

Additions to "Room Mapping" (3.4.2)

bloody chompers and stuck level doors

September 23, 2012

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Preamble

While working with PR¹ (version 1.1), I noticed that VDUNGEON.DAT and VPALACE.DAT each contain five *"behind pillar frame0x.bmp"* images that show only the left side of a chomper. The game places chompers on the left edges of regular tiles, so chompers are *never* behind pillars. I decided to look in the document *Prince of Persia Specifications of File Formats*² of 5 January 2008 (hereinafter referred to as *"Specifications"*), in particular section 3.4.2 (*"Room mapping"*). The Specifications state that one of the bits in the foretable is *"a modifier of the tile"*. Only one example is given, namely that *"modified loose floors do not fall down"*. The backtable stores a modifier of the foretable. Interestingly enough, at the end of aforementioned section, the Specifications state: *"Note: Some modifiers have not been tested, [...]"* This made me wonder: what tiles can be created that we do not yet know about?

Here is what I've done. I've painstakingly tried out about 8192 variations³ to see if any tiles would show up in the dungeon environment that are not yet being described in the Specifications. Also, I've tried out all variations that didn't result in the game giving an error message⁴ in the palace environment, and in both environments with the modifier bit enabled. Unfortunately, the modifier bit has no noticeable effect on anything other than the loose tile (0x0B). However, I did find some hitherto undiscovered modifiers that create tiles we did not yet know about!

License

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1 http://www.popot.org/other_useful_tools.php?tool=PR

2 <http://www.popot.org/documentation.php?doc=FormatSpecifications>

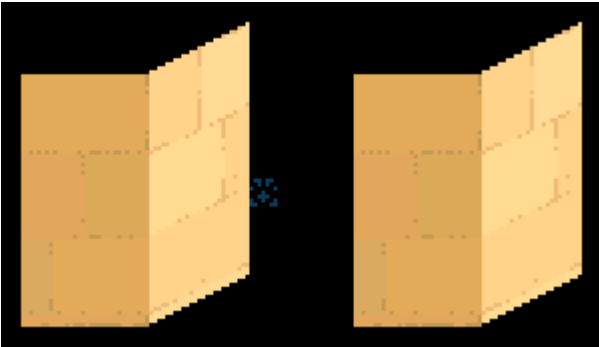
3 All tile types (32) times all possible modifiers (256), minus what is already mentioned in the Specifications.

4 The error message is: *"Please insert Prince of Persia Disk into Drive C: and press <ENTER>."*

Additional Information

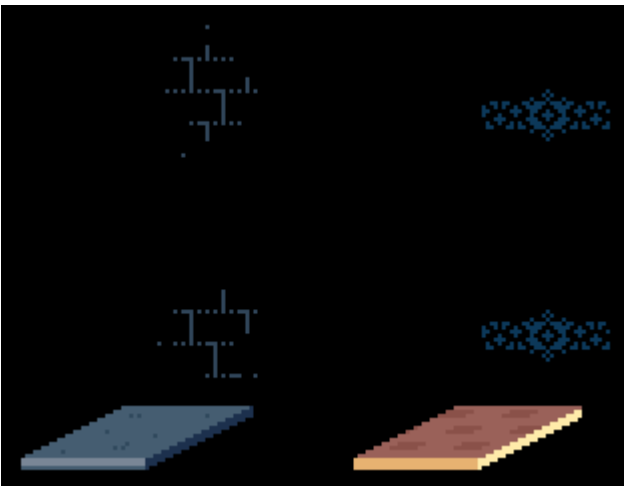
General Corrections/Additions

The Specifications mention a *"wall"* group, but don't give its modifiers. The modifiers are 0x00 and 0x01, which only have a visible effect in the palace environment. (Level editors already know about this.) See *Image 1*.



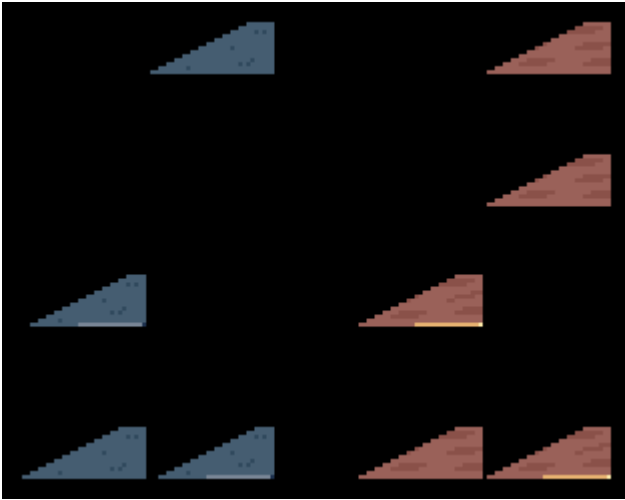
(Image 1)

The Specifications don't mention that the *"free"* group has a 0x02 modifier. (Level editors already know about this.) See *Image 2*.



