Midian Warrior-Sword and Shield

This Midian Warrior has seen many battles and is very experienced in crushing enemies with the broad sword. Be careful of their speed and ability to defend themselves.

Midian Warrior-Halberd

This warrior can hurl three halberds at a great distance before they rush to engage their foe in melee with a sword and shield. It has been said that only the strongest of warriors can pull the halberd from of their body and use it against the Midian Warrior.

Midian Warrior-Magic User

This Midian Warrior can cast three fireball spells at a rapid pace before they unsheathe their swords and charge making even the strongest of enemies turn and run. Avoid his fireball attack by using the resist fire potion, making his fire attack worthless.

Cirae-Argoth

?

One of the most powerful of the Nether-Reaches Order of Witches. A master of death magic, she is able to raise the dead, channel the forces of fire, and summon minions at will. Illwhyrin's sister is very volatile and will stop at nothing to destroy her most hated foe, who murdered her sister. She will not be happy until she punishes you for the crimes you committed and bestows the hatred of her world upon you.

Labyrinth Creator/Editor

"Never before has evil come so close. . . . "

:Sir Steve Newton . 28 February 1996

The following pages will instruct you on how to edit and create your own vile and menacing levels of evil. Be warned that learning to create such hideous labyrinths takes time, but much can stem from a level oozing with the glory of malevolence. Feel free to share your levels with other Witchaven 2 owners, as you become a master dungeon creator.

LEVEL EDITOR OVERVIEW

The following instructions will teach you how to edit existing Witchaven 2 maps or, create new ones. Copy the file named **BUILD.EXE** from the CD-Rom into your Witchaven 2 directory (for example: **COPY D:\BUILD\BUILD.EXE C:\CAPSTONE\WHAVEN2** [ENTER]). To edit a preexisting map, go to the Witchaven 2 directory (type: **CD\CAPSTONE\WHAVEN2\BUILD**). Then type **BUILD [level name]** [ENTER] , or to create a new map, type **BUILD** [ENTER] .

There are 2 modes in the BUILD editor, the **3D EDIT MODE** and the **2D EDIT MODE**.

The **3D EDIT MODE** is similar to the Witchaven 2 play mode, except with a mouse cursor. The **3D** mode allows you to change the attributes of walls, sectors and sprites. For a further explanation, refer to the **3D EDIT MODE** section.

The **2D EDIT MODE** functions like a CAD program, enabling you to create walls and sectors inside the map. You will start with an overhead view of the map, enabling you to place doors, monsters, items and weapons.

To switch between the two **EDIT MODES**, press [ENTER] on the numeric keypad.

To *Load, Save* or *Quit* from the **Level Editor,** press [ESC] in the **2D MODE**, then press the appropriate key.

SAVING MAPS
If you wish to add a new map to the 15 that already exist, you must save it as *LEVEL##*. You may rename any of the 15 levels, just make sure that level15.map is the last number in the sequence.

PLAYING NEW MAPS
If you wish to play or test a map you just created, save it as: LEVEL##. The numbers must be greater than 15. When you want to play it, just type in **WH2_LEVEL##** (_ signifies a space, # signifies the number). **Remember** *that you must also refer to the* **2D & 3D EDIT MODE** *sections to fully understand how to create a map.*

2D EDIT MODE

The 2D mode is used to create or edit walls, floors and ceilings inside a level. These sectors can be used to create pits, stairs, doors, or any imaginable item that is raised or lowered from a ceiling, wall or floor. **Remember** *that you must also refer to the* **3D EDIT MODE** *section to fully understand how to create a map.*

MOVEMENT CONTROLS

MOUSE: This allows you to move around the **ORANGE CROSS HAIRS**, enabling you to create walls and sectors and to insert tags.

LMB (Left Mouse Button)
This button allows you to move sector points, insert points and move sprites. Hold down the **LMB** to move any object and release the button to drop the sector point or object.

RMB (Right Mouse Button)
This button allows you to move the **3D** map arrow. The white arrow signifies the location and direction you will be placed inside the **3D EDIT MODE** (when the NUMERIC [ENTER] is pressed). To move around freely on the map editor area, hold down the **RMB** while moving the cross hair.

MOVEMENT: The ARROW KEYS move the white arrow on the map in the appropriate direction.

ZOOM: To zoom in and out in the **2D** mode, press [A] or [Z] keys.

