



Moosh's Dungeon Map Script

Setup instructions

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Initial Setup

DEC and HEX Combos

The first thing you'll need to do is set up Decimal and Hexadecimal combos. I've put loose tiles on the database for these, which you can find [here](#). After you rip the tiles in, you'll want to mass map them all to your combo table. You can do this by selecting the whole block and then pressing the M key. Map them to a page in your combo table that are out of the way, such as pages 100 or 200, so you don't overwrite any of your other combos by accident. Also when the popup asking you if you want to fit to 4 columns, be sure to click 'No'. Once mapped, you should have something like this:



Example: A full set of mapped HEX combos. The top left one currently selected is what you would set CMB HEX to. MAX HEX in this case would be 0x8F.

After mapping all your combos, some constants need to be set to tell the script where they are. These constants are:

- *CMB_DEC*: The combo number of the first combo of the decimal marker combos.
- *MAX_DEC*: The decimal value of the last decimal marker combo.
- *CMB_HEX*: The combo number of the first combo of the hexadecimal marker combos.
- *MAX_HEX*: The hexadecimal value of the last hexadecimal marker combo.

Screen Freeze

Next, we'll set up the screen freeze combos. This one's pretty simple. You'll need to create two combos with the types 'Screen Freeze (Except FFCs)' and 'Screen Freeze (FFCs Only)'. Then you set these constants:

- *CMB_SCREENFREEZE_A*: Either of the two combos.
- *CMB_SCREENFREEZE_B*: The other combo.

With this the subscreen will be able to pause all other game and FFC script action while open. Keep in mind that this will also eat up two FFCs on every screen where you open the menu. These are FFCs 31 and 32 by default and can be changed with constants.

Level Data Map

In order to get data for your maps, the script needs one full Zquest map set aside for only it to use. This is where you'll be arranging your individual floor maps into level groups later on. For now just keep in mind not to put game areas on this map and set this constant:

- *MAP_MOOSHMAP_DATA*: The map reserved for level data.

In addition to this map, you may want to set aside at least one more map after this one for placing down floor layouts. You can put those wherever you please, but it doesn't hurt to be organized.

Map BG Graphics

Next is a screen in the quest that's used for the subscreen background. In the example quest this is 1:87. Setting this up is a lot of screen layout work. If you don't want to put in the effort at the moment, you can use the tiles from the example quest, or a black void. Set these two constants to point to this screen:

- *MAP_MOOSHMAP_BG*: The map the background screen is on.
- *SCREEN_MOOSHMAP_BG*: The screen number of the background screen.

Map BG Positioning

There's also some more constants you may want to optionally consider for customizing the layout of the map subscreen:

Map Block position/scale:

- *MOOSHMAP_MAP_X / Y*: The X and Y position of the map block of the subscreen.
- *MOOSHMAP_MAP_SQUARE_SCALE*: How wide each block of the map is in pixels.

Floor List position/scale/spacing:

- *MOOSHMAP_FLOOR_X / Y*: The X and Y position of the floor block of the subscreen. This is a center point, so floors will be drawn above and below it.
- *MOOSHMAP_FLOOR_WIDTH / HEIGHT*: Tile width and height of each of the floor icons
- *MOOSHMAP_FLOOR_SPACING*: The vertical spacing between floor icons.

Title font/position:

- *MOOSHMAP_TITLE_FONT*: The font the title is drawn in. See FONT_ constants in std_constants.zh.
- *MOOSHMAP_TITLE_X/Y*: The X and Y position of the title. The title will be drawn centered from this position on the X axis.

Level Item positions:

- *MOOSHMAP_MAPICON_X/Y*: The X and Y position of the map item.
- *MOOSHMAP_COMPASSICON_X/Y*: The X and Y position of the compass item.
- *MOOSHMAP_BOSSKEYICON_X/Y*: The X and Y position of the boss key item.

Settings

At the top of the list of constants are some settings that can disable parts of the script. These are set to 1 for true or 0 for false. Pick and choose which you want:

- *MOOSHMAP_VISITED_CARRYOVER*: Floors with multiple DMaps (multi-state dungeons) will carry over their visited state. This is recommended, so visited rooms don't get reset every time you switch states.
- *MOOSHMAP_ALL_CARRYOVER*: In addition to the visited state, all other screen states (Doors, Locks, Chests, Items, Secrets) will carry over as well.
- *MOOSHMAP_D_CARRYOVER*: In addition to the visited state, Screen → D values will also carry over.
- *MOOSHMAP_HIGHLIGHTCURRENTROOM*: The current room Link is in will have a third state on the map where it blinks.
- *MOOSHMAP_DRAWLINKPOSITION*: A marker tile will be drawn in the current screen on the map showing Link is there.
- *MOOSHMAP_PRECISELINKPOSITION*: The marker tile for Link will be positioned based on where he is in the room.
- *MOOSHMAP_SHOW_TITLE*: The DMap's title will be drawn to the subscreen.
- *MOOSHMAP_SHOW_LITEMS*: The three level items will be drawn to the subscreen.

