**Super Mario Bros 2 - Hacking Notes (USA PRG 1 Version)**

Title Screen:

* 02A010 = Tiles in PPU
* 00176A – 001891 = Tiles to Load (Tiles & Attribute Data)
* 001820 to 001A1C = Text for Title

Player Select

* 02B010 = Tiles in PPU
* 01461B = “Extra Life” text
* 01E0E9 = Mario Palette
* 01E0F0 = Luigi Palette
* 01E0F7 = Toad Palette
* 01E0FE = Peach Palette
* 01E0D2 = Mario Palette (Not Selected)
* 01E0D6 = Luigi Palette (Not Selected)
* 01E0DA = Toad Palette (Not Selected)
* 01E0DE = Peach Palette (Not Selected)

Characters

* 020010 - 022000 – Main Character Tiles in PPU
* 022750 = Peach’s Jumping Tiles
* 01F2F0 = Mario’s Extra Tiles To Load
* 01F2F1 = Peach’s Extra Tiles To Load
* 01F2F2 = Toad’s Extra Tiles To Load
* 01F2F3 = Luigi’s Extra Tiles To Load
* 01F320 = Peach’s Flying Tiles To Load
* 0x01443A to 0x01443C (000003) = Mario in action palette
* 0x01443E to 0x014440 (000003) = Peach in action palette
* 0x014442 to 0x014444 (000003) = Toad in action palette
* 0x014446 to 0x014448 (000003) = Luigi in action palette
* 4010 & 4014 = Mario Item Height (Large)
* 4011 & 4015 = Peach Item Height (Large)
* 4012 & 4016 = Toad Item Height (Large)
* 4013 & 4017 = Luigi Item Height (Large)
* 4018 & 401C = Mario Item Height (Small)
* 4019 & 401D = Peach Item Height (Small)
* 401A & 401E = Toad Item Height (Small)
* 401B & 401F = Luigi Item Height (Small)

Bonus Screen

* “NO BONUS” = 145AA
* “PLAYER 1UP” = 145CE

Enemies / Items:

* BOMB Graphic = 22210 - 2221F (new graphic by jonwvsu)
* Wart PPU Tiles = 25810
* Tiles in PPU = 22310
* 1F4FE - Smart Shyguy's palette, mirroring, etc.
* 1F502 - Smart-Walking Snifit's palette, mirroring, etc.
* 1F51C - Clawgrip's palette, mirroring, etc.
* 1F51B - Fire's palette, mirroring, etc (Triclyde’s Fireballs?)
* 5A0E – Small Fryguy’s Death Tiles (16 hex bytes)

Palettes used for levels:

* World 1
  + C09C to 0C0A7 = Enemy Palette for Set #1
  + C0A8 to 0C0B3 = Enemy Palette for Set #2
  + C0B4 to 0C0BF = Enemy Palette for Set #3
* World 2
  + C130 to 0C13B = Enemy Palette for Set #1
  + C13C to 0C147 = Enemy Palette for Set #2
  + C148 to 0C153 = Enemy Palette for Set #3
* World 3
  + C1C4 to 0C1CF = Enemy Palette for Set #1
  + C1D0 to 0C1DB = Enemy Palette for Set #2
  + C1DC to 0C1E7 = Enemy Palette for Set #3
* World 4
  + C258 to 0C263 = Enemy Palette for Set #1
  + C264 to 0C26F = Enemy Palette for Set #2
  + C270 to 0C27B = Enemy Palette for Set #3
* World 5
  + C2EC to 0C2F7 = Enemy Palette for Set #1
  + C2F7 to 0C303 = Enemy Palette for Set #2
  + C304 to 0C30F = Enemy Palette for Set #3
* World 6
  + C380 to 0C38B = Enemy Palette for Set #1
  + C38C to 0C397 = Enemy Palette for Set #2
  + C398 to 0C3A3 = Enemy Palette for Set #3
* World 7
  + C414 to 0C41F = Enemy Palette for Set #1
  + C420 to 0C42B = Enemy Palette for Set #2
  + C42C to 0C437 = Enemy Palette for Set #3

Misc.

* Looping Animation (now it uses the 8th frame because I changed 1FB05's value from 26 to 28)
* 027410 – The “O” in the POW Block is misaligned.

Use Death Sound (SpiderDave):

* 01F759 to 01F762

2036FBEAEAEAEAEAEAEA

* 01FB46 to 01FB55

A9088D0306AD022010FBA9808D010660

Jump charge while holding B and carrying item/enemy (SpiderDave):

* 0CCF to 0CD2

20 DB 95 EA

* 15EB to 15F3

A9 F8 25 F7 85 F7 A9 00 60

Contributor (after beating Wart):

* PPU Tiles = 2E010
* “CONTRIBUTOR” = 270B
* “MARIO” = 2E26
* “LUIGI” = 2E4A
* “TOAD” = 2E3E
* “PRINCESS” = 2E32
* Sprite Palette = 29E9 – 29F8
* Mario’s Attribute Data (Palette)
  + 2A4B
  + 2A4F
  + 2A53
  + 2A57
* Luigi’s Attribute Data (Palette)
  + 2A5B
  + 2A5F
  + 2A63
  + 2A67
* Toad’s Attribute Data (Palette)
  + 2A6B
  + 2A6F
  + 2A73
  + 2A77
* Peach’s Attribute Data (Palette)
  + 2A7B
  + 2A7F
  + 2A83
  + 2A87
* Wart’s Tiles Used = 2BF0
* Wart’s Attribute Data (Palette) = 2C6B
* Knockout Sprites [Tiles 35, 36, 37] Attribute Data (Palette) = 2CF0

Credits

* PPU Tiles = 32010
* 18066 – 18075 = Palettes for players in Mario’s Dream
* 184EC = “C A S T” Sprite Attributes
* 18B52 = Start of Cast Sprite Attributes

Game Over

* 1E9BC to 1E93F = text to display GAME OVER, CONTINUE, RETRY & No. of Continues
* 14640 to 14643 = Square to highlight CONTINUE.
* 14644 to 14647 = Square to highlight RETRY.