RottED Help Index

How To ...

Get help with **RottED**, a Level Editor for Apogee's **Rise Of The Triad**.

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RottED Overview And Features

RottED, for Apogee's Rise Of The Triad, is a fully-functional level editor.   It was designed for simplicity and ease-of-use.   Editing existing game levels and creating new ones should be a relatively easy process, and it is hoped that RottED meets this expectation.

New features in this version of RottED include:

- °   Pick up the Wall, Sprite, or Info plane value from a map cell and then copy the value into other map cells using single or multiple-cell edit modes.
- °   Quick link cells using map location coordinates. Speeds the placement and programming for switch-controlled objects such as doors, firechutes, etc.
- °   Floor Fill edit mode for fast floor fills inside walled areas.
- °   Default loading of the upper left corner (0,0 through 5,0) map cells.
- °   Added a "Did you save your work?" feature to the Exit routines.
- °   Automatic Height Adjustment for the rapid placement of objects having fixed and variable incremental/decremental heights (stairs, raised GADS platforms, etc.).
- °   The map scaling routines no longer reorient the map to Cell 0,0 when you change display resolutions.   Now you can zoom in and out of a map area without having to reposition the map.
- °   Added another display resolution for a total of six scaled displays that can be used for editing and viewing maps.
- °   Expanded online help.
- °   Eliminated the double screen refreshes associated with the scroll bar controls.
- °   Tile Brightness control for adjusting the brightness (intensity) of displayed or printed image tiles.
- °   Print feature for printing maps.   Multi-page capability for large maps.   Prints user-defined ranges of map cells.
- °   Expanded Undo features.   All edits can now be undone, including multiple-cell additions and deletions as well as floor fills.
- °   More keyboard Hot Keys for fast editing.

Basic features of RottED include:.

- °   A complete editing system based on the manipulation of preloaded image tiles. No data tables or numbers to worry about.
- °   Complete GUI front-end for ease of use.
- °   Edit existing game levels or create completely new ones.
- °   All cell insertions and deletions are done using simple mouse commands and a few keyboard keys.
- °   Directly edit the numerical data in any map cell for adding features associated with songs, object heights, cell XY locations, exits, and timed events.
- °   Maps can be displayed and edited in any of the five built-in display resolutions.
- °   All help is available as on-line hypertext for easy access and cross-reference.

I'm sure you are anxious to start editing and creating levels for Rise Of The Triad, but please spend a little time reading this help information.   If you gain a basic understanding of how RottED works and how ROTT levels are created at this point, your overall learning curve will be much shorter.

Using RottED

This section gives an overview for using RottED. It is very general in nature.   Refer to the included tutorial for more information on editing once you have finished this section (Tutorial - Creating Your First Level).   Please read the other sections in this help file for a better understanding of how to use RottED and how the ROTT levels are designed.

If you experience difficulty getting RottED to run correctly, refer to the Technical Help section.   Note in particular that RottED was written for use in standard Windows (Windows For Workgroups) VGA mode using the Microsoft-supplied VGA Windows video driver running in 640x480 x256 color mode.   I cannot guarantee that it will run using other Microsoft or OEM video drivers.

You might want to print out some of these help instructions to aid you during your first sessions with RottED. Although RottED is very easy to use, it always takes a few minutes to become acquainted with a new editor. Use the File/Print Topic menu option under the Help menu to print.

All editing is simple and follows the standard Windows way of doing things -- click a button to activate it; select a ListBox item or select its up/down arrows to scroll the box to the item you want; or select an edit box and type a new value into it.   *All dialog items are tab-controlled so you can press the Tab key to advance to another edit control.*   All edit entries are range-checked before letting you continue and your edit may be canceled if you enter erroneous values.

All menu command features are relatively straightforward -- experiment and see what happens.   You can change the color of the dialog screens, turn the Status Bar and Tool Bar on/off, scale the map display, etc.

Reloading Files

An "undocumented feature" regarding file loading should be mentioned.   Since Windows looks upon all files, whether they be text files or ROTT maps, as "documents" which can only be loaded one time in SDI (Single Document Interface) applications (such as RottED), you cannot sequentially load maps from a single RTL/RTC file.   In other words, if you load a map from file "A", and then you want to load another map from file "A", you must load a separate map file (file "B") in-between viewing/editing the two maps from file "A".   To demonstrate this "feature" of Windows, load (Open Level File) an original game level, DARKWAR.RTL, and pick any map. Now do another Open Level File on the same DARKWAR.RTL.   Did you notice that no map selection dialog appeared? You will have to load another map file (doesn't matter what), and *then* you can load DARKWAR.RTL again.   Sorry for this inconvenience.   (The only way Windows could load maps sequentially from a single RTL file would be to close the file and then reopen it, but if you completely close a "document" file in an SDI application, the entire application closes, i.e., RottED would exit.)

Creating A New Level File

Selecting the File/New Level File menu option or the toolbar icon that looks like a closed file-folder lets you create a new, empty RTL/RTC level file.   A dialog will request that you enter the name of the new file. Do not enter any file names used in the ROTT game, and the file must be suffixed with RTL or RTC. Create one or two new files now, so that you can save into them later.   Using RottED is not like using a word processor where you just save the text away into a new document "on the fly".   You must have a pre-existing level file for saving your data.   Don't get in the predicament where you've made lots of edits to an original game level, but when the time comes to save the level you don't have any place to put it!

Editing An Existing Level File

1.   Using either the File/Open Level File menu command or by selecting the File Open Icon, select a level file to edit.   If this is your first time to use RottED, just open a level file from the game.

2.   Select a map from the list of available maps.   The map will be loaded and displayed.   You will see a map grid with its origin at   X=0, Y=0 at the upper left corner of the window.   The X axis is horizontal and the Y is vertical.   Try clicking the scroll bar controls to move around in the grid.   In this document, all grid locations will be referenced as "cells" (for those of you used to spreadsheet nomenclature), and they will be referenced using their X,Y locations.

The status bar (at the bottom of the display) gives you several important pieces of information. The leftmost box gives you helpful info on the current RottED operation.   The center area shows you the name of the loaded map.   To the right of the map name are the X and Y coordinates of the cell that the mouse cursor is currently over.   (This feature is especially useful if you choose to turn off the map grid (View/Grid Active toggle)).   When in edit mode, this area shows you the number of the tile currently under the mouse cursor.   The rightmost area on the status bar gives the editor's current operational status, i.e., viewing a map, adding data to a map, etc.

Select the View/Grid Scaling/Scale 1 to 6 menu options to adjust the resolution of the displayed map. The toolbar icons that look like magnifying glasses can also be used to scale the map display.   Pick the display resolution that works best for you.   You can edit using any resolution, but note that it will be hard to see tile data and the display refresh rate will be MUCH slower in the zoomed-out resolutions (Scale 1) where LOTS of map cells are displayed.

Use the View/Tile Brightness menu command to make the image tiles appear lighter or darker - experiment with it until you find the setting that works best for you.   Use the Default Brightness button to reset the tiles to their original intensity.   Use gradual brightness changes; increments or decrements of 20-30 are good.   Don't forget that this control affects the intensity of your printouts too.

Take a look at the map cell data.   (If no map tiles are displayed in the view, scroll the display around till you see some map tiles.)   The map data is drawn using the following rules:

        A.   All background tiles are drawn and scaled to exactly fit the size of a map cell.   This is the Wall plane map data.

        B.   The foreground tiles in the range of tile numbers 18 to 467 (there's a lot of them...) are drawn and scaled to fit the width of a cell.   They are slightly offset down from the top of each cell so you can identify any background tile which is behind this tile.   These foreground tiles are stored in the cell's Sprite plane.

        C.   Foreground tiles numbered 0 to 17 are drawn and scaled to fit in the bottom lower left 1/3 of each cell.   This seemed the best way to display these tiles since their function can best be described as "modifiers" of other tiles.   The data from these tiles is stored in the cell's Info plane.

        D.   The remaining cell data is found in the Info plane and can consist of song, XY cell coordinates, time data, exit, or height values.   All this data is displayed in text format.
            °   Song data is prepended with an "S"; therefore, if the song value is 7, then you would
                see "S7" over the cell.
            °   Exit data is prepended with an "X", so if the exit data value is 5, then you would see
                a "X5" over the cell.
            °   Height data is displayed in the story and story fraction values and are displayed vertically.
                For example, a GADS having a story value of -1 and a story fraction of 8 would display as a
                "-1" value over a value of "8".

° XY coordinate data and time data are very similar in format, so RottED defaults to a generic display of the X or Minute data centered vertically over the Y or Second data.

3.   Select the Edit/Add Background menu command or the "BG" toolbar button to call up the list of available background tiles. (See the Background Tile Summary for a listing of available tiles.)   Look at the status bar at the bottom of the screen and notice that it reads out the number of the tile under your mouse cursor.   Select a tile to add by clicking the Left mouse button over it.   The primary view screen will reappear and you will notice your mouse cursor has changed, indicating you are in edit mode.   You will also notice that the status indicator, in the bottom right portion of the status bar, indicates you are in the "Add Background" mode.   Click the Left mouse button on any cells you wish to edit, or you can hold down the Left button and drag the mouse.   Dragging the mouse cursor lets you do multiple cell edits. Release the mouse button to stop the insertion.   You will notice that the screen is refreshed and the new tiles have been inserted into your map.

Notice that an "ADD BG" image tile appears over the cells you are in the process of editing.   This just shows you which cells have been altered.   The "ADD BG" tiles are replaced by the actual tiles you inserted once the screen is refreshed.   You can use the scroll bars while in edit mode; this allows you to edit multiple windows on the map grid.   Cancel the edit mode anytime by using the <End> key or pressing the Right mouse button.   You should always remember to cancel the edit mode as soon as you are done to avoid accidental edits.

