```
0000                    ;
0000                    ;
0000                    ;  ┌────────────────────────────────────────────────┐
0000                    ;  │       This file is generated by The Interactive Disassembler (IDA)  │
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0000                    ;  │       Copyright (c) 1999 by DataRescue sa/nv, <ida@datarescue.com>   │
0000                    ;  └────────────────────────────────────────────────┘
0000                    ;
0000                    ;
0000                    ; ─────────────────────────────────────────────────────
0000                    ; File Name   : E:\Projects\NeoKong\arcade\dkong.bin
0000                    ; Format      : Binary File
0000                    ; Base Address: 0000h Range: 0000h - 4000h Loaded length: 4000h
0000
0000                    ; Processor:        z80
0000                    ; Target assembler: ASxxxx by Alan R. Baldwin v1.5
0000                            .area   idaseg (ABS)
0000                            .hd64 ; this is needed only for HD64180
0000
0000                    ; ═════════════════════════════════════════════════════
0000
0000                    ; Segment type: Pure code
0000                    ; segment 'ROM'
0000
0000                    RESET:                                        ; CODE XREF: 0000:00B2┤j
0000 3E 00                                                           ; DATA XREF: 0000:0FCD┤o
0000 3E 00                          ld      a, #0
0002 32 84 7D                       ld      (nmi_mask), a
0005 C3 66 02                       jp      INIT
0008
0008                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0008
0008
0008                    return_if_attract_mode:                       ; CODE XREF: flash_1UP_or_2UP+7┤p
0008 3A 07 60                                                         ; add_bonus_and_update_high_score+1┤p ...
0008 3A 07 60                       ld      a, (attract_mode_flag)
000B 0F                             rrca                              ; in attract mode?
000C D0                             ret     NC                        ; no, return
000D 33                             inc     sp
000E 33                             inc     sp                        ; discard return address
000F C9                             ret
000F                    ; End of function return_if_attract_mode
000F
0010
0010                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0010
0010
0010                    return_if_mario_not_alive:                    ; CODE XREF: sub_0_3A2+3┤p
0010 3A 00 62                                                         ; sub_0_2C03+3┤p ...
0010 3A 00 62                       ld      a, (mario_alive_flag)
0013 0F                             rrca                              ; is mario alive?
0014 D8                             ret     C                         ; yes, return
0015 33                             inc     sp
0016 33                             inc     sp                        ; discard return address
0017 C9                             ret
0017                    ; End of function return_if_mario_not_alive
0017
0018
0018                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0018
0018
0018                    return_NOT_8bit_timeout:                      ; CODE XREF: return_NOT_16bit_timeout+4┤j
0018 21 09 60                                                         ; 0000:0A63┤p ...
0018 21 09 60                       ld      hl, #eight_bit_countdown
001B 35                             dec     (hl)
001C C8                             ret     Z
001D 33                             inc     sp
001E 33                             inc     sp                        ; discard return address
001F C9                             ret
001F                    ; End of function return_NOT_8bit_timeout
001F
0020
0020                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0020
0020
0020                    return_NOT_16bit_timeout:                     ; CODE XREF: 0000:0763┤p
0020 21 08 60                                                         ; 0000:084B┤p
0020 21 08 60                       ld      hl, #sixteen_bit_countdown_msb
0023 35                             dec     (hl)
0024 28 F2                          jr      Z, return_NOT_8bit_timeout
0026
0026                    pop_hl_ret:                                   ; CODE XREF: print_message_A+1A┤j
0026 E1                                                               ; sub_0_1783+4┤j
0026 E1                             pop     hl                        ; discard return address
0027 C9                             ret
0027                    ; End of function return_NOT_16bit_timeout
0027
0028
0028                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0028
0028
0028                    jump_table_go_A:                              ; CODE XREF: 0000:00C9┤p
0028 87                                                               ; 0000:0701┤p ...
0028 87                             add     a, a                      ; entries are words
0029 E1                             pop     hl                        ; return address is table base
002A 5F                             ld      e, a
002B 16 00                          ld      d, #0                     ; DE = offset
002D C3 32 00                       jp      loc_0_32                  ; skip vector address
002D                    ; End of function jump_table_go_A
002D
0030
0030                    ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0030
0030
0030                    sub_0_30:                                     ; CODE XREF: sub_0_3A2+2┤p
0030 18 12                                                            ; 0000:1668┤p ...
0030 18 12                          jr      return_if_level_bit_not_set
0032                    ; ─────────────────────────────────────────────────────
0032
0032                    loc_0_32:                                     ; CODE XREF: jump_table_go_A+5↑j
0032 19                             add     hl, de                    ; get address of entry
0033 5E                             ld      e, (hl)
0034 23                             inc     hl
0035 56                             ld      d, (hl)                   ; DE = jump address
0036 EB                             ex      de, hl                    ; HL - jump address
0037 E9                             jp      (hl)                      ; go
```

```
0038            ; ──────────────────────────────────────────────
0038
0038            add_c_sprite_register_x10:                          ; CODE XREF: animate_kong_and_pauline+F↑p
0038 11 04 00                                                       ; animate_kong_and_pauline+65↑p ...
0038                           ld      de, #4                       ; every 4th byte
003B 06 0A                     ld      b, #10                       ; loop 10 times
003D
003D            loc_0_3D:                                           ; CODE XREF: sub_0_30+11↑j
003D 79                                                             ; 0000:0D9A↑p ...
003D                           ld      a, c
003E 86                        add     a, (hl)
003F 77                        ld      (hl), a                      ; (HL)+=C
0040 19                        add     hl, de                       ; next byte
0041 10 FA                     djnz    loc_0_3D                     ; loop
0043 C9                        ret
0044            ; ──────────────────────────────────────────────
0044
0044            return_if_level_bit_not_set:                        ; CODE XREF: sub_0_30↑j
0044 21 27 62                  ld      hl, #level_type
0047 46                        ld      b, (hl)                      ; get level type
0048
0048            loc_0_48:                                           ; CODE XREF: sub_0_30+19↑j
0048 0F                        rrca
0049 10 FD                     djnz    loc_0_48                     ; get bit of A for level
004B D8                        ret     C                            ; bit set, return
004C E1                        pop     hl                           ; discard return address
004D C9                        ret
004D            ; End of function sub_0_30
004D
004E
004E            ; ████████████  S U B R O U T I N E  ████████████████████████████████████
004E
004E
004E            copy_sprites_2_11_data:                             ; CODE XREF: animate_kong_and_pauline+4D↑p
004E 11 08 69                                                       ; animate_kong_and_pauline+77↑p ...
004E                           ld      de, #soft_sprite_ram+8       ; ptr sprite #2
0051 01 28 00                  ld      bc, #40                      ; 10 4-byte sprites to copy
0054 ED B0                     ldir                                 ; copy 40 bytes of sprite data
0056 C9                        ret
0056            ; End of function copy_sprites_2_11_data
0056
0057
0057            ; ████████████  S U B R O U T I N E  ████████████████████████████████████
0057
0057
0057            rand:                                               ; CODE XREF: 0000:00B9↑p
0057 3A 18 60                                                       ; sub_0_2523+22↑p ...
0057                           ld      a, (random_no)
005A 21 1A 60                  ld      hl, #gen_purpose_timer
005D 86                        add     a, (hl)
005E
005E            loc_0_5E:
005E 21 19 60                  ld      hl, #random_no+1
0061 86                        add     a, (hl)
0062 32 18 60                  ld      (random_no), a
0065 C9                        ret
0065            ; End of function rand
0065
0066            ; ──────────────────────────────────────────────
0066
0066            nmi:
0066 F5                        push    af
0067 C5                        push    bc
0068 D5                        push    de
0069 E5                        push    hl
006A DD E5                     push    ix
006C FD E5                     push    iy
006E AF                        xor     a
006F 32 84 7D                  ld      (nmi_mask), a                ; disable_nmi
0072 3A 00 7D                  ld      a, (in2_snd_latch)           ; IN2
0075 E6 01                     and     #1                           ; bit 0 set?
0077 C2 00 40                  jp      NZ, 0x4000                   ; yes, boom! (not valid code)
007A 21 38 01                  ld      hl, #dma_reg_tbl
007D CD 41 01                  call    dma_sprite_data_to_hw        ; update sprites
0080 3A 07 60                  ld      a, (attract_mode_flag)
0083 A7                        and     a                            ; in attract mode?
0084 C2 B5 00                  jp      NZ, loc_0_B5                 ; yes, skip reading inputs
0087 3A 26 60                  ld      a, (upright)
008A A7                        and     a
008B C2 98 00                  jp      NZ, loc_0_98
008E 3A 0E 60                  ld      a, (current_player_E)
0091 A7                        and     a                            ; player 2?
0092 3A 80 7C                  ld      a, (in1)                     ; (cocktail)
0095 C2 9B 00                  jp      NZ, loc_0_9B                 ; yes, skip
0098
0098            loc_0_98:                                           ; CODE XREF: 0000:008B↑j
0098 3A 00 7C                  ld      a, (in0)                     ; (upright)
009B
009B            loc_0_9B:                                           ; CODE XREF: 0000:0095↑j
009B 47                        ld      b, a                         ; store IN0/1
009C E6 0F                     and     #0xF                         ; joystick only
009E 4F                        ld      c, a                         ; store
009F 3A 11 60                  ld      a, (last_raw_in)             ; last raw input
00A2 2F                        cpl                                  ; negate
00A3 A0                        and     b                            ; rising-edge detect
00A4 E6 10                     and     #0x10                        ; button
00A6 17                        rla
00A7 17                        rla
00A8 17                        rla                                  ; bit 7
00A9 B1                        or      c                            ; add joystick bits
00AA 60                        ld      h, b                         ; raw controller input
00AB 6F                        ld      l, a                         ; joystick and button press
00AC 22 10 60                  ld      (controller_in), hl          ; store
00AF 78                        ld      a, b
00B0 CB 77                     bit     6, a                         ; reset input?
00B2 C2 00 00                  jp      NZ, RESET
00B5
00B5            loc_0_B5:                                           ; CODE XREF: 0000:0084↑j
00B5 21 1A 60                  ld      hl, #gen_purpose_timer
00B8 35                        dec     (hl)                         ; general purpose timer tick
00B9 CD 57 00                  call    rand                         ; randomise
00BC CD 7B 01                  call    sub_0_17B
00BF CD E0 00                  call    update_sounds
00C2 21 D2 00                  ld      hl, #nmi_exit                ; IRQ resume address
00C5 E5                        push    hl
00C6 3A 05 60                  ld      a, (nmi_sequencer)
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00C9 EF                          rst     0x28                      ; go!
00C9            ; ─────────────────────────────────────────────────────────────
00CA C3 01                       .dw     init_machine_settings             ; Jump table (nmi sequencer)
00CC 3C 07                       .dw     chk_credits_and_vector_on_attrac
00CE B2 08                       .dw     vector_on_credit_sequencer
00D0 FE 06                       .dw     vector_on_ingame_sequencer
00D2            ; ─────────────────────────────────────────────────────────────
00D2
00D2            nmi_exit:                                           ; DATA XREF: 0000:00C2↑o
00D2 FD E1                        pop     iy
00D4 DD E1                        pop     ix
00D6 E1                           pop     hl
00D7 D1                           pop     de
00D8 C1                           pop     bc
00D9 3E 01                        ld      a, #1
00DB 32 84 7D                     ld      (nmi_mask), a                     ; enable_nmi
00DE F1                           pop     af
00DF C9                           ret
00E0
00E0            ; ▐███████████ S U B R O U T I N E ████████████████████████████
00E0
00E0
00E0            update_sounds:                                      ; CODE XREF: 0000:00BF↑p
00E0 21 80 60                     ld      hl, #digital_snd_tmr_walk
00E3 11 00 7D                     ld      de, #in2_snd_latch                ; base of digital sound triggers
00E6 3A 07 60                     ld      a, (attract_mode_flag)
00E9 A7                           and     a                                 ; in attract mode?
00EA C0                           ret     NZ                                ; yes, return
00EB 06 08                        ld      b, #8                             ; 8 digital sound triggers
00ED
00ED            loc_0_ED:                                           ; CODE XREF: update_sounds+18┤j
00ED 7E                           ld      a, (hl)                           ; timer for this sound
00EE A7                           and     a                                 ; done?
00EF CA F5 00                     jp      Z, loc_0_F5                       ; yes, skip
00F2 35                           dec     (hl)                              ; decrement timer
00F3 3E 01                        ld      a, #1                             ; enable
00F5
00F5            loc_0_F5:                                           ; CODE XREF: update_sounds+F↑j
00F5 12                           ld      (de), a                           ; set trigger state for this sound
00F6 1C                           inc     e                                 ; next latch
00F7 2C                           inc     l                                 ; next timer
00F8 10 F3                        djnz    loc_0_ED                          ; loop for 8 sounds
00FA 21 8B 60                     ld      hl, #unk_0_608B
00FD 7E                           ld      a, (hl)
00FE A7                           and     a
00FF C2 08 01                     jp      NZ, loc_0_108
0102 2D                           dec     l
0103 2D                           dec     l
0104 7E                           ld      a, (hl)
0105 C3 0B 01                     jp      set_bg_sound_music
0108            ; ─────────────────────────────────────────────────────────────
0108
0108            loc_0_108:                                          ; CODE XREF: update_sounds+1F↑j
0108 35                           dec     (hl)
0109 2D                           dec     l
010A 7E                           ld      a, (hl)                           ; get background sound/music
010B
010B            set_bg_sound_music:                                 ; CODE XREF: update_sounds+25↑j
010B 32 00 7C                     ld      (in0), a                          ; background sound/music select
010E 21 88 60                     ld      hl, #unk_0_6088
0111 AF                           xor     a
0112 BE                           cp      (hl)
0113 CA 18 01                     jp      Z, loc_0_118
0116 35                           dec     (hl)
0117 3C                           inc     a
0118
0118            loc_0_118:                                          ; CODE XREF: update_sounds+33↑j
0118 32 80 7D                     ld      (dsw_audio_irq), a                ; digital sound - dead
011B C9                           ret
011B            ; End of function update_sounds
011B
011C
011C            ; ▐███████████ S U B R O U T I N E ████████████████████████████
011C
011C
011C            stop_sound:                                         ; CODE XREF: sub_0_17B+1A┤p
011C 06 08                                                          ; 0000:02B5┤p ...
011C                              ld      b, #8
011E AF                           xor     a
011F 21 00 7D                     ld      hl, #in2_snd_latch                ; sound latch
0122 11 80 60                     ld      de, #digital_snd_tmr_walk         ; timers
0125
0125            loc_0_125:                                          ; CODE XREF: stop_sound+D┤j
0125 77                           ld      (hl), a                           ; kill latch
0126 12                           ld      (de), a                           ; kill timer
0127 2C                           inc     l
0128 1C                           inc     e
0129 10 FA                        djnz    loc_0_125                         ; write 8 bytes
012B 06 04                        ld      b, #4
012D
012D            loc_0_12D:                                          ; CODE XREF: stop_sound+13┤j
012D 12                           ld      (de), a
012E 1C                           inc     e
012F 10 FC                        djnz    loc_0_12D                         ; another 4 copies
0131 32 80 7D                     ld      (dsw_audio_irq), a                ; audio IRQ
0134 32 00 7C                     ld      (in0), a                          ; background music = NONE
0137 C9                           ret
0137            ; End of function stop_sound
0137
0137            ; ─────────────────────────────────────────────────────────────
0138 53         dma_reg_tbl:      .db 0x53                          ; DATA XREF: 0000:007A↑o
0138                                                                ; DMA mode (TC stop, CH0,1)
0139 00 69                        .dw     soft_sprite_ram                   ; CH0 address
013B 80 41                        .dw     0x4180                            ; CH0 terminal count (RD 0x180 bytes)
013D 00 70                        .dw     SPRAM_start                       ; CH1 Address
013F 80 81                        .dw     0x8180                            ; CH1 terminal count (WR 0x180 bytes)
0141
0141            ; ▐███████████ S U B R O U T I N E ████████████████████████████
0141
0141
0141            dma_sprite_data_to_hw:                              ; CODE XREF: 0000:007D↑p
0141 AF                           xor     a
0142 32 85 7D                     ld      (p8257_drq), a                    ; deassert DRQ0&1
0145 7E                           ld      a, (hl)                           ; 0x53
0146 32 08 78                     ld      (i8257_io+8), a                   ; mode set
0149 23                           inc     hl
```

```
014A 7E                              ld      a, (hl)                    ; 0x00
014B 32 00 78                        ld      (i8257_io), a              ; CH0 DMA address LSB
014E 23                              inc     hl
014F 7E                              ld      a, (hl)                    ; 0x69
0150 32 00 78                        ld      (i8257_io), a              ; CH0 DMA address MSB
0153 23                              inc     hl
0154 7E                              ld      a, (hl)                    ; 0x80
0155 32 01 78                        ld      (i8257_io+1), a            ; terminal count LSB
0158 23                              inc     hl
0159 7E                              ld      a, (hl)                    ; 0x41
015A 32 01 78                        ld      (i8257_io+1), a            ; terminal count MSB
015D 23                              inc     hl
015E 7E                              ld      a, (hl)                    ; 0x00
015F 32 02 78                        ld      (i8257_io+2), a            ; CH1 DMA address LSB
0162 23                              inc     hl
0163 7E                              ld      a, (hl)                    ; 0x70
0164 32 02 78                        ld      (i8257_io+2), a            ; CH1 DMA address MSB
0167 23                              inc     hl
0168 7E                              ld      a, (hl)                    ; 0x80
0169 32 03 78                        ld      (i8257_io+3), a            ; CH1 terminal count LSB
016C 23                              inc     hl
016D 7E                              ld      a, (hl)                    ; 0x81
016E 32 03 78                        ld      (i8257_io+3), a            ; CH1 terminal count MSB
0171 3E 01                           ld      a, #1
0173 32 85 7D                        ld      (p8257_drq), a             ; assert DRQ0&1
0176 AF                              xor     a
0177 32 85 7D                        ld      (p8257_drq), a             ; deassert DRQ0&1
017A C9                              ret
017A          ; End of function dma_sprite_data_to_hw
017A
017B
017B          ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
017B
017B
017B          sub_0_17B:                                                ; CODE XREF: 0000:00BC↑p
017B 3A 00 7D                        ld      a, (in2_snd_latch)         ; read IN2
017E CB 7F                           bit     7, a                       ; coin?
0180 21 03 60                        ld      hl, #unk_0_6003
0183 C2 89 01                        jp      NZ, loc_0_189              ; yes, skip
0186 36 01                           ld      (hl), #1
0188 C9                              ret
0189          ; ────────────────────────────────────────────────────────
0189
0189          loc_0_189:                                                ; CODE XREF: sub_0_17B+8↑j
0189 7E                              ld      a, (hl)
018A A7                              and     a
018B C8                              ret     Z
018C E5                              push    hl
018D 3A 05 60                        ld      a, (nmi_sequencer)
0190 FE 03                           cp      #3                         ; in credit sequence?
0192 CA 9D 01                        jp      Z, loc_0_19D               ; yes, skip
0195 CD 1C 01                        call    stop_sound
0198 3E 03                           ld      a, #3                      ; tmr = 3
019A 32 83 60                        ld      (digital_snd_tmr_coin_spring), a
019D
019D          loc_0_19D:                                                ; CODE XREF: sub_0_17B+17↑j
019D E1                              pop     hl
019E 36 00                           ld      (hl), #0
01A0 2B                              dec     hl
01A1 34                              inc     (hl)
01A2 11 24 60                        ld      de, #coinage+2
01A5 1A                              ld      a, (de)
01A6 96                              sub     (hl)
01A7 C0                              ret     NZ
01A8 77                              ld      (hl), a
01A9 13                              inc     de
01AA 2B                              dec     hl
01AB EB                              ex      de, hl
01AC 1A                              ld      a, (de)
01AD FE 90                           cp      #0x90 ; 'É'
01AF D0                              ret     NC
01B0 86                              add     a, (hl)
01B1 27                              daa
01B2 12                              ld      (de), a
01B3 11 00 04                        ld      de, #0x400                 ; display_credits_if_attract_mode
01B6 CD 9F 30                        call    queue_fg_vector_fn
01B9 C9                              ret
01B9          ; End of function sub_0_17B
01B9
01B9          ; ────────────────────────────────────────────────────────
01BA 00 37 00 inital_scores_and_high_score:.db 0, 0x37, 0              ; DATA XREF: 0000:01C6┼o
01BA                                                                    ; Initial score and high score on bootup
01BD AA AA AA byte_0_1BD:     .db 0xAA, 0xAA, 0xAA                      ; DATA XREF: 0000:159D┼o
01C0 50 76 00                 .db 0x50, 0x76, 0
01C3          ; ────────────────────────────────────────────────────────
01C3
01C3          init_machine_settings:                                    ; DATA XREF: 0000:00CA↑o
01C3 CD 74 08                        call    clear_visible_area_and_sprites
01C6 21 BA 01                        ld      hl, #inital_scores_and_high_score ; copy in ROM
01C9 11 B2 60                        ld      de, #p1_score              ; RAM location
01CC 01 09 00                        ld      bc, #9                     ; 9 bytes to copy
01CF ED B0                           ldir                               ; copy scores to RAM
01D1 3E 01                           ld      a, #1
01D3 32 07 60                        ld      (attract_mode_flag), a     ; set attract mode flag
01D6 32 29 62                        ld      (level), a
01D9 32 28 62                        ld      (lives_left), a
01DC CD B8 06                        call    display_lives_and_level
01DF CD 07 02                        call    read_dips_and_high_score_tbl
01E2 3E 01                           ld      a, #1
01E4 32 82 7D                        ld      (flipscreen), a
01E7 32 05 60                        ld      (nmi_sequencer), a         ; next sequence
01EA 32 27 62                        ld      (level_type), a
01ED AF                              xor     a
01EE 32 0A 60                        ld      (main_sequencer), a        ; game screen sequencer
01F1 CD 53 0A                        call    display_1UP
01F4 11 04 03                        ld      de, #0x304
01F7 CD 9F 30                        call    queue_fg_vector_fn         ; print_message_A
01FA 11 02 02                        ld      de, #0x202
01FD CD 9F 30                        call    queue_fg_vector_fn         ; display_score_or_high_score
0200 11 00 02                        ld      de, #0x200
0203 CD 9F 30                        call    queue_fg_vector_fn         ; display_score_or_high_score
0206 C9                              ret
0207
0207          ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
0207
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0207
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0207                    read_dips_and_high_score_tbl:                       ; CODE XREF: 0000:01DF↑p
0207 3A 80 7D                    ld      a, (dsw_audio_irq)                 ; read DIPSW
020A 4F                          ld      c, a                               ; store
020B 21 20 60                    ld      hl, #lives_per_game
020E E6 03                       and     #3                                 ; lives setting
0210 C6 03                       add     a, #3                              ; init no. of lives
0212 77                          ld      (hl), a                            ; store no. of lives
0213 23                          inc     hl
0214 79                          ld      a, c                               ; DIPSW
0215 0F                          rrca
0216 0F                          rrca
0217 E6 03                       and     #3                                 ; bonus life setting
0219 47                          ld      b, a
021A 3E 07                       ld      a, #7                              ; 7,000?
