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Overview

Whether it's remodeling, adding an addition, or building a home, it's always wise to draw up some plans before diving into a project. Floorplan Plus *3D* is the software tool for this planning stage, making it possible to draw your floor plan in two dimensions and then "walk through" your plan in three dimensions.

Floorplan Plus 3D provides tools for drawing walls, wires, pipes, surfaces, windows, doors, furniture and appliances; for calculating measurements; and modifying plans. Drawings are distributed over 13 layers in each of up to 20 floors allowing for transparent or simplified views. Drawings can be viewed, printed or exported in any combination of layers. Objects you create can be stored in libraries for easy use within other drawings.

You can print comprehensive drawings, layers, floors, three dimensional wire frames, shaded illustrations, a Materials List and an Object Catalog.

Floorplan Plus has been used in many ways. Catering companies have used Floorplan Plus to show their customers how they plan to set up banquet tables. Fire departments have used it to map out buildings and to indicate locations of sprinkler valves and other controls. Even police departments have used Floorplan Plus to sketch out accident and crime scenes.

Floorplan Plus 3D's files are compatible with 3D Design for drawing three dimensional objects, and with *Estimator Plus* for easily computing the cost of your project. All of these, and many other intuitive and reasonable priced products are available from ComputerEasy. Call (800) 522-3279 for a catalog.

Whatever your project, we hope *Floorplan Plus 3D* will help make the planning stage an easy and enjoyable one!

Before You Begin

Please note the following before using <u>Floorplan Plus</u> *3D*:

Floorplan Plus 3D runs on Windows 3.0 or higher.

Floorplan Plus 3D requires about 8 MB on a hard drive and 2 MB of memory, although 4 MB is recommended.

Before using *Floorplan Plus 3D*, it must be properly installed. See Chapter 2, "Starting *Floorplan Plus 3D*," for complete information on <u>installation</u>.

The Tutorial in Chapter 12 of the User's Guide is an excellent introduction to *Floorplan Plus 3D* and takes about half an hour.

Conventions

This <u>Floorplan Plus</u> *3D* Guide uses the following conventions:

Boldface letters denote the names of keys, menu commands, icons and buttons. For example, the Return key is denoted as **Return.**

Key combinations are denoted by a plus (+). For example, "press the Control key and the H key simultaneously" is denoted as **Ctrl+H.**

Information to be entered is denoted by quotation marks. For example, "chair" instructs you to type c-h-a-i-r, exactly as shown.

Variable information that you supply is denoted by italic characters. For example, <u>object</u> *library* instructs you to enter the object library file name you desire.

Technical Support

ComputerEasy International backs all of its products with a customer support system designed to give you fast, effective service. If you have exhausted all other avenues of help and need assistance with a specific problem, please follow these steps:

Try to duplicate the problem, keystroke by keystroke, so you can

better explain how the problem was encountered.

Please have some system information handy, including:

– The kind of computer you are using.

– The Windows version you are running.

– The version of <u>Floorplan Plus</u> *3D* you are using (Choose **About Floorplan Plus 3D** from the **Help** menu.)

It is important to call when you are in front of your computer.

Customer support is available Monday through Friday, from 8:00 A.M. to 5:00 P.M. Mountain time at (602) 731-3134.

Installing Floorplan Plus 3D

To install Floorplan Plus 3D

1. Make backup copies of the Floorplan Plus distribution disk(s). Use the MS-DOS command **diskcopy** to copy the *Floorplan Plus 3D* disk(s).

2. Start Microsoft Windows.

3. Insert the *Floorplan Plus 3D* disk #1 into drive A: (or B: if applicable).

4. Choose Run from the **File** menu in the Windows Program Manager.

5. Type "a:\setup" (or "b:\setupl" if using drive B:) and press **Return** or click **OK**.

6. Follow the instructions provided by the installation program.

Running *Floorplan Plus 3D*

To run Floorplan Plus 3D

1.	<u>Double-click</u> on the <u>Floorplan Plus</u> *3D* icon.

Parts of the Window

Title Bar

Displays the file name of the current active <u>Floorplan Plus</u> *3D* drawing file. If no drawing file is active, "untitled.fp3" is displayed.

Menu Bar

Contains a list of menus. Each menu contains commands which perform various actions in *Floorplan Plus 3D*.

Ribbon Bar

Contains a collection of icons representing various *Floorplan Plus 3D* menu commands. Hide the Ribbon bar by choosing Ribbon bar from the Options menu.

Tool Bar

Contains a collection of tools used to draw objects in *Floorplan Plus 3D*. Hide or float the Tool bar by choosing Tool bar from the Options menu.

Style Bar

Displays the style and attributes of the selected <u>object</u> or tool and provides for editing attributes. Hide the Style bar by choosing Style bar from the Options menu.

Help/Status Bar

Displays instructions or status information for the current command or tool being used. Hide the Status bar by choosing Status bar from the Options menu.

Drawing Area

The part of the *Floorplan Plus 3D* screen where drawings are built and displayed.

Scroll Bars

Allows you to move, or <u>pan</u>, to different parts of a drawing. This is especially useful if your drawing is too large to be displayed entirely in the <u>Drawing Area</u>.

Cursor

Used to build your drawing, and to select *Floorplan Plus 3D* menus and commands. The cursor changes <u>shape</u> depending on the tool or command selected.

Menu Bar

The menu bar is a list of menus containing commands which perform various actions in Floorplan Plus 3D. Choosing commands from the Menu Bar is how you tell *Floorplan Plus 3D* to perform a particular action. Alternatively, many of the commands contained in the menus can also be selected by clicking on a corresponding icon. These icons will be explained in a later section.

Related Topics:

To choose a command from the Menu Bar

To choose a command from the Menu Bar

1.   Point to a menu name, click the left mouse button.

2.   Point to the command name, and click the left mouse button.

Menus

The Floorplan Plus *3D* menus are:

File   Contains commands dealing with *Floorplan Plus 3D* drawing files. These commands are used to configure *Floorplan Plus 3D*, open and save drawings, print, export a drawing, run the 3D viewer and roof editor, and quit *Floorplan Plus 3D*. See "Working with Drawing Files," for detailed information on using the File commands.

Edit   Contains commands used to edit a *Floorplan Plus 3D* drawing. See   "Editing Drawings and Symbols," for detailed information on how to use the Edit commands.

Options   Contains commands to change various options in *Floorplan Plus 3D*, such as the appearance of the Drawing Area, and text and drawing options. See "Labeling, Measuring and Options," for detailed information on how to use the commands in the Options menu.

Symbols   Contains commands which deal with *Floorplan Plus 3D* symbols and symbol libraries. See "Symbols and Symbol Libraries," for detailed information on how to use Symbol Libraries and the Symbol commands.

View   Contains commands used to zoom in and zoom out of the current drawing, viewing drawing layers, the grid, building layer, reference distance and the status/help bar. See "Controlling the Drawing Area," for detailed information on how to use the Zoom commands.

Help   Contains commands that access the on-line help system.

Ribbon Bar

The Ribbon bar contains icons that represent the most commonly used menu commands in Floorplan Plus *3D*. To select an icon, simply click on that icon in the Ribbon. Below is a summary of the icons in the Ribbon and their functions.

Click	To
Floor	Draw a floor.
Straight Stair	Draw a standard staircase.
Spiral Stair	Draw a spiral staircase.
Railing	Draw a railing.
Door	Place a door.
Window	Place a window.
Load	Place a symbol from a symbol library.
Adjust	Resize or move a wall.
Zoom In	Zoom in.
Zoom Out	Zoom out.
Zoom to Window	Zoom a selected area to fit in the window.
Zoom to Extents	Zoom to fit drawing in window.
Dimension	Measure length of a reference line.
Area	Compute perimeter and area of an area.
Paste	Place the contents of the Clipboard.
Undo	Reverses the last edit.
Redo	Reverses the last "Undo."
3D	View the drawing in 3D.

Tool Bar

The Tool bar contains tools used to create or edit objects and shapes in <u>Floorplan Plus</u> *3D*. To select a drawing tool, simply click on that tool in the Tool bar. Below is a summary of the Tool bar icons and their functions. See Chapter Six, "Drawing Tools and Attributes," for detailed information on using each tool.

Click	**To**
<u>Selection</u>	Select an item in the current drawing.
<u>Wall</u>	Draw a wall.
<u>Wire & Pipe</u>	Draw Wire and/or Pipe.
<u>Area</u>	Draw an <u>area</u>.
<u>Line</u>	Draw a line.
<u>Rectangle</u>	Draw a rectangle.
<u>Polygon</u>	Draw a regular <u>polygon</u>.
<u>Arc</u>	Draw an arc.
<u>Text</u>	Draw text.
<u>Circle</u>	Draw a circle.
<u>Ellipse</u>	Draw an ellipse.
<u>Fill Shape</u>	Fill a <u>shape</u> with a pattern.
<u>Freehand</u>	Draw freehand.

Style Bar

The Style bar displays the style of the selected <u>object</u> or of the object about to be drawn. The style attributes displayed in the Style bar are name, color, line and fill. These style attributes can be changed by clicking on the <u>pop-up menu</u> for that attribute. Other attributes that may be associated with the object can be changed by clicking the Edit button. Create styles and select default styles for tools by choosing <u>Edit Default Styles</u> from the File menu.

Status Bar

The Help/Status bar is along the bottom of the screen, and can be toggled between Help and Status mode by clicking on the H and S buttons, respectively, or by choosing the mode from the View menu. The Help bar displays instructions for the current command or tool. The Status bar displays the building level, the view scale, the grid size and contains buttons for the Snap to Grid, and View Grid commands in the View menu.

Starting a New Drawing

The New command resets <u>Floorplan Plus</u> in preparation for beginning a new drawing.

Related Topics:

<u>To start a new drawing</u>

To start a new drawing

1. Choose **New** from the **File** menu.

2. Choose **Maximum Drawing Size** from the **Options** menu.

3. Choose the size of your <u>floor plan</u>. Click **OK**.

Maximum Drawing Size sets the boundaries for the entire drawing and controls the sensitivity of the scroll bars. It can be changed at any time. Choose the smallest maximum drawing size you think you will need, and increase it as needed. Precision at all drawing sizes is 1 /16".

Opening a Drawing

The Open command loads a previously saved <u>Floorplan Plus</u> *3D* drawing from disk, and displays it on the <u>Drawing Area</u>, zoomed to the drawing extents.

Related Topics:

<u>To open a previously saved drawing</u>

To open a previously saved drawing

1. Choose **Open** from the **File** menu.

2. Click on the appropriate directory, if necessary.

3. Type the file name, <u>double-click</u> on the drawing file name in the scroll box, or click once on a file name and click **OK**.

Saving a Drawing

The Save and Save As commands save the current <u>Floorplan Plus</u> *3D* drawing to disk.