GRID RESOLUTION: To change the Grid Resolution, press [G]. It can be changed into 16 different sizes. Grid points are places where horizontal and vertical lines meet. These grid points are used to place points evenly. The largest grid size is approximately equal to a ten square foot area.

BLINKING LINE: A blinking line is the closest line to the cross hairs. This is used to signify that it is active and will receive a point or can be made into a circle.

CREATING WALLS AND SECTORS

The following section will describe how to create red and white sectors. A red sector is best described as an area consisting of red lines, that can be raised or lowered inside **3D** mode. A white sector is best described as a white lined area, acting as solid walls that cannot be passed through. When building a map, remember that the outer walls of the map must always be white, confining the player to that map.

WHITE SECTORS: The `SPACE` places a point on the grid block closest to the cross hair. A white line will be made following the cross hair until another point is made by pressing `SPACE`. A sector can only be finished by connecting it to another point or the original point, but only after two points have been made. You may split another sector by connecting two points within that sector. The rules for building white sectors are as follow:

1)   YOU MUST CREATE FROM THE OUTSIDE IN.
2)   You must create a room first, then stairs, pillars and doors etc.
3)   You cannot place a red sector around a pillar that is already inside a room. Create the red sector first, then create the white sector pillar inside the red sector.

CHANGING A WHITE SECTOR TO A RED SECTOR: A white sector can be changed into a red sector by placing the cross hair inside the desired sector and pressing `ALT` `S`. The sector will change to a red sector if it is not the outermost white sector on the map.

DELETING WHITE SECTORS: Large complex areas of white sectors can be deleted by placing the cross hairs inside the desired sector to be deleted and pressing `CTRL` `DEL`. Be very careful, doing so can (at times) delete sectors attached and/or inside the sector you are deleting.

RED SECTORS: After a white sector has been made, you can turn it into a red sector by placing the cross hair inside the desired sector and pressing `ALT` `S`. Red sectors are different than white sectors since they can be raised and lowered inside the 3D mode. The rules for building red sectors are as follow:

1)   YOU MUST CREATE FROM THE OUTSIDE IN.
2)   The outer wall must be a white sector.
3)   Red sectors are automatically made whenever you join two existing white sectors with a new line.

CHANGING A RED SECTOR TO A WHITE SECTOR: Any red sector can be made into a white sector by placing the cross hairs inside the desired sector and pressing `CTRL` `DEL`.

BLOCKING RED SECTORS: You may make any wall of a red sector blocking. To do so, make sure the desired line is blinking and press `B`. The color of the line will change from red to purple. This will not allow a person or a character to walk pass this line. Whole sectors can become blocking by repeating this procedure. You may reverse a line to non-blocking by repeating the process again.

JOINING SECTORS: You may combine two sectors of the same color as long as they are touching. To do so, place the cross hair inside the desired sector you wish to keep and press `J`. Then place the cross hair inside the other sector and press `J` as well. The attributes (such as the wall tile, height and any tags) of the first sector will be transposed into the second one. Press `ESC` twice at any time to eliminate the joining feature if need be. Whole red sectors can be deleted in the same fashion, just remember that the first sector will copy its attributes into the second sector.

CREATING A POINT ON A LINE: To create a point on an existing line press `INS`. A point will be placed on the blinking line on the closest grid point. A point can be placed, then moved, by holding down the **LMB** and releasing it on the desired location. The rules for creating a point are as follow:

1)   You can only create a point on a blinking line.
2)   Points will only be placed on the closest grid point.
3)   All points stick to the closest grid point.
4)   Points are deleted when they meet.

DELETING A POINT: A point can be deleted by picking it up (holding the **LMB**) and moving it over another point and releasing the **LMB**. If you are making a white sector, use `←` to delete the last point already plotted before the sector is finished. You may delete lines, walls and sectors by doing this continuously.

GROUP DRAG: By holding down the **RIGHT** `SHIFT`, a purple box will move with the cross hair. Use the box to highlight the points you wish to group drag for easy movement. The points collected inside a group drag will be blinking, and can all be moved by moving any one of the points. Once the group drag move is finished, press **RIGHT** `SHIFT` again to deactivate.

SPLITTING SECTORS: Sectors can be split by connecting to points between the two sectors. If there are no points, place the cross hair over the desired line of the sector and press INS. Do the same for the other sector, then place the cross hair on one of the points, press SPACE. Move the cross hair to the other point and press SPACE to split the sector.

