Section 3

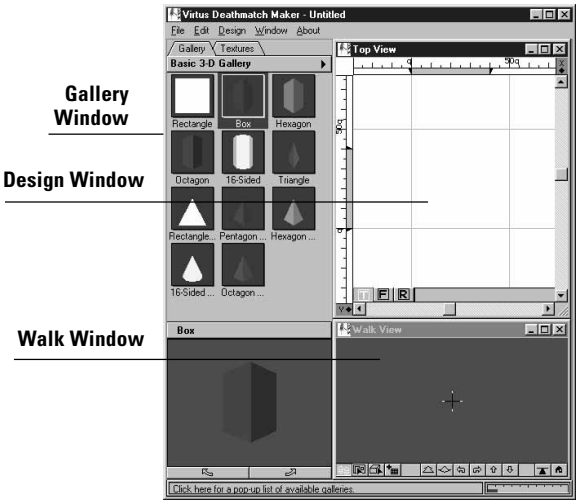
Deathmatch Maker Interface

WINDOWS, TOOLS PADS, AND TOOLS

In Deathmatch Maker, you'll use three windows and two Tools Pads as you create Quake levels: Gallery Window, Walk Window, Design Window, Design Window Tools Pad, and Surface Editor Tools Pad. Below are descriptions of these. Take a moment and open Deathmatch Maker so you can view its parts as we provide descriptions.

WINDOWS

When Deathmatch Maker opens, you'll see three windows. At the left, the Gallery Window displays the galleries used in building levels. At the top-right, the Design Window displays the Top View, one of that window's three views in which you can edit some three-dimensional objects. (The other two Design Window's views are Front and Right.) Below the Design Window is the Walk Window, an empty window with a dark gray background. As you add objects to your level in the Design Window, the Walk Window will show you a three-dimensional drawing of them.



The Gallery Window is always active, and you can activate either the Design Window or the Walk Window. Activating a window means that you can select objects and press buttons for that window. You make a window active by clicking anywhere in or on it. An active window displays a highlighted title bar. If a window is not active, its buttons and tools are shaded and not selectable. If the Design Window is not active, the Design Window Tools Pad is not visible.

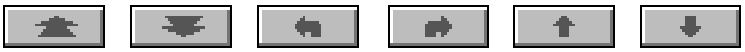
BUTTONS, NAVIGATION

Movement in the Walk Window is accomplished by using the standard Virtus navigation cursor techniques or the Navigation buttons along the bottom of the Walk Window.

NOVICE NAVIGATION BUTTONS

The Navigation buttons are always active when the Walk Window is active. Click on one of the Navigation buttons to move in that direction. If you hold down the mouse button while pointing to a navigation button, you move continuously.

From left to right along the bottom of the Walk Window, the Navigation buttons are Move Forward, Move Backward, Turn Left, Turn Right, Move Up, and Move Down.



Move Forward **Move Backward** **Turn Left** **Turn Right** **Rise Up** **Sink Down**

BUTTONS, WALK MODE

The Walk Mode buttons are displayed to the left and to the right of the Novice Navigation buttons along the bottom of the Walk Window. The Walk Mode buttons determine what happens when you click with the mouse cursor in the Walk Window.

The Walk Mode buttons from left to right are Walk, 3-D Select Surface, 3-D Select Object, Auto Texture, Level Observer, and Home. Only one Walk Mode button can be selected at any time.

WALK BUTTON

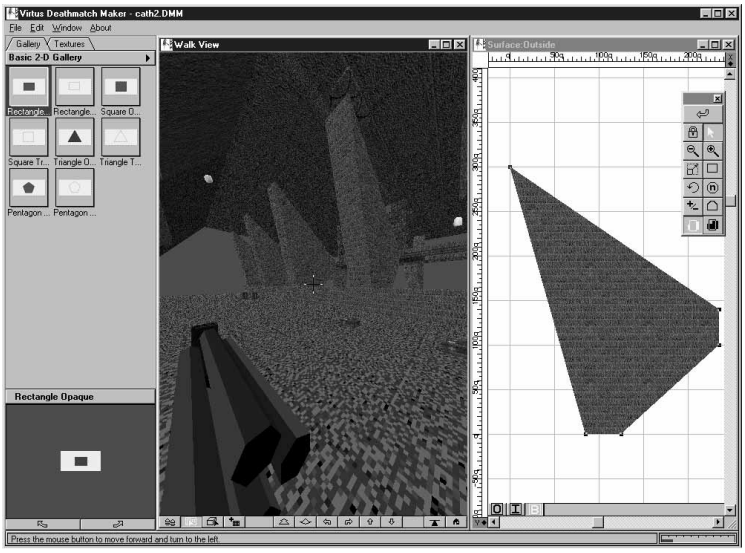
The Walk Button allows you to "walk through" the Walk Window by positioning the cursor around the cross hair.