Related Topics:

<u>To save the current drawing</u>
<u>To save the current drawing to a new file</u>

To save the current drawing

1. Choose **Save** from the **File** menu.

If this is the first time you have saved this file...

2. Type the name of the file, with the extension "FP3".

3. Click **Save** or press **Return**.

The Save command saves the file to the same file name each time subsequent to the first save, over writing the file previously saved. To maintain the file previously saved and save the current file to a new name, use the Save As command.

To save the current drawing to a new file

1. Choose **Save As** from the **File** menu.

2. Type a new name for the file, with the extension "FP3".

3. Click Save or press **Return**.

Reverting to the Last Saved Drawing

The Autobackup feature saves drawings every 5 minutes, by default. You can adjust or turn off Autobackup using the Preferences command in the File menu. Autobackup enables you to revert to the last saved drawing.

Related Topics:

To revert to the last saved drawing (Auto Backup ON only)

To revert to the last saved drawing <u>(Auto Backup ON only)</u>

1. Choose **Open** from the **File** menu.
2. Type the file name "BACKUP.TMP".
3. Press **Return** or click **OK**.
4. Choose **Save as** from **File** menu to save the file with a new name, with the extention "fp3".

Importing Other Floorplan Plus Drawings and Libraries

Floorplan Plus *3D* supports *Floorplan Plus DOS* and earlier versions of *Floorplan Plus Windows* drawings and libraries.

Related Topics:

To import a drawing or library

To import a drawing or library

1. Choose **Import** from the **File** menu, and the import format from the submenu.
2. Select or enter the name of the file to import.

Exporting

Floorplan Plus *3D* provides the capability to export your drawing to a DXF file, a metafile. Also, *Floorplan Plus 3D* has the ability to send a Materials list of your drawing to a text file for use in a word processor or *Estimator Plus*.

Related Topics:

To export a drawing to a DXF file or a metafile
To export a list of materials to an Estimator file
To export a list of materials to a text file

To export a drawing to a DXF file or a metafile

1. Open the drawing to export.
2. Choose **Export** from the **File** menu.
3. Choose the file format to export to from the sub-menu.
4. Choose to export **All layers** or **Visible layers** and click **OK**.
5. Type the name of the file to export to and click **OK**.

To export a list of materials to an *Estimator* file

1. Open the drawing to export.
2. Choose **Export** from the **File** menu.
3. Choose the file format to export to from the sub-menu.
4. Choose to export **All levels** or only the **Current level** and click **OK**.
5. Type the name of the file to export to and click **OK**.

To export a list of materials to a text file

1. Open the drawing to export.

2. Choose **Export** from the **File** menu.

3. Choose the file format to export to from the sub-menu.

4. Choose to export **All levels** or only the **Current level** and click **OK**.

5. Type the name of the file ("*filename*.TXT") to export to and click **OK**.

Note**:   All** *Floorplan Plus* **3D objects, along with symbols loaded from** *symbol* **libraries and used in the Roof Editor, are used   to generate Material lists and** *Estimator* **files. Shapes drawn using the other** *Floorplan Plus 3D* **drawing tools (Line, Rectangle,** *Polygon***, Arc, Text, Circle, Ellipse, Fill** *Shape***, and Freehand) are not included in the Material list or** *Estimator* **files, unless saved to a** *symbol library***.**

Printing a Drawing

The Printer Setup and Print Drawing commands print your drawings. If you have trouble communicating with your printer, see the Print Manager in the Main group in the Windows Program Manager. See your Windows documentation for more information on the Print Manager. See 3D Viewer for printing drawings in 3D.

Related Topics:

To select printer
To print a drawing

To select printer

1. Choose **Printer setup** from the **File** menu.
2. Choose the appropriate printer form the <u>pop-up menu</u> and click **OK**.
3. Click **Setup Printer** to set printer options.
4. Click **OK.**

Choosing the Print Drawing command from the File menu will present the Print Options dialog box.

To print a drawing

1. Choose **Print drawing** from the **File** menu.

2. Select the the print options and click **OK**.

    Region

    Choose to print the Entire Drawing or a selected <u>area</u>.

    Color Conversion

    Map to Black is used to print black and white, only. Use color will print color or shades of gray, depending on your printer.

    Layers

    Choose to print All Layers or only the Visible Layers selected using the Layers command in the View menu.

    <u>Print scale</u>

    Choose to print the drawing to Fit to Page or set the print scale by typing in the 1" or 1 cm scale equivalent, depending on the Measurement System selected in Preferences.

Default Styles

You create and select the default styles for Areas, Doors, Floors, Railing, Walls, Windows, and Wire & Pipe using the Edit Default Styles command. You can make changes to any style for a selected <u>object</u> by selecting Edit in the Style bar. You can save the selection of defaults to a file for future use.

Note**: Load default styles before starting a drawing.**

Related Topics:

<u>To select a default style</u>
<u>To save a set of default styles</u>
<u>To load a set of saved default styles</u>

To select a default style

1. Choose **Edit default styles** from the **File** menu. Select the <u>object</u> to set the default style for from the submenu.

2. Click on the <u>symbol</u> style to use as a default from the Description list. Click **OK**.

To save a set of default styles

1. Choose **Save default styles** from the **File** menu.

2. Enter the file name to save the selected default <u>symbol</u> styles to. Click **OK**.

To load a set of saved default styles

1. Choose **Load default styles** from the **File** menu.

2. Enter the file name to load. Click **OK**.

Creating Symbol Styles

You create <u>symbol</u> styles for Areas, Doors, Floors, Railing, Walls, Windows, and Wire & Pipe using the Edit default styles command.

Related Topics:

<u>To create a style</u>

To create a style

1. Choose **Edit default styles** from the **File** menu and choose the <u>symbol</u> to create a style for.

2. Click **Add**.

3. Complete the Options dialog box and click **OK**.

Following is a list of the default symbols and their attributes:

Related Topics:

<u>Areas:</u>
<u>Doors:</u>
<u>Floors:</u>
<u>Railing:</u>
<u>Walls:</u>
<u>Windows:</u>
<u>Wire & Pipe:</u>

Areas:

Description

The name of the <u>area</u> style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Groups the style in the Materials list and *Estimator* files.

Color

The color that will represent this style in the two-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

Fill style

The pattern that fills the <u>symbol</u> when drawn on the screen.

Doors:

Description

The name of the door style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Groups the style in the Materials list and *Estimator* files.

3D Symbol

Specify the file name of the associated 3D illustration. Click Load to browse and load file name.

2D Color

The color that will represent this style in the two-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

Fill style

The pattern that fills the symbol when drawn on the screen.

Width

The width along the wall.

Height

The height of the door.

Dist off floor

The distance from the floor to the bottom of the door.

Constrain to width of wall

This attribute applies when you are matching the width of the door to the width of the wall, such as in the case of a sliding door.

Change Orientation

Select the 2D symbol and click the Change Orientation button to flip the door opening direction. There are four orientations.

Floors:

Description

The name of the floor style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Groups the style in the Materials list and *Estimator* files.

Height

This attribute is usually set to "0". However, in cases such as stair landings, set the floor height to the distance from the floor to the top of the stairs.

Thickness

The thickness of the floor. The top of the floor is positioned at "Height", and the thickness extends down from that point.

2D Color

The color that will represent this style in the two-dimensional drawing.

3D Color

The color that will represent this style in the three-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

Fill style

The pattern that fills the area when drawn on the screen.

Railing:

Description

The name of the railing style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Groups the style in the Materials list and *Estimator* files.

Height

The height of the railing, from the bottom bar to the top of the handrail.

Handrail width

Enter the width of the handrail.

Handrail thickness

The distance from the bottom to the top of the handrail.

Opening size

The distance between the vertical bars of the railing. If the railing is being added to stairs, the opening size and distance off floor are calculated.

Dist off floor

The distance from the floor to the bottom bar of the rail. If the railing is being added to stairs, the opening size and distance off floor are calculated.

2D Color

The color that will represent this style in the two-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

3D handrail color

The color the handrail will appear in a three-dimensional drawing.

3D baluster **color**

The color of the vertical bars in a three-dimensional drawing.

Walls:

Description

The name of the wall style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

A category for use in the Materials list and *Estimator* files.

<u>Height</u>

The height of the wall. Set to "0" if you don't want the wall displayed when viewing in 3D.

<u>Thickness</u>

The thickness of the wall.

Dist off floor

The distance from the floor to the bottom of the wall, if the wall is suspended. This is useful when you are using walls sections to create a hole or cutouts.

Windows:

Description

The name of the window style as it will appear in the Attribute bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Groups the style in the Materials list and *Estimator* files.

3D Symbol

Specify the file name of the associated 3D illustration. Click Load to browse and load file name.

2D Color

The color that will represent this style in the two-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

Fill style

The pattern that fills the symbol when drawn on the screen.

Width

The width of the window along the wall.

Height

The height of the window.

Dist off floor

The distance from the floor to the bottom of the window.

Wire & Pipe:

Description

The name of the style as it will appear in the Attribute Bar.

Part number

A part number for use in the Materials list and *Estimator* files.

Category

Group the style for use in the Materials list and *Estimator* files.

Color

The color that will represent this style in the two-dimensional drawing.

Line style

The type of line that will represent this style when drawn on the screen.

Preferences

The Preferences command allows you to modify the number of Undo levels, the measurement system, colors, cursor and libraries used, and turn on Auto backup. Settings are saved for future uses of the program, until changed.

Related Topics:

To change the default configuration

To change the default configuration

1. Choose **Preferences** from the **File** menu.

2. Set the configuration as desired, and click **OK**.

The following settings can be changed:

Undo levels

Undo levels can be set from 0 to 20, allowing you to reverse up to 20 commands. Higher numbers of Undo levels require more memory.

Measurement system

Set the measurement system to Metric or U.S. (feet and inches). You can choose to use Fractions rather than inches. Choose the number of decimal places to display (0-3) in non-fractional measurements.

Auto backup

Auto backup saves the current file to the backup.tmp file, automatically, every 5 minutes. You can change the number of minutes between backups by double-clicking in the minute box and editing. You can disable Auto backup by clicking in the Enabled box.

Colors

Click on the pop-up menu for Foreground, Background, Cursor, or Selection, and choose a color.

Cursor size

Select your cursor preference: Small, Medium or Large. The Aiming rectangle is a small box at the cross of the cursor. The Cursor size changes only the appearance of the cursor.

Symbol **libraries**

The Symbol libraries selected will be opened by clicking on the Door and Window icons in the icon bar. You can access different libraries by choosing Load symbol from the Symbol menu.

Exiting *Floorplan Plus 3D*

When you leave <u>Floorplan Plus</u> *3D,* you will be asked whether unsaved files should be saved.