CREATING CIRCLES: To create a circle, place the cross hair near the desired wall so that it blinks. Press C and a small + will appear along with yellow points representing the circle. You may add or delete points with the NUM + or -. You may move the + with the cross hair. Once the desired size, shape and amount of points are correct, press SPACE to finish the half circle. Repeat this process to the other side of the wall to make a complete circle. You may cancel the creation of a circle by pressing C again. To create a separate circle sector, follow the steps below:
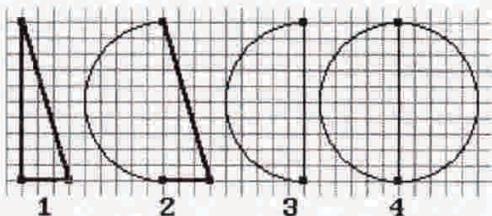
1)   Create a triangle.
2)   Place the cross hair near the long perpendicular line so that it blinks and press C, then adjust the circle and press SPACE.
3)   Pick up and drag the farthest point and drop it to make a half circle.
4)   Make another half circle with the last long line to complete the full circle.

SPRITES

Sprites are one tile items that can be in the form of creatures, pull chains, potions, items and almost any tile available inside the art file. You may do the following functions to sprites in 2D mode as long as the cross hair is directly on top of the sprite or the area you wish to place the sprite. Refer to PLACING SPRITES IN 3D MODE for more detail.

S   Placing a sprite.
DEL   Deleting a sprite.
< >   Rotating a sprite.
B   Repetitively to make it blocking or non-blocking. Blue is non-blocking, purple is blocking.

ALT T   Place a low tag on a sprite (only certain sprites can be tagged).
ALT H   Place a high tag on a sprite (only certain sprites can be tagged).

Once a sprite is placed, the stick pointing out from the circle indicates the sprite's direction. The direction of a sprite is important when placing creatures or pull chains since it should always face the player, especially when they are flush against the wall.

TAGS

Tags are numbers assigned to red sectors and/or sprites that make the tagged red sector perform a specific task such as open door, lower/raise a wall, trigger a trap, etc. There are two types of tags each described below, low tags and high tags. A tagged sector or sprite will have numbers in the middle of the red sector or on the sprite. The first number represents the high tag, the second is the low tag.

LOW TAGS: A low tag forces the red sector or sprite to perform a specific function. To assign a tag, place the cross hair inside the desired red sector and press T. Enter one of the numbers below to assign a function to the red sector you are tagging. Moving sectors will operate only once when triggered and will stay in the final position.

Moving Red Sector Low Tags
1101-1199 Lower Floor any amount 11## units down.
1201-1299 Raise Floor any amount 12## units up.
1301-1399 Lower Ceiling any amount 13## units down.
1401-1499 Raise Ceiling any amount 14## units up.

Complex Doors With Keys
To create a door, low tag a red sector with a 6,7 or 8 according to the type of door you desire. If you wish to make it a locked door, follow the door number with a 1,2,3 or 4 according to the desired key color. A splitting door locked with a black key will be low tagged 82. A door tagged with a single digit number (6-8) will function every time a player presses SPACE unless it is locked or linked with a high tag (see HIGH TAGS for more info).

6 Raising Door	1 Brass Key	4 Ivory Key
7 Dropping Door	2 Black Key	
8 Splitting Door	3 Glass Key	

SPRITE TRAP LOW TAGS: A low tag on certain sprites will make the sprite perform a specific task. To assign a low tag to a sprite, place the cross hair over the sprite and press ALT T. The following is a list of low tag traps for sprites and the specific tile numbers that can use a low tag.

Fireball	Tile# 1717	Low Tag 90
Shooting Arrows	Tile# 1957	Low Tag 91
Shooting Darts	Tile# 1957	Low Tag 92
Shooting Javelins	Tile# 1957	Low Tag 93
Shooting Pikes	Tile# 1957	Low Tag 94

Once a low tag trap is assigned to a sprite, make sure that the stick portion of the sprite is pointing in the direction you wish the projectile to travel. Please refer to the **3D MODE SPRITES** for more information on how to place a sprite.

