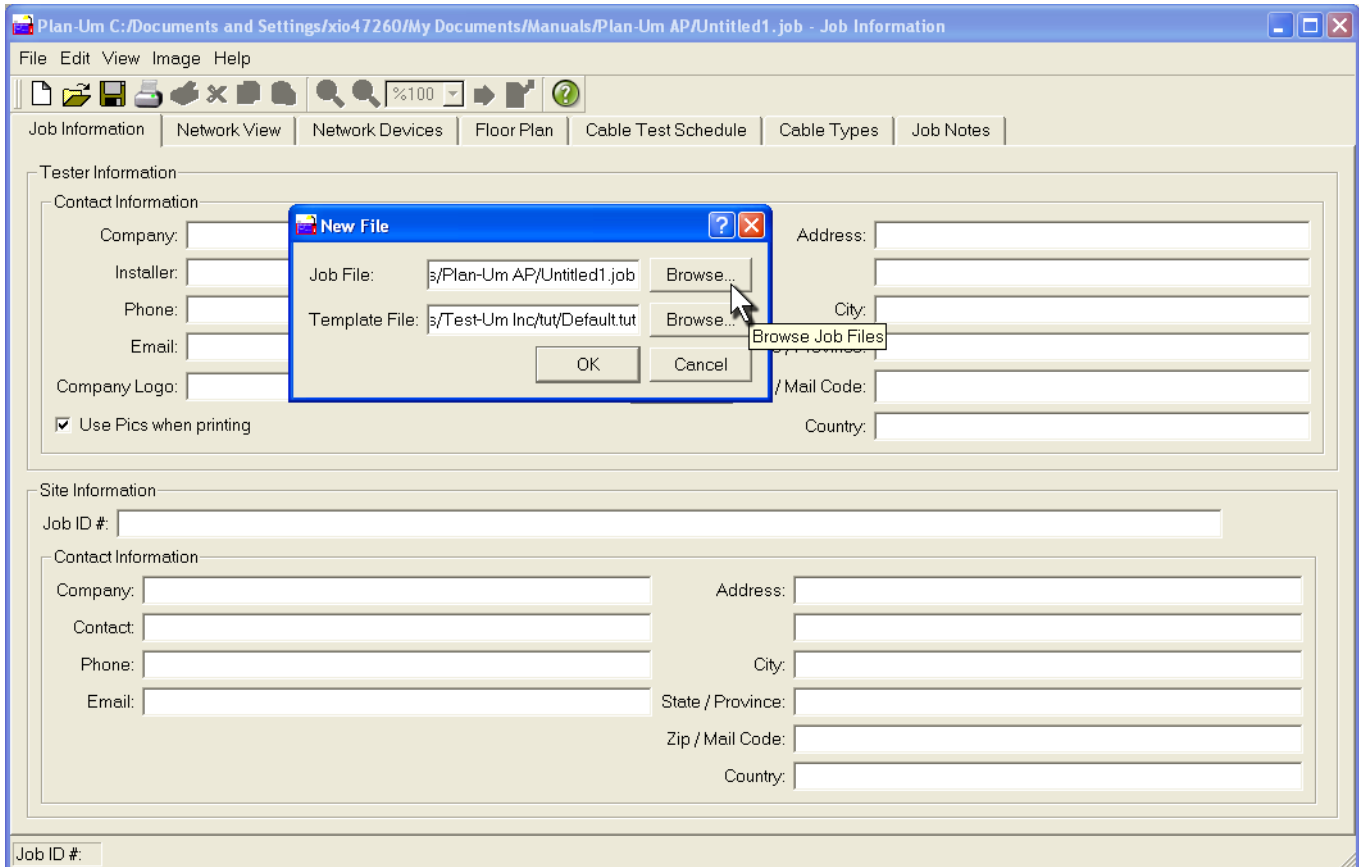


3. A new folder can be created as described above if desired.
4. To save your new template, type a unique name in the File name field and click Save.