Related Topics:

<u>To Exit Floorplan Plus 3D</u>

To Exit Floorplan Plus 3D

1. Choose **Exit** from the **File** menu (Alt+F4).

2. If any drawing changes have not been saved prior to exiting, a message will warn you. Click **Yes** or press **Return** to save changes, click **No** to disregard changes. Click **Cancel** to return to Floorplan Plus *3D.*

Scrolling

Scrolling, or panning, is the process of moving around to different areas of your drawing. Scrolling in your drawing is accomplished by using the scroll bars, located directly to the right and to the bottom of the Drawing Area.

Each scroll bar is composed of two arrow buttons and a scroll position indicator. The position of the indicator relative to the scroll bar indicates the position of the current drawing view relative to the entire drawing workspace.

Related Topics:

To scroll around your drawing

To scroll around your drawing

See page 28 in the User's Guide for a diagram of the effects of the scroll bars.

Zooming

The Zoom commands magnify the <u>Floorplan Plus</u> *3D* drawings at different levels. You can Zoom-In, Zoom-Out, and Zoom to Extents.

Related Topics:

<u>To magnify the current drawing to twice its current magnification</u>
<u>To reduce the view magnification by half of the current drawing</u>
<u>To magnify a specific portion of the drawing</u>
<u>To view the entire drawing</u>

To magnify the current drawing to twice its current magnification

1. Choose <u>Zoom in</u> from the **View** menu (Ctrl+I).

To reduce the view magnification by half of the current drawing

1. Choose <u>Zoom out</u> from the **View** menu (Ctrl+O).

To magnify a specific portion of the drawing

1. Choose the **Zoom to window** command from the **View** menu (Ctrl+W).
2. <u>Drag</u> a box around the portion of the drawing you wish to magnify.

To view the entire drawing

1. Choose **Zoom to extents** from the **View** menu (Ctrl+E).

   This command will display the entire drawing, at the largest possible size within the Drawing Area.

Layers

The Layers feature is used to view, print or export your drawing by symbols. This is useful for dividing your plans into logical sequences, jobs, contracts, etc.

There are 13 predefined layers and symbols are automatically placed on the appropriate layer.

Related Topics:

To change visible layers

To change visible layers

1. Choose **Layers** from the **View** menu (Ctrl+L).
2. Modify the Layers dialog box as desired.

Changing the View Scale

The View Scale determines the size of your drawing as it's displayed relative to the physical dimensions of your Drawing Area. For example, assume the default View Scale size is 1 inch = 4 feet. This means that an object or shape that is drawn 1 inch on the screen is 4 feet in the plan.

The View Scale that Floorplan Plus *3D* uses is determined by the Measurement System selected in the Preferences command in the File menu, the Maximum drawing size set from the Options menu, and the factor of the current Zoom. The following table lists the default View Scales:

System	Drawing Size	Default View Scale
	325 X 325 feet	1" = 4ft
	650 X 650 feet	1" = 8ft
U.S.	1300 X 1300 feet	1" = 16ft
	2600 X 2600 feet	1" = 32ft
	5200 X 5200 feet	1" = 64ft
	100 x100 meters	1cm = 0.050m
	200 x 200 meters	1cm = 0.100m
Metric	400 X 400 meters	1cm = 0.250m
	800 X 800 meters	1cm = 0.500m
	1600 X 1600 meters	1cm = 2.500m

Related Topics:

To set the View Scale

To set the View Scale

1. Choose **Current** <u>View Scale</u> from the **View** menu (Ctrl+Z), or click the **View Scale** button in the Status Bar.

2. Type the desired View Scale value. Click **OK**. The drawing will redraw.

Setting the Grid

Floorplan Plus *3D*'s drawing grid provides an aid for alignment and the placement of objects in your drawing. Grids also make it easy to draw a shape of a given length or size. The grid can either be displayed or hidden, and you can Snap to Grid, forcing lines and other objects to be drawn only where grid points are defined. In addition, you can define the grid size, or spacing between the grid points.

Note**:** *Floorplan Plus 3D* **will not display the grid if it becomes too dense due to zooming or grid size changes.**

Related Topics:

       To set the Grid Size
       To turn Snap to Grid on or off
       To turn the grid on or off

To set the Grid Size

1. Choose **Grid Size** from the **View** menu (Ctrl+D), or click on the **Grid** button in the Status Bar.

2. Type the grid size and press **Return**.

The grid will be redrawn at the new grid size.

To turn Snap to Grid on or off

1. Choose <u>Snap</u> **to Grid** from the **View** menu (Ctrl+S), or click **Snap** in the Status Bar.

   A checkmark will appear next to the Snap to Grid command and the Snap button will be red when the grid is turned on.

To turn the grid on or off

1. Choose **View Grid** from the **View** menu (Ctrl+G), or click **View** in the Status Bar.

A checkmark appears next to the View Grid command and the View button in the Status Bar will be red when the grid is displayed.

Related Topics:

Default Grid Sizes

Default Grid Sizes

System	Drawing Size	Default GridSize
	325 X 325 feet	1ft
	650 X 650 feet	2ft
U.S.	1300 X 1300 feet	4ft
	2600 X 2600 feet	8ft
	5200 X 5200 feet	16ft
	100 X 100 meters	0.305m
	200 X 200 meters	0.610m
Metric	400 X 400 meters	1.219m
	800 X 800 meters	2.438m
	1600 X 1600 meters	4.877m

Building Levels

Building levels enables you to construct and view up to 20 levels (or stories) in a single drawing file.

Related Topics:

[To edit building levels](#)

To edit building levels

1. Choose **Edit building levels** from the **View** menu, or click the **Level** button in the Status Bar.
2. Edit the Building Levels dialog box.

Current level

Change the current level by selecting a level from the scroll box.

Height

Enter the distance from the floor to the ceiling for the current level.

Description

Enables you to specify a level name.

Lower-level color

The color that will represent the level's floors and walls when viewed from a higher level.

Enabled

Uncheck Enabled to hide the level so it does not appear when viewing higher levels. Also prevents the level from appearing in 3D.

Help/Status Bar

The Help/Status Bar is along the bottom of the drawing window and can be toggled to provide instructions or to provide pertinent data about your drawing. See page 12 for the functions of the Help and Status bar tools.

Related Topics:

To display the Help bar
To display the Status bar
To hide/show the Help/Status bar

To display the Help bar

1. Choose **Display help mode** from the **View** menu (**Ctrl+H**), or click the H button in the **Status Bar**.

To display the Status bar

1. Choose **Display status mode** from the View menu (**Ctrl+T**), or click the **S** button in the **Status Bar.**

   The mode of the Help/Status bar is indicated with a check in the View menu and a red button in the Status bar.

To hide/show the Help/Status bar

1. Choose **Status bar** from the **Options** menu.

Ribbon Bar

The Ribbon bar is along the top of the drawing window, just below the <u>Menu bar</u>, and can be toggled to provide icon shortcuts to menu commands. See Chapter 3 for a description of each icon on the <u>Ribbon</u>.

Related Topics:

<u>To hide/show the Ribbon bar</u>

To hide/show the Ribbon bar

1. Choose **Ribbon bar** from the **Options** menu.

Style Bar

The Style bar is along the top of the drawing window, just below the Ribbon bar, provides style information and editing for the current tool or <u>object</u>. See Chapter 3 for a description of each indicator on the <u>Style bar</u>.

Related Topics:

<u>To hide/show the Style bar</u>

To hide/show the Style bar

1. Choose **Style bar** from the **Options** menu.

The Tool Bar

The Tool bar is along the left of the drawing window. It can be hidden or changed to a floating Toolbox. See Chapter 3 for a <u>brief description of each tool</u>. See Chapter Six for a <u>detailed description</u> of the use of each tool.

Related Topics:

> <u>To hide the Tool bar</u>
> <u>To float the Tool bar</u>
> <u>To show the Tool bar</u>

To hide the Tool bar

1. Choose **Tool bar** from the **Options** menu.
2. Choose **Disabled** from the submenu.

To float the Tool bar

1. Choose **Tool bar** from the **Options** menu.
2. Choose **Floating** from the submenu.

To show the Tool bar

1. Choose **Tool bar** from the **Options** menu.
2. Choose **Left side** from the submenu.

Using the Cursor Reference Point

The Cursor Reference Point is used to measure in reference to a specified marker. For example, to position the wall phone three feet from the exterior wall, set the cursor reference point on the exterior waland load the wall phone <u>symbol</u>. The Help bar will indicate the distance from the cursor in the center of the wall phone, to the reference point.

Related Topics:

<u>To set reference point</u>
<u>To display reference distance</u>

To set reference point

1. Choose **Set cursor reference point** from the **View** menu.

2. Click to position the reference point in the drawing. The Cursor Reference Point dialog box will appear.

3. Choose **Horizontal**, **Vertical** or Straight line from the Cursor Reference Point dialog box. Click **OK**.

To display reference distance

1. Choose **Display reference distance** from the **View** menu. The Help bar displays the distance between the reference point and the cursor.

Redraw

To save time, <u>Floorplan Plus</u> *3D* redraws as little of the drawing as possible when being edited. At times, this may cause some objects to obscure other smaller objects. In such cases, you can use the <u>Redraw</u> command to redraw the entire drawing. The Redraw command draws objects in the following order:

Walls and Floors on lower levels

Floors

Areas

Walls

Doors and Windows

Symbols and Lines

Text and Dimensions

Note**: The Bring to Front and Send to Back commands work within the above groups.**

Related Topics:

<u>To redraw your screen</u>

To redraw your screen

1. Choose **Redraw** from the **View** menu.

Floor Tool

The Floor drawing tool is used to draw any style of floor in your floor plan. See Chapter Four, Default Symbol Styles, for more information on creating floor styles. Floor attributes include:

> Height
>
> Thickness
>
> 2D color
>
> 3D color
>
> Line style
>
> Fill style

Related Topics:

> To draw a floor

To draw a floor

1. Select the **Floor tool** from the **Toolbox** or the **Draw** menu.
2. Select the desired attributes using the Style bar.
3. Click at each vertex of the floor, with the last vertex on the first.
4. **Backspace** erases the last point, **ESC** aborts the floor.

Stair Tools

The Stair drawing tools are used to draw any style of stairs in your <u>floor plan</u>. There are two tools, straight and spiral, because the attributes of the two styles are quite different.

The <u>Rise</u>, <u>Run</u> and Angle of each stair is calculated based on the values entered for the attributes above.

The Railing attributes are described under the <u>Rail tool</u>, on page 39.