021C CA 26 02                    jp      Z, loc_0_226                       ; yes, skip
021F 3E 05                       ld      a, #5                              ; 5,000?
0221
0221            loc_0_221:                                                  ; CODE XREF: read_dips_and_high_score_tbl+1D↑j
0221 C6 05                       add     a, #5
0223 27                          daa
0224 10 FB                       djnz    loc_0_221                          ; calculate 10/15/20K points
0226
0226            loc_0_226:                                                  ; CODE XREF: read_dips_and_high_score_tbl+15↑j
0226 77                          ld      (hl), a                            ; bonus_setting
0227 23                          inc     hl
0228 79                          ld      a, c                               ; DIPSW
0229 01 01 01                    ld      bc, #0x101                         ; 1C P1
022C 11 02 01                    ld      de, #0x102                         ; 1C P2
022F E6 70                       and     #0x70 ; 'p'                        ; coinage setting
0231 17                          rla
0232 17                          rla
0233 17                          rla
0234 17                          rla                                        ; coinage 0-7
0235 CA 47 02                    jp      Z, loc_0_247                       ; 1C1C
0238 DA 41 02                    jp      C, loc_0_241                       ; 2-5 coins
023B 3C                          inc     a                                  ; no. credits
023C 4F                          ld      c, a                               ; C = credits
023D 5A                          ld      e, d                               ; D = coins
023E C3 47 02                    jp      loc_0_247
0241           ; ─────────────────────────────────────────
0241
0241            loc_0_241:                                                  ; CODE XREF: read_dips_and_high_score_tbl+31↑j
0241 C6 02                       add     a, #2                              ; no. coins
0243 47                          ld      b, a                               ; B = coins
0244 57                          ld      d, a                               ; D = coins
0245 87                          add     a, a
0246 5F                          ld      e, a                               ; E = coins x2
0247
0247            loc_0_247:                                                  ; CODE XREF: read_dips_and_high_score_tbl+2E↑j
0247 72                          ld      (hl), d                            ; read_dips_and_high_score_tbl+37↑j
0248 23                          inc     hl
0249 73                          ld      (hl), e
024A 23                          inc     hl
024B 70                          ld      (hl), b
024C 23                          inc     hl
024D 71                          ld      (hl), c
024E 23                          inc     hl
024F 3A 80 7D                    ld      a, (dsw_audio_irq)                 ; read DIPSW
0252 07                          rlca                                       ; upright?
0253 3E 01                       ld      a, #1
0255 DA 59 02                    jp      C, loc_0_259                       ; yes, skip
0258 3D                          dec     a
0259
0259            loc_0_259:                                                  ; CODE XREF: read_dips_and_high_score_tbl+4E↑j
0259 77                          ld      (hl), a                            ; store cocktail/upright
025A 21 65 35                    ld      hl, #high_score_tbl
025D 11 00 61                    ld      de, #high_score_tbl_ram            ; destination in RAM
0260 01 AA 00                    ld      bc, #0xAA ; '¬'                    ; length of table
0263 ED B0                       ldir                                       ; copy to ram
0265 C9                          ret
0265            ; End of function read_dips_and_high_score_tbl
0265
0266           ; ─────────────────────────────────────────
0266
0266            INIT:                                                       ; CODE XREF: 0000:0005↑j
0266 06 10                       ld      b, #16
0268 21 00 60                    ld      hl, #RAM_start                     ; start of RAM
026B AF                          xor     a                                  ; zero byte
026C
026C            loc_0_26C:                                                  ; CODE XREF: 0000:0272├j
026C 4F                          ld      c, a
026D
026D            loc_0_26D:                                                  ; CODE XREF: 0000:0270├j
026D 77                          ld      (hl), a                            ; zero memory
026E 23                          inc     hl                                 ; next location
026F 0D                          dec     c
0270 20 FB                       jr      NZ, loc_0_26D                      ; clear 256 bytes
0272 10 F8                       djnz    loc_0_26C                          ; clear 4K bytes
0274 06 04                       ld      b, #4
0276 21 00 70                    ld      hl, #SPRAM_start                   ; start of sprite RAM
0279
0279            loc_0_279:                                                  ; CODE XREF: 0000:027F├j
0279 4F                          ld      c, a
027A
027A            loc_0_27A:                                                  ; CODE XREF: 0000:027D├j
027A 77                          ld      (hl), a                            ; zero memory
027B 23                          inc     hl                                 ; next location
027C 0D                          dec     c
027D 20 FB                       jr      NZ, loc_0_27A                      ; clear 256 bytes
027F 10 F8                       djnz    loc_0_279                          ; clear 1K bytes
0281 06 04                       ld      b, #4
0283 3E 10                       ld      a, #0x10                           ; space character
0285 21 00 74                    ld      hl, #VRAM_start                    ; start of VRAM
0288
0288            loc_0_288:                                                  ; CODE XREF: 0000:028F├j
0288 0E 00                       ld      c, #0
028A
028A            loc_0_28A:                                                  ; CODE XREF: 0000:028D├j
028A 77                          ld      (hl), a                            ; clear memory
028B 23                          inc     hl                                 ; next location
028C 0D                          dec     c
028D 20 FB                       jr      NZ, loc_0_28A                      ; clear 256 bytes
028F 10 F7                       djnz    loc_0_288                          ; clear 1K bytes
0291 21 C0 60                    ld      hl, #fg_vector_fn_params
0294 06 40                       ld      b, #64                             ; fill 64 bytes
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0296 3E FF                      ld      a, #0xFF                            ; fill byte
0298
0298            loc_0_298:                                                  ; CODE XREF: 0000:029A┤j
0298 77                         ld      (hl), a                             ; set to $FF
0299 23                         inc     hl                                  ; next location
029A 10 FC                      djnz    loc_0_298                           ; set 64 bytes
029C 3E C0                      ld      a, #0xC0 ; '└'
029E 32 B0 60                   ld      (fg_fn_queue_tail), a               ; init queue tail
02A1 32 B1 60                   ld      (fg_fn_queue_head), a               ; init queue head
02A4 AF                         xor     a
02A5 32 83 7D                   ld      (spritebank), a
02A8 32 86 7D                   ld      (palette_bank), a                   ; b0=0
02AB 32 87 7D                   ld      (palette_bank+1), a                 ; b1=0
02AE 3C                         inc     a
02AF 32 82 7D                   ld      (flipscreen), a
02B2 31 00 6C                   ld      sp, #0x6C00
02B5 CD 1C 01                   call    stop_sound
02B8 3E 01                      ld      a, #1
02BA 32 84 7D                   ld      (nmi_mask), a                       ; enable interrupts
02BD
02BD            main_loop:                                                  ; CODE XREF: 0000:02D8┤j
02BD 26 60                                                                  ; 0000:02E1┤j
02BD                                                                        ; DATA XREF: ...
02BD                            ld      h, #0x60 ; '`'                      ; msb of queue
02BF 3A B1 60                   ld      a, (fg_fn_queue_head)               ; ptr head of queue
02C2 6F                         ld      l, a
02C3 7E                         ld      a, (hl)                             ; get queue entry
02C4 87                         add     a, a                                ; empty?
02C5 30 1C                      jr      NC, process_fg_fn_queue             ; no, skip
02C7 CD 15 03                   call    flash_1UP_or_2UP
02CA CD 50 03                   call    check_and_award_bonus
02CD 21 19 60                   ld      hl, #random_no+1                    ; random LSB
02D0 34                         inc     (hl)                                ; INC
02D1 21 83 63                   ld      hl, #unk_0_6383
02D4 3A 1A 60                   ld      a, (gen_purpose_timer)
02D7 BE                         cp      (hl)                                ; same?
02D8 28 E3                      jr      Z, main_loop                        ; yes, loop
02DA 77                         ld      (hl), a                             ; generate LSB from timer
02DB CD 7F 03                   call    sub_0_37F
02DE CD A2 03                   call    sub_0_3A2                           ; do something with a sprite
02E1 18 DA                      jr      main_loop
02E3            ; ─────────────────────────────────────────
02E3
02E3            process_fg_fn_queue:                                        ; CODE XREF: 0000:02C5↑j
02E3 E6 1F                      and     #0x1F
02E5 5F                         ld      e, a                                ; E=param1 (vector entry)
02E6 16 00                      ld      d, #0                               ; msb of vector table offset
02E8 36 FF                      ld      (hl), #0xFF                         ; wipe param1
02EA 2C                         inc     l
02EB 4E                         ld      c, (hl)                             ; C=param2 (vector fn param)
02EC 36 FF                      ld      (hl), #0xFF                         ; wipe param2
02EE 2C                         inc     l
02EF 7D                         ld      a, l                                ; new queue head
02F0 FE C0                      cp      #0xC0 ; '└'                         ; wrap?
02F2 30 02                      jr      NC, loc_0_2F6                       ; no, skip
02F4 3E C0                      ld      a, #0xC0 ; '└'
02F6
02F6            loc_0_2F6:                                                  ; CODE XREF: 0000:02F2↑j
02F6 32 B1 60                   ld      (fg_fn_queue_head), a
02F9 79                         ld      a, c                                ; vector fn param
02FA 21 BD 02                   ld      hl, #main_loop                      ; return address
02FD E5                         push    hl
02FE 21 07 03                   ld      hl, #foreground_vector_table        ; jump table
0301 19                         add     hl, de                              ; entry index
0302 5E                         ld      e, (hl)
0303 23                         inc     hl
0304 56                         ld      d, (hl)                             ; DE=vector address
0305 EB                         ex      de, hl                              ; HL=vector address
0306 E9                         jp      (hl)                                ; jump
0306            ; ─────────────────────────────────────────
0307 1C 05      foreground_vector_table:.dw add_bonus_and_update_high_score ; DATA XREF: 0000:02FE↑o
0307                                                                        ; jump table
0309 9B 05                      .dw zero_score_or_high_score
030B C6 05                      .dw display_score_or_high_score
030D E9 05                      .dw print_message_A
030F 11 06                      .dw display_credits_if_attract_mode
0311 2A 06                      .dw update_bonus_timer
0313 B8 06                      .dw display_lives_and_level
0315
0315            ;▐██████████████ S U B R O U T I N E ███████████████████████████████████
0315
0315
0315            flash_1UP_or_2UP:                                           ; CODE XREF: 0000:02C7↑p
0315 3A 1A 60                   ld      a, (gen_purpose_timer)
0318 47                         ld      b, a                                ; save timer
0319 E6 0F                      and     #0xF
031B C0                         ret     NZ
031C CF                         rst     8                                   ; return if attract mode
031D 3A 0D 60                   ld      a, (current_player_D)
0320 CD 47 03                   call    get_1UP_or_2UP_screen_location
0323 11 E0 FF                   ld      de, #0xFFE0                         ; column address offset
0326 CB 60                      bit     4, b                                ; unhide 1UP/2UP?
0328 28 14                      jr      Z, loc_0_33E                        ; yes, skip
032A 3E 10                      ld      a, #0x10                            ; " "
032C 77                         ld      (hl), a                             ; wipe "1" or "2"
032D 19                         add     hl, de                              ; next column
032E 77                         ld      (hl), a                             ; wipe "U"
032F 19                         add     hl, de                              ; next column
0330 77                         ld      (hl), a                             ; wipe "P"
0331 3A 0F 60                   ld      a, (two_players)
0334 A7                         and     a                                   ; 1 player?
0335 C8                         ret     Z                                   ; yes, return
0336 3A 0D 60                   ld      a, (current_player_D)
0339 EE 01                      xor     #1
033B CD 47 03                   call    get_1UP_or_2UP_screen_location
033E
033E            loc_0_33E:                                                  ; CODE XREF: flash_1UP_or_2UP+13↑j
033E 3C                         inc     a
033F 77                         ld      (hl), a                             ; "1" or "2"
0340 19                         add     hl, de                              ; next column
0341 36 25                      ld      (hl), #0x25 ; '%'                   ; "U"
0343 19                         add     hl, de                              ; next column
0344 36 20                      ld      (hl), #0x20 ; ' '                   ; "P"
0346 C9                         ret
0346            ; End of function flash_1UP_or_2UP
0346
```

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0347
0347                 ; ██████████████ S U B R O U T I N E ████████████████████████████████████████
0347
0347
0347                 get_1UP_or_2UP_screen_location:              ; CODE XREF: flash_1UP_or_2UP+B↑p
0347 21 40 77                         ld      hl, #VRAM_start+0x340    ; flash_1UP_or_2UP+26↑p
0347                                                               ; ptr "1UP" screen loaction
034A A7                              and     a                    ; player 1?
034B C8                              ret     Z                    ; yes, return
034C 21 E0 74                        ld      hl, #VRAM_start+0xE0 ; ptr "2UP" screen location
034F C9                              ret
034F             ; End of function get_1UP_or_2UP_screen_location
034F
0350
0350                 ; ██████████████ S U B R O U T I N E ████████████████████████████████████████
0350
0350
0350                 check_and_award_bonus:                       ; CODE XREF: 0000:02CA↑p
0350 3A 2D 62                         ld      a, (awarded_bonus_life)
0353 A7                              and     a                    ; already got bonus life?
0354 C0                              ret     NZ                   ; yes, return
0355 21 B3 60                        ld      hl, #p1_score+1
0358 3A 0D 60                        ld      a, (current_player_D)
035B A7                              and     a                    ; player 1?
035C 28 03                           jr      Z, loc_0_361         ; yes, skip
035E 21 B6 60                        ld      hl, #p2_score+1
0361
0361                 loc_0_361:                                   ; CODE XREF: check_and_award_bonus+C↑j
0361 7E                              ld      a, (hl)              ; get hundreds from score
0362 E6 F0                           and     #0xF0 ; '-'          ; only thousands
0364 47                              ld      b, a                 ; save
0365 23                              inc     hl                   ; next score byte
0366 7E                              ld      a, (hl)              ; get tens of thousands
0367 E6 0F                           and     #0xF                 ; only tens of thousands
0369 B0                              or      b                    ; B = thousands (and tens of)
036A 0F                              rrca
036B 0F                              rrca
036C 0F                              rrca
036D 0F                              rrca                         ; swap nibbles
036E 21 21 60                        ld      hl, #bonus_setting
0371 BE                              cp      (hl)                 ; reached bonus score?
0372 D8                              ret     C                    ; no, return
0373 3E 01                           ld      a, #1
0375 32 2D 62                        ld      (awarded_bonus_life), a ; flag that we've got the bonus
0378 21 28 62                        ld      hl, #lives_left
037B 34                              inc     (hl)                 ; extra life
037C C3 B8 06                        jp      display_lives_and_level
037C             ; End of function check_and_award_bonus
037C
037F
037F                 ; ██████████████ S U B R O U T I N E ████████████████████████████████████████
037F
037F
037F                 sub_0_37F:                                   ; CODE XREF: 0000:02DB↑p
037F 21 84 63                        ld      hl, #unk_0_6384
0382 7E                              ld      a, (hl)
0383 34                              inc     (hl)
0384 A7                              and     a
0385 C0                              ret     NZ
0386 21 81 63                        ld      hl, #unk_0_6381
0389 7E                              ld      a, (hl)
038A 47                              ld      b, a
038B 34                              inc     (hl)
038C E6 07                           and     #7
038E C0                              ret     NZ
038F 78                              ld      a, b
0390 0F                              rrca
0391 0F                              rrca
0392 0F                              rrca
0393 47                              ld      b, a
0394 3A 29 62                        ld      a, (level)
0397 80                              add     a, b
0398 FE 05                           cp      #5
039A 38 02                           jr      C, loc_0_39E
039C 3E 05                           ld      a, #5
039E
039E                 loc_0_39E:                                   ; CODE XREF: sub_0_37F+1B↑j
039E 32 80 63                        ld      (unk_0_6380), a
03A1 C9                              ret
03A1             ; End of function sub_0_37F
03A1
03A2
03A2                 ; ██████████████ S U B R O U T I N E ████████████████████████████████████████
03A2
03A2
03A2                 sub_0_3A2:                                   ; CODE XREF: 0000:02DE↑p
03A2 3E 03                           ld      a, #3
03A4 F7                              rst     0x30                 ; return if level bit not set
03A5 D7                              rst     0x10                 ; return if mario not alive
03A6 3A 50 63                        ld      a, (unk_0_6350)
03A9 0F                              rrca
03AA D8                              ret     C
03AB 21 B8 62                        ld      hl, #unk_0_62B8
03AE 35                              dec     (hl)
03AF C0                              ret     NZ
03B0 36 04                           ld      (hl), #4
03B2 3A B9 62                        ld      a, (unk_0_62B9)
03B5 0F                              rrca
03B6 D0                              ret     NC
03B7 21 29 6A                        ld      hl, #soft_sprite_ram+0x129  ; sprite #173, flipy & code
03BA 06 40                           ld      b, #0x40 ; '@'
03BC DD 21 A0 66                     ld      ix, #unk_0_66A0
03C0 0F                              rrca
03C1 D2 E4 03                        jp      NC, loc_0_3E4
03C4 DD 36 09 02                     ld      9(ix), #2
03C8 DD 36 0A 02                     ld      0xA(ix), #2
03CC 04                              inc     b
03CD 04                              inc     b
03CE CD F2 03                        call    sub_0_3F2
03D1 21 BA 62                        ld      hl, #unk_0_62BA
03D4 35                              dec     (hl)
03D5 C0                              ret     NZ
03D6 3E 01                           ld      a, #1
03D8 32 B9 62                        ld      (unk_0_62B9), a
03DB 32 A0 63                        ld      (unk_0_63A0), a
03DE
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03DE                    loc_0_3DE:                                              ; CODE XREF: sub_0_3A2+4D┴j
03DE 3E 10                      ld      a, #0x10
03E0 32 BA 62                   ld      (unk_0_62BA), a
03E3 C9                         ret
03E4            ; ───────────────────────────────────────────────────────────
03E4
03E4                    loc_0_3E4:                                              ; CODE XREF: sub_0_3A2+1F↑j
03E4 DD 36 09 02                ld      9(ix), #2
03E8 DD 36 0A 00                ld      0xA(ix), #0
03EC CD F2 03                   call    sub_0_3F2
03EF C3 DE 03                   jp      loc_0_3DE
03EF            ; End of function sub_0_3A2
03EF
03F2
03F2            ; ▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
03F2
03F2
03F2                    sub_0_3F2:                                              ; CODE XREF: sub_0_3A2+2C↑p
03F2 70                         ld      (hl), b                                 ; sub_0_3A2+4A↑p
03F2
03F3 3A 19 60                   ld      a, (random_no+1)
03F6 0F                         rrca
03F7 D8                         ret     C
03F8 04                         inc     b
03F9 70                         ld      (hl), b
03FA C9                         ret
03FA            ; End of function sub_0_3F2
03FA
03FB
03FB            ; ▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
03FB
03FB
03FB                    animate_kong_and_pauline:                               ; CODE XREF: 0000:19B0┴p
03FB 3A 27 62                   ld      a, (level_type)
03FE FE 02                      cp      #2                                      ; cement pies?
