

3D VIRTUAL REALITY ROOMPLANNER

FOR WINDOWS

USER'S GUIDE GETTING STARTED

Installing

Insert the 3D Roomplanner distribution disk number 1 into a floppy drive. Log onto the drive the 3D Roomplanner distribution disk is in. For example, if the disk is in drive A: then type **A:** and press the [Enter] key. Type ***install*** then press [Enter]. Follow the instructions which will appear on your screen.

Using the Program

screen layout

Below is an illustration of the 3D Roomplanner screen.

Each of the elements of the 3D Roomplanner screen is described on the following page.

Workspace - This is the work and display area for your floorplans. You can think of the workspace as a sheet of paper where you do your drawing. The workspace displays only a portion of your roomplan. Use the scrollbars to view other parts of the plan.

Title Bar - displays the name of the currently opened file. If no file has been opened then no name is displayed.

Menu Bar - contains the main-menu options. Selecting an option from the main menu will open a vertical sub-menu. Select a menu option by clicking it with the mouse.

Rulers - show the distance in feet of the roomplan.

Scroll Bars - The scroll bars allow you to view other areas of your roomplan which are outside of the workspace.

Toolbar - an array of buttons for selecting tools and functions. See the next section, **THE TOOLS**, for more information.

Info/Status Bar - displays short informational and help messages. The type and nature of the message depends primarily on the current mode of the program.

Get into the habit of glancing at the info. bar to help you become more familiar with the program.

the tools

The toolbar is an array of buttons near the top of the screen for selecting tools and functions. An explanation of the function of a tool button displays in the info. bar when the mouse cursor passes over it. When clicked with the left mouse, a tool button sets the program to that mode. Each tool mode has its own mouse cursor shape. The use of each tool is described in this section. Click the right mouse button on any item in your drawing to change its type, color, size, etc. Refer to **EDITING ITEMS** for more information.

wall tool

Use the wall tool to draw walls on your plan. Also read the description of the **Selector Tool** on resizing a wall.

creating a wall:

Click and hold down the left mouse button in the workspace where you want one end of the wall.

Drag the mouse to where you want the other end of the wall.

Hold down the [Shift] key while dragging if you want to force a vertical or horizontal line.

Release the mouse button.

door tool

The door tool lets you place a door in an existing wall.

creating a door:

Click and hold down the left mouse button anywhere within the wall.

Drag the mouse to the desired door position.

Release the mouse button.

Click the right mouse button on the door to change its type or other characteristics. Refer to **EDITING ITEMS** for more information.

window tool

The window tool lets you place a window in an existing wall.

creating a window:

Click and hold down the left mouse button anywhere within the wall.

Drag the mouse to the desired window position.

Release the mouse button.

Click the right mouse button on the window if you want to change its type or other characteristics. Refer to **EDITING ITEMS** for more information.

furniture tool

Use this tool to add furniture items to your drawing. The **Furnishings Dialog**, is a "floating" menu with a "dropdown" list of room types and a scrollable list of furniture items. As with any windows dialog box, the **Furnishings Dialog** may be dragged around the screen or minimized to an icon but it cannot be closed. Select a room name by clicking the dropdown button and then clicking the room

name from the list. When you select a room name, the contents of the furniture list changes. Select the desired furniture item by clicking on it in the list. Notice that when you click in the furniture list the furniture tool becomes automatically selected. To place the item in your drawing, simply click and release the left mouse at the desired location in the workspace.

room tool

Use the room tool to quickly draw a rectangular room of four walls and a floor. Also read the description of the **Selector Tool** on resizing a floor.

creating a room

Click and hold down the left mouse button in the workspace where you want one corner of the room.

Drag the mouse to where you want the other corner.

Release the mouse button.

dimension line tool

This tool allows you to draw dimension lines anywhere on your plan. Also read the description of the **Selector Tool** on resizing a dimension line.

adding a dimension line

Click and hold down the left mouse button in the workspace where you want one end of the line.

Drag the mouse to where you want the other end.

Hold down the [Shift] key while dragging if you want to force a vertical or horizontal line.

Release the mouse button.

block tool

Use the block tool to define a three dimensional block in your drawing which will also appear when in 3D mode. For example, say you want to indicate kitchen cabinets in your floorplan -- the block tool will accomplish this for you.

creating a block

Click and hold down the left mouse button in the workspace where you want one corner of the block.

Drag the mouse to where you want the opposite corner.

Release the mouse button.

text tool

Use the text tool to include lines of text in your drawing.

adding a text line

Click the left mouse where you want the text to begin.

Type in the text.

Press the [Enter] key to end.

measure tool

Use the measure tool to determine the width, length, and square footage of any area in your drawing.

to measure an area:

Click and hold down the left mouse button in the workspace where you want one corner of the area to measure.

Drag the mouse to where you want the opposite corner. The measurements are displayed in the info. bar as you drag the mouse.

Release the mouse button.

viewer tool

Use the viewer tool to indicate the room which is to have the highest display priority for 3D mode. If your floorplan consists of several rooms with many furniture items, it is possible that not all furniture items will be included in the 3D rendering because of memory limitations. This tool informs the 3D renderer that the furniture items in the selected room are to be loaded first.

setting the viewer position:

To use, simply click the left mouse anywhere within the desired room. Note that "room" refers to a room created with the Room Tool.