Related Topics:

<u>To draw straight stairs</u>
<u>To draw spiral stairs</u>

To draw straight stairs

1. Select the **Straight Stairs** tool from the **Toolbox** or the **Draw** menu.

2. Click the Style bar **Edit** button and define the stair attributes in the Straight Stair Options dialog box.

3. Choose the side for Railing and click Railing options to define the railing attributes. Click **OK**.

4. Click **OK** in the Straight Stair Options dialog box.

5. Click and <u>drag</u> on the screen, starting with the current level landing.

The Step angle, number of steps, and headroom is calculated based on the values entered for the attributes above.

The Railing attributes are listed under the Rail tool, below.

Note**: The arrow indicates the "up" direction.**

To draw spiral stairs

1. Select the **Spiral Stairs** tool from the **Toolbox** or the **Draw** menu.

2. Click the Style bar **Edit** button and define the stair attributes in the Straight Stair Options dialog box.

3. Choose the side for Railing and click Railing options to define the railing attributes. Click **OK**.

4. Click **OK** in the Spiral Stair Options dialog box.

5. Click and <u>drag</u> on the screen to define the diameter of the staircase.

6. Click and drag again to specify the position of the front of the first stair on the current level.

7. Click and drag again to specify the position of the back of the last stair.

Rail Tool

The Rail drawing tool is used to draw a straight rail. See page 21 for <u>creating rail styles</u>. The attributes of the straight rail is identical to those defined in the Rail options dialog in the Stair Options dialog boxes.

Related Topics:

<u>To draw a rail</u>

To draw a rail

1. Choose the **Railing** tool from the **Toolbox** or the **Draw** menu.

2. Click the Style bar **Edit** button to specify the Rail attributes.

3. Click to place the first point, and click again to place the end point.

Door Tool

The Door drawing tool is used to addl doors in your drawing. Each Door style can be associated with a three-dimensional illustration of the door. 3D illustrations are available in the Floorplan Plus *3D* libraries, or you can create your own using 3D Design Plus. See Chapter Four for creating door styles. The attributes of a door are:

> 2D color
>
> Line style
>
> Fill style
>
> Width
>
> Height
>
> Dist off floor
>
> Constrain to width of wal
>
> Orientation

Related Topics:

> To draw a door

To draw a door

1. Choose the **Door** tool from the **Toolbox** or the **Draw** menu.

2. Choose the Door style from the Style bar or click the **Edit** button to specify the Door attributes.

3. Click on the desired wall and position the door. Click again to place the door.

Window Tool

The Window tool is used to represent the windows in your drawings. Windows can be associated with three-dimensional illustrations. You can <u>define Window styles</u> (see Chapter Four) or you can define the attributes for each window you draw. The Window attributes are:

> 2D color
>
> Line style
>
> Fill style
>
> <u>Width</u>
>
> <u>Height</u>
>
> Dist off floor

Related Topics:

> <u>To draw a window</u>

To draw a window

1. Select the **Window** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired style on the Style bar or click the **Edit** button to define the attributes of this window.

3. Click on the desired wall and position the door. Click again to place the door.

Wall Tool

The Wall tool is used to draw exterior and interior walls in your <u>floor plan</u>. Walls are the foundation for drawing doors and windows. Wall attributes are:

    <u>Height</u>

    <u>Thickness</u>

    Dist off floor

    2D color

    3D color

    Line style

    Fill style

Related Topics:

<u>To draw a wall</u>
<u>To move a wall</u>
<u>To adjust a wall angle or size</u>
<u>To automatically add wall dimension labels</u>

To draw a wall

1. Choose the **Wall** tool from the **Toolbox** or the **Draw** menu.
2. Choose the Wall style from the Style bar or click **Edit** to define the walls attributes.
3. Click to place the start point.
4. Click to place or press **Return** to enter the wall <u>length</u> and orientation.

To move a wall

1. Use the **Selection** tool to select the wall.
2. Click and <u>drag</u> to move the wall to the desired location.

To adjust a wall angle or size

1. Choose the **Adjust** tool from the Ribbon bar or the **Edit** menu.

2. Click and <u>drag</u> to move or resize the wall.

To automatically add wall dimension labels

1. Choose **Auto wall dimensioning** from the **Options** menu.
2. Draw a wall.

Wire & Pipe Tool

The Wire & Pipe tool is used to draw lines which represent wire and pipe in your floor plan. This function is useful for showing wiring and plumbing inside walls, under floors, and throughout a property. Attributes of the Wire & Pipe tool are:

Color

Line style

Related Topics:

To draw wire and/or pipe

To draw wire and/or pipe

1. Select the **Wire & Pipe** tool from the **Toolbox** or the **Draw** menu.
2. Select the desired attributes from the Style bar.
3. Click and <u>drag</u> to draw the wire or pipe.

Area Tool

The Area tool draws a filled area. This function is useful to draw areas on your Floorplan Plus *3D* drawing with different types of material, such as tile, stone, grass, and walkways.

The function and operation of this tool is almost identical to the Fill Shape tool, with the exception that Areas are considered building materials if exporting Materials lists. Filled Shapes are not interpreted as building materials. Attributes of the Area tool are:

       Color

       Line style

       Fill style

Related Topics:

       To draw an area

To draw an area

1. Choose the <u>Area</u> tool.

2. Select the desired style or attributes from the **Style bar.**

3. Select the area you wish to fill, by tracing the outline of the desired area: click on each vertex and press the right mouse button or **Return** to fill. **Delete** erase the last vertex.

Line Tool

The Line tool is used to create special shapes in your <u>floor plan</u>, such as patios, decks, sidewalks, driveways, etc. Lines can be converted to walls using the <u>Convert Lines to Walls</u> command in the Edit menu. Attributes of a line are:

Color

Fill style

Line style

Related Topics:

<u>To draw a line</u>

To draw a line

1. Choose the **Line** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes from the **Style bar.**

3. Click to set the beginning point. Click again to set the end point.

Rectangle Tool

The Rectangle tool is often used to draw desks, tables, concrete blocks, tile, etc. in a <u>floor plan</u>. Attributes of a rectangle are:

Color

Fill style

Line style

Related Topics:

<u>To draw a rectangle</u>

To draw a rectangle

1. Choose the **Rectangle** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes from the Style bar.

3. Click to set each of two opposite corners of the rectangle.

Polygon Tool

The <u>Polygon</u> tool is used to draw multi-sided objects with any number of equal <u>length</u> sides, such as a hexagon or octagon. Polygons can be used to draw tiles, tables, spas, gazebos, flag stones, etc. Attributes of a polygon are:

Color

Fill style

Line style

Related Topics:

<u>To draw a polygon</u>

To draw a polygon

1. Choose the <u>Polygon</u> tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes for the lines of the polygon.

3. Choose **Polygon Sides** from the **Options** menu. Type the number of sides and press **Return**.

4. Clickto set the center of the polygon, and click again to set the desired size.

Arc Tool

The Arc tool is used to draw portions of a circle for rounded corners and other arcs. Attributes of an arc are:

Color

Fill style

Line style

Related Topics:

To draw an arc

To draw an arc

1. Choose the **Arc** tool from the **Toolbox** or the Draw menu.

2. Select the desired attributes for the line of the arc.

3. Click where you want the center of the arc to lie (as if it were a full circle) and release the mouse button.

4. Move the cursor to where you want the arc to begin, and click. Draw the arc and click again.

Text Tool

The <u>Floorplan Plus</u> *3D* Text tool is used to create text of virtually any size, angle, or font. Text attributes are:

Font

Size

Color

Style: Italic, Bold, Underline

Related Topics:

<u>To create text</u>
<u>To create text to fill a specified area</u>

To create text

1. Select the **Text** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes by clicking **Edit** in the **Style bar.**

3. Click and <u>drag</u> a line on which you want the text to appear. The Text dialog box will appear.

4. Type the text string and press **Return**.

Note**:** **Small text is displayed as rectangles, but will print normally.**

To create text to fill a specified area

1. Choose the **Text** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes by clicking **Edit** in the **Style bar.**

3. Position the cursor where you want the text to start (the base point) and click the left mouse button.

4. If **Dynamic Text Sizing** is enabled (**Options** menu), the next step is to define the height of the text. Move the cursor away from the base point defined in step 3 to a distance equal to the desired text height. Click the left mouse button.

5. Move the cursor to draw the text vector, and click. The Text dialog box will appear.

6. Type the text string and press **Return**.

Circle Tool

The Circle tool is often used to draw shrubs, pipe openings, tables, spas and other round objects in your floor plan. Attributes of a circle are:

Color

Fill style

Line style

Related Topics:

To draw a circle

To draw a circle

1. Choose the **Circle** tool from the **Toolbox** or the **Draw** menu.
2. Select the desired attributes for the line of the circle from the Style bar.
3. Click where you want the center of the circle to lie, click again to set the size of the circle.

Ellipse Tool

The Ellipse tool draws circle-like objects where the <u>width</u> and <u>height</u> are not equal. Ellipses are often used to draw tables, pools, atriums, and other oval objects. Attributes of an ellipse are:

Color

Fill style

Line style

Related Topics:

<u>To draw an ellipse</u>

To draw an ellipse

1. Choose the **Ellipse** tool from the **Toolbox** or the **Draw** menu.
2. Select the desired attributes from the Style bar.
3. Click where you want the center of the ellipse to lie, click again to set the size of the ellipse.

Filled Shape Tool

The Filled Shape tool is used to draw filled shapes. (Filled shapes can also be hollow.)

The function of this tool is almost identical to the Fill Area tool, with the exception that Floorplan Plus *3D* does not interpret Filled Shapes as building materials. Attributes of a filled shape are:

Color

Fill style

Line style

Related Topics:

To draw a filled shape

To draw a filled shape

1. Choose the **Filled** <u>Shape</u> tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes for the filled shape from the Style bar.

3. Trace the outline of the shape to fill by clicking on each vertex and double-clicking when complete.

Tip**:** **Save time by using the Filled Shape tool to draw the exterior walls of your a house. After outlining, with the shape still selected, choose Convert Lines to Walls from the Edit menu.**

Freehand Tool

The Freehand tool draws continuous line shapes not easily drawn with the other drawing tools. Attributes of the Freehand tool are:

Color

Fill style

Line style

Related Topics:

To freehand draw

To freehand draw

1. Choose the **Freehand** tool from the **Toolbox** or the **Draw** menu.

2. Select the desired attributes from the Style bar.

3. Click and drag to draw.

Overview

Floorplan Plus *3D* uses symbols to simplify construction of your drawing. Instead of manually drawing a refrigerator, for example, you can load the *Floorplan Plus 3D* refrigerator symbol. You could edit this drawing and save it to a library under a different name, or your could create your own symbols using the drawing tools and save it to a library for future use.

Symbols can be just about anything: a piece of furniture, a door, a window, or an electrical outlet. You can associate your 2 dimensional symbols with 3 dimensional illustration files from *3D Design Plus* if you want the symbol to display in the 3D Viewer.