3-D SURFACE SELECTOR BUTTON

The 3-D Surface Selector Button allows you to quickly choose a surface in the Walk Window to edit; you can change the surface's texture or add surface features such as door or window openings.

3-D SELECT OBJECT BUTTON

The 3-D Select Object Button allows you to select an object in the Walk Window and have it highlighted and centered so that you can edit it in the Design Window. This is extremely useful when you are working on a complex design and cannot select the correct object in the Design



After selecting the 3-D Surface Selector Button and clicking on a surface, it is displayed in the Surface Editor. Now, the texture of the surface can be changed or added.

Window because another object is blocking it. (Another way around this is to change views, select the object, and return to the Top View to move or edit the object.)

> ***Note:*** *If you use either the Select Surface Button, Select Object Button, or the Auto Texture Button, you need to select the Walk Button to enable navigation (walking) again.*

AUTO TEXTURE BUTTON

With the Auto Texture Button, you can apply a selected texture to any surface you click on.

LEVEL OBSERVER BUTTON

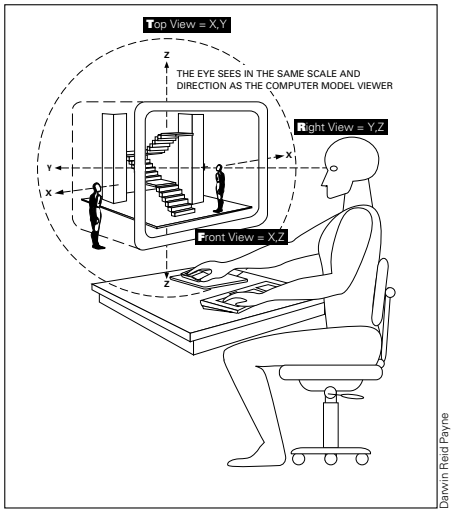
With the Level Observer Button, you orient the Observer's level of sight in the Walk Window, making it level if it has been altered by the Shift key while you were navigating.

HOME BUTTON

Home Button allows you to return your position in the virtual environment to the 0,0,52.5 Quake units coordinate (at about eye level).

COORDINATES

Coordinates pinpoint the location of objects on your screen. In the Top View of Deathmatch Maker, X represents the horizontal units of measure on the screen (from left to right). Y represents the vertical units (from bottom to top). When you switch to the Front View, X still represents the horizontal units of measure and Z represents the vertical units. Finally, when you switch to the Right View, Y represents the horizontal units of measure and Z represents the vertical units.



Darwin Reid Payne

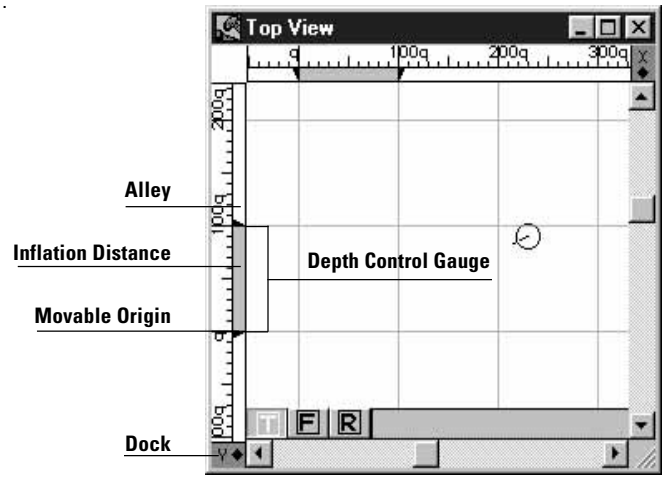
For example, coordinates -50,200 in the Top View translates to -50 Quake units on the X axis and 200 Quake units on the Y axis. In the Front View, you'll see that -50,200 again translates to -50 Quake units on the X axis, with 200 Quake units represented on the Z axis. And in the Right View, -50,200 translates to -50 Quake units on the Y axis, with 200 Quake units represented on the Z axis.