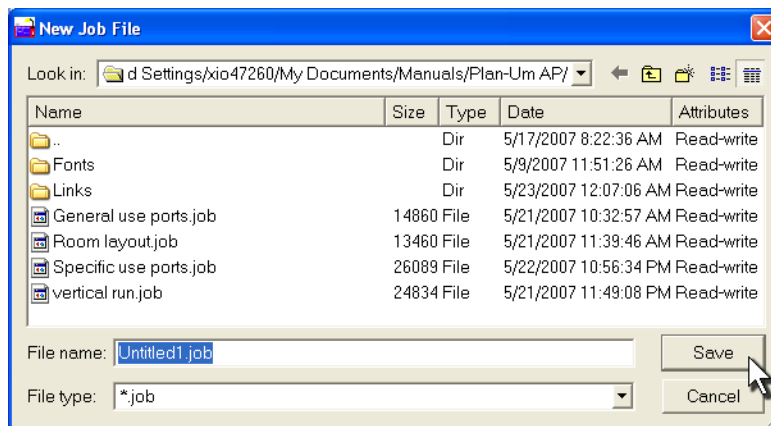


Creating a New File

1. Select New on the file menu to create a new file.
2. Select the folder where you want this file to be saved by clicking the Browse button

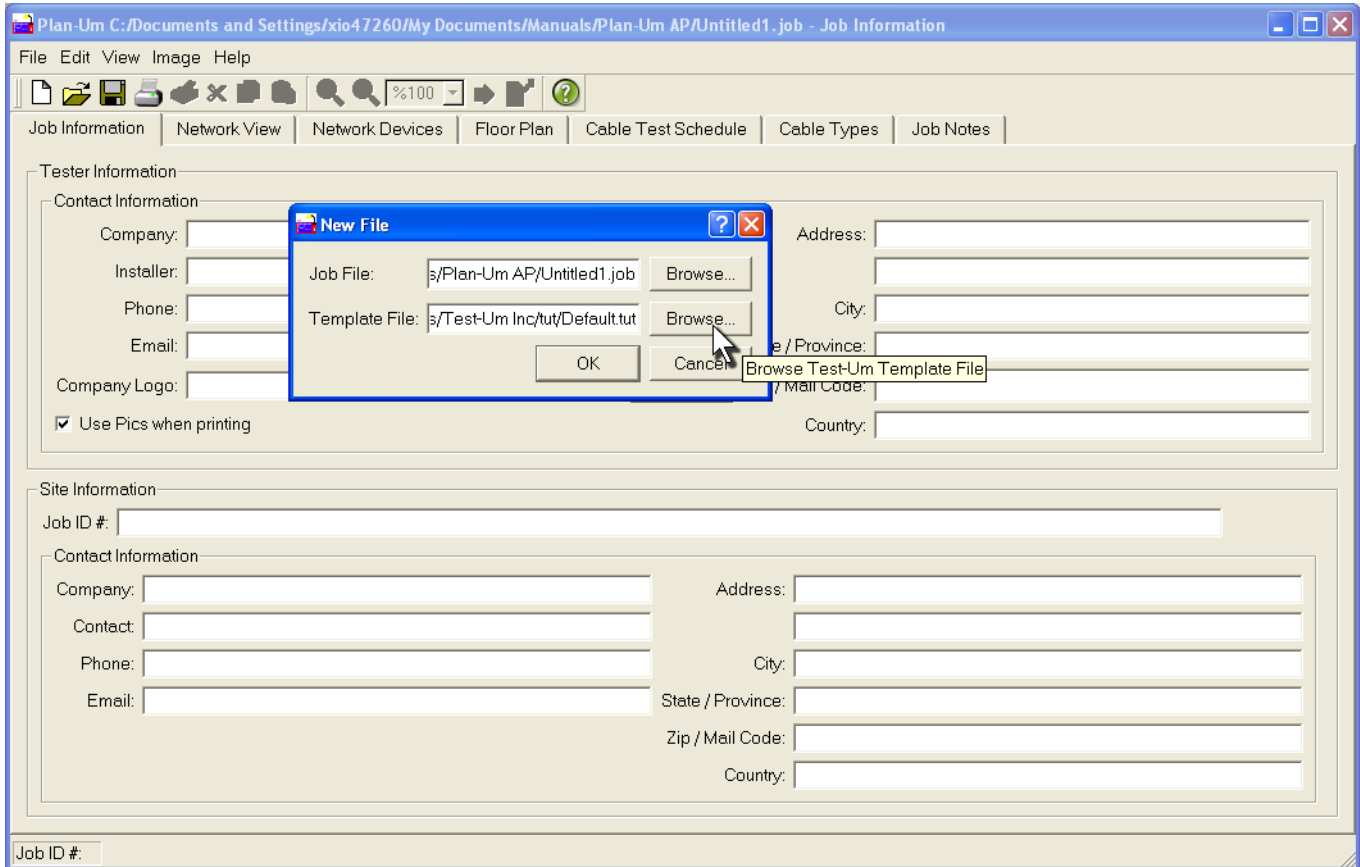


3. Navigate through the Folder, or create and name a New Folder if desired. Click OK once you have highlighted the folder you wish to create the file in. Type a unique file name for your new job and select save.