Commands that make use of symbols and symbol libraries can be accessed from the Symbols menu on the Menu bar. You can easily load symbols from the libraries by clicking on the Load button on the Ribbon bar.

Libraries

The Floorplan Plus *3D* libraries are used to categorize symbols and save disk space. *Floorplan Plus 3D* ships with several libraries and you can create your own. As your libraries become larger, they will save you time in finding symbols. Create libraries as you draw and edit symbols, giving them logical names. You can always rename a library, delete a library, and print a catalog of the symbols in each library.

Related Topics:

To create a symbol library
To change the name of a symbol library
To delete a symbol library
To write a symbol library catalog

To create a symbol library

1. Choose **Create** <u>symbol library</u> from the **Symbols** menu. The Create Symbol Library dialog box will appear.

2. Type the name for the library. Click **OK**.

3. Type a file name for the library ("*filename*.LIB").

To change the name of a symbol library

1. Choose **Rename** symbol library from the **Symbols** menu. The Select symbol library dialog box will appear.

2. Select the name of the library to be changed. Click **OK**. The Rename Symbol Library dialog box will appear.

3. Type a new name for the library. Click **OK**.

To delete a symbol library

1. Choose **Delete** <u>symbol library</u> from the **Symbols** menu. The Select Symbol Library dialog box will appear.

2. Select the name of the library to be deleted. Click **OK**. A confirmation dialog box will appear.

3. Click **Yes** to remove the library name, file, and symbols from the disk.

To write a symbol library catalog

1. Choose **Write** symbol catalog from the **Symbols** menu. The Select Symbol Library dialog box will appear.

2. Select the name of the library to catalog. Click **OK**. The Write Symbol Catalog dialog box will appear.

3. Type the file name of the text file to be created ("*filename*.TXT").

Symbols

Floorplan Plus *3D* symbols are the details of your drawing that bring your floorplan to life. Symbols include windows, doors, appliances, fixtures, sinks, and furniture. You can edit the symbols included in *Floorplan Plus 3D* and save them as new symbols, or you can create your own using the drawing tools. Symbols are associated with 3 dimensional illustrations for 3D Viewer, the *Floorplan Plus 3D* feature that enables you to "walk through" your floor plan. These three dimensional illustrations can be created with *3D Design Plus* by ComputerEasy).

Related Topics:

To load a symbol
To save a symbol
To edit a symbols attributes in a library
To delete a symbol from a library

To load a symbol

1. Choose **Load** <u>symbol</u> from the **Symbols** menu. The Load Symbol dialog box will appear.

2. Click on the appropriate library name in the list of libraries. The library's symbols will appear in the Symbols list on the left.

3. Click on the symbol name once to view the two dimensional and, if applicable, three dimensional illustrations.

4. Click **OK** or <u>double-click</u> on the symbol name to load the symbol in the drawing.

5. Position the symbol with the mouse, and click to place.

To save a symbol

1. Use the **Selection** tool to select objects to be included in the <u>symbol</u>.

2. Choose **Save symbol** from the **Symbols** menu, press **E**, or click **Save** in the **Edit Toolbox** (press the right mouse button to display the Edit Toolbox). The Symbol Options dialog box will appear.

3. Complete the Symbol Options dialog box, and click **OK**.

4. Select the library for the symbol and click **OK**. (If the appropriate library does not exist, click **Cancel** and create the library using the **Create** <u>symbol library</u> command.)

To edit a symbols attributes in a library

1. Choose **Edit** <u>symbol</u> **in library** from the **Symbols** menu. The Edit symbol dialog box will appear.

2. Select the library and the symbol to edit from the lists, and click **OK**. The Symbol Options dialog box will appear.

3. Edit the attributes as necessary and click **OK**.

To delete a symbol from a library

1. Choose **Delete** <u>symbol</u> **from library** from the **Symbols** menu. The Delete Symbol dialog box will appear.

2. Select the name of the library and the symbol to be deleted. Click **OK**. A confirmation dialog box will appear.

3. Click **Yes** to remove the symbol from the disk.

3D Symbols

Floorplan Plus *3D* can illustrate your floor plan in three dimensions, enabling you to "walk through" your floor plan in 3 dimensional wire frame or shaded views. The 3D Viewer will automatically convert your Floors, Walls, Stairs, and Railings in to 3D. Doors, Windows and Symbols must be associated with 3D illustrations to be viewed using the 3D Viewer. The Doors, Windows and Symbols that ship with *Floorplan Plus 3D* are associated with 3 dimension illustration files (*filename*.3D).

You can create your own 3 dimensional illustrations using *3D Design* by ComputerEasy. You can then import these files for use in *Floorplan Plus 3D* using the command in the Symbols menu.

Related Topics:

To import a three dimensional illustration from 3D Design Plus

To import a three dimensional illustration from 3D Design Plus

1. Choose **Import** symbol from the **Symbols** menu. The Select 3D Design Plus Drawing dialog box will appear, with a list of the 3D files that ship with Floorplan Plus *3D*.

2. Select the appropriate directory, such as "3DPLUS," if necessary.

3. Select the file name ("*filename*.MDL") to import and click **OK**. The Select Destination File dialog box will appear.

4. Select the appropriate directory, such as "FP3", if necessary and type the file name of the destination file ("*filename*.3D"). Click **OK**. A confirmation dialog box will appear.

5. Press **Return** or click **OK**.

Editing a Symbol

Floorplan Plus *3D* library symbols are single objects comprised of one or more lines drawn with various *Floorplan Plus 3D* drawing tools. Library symbols can be loaded, edited, and saved as new library symbols. Editing may require that the symbol be presented as an assembly of the individual elements of the drawing, rather than a single object. The Break symbol command is used for this purpose.

Related Topics:

To break a symbol

To break a symbol

1. Select the <u>symbol</u> to be edited using the **Selection** tool.
2. Choose **Break symbol** from the **Symbols** menu.
3. Click in another part of the drawing to deselect the symbol.
4. Use the **Selection** tool to select then edit the elements of the symbol.
5. (Optional) Save the new symbol.

Note**:** **A broken symbol will not appear in Materials lists, Estimator files, or the** <u>*3D Viewer*</u>**.**

Editing Tools

Once you have selected items for editing, select the editing tool to be used. Editing tools are available in the Edit menu, in the Edit Toolbox, and by simply pressing an editing key. Access the Edit Toolbox by pressing the right mouse button.

Related Topics:

Editing Keys

Editing Keys

Press	To
R	Rotate
S	Scale
A	Adjust Lines
T	Edit Text
H	Flip Horizontal
V	Flip Vertical
E	Save as Symbol
D	Delete
C	Copy to Clipboard
U	Cut to Clipboard

Tip**:**   *Floorplan Plus* **3D displays step-by-step help in the Help bar to guide you through using any editing commands.**

Selecting Objects

Each of the <u>Floorplan Plus</u> *3D* editing tools requires you to first select the desired item or items you wish to edit. An item can be as simple as a single line, or as complex as an entire drawing.

Note**:** **Selected items are displayed as a simple red line by default. The selection color can be changed using the Preferences command in the File menu.**

Related Topics:

<u>To select an item to be edited</u>
<u>To select several items to be edited</u>
<u>To select all items in a drawing</u>

To select an item to be edited

1. Choose the **Selection** tool from the **Toolbox** or choose **Select** from the **Edit** menu.

2. Position the cursor on the outline of the <u>shape</u> or <u>symbol</u>, and click. The item will become a red outline.

To select several items to be edited

1. Click the **Selection** tool from the Tool bar choose **Select** from the **Edit** menu.

2. Click and <u>drag</u> to surround all of the items with a rectangle, or click on the outline of each of the items to be selected while holding down the **Shift** key. Each item selected will be displayed as a red outline.

To select all items in a drawing

1. Choose **Select all** from the **Edit** menu.

Note**:   When objects are deselected, they are redrawn. This could cause underlying objects to be temporarily hidden by the redrawn** _object_**. To redraw the entire screen, choose Redraw from the View menu.**

Moving Objects

To move objects to another building level, use the Cut and Paste commands.

Related Topics:

To move an object

To move an object

1. Using the **Selection** tool, click on the item to move.

2. Move the cursor until the item's outline is in the desired position.

3. Click the mouse button again to position the item.

Undo and Redo

The Undo command reverses the last command or action. Choosing Undo again will reverse the command or action prior to that, and so on, up to 20 levels. You can reduce the Undo levels to make more memory available using the Preferences command in the File menu. The Redo command reverses the last Undo command.

Related Topics:

To undo the last drawing or editing action
To reverse the last Undo command

To undo the last drawing or editing action

1. Click **Undo** in the Ribbon or choose **Undo** from the **Edit** menu.

To reverse the last Undo command

1. Click **Redo** in the Ribbon or choose **Redo** from the **Edit** menu.

Cut, Copy and Paste

The Cut, Copy and Paste commands are used to delete, move or duplicate items in the same drawing, other <u>Floorplan Plus</u> *3D* drawings or to documents created with other compatible applications.

Related Topics:

<u>To copy object(s) to the clipboard and delte them from the drawing</u>
<u>To duplicate item(s)</u>

To copy object(s) to the clipboard and delte them from the drawing

1. Select the <u>object</u>(s) to be moved.

2. Press **U**, or choose **Cut** from the **Edit Toolbox** or from the **Edit** menu.

Note**:** **Windows and doors are only copied to the clipboard if the corresponding walls are also selected.**

To duplicate item(s)

1. Select the item(s) to be duplicated.
2. Press **C**, choose **Copy** in the **Edit Toolbox**, or from the **Edit** menu.
3. Position the cursor where you want the duplicate item(s) placed.
4. Click **Paste** in the Ribbon, or choose **Paste** from the **Edit** menu.

Delete

Use the Delete command to remove items from a drawing. The Delete command can be reversed with the Undo command.

Related Topics:

To delete item(s)

To delete item(s)

1. Select the item(s) to be deleted.
2. Press the **Delete** key, or choose **Delete** from the **Edit** menu.

Send to Back and Bring to Front

When drawing symbols, it is common to stack filled items to represent detail. When an item is selected, it comes to front. The Send to Back and Bring to Front commands are useful for arranging a stack of objects for editing and prior to saving as a symbol.

Related Topics:

To send an object to the back
To bring an object to the front

To send an object to the back

1. Select the <u>object</u>(s).
2. Choose **Send to Back** from the **Edit** menu.

To bring an object to the front

1. Select the <u>object</u>(s).
2. Choose **Bring to Front** from the **Edit** menu.

Converting Lines to Walls

You may find it useful to "sketch" your <u>floor plan</u> using lines, arcs, or other drawing tools, and then convert the lines to a series of connected walls. When you covert the lines, you will define the minimum wall <u>length</u> in the series.