3D tool

Click the 3D tool button to enter 3D mode. See the **3D VIRTUAL REALITY** section for more information. To exit 3D mode and return to your 2D plan, press "Q" for Quit then "Y" for Yes.

selector tool

Use the selector tool when you want to move or delete one or more items from your drawing.

To select multiple items:

Click and hold down the left mouse button in the workspace where you want one corner of the selection rectangle.

Drag the mouse to where you want the opposite corner.

Release the mouse button. All items which are completely within the rectangle you made above will now be selected.

To move selected items:

Click and hold down the left mouse button inside the selection rectangle determined in the steps above.

Drag the mouse to move the rectangle to a new area.

Release the mouse button. The selection rectangle and all items within it will redisplay at that new location.

To delete selected items:

Select **Edit** from the main menu then select **Delete Selected** from the pulldown menu.

A dialog will popup asking you to confirm the deletion.
Click **Yes** to proceed with deleting or click **No** to cancel.

To move endpoints of walls or dimension lines:
Click and hold down the left mouse near an end of these elements.
Drag the mouse to move the endpoint.
Release the mouse button.

To resize a floor:
Click and hold down the left mouse in the lower-right corner of a floor item.
Drag the mouse to resize the floor.
Release the mouse button.

EDITING ITEMS

popup edit dialogs

Each type of item in your drawing has its own unique edit-dialog box which can be called up by clicking the right mouse button on the item.

To change the properties of any item in your drawing:
Move the mouse cursor over the item. If the item is a floor, move the cursor to the lower-right corner of the floor.
Click and release the right mouse button.
The edit-dialog box for that item will popup.
Enter or change the information requested in the dialog and click OK to accept the information or click CANCEL to exit the dialog with no changes made.

setting colors

Most edit dialogs include a COLOR button. Clicking the COLOR button will popup a standard Windows color-selection dialog box where you can choose a color. Click the OK button after picking the color of your choice.

Check the "2D Display" check box if you want the chosen color to apply to the 2D color of the item. Check the "3D Display" check box if you want the chosen color to apply to the 3D color of the item.

Check the "all items of this type" to set all items of the selected type in the drawing to the chosen color.

Check "save as default" to save the chosen color as the default color for that type of item.

MENU OPTIONS

This section describes the use of the menu options and their sub-menus.

FILE MENU

NEW

Erase the current floorplan, if any, and clear the screen. If you were working on a roomplan when this option is selected, then you will first be asked if you want to save that roomplan.

OPEN

Read in a roomplan file from disk and display it. If you were working on a roomplan when this option is selected, then you will first be asked if you want to save that roomplan. A list dialog box will display with the names of all roomplan files that are on the disk. Scroll through the list and select the desired file to open and then click the OK button to continue or click the CANCEL button to exit without opening a new file.

SAVE

Write the current roomplan to disk with the file name indicated in the title bar. If there is no filename in the title bar, then the SAVE AS option described below is called automatically.

SAVE AS

Write the current roomplan to disk with a file name you provide. A dialog box will display. Type in a file name and click the OK button to save the file or click the CANCEL button to exit without saving the file.

PRINT

Print the current roomplan.

exit

Exit the 3D-Roomplanner program. If you were working on a roomplan when this option is selected, then you will first be asked if you want to save the plan.

EDIT MENU

delete selected

Removes all items within the current selection box.

add-item menu

Offers an alternative means of choosing a tool. See **THE TOOLS** section.

SETTINGS MENU

colors

Change the default colors of the workspace, text, and rulers.

scale

Set or change the "inches to feet" scale.

3D VIRTUAL REALITY

To enter 3D mode:

Optionally set the initial viewer location. See **Viewer Tools**

Click the 3D Tool button (the button with the 3D glasses).

Moving Around in 3D

Use the mouse (preferred) or keyboard to move around in the virtual reality world. Depending on the speed of your computer, you may want to adjust the

speed of movement. See the **3D Menu Options** section later in this guide on how to adjust the speed.

To rotate your head left/right

Move the mouse left and right or press the left/right arrow keys.

To move forward/back

Move the mouse forward and back or press the up/down arrow keys.

To tilt your head forward/back

Hold down the left mouse button while moving the mouse forward/back or press the [PgUp] and [PgDn] keys.

To walk sideways

Hold down the left mouse button while moving the mouse left/right or hold down the [Ctrl] key while pressing the left/right arrow keys.

To raise/lower your altitude

Hold down the right mouse while moving the mouse forward/back or hold down the [Ctrl] key while pressing the [PgUp]/[PgDn] keys.

3D Menu Options

Press the "M" to display a list of options. Select an option by pressing the uppercase letter of the option or press the [Esc] key to cancel the menu. The available options are described below.

Ambient light

Adjusts the amount of brightness. The default value is 75. Entering a smaller value decreases the brightness and a higher value increases the brightness.

Speed

The movement step size. The default "movement" step value is 2 (feet) and the default "angle" step size is 0.5 degrees. These defaults are based on an 80386 machine running at 33 MHz. If you have a slower machine, experiment with increasing the Speed value, and decreasing the value if you have a faster machine.

List room names

Displays a list of the room names. When you press any key, if there are more names than will fit in the window, then those names will be displayed. When there are no more names to display, then the list is exited.

Goto room

You will be prompted to enter the name of the room to go to.

save Pcx file

Saves the image currently on the screen in the popular PCX format. You will be prompted to enter the filename for this file.

Other Useful Keys

Help..... press "H"
U-turn..... press "U"
Initial view..... press "I"
Quit program..... press "Q"

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