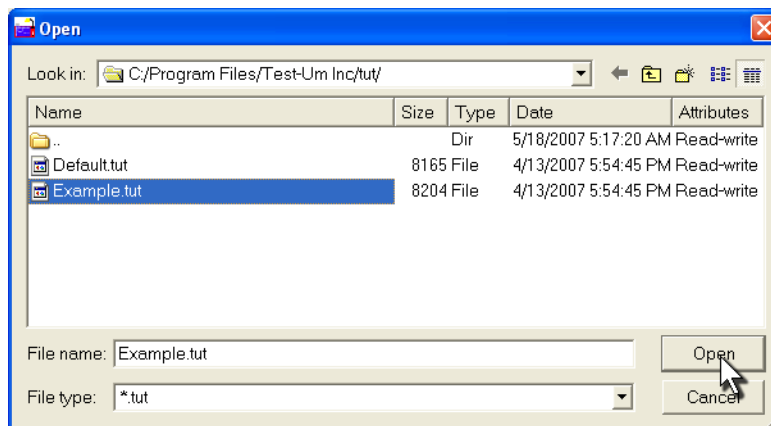


Note that when Plan-Um AP® is started for the first time, the default folder for .job files is My Documents>My Plan-Um Jobs. Plan-Um AP® remembers the last folder used for a .job file operation and returns to that folder on subsequent .job file operations.

4. In the Template File field, the last template file used to create a new .job file is already selected. If you want to use that template, click OK to create the new file. If you want to use a different template, click the Browse button and select the template you wish to use for this new file. In either case, clicking OK will create the new file, and that file becomes the active file for Plan-Um AP® to work with.



Two template files are loaded into the default tut folder during the installation process, Default.tut and Example.tut. Using Default.tut will create a new Job with blank information. Example.tut can be used to preview how using a template file will work.



Archiving/Saving Test Results

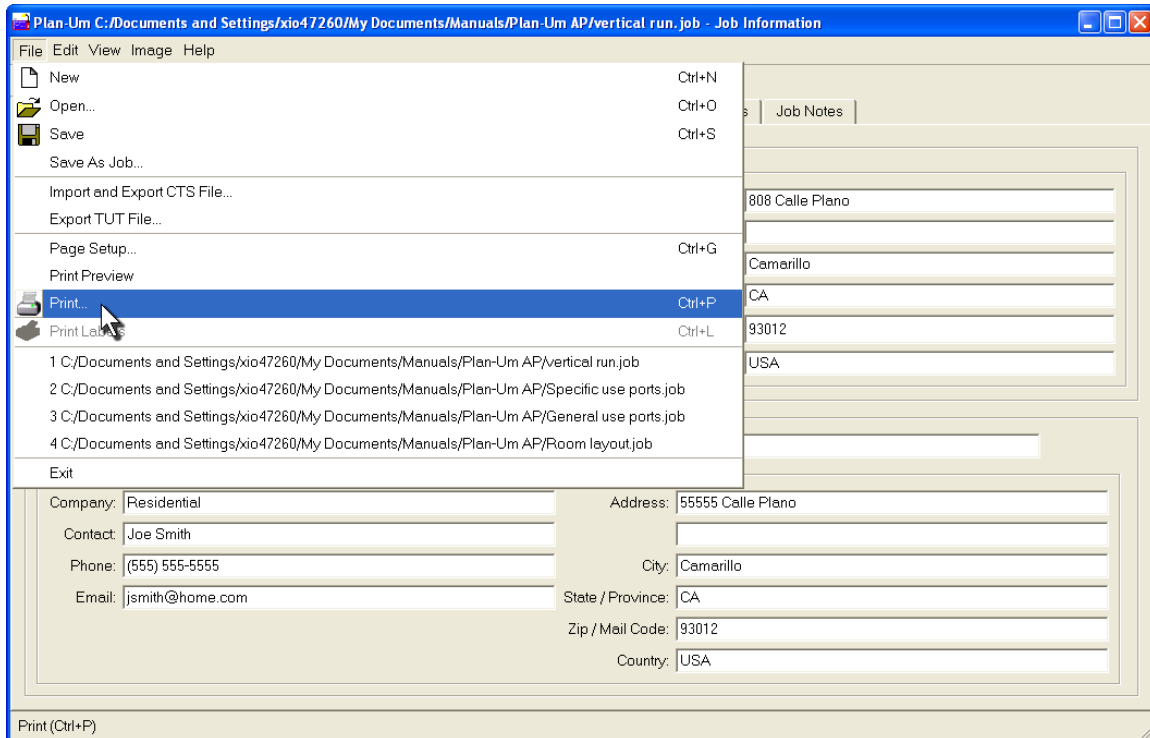
Job files can be copied or saved to a special folder for backup in the same manner as any Windows file.