DEPTH CONTROL GAUGES

A Depth Control Gauge appears on each ruler in the Design Window and on the ruler in the Depth Window. Depth Control gauges determine the inflation distance and position of objects. Because there are three dimensions in Deathmatch Maker, there are three Depth Control gauges that determine inflation distance and position in the X, Y, and Z dimensions. By reading the letter in the Dock on each ruler, you can determine which dimension each Depth Control Gauge is associated with.

A Depth Control Gauge consists of two black half-arrowheads on each end of a gray bar. The half-arrowheads are called endpoints. The distance between the endpoints is the inflation distance, or the depth. The object position is determined by where the endpoints are in space. The endpoints determine where the object begins or ends.

Endpoints can be dragged to a new location, thus stretching or compressing the gray bar, or the entire Depth Control Gauge can be moved by dragging the gray bar.



HANDLES

In Deathmatch Maker, one of four types of handles appears when you click on an object. The specific type of handle gives you information about how the selected object can be edited or manipulated. The handle types are:

Black Handles: Black handles can be manipulated in any direction to change the object's shape. When you're in the Top View, all objects from the Basic Shapes 3-D Gallery show black handles when the objects are selected (In the Front and Right views, white handles are shown).

Gray Handles: Grouped objects (two or more objects selected and joined with the Group command in the Design menu) show gray handles when selected. Grouped objects first must be ungrouped (with the Ungroup command in the Design menu) before these objects can be manipulated.

White Handles: A selected object showing white handles tells you that only the depth of the object can be manipulated. (You adjusted the depth of the rectangle while in the Front View by moving the top edge of the rectangle from 8 to 15 Quake units.)

Red Handles: Rigid objects have red handles indicated that they cannot be resized or rotated, and the Object Property class cannot be changed.

MEMORY INDICATOR

The memory indicator is to the right of the message bar, at the lower-right corner of the Deathmatch Maker Window. It contains a colored bar that shrinks and grows, displaying the amount of memory currently available to Deathmatch Maker. The longer the bar, the greater the amount of memory being used by Deathmatch Maker. If free memory is less than 25 percent, the meter turns red. To learn more about memory and memory management, please refer to your computer and operating system documentation.

OBSERVER

In the Design Window, the Observer is a circle with a line extending from its center; it represents where you're standing in the virtual world. The tip of the line (outside the circle) points in the direction in which you're looking while in your level's Walk Window. When you start Deathmatch Maker, the Observer is positioned at coordinate 0,0.

SURFACE EDITOR

The Surface Editor appears in the Design Window when a surface is selected. It allows you to edit the selected surface. Notice the O, I, and B buttons at the bottom-left of the view. These are Placement buttons. **O** is the outside surface, **I** is the inside surface, and **B** is both the inside and the outside surfaces. Select a button to determine which side of the surface the texture or surface feature is applied to.

Placement Buttons

SURFACE GALLERIES

When the Surface Editor is open, the Gallery Window changes to show the Basic 2-D Gallery, a collection of surface features. A surface feature, like an object, can be dragged from the gallery and dropped into the Surface Editor onto a selected surface. Once dropped, you can rotate a surface feature with the Rotate Object Tool and scale it with the Resize Object Tool. You can apply textures from the Texture Gallery to the surface.

TOOLS PAD, DESIGN WINDOW

When you open Deathmatch Maker, the Design Window Tools Pad displays the tools you use to edit objects. Below is a description of its tools and how they function.

ZOOM-OUT TOOL

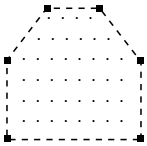
The Zoom-Out Tool decreases the apparent scale of the Design Window. Select the Zoom-Out Tool by clicking on it, point to the area that you want to zoom away from, and click to decrease the apparent scale of the Design Window by a factor of two.