0400 C2 13 04                   jp      NZ, loc_0_413                           ; no, skip
0403 21 08 69                   ld      hl, #soft_sprite_ram+8                  ; sprite #2 y coord
0406 3A A3 63                   ld      a, (unk_0_63A3)                         ; get top conveyer speed/direction
0409 4F                         ld      c, a                                    ; kong location adjustment
040A FF                         rst     0x38                                    ; add +/-1 to y for 10 sprites
040B 3A 10 69                   ld      a, (soft_sprite_ram+0x10)               ; sprite #4, y coord
040E D6 3B                      sub     #59
0410 32 B7 63                   ld      (unk_0_63B7), a
0413
0413                    loc_0_413:                                              ; CODE XREF: animate_kong_and_pauline+5↑j
0413 3A 91 63                   ld      a, (kong_thrash_flag)
0416 A7                         and     a                                       ; thrashing arms?
0417 C2 26 04                   jp      NZ, loc_0_426                           ; yes, continue
041A 3A 1A 60                   ld      a, (gen_purpose_timer)
041D A7                         and     a                                       ; expired?
041E C2 86 04                   jp      NZ, animate_pauline                     ; no, animate Pauline
0421 3E 01                      ld      a, #1                                   ; flag thrashing
0423 32 91 63                   ld      (kong_thrash_flag), a
0426
0426                    loc_0_426:                                              ; CODE XREF: animate_kong_and_pauline+1C↑j
0426 21 90 63                   ld      hl, #kong_thrash_tmr
0429 34                         inc     (hl)                                    ; inc
042A 7E                         ld      a, (hl)                                 ; get timer
042B FE 80                      cp      #128                                    ; finished thrashing?
042D CA 64 04                   jp      Z, draw_kong_mouth_closed               ; yes, continue
0430 3A 93 63                   ld      a, (barrel_deployment)
0433 A7                         and     a                                       ; deployment in progress?
0434 C2 86 04                   jp      NZ, animate_pauline                     ; yes, skip (no thrashing)
0437 7E                         ld      a, (hl)                                 ; get timer
0438 47                         ld      b, a
0439 E6 1F                      and     #31                                     ; time to thrash arms?
043B C2 86 04                   jp      NZ, animate_pauline                     ; no, skip (animate Pauline)
043E 21 CF 39                   ld      hl, #dk_thrash_right_spr
0441 CB 68                      bit     5, b                                    ; left/right depending on timer
0443 20 03                      jr      NZ, do_kong_thrash
0445 21 F7 39                   ld      hl, #dk_thrash_left_spr
0448
0448                    do_kong_thrash:                                         ; CODE XREF: animate_kong_and_pauline+48↑j
0448 CD 4E 00                   call    copy_sprites_2_11_data
044B 3E 03                      ld      a, #3                                   ; tmr=3
044D 32 82 60                   ld      (digital_snd_tmr_thump), a
0450
0450                    loc_0_450:                                              ; CODE XREF: animate_kong_and_pauline+7A┴j
0450 3A 27 62                   ld      a, (level_type)
0453 0F                         rrca                                            ; level 2/4?
0454 D2 78 04                   jp      NC, loc_0_478                           ; yes, skip
0457 0F                         rrca                                            ; level 3?
0458 DA 86 04                   jp      C, animate_pauline                      ; yes, skip
045B 21 0B 69                   ld      hl, #soft_sprite_ram+0xB                ; sprite #2, x coord
045E 0E FC                      ld      c, #0xFC ; '3'
0460 FF                         rst     0x38                                    ; subtract 4 from x for 10 sprites
0461 C3 86 04                   jp      animate_pauline
0464            ; ───────────────────────────────────────────────────────────
0464
0464                    draw_kong_mouth_closed:                                 ; CODE XREF: animate_kong_and_pauline+32↑j
0464 AF                         xor     a
0465 77                         ld      (hl), a                                 ; zero kong_animation_tmr
0466 23                         inc     hl
0467 77                         ld      (hl), a
0468 3A 93 63                   ld      a, (barrel_deployment)
046B A7                         and     a                                       ; deployment in progess?
046C C2 86 04                   jp      NZ, animate_pauline                     ; no, continue
046F 21 5C 38                   ld      hl, #kong_normal_spr
0472 CD 4E 00                   call    copy_sprites_2_11_data
0475 C3 50 04                   jp      loc_0_450
0478            ; ───────────────────────────────────────────────────────────
0478
0478                    loc_0_478:                                              ; CODE XREF: animate_kong_and_pauline+59↑j
0478 21 08 69                   ld      hl, #soft_sprite_ram+8                  ; ptr sprite #2 (x coord)
047B 0E 44                      ld      c, #0x44 ; 'D'
047D 0F                         rrca                                            ; level 2?
047E D2 85 04                   jp      NC, loc_0_485                           ; yes, skip
0481 3A B7 63                   ld      a, (unk_0_63B7)
0484 4F                         ld      c, a
0485
0485                    loc_0_485:                                              ; CODE XREF: animate_kong_and_pauline+83↑j
0485 FF                         rst     0x38                                    ; add C to y coord of 10 sprites
0486
0486                    animate_pauline:                                        ; CODE XREF: animate_kong_and_pauline+23↑j
0486                                                                            ; animate_kong_and_pauline+39↑j ...
0486 3A 90 63                   ld      a, (kong_thrash_tmr)
```

```
0489 4F                              ld       c, a
048A 11 20 00                        ld       de, #0x20 ; ' '
048D 3A 27 62                        ld       a, (level_type)
0490 FE 04                           cp       #4                              ; rivets?
0492 CA BE 04                        jp       Z, display_help_rivets_level    ; yes, skip
0495 79                              ld       a, c                            ; kong_thrash_tmr
0496 A7                              and      a                               ; finished?
0497 CA A1 04                        jp       Z, wipe_help                    ; yes, skip
049A 3E EF                           ld       a, #0xEF ; '´'                  ; "HELP!"
049C CB 71                           bit      6, c                            ; time to display help?
049E C2 A3 04                        jp       NZ, display_or_wipe_help        ; yes, skip
04A1
04A1               wipe_help:                                                 ; CODE XREF: animate_kong_and_pauline+9C↑j
04A1 3E 10                           ld       a, #0x10                        ; blank tiles
04A3
04A3               display_or_wipe_help:                                      ; CODE XREF: animate_kong_and_pauline+A3↑j
04A3 21 C4 75                        ld       hl, #VRAM_start+0x1C4           ; screen position for HELP!
04A6 CD 14 05                        call     display_3_tiles_HL             ; display/wipe HELP!
04A9 3A 05 69                        ld       a, (soft_sprite_ram+5)          ; sprite #1, flipy & code
04AC
04AC               make_pauline_run:                                          ; CODE XREF: animate_kong_and_pauline+F3↑j
04AC 32 05 69                                                                 ; animate_kong_and_pauline+10B├j
04AC                                 ld       (soft_sprite_ram+5), a          ; sprite #1, flipy & code
04AF CB 71                           bit      6, c
04B1 C8                              ret      Z
04B2 47                              ld       b, a
04B3 79                              ld       a, c
04B4 E6 07                           and      #7
04B6 C0                              ret      NZ
04B7 78                              ld       a, b                            ; sprite #1, flipy & code
04B8 EE 03                           xor      #3                              ; toggle sprites 0x11/0x12 pauline running
04BA 32 05 69                        ld       (soft_sprite_ram+5), a          ; sprite #1, flipy & code
04BD C9                              ret
04BE               ; —————————————————————————————————————————————
04BE
04BE               display_help_rivets_level:                                 ; CODE XREF: animate_kong_and_pauline+97↑j
04BE 3E 10                           ld       a, #0x10                        ; blank tiles
04C0 21 23 76                        ld       hl, #VRAM_start+0x223          ; screen pos
04C3 CD 14 05                        call     display_3_tiles_HL
04C6 21 83 75                        ld       hl, #VRAM_start+0x183          ; screen pos
04C9 CD 14 05                        call     display_3_tiles_HL
04CC CB 71                           bit      6, c
04CE CA 09 05                        jp       Z, loc_0_509
04D1 3A 03 62                        ld       a, (mario_y_coord)
04D4 FE 80                           cp       #0x80 ; 'Ç'                      ; mario left/right side of screen?
04D6 D2 F1 04                        jp       NC, display_help_right          ; right, skip
04D9 3E DF                           ld       a, #0xDF ; '▮'                   ; "HELP!" to the left
04DB 21 23 76                        ld       hl, #VRAM_start+0x223          ; screen pos
04DE CD 14 05                        call     display_3_tiles_HL             ; display "HELP!"
04E1
04E1               display_pauline_left:                                      ; CODE XREF: animate_kong_and_pauline+116├j
04E1 3A 01 69                        ld       a, (soft_sprite_ram+1)          ; sprite #0, flipy & code
04E4 F6 80                           or       #0x80 ; 'Ç'                      ; flipy
04E6 32 01 69                        ld       (soft_sprite_ram+1), a          ; save
04E9 3A 05 69                        ld       a, (soft_sprite_ram+5)          ; sprite #1, flipy & code
04EC F6 80                           or       #0x80 ; 'Ç'                      ; flipy
04EE C3 AC 04                        jp       make_pauline_run
04F1               ; —————————————————————————————————————————————
04F1
04F1               display_help_right:                                        ; CODE XREF: animate_kong_and_pauline+DB↑j
04F1 3E EF                           ld       a, #0xEF ; '´'                  ; "HELP!" to the right
04F3 21 83 75                        ld       hl, #VRAM_start+0x183          ; screen pos
04F6 CD 14 05                        call     display_3_tiles_HL             ; display "HELP!"
04F9
04F9               display_pauline_right:                                     ; CODE XREF: animate_kong_and_pauline+113├j
04F9 3A 01 69                        ld       a, (soft_sprite_ram+1)          ; sprite #0, flipy & code
04FC E6 7F                           and      #0x7F ; ' '                     ; not flipped
04FE 32 01 69                        ld       (soft_sprite_ram+1), a          ; save
0501 3A 05 69                        ld       a, (soft_sprite_ram+5)          ; sprite #1, flipy & code
0504 E6 7F                           and      #0x7F ; ' '                     ; not flipped
0506 C3 AC 04                        jp       make_pauline_run
0509               ; —————————————————————————————————————————————
0509
0509               loc_0_509:                                                 ; CODE XREF: animate_kong_and_pauline+D3↑j
0509 3A 03 62                        ld       a, (mario_y_coord)
050C FE 80                           cp       #0x80 ; 'Ç'
050E D2 F9 04                        jp       NC, display_pauline_right
0511 C3 E1 04                        jp       display_pauline_left
0511               ; End of function animate_kong_and_pauline
0511
0514
0514               ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
0514
0514
0514               display_3_tiles_HL:                                        ; CODE XREF: animate_kong_and_pauline+AB↑p
0514 06 03                                                                    ; animate_kong_and_pauline+C8↑p ...
0514                                 ld       b, #3                           ; 3 tiles
0516
0516               loc_0_516:                                                 ; CODE XREF: display_3_tiles_HL+5├j
0516 77                              ld       (hl), a                         ; store tile
0517 19                              add      hl, de                          ; next row/column
0518 3D                              dec      a                               ; prev tile
0519 10 FB                           djnz     loc_0_516                       ; loop for 3 tiles
051B C9                              ret
051B               ; End of function display_3_tiles_HL
051B
051C
051C               ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
051C
051C
051C               add_bonus_and_update_high_score:                           ; CODE XREF: 0000:0698├p
051C 4F                                                                       ; 0000:06A5├j
051C                                                                          ; DATA XREF: ...
051C                                 ld       c, a
051D CF                              rst      8                               ; return if attract mode
051E CD 5F 05                        call     current_player_score_DE
0521 79                              ld       a, c
0522 81                              add      a, c
0523 81                              add      a, c
0524 4F                              ld       c, a
0525 21 29 35                        ld       hl, #Bonus_Points_Tbl
0528 06 00                           ld       b, #0
052A 09                              add      hl, bc
052B A7                              and      a
052C 06 03                           ld       b, #3                           ; 3 bytes of score
052E
```

```
052E                loc_0_52E:                                      ; CODE XREF: add_bonus_and_update_high_score+18┤j
052E 1A                         ld      a, (de)                     ; get score BCD pair
052F 8E                         adc     a, (hl)                     ; add bonus BCD pair
0530 27                         daa                                 ; adjust for BCD
0531 12                         ld      (de), a                     ; update score BCD pair
0532 13                         inc     de
0533 23                         inc     hl                          ; next byte
0534 10 F8                      djnz    loc_0_52E                   ; loop through score
0536 D5                         push    de
0537 1B                         dec     de                          ; ptr score
0538 3A 0D 60                   ld      a, (current_player_D)
053B CD 6B 05                   call    display_player_A_score
053E D1                         pop     de
053F 1B                         dec     de
0540 21 BA 60                   ld      hl, #high_score+2           ; MSB
0543 06 03                      ld      b, #3                       ; 3 bytes to compare
0545
0545                loc_0_545:                                      ; CODE XREF: add_bonus_and_update_high_score+31┤j
0545 1A                         ld      a, (de)                     ; get byte from score
0546 BE                         cp      (hl)                        ; less than high score?
0547 D8                         ret     C                           ; yes, return
0548 C2 50 05                   jp      NZ, new_high_score          ; greater, we have a high score
054B 1B                         dec     de
054C 2B                         dec     hl                          ; same, check next byte
054D 10 F6                      djnz    loc_0_545                   ; loop through 3 bytes
054F C9                         ret
0550            ; ───────────────────────────────────────────────────────
0550
0550                new_high_score:                                 ; CODE XREF: add_bonus_and_update_high_score+2C↑j
0550 CD 5F 05                   call    current_player_score_DE
0553 21 B8 60                   ld      hl, #high_score
0556
0556                update_high_score:                              ; CODE XREF: add_bonus_and_update_high_score+3E┤j
0556 1A                         ld      a, (de)                     ; get score byte
0557 77                         ld      (hl), a                     ; copy to high score
0558 13                         inc     de
0559 23                         inc     hl                          ; next location
055A 10 FA                      djnz    update_high_score           ; loop through 3 bytes
055C C3 DA 05                   jp      display_high_score
055C            ; End of function add_bonus_and_update_high_score
055C
055C
055F            ; ██████████████ S U B R O U T I N E ███████████████████████
055F
055F
055F                current_player_score_DE:                        ; CODE XREF: add_bonus_and_update_high_score+2↑p
055F 11 B2 60                                                       ; add_bonus_and_update_high_score+34↑p
055F                           ld      de, #p1_score
0562 3A 0D 60                  ld      a, (current_player_D)
0565 A7                        and     a                            ; player one?
0566 C8                        ret     Z                            ; yes, return
0567 11 B5 60                  ld      de, #p2_score
056A C9                        ret
056A            ; End of function current_player_score_DE
056A
056B
056B            ; ██████████████ S U B R O U T I N E ███████████████████████
056B
056B
056B                display_player_A_score:                         ; CODE XREF: add_bonus_and_update_high_score+1F↑p
056B DD 21 81 77                                                    ; display_score_or_high_score+11┤j
056B                           ld      ix, #VRAM_start+0x381
056F A7                        and     a
0570 28 0A                     jr      Z, display_score_HL
0572 DD 21 21 75               ld      ix, #VRAM_start+0x121
0576 18 04                     jr      display_score_HL
0578            ; ───────────────────────────────────────────────────────
0578
0578                display_score_at_hs_location:                   ; CODE XREF: display_score_or_high_score+17┤j
0578 DD 21 41 76               ld      ix, #VRAM_start+0x241        ; screen position for score
057C
057C                display_score_HL:                               ; CODE XREF: display_player_A_score+5↑j
057C EB                                                             ; display_player_A_score+B↑j ...
057C                           ex      de, hl
057D 11 E0 FF                  ld      de, #0xFFE0                  ; column address delta
0580 01 04 03                  ld      bc, #0x304                  ; 3=6 digits
0583
0583                display_B_bcd_digit_pairs:                      ; CODE XREF: display_player_A_score+25┤j
0583 7E                                                             ; display_credits+11┤j
0583                           ld      a, (hl)                      ; get bcd digit pair
0584 0F                        rrca
0585 0F                        rrca
0586 0F                        rrca
0587 0F                        rrca                                 ; shift high nibble
0588 CD 93 05                  call    display_score_digit
058B 7E                        ld      a, (hl)                      ; low nibble
058C CD 93 05                  call    display_score_digit
058F 2B                        dec     hl                           ; next digit pair
0590 10 F1                     djnz    display_B_bcd_digit_pairs    ; loop through 6 digits
0592 C9                        ret
0592            ; End of function display_player_A_score
0592
0592
0593            ; ██████████████ S U B R O U T I N E ███████████████████████
0593
0593
0593                display_score_digit:                            ; CODE XREF: display_player_A_score+1D↑p
0593 E6 0F                                                          ; display_player_A_score+21↑p
0593                           and     #0xF                         ; low nibble only
0595 DD 77 00                  ld      0(ix), a                     ; display digit
0598 DD 19                     add     ix, de                       ; next column
059A C9                        ret
059A            ; End of function display_score_digit
059A
059B
059B            ; ██████████████ S U B R O U T I N E ███████████████████████
059B
059B
059B                zero_score_or_high_score:                       ; CODE XREF: zero_score_or_high_score+24┤p
059B FE 03                                                         ; DATA XREF: 0000:0309↑o
059B                           cp      #3                           ; zero all scores?
059D D2 BD 05                  jp      NC, loc_0_5BD                ; yes, skip
05A0 F5                        push    af
05A1 21 B2 60                  ld      hl, #p1_score
05A4 A7                        and     a
05A5 CA AB 05                  jp      Z, loc_0_5AB
```

```
05A8  21 B5 60                      ld      hl, #p2_score
05AB
05AB              loc_0_5AB:                                          ; CODE XREF: zero_score_or_high_score+A↑j
05AB  FE 02                         cp      #2
05AD  C2 B3 05                      jp      NZ, loc_0_5B3
05B0  21 B8 60                      ld      hl, #high_score
05B3
05B3              loc_0_5B3:                                          ; CODE XREF: zero_score_or_high_score+12↑j
05B3  AF                            xor     a
05B4  77                            ld      (hl), a
05B5  23                            inc     hl
05B6  77                            ld      (hl), a
05B7  23                            inc     hl
05B8  77                            ld      (hl), a
05B9  F1                            pop     af
05BA  C3 C6 05                      jp      display_score_or_high_score
05BD              ; ───────────────────────────────────────────────────
05BD
05BD              loc_0_5BD:                                          ; CODE XREF: zero_score_or_high_score+2↑j
05BD  3D                                                              ; zero_score_or_high_score+29┤j
05BD                                dec     a                         ; next score to zero
05BE  F5                            push    af
05BF  CD 9B 05                      call    zero_score_or_high_score
05C2  F1                            pop     af
05C3  C8                            ret     Z                         ; return when done
05C4  18 F7                         jr      loc_0_5BD                 ; zero next score
05C4              ; End of function zero_score_or_high_score
05C4
05C6
05C6              ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
05C6
05C6
05C6              display_score_or_high_score:                        ; CODE XREF: zero_score_or_high_score+1F↑j
05C6  FE 03                                                           ; display_score_or_high_score+1C┤p
05C6                                                                  ; DATA XREF: ...
05C6                                cp      #3
05C8  CA E0 05                      jp      Z, loc_0_5E0
05CB  11 B4 60                      ld      de, #p1_score+2
05CE  A7                            and     a
05CF  CA D5 05                      jp      Z, loc_0_5D5
05D2  11 B7 60                      ld      de, #p2_score+2
05D5
05D5              loc_0_5D5:                                          ; CODE XREF: display_score_or_high_score+9↑j
05D5  FE 02                         cp      #2
05D7  C2 6B 05                      jp      NZ, display_player_A_score
05DA
05DA              display_high_score:                                 ; CODE XREF: add_bonus_and_update_high_score+40↑j
05DA  11 BA 60                      ld      de, #high_score+2
05DD  C3 78 05                      jp      display_score_at_hs_location
05E0              ; ───────────────────────────────────────────────────
05E0
05E0              loc_0_5E0:                                          ; CODE XREF: display_score_or_high_score+2↑j
05E0  3D                                                              ; display_score_or_high_score+21┤j
05E0                                dec     a
05E1  F5                            push    af
05E2  CD C6 05                      call    display_score_or_high_score
05E5  F1                            pop     af
05E6  C8                            ret     Z
05E7  18 F7                         jr      loc_0_5E0
05E7              ; End of function display_score_or_high_score
05E7
05E9
05E9              ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
05E9
05E9
05E9              print_message_A:                                    ; CODE XREF: display_credits+2┤p
05E9  21 4B 36                                                        ; display_start_12P_get_selection+18┤p
05E9                                                                  ; DATA XREF: ...
05E9                                ld      hl, #message_table
05EC  87                            add     a, a                      ; convert entry to offset
05ED  F5                            push    af
05EE  E6 7F                         and     #0x7F ; ' '               ; mask off 'wipe' bit
05F0  5F                            ld      e, a
05F1  16 00                         ld      d, #0                     ; DE = offset
05F3  19                            add     hl, de                    ; pointer to entry
05F4  5E                            ld      e, (hl)
05F5  23                            inc     hl
05F6  56                            ld      d, (hl)                   ; DE = entry (word)
05F7  EB                            ex      de, hl
05F8  5E                            ld      e, (hl)
05F9  23                            inc     hl
05FA  56                            ld      d, (hl)                   ; DE = screen address to print
05FB  23                            inc     hl                        ; HL = message text
05FC  01 E0 FF                      ld      bc, #0xFFE0               ; screen column address inc value
05FF  EB                            ex      de, hl                    ; DE = text, HL = screen address
0600
0600              loc_0_600:                                          ; CODE XREF: print_message_A+26┤j
0600  1A                            ld      a, (de)                   ; get message character
0601  FE 3F                         cp      #0x3F ; '?'               ; end of message?
0603  CA 26 00                      jp      Z, pop_hl_ret             ; yes, exit
0606  77                            ld      (hl), a                   ; display character on screen
0607  F1                            pop     af                        ; restore original entry index
0608  30 02                         jr      NC, loc_0_60C             ; not wiping, skip
060A  36 10                         ld      (hl), #0x10               ; display space character on screen
060C
060C              loc_0_60C:                                          ; CODE XREF: print_message_A+1F↑j
060C  F5                            push    af                        ; store original entry index
060D  13                            inc     de                        ; next message character
060E  09                            add     hl, bc                    ; next screen location
060F  18 EF                         jr      loc_0_600                 ; loop through message
060F              ; End of function print_message_A
060F
0611              ; ───────────────────────────────────────────────────
0611
0611              display_credits_if_attract_mode:                    ; DATA XREF: 0000:030F↑o
0611  3A 07 60                      ld      a, (attract_mode_flag)
0614  0F                            rrca                              ; in attract mode?
