2D graphics in the /obj folder

Many in-level 2D sprites' bitmaps and palettes can be found in the /obj folder.

Enemy palettes

Most sprites in here use the four **enemy palettes**. Like the jyotyu palette, the palette file used will change depending on the bottom background layer to better fit the level theme. Unlike the jyotyu palette however, none of these actually make use of this feature. The four palettes are mostly duplicates of each other, and the sprites look the same in every level. Each palette has four slots.

Palette file	Description	Number of slots
l_enemy_ncl.bin	Normal	4
l_enemy_B_ncl.bin	Blue (underground, castle)	4
l_enemy_R_ncl.bin	Red (volcanic)	4
l_enemy_W_ncl.bin	Grey (winter, ghost house)	4

List of bitmaps that use the enemy palette

Bitmap file	Description	Palette slot ID (0-3)	Example
l_awa_ncg.bin	Underwater pipe bubbles (48-51)	0	
l_bubble256_ncg.bin	Podoboo (lava bubble) (54)	0	
l_dokan_hahen_ncg.bin	Broken pipe fragments	0 (yellow) 1 (green) 3 (red)	
l_dokan_yajirushi_ncg.bin	Yellow arrow sign (W2-3 sewer level) (277)	1	

l_fireball_ncg.bin	Fireball; used by Fire Mario/Luigi, firebar, fire bros., and venus fire trap(?)	0	
l_item_ncg.bin	Power-up and vine top graphics	0 (for star flash; jyotyu palette is used otherwise)	
l_kazandan_hahen_ncg.bin	Broken volcanic meteor fragments	0	
l_kuribo256_ncg.bin	Goomba* (148), Paragoomba (186), Paragoomba wings	0	
l_nokonoko256_ncl.bin	Koopa Troopa* (149), Koopa Paratroopa (150), Paratroopa wings	0 (green) 1 (red) 2 (blue)	
l_obj_yougan_ncg.bin	Background volcanic meteor	1	
l_ochiruhashi_ncg.bin	Falling beach platform	1	
l_switch_ncg.bin	P Switch (66), ? Switch (107), ! Switch (108), Bowser Boss Switch (41)	2	
l_teresa256_ncg.bin	Boo (38)	1	
W_kinoko_ncg.bin	Graphics for the blue/yellow/red Toad house blocks and cards	3 (for red/yellow Toad house graphics; enemy256 palette is used otherwise)	

[*] The Mega Goomba boss and Fence Koopas are 3D sprites and can be found in the /enemy folder (kuribo.*, nokonoko.*, net_nokonoko.* and noko_shell_red.nsbmd).

Enemy256 palette

The enemy256 palette is used by only a few sprites and differs from the enemy palette in that it does not have underground/wintery/volcanic variants. The file for it is **l_enemy256_ncl.bin**.

List of bitmaps which use the enemy256 palette

Bitmap	Description	Palette Number	Example
l_star_red_ncg.bin	MvsL big star	1	
W_kinoko_ncg.bin	Graphics for the blue/yellow/red Toad house blocks and cards	0 (for blue Toad house graphics; enemy palettes are used otherwise)	

TODO

todo: specify which ones only ever use I_enemy_ncl.bin?

Enemy Palettes
I_enemy_ncl.bin - used with normal jyotyu palette (todo: phrase these less jankily)
I_enemy_B_ncl.bin - used with blue (underground) jyotyu palette
I_enemy_W_ncl.bin - used with grey (snow) jyotyu palette
I_enemy_R_ncl.bin - used with red (lava) jyotyu palette

bitmaps - purpose - palettes

I_fireball_ncg.bin - Fireball; used by fire mario, firebar, & venus fire trap? - 0
I_kuriobo256_ncg.bin - Goomba, paragoomba, paragoomba wings - 0
I_nokonoko256_ncg.bin - Koopa troopa, koopa paratroops, paratroopa wings - 0 (green), 1 (red), 2 (blue)
I_teresa256_ncg.bin - Boo - 1
I_bubble256_ncg.bin - Podoboo (lava bubble) - 0
I_dokan_hahen_ncg.bin - Broken pipe fragments - 0 (yellow), 1 (green), 3 (red)
I_dokan_yajirushi_ncg.bin - Yellow sewer arrow (2-3) - 1
I_obj_yougan_ncg.bin - Background volcanic meteor (think 8-8) - 1
I_kazandan_hahen_ncg.bin - Volcanic meteor fragments - 0
I_ochiruhashi_ncg.bin - Falling beach platform - 1
I_awa_ncg.bin - Underwater pipe current bubble - 0
I_switch_ncg.bin - P-switch, !-switch, ?-switch, and boss (skull) switch - 2
W_kinoko_ncg.bin - Graphics for item (red), megamushroom (yellow), and bottom-screen wallpaper (blue) toadhouses. Graphics for the latter use I_enemy256_ncl.bin - 3
I_item_ncg.bin - Powerup and vine top graphics. Enemy palette is only used for the star flash; jyotyu palette is used otherwise - 0