Creating a folder to store jobs that have not been tested in the field and a separate folder to store jobs with test results is a good practice since often jobs may be edited in the field, and may not be saved with a new filename. The timestamp on the file may be the only way to determine what copy of a file is the latest one.

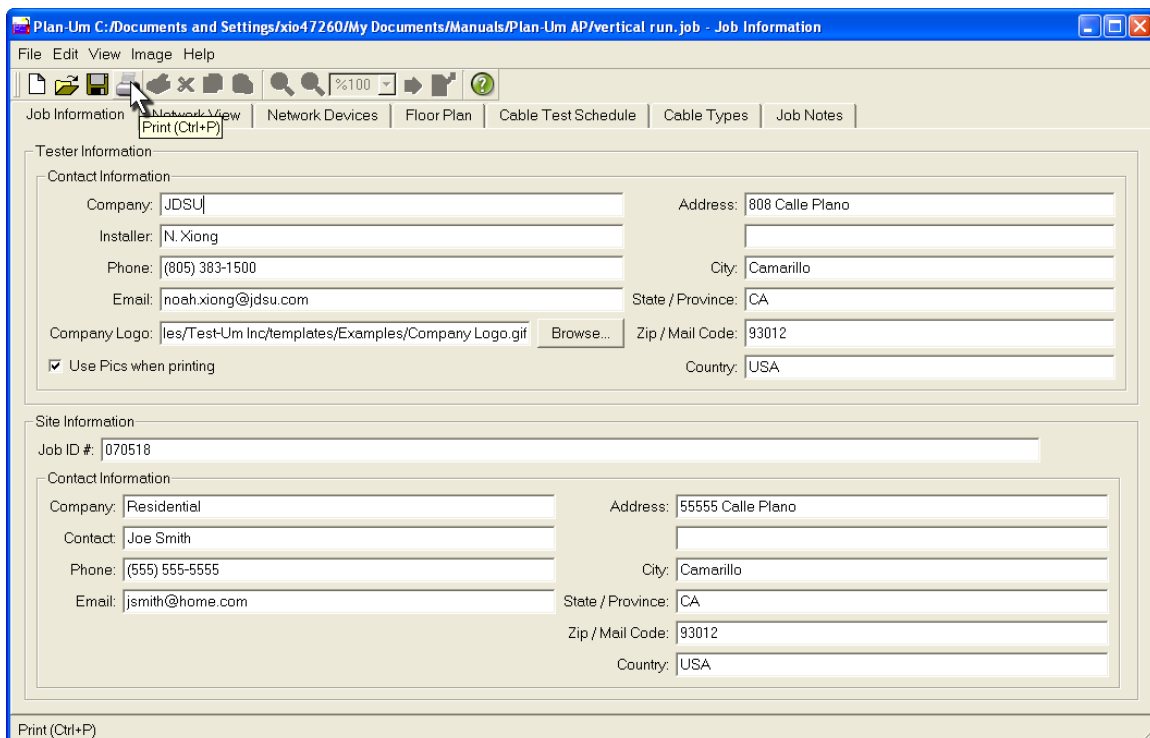
Printing the Job Report

The Floor Plan, Cable Test Schedule and Detailed Test Results can be printed to aid the installer performing the job or as verification of the cable installation for the customer. Your company can attach this End of Job report, including test results, to an invoice and present this information to your customer. You may also want to maintain a hard copy for your records.