4.   Select the Edit/Add Foreground menu command or the "FG" toolbar button to insert foreground tiles. Editing with the foreground tiles is done exactly the same as with background tiles.   (See the Foreground Tile Summary section for a summary of foreground tiles.)

5.   You can also add tiles to the map using the Pick Up feature.   The Pick Up commands let you add tiles to the map without having to open the above-discussed Add Background and Add Foreground displays.   Basically, this feature functions by letting you "pick up" a plane value (Wall, Sprite, or Info) from an existing map cell and then add the picked-up value to other map cells.   Picking up a cell plane value does NOT erase this value from the cell.   To pick up a plane value, just press and hold the keyboard key corresponding to the plane you want to pick up (W, S, or I) and then click the Left mouse button over the cell to be picked up.   Release the keyboard key.   The cursor will change to edit mode and the "Add W", "Add S", or "Add I" tiles will appear in all cells where you have added the picked up tile.   Add the picked up value to map cell(s) using the same mouse techniques discussed above.   See the Edit/Picking Up Tiles menu command for quick help.

6.   If you need to add background floor sound tiles to the area inside a wall-enclosed space, use the Floor Fill command.   To use Floor Fill, just position the mouse cursor over an empty (Wall plane = 0) cell or one containing a floor tile.   Press and hold the F keyboard key and click the Left mouse button. Release the F key.   The Background Tile page will appear along with the edit cursor.   Select a floor tile (tile numbers 108 through 152) by clicking on it, or abort this command with the <End> key or the Right mouse button.   Once a tile has been selected, the primary view screen will be refreshed and your map will be filled.   Check your map for any unfilled "holes" and rerun Floor Fill if needed.   See the Edit/Floor Fills menu option for quick help.

7.   Delete the contents of a cell using the Ctrl key combined with the Left mouse button.   To delete a cell's contents, just press and hold down the Ctrl key.   Then just click the Left mouse button when the cursor is over the cell you wish to delete.   Alternatively, you can hold down the Left mouse button and drag the cursor over multiple cells you wish to delete. Release the mouse button and then release the Ctrl key to stop deletion mode.   Just remember to always hold down the Ctrl key throughout your deletions

and release it *after* you release the mouse button.   Note: You can delete cells only when not in an edit mode. If you are in edit mode, cancel it via <End> or the Right mouse button first, then do your deletions. See the Edit/Deleting Cells menu option for quick help.

8.   You can undo the last edit by selecting the Edit/Undo Last Edit menu command or the toolbar icon (looks like a "U").   The contents of the last cell (if a single cell edit) or multiple cells (if multiple cells were edited) will be restored.   You do not have to exit the current edit mode in order to do an Undo.

9.   You can call up an edit dialog for numerically editing a cell by double-clicking the Left mouse button over a cell.   The dialog will let you directly alter the numerical data stored in the 3 map planes for this cell.   (See the ROTT Level Design Information for more information on how map data is stored.)   Of particular interest here is the Info Plane Data area in the dialog.   This area functions in a "radio button" manner in that you must select only one *type* of data to be contained in this plane.   If you command the Info plane for this cell to contain song data, then the Info plane data word will be reformatted into song format.   Likewise, if you instruct the plane to contain XY coordinate data, then RottED will format the data correctly.   RottED will do its best to reformat the data when you change data types.   If you select a data type that is too different from the previous type, RottED will "zero" out the values.   To help make this clearer, here is an example.

      Assume you want to see the contents of cell 5.8, so you double-click the mouse over cell 5,8 and the cell information box appears.   Looking at the Info plane area, you see that data is contained in the X - Y Cell Location group. Now assume you want the data to be in minute/second time format. Just click on the minute or second edit boxes in the Minute Second Info Data group and the data will be reformatted and rewritten to these edit boxes.   Quite probably the data values will change due to the reformatting. Enter the correct values for the minutes and seconds.   You will notice that once this dialog box closes and you are back in the map view, the displayed text values which give the Info plane data may NOT be the minute/second values you just entered.   As previously mentioned, RottED cannot distinguish between XY cell location data and minute/second time data, so it defaults to XY cell location format. Even though the data may look different from what you entered in the dialog box, it is the SAME as what you entered.

10.   Use the Quick Link feature if you are mapping the operation of objects such as doors or firechutes to their control switches (or touch plates).   Quick Link automatically adds the X Y coordinates of the controlling switch to the Info plane of the controlled object (door, firechute, etc.)   To use Quick Link, position the mouse cursor over the controlled object (door, firechute, etc.). Press and hold down the L keyboard key and click the Left mouse button.   Release the L key.   The edit cursor will appear and the status bar will show that you are in Quick Link mode.   Now just position the cursor over the controlling switch or touch plate and click the Left mouse button.   The XY coordinates of the switch have now been loaded into the object's Info plane.   See the Edit/Quick Links menu option for quick help.

11.   Mapping staircases or other objects having variable or constant height is easy using the Height Adjustment command.   Select this feature using the Edit/Height Adjustment menu option or the Toolbar icon that looks like a raised level having a double-ended arrow underneath.   To use, open the dialog and select the "Height Adjustment ON" radio box.   Now enter the Story (1 Story is about 8 feet) and Story Fraction (1/16 of a Story) values for the NEXT Foreground tile you will place.   Set the "Change in Story Fraction..." box to 0 if you want all upcoming objects to have the same height or you can set it to a positive/negative value if doing incremental/decremental heights (stairs).   Close the dialog.   This feature works with BOTH the Add Foreground and the Pick Up Sprite commands.   Here's an example for programming a flight of stairs:

      Open the Height Adjustment dialog and turn it ON; enter Story = -1, Story Fraction = 6, and

Change = 4.   Close the dialog.   Now select the Add Foreground option and select the GAD object (tile number 461).   Place a few GAD tiles in the map.   Notice the incremental height on the GADs?   The first GAD will have a height of Story = -1, Story Fraction = 6, the next will have a Story = -1, Story Fraction = 10.   Be careful not to let your objects exceed the height of the level.   <u>Always turn the Height Adjustment OFF as soon as you are done with it.</u>

12.   Save the edited map using the File/Save Level File menu option or the toolbar icon that looks like a floppy disk.   A dialog will appear for choosing the save file name and the map slot for saving your map.   *Note that you can view and edit original game maps, but you cannot save into original game files.*   If you want to save an edit on a map loaded from an original game map, you will have to save the data to a different file name.   (See the preceding section on Creating A New Level File.)

13.   You can print out all/part of your map at anytime.   Select the File/Print Preview for a display of what your printed pages will look like.   Whether selecting Print Preview or Print, you'll need to adjust the X and Y ranges of cells to be printed.   Do this in the Print Map dialog.   Use the Update Print Pages button to recalculate the number of print pages.   (Be aware that you can easily generate LOTS of print pages - so use caution when entering the cell X and Y print ranges.)   The "regular" Windows Print dialog will appear in the course of the print functions.   <u>Please ignore the "Pages X to X" entries in this window - they are not functional.   The **only** place you adjust the ranges and print pages is in the RottED Print Map dialog.</u>   You can, however, use the File/Print Setup dialog for adjusting the page orientation and stuff like that.   If the color (or black and white) intensity in your printout doesn't look right, use the Tile Brightness control.

14.   Exit RottED by selecting the Exit menu option.

RottED Quick Reference

This section provides a short Quick Reference for using RottED.   Please refer to other sections of the RottED help if you need more detail.

Loading an Existing RTL/RTC File

Hot Key: Ctrl-O

        Select the File/Open Level File menu option, or the File Open Toolbar Icon (looks like an opened file folder).   Once the RTL/RTC file is loaded you are presented with the file's map contents. You *must* select a map in order to continue editing.

Loading a New Level File

Hot Key: Ctrl-N

        Select the File/New Level File menu option, or the New File Toolbar Icon (looks like a closed file folder).   Selecting this command will let you enter the name of a new RTL/RTC file (no original game file names allowed).   RottED will then create a "blank" RTL/RTC file containing empty map slots.   Select a slot for editing and that's it. If for some reason RottED won't accept your new level file name, no new files are created and no maps are loaded.

Saving A Map

Hot Key: Ctrl-S

        Select the File/Save Level File menu option or the Save File Toolbar Icon (looks like a floppy disk).   You will be prompted with the file name and map name for saving your edited map.   Note that you can NOT save to original game files, so if you just finished editing an original game map, then you will have to store the data somewhere else. I would advise to always have an empty map file available (via the New Level File menu command) for storing map data.   RottED doesn't store maps in the same way that other Windows routines store files - a pre-existing map file must be used for storing your edits.

Default Upper Left Corner Load

Hot Key: Ctrl-C

        Select the Edit/Default Map Corner menu option for this command.   Use this option when you want to load the upper left corner of the map with default values.   Since the data in the upper left corner is very critical to overall map operation, this command is useful for getting your map "up and running". NOTE: This option will overwrite any existing data in map cells 0,0 through 5,0 so use it carefully!

Adding a Background Tile

Hot Key: Ctrl-B
Command: Mouse

        Select the Edit/Add Background menu option or the Toolbar Icon that says "BG".   A listing of available background tiles will appear.   Note that the status bar at the bottom of the screen gives you a

readout of the background tile currently under your mouse cursor.   Select a tile with the mouse. The Background Edit Cursor will appear on the map grid.   Click the mouse cursor over a single cell to add a tile, or press-and-hold the Left button and then drag the cursor over several cells for multiple insertions.   Release the mouse button when done.   An "Add BG" image tile will be placed in every cell you are editing. This tile will be replaced by the new background tile when you finish the edit.   Cancel the edit mode anytime by pressing the <End> key or the Right mouse button.   See the Background Tile Summary for a listing of available tiles.