0615  D0                            ret     NC                        ; no, return
0616
0616              ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
0616
0616
0616              display_credits:                                    ; CODE XREF: display_start_12P_get_selection+1B┤p
0616  3E 05                                                           ; 0000:141E┤p ...
0616                                ld      a, #5                     ; "credit"
0618  CD E9 05                      call    print_message_A
```

```
061B 21 01 60                 ld      hl, #no_of_credits
061E 11 E0 FF                 ld      de, #0xFFE0                      ; column address delta
0621 DD 21 BF 74              ld      ix, #VRAM_start+0xBF             ; screen position of credits
0625 06 01                    ld      b, #1                           ; 1=2 digits
0627 C3 83 05                 jp      display_B_bcd_digit_pairs
0627             ; End of function display_credits
0627
062A             ; ───────────────────────────────────────────────────────────────
062A
062A             update_bonus_timer:                                  ; DATA XREF: 0000:0311↑o
062A A7                       and     a
062B CA 91 06                 jp      Z, loc_0_691
062E 3A 8C 63                 ld      a, (bonus_timer)
0631 A7                       and     a                               ; zero?
0632 C2 A8 06                 jp      NZ, loc_0_6A8                   ; no, skip
0635 3A B8 63                 ld      a, (unk_0_63B8)
0638 A7                       and     a
0639 C0                       ret     NZ
063A 3A B0 62                 ld      a, (unk_0_62B0)
063D 01 0A 00                 ld      bc, #0xA
0640
0640             loc_0_640:                                           ; CODE XREF: 0000:0642↓j
0640 04                       inc     b
0641 91                       sub     c
0642 C2 40 06                 jp      NZ, loc_0_640
0645 78                       ld      a, b
0646 07                       rlca
0647 07                       rlca
0648 07                       rlca
0649 07                       rlca
064A 32 8C 63                 ld      (bonus_timer), a                ; set initial bonus timer value
064D 21 4A 38                 ld      hl, #bonus_graphic_tiles
0650 11 65 74                 ld      de, #VRAM_start+0x65            ; screen position for bonus
0653 3E 06                    ld      a, #6                           ; 6 columns of tiles to display
0655
0655             loc_0_655:                                           ; CODE XREF: 0000:0664↓j
0655 DD 21 1D 00              ld      ix, #0x1D                       ; column inc
0659 01 03 00                 ld      bc, #3                          ; 3 tiles to display
065C ED B0                    ldir                                    ; display bonus tiles
065E DD 19                    add     ix, de                          ; next column
0660 DD E5                    push    ix
0662 D1                       pop     de                              ; screen position
0663 3D                       dec     a                               ; done?
0664 C2 55 06                 jp      NZ, loc_0_655                   ; no, loop
0667 3A 8C 63                 ld      a, (bonus_timer)
066A
066A             loc_0_66A:                                           ; CODE XREF: 0000:06B5↓j
066A 4F                       ld      c, a
066B E6 0F                    and     #0xF
066D 47                       ld      b, a                            ; B=low nibble
066E 79                       ld      a, c
066F 0F                       rrca
0670 0F                       rrca
0671 0F                       rrca
0672 0F                       rrca
0673 E6 0F                    and     #0xF                            ; C=high nibble
0675 C2 89 06                 jp      NZ, display_bonus_digits        ; skip if more than 9s left
0678 3E 03                    ld      a, #3
067A 32 89 60                 ld      (unk_0_6089), a
067D 3E 70                    ld      a, #0x70 ; 'p'                  ; purple '0'
067F 32 86 74                 ld      (VRAM_start+0x86), a            ; '0'
0682 32 A6 74                 ld      (VRAM_start+0xA6), a            ; '0'
0685 80                       add     a, b                            ; 2nd digit to 'ascii'
0686 47                       ld      b, a                            ; store
0687 3E 10                    ld      a, #0x10                        ; <space>
0689
0689             display_bonus_digits:                                ; CODE XREF: 0000:0675↑j
0689 32 E6 74                 ld      (VRAM_start+0xE6), a            ; display 1st digit
068C 78                       ld      a, b                            ; restore 2nd digit
068D 32 C6 74                 ld      (VRAM_start+0xC6), a            ; display 2nd digit
0690 C9                       ret
0691             ; ───────────────────────────────────────────────────────────────
0691
0691             loc_0_691:                                           ; CODE XREF: 0000:062B↑j
0691 3A 8C 63                 ld      a, (bonus_timer)
0694 47                       ld      b, a
0695 E6 0F                    and     #0xF
0697 C5                       push    bc
0698 CD 1C 05                 call    add_bonus_and_update_high_score
069B C1                       pop     bc
069C 78                       ld      a, b
069D 0F                       rrca
069E 0F                       rrca
069F 0F                       rrca
06A0 0F                       rrca
06A1 E6 0F                    and     #0xF
06A3 C6 0A                    add     a, #0xA
06A5 C3 1C 05                 jp      add_bonus_and_update_high_score
06A8             ; ───────────────────────────────────────────────────────────────
06A8
06A8             loc_0_6A8:                                           ; CODE XREF: 0000:0632↑j
06A8 D6 01                    sub     #1
06AA 20 05                    jr      NZ, loc_0_6B1
06AC 21 B8 63                 ld      hl, #unk_0_63B8
06AF 36 01                    ld      (hl), #1
06B1
06B1             loc_0_6B1:                                           ; CODE XREF: 0000:06AA↑j
06B1 27                       daa
06B2 32 8C 63                 ld      (bonus_timer), a
06B5 C3 6A 06                 jp      loc_0_66A
06B8
06B8             ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
06B8
06B8
06B8             display_lives_and_level:                             ; CODE XREF: 0000:01DC↑p
06B8 4F                                                              ; check_and_award_bonus+2C↑j
06B8                                                                 ; DATA XREF: ...
06B8                          ld      c, a                            ; store number of lives
06B9 CF                       rst     8                               ; return if attract mode
06BA 06 06                    ld      b, #6                           ; max icons
06BC 11 E0 FF                 ld      de, #0xFFE0                      ; column delta
06BF 21 83 77                 ld      hl, #VRAM_start+0x383
06C2
06C2             loc_0_6C2:                                           ; CODE XREF: display_lives_and_level+D↓j
06C2 36 10                    ld      (hl), #0x10                     ; <space>
06C4 19                       add     hl, de                          ; next column
```

```
06C5 10 FB                      djnz    loc_0_6C2                       ; wipe 6 icons
06C7 3A 28 62                   ld      a, (lives_left)
06CA 91                         sub     c                               ; HUH???
06CB CA D7 06                   jp      Z, loc_0_6D7
06CE 47                         ld      b, a                            ; number of lives
06CF 21 83 77                   ld      hl, #VRAM_start+0x383           ; screen location
06D2
06D2            loc_0_6D2:                                              ; CODE XREF: display_lives_and_level+1D↓j
06D2 36 FF                      ld      (hl), #0xFF                     ; mario icon
06D4 19                         add     hl, de                          ; next screen location
06D5 10 FB                      djnz    loc_0_6D2                       ; loop for no. of lives
06D7
06D7            loc_0_6D7:                                              ; CODE XREF: display_lives_and_level+13↑j
06D7 21 03 75                   ld      hl, #VRAM_start+0x103
06DA 36 1C                      ld      (hl), #0x1C                     ; 'L'
06DC 21 E3 74                   ld      hl, #VRAM_start+0xE3
06DF 36 34                      ld      (hl), #0x34 ; '4'               ; '='
06E1 3A 29 62                   ld      a, (level)
06E4 FE 64                      cp      #100                            ; too high?
06E6 38 05                      jr      C, loc_0_6ED                    ; no, skip
06E8 3E 63                      ld      a, #99                          ; max out at 99
06EA 32 29 62                   ld      (level), a                      ; adjust
06ED
06ED            loc_0_6ED:                                              ; CODE XREF: display_lives_and_level+2E↑j
06ED 01 0A FF                   ld      bc, #0xFF0A
06F0
06F0            loc_0_6F0:                                              ; CODE XREF: display_lives_and_level+3A↓j
06F0 04                         inc     b
06F1 91                         sub     c
06F2 D2 F0 06                   jp      NC, loc_0_6F0
06F5 81                         add     a, c                            ; level tens digit
06F6 32 A3 74                   ld      (VRAM_start+0xA3), a
06F9 78                         ld      a, b                            ; level units digit
06FA 32 C3 74                   ld      (VRAM_start+0xC3), a
06FD C9                         ret
06FD            ; End of function display_lives_and_level
06FD
06FE            ; ————————————————————————————————————————————————————
06FE
06FE            vector_on_ingame_sequencer:                            ; DATA XREF: 0000:00D0↑o
06FE 3A 0A 60                   ld      a, (main_sequencer)
0701 EF                         rst     0x28                            ; go!
0701            ; ————————————————————————————————————————————————————
0702 86 09                      .dw cls_and_set_screen_flip             ; Jump table
0704 AB 09                      .dw init_ingame_data_p1
0706 D6 09                      .dw loc_0_9D6
0708 FE 09                      .dw init_ingame_data_p2
070A 1B 0A                      .dw display_p2_screen?
070C 37 0A                      .dw display_p1_screen?
070E 63 0A                      .dw wait_cls____
0710 76 0A                      .dw do_intro_sequence
0712 DA 0B                      .dw draw_how_high_can_you_get
0714 00 00                      .dw 0
0716 91 0C                      .dw wait_init_and_draw_level
0718 3C 12                      .dw init_mario
071A 7A 19                      .dw gameplay
071C 7C 12                      .dw died_in_gameplay
071E F2 12                      .dw copy_current_lvl_data_to_P1
0720 44 13                      .dw copy_current_lvl_data_to_P2
0722 8F 13                      .dw p1_game_over
0724 A1 13                      .dw p2_game_over
0726 AA 13                      .dw set_flip_and_current_P2
0728 BB 13                      .dw set_flip_and_current_P1
072A 1E 14                      .dw draw_name_registered
072C 86 14                      .dw do_initials_entry
072E 15 16                      .dw mario_pauline_reunion
0730 6B 19                      .dw loc_0_196B
0732 00 00                      .dw 0
0734 00 00                      .dw 0
0736 00 00                      .dw 0
0738 00 00                      .dw 0
073A 00 00                      .dw 0
073C            ; ————————————————————————————————————————————————————
073C
073C            chk_credits_and_vector_on_attrac:                      ; DATA XREF: 0000:00CC↑o
073C 21 0A 60                   ld      hl, #main_sequencer
073F 3A 01 60                   ld      a, (no_of_credits)
0742 A7                         and     a                               ; any credits?
0743 C2 5C 07                   jp      NZ, inc_nmi_sequencer           ; yes, skip
0746 7E                         ld      a, (hl)
0747 EF                         rst     0x28                            ; go!
0747            ; ————————————————————————————————————————————————————
0748 79 07                      .dw insert_coin_screen                  ; Jump Table (attract sequencer)
074A 63 07                      .dw init_attract_mode_and_draw_level
074C 3C 12                      .dw init_mario
074E 77 19                      .dw attract_mode_gameplay
0750 7C 12                      .dw died_in_gameplay
0752 C3 07                      .dw cls_and_next_sequence
0754 CB 07                      .dw title_screen_flash
0756 4B 08                      .dw title_screen_no_flash
0758 00 00                      .dw 0
075A 00 00                      .dw 0
075C            ; ————————————————————————————————————————————————————
075C
075C            inc_nmi_sequencer:                                     ; CODE XREF: 0000:0743↑j
075C 36 00                      ld      (hl), #0                        ; reset game sequencer
075E 21 05 60                   ld      hl, #nmi_sequencer
0761 34                         inc     (hl)                            ; inc nmi_sequencer
0762 C9                         ret
0763            ; ————————————————————————————————————————————————————
0763
0763            init_attract_mode_and_draw_level:                      ; DATA XREF: 0000:074A↑o
0763 E7                         rst     0x20                            ; wait for 16-bit countdown
0764 AF                         xor     a
0765 32 92 63                   ld      (unk_0_6392), a
0768 32 A0 63                   ld      (unk_0_63A0), a
076B 3E 01                      ld      a, #1
076D 32 27 62                   ld      (level_type), a
0770 32 29 62                   ld      (level), a
0773 32 28 62                   ld      (lives_left), a
0776 C3 92 0C                   jp      init_and_draw_level
0779            ; ————————————————————————————————————————————————————
0779
0779            insert_coin_screen:                                    ; DATA XREF: 0000:0748↑o
0779 21 86 7D                   ld      hl, #palette_bank
077C 36 00                      ld      (hl), #0
```

```
077E 23                             inc     hl
077F 36 00                          ld      (hl), #0                    ; palette bank = 0
0781 11 1B 03                       ld      de, #0x31B                  ; print_message_1B "insert coin"
0784 CD 9F 30                       call    queue_fg_vector_fn
0787 1C                             inc     e                           ; print_message_1C "player coin"
0788 CD 9F 30                       call    queue_fg_vector_fn
078B CD 65 09                       call    queue_hs_table_for_display
078E 21 09 60                       ld      hl, #eight_bit_countdown
0791 36 02                          ld      (hl), #2
0793 23                             inc     hl                          ; main_sequencer
0794 34                             inc     (hl)                        ; next sequence (1)
0795 CD 74 08                       call    clear_visible_area_and_sprites
0798 CD 53 0A                       call    display_1UP
079B 3A 0F 60                       ld      a, (two_players)
079E FE 01                          cp      #1                          ; last game 2P?
07A0 CC EE 09                       call    Z, display_2UP              ; yes, display 2UP
07A3 ED 5B 22 60                    ld      de, (coinage)
07A7 21 6C 75                       ld      hl, #VRAM_start+0x16C
07AA CD AD 07                       call    display_coinage
07AD
07AD            display_coinage:
07AD 73                             ld      (hl), e
07AE 23                             inc     hl
07AF 23                             inc     hl
07B0 72                             ld      (hl), d
07B1 7A                             ld      a, d
07B2 D6 0A                          sub     #0xA
07B4 C2 BC 07                       jp      NZ, loc_0_7BC
07B7 77                             ld      (hl), a
07B8 3C                             inc     a
07B9 32 8E 75                       ld      (VRAM_start+0x18E), a
07BC
07BC            loc_0_7BC:                                              ; CODE XREF: 0000:07B4↑j
07BC 11 01 02                       ld      de, #0x201
07BF 21 8C 76                       ld      hl, #VRAM_start+0x28C
07C2 C9                             ret
07C3            ; ────────────────────────────────────────────────────────
07C3
07C3            cls_and_next_sequence:                                  ; DATA XREF: 0000:0752↑o
07C3 CD 74 08                       call    clear_visible_area_and_sprites
07C6 21 0A 60                       ld      hl, #main_sequencer
07C9 34                             inc     (hl)                        ; next sequence (6)
07CA C9                             ret
07CB            ; ────────────────────────────────────────────────────────
07CB
07CB            title_screen_flash:                                     ; DATA XREF: 0000:0754↑o
07CB 3A 8A 63                       ld      a, (unk_0_638A)
07CE FE 00                          cp      #0
07D0 C2 2D 08                       jp      NZ, loc_0_82D
07D3 3E 60                          ld      a, #0x60 ; '`'
07D5 32 8A 63                       ld      (unk_0_638A), a
07D8 0E 5F                          ld      c, #0x5F ; '_'
07DA
07DA            loc_0_7DA:                                              ; CODE XREF: 0000:0838↓j
07DA FE 00                          cp      #0
07DC CA 3B 08                       jp      Z, loc_0_83B
07DF 21 86 7D                       ld      hl, #palette_bank
07E2 36 00                          ld      (hl), #0
07E4 79                             ld      a, c
07E5 CB 07                          rlc     a
07E7 30 02                          jr      NC, loc_0_7EB
07E9 36 01                          ld      (hl), #1
07EB
07EB            loc_0_7EB:                                              ; CODE XREF: 0000:07E7↑j
07EB 23                             inc     hl
07EC 36 00                          ld      (hl), #0
07EE CB 07                          rlc     a
07F0 30 02                          jr      NC, loc_0_7F4
07F2 36 01                          ld      (hl), #1
07F4
07F4            loc_0_7F4:                                              ; CODE XREF: 0000:07F0↑j
07F4 32 8B 63                       ld      (unk_0_638B), a
07F7 21 08 3D                       ld      hl, #title_screen
07FA
07FA            display_donkey_kong_title:                              ; CODE XREF: 0000:0809↓j
07FA 3E B0                          ld      a, #0xB0 ; '░'              ; girder tile
07FC 46                             ld      b, (hl)                     ; get number of tiles to display
07FD 23                             inc     hl
07FE 5E                             ld      e, (hl)
07FF 23                             inc     hl
0800 56                             ld      d, (hl)                     ; DE = screen address
0801
0801            loc_0_801:                                              ; CODE XREF: 0000:0803↓j
0801 12                             ld      (de), a                     ; display character
0802 13                             inc     de                          ; next line
0803 10 FC                          djnz    loc_0_801                   ; loop
0805 23                             inc     hl                          ; next entry
0806 7E                             ld      a, (hl)                     ; get entry byte
0807 FE 00                          cp      #0                          ; done?
0809 C2 FA 07                       jp      NZ, display_donkey_kong_title ; no, loop
080C 11 1E 03                       ld      de, #0x31E                  ; print_message_1E
080F CD 9F 30                       call    queue_fg_vector_fn
0812 13                             inc     de                          ; print_message_1F
0813 CD 9F 30                       call    queue_fg_vector_fn
0816 21 CF 39                       ld      hl, #dk_thrash_right_spr
0819 CD 4E 00                       call    copy_sprites_2_11_data
081C CD 24 3F                       call    sub_0_3F24
081F 00                             nop
0820 21 08 69                       ld      hl, #soft_sprite_ram+8      ; sprite #2, y coord
0823 0E 44                          ld      c, #68
0825 FF                             rst     0x38                        ; add 68 to y coord for 10 sprites
0826 21 0B 69                       ld      hl, #soft_sprite_ram+0xB    ; sprite #2, x coord
0829 0E 78                          ld      c, #120
082B FF                             rst     0x38                        ; add 120 to xs coord for 10 sprites
082C C9                             ret
082D            ; ────────────────────────────────────────────────────────
082D
082D            loc_0_82D:                                              ; CODE XREF: 0000:07D0↑j
082D 3A 8B 63                       ld      a, (unk_0_638B)
0830 4F                             ld      c, a
0831 3A 8A 63                       ld      a, (unk_0_638A)
0834 3D                             dec     a
0835 32 8A 63                       ld      (unk_0_638A), a
0838 C3 DA 07                       jp      loc_0_7DA
083B            ; ────────────────────────────────────────────────────────
083B
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083B              loc_0_83B:                                      ; CODE XREF: 0000:07DC↑j
083B 21 09 60            ld      hl, #eight_bit_countdown
083E 36 02               ld      (hl), #2
0840 23                  inc     hl                              ; game_sequencer
0841 34                  inc     (hl)
0842 21 8A 63            ld      hl, #unk_0_638A
0845 36 00               ld      (hl), #0
0847 23                  inc     hl
0848 36 00               ld      (hl), #0
084A C9                  ret
084B            ; ──────────────────────────────────────────────────────────
084B
084B              title_screen_no_flash:                          ; DATA XREF: 0000:0756↑o
084B E7                  rst     0x20                            ; wait for 16-bit countdown
084C 21 0A 60            ld      hl, #main_sequencer
084F 36 00               ld      (hl), #0                        ; reset game sequencer
0851 C9                  ret
0852
0852            ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
0852
0852
0852              clear_tiles_and_sprites:                        ; CODE XREF: 0000:0986┤p
0852 21 00 74                                                    ; 0000:196B┤p
0852                    ld      hl, #VRAM_start
0855 0E 04               ld      c, #4                           ; 4x256 bytes to clear
0857
0857              loc_0_857:                                      ; CODE XREF: clear_tiles_and_sprites+E┤j
0857 06 00               ld      b, #0                           ; 256 bytes to clear
0859 3E 10               ld      a, #0x10                        ; space character
085B
085B              loc_0_85B:                                      ; CODE XREF: clear_tiles_and_sprites+B┤j
085B 77                  ld      (hl), a                         ; display space
085C 23                  inc     hl
085D 10 FC               djnz    loc_0_85B                       ; clear 256 bytes
085F 0D                  dec     c
0860 C2 57 08            jp      NZ, loc_0_857                   ; do 1024 bytes
0863 21 00 69            ld      hl, #soft_sprite_ram
0866 0E 02               ld      c, #2                           ; 2x192 bytes to clear
0868
0868              loc_0_868:                                      ; CODE XREF: clear_tiles_and_sprites+1E┤j
0868 06 C0               ld      b, #192                         ; 192 bytes to clear
086A AF                  xor     a
086B
086B              loc_0_86B:                                      ; CODE XREF: clear_tiles_and_sprites+1B┤j
086B 77                  ld      (hl), a                         ; clear soft sprite ram byte
086C 23                  inc     hl                              ; next address
086D 10 FC               djnz    loc_0_86B                       ; clear 192 bytes
086F 0D                  dec     c
0870 C2 68 08            jp      NZ, loc_0_868                   ; clear 384 bytes
0873 C9                  ret
0873            ; End of function clear_tiles_and_sprites
0873
0874
0874            ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
0874
0874
0874              clear_visible_area_and_sprites:                 ; CODE XREF: 0000:01C3↑p
0874 21 04 74                                                    ; 0000:0795↑p ...