ZOOM-IN TOOL

The Zoom-In Tool increases the apparent scale of the Design Window. Select the Zoom-In Tool by clicking on it, point to the area that you want to zoom toward, and click to double the apparent scale of the Design Window.

SELECT OBJECT TOOL

The Select Object Tool selects entire objects to be edited. Click on an object to select it. A selected object displays handles at its vertices. A vertex is where two object surfaces, or faces, meet. A selected object with handles and a dot-fill pattern is illustrated to the right.



A selected object displays handles (black squares) at its vertices.

LOCK OBJECT TOOL

The Lock Object Tool functions in the Design Window and in the Surface Editor. It allows you to lock objects or surface features so they cannot be edited. A locked object is visible in the Design Window but cannot be selected or changed until it is unlocked. To do so, select Unlock All from the Edit menu.

HIDE OBJECT TOOL

The Hide Object Tool functions in the Design Window and in the Surface Editor and allows you to hide objects or surface features in the Design Window, the Walk Window, or both. Hidden objects and surface features are not visible in the Design Window but are still a part of your level. They can be seen in the Walk Window. To make them visible again in the Design Window, choose Show All from the Edit menu.

RESIZE OBJECT TOOL

The Resize Object Tool scales an object about its center or about a specified anchor point. Objects can only be resized using this tool. Objects are resized uniformly along all three axes or non-uniformly along a single axis.

SKEW OBJECT TOOL

The Skew Object Tool distorts an object from its true symmetrical form, taking the object out of plumb. An object can be skewed on more than one axis but only from the view in which it was created.

CREATE RECTANGULAR OBJECT TOOL

The Create Rectangular Object Tool draws a rectangle.

CREATE IRREGULAR OBJECT TOOL

The Create Irregular Object Tool draws an irregular-shaped object, one segment at a time. This tool does not draw non-convex objects or surface features.

CONNECT SURFACES TOOL

The Connect Surfaces Tool functions in the Design Window and is used to connect two objects together at a common surface. A connection between surfaces is necessary to see any common surface features such as the transparent surface features representing doorways or windows. Without the connection, surface features between objects are not shared and holes do not penetrate both surfaces.

Note: *Surface features between objects are not shared, and holes do not penetrate both surfaces unless a connection is made with the Connect Surfaces Tool.*

The Connect surfaces Tool only works on objects that are not grouped. To connect grouped objects, you must precisely align the walls that are to be connected, ungroup the objects to be connected, and use the Connect Surfaces Tool. Be VERY careful to not move any of the objects to be connected. If you do, connecting them will be very difficult because earlier connections will be broken by the later connections. Hint: Use the Zoom-In Tool on the Tools Pad when creating grouped objects or while connecting grouped objects. It will help you see the working surfaces more closely.

ROTATE OBJECT TOOL

The Rotate Object Tool is used to rotate an object. This tool works in any view (Top, Front, and Right), allowing rotation around more than one axis.

SURFACE EDITOR TOOL

When you press the 3-D Surface Selector Button and select a surface to edit in Deathmatch Maker's Design Window, the Surface Editor appears and the Surface Editor Tools Pad replaces the Design Window Tools Pad. (Notice the O, I, and B buttons at the bottom-left of the Walk Window. These are Placement buttons. O is the outside surface, I is the inside surface, and B is both the inside and the outside surfaces.) The selected button determines where the texture or surface feature is applied to the surface.

TOOLS PAD, SURFACE EDITOR

The Surface Editor Tools Pad displays the tools you use to edit surfaces of objects. The Surface Editor Tools Pad has many of the same tools as the Design Window Tools Pad and a few others. The tools exclusive to the Surface Editor are the Return Button, Add/Remove Handle Tool, and Opacity Modifier Tools.

RETURN BUTTON

The Return Button closes the Surface Editor and returns you to the Design Window.

ADD/REMOVE HANDLE TOOL

The Add/Remove Handle Tool lets you add a new handle to a surface feature or remove an existing handle. A handle represents the vertex (the meeting of two object surfaces.