ACTIVATING SECTORS: In order for any moving sector, trap or door to operate, it needs a switch to activate it. An activating sector performs the function of a pressure plate. It is always in the form of a red sector placed on the ground, with a low tag of one. It must also have a high tag corresponding to the same high tag number of the trap, door or moving sector. Please refer to the EXAMPLE.MAP for an example of activating sectors. The rules for creating an activating sector are as follows:

1)   The sector created must be a red sector on the floor in a place where the player will step on it for it to function.
2)   The activating sector must be low tagged with a 1 (one).
3)   The activating sector must have a high tag number (that you create) corresponding to the door, trap and/or moving sector.
4)   More than one activating sector can be placed for any item that it will activate and vice versa.
5)   An active sector will trigger the linked item every time it is stepped on. Items such as doors and traps will function every time the active sector is stepped on.

Please refer to the HIGH TAG section to understand how activating sectors work along with high tags.

ACTIVATING SPRITES: An activating sprite is a pull chain placed on a wall that can be pulled by the player (using the spacebar) to activate a sector, open a door and/or trap. The sprite being placed must be one of the two sprites that act as pull chains (tile number 370 and 539). Once the correct tile number is selected, place the cross hair over the sprite and press ALT T and enter 1 (one) for the low tag number pressing ENTER when finished. You must also give the

activating sprite a high tag number that is the same as the moving sector, trap and/or door high tag. Do this by placing the cross hair over the sprite and press ALT H and create a number from 1 to 999 that corresponds to the moving sector, trap and/or door. See HIGH TAGS for more information. The rules for placing an activating sprite are as follows:

1)   A sprite must be placed facing away from the wall, blocking, non rotating flush against a wall.
2)   The sprite must have a low tag of 1 and a high tag that corresponds with the item(s) it will activate.
3)   The activating sprite must be a tile numbered 370 or 539.
4)   Activating sprites can only be used once. A pull chain can never be pulled or used twice.

HIGH TAGS: A high tag is a number that you create that is identical to the activating sector and the item it will activate (door, trap, or moving sector). Think of a high tag as a link between the activating sector and the functioning item. The activating sector will trigger the link to activate a door, trap, or moving sector. You may have one floor trigger or pull chain activating many items. There is no limit to the number of items to which an activating sector and a high tag can be linked. You may also have many activating sectors or sprites linked to one item. The rules for using high tags are as follow:

1)   A door (low tags 6-8), once high tagged, can only be opened by an activating sector or pull chain. A door requiring a key cannot have a high tag.
2)   Remember that doors and traps will function every time an activating sector is stepped on or only once when a pull chain is used.
3)   More than one activating sector and/or pull chain can activate something and more than one trap, door and/or moving sector can be linked to a single high tag-activating sector or sprite.

RISING DOOR ROOM WITH TRAPS:

The following is an example of a room with a rising door (tag 1,6) that can only be opened by the active trigger sector in front of the door (tagged 1,1). A pull chain (High Tag 2, Low Tag 1) is on a pillar that triggers an arrow trap (High Tag 2, Low Tag 91) on both the North and South walls (note the direction of the sprite traps). To finish it off, as the player walks through the door, it will close automatically when they step on the sector that follows the door (tagged 1,1). This room is called *EXAMPLE.MAP* and can be viewed by loading it.
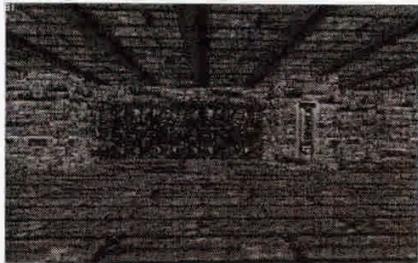
3D View   **2D Mode**
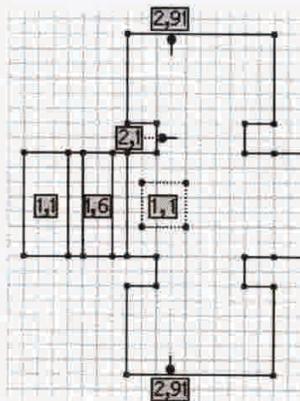
----------Red Sector Line
——————White Sector Line
· Point
High Tag
Low Tag
· Sprite

SWINGING DOORS:

Swinging doors are the hardest to make, but the most realistic. Use the following diagram and steps to make a single swinging door or double swinging door.