Adding a Foreground Tile

Hot Key: Ctrl-F
Command: Mouse

Select the Edit/Add Foreground menu option or the Toolbar Icon that says "FG".   A listing of available foreground tiles will appear.   Note that the status bar at the bottom of the screen gives you a readout of the foreground tile currently under your mouse cursor.   Select a tile with the mouse. The Foreground Edit Cursor will appear on the map grid.   Click the mouse cursor over a single cell to add a tile, or press-and-hold the Left button and then drag the cursor over several cells for multiple insertions.   Release the mouse button when done.   An "Add FG" image tile will be placed in every cell which you are editing. This tile will be replaced by the new foreground tile when you finish the edit.   Cancel the edit mode anytime by pressing the <End> key or the Right mouse button.   See the Foreground Tile Summary for a summary of available tiles.

Picking-Up Tiles

Command: W, S, I keys + Mouse

You can "pick up" the Wall, Sprite, or Info plane contents of any cell and then copy the plane value into single or multiple cells.   To initiate the "pick up", just press down and hold the keyboard key corresponding to the plane you want to grab: **W for the Wall Plane,   S for the Sprite Plane, and I for the Info Plane**.   Then just click the Left mouse button over the cell whose contents you want to grab. The EDIT cursor will appear and the rightmost indicator in the status bar will indicate you are in a pick-up edit mode.   You can release the keyboard key (W, S, or I) after the EDIT cursor appears.   Click the Left mouse button over a cell in order to insert your grabbed data into it, or you can press down and hold the Left mouse button and drag the cursor over several cells for multiple edits.   An "Add W", "Add S", or "Add I" image tile will be placed in every cell you are editing.   These tiles will be replaced by the actual edited-in tiles when you finish the edit.   Cancel this edit mode anytime by pressing the <End> key or the Right mouse button.

Quick Links

Command: L key + Mouse

Use RottED Quick Links to store the X Y location of a switch or touch plate into a map cell containing a door, firechute, or other controllable object.   (A switch-controlled object "points" to the switch or touch plate that controls it by storing the X Y coordinates of the switch in their Info plane.   You can program the switch X Y coordinates into the cell's Info plane via the Cell Info dialog (double-click over the cell). Once in the dialog you enter the switch location in the X and Y Cell Location edit boxes.   You can use a RottED Quick Link to perform the same job.)   Quick Links are easy to use.   Just position the mouse cursor over the object being controlled, i.e., a door.   Now press and hold down the "L" key and click the Left mouse button.   Release the "L" key.   Notice the rightmost status bar indicator now shows you are in "Quick Link" edit mode and an EDIT cursor appears.   Position the EDIT cursor over the cell

containing the switch, touch plate, or other control and click the Left mouse button.   The EDIT cursor will disappear and the screen will refresh.   The X Y coordinates of the control are now stored in the controlled object.

Floor Fills

Command: F key + Mouse

Use this command to fill in floor area bounded by background wall tiles.   The Floor Fill command lets you use any of the background floor sound tiles (background tiles 108 through 152) for fills.   Before using this command, make sure the area you want to fill is *completely* bounded by wall tiles.   Be sure to *save* your map prior to running this command, just in case you don't like the results or make a mistake. (If you have any areas in your map that are not enclosed by wall tiles, this command will fill all the way out to the map boundaries, and that's a lot of erasing on your part to fix things up!)   The UNDO feature works with Floor Fills.   Just be sure to Undo the fill IMMEDIATELY after the fill is done.   Once you run this command, be sure to check the results - the Fill may sometimes miss corner or other tiles bounded by irregularly shaped or placed wall tiles.   A unique Fill feature is that it can fill empty (Wall plane value of 0) map cells as well as over other background floor tiles.   The most obvious use of this command is for filling empty floor areas in new maps, but you can also use it for overwriting floor areas that you want to change.

To use the Floor Fill command, first place the mouse cursor over the cell in which you want to begin the fill.   This cell is the *Fill Reference Cell* and it MUST either be empty (Wall plane value of 0) or contain a background floor tile (background tiles 108 through 152).   RottED uses the Fill Reference Cell for determining which cells inside the bounded area will be filled.   Press and hold down the "F" key and click the Left mouse button.   Release the "F" key.   The Background Tiles page will appear, your cursor will change to the EDIT cursor, and the rightmost status bar indicator will show "Fill Mode".   Select a floor tile by clicking the Left mouse button over it or cancel the edit by pressing the <End> key or the Right mouse button.   (You MUST select ONLY a floor tile here.)   The primary view page will refresh and your map will be filled with the floor tile you selected.   Check your map for any "holes" in the floor tiles and repeat this command as needed.

Automatic Height Adjustment

Hot Key: Ctrl-H

Select the Edit/Height Adjustment menu option or the Toolbar Icon that looks like a line with a double-ended arrow to activate this feature.   The Height Adjustment dialog will open.   Read the information in this dialog carefully.   Normally, this feature is turned OFF.   To use, turn Height Adjustment ON (by selecting the appropriate radio box) and set the Story, Story Fraction, and Change values.   The next Foreground Tile (having a Tile Number greater than 17) that you add to the map will be elevated to the height you programmed into the Height Adjustment dialog.   Note that this feature works with both the Add Foreground and Pick Up Sprite commands.   If you set Change to a non-zero value, the Story and Story Fraction values will be automatically adjusted and ready for the next tile addition.   Note that Change can be positive or negative so that you can incrementally place objects higher or lower.   Turn OFF the Height Adjustment as soon as you are done with it in order to avoid accidental edit errors.   This feature is very useful for mapping stairs or other objects having variable height.   Don't forget that you can set Change to 0 and add multiple objects all having the same height.

This command writes changes into the Info Plane.   Make sure that you're not using it on map cells having desired Info Plane data.   When doing multiple tile additions with Change set to a positive value, be careful not to let the height of your objects exceed the preprogrammed height of the level (set in the Sprite Plane of map cell 0,0).

Viewing and Changing A Map Cell

Double-click the Left mouse button on a map cell to bring up a dialog which details the data in a cell.   You can directly change any of the data in a cell using this feature.   Refer to the background and foreground tile summaries for tile numbers corresponding to the Wall and Sprite plane data and also for the Info plane tiles.   The Info plane data can be entered using one of several formats (tile value, song, cell XY location, etc.). RottED will format the Info plane data for you - all you have to do is enter the data value(s) in the correct edit boxes. Clear any of the planes by entering a value of "0" in its edit box.

Erasing Map Cells

Command: Ctrl key + Mouse

Map cell contents are erased (cleared to 0) using the Ctrl key combined with the Left mouse button.   To erase a cell, press and hold down the Ctrl key and then click the Left mouse button over a single cell to erase it, or hold down the mouse button and drag it over multiple cells to be erased. Release the mouse button when done and then release the Ctrl key.   Press/hold the Ctrl key *first* and release it *last*.   All cells being erased will show a "DEL CELL" image tile to flag it during the erasure. Once you are done editing, the display will be refreshed and the erased cells will be blank.

Undo An Edit

Hot Key: Ctrl-U

RottED continuously monitors all your edits.   Select the Edit/Undo Last Edit menu option or the Toolbar Icon that looks like a "U" to cancel your last edit.   You cannot undo anything when a map isn't loaded or before you have made any edits to a loaded map.   Note that if your last edit was to a single cell, then only the single cell will be restored.   If your last edit was a multiple-cell edit, then all altered cells will be restored.   (The Undo buffer is automatically cleared at the end of every single or multiple-cell edit.)   You can be in any edit mode when using Undo.   RottED features such as Floor Fills and the Default Map Corner load can also be Undone.

New Map Name

Select the Edit/Map Name menu option and enter a new name for your map. The name has a maximum of 23 characters.

Change Map Grid Scaling

Hot Keys: Ctrl-1, Ctrl-2, Ctrl-3, Ctrl-4, Ctrl-5, Ctrl-6

RottED currently has 6 map scales: Scale 1 to Scale 6. Scale 1 offers a zoomed out view of lots of map cells and Scale 6 shows a magnified portion of the map.   You can edit in any scale although the zoomed out views will refresh slower and it might be hard to see the detail of the map well enough to edit it.   Select the Edit/Grid Scaling/Scale 1 to Scale 6 menu options to individually select scalings, use the Edit/Zoom In or Edit/Zoom Out menu options, or the Toolbar Icons that look like magnifying glasses. Select the scale that works best for you.

Toggle the Map Grid Display

        Use the Edit/Grid Active menu option to turn the display map grid on and off.   The grid helps you identify the map cells easily, although you can turn it off and just look at the "Cell XY=" display in the status bar at the bottom of the screen for getting the cell position of your mouse cursor.

Change the Dialog Box Colors

        Select the Edit/Dialog Colors menu option to change the default color of the RottED dialog boxes. This feature was added because of the way Windows colors appear on various systems.

Tile Brightness

        Use the View/Tile Brightness menu option or the Toolbar Icon that looks like a light bulb to adjust the intensity of both the displayed and printed images.   You can make the tiles appear lighter or darker. Use the Default Brightness button to reset the color intensity of the tiles back to their original load values. When making intensity changes, enter new values in gradual increments - use increments of 20-30, for example.   If you enter a value such as -150 or 150, the tiles may be either too dark to see or completely washed out in white.   Note that a value of 0 will cause NO change in the brightness since this control adjusts the *relative* brightness of a tile.   As previously mentioned, this control affects the intensity of your printouts too, so use it for making your printouts look "just right".