OPACITY MODIFIER TOOLS

The Opacity Modifier Tools can be used to change the opacity of an object to opaque or transparent. The Make Opaque Button is on the left; the Make Transparent Button is on the right.

WINDOW, DESIGN

The Design Window offers two ways to see your 3-D objects:

1. Choosing a **T**op, **F**ront, or **R**ight view allows you to edit 3-D objects (ammo, weapons, and so forth).

2. Activating the Surface Editor Tool allows you to edit 2-D surfaces (windows, doors, and so forth). The window's title bar includes the word Surface:, and a 2-D gallery appears on your screen.

WINDOW, WALK

The Walk Window displays a three-dimensional drawing of the two-dimensional items that you place in the Design Window. In this window, you can navigate through (walk through) your model.

WINDOW, GALLERY

Displays a collection of either two- or three-dimensional objects or textures, depending on whether you've chosen to work with a 2-D gallery or a 3-D gallery. Any object in a gallery can be dragged and dropped into the Design Window and edited.

When you right-click on an object in the Design Window, the Object Properties Dialog appears. Under the Object Tab is an entry called Class. When you scroll this list, you will see all the Quake classes.

MENUS

Menus allow you to display Deathmatch Maker commands. Some are typical Windows 95 menus you are familiar with and others are unique to Deathmatch Maker. This chapter lists them and describes them for you.

FILE MENU

COMMAND	PURPOSE
New	creates and opens a new Deathmatch Maker file.
Open…	displays the Open dialog from which you can select a file to open.
Close	closes the current file. If you made any changes to the file since the last time you saved it, you are prompted to save the changes before the file is closed.
Save	saves the current file under the currently used name or prompts you for a name if untitled.
Save As…	opens the Save As… dialog, which allows you to save the current file under a new name.
World Info	allows you to set the title of the level, its type, the CD track to play for this level, and the light intensity for the level.
Quake Import	allows you to import Quake .map files (*.map).
Quake Export	allows export of .map files and creation of .bsp file with lighting and visibility so your level can be played in Quake.
Exit	exits Deathmatch Maker. If a file is open and changes were made since the last time it was saved, you are prompted to save any changes before exiting.

EDIT MENU

COMMAND	PURPOSE
Undo	undoes the last operation performed in the Design Window.
Cut	moves any selected objects to the Clipboard. Cut objects can be pasted with the Paste command.
Copy	copies any selected objects to the Clipboard, leaving the original in place. (Note that Cut moves objects to the Clipboard and does not leave the original in place.) Copied objects can be pasted with the Paste command.
Duplicate	makes an exact copy of any selected object or surface feature and places it on or near the original. Unlike the Cut and the Copy commands, Duplicate does not copy to the Clipboard.

Duplicate duplicates objects as well as object placement, scaling, and rotation. For example, you can create an object, duplicate that object, and position the second object on the right side of the original so that the objects appear to be touching. Then you can select Duplicate again and an identical third object, joined on the right side of the second object, will appear; you'll have a line of three objects spaced the same distance apart. The duplicate's position relative to the object that it duplicated is maintained as long as the original object remains selected. If you continue choosing Duplicate, the objects will continue duplicating to the right until you have a line of identical objects. This can be extremely helpful in creating objects such as staircases or fence posts.

Changes to Object Type are not duplicated. For example, if you create an object 100 Quake units tall and then duplicate it and increase the height of the duplication to 150 Quake units, subsequent duplications will have a height of 150 Quake units—they will not grow in height by increments of 50 Quake units.

Cool tip: *If you want to accomplish the effect of an incremental increase in size or shape, you must use the Resize Object Tool to adjust the size or shape of the first duplication and then duplicate it.*

The Duplicate command only duplicates manipulations to the entire object. It does not duplicate changes to part of an object.