----------Red Sector Line
——————White Sector Line

#,# ← Low Tag #
└ High Tag #
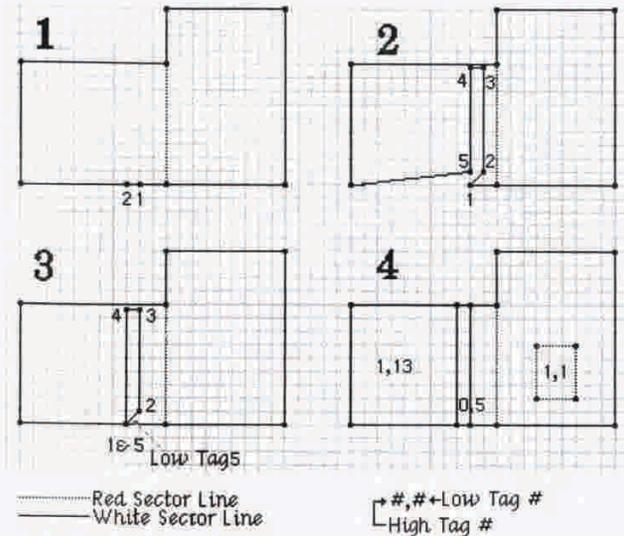
1)   Place two points on a white sector line.

2)   Drag Point#2 in front of Point#1 and keep inserting and placing three more points (in the shape of a door) on the same white line.

3)   Move Point#5 on top of Point#1 (these two points will not connect because they are white sector lines). Place the cross hair on the line between Point#2 and Point#1 & 5 so that the white line blinks. Place a low tag 5 on the blinking line by pressing [ALT] [T] and enter 5.

4)   Move Points 2, 3, and 4 so they are on the original white line. Place the cross hair on the sector after the door and low tag it 13 and high tag it 1. Create a small red sector before the door as the floor trigger. Low tag it 1 and high tag it 1.

WARPING SECTORS: There are two different types of warping sectors, sector-to-sector warps (inside the same map) and level-to-level warps (ending one level to start another).

SECTOR-TO-SECTOR WARPING

Sector-to-sector warping consists of two red sector squares (preferably one square in size of the largest grid resolution) placed on the same map having a low tag of 10 and identical high tag numbers.

ONE WAY SECTOR-TO-SECTOR WARPING

A one way sector-to-sector warp is made with two red sector squares as well. The only difference is the low tag on the receiving is 14 and the low tag of the sending sector is 10. Place an identical high tag on both of the sectors as well.

LEVEL-TO-LEVEL WARPING

A level-to-level warping sector is made with a red sector square, a low tag of 4002 and a high tag of 1. Make sure that a pentagram sprite is placed somewhere on the map since it is essentially a key that activates the level-to-level warping sector. A transparent non-blocking pentagram sprite should be placed on the level-to-level warping sector just created to make the player aware of the level warping sector.

STARTING POINT: Each map created needs to have a starting point inside one of the rooms. Place the white arrow on the desired place you wish to make the starting points and press [SCROLL LOCK]. An orange stationary arrow will signify your starting location whenever the map is played as a game level. Every time you press [SCROLL LOCK], the orange arrow will disappear and reappear in the new location.

PLAYING NEW LEVELS: If you wish to play or test a map you just created, save it as: LEVEL##. The numbers must be greater than 15. When you want to play it, just type in **WH2_LEVEL##** (_ signifies a space # signifies the number).

3D EDIT MODE

The 3D mode is used to move and manipulate walls, sprites and sectors inside a level. 3D mode is very similar to game-playing mode except none of the sprites (enemies or objects) move and you have the ability to control your height in terms of floating and hovering. Most of your detailed level designing will occur inside the 3D mode. Keep in mind that you will often have to switch between 2D and 3D mode to create the perfect item in a room, let alone a whole room.

MOVEMENT: The ARROW KEYS will move you in the appropriate direction inside the 3D mode.

VERTICAL CONTROL MODE: There are three different types of vertical control modes available. Every time the [CAPS LOCK] is pressed, it will toggle you between one of the three different modes of vertical control. Remember that every time you enter into 3D mode, you will always start in mode 1 until [CAPS LOCK] is pressed, switching you to mode 2, then to mode 3 and back to mode 1.

> MODE 1: This mode is exactly like the game mode, allowing you to walk at the normal eye level, under and over any red sector area. This is the easiest mode to use while manipulating most of the objects and it is also the default mode.
>
> MODE 2: This is the height lock mode, keeping you at the same height above the ground no matter how high or low some red sectors are.
>
> MODE 3: This is the float mode that allows you to "hover" in the air and move with no vertical movement unless you adjust it. This is the best mode to manipulate any tall object or sectors on the ceiling.

VERTICAL MOVEMENT: Using the [A] and [Z] keys allows you to move up or down inside any of the three vertical modes.