Printing Maps

Hot Keys: Ctrl-P to Print, Ctrl-V for Print Preview

        Use the File/Print menu option for printing map data.   The File/Print Preview is used for previewing your print pages.   The File/Printer Setup option lets you change printer options such as page orientation, the Windows default printer, etc.   Since RottED map data is different from most Windows data types, special "tweaking" had to be done in order to print maps.   The "tweaking" regarding printouts comes in the form of *2 print dialogs* - the Standard Windows Print dialog and a custom RottED Print Map dialog.   You must use BOTH of these dialogs in order to print maps.   Use the Windows Print dialog to set the Print Quality of your map.   Do **NOT** use the Windows Print dialog to set the number or range of print pages.   Use the RottED Print Map dialog for programming the X and Y ranges of map cells to be printed; the number of print pages are calculated from your X and Y entries.

        When the Print Map dialog appears, default Start and End X Y cell ranges will be displayed. These default values are centered on the current position of your displayed map.   Feel free to enter any reasonable X and Y values - the End value has to be larger than the Start value, no numbers less than 0, etc.   Press the Update Print Pages button to recalculate the number of print pages every time you make an X or Y change - this is important so do it!   You can very easily generate a *LOT* of print pages, so be cautious when entering X and Y values.   The number of cells per print page is determined by the current display Scale.   Always do a small test printout (10x10 cells, for example) first - the Brightness (View/Tile Brightness) or Scale (View/Grid Scaling/Scale 1 to 6) may need adjustment.   You may also want to try turning the Map Grid (View/Grid Active) on or off to see which mode you prefer in your printouts. Depending on whether you are doing a Print Preview or just a Print, you may have to enter your X and Y ranges twice - once for the Preview and once for the Print to the print device.

        Be aware that the more pages you print, the longer the calculation and printout time.   If printing several pages (more than 10), you might be in for a long wait if many of the pages are loaded with image tiles.   Please have patience with the printouts - lots of calculations, rescaling, and intensity adjustments are done with each print page.   When the printer is done, just cut/paste your pages together to build your

map.   (You can build some really big maps.)

        If you prefer to design your ROTT maps on paper before tiling them in RottED, then print out a blank map.   Load any blank map slot and print out part of it.   Cut/paste your print pages together and start drawing.

Exiting RottED

        Select the Exit menu option.   Be sure to exit RottED using the Exit menu item.   Do NOT exit RottED by selecting the Close command in the top left window control.   Selecting the Close command may cause RottED to malfunction when terminating and Windows may halt.   The Close command will not let RottED release the Windows memory, video, and printer resources, therefore, Windows may continue to run but may malfunction later.

Background Tile Summary

This listing is a summary of all the **Background** tiles used in Rise Of The Triad.   Use the **TILE NUMBER** as a reference when placing tiles on the map cells.   Note that some tiles were not used in the present version of the game, but they are included here in order to give you a complete listing of all the tiles. *Some tiles are marked as doing nothing or not used.   Do not use these tiles.*

Please spend a few minutes studying these tiles before using them. Some tiles include instructions for their use.

TILE NUMBER	DESCRIPTION
0	Void
1	Brown stone wall set of four
2	^
3	^
4	^
5	Monastery wall set of four
6	^
7	^
8	^
9	Brown slab wall 1
10	Brown slab wall 2
11	Firechute
12	Firechute target
13	Reddish-brown brick wall set
14	^
15	^
16	^
17	Brown brick large bottom wall set
18	^
19	^
20	^
21	Standard metal wall
22	Slotted metal wall
23	Triad emblem metal wall
24	Four hole metal wall
25	Castle brick with stripes wall set
26	^
27	^
28	^
29	Gray castle brick wall set
30	^
31	^
32	^
33	Left side: wide snake door
34	Middle: wide snake door
35	Right side: wide snake door
36	Gray bumpy stone wall
37	Brown stone wall
38	Dark gray brick wall
39	Brown wall with top stripe

40	Brown/salmon brick wall
41	Brown/gray brick wall
42	Gray stone wall with top stripe
43	Brown brick wall with big top bricks
44	Lava wall
45	Oscuro face firechute
46	Brown slab wall 3
47	Exit stairs wall
48	Entrance stairs wall
49	Brown bedrock stone wall set
50	^
51	^
52	^
53	Green brick wall
54	Scrambly brown earthen wall
55	Soft brown brick Triad wall
56	Bright brown/orange brick wall
57	Square wood parquet wall
58	Ribbed dark brown wall
59	Brown-red wall, top and bottom stripe
60	Gray wood slat wall
61	Gray striated stone
62	Brown patchy stone
63	Brown/gray vertical bricks wall
64	Gray/brown stone wall with top stripe
65	Dark gray castle walls with windows set
66	^
67	^
68	^
69	Scrambly brown rock wall set of 3
70	^
71	^
72	Map connector tile used in RandROTT Map Templates
73	not used
74	Elevator rail wall
75	Elevator metal wall
76	Elevator switch
77	not used
78	Wall Switch off
79	Wall switch on
80	Scrambly brown wall set #4 (see 69)
81	Brown walls with pipes set of 4
82	^
83	^
84	^
85	Bumpy brown rock wall
86	Dark brown rock wall
87	Gray slab wall
88	Gray slab Triad wall
89	Metal grating wall
90	Wood split door
91	Triad split door
92	Metal split door
93	Metal downward door
94	Locked door: gold (uses Triad split)

95	Locked door: silver (uses snake circle)
96	Locked door: iron (uses Metal downward)
97	Locked door: Oscuro (uses snake middle)
98	Maps over to wood door: don't use
99	Maps to other door
100	Maps to other door
101	Gray Snake circle door
102	Elevator door
103	Maps to other door
104	Maps to other door
105	not used
106	Yellow attention light wall
107	Warning Cross light wall: entering dangerous/optional area
108	Floor sound areas
109	"
110	"
111	"
112	"
113	"
114	"
115	"
116	"
117	"
118	"
119	"
120	"
121	"
122	"
123	"
124	"
125	"
126	"
127	"
128	"
129	"
130	"
131	"
132	"
133	"
134	"
135	"
136	"
137	"
138	"
139	"
140	"
141	"
142	"
143	"
144	"
145	"
146	"
147	"
148	"
149	"

150	"
151	"
152	"
153	not used
154	Left side: wooden tech door
155	Middle: wooden tech door
156	Right side: wooden tech door
157	High switch: off
158	Left side: wide glass window wall
159	Middle: wide glass window wall
160	Right side: wide glass window wall
161	not used
162	Circular grating window wall
163	Circular grating window wall: broken
164	Arched grating window wall
165	Arched grating window wall:broken
166	Full grating window wall
167	Full grating window wall: broken
168	Single window wall
169	Single window wall: broken
170	Dog wall
171	Peekhole wall
172	Arch (usually exit arch)
173	Secret arch
174	Barred arch (usually exit arch)
175	High switch: on
176	Left side: broken wide glass window wall
177	Middle: broken wide glass window wall
178	Right side: broken wide glass window wall
179	Fence
180	Floors (used in upper corner of map to choose floor tile)
181	"
182	"
183	"
184	"
185	"
186	"
187	"
188	"
189	"
190	"
191	"
192	"
193	"
194	"
195	"
196	not used
197	not used
198	Ceilings
199	"
200	"
201	"
202	"
203	"
204	"

205	"
206	"
207	"
208	"
209	"
210	"
211	"
212	"
213	"
214	not used
215	not used
216	Light level: darkest (used in upper left corner of map)
217		
218		
219		
220		
221		
222		
223	Light level: lightest
224	Metal Triad light wall: one light
225	Metal Triad light wall: two lights
226	Metal Triad light wall: three lights
227	Metal Triad light wall: four lights
228	Gray stone waterfall
229	YOU DO NOT BELONG HERE Wall: used in Warp-Only levels
230	Maps to gray waterfall (was brown stone waterfall)
231	Metal pneumatic animating wall
232	Chain belt animating metal wall
233	Red-hot contained lava wall
234	Sky 1: stars (use instead of ceiling, must have horizon height)
235	Sky 2: twilight
236	Sky 3: Gray
237	Sky 4: Blue
238	Sky 5: red
239	not used
240	not used
241	not used
242	Metal wall with animating light strips
243	Exit hallway running lights: left side
244	Exit hallway running lights: right side
245	not used...
246	
247	
248	
249	
250	
251	
252	Rate tile: fastest (rate at which light fades to black or fog)
253		
254		
255		
256		
257		
258		
259		

```
260                 |
261                 |
262                 |
263                 |
264                 |
265                 |
266                 |
267              Rate tile: slowest
```

Foreground Tile Summary

This listing is a summary of all the **Foreground** tiles used in Rise Of The Triad.   Use the **TILE NUMBER** as a reference when placing tiles on the map cells.   Note that some tiles were not used in the present version of the game, but they are included here in order to give you a complete listing of all the tiles. *Some tiles are marked as doing nothing or are void.   Do not use these tiles.*

Please spend a few minutes studying these tiles before using them. Some tiles include instructions for their use.