Other Graphics

First up, there's the current floor marker. This is drawn to the left of the floor number combos and shows which floor Link is currently on.

- *CMB_MOOSHMAP_LINKFLOORMARKER*: Combo for Link's current floor marker.
- *CS_MOOSHMAP_LINKFLOORMARKER*: CSet for Link's current floor marker.

Next, the position marker, showing which screen Link is in on the map if the current floor he's on is selected. If you're not using *MOOSHMAP_HIGHLIGHTCURRENTROOM*, this is optional.

- *CMB_MOOSHMAP_LINKPOSITIONMARKER*: Combo for Link's position marker
- *CS_MOOSHMAP_LINKPOSITIONMARKER*: CSet for Link's position marker

If you're using them, there's graphics for the Map, Compass, and Boss key items on the subscreen.

- *CMB_MOOSHMAP_MAP*: Combo for the map item
- *CS_MOOSHMAP_MAP*: CSet for the map item
- *CMB_MOOSHMAP_COMPASS*: Combo for the compass item
- *CS_MOOSHMAP_COMPASS*: CSet for the compass item
- *CMB_MOOSHMAP_BOSSKEY*: Combo for the boss key item
- *CS_MOOSHMAP_BOSSKEY*: CSet for the boss key item

Lastly for graphics, the colors for black and white. These are used for the fade in effects of the subscreen as well as the map title.

- *C_BLACK*: The color black, written in hexadecimal.
- *C_WHITE*: The color white, written in hexadecimal.

Sounds

There's a few SFX used by the subscreen.

- *SFX_MAPSUBSCREEN_OPEN*: Sound when the subscreen opens.
- *SFX_MAPSUBSCREEN_CLOSE*: Sound when the subscreen closes.
- *SFX_MAPSUBSCREEN_FLOORCHANGE*: Sound when the selected floor changes.

Misc

Here's the last two important constants that don't really fit under anything else. You might not even have to change them.

- *RT_MOOSHMAP*: If you're using other scripts that use bitmaps, be sure this is unique from all other *RT_constants*.
- *DMF_ALLOWMAP*: This is the DMap flag that enables the dungeon map. It's 'Script 1' by default.

Once all the constants are set up, you can combine the global script and that's hopefully the last you'll have to touch the script file. The rest can all be done in the editor.

Level Layout Setup

The first step in setting up a dungeon map is creating the Level Data screen for that dungeon. In order to access the map, each DMap in the dungeon needs to meet a few conditions. First, the DMap flag specified by *DMF_ALLOWMAP* must be set. Second, the level should have a level number set between 0 and 127. Lastly, the DMap flag “View Overworld Map By Pressing ‘Map’” must be checked.

With these things done, it's time to go to the map specified by `MAP_MOOSHMAP_DATA`. Each screen on this map corresponds with a level number in hexadecimal. So 00 is for level 0, 0F is for level 15, ect. On the screen for your current level, you should set things up like this example image:



Combos outlined in blue should be HEX, combos outlined in red should be DEC. Combos with labels are optional, but help to visualize.