VERTICAL VIEWING: Holding down [ALT] and using [A] and [Z] allows you to tilt your view directly up or down with no horizontal or vertical movement.

MOUSE: Movement with the mouse controls the white cross hair. The white cross hair always points to the item that is being controlled. The sector under control can be raised or lowered, moved or fitted with different artwork. The mouse will be used with many different keys allowing you to manipulate the environment inside 3D mode.

LOCKING RED SECTORS: Holding down the Left Mouse Button (LMB) allows you to lock a sector at which the cross hair is pointing so the sector can be moved up or down, even though the cross hair is no longer pointing at it. This is extremely important when moving sectors out of sight. Remember, they are still under your control.

RAISING OR LOWERING SECTORS: Use the `PG UP` or `PG DN` keys to move a red sector up or down. Remember the sector being moved needs to be either pointed at with the cross hair, or locked, before being moved.

UNITS: Each time the `PG UP` or `PG DN` is pressed, a red sector is raised or lowered one unit. It takes 16 units to make a full tile. A full tile is about equal to a 10 square foot area in real space. Remember the unit of measurement when building in 3D mode. Create most of the rooms at least 20-24 units high so the creatures (sprites) can move about freely and so that everything is in proportion to real size. Artwork on some tiles larger than 16 units in size will look distorted and not in proportion, so keep this in mind when building.

SWITCHING BETWEEN 2D & 3D MODES: Use the NUMERIC `ENTER` key to switch between 2D and 3D modes.

3D BUILDING

TILE ARTWORK: The default tile used on a newboard is always the red square with a yellow circle. With this tile, it is easy to see the units of height, allowing you to build evenly. A good suggestion is to build a level using the red and yellow tile exclusively, then changing the tiles once a majority of the area has been manipulated. To change the artwork on any given tile, press `V`. The first page will show what tiles have been currently used on the map. Use the ARROW KEYS to move the white box around so that it highlights the desired tile you wish to choose. If the tile is not shown (it probably has not been used), press `V` again to display all of the tiles available. Keep in mind that the tile being highlighted is the starting point for the entire page of artwork. Use the ARROW KEYS to move the highlighted box and press `ENTER` to select the desired tile to place in 3D mode. You may also use the `PG UP` or `PG DN` keys to move through a whole screen or artwork. The rules for placing tiles in 3D mode are as follow:

1) Have the cross hair pointing to the desired sector on which you wish to place the artwork before pressing `V`.

2) It is faster to move around the artwork area if you know the location of the desired artwork and highlight a tile that is close to the art you desire, before pressing `V` for the second time.

3) Some tiles are not meant to be placed as artwork on sectors. Any artwork in the form of a person, object or creature should not be placed on a sector. This type of artwork usually has a bright red background and is meant to be placed as artwork for a sprite since the bright red area will become transparent in the game.

SLIDING ARTWORK: If you wish to slide the art of a tile up, down, left, or right to align it to another tile in another sector, place the cross hair on it and hold down `SHIFT` and press one of the NUMERIC ARROW keys `2`, `4`, `6` or `8`.

SHRINKING OR STRETCHING ARTWORK: A tile can be stretched or shrunk by pointing to it with the cross hair and pressing the NUMERIC KEYBOARD `2`, `4`, `6` or `8` keys.

SHADING TILES: Press NUMERIC `+` or `-` continuously to shade a tile.

ALIGNING TILES: You may align many sectors with the same tile all an once by pointing to the left-most sector with the cross hair and pressing `.`.

RESET TILE ARTWORK: You may reset the size of the artwork on a tile by using `7` on the desired tile.

FLIP ARTWORK: You may flip the artwork on a tile or sprite by pressing `F`.

ARTWORK ORIENTATION: Artwork orientation is important if you wish to have the artwork start at the top of a sector or at the bottom of a sector. This is important if the sector rises or falls since the artwork will not move with the tile once it is activated. Place the cross hair on the desired tile you wish to orient and press `O`.

COPY ATTRIBUTES: If you wish to copy and paste attributes of one tile to another (ie. size, orientation, artwork, shading etc.), place the cross hair on the desired tile and press `TAB` (TAB). This will copy the attributes in a buffer allowing you to paste them.

PASTE ATTRIBUTES: To paste the attributes just copied (see above), move the cross hair to the desired location and press `ENTER`.

MASS PASTE: To paste the attributes in the tab buffer on an entire sector of walls that are connecting, press the RIGHT `CTRL` `ENTER` together.