1. Select Print from the File pull down menu.



2. Or use the print icon.



Printing Floor Plans

1. To print a floor layout, choose the Floor Plan tab.
2. If the view of the floor plan exceeds the desktop window, click on Page Setup from the File drop down menu and select Fit to sheet. This ensures that the floor plan displays and prints in the appropriate size for your printer.
3. Select Print from the File pull down menu or use the Print icon. Unless otherwise specified, floor plans print on 8.5 x 11 paper in portrait mode.
4. Job ID number, customer name, and the floor plan level prints in the upper left hand corner.

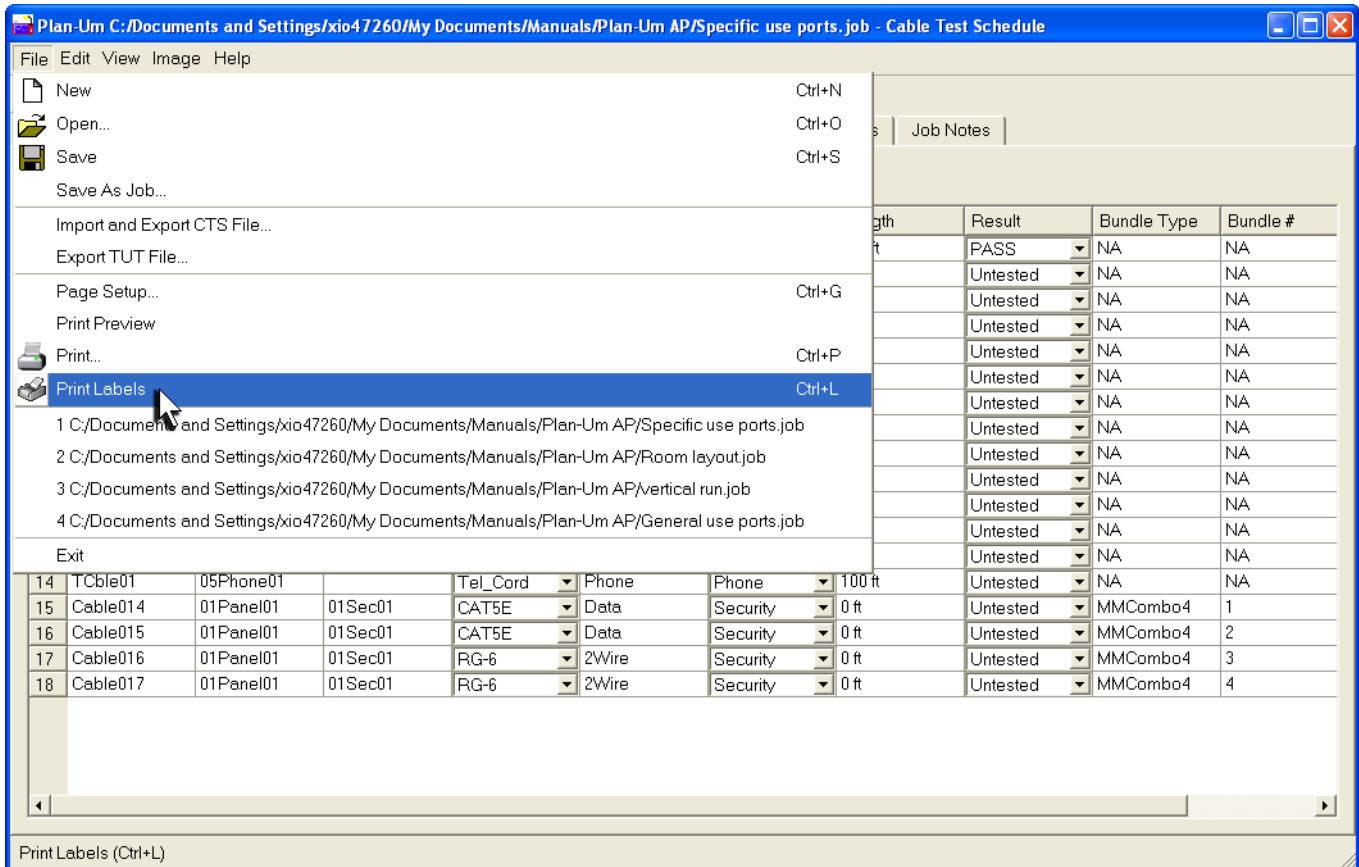
Printing Cable Test Schedule

1. Click the Cable Test Schedule tab.
2. Select Print from the File pull down menu or use the Print icon.
3. The Cable Test Schedule prints on 8.5 x 11 paper in portrait mode unless otherwise specified. If you imported your company logo, it prints in the upper right corner of the report. The Site and Contractor Information, plus a signature line for the installer also print.
4. The Cable Test Schedule lists all identified cable runs. The Length and Result columns display test data downloaded from the Validator. (See the instructions for Downloading Test Results from Validator in this guide.)