0874                    ld      hl, #VRAM_start+4
0877 0E 20               ld      c, #32                          ; 32 columns
0879
0879              loc_0_879:                                      ; CODE XREF: clear_visible_area_and_sprites+12┤j
0879 06 1C               ld      b, #28                          ; 28 rows
087B 3E 10               ld      a, #0x10                        ; <space>
087D 11 04 00            ld      de, #4                          ; bottm-to-top next column increment
0880
0880              loc_0_880:                                      ; CODE XREF: clear_visible_area_and_sprites+E┤j
0880 77                  ld      (hl), a                         ; display space character
0881 23                  inc     hl                              ; next line
0882 10 FC               djnz    loc_0_880                       ; loop screen height
0884 19                  add     hl, de                          ; next column
0885 0D                  dec     c                               ; done all columns?
0886 C2 79 08            jp      NZ, loc_0_879                   ; no, loop
0889 21 22 75            ld      hl, #VRAM_start+0x122
088C 11 20 00            ld      de, #32
088F 0E 02               ld      c, #2
0891 3E 10               ld      a, #0x10                        ; <space>
0893
0893              loc_0_893:                                      ; CODE XREF: clear_visible_area_and_sprites+29┤j
0893 06 0E               ld      b, #14                          ; 14 columns
0895
0895              loc_0_895:                                      ; CODE XREF: clear_visible_area_and_sprites+23┤j
0895 77                  ld      (hl), a                         ; display space character
0896 19                  add     hl, de                          ; next column
0897 10 FC               djnz    loc_0_895                       ; loop for 14 columns
0899 21 23 75            ld      hl, #VRAM_start+0x123
089C 0D                  dec     c
089D C2 93 08            jp      NZ, loc_0_893                   ; repeat at new location
08A0 21 00 69            ld      hl, #soft_sprite_ram
08A3 06 00               ld      b, #0                           ; 256 bytes to clear
08A5 3E 00               ld      a, #0                           ; clear to 0x00
08A7
08A7              loc_0_8A7:                                      ; CODE XREF: clear_visible_area_and_sprites+35┤j
08A7 77                  ld      (hl), a                         ; clear soft sprite ram byte
08A8 23                  inc     hl                              ; next location
08A9 10 FC               djnz    loc_0_8A7                       ; do 256 bytes
08AB 06 80               ld      b, #128                         ; 128 bytes to clear
08AD
08AD              loc_0_8AD:                                      ; CODE XREF: clear_visible_area_and_sprites+3B┤j
08AD 77                  ld      (hl), a                         ; clear soft sprite ram byte
08AE 23                  inc     hl                              ; next location
08AF 10 FC               djnz    loc_0_8AD                       ; clear 128 bytes
08B1 C9                  ret
08B1            ; End of function clear_visible_area_and_sprites
08B1
08B2            ; ──────────────────────────────────────────────────────────
08B2
08B2              vector_on_credit_sequencer:                     ; DATA XREF: 0000:00CE↑o
08B2 3A 0A 60            ld      a, (main_sequencer)
08B5 EF                  rst     0x28                            ; go!
08B5            ; ──────────────────────────────────────────────────────────
08B6 BA 08               .dw loc_0_8BA                           ; jump table
08B8 F8 08               .dw display_start_12P_init_???
08BA            ; ──────────────────────────────────────────────────────────
08BA
08BA              loc_0_8BA:                                      ; DATA XREF: 0000:08B6↑o
```

```
08BA CD 74 08                   call    clear_visible_area_and_sprites
08BD AF                         xor     a
08BE 32 07 60                   ld      (attract_mode_flag), a               ; clear attract mode flag
08C1 11 0C 03                   ld      de, #0x30C                           ; print_message_0C
08C4 CD 9F 30                   call    queue_fg_vector_fn
08C7 21 0A 60                   ld      hl, #main_sequencer
08CA 34                         inc     (hl)
08CB CD 65 09                   call    queue_hs_table_for_display
08CE AF                         xor     a
08CF 21 86 7D                   ld      hl, #palette_bank
08D2 77                         ld      (hl), a
08D3 2C                         inc     l
08D4 77                         ld      (hl), a                              ; palette bank 0
08D5
08D5             ; ██████████████ S U B R O U T I N E ████████████████████████████████
08D5
08D5
08D5             display_start_12P_get_selection:                            ; CODE XREF: 0000:08F8↓p
08D5 06 04                      ld      b, #4
08D7 1E 09                      ld      e, #return_if_attract_mode+1         ; "ONLY 1 PLAYER BUTTON"
08D9 3A 01 60                   ld      a, (no_of_credits)
08DC FE 01                      cp      #1
08DE CA E4 08                   jp      Z, loc_0_8E4
08E1 06 0C                      ld      b, #0xC                              ; mask for START1/START2
08E3 1C                         inc     e                                    ; "1 or 2 PLAYERS"
08E4
08E4             loc_0_8E4:                                                  ; CODE XREF: display_start_12P_get_selection+9↑j
08E4 3A 1A 60                   ld      a, (gen_purpose_timer)
08E7 E6 07                      and     #7
08E9 C2 F3 08                   jp      NZ, loc_0_8F3
08EC 7B                         ld      a, e                                 ; message 9/10
08ED CD E9 05                   call    print_message_A                      ; display
08F0 CD 16 06                   call    display_credits
08F3
08F3             loc_0_8F3:                                                  ; CODE XREF: display_start_12P_get_selection+14↑j
08F3 3A 00 7D                   ld      a, (in2_snd_latch)                   ; read IN2
08F6 A0                         and     b                                    ; only START1/START2
08F7 C9                         ret
08F7             ; End of function display_start_12P_get_selection
08F7
08F8             ; ──────────────────────────────────────────────────────────
08F8
08F8             display_start_12P_init_???:                                 ; DATA XREF: 0000:08B8↑o
08F8 CD D5 08                   call    display_start_12P_get_selection
08FB FE 04                      cp      #4                                   ; START1?
08FD CA 06 09                   jp      Z, start_1_selected                  ; yes, skip
0900 FE 08                      cp      #8                                   ; START2?
0902 CA 19 09                   jp      Z, start_2_selected                  ; yes, skip
0905 C9                         ret
0906             ; ──────────────────────────────────────────────────────────
0906
0906             start_1_selected:                                           ; CODE XREF: 0000:08FD↑j
0906 CD 77 09                   call    dec_credits_and_???
0909 21 48 60                   ld      hl, #p2_level_data
090C 06 08                      ld      b, #8
090E AF                         xor     a
090F
090F             loc_0_90F:                                                  ; CODE XREF: 0000:0911├j
090F 77                         ld      (hl), a
0910 2C                         inc     l
0911 10 FC                      djnz    loc_0_90F
0913 21 00 00                   ld      hl, #0
0916 C3 38 09                   jp      loc_0_938
0919             ; ──────────────────────────────────────────────────────────
0919
0919             start_2_selected:                                           ; CODE XREF: 0000:0902↑j
0919 CD 77 09                   call    dec_credits_and_???
091C CD 77 09                   call    dec_credits_and_???
091F 11 48 60                   ld      de, #p2_level_data
0922 3A 20 60                   ld      a, (lives_per_game)
0925 12                         ld      (de), a
0926 1C                         inc     e
0927 21 5E 09                   ld      hl, #0x95E
092A 01 07 00                   ld      bc, #7
092D ED B0                      ldir
092F 11 01 01                   ld      de, #0x101                           ; zero_score_or_high_score
0932 CD 9F 30                   call    queue_fg_vector_fn
0935 21 00 01                   ld      hl, #0x100                           ; players=2, current_player=1
0938
0938             loc_0_938:                                                  ; CODE XREF: 0000:0916↑j
0938 22 0E 60                   ld      (current_player_E), hl               ; players and current player
093B CD 74 08                   call    clear_visible_area_and_sprites
093E 11 40 60                   ld      de, #p1_level_data
0941 3A 20 60                   ld      a, (lives_per_game)
0944 12                         ld      (de), a
0945 1C                         inc     e
0946 21 5E 09                   ld      hl, #game_init_data
0949 01 07 00                   ld      bc, #7                               ; 7 bytes
094C ED B0                      ldir
094E 11 00 01                   ld      de, #0x100                           ; zero_score_or_high_score
0951 CD 9F 30                   call    queue_fg_vector_fn
0954 AF                         xor     a
0955 32 0A 60                   ld      (main_sequencer), a
0958 3E 03                      ld      a, #3
095A 32 05 60                   ld      (nmi_sequencer), a
095D C9                         ret
095D             ; ──────────────────────────────────────────────────────────
095E 01          game_init_data: .db 1                                       ; DATA XREF: 0000:0946↑o
095E                                                                         ; Start of game level init data
095F 65 3A                      .dw level_seq_1
0961 01 00 00 00                .db 1, 0, 0, 0
0965
0965             ; ██████████████ S U B R O U T I N E ████████████████████████████████
0965
0965
0965             queue_hs_table_for_display:                                 ; CODE XREF: 0000:078B↑p
0965 11 00 04                                                                ; 0000:08CB↑p
0965                            ld      de, #0x400                           ; display_credits_if_attract_mode
0968 CD 9F 30                   call    queue_fg_vector_fn
096B 11 14 03                   ld      de, #0x314                           ; print_message_14 (1st high score)
096E 06 06                      ld      b, #6                                ; 1-5 and "RANK SCORE NAME"
0970
0970             loc_0_970:                                                  ; CODE XREF: queue_hs_table_for_display+F├j
0970 CD 9F 30                   call    queue_fg_vector_fn
0973 1C                         inc     e                                    ; next msg
0974 10 FA                      djnz    loc_0_970                            ; loop through messages
```

```
0976 C9                              ret
0976                      ; End of function queue_hs_table_for_display
0976
0977
0977                      ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
0977
0977
0977                      dec_credits_and_???:                          ; CODE XREF: 0000:0906↑p
0977 21 01 60                                                           ; 0000:0919↑p ...
0977                              ld      hl, #no_of_credits
097A 3E 99                        ld      a, #0x99 ; 'Ö'
097C 86                           add     a, (hl)
097D 27                           daa                                   ; decrement credits
097E 77                           ld      (hl), a                       ; save
097F 11 00 04                     ld      de, #0x400                    ; display_credits_if_attract_mode
0982 CD 9F 30                     call    queue_fg_vector_fn
0985 C9                           ret
0985                      ; End of function dec_credits_and_???
0985
0986                      ; ─────────────────────────────────────────────────────
0986
0986                      cls_and_set_screen_flip:                      ; DATA XREF: 0000:0702↑o
0986 CD 52 08                     call    clear_tiles_and_sprites
0989 CD 1C 01                     call    stop_sound
098C 11 82 7D                     ld      de, #flipscreen
098F 3E 01                        ld      a, #1                         ; default flipscreen
0991 12                           ld      (de), a
0992 21 0A 60                     ld      hl, #main_sequencer
0995 3A 0E 60                     ld      a, (current_player_E)
0998 A7                           and     a                             ; player 2?
0999 C2 9F 09                     jp      NZ, loc_0_99F                 ; yes, skip
099C 36 01                        ld      (hl), #1                      ; ingame sequencer = 1
099E C9                           ret
099F                      ; ─────────────────────────────────────────────────────
099F
099F                      loc_0_99F:                                    ; CODE XREF: 0000:0999↑j
099F 3A 26 60                     ld      a, (upright)                  ; get cabinet type
09A2 3D                           dec     a                             ; upright?
09A3 CA A8 09                     jp      Z, loc_0_9A8                  ; yes, skip
09A6 AF                           xor     a                             ; disable flipscreen
09A7 12                           ld      (de), a                       ; to hardware
09A8                      loc_0_9A8:                                    ; CODE XREF: 0000:09A3↑j
09A8 36 03                        ld      (hl), #3                      ; ingame sequencer = 3
09AA C9                           ret
09AB                      ; ─────────────────────────────────────────────────────
09AB
09AB                      init_ingame_data_p1:                          ; DATA XREF: 0000:0704↑o
09AB 21 40 60                     ld      hl, #p1_level_data
09AE 11 28 62                     ld      de, #lives_left               ; player_current_data
09B1 01 08 00                     ld      bc, #8                        ; 8 bytes to copy
09B4 ED B0                        ldir
09B6 2A 2A 62                     ld      hl, (seq_data)                ; ptr current sequence table
09B9 7E                           ld      a, (hl)                       ; get level type
09BA 32 27 62                     ld      (level_type), a               ; store as current
09BD 3A 0F 60                     ld      a, (two_players)
09C0 A7                           and     a                             ; 1 player?
09C1 21 09 60                     ld      hl, #eight_bit_countdown
09C4 11 0A 60                     ld      de, #main_sequencer
09C7 CA D0 09                     jp      Z, loc_0_9D0                  ; yes, skip
09CA 36 78                        ld      (hl), #0x78 ; 'x'             ; set 8-bit countdown
09CC EB                           ex      de, hl
09CD 36 02                        ld      (hl), #2                      ; next sequence (2)
09CF C9                           ret
09D0                      ; ─────────────────────────────────────────────────────
09D0
09D0                      loc_0_9D0:                                    ; CODE XREF: 0000:09C7↑j
09D0 36 01                        ld      (hl), #1                      ; set 8-bit countdown
09D2 EB                           ex      de, hl
09D3 36 05                        ld      (hl), #5                      ; next sequence (5)
09D5 C9                           ret
09D6                      ; ─────────────────────────────────────────────────────
09D6
09D6                      loc_0_9D6:                                    ; DATA XREF: 0000:0706↑o
09D6 AF                           xor     a
09D7 32 86 7D                     ld      (palette_bank), a
09DA 32 87 7D                     ld      (palette_bank+1), a           ; palette bank 0
09DD 11 02 03                     ld      de, #0x302                    ; display_message_02
09E0 CD 9F 30                     call    queue_fg_vector_fn
09E3 11 01 02                     ld      de, #0x201                    ; display_score_or_high_score
09E6 CD 9F 30                     call    queue_fg_vector_fn
09E9 3E 05                        ld      a, #5
09EB 32 0A 60                     ld      (main_sequencer), a
09EE                      ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
09EE
09EE
09EE                      display_2UP:                                  ; CODE XREF: 0000:07A0↑p
09EE 3E 02                                                              ; 0000:0A2E↑p
09EE                              ld      a, #2                         ; '2'
09F0 32 E0 74                     ld      (VRAM_start+0xE0), a
09F3 3E 25                        ld      a, #0x25 ; '%'                ; 'U'
09F5 32 C0 74                     ld      (VRAM_start+0xC0), a
09F8 3E 20                        ld      a, #0x20 ; ' '                ; 'P'
09FA 32 A0 74                     ld      (VRAM_start+0xA0), a
09FD C9                           ret
09FD                      ; End of function display_2UP
09FD
09FE                      ; ─────────────────────────────────────────────────────
09FE
09FE                      init_ingame_data_p2:                          ; DATA XREF: 0000:0708↑o
09FE 21 48 60                     ld      hl, #p2_level_data
0A01 11 28 62                     ld      de, #lives_left               ; player_current_data
0A04 01 08 00                     ld      bc, #8                        ; 8 bytes to copy
0A07 ED B0                        ldir
0A09 2A 2A 62                     ld      hl, (seq_data)                ; ptr current seq table
0A0C 7E                           ld      a, (hl)                       ; get level type
0A0D 32 27 62                     ld      (level_type), a               ; store as current
0A10 3E 78                        ld      a, #0x78 ; 'x'                ; init 8-bit countdown
0A12 32 09 60                     ld      (eight_bit_countdown), a
0A15 3E 04                        ld      a, #4                         ; next sequence (4)
0A17 32 0A 60                     ld      (main_sequencer), a
0A1A C9                           ret
0A1B                      ; ─────────────────────────────────────────────────────
0A1B
0A1B                      display_p2_screen?:                           ; DATA XREF: 0000:070A↑o
```

```
0A1B AF                          xor     a
0A1C 32 86 7D                    ld      (palette_bank), a
0A1F 32 87 7D                    ld      (palette_bank+1), a              ; palette bank 0
0A22 11 03 03                    ld      de, #0x303                      ; display_message_03
0A25 CD 9F 30                    call    queue_fg_vector_fn
0A28 11 01 02                    ld      de, #0x201                      ; display_score_or_high_score
0A2B CD 9F 30                    call    queue_fg_vector_fn
0A2E CD EE 09                    call    display_2UP
0A31 3E 05                       ld      a, #5
0A33 32 0A 60                    ld      (main_sequencer), a
0A36 C9                          ret
0A37          ; ─────────────────────────────────────────────
0A37
0A37          display_p1_screen?:                                        ; DATA XREF: 0000:070C↑o
0A37 11 04 03                    ld      de, #0x304                      ; display_message_04
0A3A CD 9F 30                    call    queue_fg_vector_fn
0A3D 11 02 02                    ld      de, #0x202                      ; display_score_or_high_score
0A40 CD 9F 30                    call    queue_fg_vector_fn
0A43 11 00 02                    ld      de, #0x200                      ; display_score_or_high_score
0A46 CD 9F 30                    call    queue_fg_vector_fn
0A49 11 00 06                    ld      de, #0x600                      ; display_lives_and_level
0A4C CD 9F 30                    call    queue_fg_vector_fn
0A4F 21 0A 60                    ld      hl, #main_sequencer
0A52 34                          inc     (hl)
0A53
0A53          ; ▌▌▌▌▌▌▌▌▌▌▌▌▌ S U B R O U T I N E ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
0A53
0A53
0A53          display_1UP:                                               ; CODE XREF: 0000:01F1↑p
0A53 3E 01                                                               ; 0000:0798↑p
0A53                             ld      a, #1                           ; '1'
0A55 32 40 77                    ld      (VRAM_start+0x340), a
0A58 3E 25                       ld      a, #0x25 ; '%'                  ; 'U'
0A5A 32 20 77                    ld      (VRAM_start+0x320), a
0A5D 3E 20                       ld      a, #0x20 ; ' '                  ; 'P'
0A5F 32 00 77                    ld      (VRAM_start+0x300), a
0A62 C9                          ret
0A62          ; End of function display_1UP
0A62
0A63          ; ─────────────────────────────────────────────
0A63
0A63          wait_cls____:                                              ; DATA XREF: 0000:070E↑o
0A63 DF                          rst     0x18                            ; wait for 8-bit countdown
0A64 CD 74 08                    call    clear_visible_area_and_sprites
0A67 21 09 60                    ld      hl, #eight_bit_countdown
0A6A 36 01                       ld      (hl), #1
0A6C 2C                          inc     l                               ; game_sequencer
0A6D 34                          inc     (hl)                            ; inc
0A6E 11 2C 62                    ld      de, #unk_0_622C
0A71 1A                          ld      a, (de)
0A72 A7                          and     a                               ; already seen intro?
0A73 C0                          ret     NZ                              ; no, return
0A74 34                          inc     (hl)                            ; skip intro sequence
0A75 C9                          ret
0A76          ; ─────────────────────────────────────────────
0A76
0A76          do_intro_sequence:                                         ; DATA XREF: 0000:0710↑o
0A76 3A 85 63                    ld      a, (intro_sequencer)
0A79 EF                          rst     0x28                            ; go!
0A79          ; ─────────────────────────────────────────────
0A7A 8A 0A                       .dw     draw_climb_screen               ; Jump table
0A7C BF 0A                       .dw     loc_0_ABF
0A7E E8 0A                       .dw     loc_0_AE8
0A80 69 30                       .dw     loc_0_3069
0A82 06 0B                       .dw     draw_1st_girder_dformation
0A84 69 30                       .dw     loc_0_3069
0A86 68 0B                       .dw     draw_rest_of_deformations
0A88 B3 0B                       .dw     growl
0A8A          ; ─────────────────────────────────────────────
0A8A
0A8A          draw_climb_screen:                                         ; DATA XREF: 0000:0A7A↑o
0A8A AF                          xor     a
0A8B 32 86 7D                    ld      (palette_bank), a
0A8E 3C                          inc     a
0A8F 32 87 7D                    ld      (palette_bank+1), a             ; palette bank 2
0A92 11 0D 38                    ld      de, #draw_data_climb
0A95 CD A7 0D                    call    sub_0_DA7                       ; get address of ???