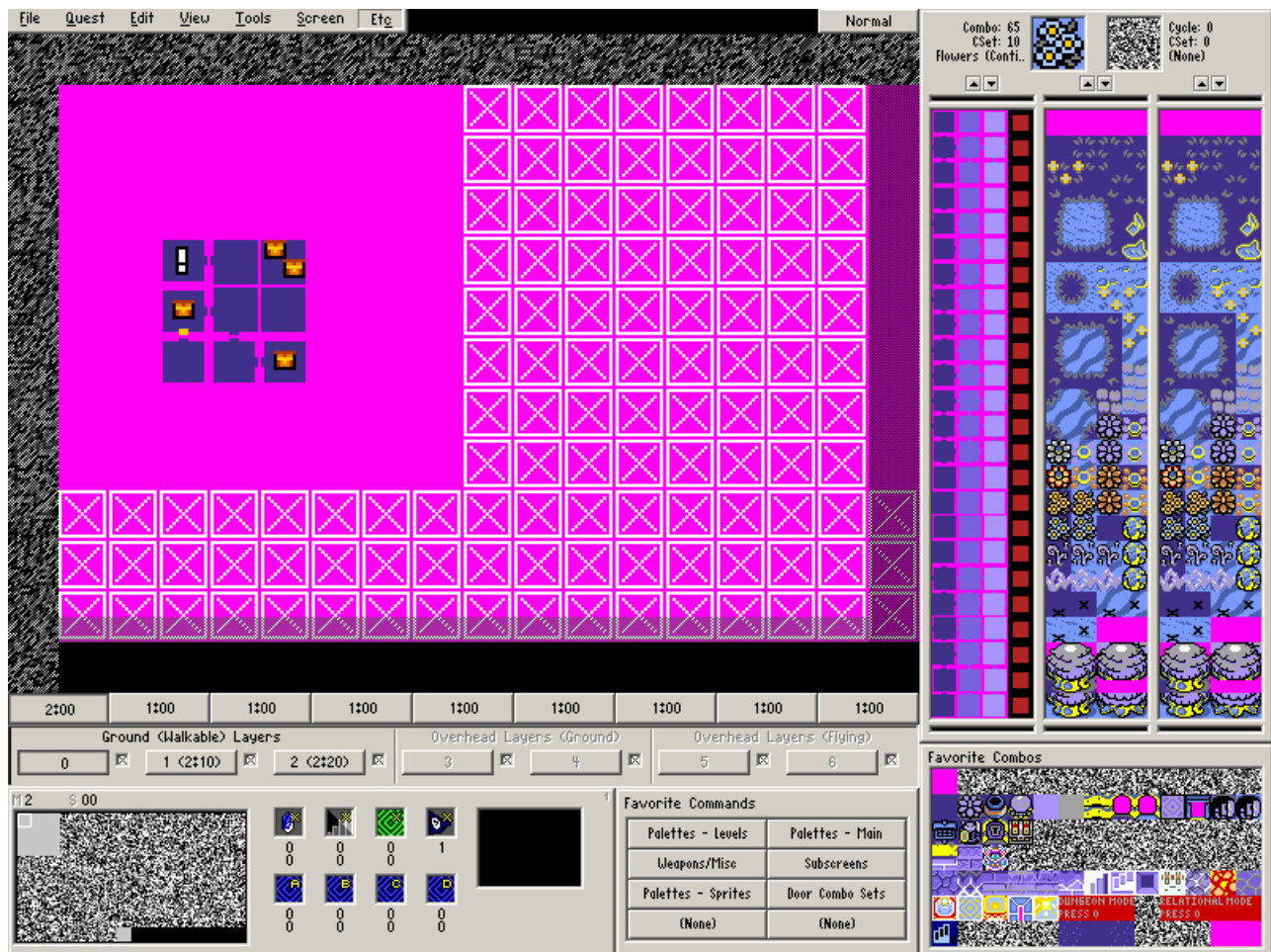
As shown in the above image, you'll place down combos detailing the specifics of each floor. Here's what each field does:

- **Floor Icons:** This is the combo used for the graphic of the floor label on the left of the map on the subscreen. The combo directly following this one in the list is the graphic for the floor label when it's selected. The tile block size for these graphics when drawn by the script is 2x1 by default.
- **Ref Maps:** This is the map where all the map layout data for the floor is kept.
- **Ref Screens:** This is the screen for the map's layout.
- **Marker Screens:** This is the screen where the map markers are kept. These would be layer screens for the Ref Screen in the editor. The second one is optional.
- **Floor DMaps:** The DMaps associated with the floor. Up to 4 are allowed in case of dungeons with multiple states. The second through fourth are all optional fields.
- **Custom BG:** This is an optional field if you want your dungeon to have a unique background. Enter the map for the background followed by the screen.

Map Layout Setup

Map layout screens are pretty straightforward to set up. Only the top left 8x8 block of tiles is read by the script. All combos placed on layer 0 are the first of a set of three: an unvisited screen, followed by a visited screen, followed by a screen Link is currently in. Placing any combo flag on layer 0 will assign screens to a room group. This makes them all light up at once when Link is in one room of the group. This is useful for 2x2 rooms or other more open areas in a dungeon.

The floor's marker screens are intended to be layered over the map layout screen for readability when editing.



An example of a map layout screen. The leftmost column of combos shows the correct arrangement of the screen combos.

Map Marker Setup

Map marker combos are placed on the marker screen. These are only visible when Link has the compass item and change graphics based on the state of the room. You can have multiple types of markers with different graphics. The marker's type is determined by the combo type of the first combo in the set.

Single Item Marker – Treasure Chest (Normal)



Set by the screen's Item or Special Item state. Has two states:

- **State 1:** Neither item has been taken
- **State 2:** An item has been taken

Double Item Marker – Treasure Chest (Boss)



Set by the screen's Item and Special Item states together. Has two states:

- **State 1:** Neither item has been taken
- **State 2:** Special Item has been taken
- **State 3:** Screen Item has been taken
- **State 4:** Both items have been taken

Boss Marker – Damage (½ Heart)



Set by the current level's boss state. Has two states:

- **State 1:** Boss is alive
- **State 2:** Boss is dead

Lock Block Marker – Lock Block (Normal)



Set by the screen's Lock Block state. Has two states:

- **State 1:** Locked
- **State 2:** Unlocked

Boss Lock Block Marker – Lock Block (Boss)



Set by the screen's Boss Lock Block state. Has two states:

- **State 1:** Locked
- **State 2:** Unlocked

Secret Marker – Step → Next



Set by the screen's Secret state. Has two states:

- **State 1:** Secret not triggered
- **State 2:** Secret triggered

This marker is helpful for various things the others might not cover, such as minibosses. Even if the secret isn't visible on the screen, the marker will work if it's permanent.