(Image 2)

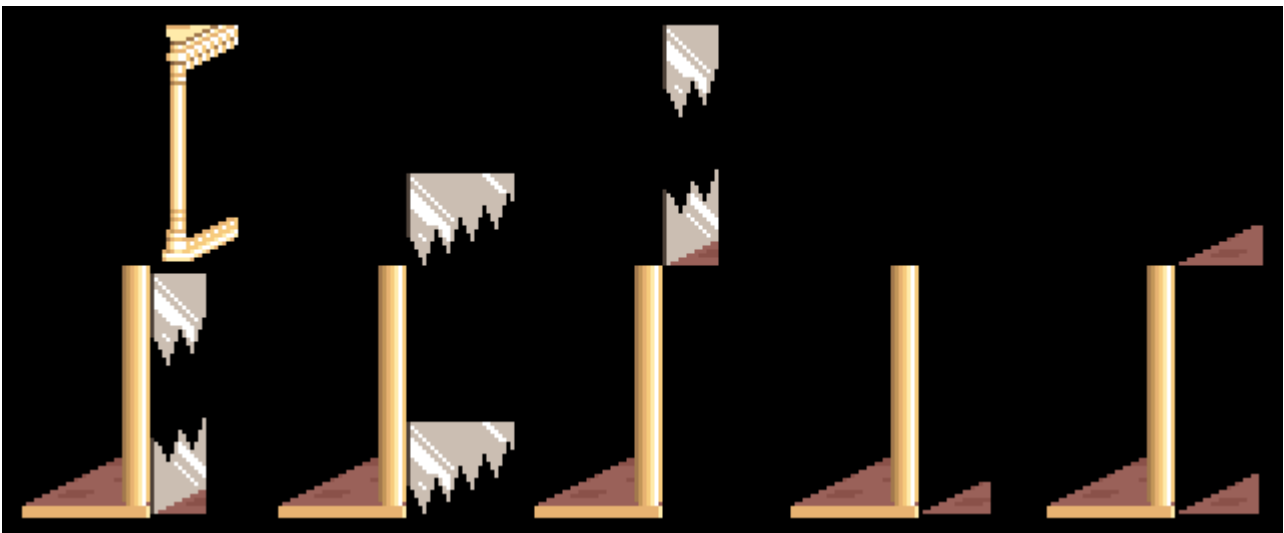
In *Table 7* of the Specifications, tile type 0x1F is described as "Null", but it appears to display several tile fragments. See *Image 3*.



(Image 3)

New Tiles: Weird

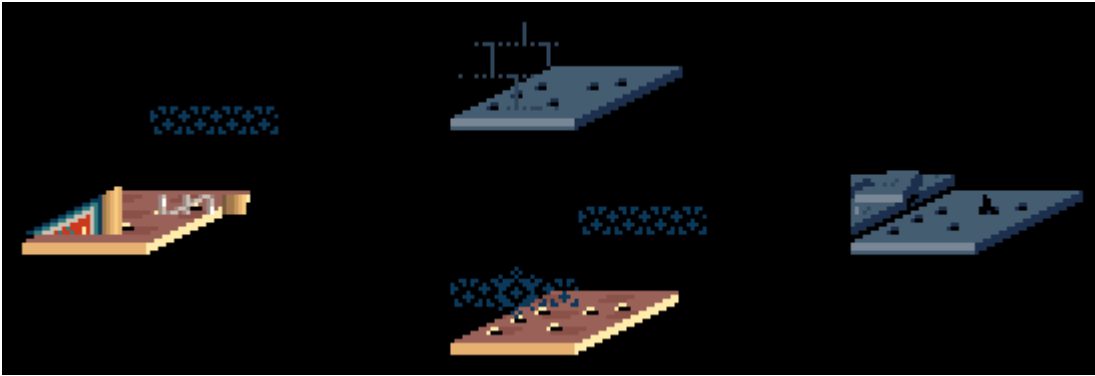
The "tapest" and "ttop" groups (for respectively tile types 0x07 and 0x0C) both have five additional modifiers (0x40, 0x80, 0xA0, 0xC0 and 0xE0) that make weird tile combinations show up in the palace environment.⁵ See *Image 4* for the five "tapest" variants.



(Image 4)

⁵ The only difference between each group of five is that the "tapest" variant has a floor. Two other modifiers, namely 0x20 and 0x60, don't work properly because some resources are missing.