TILE NUMBER	DESCRIPTION
	(First 18 are used as INFO PLANE Tiles)
0	Nothing
1	Pass through top catwalk, perpendicular to wall
2	Place over jump pad for 1-time only jumping
3	Place over jump pad to make it a periodic-firing jumppad
4	Top blocking only catwalk frame (all catwalks can be placed over the standard metal wall to make them out of that metal)
5	Bottom blocking only catwalk: walk eight feet off ground
6	Bottom and top blocking catwalk: " " " " "
7	Top and middle blocking catwalk: walk on floor only
8	Middle blocking catwalk: walk on floor or by ceiling
9	Bottom and middle blocking catwalk: walk on top only
10	not used
11	Arch of objects: put over objects in a line between two jump pads and program will make them into a nice arch
12	Ray of objects: put over objects leading from a jump pad and program will make a line of them from floor up to ceiling
13	Sky tile: put over a floor or wall, and you will see through to the sky on that wall. Use over same floor tile as room the sky touches and make sky two deep, if they can fall off level here.
14	Face east arrow: put over Triad Standards
15	Face north arrow: put over Triad Standards
16	Face west arrow: put over Triad Standards
17	Face south arrow: put over Triad Standards
	(End of the INFO PLANE Tiles)
18	Nothing
19	Player One Spawn location: facing N
20	Player One Spawn location: facing E
21	Player One Spawn location: facing S
22	Player One Spawn location: facing W
23	Ceiling light 1
24	2
25	3
26	4
27	Chandelier
28	Fancy Floor lamp
29	Gold key pedestal
30	Silver key pedestal
31	Iron key pedestal

32	Oscuro key pedestal
33	Dead guy
34	" "
35	" "
36	Monk meal
37	Priest porridge
38	Small monk crystal
39	Large monk crystal
40	1Up
41	3Up
42	Gray brazier
43	Metal light pole
44	Healing basin
45	Empty healing basin
46	Excalibat
47	Statue with knife on it
48	Pistol
49	MP40
50	Bazooka
51	Firebomb
52	Heat seeker
53	Drunk missile
54	Flamewall
55	Split missile
56	Dark Staff
57	Life item: 1 pt.
58	Life item: 5 pt.
59	Life item: 10 pt.
60	Life item: 25 pt.
61	Crate of TNT
62	Bonus barrel
63	Brown brazier (one of these is mapped to other)
64	Fire urn
65	Developer Ball: D
66	Developer Ball: I
67	Developer Ball: P
68	Touchplate: very visible
69	Touchplate: pretty visible
70	Touchplate: sorta visible
71	Touchplate: not visible
72	Path arrow: east (for walls, actors, etc.)
73	Path arrow: NE (pushwalls can start with cardinal directions only)
74	N
75	NW
76	W
77	SW
78	S
79	SE
80	Pushwall (put over wall to push in any direction)
81	not used...
82	
83	
84	
85	
86	

87	
88	
89	Four way gun emplacement: easy
90	Number 1: for level height, horizon height, elevator number
91	Number 2
92	3
93	4
94	5
95	6
96	7
97	8
98	Switch pillar for Darian
99	BOSS: Darian
100	BOSS: Krist
101	BOSS: El Oscuro
102	BOSS: NME
103	BOSS: Snake Oscuro
104	No Fog Icon: place over light level tile
105	Fog Icon: place over light level tile
106	not used (was Alternate exit tile)
107	Exit Tile: player touching this tile finishes the level
	(or in Comm-bat, teleports to entrance gate)
108	Low guard, facing east, attack on sound or sight of enemy
109	north
110	west
111	south
112	LG, East, follow path, leave path on sound or sight
113	N
114	W
115	S
116	LG, east, wait in ambush until see enemy
117	N
118	W
119	S
120	Sneaky Low Guard, easy: jump up when enemy approaches
121	Timed event: use in upper corner, highbyte X, lowbyte Y in info
	plane point to timed thing. Put time to start in MMSS minutes
	and seconds over timed thing. Put MMSS end time over adjacent cell to
	close it, if it is a door.
122	Random guard: face east
123	N
124	W
125	S
126	LG, Hard, Face east, sight or sound (same format as east low guard)
127	"
128	"
129	"
130	"
131	"
132	"
133	"
134	"
135	"
136	"
137	"

138	Sneaky low guard, hard level
139	Light sourcing icon: put over rate to have lights light up walls
140	Firechute: fire E
141	N
142	W
143	S
144	High guard, easy, face east, sight or sound (same 12 as LG)
145	"
146	"
147	"
148	"
149	"
150	"
151	"
152	"
153	"
154	"
155	"
156	Spinblade attached to ceiling
157	Spinblade stabber, stabbing from ceiling
158	Patrol robot, easy, facing east, follow path
159	N
160	W
161	S
162	High guard, hard...
163	"
164	"
165	"
166	"
167	"
168	"
169	"
170	"
171	"
172	"
173	"
174	Spinblade attached to floor
175	Spinblade stabber stabbing from ceiling
176	Patrol robot, hard, facing east...
177	N
178	W
179	S
180	Strike Team, easy, facing east...
181	"
182	"
183	"
184	"
185	"
186	"
187	"
188	"
189	"
190	"
191	"
192	GAS Icon: put on floor, point switch to it, put over doors you

	want to lock when gas released. Spawns a grate on the floor.
193	Jump pad
194	Raising gun emplacement, easy: facing east
195	N
196	W
197	S
198	Strike Team, Hard...
199	"
200	"
201	"
202	"
203	"
204	"
205	"
206	"
207	"
208	"
209	"
210	Scott's Mystical Head: get it for bonus points!
211	Four-way gun emplacement: hard
212	Raising gun emplacement, hard: facing east
213	N
214	W
215	S
216	Overpatrol, easy...
217	"
218	"
219	"
220	"
221	"
222	"
223	"
224	"
225	"
226	"
227	"
228	Floor garbage
229	" "
230	" "
231	" "
232	Grating on floor
233	Metal scraps
234	Overpatrol, hard, ...
235	"
236	"
237	"
238	"
239	"
240	"
241	"
242	"
243	"
244	"
245	"
246	Empty key pedestal

```
247          Table
248          Stool
249          Brown pillar
250          Gray pillar
251          Dark pillar
252          God Mode Powerup
253          Dog Mode Powerup
254          Mercury Mode Powerup
255          Random Powerup
256          Turbo Go-wall: east (place over wall you wish to have moving)
257                         N      (official name is "Turbo WanderWall")
258                         W
259                         S
260          Elasto Powerdown
261          Shrooms Powerdown
262          Oscuro Larvae in Egg
263          Collector item (only spawns in Collector and Scavenger)
264          Tree in pot
265          Plant in pot
266          Urn
267          Statue (like one with knife, but without one)
268          Monk bed
269          Barrel
270          Bulletproof vest
271          Asbestos vest
272          Gas mask
273          not used
274          Modem/Network player spawn: facing N
275                                              E
276                                              S
277                                              W
278          Rolling Boulder: drop and roll E
279                                          N
280                                          W
281                                          S
282          Heat pit
283          Triad standard on pole
284          Pit trap
285          Brown pushpillar: any direction, will move 2 if it can
286          Gray   " "
287          Dark   " "
288          Triad Enforcer, easy....
289          "
290          "
291          "
292          "
293          "
294          "
295          "
296          "
297          "
298          "
299          "
300          Normal Go-wall: east
301          Path-following Ceiling Spinblades: east
```

302	Path-following Floor Spinblades: east
303	Brown pushpillar: east only
304	Gray " "
305	Dark " "
306	Triad Enforcer: hard...
307	"
308	"
309	"
310	"
311	"
312	"
313	"
314	"
315	"
316	"
317	"
318	Normal Go-wall: north
319	Path Ceiling spinblade: north
320	Path floor Spinblade: north
321	Brown Pushpillar: north
322	Gray " "
323	Dark " "
324	Lightning Guard: easy...
325	"
326	"
327	"
328	"
329	"
330	"
331	"
332	"
333	"
334	"
335	"
336	Go-wall: west
337	Path Ceiling spinblade: west
338	" " Floor " "
339	Brown pushpillar: west
340	Gray
341	Dark
342	Lightning Guard, hard: east...
343	"
344	"
345	"
346	"
347	"
348	"
349	"
350	"
351	"
352	"
353	"
354	Go-wall: south
355	Path Ceiling Spinblade: south
356	" " Floor " "

357	Brown pushpillar: south
358	Gray
359	Dark
360	DeathMonk, easy, east....
361	"
362	"
363	"
364	"
365	"
366	"
367	"
368	"
369	"
370	"
371	"
372	Ceiling firejet
373	Ceiling path firejet: E
374	N
375	W
376	S
377	Lightning icon: put on upper row of outside level for lightning
378	Death Monk, hard, east....
379	"
380	"
381	"
382	"
383	"
384	"
385	"
386	"
387	"
388	"
389	"
390	Floor firejet
391	Floor path firejet: E
392	N
393	W
394	S
395	Rolling boulder sink into floor here
396	Deathfire monk, easy, east...
397	"
398	"
399	"
400	"
401	"
402	"
403	"
404	"
405	"
406	"
407	"
408	Ballistikraft: face east, follow path, easy
409	N
410	W
411	S

412	Ceiling stabbers
413	Ceiling crushing cylinder
414	Deathfire Monk, hard, east...
415	"
416	"
417	"
418	"
419	"
420	"
421	"
422	"
423	"
424	"
425	"
426	Ballistikraft: hard, east, follow path
427	N
428	W
429	S
430	Floor stabbers
431	Floor crushing cylinders (or just lifting if not one tall level)
432	not used...
433	
434	
435	
436	
437	
438	
439	
440	
441	
442	
443	
444	
445	
446	
447	
448	
449	
450	Number 9: for elevators and so on. See 267.
451	10
452	11
453	12
454	13
455	14
456	15
457	16
458	Not used (was for waterfall sound point source)
459	LAST icon: if in level you finish, game ends
460	Not used (was for Wind sound point source)
461	GAD: Gravitational Anomaly Disk. Put $B0xy over it to raise in air, where x is stories in air and y is sixteenths of a story. A value of F in the X place means go one story into the floor, then add y.
462	EGAD: Elevator GAD. Goes from floor to height in info plane.
463	Path GAD: east
464	N

465	W
466	S
467	Not used (was spooky monk wind sound)

Tutorial - Creating Your First Level

Well, now that you've got this editor, what are you going to do with it?   Of course you want to create really cool ROTT maps, but you'll need a few "basics" to get you started.   Other sections in this help document have given you many details for manipulating ROTT maps; this section will (hopefully) help solidify the "pieces" of the editor into a usable, productive tool.

