

Program Layout

Setup Absolutely Necessary Variables

- Resets “getKey”
- Sets up the LFTHT list

[Internal Subprogram] Loads Level Data

- Turns off the “run-subprogram” variable

First Time

- Sets up variables for map decompression
- Resets map matrices
- Sets the directional arrow keys to their default values
- Turns on the “transmute” variable
- Turns off the “over”, “position”, “special” and “word” variables

Maps

- If first time:
 - Sets up first-position coordinates
 - Stores the compressed maps for decompression
- Otherwise:
 - Seek character’s position & act accordingly

Non-Existent Maps

- Sets up “return” and “word” variables to display message and return to the main map

Decompression

- Sets up character re-draw variables if necessary
- Displays “loading” message, with percentage of completion
- Decompresses maps into their appropriate matrices
- When done, returns to the mainframe program

Setup Variables

- Sets up the lookup-table string
- Sets the directional arrow keys to their default values
- Resets map matrices

Welcome Screen

- Clears screen to display a welcome screen, including:
 - Marquee of the program name
 - Version number
 - Credits to James Kanjo
- Goes to main menu on key press

Game Engine

- Sets up default values for the “map number”, “first-time” “position”, “special”, “word”, “over”, “draw character only” variables and stores “marquee scrolling speed”

- Enters a “repeat until over” loop:
 - Repeat If Setup Necessary Loop:
 - Checks for appropriate map

Treasure Found

- If treasure is found:
 - Resets variables for main map
 - Displays “hooray” message

Display Words

- If words are to be displayed:
 - Adds double space at front and end of string
 - If string is too short, enough spaces are added at the end of the string
 - Marquees string on string with border
 - Till “2ND” or “ENTER” are pressed
 - If necessary, sets “transmute” variable

Draw Character Only

- If necessary, redraws the map tile where the character was, and superimposes the character where it is

Transmute

- If transmutation is necessary, map is redrawn
- End of repeat loop

Movement Function

- Controls player’s position
- Validates desired position before movement
- If player’s position is special, the “special” variable is turned on and player returns to the start of the “repeat until over” loop
- If player’s position is special on selection, and the player has pressed “2ND” or “ENTER”, the “special” variable is turned on and player returns to the start of the “repeat until over” loop
- End of “repeat until over” loop

Main Menu

- Gives user the options to:
 - Play
 - Help
 - Quit

Help

- Gives brief instructions to playing the game

Quit

- Deletes unique variables used
- Displays credits to James Kanjo
- Clears screen and closes the program