SHADE PASTE: To paste only the shade of a tile to another, copy the desired tile with `TAB` and press `SHIFT` `ENTER` to paste the shade only.

SHRINK TILE: To shrink the artwork on a tile, place the cross hair on it and press E. Press E again to reverse the process.

ARTWORK ALIGNMENT: To change the relative artwork alignment on a tile or sprite, press R consecutively.

PARALLAXING SKY: To make a sky tile appear to look like an outdoor scene (ie: the sky stays stationary as the player moves), point to the ceiling tile that is a sky and press P. The rules for making a sky tile parallaxing are as follow:

1)   Only a ceiling tile may be parallaxed.
2)   Only a sky tile may be parallaxed (refer to tile listing).
3)   If there is more than one consecutive (touching) red sector on the ceiling that are going to be a parallaxed sky tile, make sure that they are all equal in height. Make them equal in height before placing the parallaxed sky tile on them.

CREATING ANGLES

Angles can be created only on red sector areas. Angles can be raised or lowered from the ceiling or floor. To create an angle, start in 2D mode and choose a red sector you wish to angle. To make an angle, you must first choose a pivot point. A pivot point is the line that will act as a hinge as the sector is raised or lowered in the 3D mode to create the angle. To choose a pivot point, make the desired line blinking by placing the cross hair near the line and press ALT F. A statement will appear, "This wall now sector's first wall". Switch to 3D mode to raise or lower the angle. Place your cross hair on the sector, hold down the LMB and press the [or] keys to raise and lower the angle accordingly. Use SHIFT to fine adjust an angle along with the [or] keys. The rules for creating angles are as follows:

1)   The pivot point must be the lowest point if an angle comes from a sector on the floor. You might have to raise an angle and then raise or lower the sector using the SCROLL LOCK NUM LOCK keys to make sure that the pivot point is the lowest point on the floor.
2)   White sectors can also be anglized in the same manner as a red sector as long as they are part of the playing area.
3)   A sector on the floor and a sector on the ceiling do not have to share the same pivot point. To change pivot points, create a floor or ceiling angle first, then complete the other angle separately.

4)   Angles can become moving sectors as long as they are tagged accordingly.
5)   Avoid angles over 40° on the floor if they can be walked upon. This is to avoid areas that could slow down gameplay.
6)   Whenever a new tile is copied and pasted onto an already angled tile, it will lose its angled appearance and will have to be done over. Also, whenever the 7 key is pressed, the angle will revert back to its original flat form.

SPRITES

Sprites can be placed inside 2D or 3D mode by pointing to the desired location with the cross hair and pressing S. Once placed, they can be moved vertically, rotated, change with other artwork, and placed flush with a wall in 3D mode. Sprites can be moved in the same way red sectors are raised and lowered by using PGUP PGDN keys. Please refer to the 2D mode as well as 3D mode for placement and the many uses for sprites.

SPRITE ARTWORK: Once a sprite is placed you can change the artwork in the same manner as a wall tile by pointing to it with the cross hair and pressing V. Refer to the SPRITE ARTWORK REFERENCE section for details on the different artwork associated with magical items, creatures and humanoid fighters.

SPRITE ORIENTATION: There are three different ways a sprite can be oriented, either rotating, flat, or parallel to the floor. To change between the three different orientations, press R consecutively.

ROTATING SPRITES

A rotating sprite is a sprite that will always have the artwork facing the player. Whenever a sprite is placed (not copied), its default is a rotating sprite. All enemies should be placed as rotating sprites to avoid any wafer-thin enemies from roaming the dungeons. When using a rotating sprite that is not a moving item (ie: treasure), make sure that the sprite is not located too close to a wall, or a moving sector to avoid any sprite clipping (sprites cut in half) problems. When enemies are placed, the stick of the sprite (seen only in 2D mode) needs to be facing forward so the sprite can see the player and react accordingly.

FLAT SPRITES

Flat sprite orientation is the second selection whenever R is pressed twice. Flat orientation allows you to place sprites that should not follow a character such as pull chains, bas-reliefs, stained glass, wall rugs etc. Flat orientation allows you to place a sprite flush to a wall by placing the cross hair on it and pressing O.

Before doing so, make sure that the sprite is facing away from the wall (viewable only in 2D mode). You can also rotate the orientation of a flat sprite by using ◁ ▷ accordingly.