Paste	copies the contents of the Clipboard into the level.
Delete	removes selected objects or surface features without placing them in the Clipboard. Selected objects can also be deleted by pressing the Delete key or the Backspace key. Delete removes objects completely, whereas Cut moves objects to the Clipboard from which they can be pasted back into the level. If you Delete or Cut something accidentally and need to reverse that action, immediately choose Undo under the Edit menu after the cutting or clearing operation.
Select All	selects all objects.
Unselect All	unselects objects or surface features (handles are removed). Another method of unselecting is clicking on the background in the Design Window or Surface Editor.
Hide Selected	hides selected objects and surface features. Hiding objects or surface features allows you to work on

	surface features without having to shuffle them. By default, hidden objects are hidden in the Design Window and surface features are hidden in the Surface Editor, but they remain visible in the Walk Window.
Show All	displays surface features hidden in the Design Window. The Ctrl key must be held down in conjunction with Show All to display them. If using the Ctrl key with this command, you must select the command from the menu; you cannot use the command key equivalent.
Lock Selected	locks selected objects in the Design Window and selected surface features in the Surface Editor. Locking objects or surface features prevents them from being edited. When an object or surface feature is locked, its polygonal outline is solid.
Unlock All	unlocks all locked objects and surface features locked with the Lock Object Tool or with the Lock Selected command to allow editing. You can also lock a layer, which locks all objects on that layer.
Preferences	The Preferences dialog allows you to set preferences for Deathmatch Maker. Each time you save a Deathmatch Maker level, any changes that you made to the Preference settings are saved with it. When you open the model again, its preferences are restored. Preferences includes three separate tab selections: Editor, Rendering, and Navigation. Each is described briefly below: Editor options allow you to change preferences common to the Design Window and Surface Editor. Navigation options allow you to change preferences related to navigating the Observer through the Walk Window and related to Walk Window features. Rendering options allow you to change preferences related to rendering in the Walk Window.

PREFERENCES, EDITOR OPTIONS

COMMAND	PURPOSE
Aids	
Show Ruler	if selected, displays rulers.
Show Grid	if selected, displays the background grid based on the ruler major tick marks.
Show Depth	if selected, displays the Depth Control gauges on the rulers.
Show Guides	if selected, displays Non-Reproducing Guidelines.
Show Origin	if selected, displays Movable Origin.
Snap to Grid	if selected, snaps objects and surface features to an invisible grid when they are created, moved, or edited. The grid is based on the ruler tick marks in the Design Window and Surface Editor. Handles of objects and surface features will "snap to" the grid when Snap to Grid is selected. If you zoom in or out, the ruler tick marks change, changing the invisible grids. For example, each tick mark represents one Quake unit, so Snap to Grid will snap objects to the nearest Quake unit. If Snap to Grid is not selected, the ability to create, edit, and move objects and surface features is constrained only by screen pixels. If an object, surface feature, or slice is created with Snap to Grid unselected and then edited or moved with Snap to Grid selected, the object or surface feature moves in increments of the invisible grid but doesn't actually snap to the grid. This makes it possible for handles to fall between the ruler tick marks, which can be frustrating when you try to align objects or surface features. However, if you move a handle rather than the whole object or surface feature, the handle will snap to the grid.
Object Class	if selected, displays object class in Design Window info bar when the cursor passes over it.

Color

Ruler	lets you specify ruler color.
Grid	lets you specify Grid color.
Depth	lets you specify Depth Control Gauge color.
Guide	lets you specify Non-Reproducing Guideline color.
Origin	lets you specify Movable Origin color.
Background	lets you specify background color. The background color is the color of the drawing area in the Design Window and Surface Editor.

PREFERENCES, RENDERING OPTIONS

COMMAND	PURPOSE
Shading	
Shaded	displays objects with lighting effects.
Unshaded	displays object colors with no lighting effects.
White	displays objects with no color (white color fill) and no lighting effects.
Drawing	
Fill & Frame	displays both the color fill and wire frame of objects.
Fill	displays only the color fill of objects with no wire frame.
Frame	displays only the wire frame of objects.
Flash Graphics	turns on Virtus Corporation drawing routines and uses those routines instead of the standard Microsoft Windows drawing routines. Flash Graphics substantially speeds up the WalkThrough Pro application. Flash Graphics is turned on by default; however, some video boards are not compatible with Flash Graphics. The Deathmatch Maker application checks for compatibility with your system when you install, and if a conflict is detected, Flash Graphics is turned off.