In this section, I will help you create a new map level.   It won't do a lot, but it will be functional and you will have learned a few more things about creating maps.   I have included the tutorial level file, TUTORIAL.RTL, in the RottED distribution.   Take a look at the the first map in TUTORIAL.RTL if you want to see the entire map we're creating here.   (The TUTORIAL.RTL map contains all the map elements discussed in this section plus an extra secret room, several weapons and powerups, enemy guards, and hazards.)   Please follow these steps somewhat in order - be creative with your map!   You may want to print out this section.

1.   Create a new level file using the File/New Level File menu command.   Name it whatever you want but no ROTT game file names allowed.   Select the "Empty Map Slot 0" as the map.   Notice the map name in the bottom status bar and your level file name as part of the RottED window title?   Adjust the display scale resolution to Scale 2 or Scale 3 (look at the View/Grid Scaling menu command.) - whatever looks good for you.   Keep the grid line drawing active at this point.   You may want to periodically save your map while doing this tutorial, and be sure to save the map in the first map slot (slot 0) in your tutorial file.   Feel free to change the map name to whatever you want (Edit/Map Name menu command).

2.   First, let's fill in the upper left corner of the map with the required critical variables.   (You do not have to use the same tiles I used when drawing this map.)   You have your choice here - you can get some editing practice by entering the following tiles one at a time, or you can use the Edit/Default Map Corner menu option.   If you enter any data incorrectly in the upper left map corner, the ROTT game engine will halt; the Default Map Corner command "guarantees" you'll have bug-free data in the map corner.

> Background Tiles
> A.   Cell 0,0:   Add background floor tile 189.
> B.   Cell 1,0:   Add background sky tile 235.
> C.   Cell 2,0:   Add background brightness level tile 221.
> D: Cell 3,0:   Add background light fading rate tile 265.
>
> Foreground Tiles
> A.   Cell 0,0:   Add height foreground tile 92.
> B.   Cell 1,0:   Add sky height foreground tile 97.
> C.   Cell 2,0:   Add the No Fog foreground tile 104.
> D.   Cell 3,0:   Add the light sourcing foreground tile 139 so lights will illuminate the walls.
> E.   If you want lightning effects, place foreground tile 377 in Cell 4,0.
>
> Song Info
> (The Edit/Default Map Corner menu option loads Song 7 for you, so just ignore these instructions if you used Default Map Corner.)
> If you want to play a specific song during this level, you'll need to enter a song value into the Info plane in one of the upper left corner cells.   For this tutorial, let's add the song data to Cell 5,0.
> Select Cell 5,0 by double-clicking on it.   In the cell information dialog, enter a value of 7 in the Info Plane Data, Song edit box.   The game has quite a few songs available starting with Song 0, so just experiment and find ones you like.

3.   Now let's put up a square wall with floor tiles inside the wall.   The wall doesn't need to cover much space.   I used background wall tile 25.   My square wall measures 14 x 14 cells with the upper left cell at 5,3.   I used background floor tile 109 - fill in the entire area inside your wall with floor tiles.   Don't forget

<u>about the RottED Floor Fill command; its a very fast way to tile an entire floor!</u>

Now that you have several map tiles on the screen, you might want to experiment with the Tile Brightness (View/Tile Brightness menu command).   This feature lets you lighten or darken all the image tiles, which can be very useful depending on the type of color monitor you're using.   Try adding a value of 40 into the Brightness Level box and press OK.   Did your tiles get brighter?   Try entering a value of 100.   Your map tiles probably "washed out" -- too bright.   Hit the Default Brightness button and press OK.   This resets your tile intensities back to original levels.   Try a value of -50.   Did your tiles get darker?   This feature also affects the color intensity of your printouts, so don't forget to use it when optimizing your printout quality.

4.   Put the player in now.   Actually, you would probably want to design many other pieces of a map before inserting the player, but for now let's put 'em in.   Select foreground tile 21 for the player facing south and put it in cell 11,4.

5.   Do the level exit.   Again, you'd probably want to add the exit later on in map development.   Place the exit foreground tile 107 in cell 8,15.   When your player steps on this tile the level exits.   In the cell containing the exit tile you must also load the Info plane with the map slot number (0-based) of the next level to be played.   For now let's do a continuous loop through this level, so open the cell info dialog box (double-click over cell 8,15), and enter a value of 0 into the "Level Exit - Next Area" edit box in the Info Plane Data area.   Since our tutorial map is stored in slot 0, then the game engine will read the Info plane value in the exit tile cell and will then reload/replay our tutorial level.   If you want to be a little fancy, place the exit stairs wall background tile 47 in cell 8,16 so the player will know exactly where the exit is located.

6.   Are you with me so far?   Just to make sure things are okay up to this point, I want you to save your map in the first map slot (slot 0) and exit RottED.   If your level file isn't in the ROTT subdirectory, copy it there now and start ROTT using the "setup" command.   Inside setup, select the "Use Modified Stuff" menu followed by the "Choose Alternate Game Levels" option.   Select your new level file and exit the menu.   Back in the main menu, select the "Save and Run ROTT" command.   The game starts and will load your new level.   If the level loaded okay, walk over to the area where the exit tile is located and exit the level. Did the level exit okay?   Did the intro screen play again?   Did your level load again?   The ROTT game engine has lots of built-in diagnostics to tell you about errors it finds in your level.   Make sure your level plays okay before going any further in this tutorial.

7.   While we're still in the walls and floors stage of the level, let's add some sky tiles so you can see how they work.   Even though the sky is a tile just like flooring or walls, you can "fall off the map" through the sky.   This effect lends itself to some very creative levels.   (When adding tiles here, try the Pick Up Wall command for grabbing a wall plane value from an existing map cell and then using the picked up value to edit with.)   First, we need to open up part of the wall we've built by replacing its tiles with flooring.   I replaced the wall tiles at 18,6 through 18,9 (the column of tiles starting at 18,6) with the same background floor tiles I previously used (tile 109).   Now add another 2 columns of the same floor tiles to 19,6 to 19,9 and 20,6 to 20,9.   Select foreground sky tile 13 and add it to cells 19,6 to 19,9 and 20,6 to 20,9.   Notice the appearance of the cells with the sky tiles.   As discussed elsewhere, the first 18 foreground tiles are stored in the Info plane of a cell, and RottED draws all Info plane tiles in the lower left 1/3 of a cell. Lastly, we need to enclose the sky tiles with wall (try a Pick Up Wall here too), so add the same background wall tiles we used previously (tile 25) to all the cells around the sky tiles, essentially enclosing the sky tiles.   At this point, save your file (again in map slot 0), exit RottED, and run ROTT to view the level.   Try walking "into the sky".   You can put a Fence (background tile 179) in cells 18,6 to 18,9 to keep the player from falling off the map (if that's what you want).

8.   Now let's put in some fun things.   How about a Jump Pad in front of the fence, so you can jump over the fence and "into the sky"?   Put foreground tile 193 in cell 17,7.

9.   Put a Silver Key on top of a platform.   Let's do the platform first and we'll use one that is 2 stories tall.   Put foreground tile 9 in cell 17,4.   (Note that the platform data is stored in the Info plane.)   The silver key

on a pedestal is foreground tile 30, so put it in cell 17,4 too.   As a general rule, a game object in a cell will "sit" at the highest possible location in the cell and in our case the key will sit on the platform.   Since game objects such as platforms sometime appear "1 dimensional" if not bounded by walls, add a wall tile (background tile 25) to cell 17,5.

10.   Well, now we've got a silver key on a platform, but how do we get it ?   Let's use an elevator GADS for that.   Select the elevator GADS foreground tile 462 and place it in cell 16,4.   GADS objects need a height value which is stored in the Info Plane.   Open the info dialog for cell 16,4 (double-click on the cell), and change the Info Plane Data/Height Info Data, the Story value to 1 and Story Fraction to 8.   (Just experiment with the story/story fraction values to you get what you want.)

11.   We can use the silver key to open a locked door which requires a silver key.   Add door background tile 95 to cell 18,13.   Since a door must obviously open into another room, pick a wall background tile (I used tile 107 because I like the glowing effects.)   Freehand a wall to enclose the open area outside the door - make it any size you wish.   Pick a floor tile (I used background tile 110) and add them to all cells inside the new enclosed wall area.   Try the Floor Fill command to tile the floor.   Save your work and run the level to see how things look.

12.   "How about a little fire, Scarecrow?"   Let's do a switch-controlled firechute.   Place the switch first.   Let's use background switch tile 78 (you can use touch plates as switches too) and place it over cell 6,4.   We can use firechute wall background tile 11 and add it to cell 5,10.   The firechute target wall (background tile 12) can be in cell 18,10.   As with lots of game objects, firechutes travel in map compass directions (North, East, West, and South).   In our case, we'll need a firechute that's traveling East, foreground tile 140.   Add this tile to cell 6,10.   ROTT objects that are switch-controlled "point" to the switch that controls them via the switch's XY cell coordinates.   In our case, we'll add the coordinates of the switch (6,4) to the Info plane in cell 6,10 (since that's the location of our firechute).   Open the cell info dialog for cell 6,10 and change the Info Plane Data/X Y Cell Info Data, X Cell Location = 6, and Y Cell Location = 4.   Now that you've manually entered the X Y switch coordinates into the firechute map cell, its time you learned of an easier way - RottED Quick Links.   Read up on Quick Link operation via the Edit/Quick Links menu option.   Its a lot easier to program switch locations into their controlled objects (doors, firechutes, etc.) using Quick Links.   Save your changes and see if it worked.   Initially, the switch is off - the firechute is off.   Turn on the switch and the firechute should turn on.