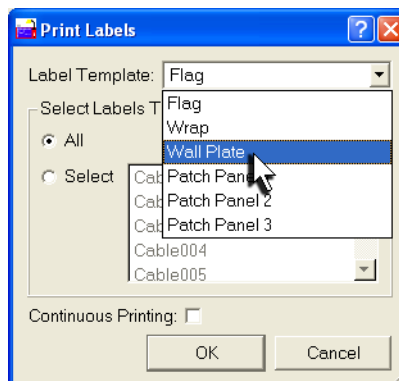
Printing Cable Labels

You can also print custom laminated cable labels using Brother P-Touch printers. Label templates are provided that allow you to print professional-looking flag, wrap, patch panel, or wall plate labels directly from the Cable Test Schedule to the following Brother P-Touch labeling systems: PT-9600, PT-9500PC, and PT-18R. Brother recommends using Flexible ID tape designed especially for wrapping and flagging cables, and Extra Strength Adhesive Tape for labeling patch panels and wall plates.

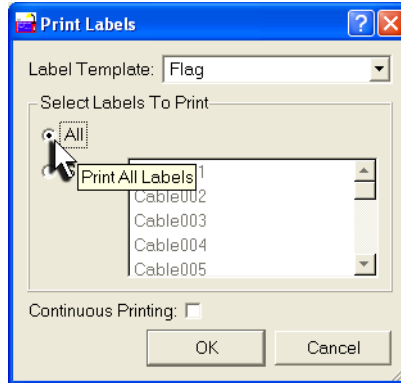
1. Select Print Labels from the File pull down menu.



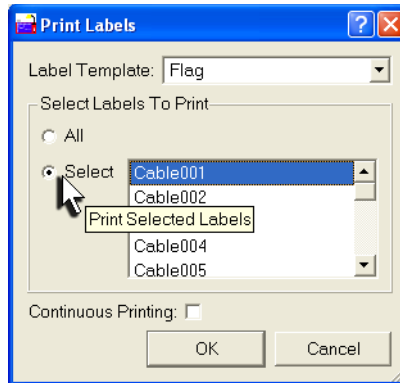
2. Using the drop down arrow, select the desired label template, wrap, patch panel, flag, or wall plate. The Cable ID, To and From locations of the cable run, and Type of cable will print on the label.



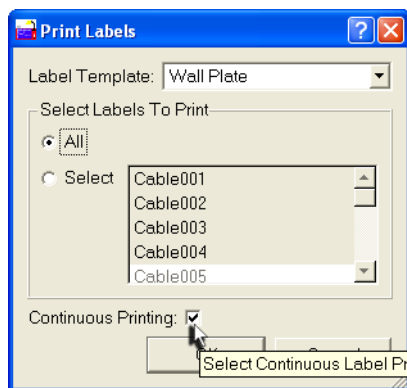
3. Click the All button to print the entire cable list. If you select All, the entire cable list will print using the selected label template.



4. If you click Select, the drop down dialog box on the right will allow you to scroll down and select the Cable ID that you wish to print a label for.



5. Select 'Continuous Printing' if you want the labels printed on one continuous length of tape. If you want each label cut separately, de-select the 'Continuous Printing' option.



6. Select **OK** to print labels.

Emailing Job Reports

Plan-Um AP® job files can be emailed using one of two methods.

If both parties have Plan-Um AP® software installed on their computers, simply attach the .JOB files to an email and send the email.