Note: *If you turn off the check box and are not experiencing difficulties with the graphics, you will get errors when using textures and when viewing 3-D geometries in the Walk Window.*

Options

Dithering	is a technique that allows more colors, thus more color-accurate renderings. Dithering is turned on by default. The disadvantage of dithering is that the screen appears more grainy.

PREFERENCES, NAVIGATION OPTIONS

COMMAND	PURPOSE
Aids	
Cross Hair	if selected, displays a cross hair in the Walk Window that is used as a reference point for direction and walk through speed.
Velocity Grid	if selected, displays horizontal and vertical marks at increments relative to the cross hair where walk speed changes.
Collision Detect	if selected, the Observer can move through doors or transparent openings on surfaces only. When the Observer encounters a wall, it stops; a clicking sound confirms that the Observer ran into a wall.

DESIGN MENU

COMMAND	PURPOSE
Snap to Grid	snaps objects and surface features to an invisible grid when they are created, moved, or edited. The grid is based on the ruler tick marks in the Design Window and Surface Editor. Handles of objects and surface features "snap to" the grid when Snap to Grid is selected. If you zoom in or out, the ruler tick marks change, changing the invisible grids. For example, each tick mark represents one Quake unit, so Snap to Grid will snap objects to the nearest Quake unit. If Snap to Grid is not selected, the ability to create, edit, and move objects and surface features is constrained only by screen pixels. If an object or surface feature is created with Snap to Grid unselected and then edited or moved with Snap to Grid selected, the object or surface feature moves in increments of the invisible grid but doesn't actually snap to the grid. This makes it possible for handles to fall between the ruler tick marks, which can be frustrating when you try to align objects or surface features. However, if you move a handle rather than the whole object or surface feature, the handle will snap to the grid. Snap to Grid can be selected and unselected under Preferences Editor dialog and the Design menu.

Zoom-In	increases the apparent scale and size of objects in the view by a factor of two. With each zoom in, the minor tick marks on the rulers represent a smaller unit of measurement. There is a limit to the range of the Zoom-In command; when you reach the limit, selecting Zoom-In will have no effect. Zooming in can also be accomplished by clicking on the Zoom-In tool. Zoom-Out reverses the effect of Zoom-In.
Zoom-Out	reduces the apparent scale and size of objects in the view by half. With each zoom-out, the minor tick marks on the rulers represent a larger unit of measurement. There is a limit to the range of the Zoom-Out command; when you reach the limit, selecting Zoom-Out will have no effect. Zooming out can also be accomplished by clicking the Zoom-Out Tool. Zoom-In reverses the effect of Zoom-Out.
New Layer	lets you add a new layer to the Layer List. If you select New Layer, a dialog appears with a text box in which you can type the new layer name. This name will then appear in the Layers Window and become the active layer.
Delete Layer	deletes the selected layer in the Layer List and all the objects that reside in that layer. If you select Delete Layer, you are prompted to verify the deletion
Group	groups all selected objects, treating them as a single object. A grouped object can be moved, copied, and rotated. It can only be scaled using the Scale Object tool. It is important to group gallery items with the Group command before copying them to a gallery.
Ungroup	ungroups selected objects that were grouped with the Group command. Once you ungroup an object, all the objects that make up the group remain selected until you click somewhere else inside the view. This means that if you want to change the texture of a grouped object, you can ungroup it, select a new texture, and group the objects again. This only works if you want all objects within the group to be the same texture. It's a good idea to group staircases before moving them. It is possible to have groups within other groups. If you ungroup an object but cannot edit it, try ungrouping again.

Note: *The Design menu is available only when a Design Window is active. If the Surface Editor or Walk Window is active, the Design menu disappears.*

WINDOW MENU

COMMAND	PURPOSE
Design	displays or hides the Design Window.
Walk	displays or hides the Walk Window.
Tools	displays or hides the Tools Pad.
Layers	displays or hides the Layers Window.
Tile Horizontal	positions the active window on top. The Gallery Window is positioned normally, that is, to the left of the other windows.
Tile Vertical	positions the active window on the left. The Gallery Window is positioned normally, that is, to the left of the other windows.