0A98 3E 10                       ld      a, #0x10                        ; <space>
0A9A 32 A3 76                    ld      (VRAM_start+0x2A3), a
0A9D 32 63 76                    ld      (VRAM_start+0x263), a
0AA0 3E D4                       ld      a, #0xD4 ; 'È'                  ; half ladder, half girder
0AA2 32 AA 75                    ld      (VRAM_start+0x1AA), a
0AA5 AF                          xor     a
0AA6 32 AF 62                    ld      (unk_0_62AF), a
0AA9 21 B4 38                    ld      hl, #dk_intro_jump_up_data
0AAC 22 C2 63                    ld      (unk_0_63C2), hl
0AAF 21 CB 38                    ld      hl, #dk_intro_jump_across_data
0AB2 22 C4 63                    ld      (unk_0_63C4), hl
0AB5 3E 40                       ld      a, #0x40 ; '@'
0AB7 32 09 60                    ld      (eight_bit_countdown), a
0ABA 21 85 63                    ld      hl, #intro_sequencer
0ABD 34                          inc     (hl)
0ABE C9                          ret
0ABF          ; ─────────────────────────────────────────────
0ABF
0ABF          loc_0_ABF:                                                 ; DATA XREF: 0000:0A7C↑o
0ABF DF                          rst     0x18                            ; wait for 8-bit countdown
0AC0 21 8C 38                    ld      hl, #kong_climbing_spr
0AC3 CD 4E 00                    call    copy_sprites_2_11_data
0AC6 21 08 69                    ld      hl, #soft_sprite_ram+8          ; sprite #2, y coord
0AC9 0E 30                       ld      c, #48
0ACB FF                          rst     0x38                            ; add 48 to y coord for 10 sprites
0ACC 21 0B 69                    ld      hl, #soft_sprite_ram+0xB        ; sprite #2, x coord
0ACF 0E 99                       ld      c, #153
0AD1 FF                          rst     0x38                            ; add 153 to x coord for 10 sprites
0AD2 3E 1F                       ld      a, #0x1F
0AD4 32 8E 63                    ld      (unk_0_638E), a
0AD7 AF                          xor     a
0AD8 32 0C 69                    ld      (soft_sprite_ram+0xC), a        ; sprite #3, y coord
0ADB 21 8A 60                    ld      hl, #unk_0_608A
0ADE 36 01                       ld      (hl), #1
0AE0 23                          inc     hl
0AE1 36 03                       ld      (hl), #3
0AE3 21 85 63                    ld      hl, #intro_sequencer
0AE6 34                          inc     (hl)
0AE7 C9                          ret
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0AE8                    ; ─────────────────────────────────────────────────────────────
0AE8
0AE8                    loc_0_AE8:                                          ; DATA XREF: 0000:0A7E↑o
0AE8 CD 6F 30                    call    sub_0_306F
0AEB 3A AF 62                    ld      a, (unk_0_62AF)
0AEE E6 0F                       and     #0xF
0AF0 CC 4A 30                    call    Z, sub_0_304A
0AF3 3A 0B 69                    ld      a, (soft_sprite_ram+0xB)            ; sprite #2, x coord
0AF6 FE 5D                       cp      #0x5D ; ']'
0AF8 D0                          ret     NC
0AF9 3E 20                       ld      a, #0x20 ; ' '
0AFB 32 09 60                    ld      (eight_bit_countdown), a
0AFE 21 85 63                    ld      hl, #0x6385
0B01 34                          inc     (hl)
0B02 22 C0 63                    ld      (unk_0_63C0), hl
0B05 C9                          ret
0B06                    ; ─────────────────────────────────────────────────────────────
0B06
0B06                    draw_1st_girder_dformation:                         ; DATA XREF: 0000:0A82↑o
0B06 3A 1A 60                    ld      a, (gen_purpose_timer)
0B09 0F                          rrca
0B0A D8                          ret     C
0B0B 2A C2 63                    ld      hl, (unk_0_63C2)
0B0E 7E                          ld      a, (hl)
0B0F FE 7F                       cp      #0x7F ; ' '
0B11 CA 1E 0B                    jp      Z, loc_0_B1E
0B14 23                          inc     hl
0B15 22 C2 63                    ld      (unk_0_63C2), hl
0B18 4F                          ld      c, a
0B19 21 0B 69                    ld      hl, #0x690B
0B1C FF                          rst     0x38
0B1D C9                          ret
0B1E                    ; ─────────────────────────────────────────────────────────────
0B1E
0B1E                    loc_0_B1E:                                          ; CODE XREF: 0000:0B11↑j
0B1E 21 5C 38                    ld      hl, #kong_normal_spr
0B21 CD 4E 00                    call    copy_sprites_2_11_data
0B24 11 00 69                    ld      de, #soft_sprite_ram
0B27 01 08 00                    ld      bc, #8
0B2A ED B0                       ldir
0B2C 21 08 69                    ld      hl, #soft_sprite_ram+8              ; sprite #2, y coord
0B2F 0E 50                       ld      c, #0x50 ; 'P'
0B31 FF                          rst     0x38
0B32 21 0B 69                    ld      hl, #soft_sprite_ram+0xB            ; sprite #2, x coord
0B35 0E FC                       ld      c, #0xFC ; '³'
0B37 FF                          rst     0x38
0B38
0B38                    loc_0_B38:                                          ; CODE XREF: 0000:0B40├j
0B38 CD 4A 30                    call    sub_0_304A
0B3B 3A 8E 63                    ld      a, (unk_0_638E)
0B3E FE 0A                       cp      #0xA
0B40 C2 38 0B                    jp      NZ, loc_0_B38
0B43 3E 03                       ld      a, #3                              ; tmr=3
0B45 32 82 60                    ld      (digital_snd_tmr_thump), a
0B48 11 2C 39                    ld      de, #draw_data_bend_girders_1
0B4B CD A7 0D                    call    sub_0_DA7
0B4E 3E 10                       ld      a, #0x10
0B50 32 AA 74                    ld      (VRAM_start+0xAA), a
0B53 32 8A 74                    ld      (VRAM_start+0x8A), a
0B56 3E 05                       ld      a, #5
0B58 32 8D 63                    ld      (unk_0_638D), a
0B5B 3E 20                       ld      a, #0x20 ; ' '
0B5D 32 09 60                    ld      (eight_bit_countdown), a
0B60 21 85 63                    ld      hl, #0x6385
0B63 34                          inc     (hl)
0B64 22 C0 63                    ld      (unk_0_63C0), hl
0B67 C9                          ret
0B68                    ; ─────────────────────────────────────────────────────────────
0B68
0B68                    draw_rest_of_deformations:                          ; DATA XREF: 0000:0A86↑o
0B68 3A 1A 60                    ld      a, (gen_purpose_timer)
0B6B 0F                          rrca
0B6C D8                          ret     C
0B6D 2A C4 63                    ld      hl, (unk_0_63C4)
0B70 7E                          ld      a, (hl)
0B71 FE 7F                       cp      #0x7F ; ' '
0B73 CA 86 0B                    jp      Z, loc_0_B86
0B76 23                          inc     hl
0B77 22 C4 63                    ld      (unk_0_63C4), hl
0B7A 21 0B 69                    ld      hl, #soft_sprite_ram+0xB            ; sprite #2, x coord
0B7D 4F                          ld      c, a
0B7E FF                          rst     0x38
0B7F 21 08 69                    ld      hl, #soft_sprite_ram+8              ; sprite #2, y coord
0B82 0E FF                       ld      c, #0xFF
0B84 FF                          rst     0x38                               ; subtract 1 from y coord for 10 sprites
0B85 C9                          ret
0B86                    ; ─────────────────────────────────────────────────────────────
0B86
0B86                    loc_0_B86:                                          ; CODE XREF: 0000:0B73↑j
0B86 21 CB 38                    ld      hl, #dk_intro_jump_across_data
0B89 22 C4 63                    ld      (unk_0_63C4), hl
0B8C 3E 03                       ld      a, #3                              ; tmr=3
0B8E 32 82 60                    ld      (digital_snd_tmr_thump), a
0B91 21 DC 38                    ld      hl, #draw_data_bend_girders_2
0B94 3A 8D 63                    ld      a, (unk_0_638D)
0B97 3D                          dec     a
0B98 07                          rlca
0B99 07                          rlca
0B9A 07                          rlca
0B9B 07                          rlca
0B9C 5F                          ld      e, a
0B9D 16 00                       ld      d, #0
0B9F 19                          add     hl, de
0BA0 EB                          ex      de, hl
0BA1 CD A7 0D                    call    sub_0_DA7
0BA4 21 8D 63                    ld      hl, #unk_0_638D
0BA7 35                          dec     (hl)
0BA8 C0                          ret     NZ
0BA9 3E B0                       ld      a, #0xB0 ; '▒'
0BAB 32 09 60                    ld      (eight_bit_countdown), a
0BAE 21 85 63                    ld      hl, #intro_sequencer
0BB1 34                          inc     (hl)
0BB2 C9                          ret
0BB3                    ; ─────────────────────────────────────────────────────────────
0BB3
0BB3                    growl:                                              ; DATA XREF: 0000:0A88↑o
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0BB3 21 8A 60                    ld      hl, #unk_0_608A
0BB6 3A 09 60                    ld      a, (eight_bit_countdown)
0BB9 FE 90                       cp      #0x90 ; 'É'
0BBB 20 0B                       jr      NZ, loc_0_BC8
0BBD 36 0F                       ld      (hl), #0xF
0BBF 23                          inc     hl
0BC0 36 03                       ld      (hl), #3
0BC2 21 19 69                    ld      hl, #soft_sprite_ram+0x19        ; sprite #6, flipy & code
0BC5 34                          inc     (hl)
0BC6 18 09                       jr      loc_0_BD1
0BC8                     ; ─────────────────────────────────────────────
0BC8
0BC8             loc_0_BC8:                                               ; CODE XREF: 0000:0BBB↑j
0BC8 FE 18                       cp      #0x18
0BCA 20 05                       jr      NZ, loc_0_BD1
0BCC 21 19 69                    ld      hl, #soft_sprite_ram+0x19        ; sprite #6, flipy & code
0BCF 35                          dec     (hl)
0BD0 00                          nop
0BD1
0BD1             loc_0_BD1:                                               ; CODE XREF: 0000:0BC6↑j
0BD1 DF                                                                   ; 0000:0BCA↑j
0BD1                             rst     0x18                             ; wait for 8-bit countdown
0BD2 AF                          xor     a
0BD3 32 85 63                    ld      (intro_sequencer), a
0BD6 34                          inc     (hl)
0BD7 23                          inc     hl
0BD8 34                          inc     (hl)
0BD9 C9                          ret
0BDA                     ; ─────────────────────────────────────────────
0BDA
0BDA
0BDA             draw_how_high_can_you_get:                               ; DATA XREF: 0000:0712↑o
0BDA CD 1C 01                    call    stop_sound
0BDD DF                          rst     0x18                             ; wait for 8-bit countdown
0BDE CD 74 08                    call    clear_visible_area_and_sprites
0BE1 16 06                       ld      d, #6                            ; display_lives_and_level
0BE3 3A 00 62                    ld      a, (mario_alive_flag)
0BE6 5F                          ld      e, a
0BE7 CD 9F 30                    call    queue_fg_vector_fn
0BEA 21 86 7D                    ld      hl, #palette_bank
0BED 36 01                       ld      (hl), #1
0BEF 23                          inc     hl
0BF0 36 00                       ld      (hl), #0
0BF2 21 8A 60                    ld      hl, #unk_0_608A
0BF5 36 02                       ld      (hl), #2
0BF7 23                          inc     hl
0BF8 36 03                       ld      (hl), #3
0BFA 21 A7 63                    ld      hl, #unk_0_63A7
0BFD 36 00                       ld      (hl), #0
0BFF 21 DC 76                    ld      hl, #VRAM_start+0x2DC
0C02 22 A8 63                    ld      (unk_0_63A8), hl
0C05 3A 2E 62                    ld      a, (unk_0_622E)
0C08 FE 06                       cp      #6
0C0A 38 05                       jr      C, loc_0_C11
0C0C 3E 05                       ld      a, #5
0C0E 32 2E 62                    ld      (unk_0_622E), a
0C11
0C11             loc_0_C11:                                               ; CODE XREF: 0000:0C0A↑j
0C11 3A 2F 62                    ld      a, (unk_0_622F)
0C14 47                          ld      b, a
0C15 3A 2A 62                    ld      a, (seq_data)
0C18 B8                          cp      b
0C19 28 04                       jr      Z, loc_0_C1F
0C1B 21 2E 62                    ld      hl, #unk_0_622E
0C1E 34                          inc     (hl)
0C1F
0C1F             loc_0_C1F:                                               ; CODE XREF: 0000:0C19↑j
0C1F 32 2F 62                    ld      (unk_0_622F), a
0C22 3A 2E 62                    ld      a, (unk_0_622E)
0C25 47                          ld      b, a
0C26 21 BC 75                    ld      hl, #VRAM_start+0x1BC
0C29
0C29             loc_0_C29:                                               ; CODE XREF: 0000:0C7F├j
0C29 0E 50                       ld      c, #0x50 ; 'P'
0C2B
0C2B             loc_0_C2B:                                               ; CODE XREF: 0000:0C40├j
0C2B 71                          ld      (hl), c
0C2C 0C                          inc     c
0C2D 2B                          dec     hl
0C2E 71                          ld      (hl), c
0C2F 0C                          inc     c
0C30 2B                          dec     hl
0C31 71                          ld      (hl), c
0C32 0C                          inc     c
0C33 2B                          dec     hl
0C34 71                          ld      (hl), c
0C35 79                          ld      a, c
0C36 FE 67                       cp      #0x67 ; 'g'
0C38 CA 43 0C                    jp      Z, loc_0_C43
0C3B 0C                          inc     c
0C3C 11 23 00                    ld      de, #0x23 ; '#'
0C3F 19                          add     hl, de
0C40 C3 2B 0C                    jp      loc_0_C2B
0C43                     ; ─────────────────────────────────────────────
0C43
0C43             loc_0_C43:                                               ; CODE XREF: 0000:0C38↑j
0C43 3A A7 63                    ld      a, (unk_0_63A7)
0C46 3C                          inc     a
0C47 32 A7 63                    ld      (unk_0_63A7), a
0C4A 3D                          dec     a
0C4B CB 27                       sla     a
0C4D CB 27                       sla     a
0C4F E5                          push    hl
0C50 21 F0 3C                    ld      hl, #draw_data_how_high
0C53 C5                          push    bc
0C54 DD 2A A8 63                 ld      ix, (unk_0_63A8)
0C58 4F                          ld      c, a
0C59 06 00                       ld      b, #0
0C5B 09                          add     hl, bc
0C5C 7E                          ld      a, (hl)
0C5D DD 77 60                    ld      0x60(ix), a
0C60 23                          inc     hl
0C61 7E                          ld      a, (hl)
0C62 DD 77 40                    ld      0x40(ix), a
0C65 23                          inc     hl
0C66 7E                          ld      a, (hl)
0C67 DD 77 20                    ld      0x20(ix), a
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0C6A DD 36 E0 8B          ld      0xE0(ix), #0x8B ; 'ì'
0C6E C1                   pop     bc
0C6F DD E5                push    ix
0C71 E1                   pop     hl
0C72 11 FC FF             ld      de, #0xFFFC
0C75 19                   add     hl, de
0C76 22 A8 63             ld      (unk_0_63A8), hl
0C79 E1                   pop     hl
0C7A 11 5F FF             ld      de, #0xFF5F
0C7D 19                   add     hl, de
0C7E 05                   dec     b
0C7F C2 29 0C             jp      NZ, loc_0_C29
0C82 11 07 03             ld      de, #0x307                          ; display_message_07
0C85 CD 9F 30             call    queue_fg_vector_fn
0C88 21 09 60             ld      hl, #eight_bit_countdown
0C8B 36 A0                ld      (hl), #0xA0 ; 'á'
0C8D 23                   inc     hl
0C8E 34                   inc     (hl)
0C8F 34                   inc     (hl)
0C90 C9                   ret
0C91             ; ─────────────────────────────────────────────────
0C91
0C91             wait_init_and_draw_level:                            ; DATA XREF: 0000:0716↑o
0C91 DF                   rst     0x18                                ; wait for 8-bit countdown
0C92
0C92             init_and_draw_level:                                 ; CODE XREF: 0000:0776↑j
0C92 CD 74 08             call    clear_visible_area_and_sprites
0C95 AF                   xor     a
0C96 32 8C 63             ld      (bonus_timer), a                    ; init bonus timer
0C99 11 01 05             ld      de, #0x501                          ; update_bonus_timer
0C9C CD 9F 30             call    queue_fg_vector_fn
0C9F 21 86 7D             ld      hl, #palette_bank
0CA2 36 00                ld      (hl), #0
0CA4 23                   inc     hl
0CA5 36 01                ld      (hl), #1                            ; select palette bank 1
0CA7 3A 27 62             ld      a, (level_type)
0CAA 3D                   dec     a                                   ; barrel level?
0CAB CA D4 0C             jp      Z, draw_barrel_level                ; yes, skip
0CAE 3D                   dec     a                                   ; cement pie level?
0CAF CA DF 0C             jp      Z, draw_cement_pie_level            ; yes, skip
0CB2 3D                   dec     a                                   ; elevator level?
0CB3 CA F2 0C             jp      Z, draw_elevator_level              ; yes, skip
0CB6 CD 43 0D             call    sub_0_D43
0CB9 21 86 7D             ld      hl, #palette_bank
0CBC 36 01                ld      (hl), #1                            ; select palette bank 3
0CBE 3E 0B                ld      a, #0xB
0CC0 32 89 60             ld      (unk_0_6089), a
0CC3 11 8B 3C             ld      de, #rivet_level_tilemap_data
0CC6
0CC6             draw_level_tilemap:                                  ; CODE XREF: 0000:0CDC├j
0CC6 CD A7 0D                                                         ; 0000:0CEF├j ...
0CC6                      call    sub_0_DA7                           ; draw screen
0CC9 3A 27 62             ld      a, (level_type)
0CCC FE 04                cp      #4                                  ; rivets?
0CCE CC 00 0D             call    Z, draw_rivets                      ; yes, call
0CD1 C3 A0 3F             jp      loc_0_3FA0
0CD4             ; ─────────────────────────────────────────────────
0CD4
0CD4             draw_barrel_level:                                   ; CODE XREF: 0000:0CAB↑j
0CD4 11 E4 3A             ld      de, #barrel_level_tilemap_data
0CD7 3E 08                ld      a, #8
0CD9 32 89 60             ld      (unk_0_6089), a
0CDC C3 C6 0C             jp      draw_level_tilemap
0CDF             ; ─────────────────────────────────────────────────
0CDF
0CDF             draw_cement_pie_level:                               ; CODE XREF: 0000:0CAF↑j
0CDF 11 5D 3B             ld      de, #cement_pie_level_tilemap_data
0CE2 21 86 7D             ld      hl, #palette_bank
0CE5 36 01                ld      (hl), #1
0CE7 23                   inc     hl
0CE8 36 00                ld      (hl), #0
0CEA 3E 09                ld      a, #9
0CEC 32 89 60             ld      (unk_0_6089), a
0CEF C3 C6 0C             jp      draw_level_tilemap
0CF2             ; ─────────────────────────────────────────────────
0CF2
0CF2             draw_elevator_level:                                 ; CODE XREF: 0000:0CB3↑j
0CF2 CD 27 0D             call    sub_0_D27
0CF5 3E 0A                ld      a, #0xA
0CF7 32 89 60             ld      (unk_0_6089), a
0CFA 11 E5 3B             ld      de, #elevator_level_tilemap_data
0CFD C3 C6 0C             jp      draw_level_tilemap
0D00
0D00             ; ▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
0D00
0D00
0D00             draw_rivets:                                         ; CODE XREF: 0000:0CCE↑p
0D00 06 08                ld      b, #8                               ; 8 rivets
0D02 21 17 0D             ld      hl, #rivet_loc_tbl
0D05
0D05             loc_0_D05:                                           ; CODE XREF: draw_rivets+14├j
0D05 3E B8                ld      a, #0xB8 ; '©'                      ; top of rivet tile
0D07 0E 02                ld      c, #2                               ; 2 tiles/rivet (vertical)
0D09 5E                   ld      e, (hl)
0D0A 23                   inc     hl
0D0B 56                   ld      d, (hl)
0D0C 23                   inc     hl                                  ; get VRAM location
0D0D
0D0D             loc_0_D0D:                                           ; CODE XREF: draw_rivets+11├j
0D0D 12                   ld      (de), a                             ; draw rivet tile
0D0E 3D                   dec     a                                   ; next rivet tile
0D0F 13                   inc     de                                  ; next VRAM location
0D10 0D                   dec     c                                   ; done a rivet?