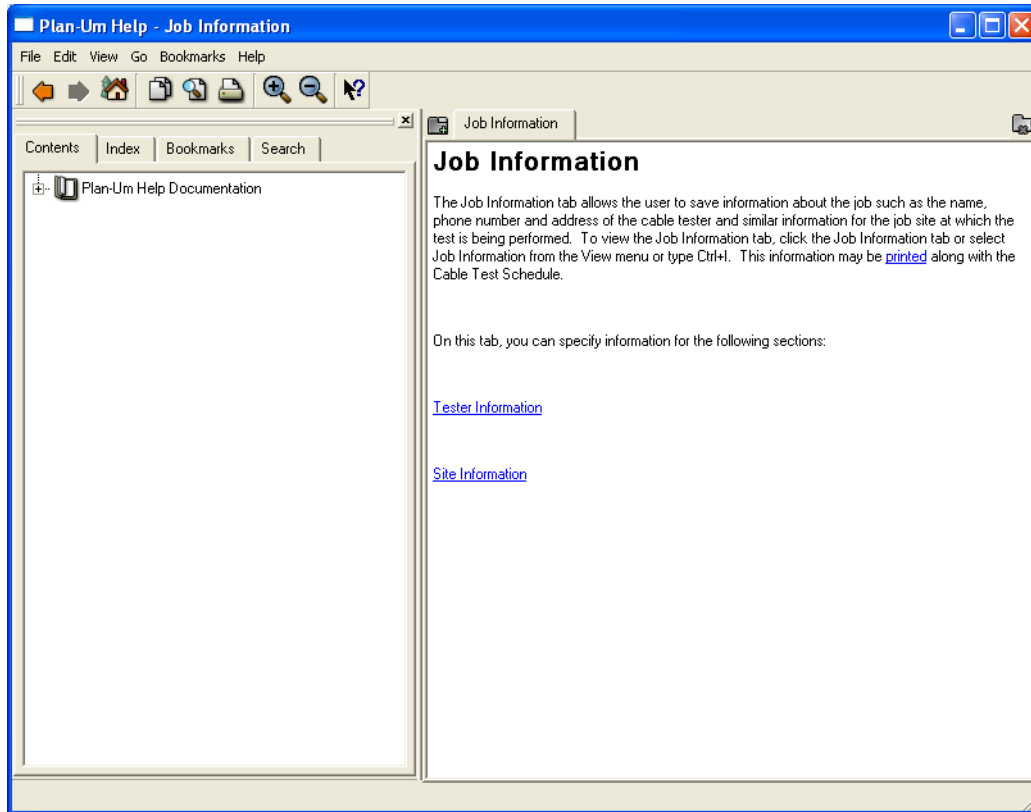
If only the originator has Plan-Um AP® software installed, he will need to print the job information to a .PDF file before emailing it. You can print job reports to PDF files using various PDF writers. Follow these steps to create a PDF file:

1. Start the print function in Plan-Um AP® by clicking the printer icon on the toolbar or selecting Print from the File menu.
2. Select the PDF writer or Adobe Distiller instead of a printer in the print dialog box.
3. Click the Print button to start the PDF file generation process.
4. You will be prompted to save the PDF file, given the chance to select a folder in which your file will be stored, and enter a unique name for the file. The PDF file can be attached to an email and sent.

Portable Document Format (PDF) is a file format created by Adobe Acrobat to provide a standard form for storing, editing, and printing publishable documents on a variety of computer systems. To view files of this type, download the Adobe Acrobat Reader, which is available free from Adobe's Web site.

Context-Sensitive Help Topics

Plan-Um AP® help is now available on all supported platforms including Mac OS X and Linux. The help system is now context-sensitive so that when the user selects help contents, the help topic displayed pertains to the specific section of Plan-Um AP® software being used. To use context-sensitive help select Contents from the Help menu or press F1 from a dialog. This causes a program called Qt Assistant to run and display information for the specific topic of interest in the currently selected language.



Qt Assistant displays a table of contents in the Contents tab to the left, an Index tab where keyword searches can be performed, and Bookmarks and Search tabs. Qt Assistant works in a similar way to a web browser. If you click underlined text, the documentation window will present the relevant page. You can bookmark pages of particular interest and you can click the Previous and Next toolbar buttons to navigate within the pages you've visited.

Qt Assistant indexes all the pages in the documentation that it presents so that you can search for particular words and phrases. To perform an index search, click the Index tab on the Sidebar (or click Ctrl+I). In the 'Look For' line edit enter a word, e.g. 'cable'. As you type, words are found and highlighted in a list beneath the line edit. If the highlighted text matches what you're looking for, double click it, (or press Enter) and the documentation window will display the relevant page. Note that for some words there may be more than one possible page that is relevant.

Qt Assistant also provides full text searching for finding specific words in the documentation. Documents with the highest occurrences of the word that you are looking for appear first, and every occurrence of the word within the documentation is highlighted.

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