13.   Push walls are fun, so let's do one.   Let's use the wall at cell 16,16 as the push wall and we will push it South.   Place the path arrow, South, foreground tile 78 over cell 16,16.   Of course, the wall needs to open into another room, so pick wall and floor tiles and make another small room that the push wall can "push into".   (I used background wall tile 228 and background floor tile 111.)

14.   Let's add another type of GADS   - the Path GADS which travels along compass map pathways.   To make it interesting, place it over the firechute we previously added.   We'll use a GADS that travels West.   Place foreground Path GADS (West) tile 465 over cell 16,10.   To make the GADS move, we have to add Path Arrow tiles at each end of the GADS travel.   Place the Path Arrow, East, foreground tile 72 in cell 7,10 and the Path Arrow, West, foreground tile 76 in cell 17,10.   Lastly, the GADS needs some height.   Open the cell info dialog for cell 16,10 (since that is where the GADS is).   Change the Info plane height variables Story = 1 and Story Fraction = 0.   Save your file and see if it worked.

15.   Let's do a timed door.   Timed doors open and close at predefined times (time offsets relative to the start level time).   In order to place a timed door, several things need to be done.   A special timer tile is placed in the upper left corner of the grid.   This tile "points" to the timed object - in this case, our door.   The cell containing the timed door contains the starting minute and second value in its Info plane.   This start time is the time the door will open.   Lastly, the door closing time is placed in a cell containing a floor tile which bounds the door.   In other words, the stop time goes in a floor cell on either side of the door.   This cell must touch the cell containing the door.   Confused?   Let's do one.   Let's add background door tile 101 to cell 5,13.   You will need to build a wall around the outside of the door, and don't forget to add a floor. (I used background wall tile 60 and floor tile 112.)   Now add foreground timer tile 121 to cell 6,0.

The timer has to "point" to the timed door via XY coordinates, so open the info dialog for cell 6,0 and alter the Info plane XY values to 5,13 (use a Quick Link if you wish).   The start time for the door to open is stored in the door's Info plane, so open the info dialog for the door in cell 5,13.   Alter the time minute and second edit boxes to Minute = 1 and Second = 20.   Now the door will open 1 min 20 sec after the level begins.   The last thing to do is program the door closing time, and we can put that into cell 4,13.   As before, open the cell's info dialog and alter the Info plane time values to Minute = 2 and Second = 0. Now the door will close 2 minutes after level start. The door will remain open for 40 seconds, right?   Save your file and check it out.

16.   Previously in this tutorial, when an object such as a GAD needed height, you opened the cell info dialog and manually entered the object's height in Story/Story Fraction values.   When dealing with a single object having height, this is the best way to do it.   What if you want to build a flight of stairs?   In that case, you will be adding several GAD objects, and for each one you will have to open the cell info dialog and set its incremental height.   Not fun, eh?   Due to the many requests of RottED users, there is now an editing command which automatically programs object height for you - the Height Adjustment command.   Open the Height Adjustment dialog (Edit/Height Adjustment menu option) and read about this command.   The Height Adjustment feature is very powerful, but you must be careful when you use it in order to avoid accidental edits.   In the dialog, turn Height Adjustment ON.   Now enter values of Story = 0, Story Fraction = 0, and Change in Story Fraction... = 10.   The next foreground tile you place will have this height (on the floor for our tutorial).   Now select foreground tile 64, the fire urn.   Add this tile to the column of cells starting at cell 6,5 and extend them down to 6,9.   You should have a column of 5 fire urns.   Take a close look at their Info Plane height values.   Notice that each one is 10 Story Fractions higher than the previous?   At this point, turn OFF the Height Adjustment (via the Height Adjustment dialog).   Always turn OFF Height Adjustment as soon as you are done with it.   Save your file and run it. Did you see the fire urns "staircased" up the wall?

Build GAD stairs using this same technique.   If you want the player to be able to climb the stairs, set the Change value in the Height Adjustment dialog to somewhere between 2 to 6.   The Change value can also be negative for downward stairs.   If you set Change to 0, then all subsequent foreground tiles will have the same height - great for platforms the player can walk on.   Experiment!

17.   Now its time to add bad guys, other hazards, lights, etc.   This part is up to you.   Look at my TUTORIAL.RTL file for ideas if you want.   Look over the background and foreground tile summaries too. There's LOTS of things you can add.

18.   You can print out all or part of your map.   Use the scroll bars to get cell 0,0 in the upper left corner and set the Scale to 4.   Select File/Print Preview.   The Print Map dialog will appear.   Read it.   If using 8 1/2 x 11 paper in Portrait orientation, the Start X and Y will be 0, and the End X = 20 and End Y = 7.   Your setup may be different.   If using a setup similar to mine, then you'll see a Number Of Print Pages = 2. Close the dialog using OK.   The preview page will be drawn.   At this point, Close the preview.   Turn off the Map Grid and then do the preview again.   Also try altering the Tile Brightness and notice how your printouts are affected.   The scale of your printout page is determined by the display scale, so try altering display scales and see how the print pages look.   Notice that the map cell numbers may or may not appear on the printout grids depending on the scale you have selected.   If the numbers will fit nicely into the printout, then they are printed.   As you can see, there are many ways to tailor your printouts.

When ready to print, you'll notice that the original Windows Print dialog appears.   You can adjust the Print Quality (dpi) using this dialog but do **NOT** adjust the Pages: From X to X settings.   The RottED Print Map dialog calculates the correct page count, not Windows.   Just ignore the Windows Print settings for Pages.   Also, depending on whether you print via the Print Preview feature, the RottED Print Map dialog may pop up twice - so you'll have to enter your X and Y range values twice.   Sorry for this inconvenience, but I had to really "tweak" Windows for doing map printouts.

Its always a good idea to make a printout of a small number of map cells first, then proceed to bigger printouts.   For me, I like to print a single page map having about 10x10 cells.   The printouts are fast and

I can make any needed changes in scaling and brightness before taking the time to do large print jobs.

I hope you found this tutorial informative.   Obviously, there are many more things that could be covered, but I think you have enough to be on your own.   Good luck!

ROTT Level Design Information

This section summarizes general concepts used in the Rise Of The Triad mapping system.   The data presented here was intentionally made as non-technical as possible. If you want the real "nitty-gritty" of ROTT maps, refer to Apogee's ROTSP1 technical document which can be found on CompuServe in the Action games (go action) forum, 3D Action Games library.

Map Format

Rise Of The Triad maps are stored in files suffixed with RTL or RTC.   RTC maps are for multiplayer play and do not contain enemies or exits.   RTL maps can be used both for multiplayer and single player games.   Each RTL/RTC file can contain up to 100 maps.

A ROTT map consists of a 128x128 grid composed of 16384 (128 times 128) map cells.   Each map cell is represented by 3 planes of data: the Wall, Sprite, and Info planes.   In other words, each map cell is made up of wall, sprite, and info data.   This format was necessary due to the complexity of the ROTT maps and it allows for great variation in level design.   (Manipulating the map planes directly can be somewhat tedious if you do it yourself, but hey, RottED does it all for you.)

When editing with RottED, most of the data in the map cells consists of image tiles.   (Actually, the data in the cells are just numerical values, but the RottED editor is based on an image tile placement system, so that's what we'll focus on here.)   The image tiles come in two "flavors" - background and foreground tiles. **All background tile data are placed in the Wall plane** (see the Background Tile Summary section for a listing of the background tile numbers.)   **The first 18 foreground tiles are placed in the Info plane and the remaining foreground tiles are placed in the Sprite plane** (see the Foreground Tile Summary section for a listing of the foreground tile numbers.)

The Info Plane

The Info plane is used for storing various types of map data and hence it is the most confusing. The following listing summaries the types of data stored in the Info plane.   (Double-click the Left mouse button on a map cell to bring up a dialog showing all of the data in the selected cell. Note the various types of data you can load into the Info plane.)

Tiles: The first 18 foreground tiles are stored in the Info plane.   These tiles modify the data stored in the other planes. For example, foreground tile 4, when placed in the same map cell as a metal wall background tile, will turn the metal wall into an overhead wall that you can walk under.

Songs: This data specifies the ROTT song that is played during the level.   The song data is placed in the upper left corner area of the map.

Height Data: Objects such as GADS (Gravitational Anomaly Disks) can have an associated height value that specifies the object's height above ground level.   The height is specified as a positive/negative story value (-1 stories is 1 story - 8 feet - into the ground.), plus a fractional story value in 1/16-story increments.   Each fractional story value is about 1/2 foot.   For example, a story of -1 plus a fractional story value of 6 would refer to a location 8 feet into the ground plus about 3 feet up from that for a total depth of about 5 feet into the ground.   A story and fractional story value of 0 references an object that is sitting on the ground.

Map Cell Location: The Info plane can store map cell locations as cell X and Y coordinates. This feature is important for control devices such as wall switches.

Time Data: Objects such as doors (background tiles) can be controlled using timers. In other words, you can open and close doors using predefined system times.   All times are entered into the Info plane as Minute and Second values.   (RottED formats the MMSS data for you once you have entered it.)