FLOOR SPRITES

Floor sprites is the third orientation that places the sprite parallel to the floor. Only a few sprites can be changed to this setting without being distorted in appearance such as a bridge tile, stained glass etc.

TRANSPARENT SPRITES: There are three levels of transparency for a sprite. The first is none and is the default of every placed sprite. The second is limited transparency and the third is a very transparent sprite. Use ⊤ to change between one of the three different modes. Items such as the pentagram and stained glass can be transparent.

The rules for placing, editing and moving sprites are as follow :

1) A sprite can be placed in 2D or 3D mode.
2) A sprite can only be changed to blocking or non-blocking inside the 2D mode.
3) Any item that is picked up (ie: treasure, items and spells) must be placed as non-blocking sprites.
4) Any enemy placed must be a blocking sprite.
5) More than one sprite can be placed on top of each other and moved.
6) Sprites can only receive high and low tags inside 2D mode.
7) Sprites are moved in the same manner as red sectors using the same key commands.
8) Sprites should not be placed on moving sectors since they will not stay with the moving sector.
9) Use the 2D mode to see which way the sprite is facing.
10) Refer to the SPRITE AND TILE NUMBER section to place animated sprites and special tiles.

SPRITE & TILE NUMBERS

The following is a list of sprite and tile numbers. The sprite or tile number refers to the exact piece of artwork that needs to be placed for that specific item. Many sprites are animated and must have the first frame used as the artwork for the sprite in order to function properly. To jump to an exact tile number, press Ⓥ to change the artwork and all of the tiles already used will be shown on the screen. Press Ⓖ and enter the number (backspace to delete the number showing first) of the tile you wish to use from the list below and press ⏎. All items that can be picked up need to be placed as non-blocking sprites.

SPELL

Scare	1817
Night Vision	1857
Freeze	1849
Magic Arrow	1865
Open Door	1873
Fly	1833
Fireball	1841

CREATURE

Rat 1961
Willow Wisp 2426
Skeleton 2144
Ogre 737
Imp 922
Lava Fiend 777
Mino Drake 981
Guardian 1993

Giryon Knight
  2 Handed Sword 3279
  Hammer 3352
  Sword & Shield 3426

Argothonian Clansman
  Punching 3017, 3090, 3095
  Throwing Axe 3047
  Magic User

Ciraen Sentinel
  Punching 2780,3170,3243,3248
  Magical Bow 2750
  Magic User 3602
  Morning Stars 3200

WEAPONS

Dagger	1566
Short Sword	2217
Morning Star	1582
Broad Sword	357, 666
Battle Axe	359, 2026
Quiver of Arrow	1889
Pike Axe	356, 2038
2 Handed Sword	229
Halberd	2046

Midian Warrior

> Halberd 2502
> Magic User 2638
> Sword & Shield 2579

To place a different colored Midian Warrior, place the cross hair on the sprite and press ALT P *and enter in the appropriate palette number.*
Palette# Brown Cape 12, Blue Cape 10, Purple Cape 11, Red Cape (default).

Cirae-Argoth 3541
Whenever Cirae-Argoth is killed, the game will end (no matter where she is placed). Cirae-Argoth's death signifies the end of the game.

All items listed below that can be picked up need to be placed as a non-blocking sprite.

MAGICAL ITEMS
Ankh 714
Amulet of Mist 1574
Shadow Amulet 698
Leather Armor 1881
Chain Mail 1809
Plate Mail 1793
Crystal Staff 1550
Glass Skull 706
Helmet 1801
Horn 1767
Pentagram 1759
Health Potion 548
Strength Potion 549
Cure Poison Potion 550
Resist Fire Potion 551
Invisibility Potion 552
Andamantine Ring 726
Onyx Ring 730
Sapphire Ring 373
Blue Scepter 718
Yellow Scepter 722
Shields 2432, 2439, 2446, 2682
Treasure Chest 260
Wood Barrel 269
Gold Coins 235
Silver Coins 234

VARIOUS ITEMS
Brass Key 1623
Black Key 1631
Glass Key 1639
Ivory Key 1647
Sky Tiles 167-172, 202-3
    210-11
Door Tiles 280-3, 1926-1930
Pentagram Tile 291
Enchanted Weapon Aura 449
Torch Tiles 1553, 1704,
    1691, 1907
Pull Chains 370, 539
Fireball 1717
Shooting Trap Tile 1957
Breaking Stained Glass Tiles
1079, 1086, 1093, 1100, 1107,
1114, 1121, 1128, 1135