Related Topics:

<u>To convert lines to walls</u>

To convert lines to walls

1. Select the line(s) to be converted.

2. Choose **Convert lines to walls** from the **Edit** menu.

3. Enter the Minimum Wall <u>Length</u> for curve segments. Click **OK**.

Adjusting Walls

After carefully placing a wall, it is useful to change the length or angle of the wall without disturbing its anchor.

Related Topics:

To adjust a wall

To adjust a wall

1. Select a wall using the **Selection** tool.

2. Choose **Adjust walls** from the **Edit** menu.

3. Click toward the end to adjust.

4. Move the mouse to adjust the wall, using the outline as a guide and click to place.

Rotating Objects

The Rotate command allows you to rotate selected objects to very specific angles. The closer to the center of the <u>object</u> you place the center of rotation, the more control you will have over the angle. The Help bar displays the rotation angle.

Related Topics:

<u>To rotate an object</u>

To rotate an object

1. Select the <u>object</u> using the **Selection** tool.
2. Press **R**, or click **Rotate** in the **Edit Toolbox**, or choose **Rotate** from the **Edit** submenu.
3. Click on the object where you want the center of rotation.
4. Move the mouse to rotate the object and click to place.

Scaling Objects

The Scale command allows you to resizeobjects to the degree of accuracy of the grid. The Help bar displays the <u>width</u> and <u>height</u> of an <u>object</u> as you scale it.

There are eight control points on the selection rectangle surrounding the selected item. Control point on the side of the selection rectangle will adjust the height or the width of the item. Control points on the corners of the selection rectangle will adjust both the height and the width.

Related Topics:

<u>To scale an item or symbol</u>

To scale an item or symbol

1. Select the item or <u>symbol</u> using the **Selection** tool.

2. Press **S**, click **Scale** in the **Edit Toolbox**, or choose **Scale** from the **Edit** submenu.

3. Click on a control point to adjust.

4. Move the mouse to resize the item or symbol and click the mouse to set.

Note**:** **When scaling the corners, press and hold down the Shift key for proportional scaling.**

Adjusting Lines

The Adjust Lines command works with simple lines drawn with a <u>Floorplan Plus</u> *3D* drawing tool. To adjust lines within a <u>symbol</u>, you first need to use the Break Symbol command in the Symbols menu, then select the line to adjust.

Related Topics:

<u>To adjust a line</u>

To adjust a line

1. Select the line to adjust using the **Selection** tool.

2. Press **A**, click **Adjust lines** in the **Edit Toolbox** or choose **Adjust lines** from the **Edit** submenu. Handles, or control points will appear on the outline.

3. Click a control point to adjust.

4. Move the mouse to adjust the line and click the mouse to set.

Editing Text

Text is created using the Text tool or the Draw Text command. Edit the text style by selecting the text and clicking Edit in the Style bar. Edit the text string with the Edit Text tool.

Related Topics:

To edit text

To edit text

1. Select the text <u>object</u> to edit using the **Selection** tool.

2. Press **T**, click **Edit Text** in the **Edit Toolbox** or choose **Edit text** from the **Edit** sub-menu. The Text dialog box will appear.

3. Edit the text string. Click **OK**.

Flipping Objects

Symbols are loaded into a drawing in the same position they were saved. Using the rotation tool can leave uneven lines in some positions. To keep the position and angle of an <u>object</u> while reversing the direction it faces, use either the Flip Horizontal or the Flip Vertical Edit tool.

Related Topics:

<u>To flip an item or symbol</u>

To flip an item or symbol

1. Select theobject to flip using the **Selection** tool.

2. Press **H** or **V**, click in the **Edit Toolbox** to select the direction you want the <u>object</u> flipped, or choose the **Flip horizontal** or **Flip vertical** command from the **Edit** tools submenu.

Saving a Symbol

Symbols can be created by editing existing symbols or drawing new ones.

Related Topics:

To save a symbol

To save a symbol

1. Use the **Selection** tool to select the symbol to be saved.

2. Choose **Save symbol** from the **Symbols** menu, press **S**, or click **Save** in the **Edit Toolbox**. The Symbol Options dialog box will appear.

3. Complete the Symbol Options dialog box, and click **OK**.

4. Select the library for the symbol and click **OK**.

Deleting a Selection

Selections are easily deleted using the Delete key, the Delete command, or the Delete tool.

Related Topics:

To delete a selection

To delete a selection

1. Use the **Selection** tool to select the <u>symbol</u> to be deleted.

2. Press the **Delete** key, choose **Delete** from the **Edit** menu, press **D**, or click **Delete** in the **Edit Toolbox**.

Setting the Drawing Size

The basic step in creating a drawing of the desired dimensions is to set the maximum drawing size. This command will adjust the view of the drawing so that a drawing of the full selected size will fit within the drawing area. The maximum drawing size can be changed at any time.

Related Topics:

To set the maximum drawing size

To set the maximum drawing size

1. Choose **Maximum drawing size** from the **Options** menu.
2. Select the smallest dimension that you expect your drawing to fit within. Click **OK**.

Wall Length Labels

You can choose to have all walls automatically labeled with their <u>length</u> as drawn.

Related Topics:

<u>To turn on automatic wall labels</u>
<u>To turn off automatic wall labels</u>

To turn on automatic wall labels

1. Choose **Auto wall dimensioning** from the **Options** menu.
2. After drawing a wall, click a second time to position the label.

To turn off automatic wall labels

1. Choose **Auto wall dimensioning** from the **Options** menu.

Note**:** **Avoid using Auto wall dimensioning when drawing walls at odd angles. They can be misleading because the inside and outside lengths of the walls change when joined to another wall. You can go back   and add dimension lines as needed.**

Measuring Lengths

You can measure the distance between any two points in your drawing and optionally record the distance with a dimension line.

Related Topics:

To measure the distance between two points

To measure the distance between two points

1. Choose **Measure** <u>Length</u> from the **Options** menu.

2. Click on the first point, move the mouse, and click on the second point. The Measure dialog box will display the distance between the two points.

3. Click **Add dimension line** to add a label to the drawing, change the Length to change the dimension line, or click **Cancel.**

Measuring Area and Perimeter

You can outline any shape using the Area and Perimeter command. As soon as you connect back to the initial point, a dialog box will display the area and perimeter in the measurement system selected in the Preferences.

Related Topics:

To measure the area and perimeter of a shape

To measure the area and perimeter of a shape

1. Choose Area **and** perimeter from the **Options** menu.

2. Click on the first point, move the mouse, and click on the second point, and so on, to outline the shape. Press **Delete** to erase the last point, **ESC** to abort, and press the right mouse button, **Return,** or click the initial point to close. The Area and Perimeter dialog box will display the area and perimeter of the shape.

3. Click **Cance**l.

Polygon, text, and label parameters can be modified from the Options menu. The Options menu also provides tools for measuring distances, perimeters, and areas.

Note**: Area is automatically calculated for Areas and Floors when a Materials list is generated.**

Number of Polygon Sides

The Polygon Sides command set the number of sides drawn with the Polygon tool. By default, Floorplan Plus *3D* polygons have five sides.

Related Topics:

To change the number of polygon sides

To change the number of polygon sides

1. Choose <u>Polygon</u> **Sides** from the **Options** menu.

2. Type the number of sides wanted and press **Return**.

Overview

Floorplan Plus *3D* includes the new 3D Viewer for transforming your two dimensional drawing into a three dimensional illustration. You set the view position and the light source. You can then "move through" and "look around" the wire-frame model. You can quickly and easily "shade" the view with the click of a button.

You can print the 3D illustrations in wire-frame or shaded views and in any combination of layers. Files can be exported to DXF and then easily imported into 3D Design Plus and other CAD programs.

When you enter the 3D Viewer you will notice a change in the Ribbon, Style and Menu bars. The Tool and Status bars are not used. This chapter discusses all of the 3D Viewer features and commands.

Running 3D Viewer

The 3D Viewer automatically displays walls, stairs, floors, and rails in three dimensions. Other elements, including doors, windows and symbols, display the three dimensional drawing file associated with the two dimensional symbol. This association can be done in an object's Options dialog box, displayed by selecting the two dimensional object and clicking Edit in the Style bar. *3D Design Plus*, for creating three dimensional drawings and three dimensional drawing libraries are available from ComputerEasy.

The DOS 3D Viewer is available for real-time shaded "walk-throughs" of your floorplan that would be prohibitively slow under Windows. The Printing, Brightness, and Shade Options are not available in the DOS Viewer, although the Ribbon commands function the same. Access the DOS Viewer through the File menu.

Note**: Using the mouse in the DOS Viewer requires that a mouse driver (the software that comes with your mouse) is loaded and executed. The Windows built-in mouse driver will not work with the DOS Viewer. If you do not have a mouse driver loaded, use** *the keyboard commands* **on page 69.**

Related Topics:

To run the 3D Viewer
To run the DOS Viewer

To run the 3D Viewer

1. Choose <u>Run</u> <u>3D viewer</u> from the **File** menu, or click **3D** in the Ribbon bar. The View pointer will be displayed.

2. Position the pointer at the viewpoint in the <u>floor plan</u>. Click the mouse button.

3. Move the mouse to set the <u>viewport</u>. Click the mouse button. The View dialog box will appear.

4. Complete the dialog box and click **OK**. The floorplan will appear in three dimensional wire frame.

All levels

Displays all building levels and the roof, if applicable.

Current level

Displays only the current level.

All layers

Displays all layers. Layers can be altered from within the 3D Viewer from the View menu.

Visible layers

Displays only the selected layers.

Position of <u>light source</u>

Affects 3D colors in shaded views. The Horizontal angle describes the position of the sun on the horizon with respect to East. The Vertical angle applies to the time of day, or the sun's position overhead, with respect to East.

Starting <u>height</u>

Describes the distance of the viewport from the floor.

To run the DOS Viewer

1. Choose <u>Run</u> **DOS Viewer** from the **File** menu.
2. Click **Exit**, or press **ESC**, to return to the Windows <u>3D Viewer</u>.

Adjusting the View

The 3D Viewer Ribbon icons adjust the view, enabling you to walk-through the floorplan and move the viewport. You can also adjust the view with the keyboard.

Key   **Action**

Key	Action
Left Arrow	Turn left
Right arrow	Turn right
Up arrow	Move forward
Down arrow	Move backward
Ins	Spin left
Del	Spin right
Home	Spin down
End	Spin up
U	Move up
D	Move down
L	Move left
R	Move right
+	Increase move step by 1 foot
-	Decrease move step by 1 foot
ESC	Quit

Related Topics:

To change the view height
To change the view position
To turn at the current viewpoint
To turn up or down from the current viewpoint
To rotate around the center of the drawing
To select layers for viewing

To change the view height

The Up and Down buttons in the Ribbon bar are used to adjust the view <u>height</u>.