0D11 C2 0D 0D             jp      NZ, loc_0_D0D                       ; no, loop
0D14 10 EF                djnz    loc_0_D05                           ; loop through 8 rivets
0D16 C9                   ret
0D16             ; End of function draw_rivets
0D16
0D16             ; ─────────────────────────────────────────────────
0D16
0D17 CA 76       rivet_loc_tbl:  .dw VRAM_start+0x2CA                 ; DATA XREF: draw_rivets+2↑o
0D17                                                                  ; Rivets level, location of rivets
0D19 CF 76               .dw VRAM_start+0x2CF
0D1B D4 76               .dw VRAM_start+0x2D4
0D1D D9 76               .dw VRAM_start+0x2D9
0D1F 2A 75               .dw VRAM_start+0x12A
0D21 2F 75               .dw VRAM_start+0x12F
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0D23 34 75                            .dw    VRAM_start+0x134
0D25 39 75                            .dw    VRAM_start+0x139
0D27
0D27           ; ██████████████ S U B R O U T I N E ██████████████████████████
0D27
0D27
0D27           sub_0_D27:                                ; CODE XREF: 0000:0CF2↑p
0D27 21 0D 77                         ld     hl, #VRAM_start+0x30D
0D2A CD 30 0D                         call   sub_0_D30
0D2D 21 0D 76                         ld     hl, #VRAM_start+0x20D
0D2D           ; End of function sub_0_D27
0D2D
0D30
0D30           ; ██████████████ S U B R O U T I N E ██████████████████████████
0D30
0D30
0D30           sub_0_D30:                                ; CODE XREF: sub_0_D27+3↑p
0D30 06 11                            ld     b, #0x11
0D32
0D32           loc_0_D32:                                ; CODE XREF: sub_0_D30+5↓j
0D32 36 FD                            ld     (hl), #0xFD ; '²'
0D34 23                               inc    hl
0D35 10 FB                            djnz   loc_0_D32
0D37 11 0F 00                         ld     de, #0xF
0D3A 19                               add    hl, de
0D3B 06 11                            ld     b, #0x11
0D3D
0D3D           loc_0_D3D:                                ; CODE XREF: sub_0_D30+10↓j
0D3D 36 FC                            ld     (hl), #0xFC ; '³'
0D3F 23                               inc    hl
0D40 10 FB                            djnz   loc_0_D3D
0D42 C9                               ret
0D42           ; End of function sub_0_D30
0D42
0D43
0D43           ; ██████████████ S U B R O U T I N E ██████████████████████████
0D43
0D43
0D43           sub_0_D43:                                ; CODE XREF: 0000:0CB6↑p
0D43 21 87 76                         ld     hl, #VRAM_start+0x287
0D46 CD 4C 0D                         call   sub_0_D4C
0D49 21 47 75                         ld     hl, #VRAM_start+0x147
0D49           ; End of function sub_0_D43
0D49
0D4C
0D4C           ; ██████████████ S U B R O U T I N E ██████████████████████████
0D4C
0D4C
0D4C           sub_0_D4C:                                ; CODE XREF: sub_0_D43+3↑p
0D4C 06 04                            ld     b, #4
0D4E
0D4E           loc_0_D4E:                                ; CODE XREF: sub_0_D4C+5↓j
0D4E 36 FD                            ld     (hl), #0xFD ; '²'
0D50 23                               inc    hl
0D51 10 FB                            djnz   loc_0_D4E
0D53 11 1C 00                         ld     de, #0x1C
0D56 19                               add    hl, de
0D57 06 04                            ld     b, #4
0D59
0D59           loc_0_D59:                                ; CODE XREF: sub_0_D4C+10↓j
0D59 36 FC                            ld     (hl), #0xFC ; '³'
0D5B 23                               inc    hl
0D5C 10 FB                            djnz   loc_0_D59
0D5E C9                               ret
0D5E           ; End of function sub_0_D4C
0D5E
0D5F           ; ─────────────────────────────────────────────────────
0D5F
0D5F
0D5F           loc_0_D5F:                                ; CODE XREF: 0000:3FA3↓j
0D5F CD 56 0F                         call   loc_0_F56
0D62 CD 41 24                         call   sub_0_2441
0D65 21 09 60                         ld     hl, #eight_bit_countdown
0D68 36 40                            ld     (hl), #0x40 ; '@'
0D6A 23                               inc    hl
0D6B 34                               inc    (hl)
0D6C 21 5C 38                         ld     hl, #kong_normal_spr
0D6F CD 4E 00                         call   copy_sprites_2_11_data
0D72 11 00 69                         ld     de, #soft_sprite_ram      ; sprites 0,1
0D75 01 08 00                         ld     bc, #8                    ; 8 bytes to copy
0D78 ED B0                            ldir                             ; copy pauline sprite
0D7A 3A 27 62                         ld     a, (level_type)
0D7D FE 04                            cp     #4                        ; rivets?
0D7F 28 0A                            jr     Z, loc_0_D8B              ; yes, skip
0D81 0F                               rrca
0D82 0F                               rrca                             ; level 2/3?
0D83 D8                               ret    C                         ; yes, return
0D84 21 0B 69                         ld     hl, #soft_sprite_ram+0xB  ; sprite #2, x coord
0D87 0E FC                            ld     c, #0xFC ; '³'            ; -4
0D89 FF                               rst    0x38                      ; subtract 4 from x coord for 10 sprites
0D8A C9                               ret
0D8B           ; ─────────────────────────────────────────────────────
0D8B
0D8B           loc_0_D8B:                                ; CODE XREF: 0000:0D7F↑j
0D8B 21 08 69                         ld     hl, #soft_sprite_ram+8    ; sprite #2, xcoord
0D8E 0E 44                            ld     c, #0x68
0D90 FF                               rst    0x38                      ; add 68 to x coord for 10 sprites
0D91 11 04 00                         ld     de, #4
0D94 01 10 02                         ld     bc, #0x210
0D97 21 00 69                         ld     hl, #soft_sprite_ram      ; sprite #0, y coord
0D9A CD 3D 00                         call   loc_0_3D
0D9D 01 F8 02                         ld     bc, #0x2F8
0DA0 21 03 69                         ld     hl, #soft_sprite_ram+3    ; sprite #0, x coord
0DA3 CD 3D 00                         call   loc_0_3D
0DA6 C9                               ret
0DA7
0DA7           ; ██████████████ S U B R O U T I N E ██████████████████████████
0DA7
0DA7
0DA7           sub_0_DA7:                                ; CODE XREF: 0000:0A95↑p
0DA7 1A                                                                ; 0000:0B4B↑p ...
0DA7                                   ld     a, (de)                  ; get flag/tile
0DA8 32 B3 63                         ld     (unk_0_63B3), a           ; store for later
0DAB FE AA                            cp     #0xAA ; '¬'               ; done?
0DAD C8                               ret    Z                        ; yes, return
0DAE 13                               inc    de                       ; next table address
0DAF 1A                               ld     a, (de)                  ; get byte
```

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0DB0 67                              ld      h, a                             ; H=byte1
0DB1 44                              ld      b, h                             ; B=byte1
0DB2 13                              inc     de                               ; next table address
0DB3 1A                              ld      a, (de)                          ; get byte
0DB4 6F                              ld      l, a                             ; L=byte2
0DB5 4D                              ld      c, l                             ; C=byte2
0DB6 D5                              push    de
0DB7 CD F0 2F                        call    sub_0_2FF0
0DBA D1                              pop     de
0DBB 22 AB 63                        ld      (unk_0_63AB), hl
0DBE 78                              ld      a, b
0DBF E6 07                           and     #7
0DC1 32 B4 63                        ld      (unk_0_63B4), a
0DC4 79                              ld      a, c
0DC5 E6 07                           and     #7
0DC7 32 AF 63                        ld      (unk_0_63AF), a
0DCA 13                              inc     de
0DCB 1A                              ld      a, (de)
0DCC 67                              ld      h, a
0DCD 90                              sub     b
0DCE D2 D3 0D                        jp      NC, loc_0_DD3
0DD1 ED 44                           neg
0DD3
0DD3              loc_0_DD3:                                                   ; CODE XREF: sub_0_DA7+27↑j
0DD3 32 B1 63                        ld      (unk_0_63B1), a
0DD6 13                              inc     de
0DD7 1A                              ld      a, (de)
0DD8 6F                              ld      l, a
0DD9 91                              sub     c
0DDA 32 B2 63                        ld      (unk_0_63B2), a
0DDD 1A                              ld      a, (de)
0DDE E6 07                           and     #7
0DE0 32 B0 63                        ld      (unk_0_63B0), a
0DE3 D5                              push    de
0DE4 CD F0 2F                        call    sub_0_2FF0
0DE7 D1                              pop     de
0DE8 22 AD 63                        ld      (unk_0_63AD), hl
0DEB 3A B3 63                        ld      a, (unk_0_63B3)
0DEE FE 02                           cp      #2
0DF0 F2 4F 0E                        jp      P, loc_0_E4F
0DF3 3A B2 63                        ld      a, (unk_0_63B2)
0DF6 D6 10                           sub     #0x10
0DF8 47                              ld      b, a
0DF9 3A AF 63                        ld      a, (unk_0_63AF)
0DFC 80                              add     a, b
0DFD 32 B2 63                        ld      (unk_0_63B2), a
0E00 3A AF 63                        ld      a, (unk_0_63AF)
0E03 C6 F0                           add     a, #0xF0 ; '-'
0E05 2A AB 63                        ld      hl, (unk_0_63AB)
0E08 77                              ld      (hl), a
0E09 2C                              inc     l
0E0A D6 30                           sub     #0x30 ; '0'
0E0C 77                              ld      (hl), a
0E0D 3A B3 63                        ld      a, (unk_0_63B3)
0E10 FE 01                           cp      #1
0E12 C2 19 0E                        jp      NZ, loc_0_E19
0E15 AF                              xor     a
0E16 32 B2 63                        ld      (unk_0_63B2), a
0E19
0E19              loc_0_E19:                                                   ; CODE XREF: sub_0_DA7+6B↑j
0E19 3A B2 63                                                                 ; sub_0_DA7+80├j
0E19                                 ld      a, (unk_0_63B2)
0E1C D6 08                           sub     #8
0E1E 32 B2 63                        ld      (unk_0_63B2), a
0E21 DA 2A 0E                        jp      C, loc_0_E2A
0E24 2C                              inc     l
0E25 36 C0                           ld      (hl), #0xC0 ; 'Ⱡ'
0E27 C3 19 0E                        jp      loc_0_E19
0E2A              ; ─────────────────────────────────────────────────────────────
0E2A
0E2A              loc_0_E2A:                                                   ; CODE XREF: sub_0_DA7+7A↑j
0E2A 3A B0 63                        ld      a, (unk_0_63B0)
0E2D C6 D0                           add     a, #0xD0 ; 'ð'
0E2F 2A AD 63                        ld      hl, (unk_0_63AD)
0E32 77                              ld      (hl), a
0E33 3A B3 63                        ld      a, (unk_0_63B3)
0E36 FE 01                           cp      #1
0E38 C2 3F 0E                        jp      NZ, loc_0_E3F
0E3B 2D                              dec     l
0E3C 36 C0                           ld      (hl), #0xC0 ; 'Ⱡ'
0E3E 2C                              inc     l
0E3F
0E3F              loc_0_E3F:                                                   ; CODE XREF: sub_0_DA7+91↑j
0E3F 3A B0 63                        ld      a, (unk_0_63B0)
0E42 FE 00                           cp      #0
0E44 CA 4B 0E                        jp      Z, loc_0_E4B
0E47 C6 E0                           add     a, #0xE0 ; 'Ó'               ; convert bottom of ladder to girder
0E49 2C                              inc     l
0E4A 77                              ld      (hl), a
0E4B
0E4B              loc_0_E4B:                                                   ; CODE XREF: sub_0_DA7+9D↑j
0E4B 13                              inc     de
0E4C C3 A7 0D                        jp      sub_0_DA7
0E4F              ; ─────────────────────────────────────────────────────────────
0E4F
0E4F              loc_0_E4F:                                                   ; CODE XREF: sub_0_DA7+49↑j
0E4F 3A B3 63                        ld      a, (unk_0_63B3)
0E52 FE 02                           cp      #2
0E54 C2 E8 0E                        jp      NZ, loc_0_EE8
0E57 3A AF 63                        ld      a, (unk_0_63AF)
0E5A C6 F0                           add     a, #0xF0 ; '-'
0E5C 32 B5 63                        ld      (unk_0_63B5), a
0E5F 2A AB 63                        ld      hl, (unk_0_63AB)
0E62
0E62              loc_0_E62:                                                   ; CODE XREF: sub_0_DA7+E5├j
0E62 3A B5 63                                                                 ; sub_0_DA7+125├j ...
0E62                                 ld      a, (unk_0_63B5)
0E65 77                              ld      (hl), a
0E66 23                              inc     hl
0E67 7D                              ld      a, l
0E68 E6 1F                           and     #0x1F
0E6A CA 78 0E                        jp      Z, loc_0_E78
0E6D 3A B5 63                        ld      a, (unk_0_63B5)
0E70 FE F0                           cp      #0xF0 ; '-'
0E72 CA 78 0E                        jp      Z, loc_0_E78
0E75 D6 10                           sub     #0x10
```

```
0E77 77                                  ld      (hl), a
0E78
0E78                loc_0_E78:                                           ; CODE XREF: sub_0_DA7+C3↑j
0E78 01 1F 00                                                            ; sub_0_DA7+CB↑j
0E78                                     ld      bc, #0x1F
0E7B 09                                  add     hl, bc
0E7C 3A B1 63                            ld      a, (unk_0_63B1)
0E7F D6 08                               sub     #8
0E81 DA CF 0E                            jp      C, loc_0_ECF
0E84 32 B1 63                            ld      (unk_0_63B1), a
0E87 3A B2 63                            ld      a, (unk_0_63B2)
0E8A FE 00                               cp      #0
0E8C CA 62 0E                            jp      Z, loc_0_E62
0E8F 3A B5 63                            ld      a, (unk_0_63B5)
0E92 77                                  ld      (hl), a
0E93 23                                  inc     hl
0E94 7D                                  ld      a, l
0E95 E6 1F                               and     #0x1F
0E97 CA A0 0E                            jp      Z, loc_0_EA0
0E9A 3A B5 63                            ld      a, (unk_0_63B5)
0E9D D6 10                               sub     #0x10
0E9F 77                                  ld      (hl), a
0EA0
0EA0                loc_0_EA0:                                           ; CODE XREF: sub_0_DA7+F0↑j
0EA0 01 1F 00                            ld      bc, #0x1F
0EA3 09                                  add     hl, bc
0EA4 3A B1 63                            ld      a, (unk_0_63B1)
0EA7 D6 08                               sub     #8
0EA9 DA CF 0E                            jp      C, loc_0_ECF
0EAC 32 B1 63                            ld      (unk_0_63B1), a
0EAF 3A B2 63                            ld      a, (unk_0_63B2)
0EB2 CB 7F                               bit     7, a
0EB4 C2 D3 0E                            jp      NZ, loc_0_ED3
0EB7 3A B5 63                            ld      a, (unk_0_63B5)
0EBA 3C                                  inc     a
0EBB 32 B5 63                            ld      (unk_0_63B5), a
0EBE FE F8                               cp      #0xF8 ; '°'
0EC0 C2 C9 0E                            jp      NZ, loc_0_EC9
0EC3 23                                  inc     hl
0EC4 3E F0                               ld      a, #0xF0 ; '-'
0EC6 32 B5 63                            ld      (unk_0_63B5), a
0EC9
0EC9                loc_0_EC9:                                           ; CODE XREF: sub_0_DA7+119↑j
0EC9 7D                                  ld      a, l
0ECA E6 1F                               and     #0x1F
0ECC C2 62 0E                            jp      NZ, loc_0_E62
0ECF
0ECF                loc_0_ECF:                                           ; CODE XREF: sub_0_DA7+DA↑j
0ECF 13                                                                  ; sub_0_DA7+102↑j ...
0ECF                                     inc     de
0ED0 C3 A7 0D                            jp      sub_0_DA7
0ED3                ; ─────────────────────────────────────────────────
0ED3
0ED3                loc_0_ED3:                                           ; CODE XREF: sub_0_DA7+10D↑j
0ED3 3A B5 63                            ld      a, (unk_0_63B5)
0ED6 3D                                  dec     a
0ED7 32 B5 63                            ld      (unk_0_63B5), a
0EDA FE F0                               cp      #0xF0 ; '-'
0EDC F2 E5 0E                            jp      P, loc_0_EE5
0EDF 2B                                  dec     hl
0EE0 3E F7                               ld      a, #0xF7 ; ','
0EE2 32 B5 63                            ld      (unk_0_63B5), a
0EE5
0EE5                loc_0_EE5:                                           ; CODE XREF: sub_0_DA7+135↑j
0EE5 C3 62 0E                            jp      loc_0_E62
0EE8                ; ─────────────────────────────────────────────────
0EE8
0EE8                loc_0_EE8:                                           ; CODE XREF: sub_0_DA7+AD↑j
0EE8 3A B3 63                            ld      a, (unk_0_63B3)
0EEB FE 03                               cp      #3
0EED C2 1B 0F                            jp      NZ, loc_0_F1B
0EF0 2A AB 63                            ld      hl, (unk_0_63AB)
0EF3 3E B3                               ld      a, #0xB3 ; '|'
0EF5 77                                  ld      (hl), a
0EF6 01 20 00                            ld      bc, #0x20 ; ' '
0EF9 09                                  add     hl, bc
0EFA 3A B1 63                            ld      a, (unk_0_63B1)
0EFD D6 10                               sub     #0x10
0EFF
0EFF                loc_0_EFF:                                           ; CODE XREF: sub_0_DA7+16A⊢j
0EFF DA 14 0F                            jp      C, loc_0_F14
0F02 32 B1 63                            ld      (unk_0_63B1), a
0F05 3E B1                               ld      a, #0xB1 ; '▤'
0F07 77                                  ld      (hl), a
0F08 01 20 00                            ld      bc, #0x20 ; ' '
0F0B 09                                  add     hl, bc
0F0C 3A B1 63                            ld      a, (unk_0_63B1)
0F0F D6 08                               sub     #8
0F11 C3 FF 0E                            jp      loc_0_EFF
0F14                ; ─────────────────────────────────────────────────
0F14
0F14                loc_0_F14:                                           ; CODE XREF: sub_0_DA7+158↑j
0F14 3E B2                               ld      a, #0xB2 ; '▤'
0F16 77                                  ld      (hl), a
0F17 13                                  inc     de
0F18 C3 A7 0D                            jp      sub_0_DA7
0F1B                ; ─────────────────────────────────────────────────
0F1B
0F1B                loc_0_F1B:                                           ; CODE XREF: sub_0_DA7+146↑j
0F1B 3A B3 63                            ld      a, (unk_0_63B3)
0F1E FE 07                               cp      #7
0F20 F2 CF 0E                            jp      P, loc_0_ECF
0F23 FE 04                               cp      #4
0F25 CA 4C 0F                            jp      Z, erase_straight_girders
0F28 FE 05                               cp      #5
0F2A CA 51 0F                            jp      Z, loc_0_F51
0F2D 3E FE                               ld      a, #0xFE ; '■'
0F2F
0F2F                loc_0_F2F:                                           ; CODE XREF: sub_0_DA7+1A7⊢j
0F2F 32 B5 63                                                            ; sub_0_DA7+1AC⊢j
0F2F                                     ld      (unk_0_63B5), a
0F32 2A AB 63                            ld      hl, (unk_0_63AB)
0F35
0F35                loc_0_F35:                                           ; CODE XREF: sub_0_DA7+19E⊢j
0F35 3A B5 63                            ld      a, (unk_0_63B5)
0F38 77                                  ld      (hl), a
```

```
0F39 01 20 00                        ld      bc, #0x20 ; ' '
0F3C 09                              add     hl, bc
0F3D 3A B1 63                        ld      a, (unk_0_63B1)
0F40 D6 08                           sub     #8
0F42 32 B1 63                        ld      (unk_0_63B1), a
0F45 D2 35 0F                        jp      NC, loc_0_F35
0F48 13                              inc     de
0F49 C3 A7 0D                        jp      sub_0_DA7
0F4C                 ; ——————————————————————————————————————————————————
0F4C
0F4C              erase_straight_girders:                          ; CODE XREF: sub_0_DA7+17E↑j
0F4C 3E E0                           ld      a, #0xE0 ; 'Ó'
0F4E C3 2F 0F                        jp      loc_0_F2F
0F51                 ; ——————————————————————————————————————————————————
0F51
0F51              loc_0_F51:                                       ; CODE XREF: sub_0_DA7+183↑j
0F51 3E B0                           ld      a, #0xB0 ; '░'
0F53 C3 2F 0F                        jp      loc_0_F2F
0F53              ; End of function sub_0_DA7
0F53
0F56                 ; ——————————————————————————————————————————————————
0F56
0F56              loc_0_F56:                                       ; CODE XREF: 0000:0D5F↑p
0F56 06 27                           ld      b, #0x27 ; '''
0F58 21 00 62                        ld      hl, #mario_alive_flag
0F5B AF                              xor     a
0F5C
0F5C              loc_0_F5C:                                       ; CODE XREF: 0000:0F5E╞j
0F5C 77                              ld      (hl), a
0F5D 2C                              inc     l
0F5E 10 FC                           djnz    loc_0_F5C
0F60 0E 11                           ld      c, #0x11
0F62 16 80                           ld      d, #0x80 ; 'Ç'
0F64 21 80 62                        ld      hl, #unk_0_6280
0F67
0F67              loc_0_F67:                                       ; CODE XREF: 0000:0F6D╞j
0F67 42                              ld      b, d
0F68
0F68              loc_0_F68:                                       ; CODE XREF: 0000:0F6A╞j
0F68 77                              ld      (hl), a
0F69 23                              inc     hl
0F6A 10 FC                           djnz    loc_0_F68
0F6C 0D                              dec     c
0F6D 20 F8                           jr      NZ, loc_0_F67
0F6F 21 9C 3D                        ld      hl, #level_init_data
0F72 11 80 62                        ld      de, #unk_0_6280
0F75 01 40 00                        ld      bc, #0x40 ; '@'
0F78 ED B0                           ldir
0F7A 3A 29 62                        ld      a, (level)
0F7D 47                              ld      b, a
0F7E A7                              and     a
0F7F 17                              rla
0F80 A7                              and     a
0F81 17                              rla
0F82 A7                              and     a
0F83 17                              rla
0F84 80                              add     a, b
0F85 80                              add     a, b
0F86 C6 28                           add     a, #0x28 ; '('
0F88 FE 51                           cp      #0x51 ; 'Q'
0F8A 38 02                           jr      C, loc_0_F8E
0F8C 3E 50                           ld      a, #0x50 ; 'P'
0F8E
0F8E              loc_0_F8E:                                       ; CODE XREF: 0000:0F8A↑j
0F8E 21 B0 62                        ld      hl, #unk_0_62B0
0F91 06 03                           ld      b, #3
0F93
0F93              loc_0_F93:                                       ; CODE XREF: 0000:0F95╞j
0F93 77                              ld      (hl), a
0F94 2C                              inc     l
0F95 10 FC                           djnz    loc_0_F93
0F97 87                              add     a, a
0F98 47                              ld      b, a
0F99 3E DC                           ld      a, #0xDC ; '▪'
0F9B 90                              sub     b
0F9C FE 28                           cp      #0x28 ; '('
0F9E 30 02                           jr      NC, loc_0_FA2
0FA0 3E 28                           ld      a, #0x28 ; '('
0FA2
0FA2              loc_0_FA2:                                       ; CODE XREF: 0000:0F9E↑j
0FA2 77                              ld      (hl), a
0FA3 2C                              inc     l
0FA4 77                              ld      (hl), a
0FA5 21 09 62                        ld      hl, #unk_0_6209
0FA8 36 04                           ld      (hl), #4
0FAA 2C                              inc     l
0FAB 36 08                           ld      (hl), #8
0FAD 3A 27 62                        ld      a, (level_type)
0FB0 4F                              ld      c, a
0FB1 CB 57                           bit     2, a
0FB3 20 16                           jr      NZ, loc_0_FCB
0FB5 21 00 6A                        ld      hl, #soft_sprite_ram+0x100      ; sprite #64, y coord
0FB8 3E 4F                           ld      a, #0x4F ; 'O'
0FBA 06 03                           ld      b, #3
0FBC
0FBC              loc_0_FBC:                                       ; CODE XREF: 0000:0FC9╞j
0FBC 77                              ld      (hl), a
0FBD 2C                              inc     l
0FBE 36 3A                           ld      (hl), #0x3A ; ':'
0FC0 2C                              inc     l
0FC1 36 0F                           ld      (hl), #0xF
0FC3 2C                              inc     l
0FC4 36 18                           ld      (hl), #0x18
0FC6 2C                              inc     l
0FC7 C6 10                           add     a, #0x10
0FC9 10 F1                           djnz    loc_0_FBC
0FCB
0FCB              loc_0_FCB:                                       ; CODE XREF: 0000:0FB3↑j
0FCB 79                              ld      a, c
0FCC EF                              rst     0x28                             ; go!