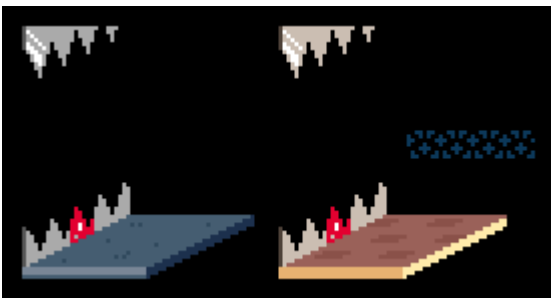
The "spike" group (for tile type 0x02) has three additional modifiers (0x20, 0x40, 0x60) that make weird tile combinations show up.⁶ See *Image 5* for the three combinations.



(Image 5)

New Tiles: Normal

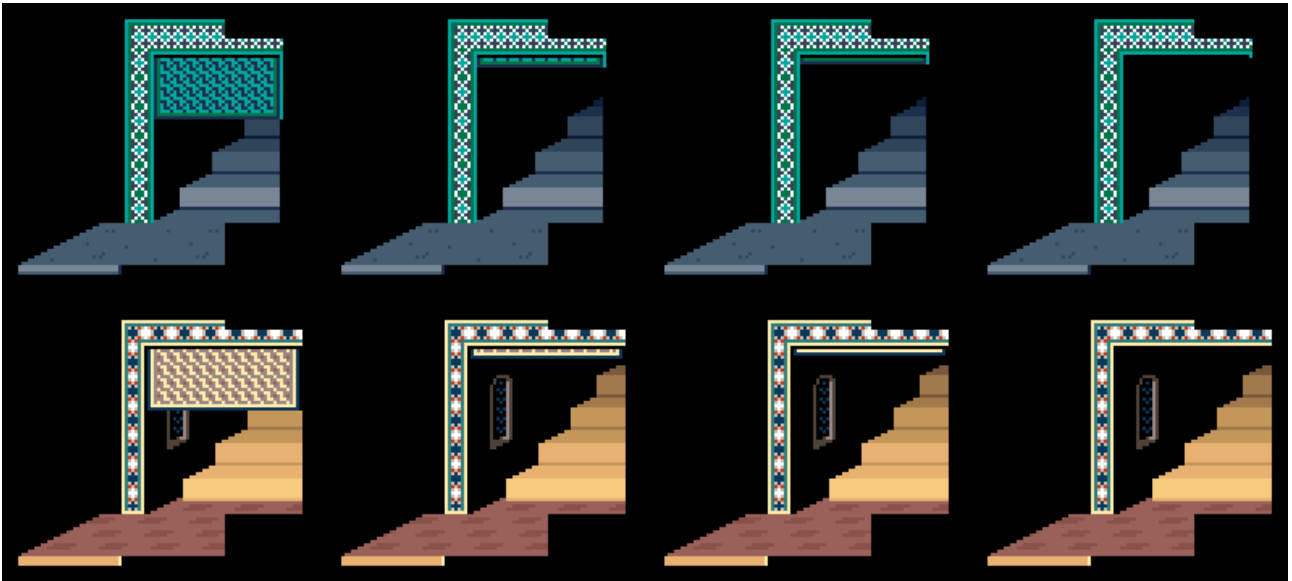
The "chomp" group (for tile type 0x12) has several modifiers that will add blood to a functional chomper. The first of those modifiers is 0x80. See *Image 6*.



(Image 6)

⁶ The first mentioned modifier (0x20) only works properly in the palace environment, the last mentioned modifier (0x60) only works properly in the dungeon environment.

The "Exit Left" (tile type 0x10) has an hitherto unknown "exit" group, with modifiers that will make the door further closed than it normally is (0x20), or further opened (more: 0x40,⁷ even more: 0xFD, and most: 0xFF). See *Image 7*.



(Image 7)

⁷ The same goes for 0x60, 0x80, 0xA0, 0xC0 and 0xE0.

Afterword

Most modifiers simply don't work and result in the game giving an error message. Those that do work normally are 0x20, 0x40, and so on (in decimal steps of 32) until 0xE0. In most cases, but not all, 0xFD and 0xFF also work. Clear exceptions are the drop and raise buttons (respectively tile types 0x06 and 0x0F), where all modifiers work and represent event numbers, and the gate (tile type 0x04), where all but modifier 0x01 display a closed gate. As mentioned before, the modifier bit in the foretable only has a noticeable effect on the loose tile (tile type 0x0B).

Credits

This document was put together by Norbert.
Feedback is welcome at <info@popot.org>.