Exit Data: This data specifies the map slot (0-based) of the *next* level to be played when the current level is completed.   The exit data is located in the Info plane of the cell containing the foreground Exit tile (107).

Critical Map Cells

The data in the <u>upper left corner</u> of the map (around cell 0,0) is critical to the functioning of the level.   The following values MUST be found in these cells or the map will be corrupted:

Background Tiles
Cell 0,0:   Floor data, consisting of background tiles 180 through 195.
Cell 1,0:   Ceiling data, consisting of background tiles 198 through 213 or sky data
      consisting of background tiles 234 to 238.
Cell 2,0:   Brightness Level, consisting of background tiles 216 to 223 from dark to light.
Cell 3,0:   Light fading rate, consisting of background tiles 252 to 267 from fast to slow.

Foreground Tiles
Cell 0,0:   Height of the level, height 1-8 consisting of foreground tiles 90 to 97,
      and height 9-16 consisting of foreground tiles 450 to 457.
Cell 1,0:   Sky height, consisting of the same foreground tiles found in Cell 0,0.
Cell 2,0:   Fog, consisting of foreground tile for Fog (105) or No Fog (104).
Cell 3,0:   Light sourcing, consisting of foreground tile 139 to have lights illuminate the walls.

Lightning
Place foreground tile 377 somewhere in the upper left corner (outside of any map walls) of the map for lightning effects.

Timed Events
Place foreground Timer tile 121 somewhere in the upper left corner (outside any walls) of the map.   Each timer tile corresponds to a single timed event.   Place the XY cell location of the object being timed in the Info plane of the controlling timer tile.   The Info plane of the object being timed (such as a door) is then loaded with the minute and second values of the start time   In the case of timed doors, the stop time is loaded into the Info plane of a floor tile (background tile) on either side of the door. Confused?   Here's an example,
Let's assume we want to open a door located at cell 23,16 about 3 minutes after the level is begun, and we want the door to shut after 5 minutes after level start.   Put a Timer tile in the upper left area of the map at location 5,0 (for this example).   Double-click on cell 5,0 bringing up the data for the Timer cell.   Now load the Timer cell Info plane XY location values with X=23 and Y=16, the coordinates of the door being controlled.   (Alternatively, you could use the Quick Link command for putting the door's XY coordinates into the Timer tile cell.)   Now double-click on the cell that has the door (23,16).   Alter the door's Info plane Minute/Second edit boxes for Minute=3, Second=0.   Now the door will open after 3 minutes.   Pick a floor (background tile) tile on one side of the door; let's assume a floor tile is located at 22,16.   Double-click the mouse cursor on the floor tile at 22,16.   Edit the floor tile's Info plane Minute/Second values to Minute=5 and Second=0.   Now the door will open after 3 minutes from level start and will close after 5 minutes from level start.

Songs:
Enter the song number in the Info plane of a map cell somewhere in the upper left corner (outside a wall) of the map. Song 0 will play if you do not enter a song.

Walls And Floors

Most of the map is composed of background wall and floor tiles.   The walls obviously provide the physical boundaries for player travel and are logically placed wherever you want them.   The floor tiles consist of background tiles 108 to 152.   Looking at the Background Tile Summary section, notice that these tiles are referenced as "Floor sound areas".   The ROTT game engine uses the floor tiles for determining how to propagate the various game sounds.   If you are standing on a floor tile that is the same as that under a hazard such as a spinning blade, then you will hear the spinning blades.   If you are standing on a floor tile having a value different from that under the blades, then you will not hear the blades.   You are free to use any floor tiles you wish, but you might want to study a few game maps to see how floor tiles are used with doors and other objects.

Push walls are simply wall tiles that have a Path Arrow Sprite Plane tile placed over them.   Note that push walls work differently between RTL and RTC files.   They work as you would expect them to in RTL files, but they are automatically activated at the start of the level in RTC files.   This feature is due to the fact that in RTC Comm-Bat levels having network players, it is possible for a net player to start the level stuck behind a push wall.   They won't be able to get out until someone else activates the wall.

Sky

The sky background can be easily added by placing the Sky tile (foreground tile 13) over any background tile floor or wall.   Generally, add the sky tiles to the same floor as the room the sky touches and make the sky two deep.   You may even want to enclose all the sky area with background wall tiles.   Note that even though the sky is considered a "tile" just as floor or wall tiles, the user can "fall off" the map via a sky tile.   The Sky tile is one of the first 18 foreground tiles that are stored in the Info plane data.

Wall Switches

All objects (doors, firechutes, etc) that are activated by a switch point to the location of the switch by putting the cell X and Y location of the controlling switch into the objects' Info plane.   For example, if a door (background tile) is controlled by a switch found at map cell (x,y) 15,26, then the cell containing the door tile would have X=15, Y=26 loaded into its Info plane.   (RottED automatically formats the XY cell data into the Info plane after you enter the XY values.)   Don't forget about RottED Quick Links for rapidly programming switch locations into doors, firechutes, etc.

Gravitational Anomaly Disks

GADS are setup by putting a GADS foreground tile (461 to 466) into a map cell followed by the height of the GADS in the Info plane.   The GADS graphic has the disk in the top quarter of the image, so the GADS must be put *into the floor* in order to make it appear at ground level.   A story value of -1 and a story fraction of about 6 puts the GADS at ground level.   In order to be able to climb the GADS like stairs, the GADS must be no more than 6 story fractions apart in height.   (Remember that a story is composed of 16 story fractions.)   You can enter all GADS heights manually via the Cell Information dialog (double click on a map cell), or even better, use the Height Adjustment command for automatically programming the GADS heights as you place them.   For example, GADS that are arranged in stair-like order might have sequential height values of:

Story	Story Fraction
-1	6
-1	12
0	2
0	8

0	14
1	4
1	10
2	0
2	6
...	...

There are 3 types of GADS: a stationary GAD (foreground tile 461); an elevator GADS (foreground tile 462) that goes from the floor<->height in the Info plane continuously, and path GADS (463 to 466) which go east, north, west and south, respectively.   The path GADS are accompanied by Path Arrow foreground tiles which specify the direction for the GADS to go. For example, a west-traveling GADS (foreground tile 465) can hit an East Path Arrow (foreground tile 72) which will reverse the GADS to go east now.   When the GADS hits the end of its east travel it can bump a West Path Arrow (foreground tile 76) to reverse its direction.

Player Positioning And Level Exit

The player is placed in the map using foreground tiles 19 to 22, depending on which direction you want the player to be facing when the level begins.   The level is ended when the player reaches the Exit tile, foreground tile 107.   The Info plane data in the cell where the Exit tile is located contains the 0-based map slot of the next level to be played.

Notes From The Author

This version of RottED has several enhancements over the previous version and I hope you find them useful.   Thanks for all the comments and suggestions for RottED improvements.

I would like to express my thanks to the Apogee Rise Of The Triad Development Team members for answering my questions and also for supplying the really cool image tiles used by RottED.

This version of RottED is shareware.   If you like it enough to make a "donation" for it, then please do so. It will be sincerely appreciated.   RottED is issued and distributed as a fully operational system with no crippling or any other type of alteration which requires registration on the user's part in order to unlock features of the editor.   When distributing copies of RottED, you MUST <u>include all files in the original distribution</u> (including any readme or tutorial example levels).

Thanks for using RottED. I hope you get as much enjoyment using it as I did writing and testing it.

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Technical Help

This section consists of a series of   Questions and Answers concerning RottED and how it works.   At this point, I've tried to anticipate several user questions. As this product continues to evolve, I will add to this list.

Question:
        I have installed RottED.   It starts okay and displays the map grid when I load a new RTL or RTC level file.   The image tiles do not appear to be drawn correctly. Instead of seeing the tile images in the map cells, all I see is little gray marks and other garbage on the screen where the tiles should be.
Answer:
        In order to minimize the size of the RottED system, I used an image management system that works only in VGA mode.   RottED was written for Windows and Windows For Workgroups using the Microsoft-supplied VGA and VGA (3.0) Windows video drivers.   Higher resolution (such as SVGA 640x480) and custom OEM video drivers may not work properly.   In order to make sure this is your problem, just go to the Windows Setup screen and make sure the Display is set to VGA.   If not, select VGA and then restart Windows once the new driver is installed.   If RottED still doesn't look right, please contact me with a full description detailing your problem.

Question:
        Once I load a map from an RTL or RTC file, why can't I load another map from the same file without loading a "dummy" or intermediate map from a different file?
Answer:
        RottED was written as a Single Document Interface application. You can only have 1 "document" open at a time.   Windows is geared for dealing with documents such as word processor text files and a little tweaking had to be done to get ROTT map files loaded/processed correctly.   Once you load a map from a level file, Windows will not let you open that "document" again.   When you try to load another map from the same level file, Windows automatically defaults back to the map that was previously loaded. Sorry for the inconvenience, but you will have to load a "dummy" RTL /RTC file (it doesn't matter what file you want as an intermediate file) between edits on maps in the same RTL/RTC file.

Question:
        When in an edit mode, my cursor changes to one that is normally used for resizing or moving other application windows around.
Answer:
        In order to minimize the size of the RottED system and its associated image files, standard Windows icons were used to signal edit modes.   The edit cursors do nothing other than to remind you that you're in edit mode.

Question:
        I selected foreground and background tiles for editing, but RottED would not let me place them onto the map screen.
Answer:
        You must have a valid RTL/RTC file loaded before RottED will allow map editing.   Showing you the image tiles while not editing a loaded map is a feature of RottED. You can look at the tiles anytime, but you can only edit with them after a valid RTL/RTC file has been loaded.