1. Click **Up** in the Ribbon bar to raise the view height.

2. Click **Down** in the Ribbon bar to lower the view height.

To change the view position

The Left, Right, Forward and Back icons in the Ribbon bar adjust the view position without altering the underlined viewport direction.

1. Click **Left** or **Right** to move the horizontal view position through the floorplan, without turning.

2. Click **Forward** or **Back** to move the view position into or out of the view.

To turn at the current viewpoint

1. Click **Turn**, either left or right to rotate the view from the current viewpoint.

To turn up or down from the current viewpoint

1. Click **Look**, either up or down to vertically tilt the <u>viewport</u>.

To rotate around the center of the drawing

1. Click **Spin**, in the direction you'd like to spin the drawing.

To select layers for viewing

1. Choose **Layers** from the **View** menu. The Layers dialog box will appear.

2. Click to check the layers to be viewed. Click the **View All** or **View None** buttons to quickly check/uncheck all layers. Click **OK**.

Shading the View

Instantly add surfaces to wire-frame illustrations for a more realistic view of the current view.

The DOS Viewer allows a real-time shaded walk through, that would be prohibitively slow in Windows. Printing, Brightness, and Shade Options are not available in the DOS Viewer. Access the DOS Viewer through the File menu.

Related Topics:

To apply surfaces to a 3D wire-frame illustration
To Shade the View using the full screen

To apply surfaces to a 3D wire-frame illustration

1. Click **Shade** in the Ribbon bar, choose **Shade** <u>Viewport</u> from the **View** menu, or press **S** to add surfaces to your drawing.

To Shade the View using the full screen

1. Choose **Shade full screen** from the **View** menu to hide the Title, Menu and Ribbon bars. Click the mouse to un-shade the view.

Adjusting the Shade

Use the commands in the View menu to set the brightness, or contrast between dark and light surfaces in shaded views, and to set shade options.

The colors assigned to objects are applied at their brightest shade. Flat surfaces will reflect all objects in this shade, 100% brightness, without regard to the light position. Choosing Shaded or Shaded with Outlines from the View menu will darken surfaces with regard to the position of the light.

Related Topics:

To adjust the contrast in Shaded views
To display objects in color, 100% brightness, without shade
To apply shades with regard to the position of the light source
To illustrate with surfaces, without color or shades

To adjust the contrast in Shaded views

1. Choose **Set** <u>brightness level</u> from the **View** menu. The Adjust Brightness dialog box will appear.

2. <u>Drag</u> the scroll box to the right to reduce contrast, drag to the left to increase contrast, or enter the percentage of brightness (0-100). Click **OK**.

To display objects in color, 100% brightness, without shade

1. Choose **Shading options** from the **View** menu.
2. Choose **Flat** or **Flat with outlines** from the **Shading options** submenu.

To apply shades with regard to the position of the light source

1. Choose **Shading options** from the **View** menu.
2. Choose **Shade** or **Shade with outlines** from the **Shading options** submenu.

To illustrate with surfaces, without color or shades

1. Choose **Shading options** from the **View** menu.
2. Choose **Hidden lines removed** from the **Shading options** submenu.

Exporting 3D drawings

Floorplan Plus *3D* has the ability to export your floor plan to DXF file format for importing into 3D Design Plus   and other CAD programs. This is useful for further design and advanced rendering of your floor plan.

Related Topics:

To export to a DXF file

To export to a DXF file

1. Choose **Export to** <u>DXF</u> from the **File** menu. The **Export to DXF** dialog box will appear.

2. Type the name of the file to export to ("*filename*.DXF"), and select the directory to which to save the file. Click **OK**.

Printing 3D drawings

Use the Printer Setup and Print commands print your 3D drawings.

Related Topics:

To select printer
To print the drawing

To select printer

1. Choose **Printer setup** from the **File** menu.

2. Choose a printer form the <u>pop-up menu</u> and click **OK**.

To print the drawing

1. Choose **Print** from the **File** menu. The Print Options dialog box will appear.

2. Complete the dialog box and click **OK**.

Shading Options

Choose to print the drawing in Wireframe, Shaded with or without outlines, or with surfaces, black on white (Hidden line).

Color Conversion

Map to Black is used to print black and white, only. Use color will print color or shades of gray, depending on your printer.

Layers

Choose to print All Layers or only the Visible Layers selected using the Layers command in the View menu.

Exiting the 3D Viewer

To exit the 3D Viewer and return to two dimensional planning

1. Choose **Exit** from the **File** menu.

Running the Roof Editor

The roof can be added as soon as the exterior   walls are complete. Interior wall placement is essential, however, for planning surface changes and the placement of dormers, skylights and chimneys. The Roof Editor can be run stand-alone for creating roof templates or parts, or from the Floorplan Plus *3D* File menu for adding a roof to a floor plan.

Related Topics:

To run the Roof Editor from *Floorplan Plus 3D*

1. Choose <u>Run</u> **Roof Editor** from the **File** menu. The walls of your <u>floor plan</u> will appear grey in the top view (X,Z plane).

2. Choose **Load** from the **File** menu. Select a roof style and click **OK**. The roof will be loaded and automatically scaled to fit over the walls.

3. Edit the roof as desired, then **Update** to include the roof in your floor plan.

To run the Roof Editor as a stand-alone program

1. <u>Double-click</u> on the **Roof Editor** icon. The Roof Editor window will appear.

Roof Editor Files

Roof Editor files are created when you Update from the Roof Editor   File menu and Save your <u>floor plan</u>. Update saves the current roof to the current floorplan and returns to the floorplan.   When you Exit the Roof Editor, you will have the option of updating your floor plan. Saving your floorplan saves the roof to a file, assigning the name of the floorplan with and "RF" extension. You can then Load the files for editing, or Merge the files with other roofs or roof part files to create new roofs.

Choosing New from the File menu will clear the existing roof.

Preferences in the Roof Editor is similar to the <u>Floorplan Plus</u> <u>Preferences</u>. See page 24 for detailed information on these fields.

The <u>3D Viewer</u> is available from the Roof Editor by choosing 3D from the Ribbon or the File menu. See Chapter Ten for details on <u>positioning the light source</u> and using the 3D Viewer.

The Roof Editor Window

The Roof Editor window is similar to the <u>floor plan</u> window. The significant differences are:

> The Style bar is at the right of the Ribbon bar.

> The Help bar and Status bar are combined.

> The View bar provides for changing the <u>viewport</u>.

> You have the option of dividing the screen into several Viewports.

The Options menu provides for displaying or hiding the Ribbon bar, Status bar, Angles, Axes, Viewports and Reference walls.

Zoom commands are found in the View menu and are similar to *Floorplan*'s <u>Zoom</u> commands. The exception is Zoom All to Extents, which is very useful when viewing more than one viewport.

The Grid commands are identical to the Floorplan Grid commands, except they are only available in the Roof Editor's View menu.

Choose <u>Pan</u> from the View menu then click on a point to move it to the center of the viewpoint.

The Reference Point in the Roof Editor has the same functionality as *Floorplan*'s Reference point; however, the references are displayed for three axes. This becomes very important when drawing in a view with only two axes. Position the Reference Point by   choosing Reference Point from the View menu, or click on the Status bar. The Reference Point will remain in position as you change views. The Status bar displays the distance from the Reference Point to the cursor on each axes and a straight line.

Editing Tools

Creating a roof from scratch is an artistic skill that you can develop by editing the roof styles included in Floorplan Plus *3D*. We suggest you examine the included floorplans and their roofs. You can then apply these roofs, or other included roofs, to your floorplan. Edit the roof with the tools and tips described below. After some concentrated editing, you will become more comfortable creating in three dimensions and the Roof Editor, and may want to venture into designs from scratch.

There are four tools and three planes, or axes, to consider when creating your roof. The Tools are in the Ribbon and the Draw menu. You can Edit the attributes of each tool by clicking Edit in the Ribbon bar. The Axes are displayed in the lower right corner of the Viewport.

TIP**:   Begin editing by choosing 3 Viewports from the Options menu. Choose Zoom All to Extents from the View menu to maximize each Viewport.**

Selection Tool

The Selection tool can be used in any <u>viewport</u>. Select control points to reposition objects, and select objects to delete or change attributes. By selecting multiple objects of the same type and clicking Edit in the Ribbon, you can edit all of their styles. Use the following selection methods:

Click to select a control point and all coinciding control points from adjacent surfaces.

Click on a line to select the entire surface or <u>object</u>.

Click and <u>drag</u> a box around multiple, adjacent items to be selected.

SHIFT-Click, press and hold the SHIFT key while selecting, to select multiple items.

Surfaces

Surfaces are drawn flat (0°) in the X,Z dimension. The vertices of each surface is a Control Point. Select and drag control points to adjust the shape of the roof in any dimension. Selecting a control point will select the coinciding vertices of adjacent surfaces.

When editing the Angle of a surface, note the color in which the pitch is displayed. A yellow background means the surface is flat; a red background means the surface is not planar, and may result in gaps.

Use the Reference Point, by clicking on the Status bar and positioning, to display distances in each axes.

You may find it helpful to use a variety of colors for surfaces. To change the color of a selected surface, choose a color from the pop-up menu in the Ribbon bar, or click Edit. Edit allows for Part Number and Category descriptions for use in a Materials list or *Estimator* files.

Dormers

A <u>dormer</u> widow is set vertically, projecting from a sloping roof. It is typically found in upstairs bedrooms and attics, adding visual appeal to the roof.

You can define the size and color of a dormer by clicking Edit after choosing the Dorm tool. You can also enter a Part Number and Category for use in the Materials list or *Estimator* files.

Related Topics:

<u>To create a Dormer</u>

To create a Dormer

1. Position the reference point on a vertex of the surface to contain the <u>Dormer</u>.
2. Select the **Dormer** tool from the Ribbon or **Draw** menu.
3. Click **Edit** to specify the size and color of the Dormer attributes. Click **OK**.
4. Using three Viewports, click in the Top view to position the base of the Dormer, using the Status bar distances as a guide.
5. Select and <u>drag</u> the control point at the base to reposition the Dormer.

Chimneys

Positioning a chimney in your roof is a simple matter of defining it's size, and knowing the position of the fireplace. For purposes of the Roof Editor, you may want to use a Wall style to outline your fireplace in the floor plan.

Like other tools, you can define the size and color of a chimney by clicking Edit after choosing the Chimney tool. You can also enter a Part Number and Category for use in the Materials list or *Estimator* files.

Related Topics:

To create a Chimney

To create a Chimney

1. Position the reference point on a vertex of the surface to contain the chimney.

2. Select the **Chimney** tool from the Ribbon or **Draw** menu.

3. Click Edit to specify the size and color of the chimney. Click **OK**.

4. Using three Viewports, click in the Top view to position the low base of the chimney, using the Status bar distances and other views as a guide.