QUAKE OBJECT PROPERTIES DIALOG

The Quake Object Properties Dialog allows you choose settings that affect how your newly created level will look when exported to Quake. The settings do not affect the appearance of your level, objects, or textures in the Design Window or the Walk Window.

To view the Quake Object Properties Dialog as you read this section, drag and drop Square from the Gallery Window to the Design Window. Right-click the square to bring up the dialog.

OBJECT TAB

DIALOG BOX ELEMENT	DESCRIPTION/ PURPOSE
Class	A drop-down list of Quake object types. Choose from this list to assign a class to an object. For some classes, option buttons appear to the right of the Class drop-down list. Use these to set specific options for that class.
Object Name	The name of this object. All named objects must be targeted and all targets need a name to reference.
Comment	A comment to be added to the .map file for readability. Advanced users can read the .map file and learn from the .map specs.
Levels	Places the object into the selected skill levels. For instance, if you have an object marked as beginner level only, it appears only in that skill level.

ATTRIBUTES TAB

DIALOG BOX ELEMENT	DESCRIPTION/ PURPOSE
Angle	Angle in degrees an object is facing or moving in Quake. Choosing Up or Down, if available, will move the object in that selected direction. If Pitch, Yaw, and Roll are available and selected, you are specifying a three-dimensional point at which the object is pointing.
Speed	Speed an object moves.
Wait	Number of seconds of wait time between completion of an event and its restart or return. For instance, you can set the elapsed time before a button resets or a lift returns.
Lip	Object thickness. For instance, the amount an object intrudes into space or is flush with nearby objects, for instance, a lift or a room's floor.
Brightness	Intensity of a light.
Style	A drop-down list that allows you to choose from several types of a selected class. For example, you can choose a Large Yellow Flame in the Object Class, and you can define its behavior by selecting from Flicker 1 to Slow Pulse as its style.
Health	How much damage an object takes before triggering. For instance, some buttons can be triggered by shots from Quake players. You can specify the amount of health damage the button requires before it triggers a targeted object.
Height	Distance an object moves up or down.
Delay	Elapsed time from triggering of an action to when it starts.
Light Starts On, or Light Starts Off	State of light in Quake when a player first enters a level.

INTERACTION TAB

DIALOG BOX ELEMENT	DESCRIPTION/ PURPOSE
Target	An object that activates when this object is triggered. For instance, if you have an object whose Object Name is door1, then you can create a button that targets the door. Enter *door1* in the Target box.
Kill	Kill is the same as target except that it works only once.
Damage	Amount of damage an object causes Quake players. This is reflected by a decrease in the player's health. Example: If a door's Damage is set to 100, it will kill if it shuts on a player.
Sound	A drop-down list of sounds that can be specified and linked to this object. Example: The sound a door makes when it opens.
Message	Displayed text message triggered by this object. Example: Trigger posts a message, "This door opens elsewhere."
Map	Name of another .bsp file. Used only for the Trigger Change Level object. This enables you to specify which level Quake players move to when they exit the current level.

ADVANCED TAB

DIALOG BOX ELEMENT	DESCRIPTION/ PURPOSE
Geometry Options	*Hollow Geometry: Expand In* Walls in Deathmatch Maker are infinitely thin. For Quake, walls need to have thickness. Most of the time, wall thickness is set automatically during the Quake export. If you test your level (made in Deathmatch Maker) in Quake and the player falls through floors and goes through walls, you need to use the Hollow Geometry: Expand In or Hollow Geometry: Expand Out tool on that room. This hollowing in does not appear in the Design View but will appear in Quake after export. *Hollow Geometry: Expand Out* Walls in Deathmatch Maker are infinitely thin. For Quake, walls need to have thickness. Most of the time,

wall thickness occurs automatically during the Quake export. If you test your level (made in Deathmatch Maker) in Quake and the player falls through floors and goes through walls, you need to use the Hollow Geometry: Expand In or Hollow Geometry: Expand Out tool on that room. This hollowing out does not appear the Design View but will appear in Quake after export.

Solid Geometry is a solid shape in geometry.

Custom Object has geometry

If you are creating a custom object and select Custom in the Class drop-down list under the Quake Object Properties Dialog tab, you need to decide if the object needs geometry shapes.