I_kemuri_l_ncg.bin - Smoke plume; unused, so whether it uses the enemy palette is speculative - 1
I_obj_yajirushi_ncg.bin - Arrow; also unused; even more speculative, as it couldve just as easily only used the jyotyu palettes (or something no longer in the game) - 0

colours (starting from 1)
- palette 0
  - 1 --- transparency
  - 2-80 --- koopa troopa, paratroopa, paratroopa wings (green)
  - 81-128 --- goomba, paragoomba
  - 129-144 --- paragoomba wings, starman flash
  - 145-152 --- podoboo (lava bubble)
  - 153-160 --- underwater pipe current bubble

161-168 --- fireball
169-176 --- unknown
177-192 --- unknown
193-208 --- unknown
209 --- not used afaik
210-224 --- volcanic meteor fragments
223-224 --- possibly l_obj_yajirushi_ncg.bin?
225-228 --- nothing
229-240 --- broken pipe fragment (yellow)
241-256 --- nothing

palette 1
1 --- transparency
2-80 --- koopa troopa, paratroopa, paratroopa wings (red)
81-144 --- boo
145-147 --- nothing
148-151 --- yellow sewer arrow (2-3)
152-155 --- unknown
156-160 --- possibly l_kemuri_l_ncg.bin?
161 --- not used afaik
162-176 --- falling beach platform
177-192 --- unknown
193-208 --- unknown
209 --- not used afaik
210-222 --- background volcanic meteor
223-224 --- nothing
225-228 --- nothing
229-240 --- broken pipe fragment (green)
241-256 --- nothing

palette 2
1 --- transparency
2-80 --- koopa troopa, paratroopa, paratroopa wings (blue)
81-88 --- P switch "P", P switch "P" dropshadow
89-96 --- ! switch "!", ! switch "!" dropshadow
97-104 --- ? switch "?", ? switch "?" dropshadow
105-112 --- boss switch skull
113-128 --- boss switch base
129-144 --- P, !, ? switch bases
145 --- nothing afaik
146-160 --- ? switch
161 --- nothing afaik
162-176 --- ! switch
177 --- nothing afaik
178-192 --- P switch

193 --- nothing afaik
194-208 --- boss switch
209-217 --- nothing
218-224 --- unknown
225-256 --- nothing

palette 3
1 --- transparency
2-8 --- toad house item card
9-16 --- nothing
17-32 --- toad house roulette block
33-48 --- toad house mega used block
49-64 --- toad house mega question mark block
65-95 --- toad house blue shell
96 --- nothing afaict
97-127 --- toad house fire flower
128 --- nothing afaict
129-158 --- toad house super mushroom
159-160 --- nothing afaict?
161-191 --- toad house mini mushroom
192 --- nothing afaict
193 --- nothing afaict?
194-224 --- toad house mega mushroom
225-228 --- nothing
229-240 --- broken pipe fragment (red)
241-256 --- nothing

note: not all colours set aside for sprites are used (see water bubble for example, which only uses the white and lightest blue shade)

Enemy256 Palette
I_enemy256_ncl.bin

bitmaps - purpose - palettes
W_kinoko_ncg.bin - Graphics for item (red), megamushroom (yellow), and bottom-screen wallpaper (blue) toadhouses. Graphics for the former use I_enemy_ncl.bin - 0
I_star_red_ncg.bin - MvsL battle star - 1

not gonna list all the colours n uses for this one--- theyre generally self-apparent though. exept the ones that arent. all palettes that arent 0 and 1 are unused, afaict

misc notes/unsolicited speculation:
considering the meteors used to use sprites insteada models it wouldnt surprise me if those used I_obj_yougan_ncg.bin with palette 0 at some point--- i mean it fits
ive mentioned it before but the second to last palette for I_enemy256_ncl.bin has colours for

the boo (arrenged differently than those in I_enemy_ncl.bin)
since im guessing the coins used I_obj_kira_ncg.bin for their sparkles before they were later replaced with particles i wonder if the last palette for I_enemy256_ncl.bin was used for blue coin collection sparkles

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