5. Select and drag the control point at the base to reposition the chimney.

Skylights

Skylights are becoming increasingly popular in this age of resource consciousness and have bright cosmetic benefits as well. Creating skylights in simple in the Roof Editor.

Related Topics:

To create a Skylight

To create a Skylight

1. Position the Reference point on a vertex of the surface to contain the skylight.

2. Select the **Skylight** tool from the Ribbon or **Draw** menu.

3. Click **Edit** to specify the size and color of the skylight. Click **OK**.

4. Using three viewports, click in the **Top** view to position the low base of the skylight, using the Status bar distances and other views as a guide.

5. Select and drag the control point at the base to reposition the skylight.

Abbreviations

The following is a list of standard abbreviations for items that you may wish to include in your <u>floor plan</u>. These abbreviations can be added to your drawing with the Text tool.

A/C	Air Conditioning
AD	<u>Area</u> Drain
AL	Aluminum
AUTO	Automatic
BEL	Below
BLK	Block
BLDG	Building
BOT	Bottom
BRK	Brick
BSMT	Basement
CEM	Cement
CFT	Cubic Foot
CLG	Ceiling
CM	Centimeter
COL	Column
CPT	Carpet
CT	Ceramic Tile
CTR	Counter
CYD	Cubic Yard
D	Drain
DF	Drinking Fountain
DH	Double Hung
DIAM	Diameter
DR	Door
DS	Down Spout
D/W	Dish Washer
EL	Elevation
ELEC	Electrical
EMER	Emergency
EWC	Elec. Water Cooler
EXP	Exposed
FA	Fire Alarm
FB	Face Brick

FBRK	Fire Brick
FE	Fire Extinguisher
FHS	Fire Hose Station
FN	Fence
FP	Fireproof
FPL	Fireplace
FURN	Furnace
GAL	Gallon
GND	Ground
GRTG	Grating
GVL	Gravel
HDW	Hardware
HDWD	Hardwood
HT	Height
HTR	Heater
HW	Hot Water
IN	Inch
INSUL	Insulation
INT	Interior
J-BOX	Junction Box
KIT	Kitchen
KO	Knockout
LAM	Laminated
LAV	Lavatory
LB	Pound
LGTH	Length
LEV	Level
LIN FT	Linear Feet
LINO	Linoleum
LUM	Lumber
M/C	Medicine Cabinet
MRB	Marble
MAX	Maximum
MIN	Minimum
MIRR	Mirror
MISC	Miscellaneous
MLDG	Molding

MTL	Metal
NO	Number
NTS	Not To Scale
OPG	Opening
OZ	Ounce
PER	Perimeter
PLAS	Plastic
PLAT	Platform
PLMB	Plumbing
PLY	Plywood
PNL	Panel
POS	Position
PR	Pair
PREFAB	Prefabricated
PRELIM	Preliminary
PSF	Pounds per Sq Foot
PSI	Pounds per Sq Inch
PTD	Painted
PVMT	Pavement
RD	Roof Drain
RDG	Ridge
REF	Reference
REFR	Refrigerator
REQD	Required
RFG	Roofing
RIS	Riser
SCH	Schedule
SCR	Screw
SCRN	Screen
SD	Storm Drain
SDG	Siding
SECT	Section
SEW	Sewer
SH	Shower
SHT	Sheet
SPECS	Specifications
SQ	Square

SQFT	Square Feet
SQIN	Square Inch
SST	Stainless Steel
ST	Street
SUR	Surface
TEL	Telephone
TEMP	Temperature
THR	Threshold
THRM	Thermostat
UR	Urinal
UTIL	Utility
VAN	Vanity
VENT	Ventilation
VERT	Vertical
VIN	Vinyl
WDW	Window
WH	Water Heater
WP	Waterproof
WT	Weight
WV	Wall Vent
YD	Yard

Length Conversions

1 Centimeter = 0.3937 inch

1 Meter = 3.28 feet

1 Meter = 1.094 yards

1 Kilometer = 0.621 statute mile

1 Kilometer = 0.5400 nautical mile

1 Inch = 2.54 centimeters

1 Foot = 0.3048 meter

1 Yard = 0.9144 meter

1 Statute Mile = 1.61 kilometers

1 Nautical Mile = 1.852 kilometer

Area Conversions

1 Square Centimeter	= 0.155 square inch
1 Square Meter	= 10.76 square feet
1 Square Meter	= 1.196 square yards
1 Hectare	= 2.47 acres
1 Square Kilometer	= 0.386 square miles
1 Square Inch	= 6.45 square centimeters
1 Square Foot	= 0.0929 square meter
1 Square Yard	= 0.836 square meter
1 Acre	= 0.405 hectare
1 Square Mile	= 2.59 square kilometers

Fraction to Decimal Conversions

1	= 1.0000
1/2	= 0.5000
1/3	= 0.3334
1/4	= 0.2500
1/5	= 0.2000
1/6	= 0.1667
1/8	= 0.1250
1/9	= 0.1112
1/10	= 0.1000
1/11	= 0.0910
1/12	= 0.0834
1/13	= 0.0770
1/14	= 0.0715
1/15	= 0.0667
1/16	= 0.0625

How can I change the scale in *Floorplan Plus 3D*?

A. When you first run Floorplan Plus *3D*, the default maximum drawing size is 325 X 325 feet, or 100 x 100 meters, and the scale setting is 4 feet = 1 screen inch, 1/4" scale, or .050 meters = 1 cm. To change the view scale, choose Current View Scale from the View menu. A window will appear on the screen displaying the current scale. You can edit this scale by typing in the number of units per unit on the screen.

How can I change the current drawing color?

A. With the exception of the Foreground, Background, Cursor and Selected <u>object</u> colors, all objects use the drawing color in the Style Bar. Click on the   Color <u>pop-up menu</u> in the Style bar, and <u>drag</u> to choose the desired color. To change the color of the Foreground, Background, Cursor and Selected object colors, choose <u>Preferences</u> from the File menu.

Why do some drawings seem sluggish?

Text in a drawing will slow down the screen redraw process. To use text efficiently, you can conserve on text until completion or turn off Text <u>Layers</u>. You can choose to display the "text layers" only when necessary.

How can I be specific in size and placement of objects and walls?

Use of the Grid commands in the Status bar or View menu makes placing and sizing easy. Choose View Grid to display the grid. You can set the Grid Size to any measurement. Choosing Snap To Grid will ensure objects and walls are lined up directly on the grid by creating a sort of "magnetic force" on the grid lines.

Glossary of Terms

Glossary of Terms

3D Viewer

A program within <u>Floorplan Plus</u> *3D* for viewing <u>floor plan</u> drawings in 3 dimensions.

Area

The two-dimensional measure of a surface. Primarily used to find the square foot area of floors, yards, and other flat surfaces.

ASCII

Acronym for American Standard Code for Information Interchange. ASCII is a language of number sets that represent the English alphabet in computers.

Baluster

The vertical support for a rail, often vase-shaped.

Brightness Level

The degree of contrast between darks and lights in shaded views. The lower the brightness level, the more contrast.

CADD

A generic term refering to software for the purpose of computer-aided design and drafting.

Catalog

A list of all objects within a specific <u>object</u> library. See "Object Library."

Currrent Level

The building level being edited in 2 dimensions.

Dormer

A small rectangular structure that projects from a sloping roof and houses a window.

Double-click

An instruction to rapidly press and release the mouse button two times.

Drag

An instruction to position the mouse pointer, press and hold the mouse button down, and move the mouse to reposition the pointer or the <u>object</u> to which you are pointing.

Drawing Area

The main area of the Floorplan Plus *3D* window where all drawing takes place.

DXF

A file format that can be imported by many other <u>CADD</u> programs. <u>Floorplan Plus</u> 3D exports DXF files.

Estimator Plus

A software package also published by ComputerEasy International, Inc. that estimates project costs. Floorplan Plus *3D* generates a file that can be used with *Estimator Plus*.

Floor plan

A drawing showing the arrangement of rooms, furniture, windows, doors, and/or other data and dimensions.

Floorplan Plus

The best-selling home design software available for DOS, WIndows, Macintosh and 3D for WIndows.

Height

The distance from the top of the floor to the top of the <u>object</u>.

Hidden Line Removed

Displays a 3D illustration as white lines on black surfaces, and prints as simple black lines.

Length

The horizontal measurement from the front view.

Light Source

The position of the sun or light as measured from due East.

Materials Listing

A list of areas, doors, floors, railing, stairs, walls, windows, wire & pipe, chimneys, dormers, skylights, and roof surfaces generated by Floorplan Plus products.

Menu Bar

The very top line of the screen that displays the six different menu choices: Apple menu, File, Edit, Options, Objects and Status Bar. Use menus by clicking on them and dragging to choose a command.

Object

Any combination of lines capable of being selected representing a single <u>symbol</u>, drawing, door, window, <u>area</u>, floor, circle, line, etc.

Pan

To move a through a large drawing on the screen, using the mouse and scroll bars, to see different portions of the drawing.

Perimeter

The <u>length</u> of the boundary of an <u>area</u>.

Polygon

A closed plane figure bounded by straight lines.

Pop-Up Menu

A rectangle on the Attribute Bar that allows you to select one of several choices by clicking and dragging through a list.

Print Scale

A ratio factor applied to printing so the drawing will fit on paper.

Reference Axis

The axis on which to measure the distance from the cursor to the reference point.

Reference Wall

A top view indication of walls below the current drawing level used for positioning objects on the current level.

Rise

The distance from the top of one stair to the top of the next. The Total Rise is the distance from the floor to the top of the landing.

Roof Angle

A measurement of the corner formed from a flat surfacel to the highest point of a roof surface as viewed from the front or side.

Run

The depth of a straight stair, from from front to back. The Total Run is the distance from the front of the bottom stair to the back of the top stair.

Shape

A simple <u>object</u> drawn with a <u>Floorplan Plus</u> *3D* tool.

Snap

Turning on the Snap-To-Grid feature activates a "magnetic pull," or snap, on the grid lines, so that objects and drawings are easily aligned.

Symbol

A drawing of an <u>object</u> used within a drawing.and stored in Symbol Libraries for future use.

Symbol Library

One file of stored symbols that can be accessed from any drawing.

Thickness

The distance from the top to the bottom of an <u>object</u>.

Vector Line

The line drawn with the Text too that text will appear on.

View Scale

A ratio factor applied to a drawing for viewing on screen.

Viewport

The range of vision set for surveying a 3 dimensional illustration.

Width

The distance from the front to the back of an <u>object</u>.

Zoom in

To enlarge a portion of the drawing to fill more of the screen, to display greater detail.

Zoom out

To reduce the perspective of your view so that you see more of the drawing at one time.