0FCC                 ; ——————————————————————————————————————————————————
0FCD 00 00                           .dw     RESET                            ; Jump table
0FCF D7 0F                           .dw     init_l1_girder
0FD1 1F 10                           .dw     init_l2_cement
0FD3 87 10                           .dw     init_l3_elevator
0FD5 31 11                           .dw     init_l4_rivets
```

```
0FD7              ; ────────────────────────────────────────────────
0FD7
0FD7
0FD7              init_l1_girder:                                     ; DATA XREF: 0000:0FCF↑o
0FD7 21 DC 3D             ld      hl, #top_barrel_spr
0FDA 11 A8 69             ld      de, #soft_sprite_ram+0xA8
0FDD 01 10 00             ld      bc, #0x10
0FE0 ED B0                ldir
0FE2 21 EC 3D             ld      hl, #fireball_spr
0FE5 11 07 64             ld      de, #unk_0_6407
0FE8 0E 1C                ld      c, #0x1C
0FEA 06 05                ld      b, #5
0FEC CD 2A 12             call    sub_0_122A
0FEF 21 F4 3D             ld      hl, #girders_extra_spr
0FF2 CD FA 11             call    sub_0_11FA
0FF5 21 00 3E             ld      hl, #girder_oil_barrel_spr
0FF8 11 FC 69             ld      de, #soft_sprite_ram+0xFC
0FFB 01 04 00             ld      bc, #4
0FFE ED B0                ldir
1000 21 0C 3E             ld      hl, #girder_hammer_locs
1003 CD A6 11             call    sub_0_11A6
1006
1006              loc_0_1006:
1006 21 1B 10             ld      hl, #cement_unknown_spr
1009 11 07 67             ld      de, #unk_0_6707
100C 01 1C 08             ld      bc, #0x81C
100F CD 2A 12             call    sub_0_122A
1012 11 07 68             ld      de, #unk_0_6807
1015 06 02                ld      b, #2
1017 CD 2A 12             call    sub_0_122A
101A C9                   ret
101A              ; ────────────────────────────────────────────────
101B 00 00 02 02 cement_unknown_spr:.db 0, 0, 2, 2                   ; DATA XREF: 0000:1006↑o
101F              ; ────────────────────────────────────────────────
101F
101F              init_l2_cement:                                     ; DATA XREF: 0000:0FD1↑o
101F 21 EC 3D             ld      hl, #fireball_spr
1022 11 07 64             ld      de, #unk_0_6407
1025 01 1C 05             ld      bc, #0x51C
1028 CD 2A 12             call    sub_0_122A
102B CD 86 11             call    sub_0_1186
102E 21 18 3E             ld      hl, #cement_pie_spr
1031 11 A7 65             ld      de, #unk_0_65A7
1034 01 0C 06             ld      bc, #0x60C
1037 CD 2A 12             call    sub_0_122A
103A DD 21 A0 65          ld      ix, #unk_0_65A0
103E 21 B8 69             ld      hl, #soft_sprite_ram+0xB8
1041 11 10 00             ld      de, #0x10
1044 06 06                ld      b, #6
1046 CD D3 11             call    set_B_sprites_data
1049 21 FA 3D             ld      hl, #cement_extra_spr
104C CD FA 11             call    sub_0_11FA
104F 21 04 3E             ld      hl, #cement_oil_barrel_spr
1052 11 FC 69             ld      de, #soft_sprite_ram+0xFC
1055 01 04 00             ld      bc, #4
1058 ED B0                ldir
105A 21 1C 3E             ld      hl, #cement_ladder_spr
105D 11 44 69             ld      de, #soft_sprite_ram+0x44
1060 01 08 00             ld      bc, #8
1063 ED B0                ldir
1065 21 24 3E             ld      hl, #cement_conveyer_spr
1068 11 E4 69             ld      de, #soft_sprite_ram+0xE4
106B 01 18 00             ld      bc, #0x18
106E ED B0                ldir
1070 21 10 3E             ld      hl, #cement_hammer_locs
1073 CD A6 11             call    sub_0_11A6
1076 21 3C 3E             ld      hl, #cement_obj_spr
1079 11 0C 6A             ld      de, #soft_sprite_ram+0x10C
107C 01 0C 00             ld      bc, #0xC
107F ED B0                ldir
1081 3E 01                ld      a, #1
1083 32 B9 62             ld      (unk_0_62B9), a
1086 C9                   ret
1087              ; ────────────────────────────────────────────────
1087
1087              init_l3_elevator:                                   ; DATA XREF: 0000:0FD3↑o
1087 21 EC 3D             ld      hl, #fireball_spr
108A 11 07 64             ld      de, #unk_0_6407
108D 01 1C 05             ld      bc, #0x51C
1090 CD 2A 12             call    sub_0_122A
1093 CD 86 11             call    sub_0_1186
1096 21 00 66             ld      hl, #unk_0_6600
1099 11 10 00             ld      de, #0x10
109C 3E 01                ld      a, #1
109E 06 06                ld      b, #6
10A0
10A0              loc_0_10A0:                                         ; CODE XREF: 0000:10A2├j
10A0 77                   ld      (hl), a
10A1 19                   add     hl, de
10A2 10 FC                djnz    loc_0_10A0
10A4 0E 02                ld      c, #2
10A6 3E 08                ld      a, #8
10A8
10A8              loc_0_10A8:                                         ; CODE XREF: 0000:10B4├j
10A8 06 03                ld      b, #3
10AA 21 0D 66             ld      hl, #unk_0_660D
10AD
10AD              loc_0_10AD:                                         ; CODE XREF: 0000:10AF├j
10AD 77                   ld      (hl), a
10AE 19                   add     hl, de
10AF 10 FC                djnz    loc_0_10AD
10B1 3E 08                ld      a, #8
10B3 0D                   dec     c
10B4 C2 A8 10             jp      NZ, loc_0_10A8
10B7 21 64 3E             ld      hl, #elevator_spr_xy
10BA 11 03 66             ld      de, #unk_0_6603
10BD 01 0E 06             ld      bc, #0x60E
10C0 CD EC 11             call    sub_0_11EC
10C3 21 60 3E             ld      hl, #elevator_spr
10C6 11 07 66             ld      de, #unk_0_6607
10C9 01 0C 06             ld      bc, #0x60C
10CC CD 2A 12             call    sub_0_122A
10CF DD 21 00 66          ld      ix, #unk_0_6600
10D3 21 58 69             ld      hl, #soft_sprite_ram+0x58
10D6 06 06                ld      b, #6
10D8 11 10 00             ld      de, #0x10
10DB CD D3 11             call    set_B_sprites_data
```

```
10DE 21 48 3E              ld      hl, #elevator_obj_spr
10E1 11 0C 6A              ld      de, #soft_sprite_ram+0x10C
10E4 01 0C 00              ld      bc, #0xC
10E7 ED B0                 ldir
10E9 DD 21 00 64           ld      ix, #unk_0_6400                          ; fireball character data
10ED DD 36 00 01           ld      0(ix), #1
10F1 DD 36 03 58           ld      3(ix), #0x58 ; 'X'
10F5 DD 36 0E 58           ld      0xE(ix), #0x58 ; 'X'
10F9 DD 36 05 80           ld      5(ix), #0x80 ; 'Ç'
10FD DD 36 0F 80           ld      0xF(ix), #0x80 ; 'Ç'
1101 DD 36 20 01           ld      0x20(ix), #1
1105 DD 36 23 EB           ld      0x23(ix), #0xEB ; 'Ù'
1109 DD 36 2E EB           ld      0x2E(ix), #0xEB ; 'Ù'
110D DD 36 25 60           ld      0x25(ix), #0x60 ; '`'
1111 DD 36 2F 60           ld      0x2F(ix), #0x60 ; '`'
1115 11 70 69              ld      de, #soft_sprite_ram+0x70
1118 21 21 11              ld      hl, #elevator_cap_spr
111B 01 10 00              ld      bc, #0x10
111E ED B0                 ldir
1120 C9                    ret
1120          ; ─────────────────────────────────────────────────────────────
1121 37 45 0F 60+elevator_cap_spr:.db 0x37, 0x45, 0xF, 0x60, 0x37, 0x45, 0x8F, 0xF7, 0x77
1121 37 45 8F F7+                                                          ; DATA XREF: 0000:1118↑o
1121 77 45 0F 60+          .db 0x45, 0xF, 0x60, 0x77, 0x45, 0x8F, 0xF7
1131          ; ─────────────────────────────────────────────────────────────
1131
1131          init_l4_rivets:                                              ; DATA XREF: 0000:0FD5↑o
1131 21 F0 3D              ld      hl, #fireball_rivet_spr
1134 11 07 64              ld      de, #unk_0_6407
1137 01 1C 05              ld      bc, #0x51C
113A CD 2A 12              call    sub_0_122A
113D 21 14 3E              ld      hl, #rivet_hammer_locs
1140 CD A6 11              call    sub_0_11A6
1143 21 54 3E              ld      hl, #rivit_obj_spr
1146 11 0C 6A              ld      de, #soft_sprite_ram+0x10C
1149 01 0C 00              ld      bc, #0xC
114C ED B0                 ldir
114E 21 82 11              ld      hl, #rivet_unknown_spr2
1151 11 A3 64              ld      de, #unk_0_64A3
1154 01 1E 02              ld      bc, #0x21E
1157 CD EC 11              call    sub_0_11EC
115A 21 7E 11              ld      hl, #rivet_unknown_spr1
115D 11 A7 64              ld      de, #unk_0_64A7
1160 01 1C 02              ld      bc, #0x21C
1163 CD 2A 12              call    sub_0_122A
1166 DD 21 A0 64           ld      ix, #unk_0_64A0
116A DD 36 00 01           ld      0(ix), #1
116E DD 36 20 01           ld      0x20(ix), #1
1172 21 50 69              ld      hl, #soft_sprite_ram+0x50
1175 06 02                 ld      b, #2
1177 11 20 00              ld      de, #0x20 ; ' '
117A CD D3 11              call    set_B_sprites_data
117D C9                    ret
117D          ; ─────────────────────────────────────────────────────────────
117E 3F 0C 08 08 rivet_unknown_spr1:.db 0x3F, 0xC, 8, 8                    ; DATA XREF: 0000:115A↑o
117E                                                                       ; Rivets level? Unknown sprites?
1182 73 50 8D 50 rivet_unknown_spr2:.db 0x73, 0x50, 0x8D, 0x50            ; DATA XREF: 0000:114E↑o
1186
1186          ; ▉▉▉▉▉▉▉▉▉▉  S U B R O U T I N E  ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
1186
1186
1186          sub_0_1186:                                                  ; CODE XREF: 0000:102B↑p
1186 21 A2 11                                                             ; 0000:1093↑p
1186                        ld      hl, #elevator_bouncing_spr
1189 11 07 65              ld      de, #unk_0_6507
118C 01 0C 0A              ld      bc, #0xA0C
118F CD 2A 12              call    sub_0_122A
1192 DD 21 00 65           ld      ix, #unk_0_6500
1196 21 80 69              ld      hl, #soft_sprite_ram+0x80
1199 06 0A                 ld      b, #0xA
119B 11 10 00              ld      de, #0x10
119E CD D3 11              call    set_B_sprites_data
11A1 C9                    ret
11A1          ; End of function sub_0_1186
11A1
11A1          ; ─────────────────────────────────────────────────────────────
11A2 3B 00 02 02 elevator_bouncing_spr:.db 0x3B, 0, 2, 2                   ; DATA XREF: sub_0_1186↑o
11A6
11A6          ; ▉▉▉▉▉▉▉▉▉▉  S U B R O U T I N E  ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
11A6
11A6
11A6          sub_0_11A6:                                                  ; CODE XREF: 0000:1003↑p
11A6 11 83 66                                                             ; 0000:1073↑p ...
11A6                        ld      de, #unk_0_6683
11A9 01 0E 02              ld      bc, #0x20E
11AC CD EC 11              call    sub_0_11EC
11AF 21 08 3E              ld      hl, #hammer_pickup_spr
11B2 11 87 66              ld      de, #unk_0_6687
11B5 01 0C 02              ld      bc, #0x20C
11B8 CD 2A 12              call    sub_0_122A
11BB DD 21 80 66           ld      ix, #unk_0_6680
11BF DD 36 00 01           ld      0(ix), #1
11C3 DD 36 10 01           ld      0x10(ix), #1
11C7 21 18 6A              ld      hl, #soft_sprite_ram+0x118               ; location of hammers in sprite ram
11CA 06 02                 ld      b, #2
11CC 11 10 00              ld      de, #0x10
11CF CD D3 11              call    set_B_sprites_data
11D2 C9                    ret
11D2          ; End of function sub_0_11A6
11D2
11D3
11D3          ; ▉▉▉▉▉▉▉▉▉▉  S U B R O U T I N E  ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
11D3
11D3
11D3          set_B_sprites_data:                                          ; CODE XREF: 0000:1046↑p
11D3 DD 7E 03                                                             ; 0000:10DB↑p ...
11D3                        ld      a, 3(ix)
11D6 77                     ld      (hl), a                                ; set sprite X
11D7 2C                     inc     l
11D8 DD 7E 07              ld      a, 7(ix)
11DB 77                     ld      (hl), a                                ; set sprite tile
11DC 2C                     inc     l
11DD DD 7E 08              ld      a, 8(ix)
11E0 77                     ld      (hl), a                                ; set sprite vflip/palette
11E1 2C                     inc     l
11E2 DD 7E 05              ld      a, 5(ix)
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11E5 77                            ld      (hl), a                          ; set sprite Y
11E6 2C                            inc     l
11E7 DD 19                         add     ix, de                           ; next sprite data address
11E9 10 E8                         djnz    set_B_sprites_data
11EB C9                            ret
11EB              ; End of function set_B_sprites_data
11EB
11EC
11EC              ; ▆▆▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
11EC
11EC
11EC              sub_0_11EC:                                                ; CODE XREF: 0000:10C0↑p
11EC 7E                                                                      ; 0000:1157↑p ...
11EC                               ld      a, (hl)
11ED 12                            ld      (de), a
11EE 23                            inc     hl
11EF 1C                            inc     e
11F0 1C                            inc     e
11F1 7E                            ld      a, (hl)
11F2 12                            ld      (de), a
11F3 23                            inc     hl
11F4 7B                            ld      a, e
11F5 81                            add     a, c
11F6 5F                            ld      e, a
11F7 10 F3                         djnz    sub_0_11EC
11F9 C9                            ret
11F9              ; End of function sub_0_11EC
11F9
11FA
11FA              ; ▆▆▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
11FA
11FA
11FA              sub_0_11FA:                                                ; CODE XREF: 0000:0FF2↑p
11FA DD 21 A0 66                                                            ; 0000:104C↑p
11FA                               ld      ix, #unk_0_66A0
11FE 11 28 6A                      ld      de, #soft_sprite_ram+0x128
1201 DD 36 00 01                   ld      0(ix), #1
1205 7E                            ld      a, (hl)
1206 DD 77 03                      ld      3(ix), a
1209 12                            ld      (de), a
120A 1C                            inc     e
120B 23                            inc     hl
120C 7E                            ld      a, (hl)
120D DD 77 07                      ld      7(ix), a
1210 12                            ld      (de), a
1211 1C                            inc     e
1212 23                            inc     hl
1213 7E                            ld      a, (hl)
1214 DD 77 08                      ld      8(ix), a
1217 12                            ld      (de), a
1218 1C                            inc     e
1219 23                            inc     hl
121A 7E                            ld      a, (hl)
121B DD 77 05                      ld      5(ix), a
121E 12                            ld      (de), a
121F 23                            inc     hl
1220 7E                            ld      a, (hl)
1221 DD 77 09                      ld      9(ix), a
1224 23                            inc     hl
1225 7E                            ld      a, (hl)
1226 DD 77 0A                      ld      0xA(ix), a
1229 C9                            ret
1229              ; End of function sub_0_11FA
1229
122A
122A              ; ▆▆▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
122A
122A
122A              sub_0_122A:                                                ; CODE XREF: 0000:0FEC↑p
122A E5                                                                      ; 0000:100F↑p ...
122A                               push    hl
122B C5                            push    bc
122C 06 04                         ld      b, #4
122E
122E              loc_0_122E:                                                ; CODE XREF: sub_0_122A+8↓j
122E 7E                            ld      a, (hl)
122F 12                            ld      (de), a
1230 23                            inc     hl
1231 1C                            inc     e
1232 10 FA                         djnz    loc_0_122E
1234 C1                            pop     bc
1235 E1                            pop     hl
1236 7B                            ld      a, e
1237 81                            add     a, c
1238 5F                            ld      e, a
1239 10 EF                         djnz    sub_0_122A
123B C9                            ret
123B              ; End of function sub_0_122A
123B
123C              ; ────────────────────────────────────────────────────────
123C
123C              init_mario:                                                ; DATA XREF: 0000:0718↑o
123C DF                                                                      ; 0000:074C↑o
123C                               rst     0x18                             ; wait for 8-bit countdown
123D 3A 27 62                      ld      a, (level_type)
1240 FE 03                         cp      #3                               ; elevators?
1242 01 16 E0                      ld      bc, #0xE016                      ; mario x,y coords
1245 CA 4B 12                      jp      Z, loc_0_124B                    ; yes, skip
1248 01 3F F0                      ld      bc, #0xF03F                      ; mario x,y coords
124B
124B              loc_0_124B:                                                ; CODE XREF: 0000:1245↑j
124B DD 21 00 62                   ld      ix, #mario_alive_flag
124F 21 4C 69                      ld      hl, #soft_sprite_ram+0x4C        ; sprite #19, y coord
1252 DD 36 00 01                   ld      0(ix), #1                        ; flag mario is alive
1256 DD 71 03                      ld      3(ix), c                         ; mario y coord (X)
1259 71                            ld      (hl), c                          ; sprite y = mario X
125A 2C                            inc     l                                ; sprite #19, flipy & code
125B DD 36 07 80                   ld      7(ix), #0x80 ; 'Ç'               ; flipy & tile=0
125F 36 80                         ld      (hl), #0x80 ; 'Ç'                ; flipy & tile=0
1261 2C                            inc     l                                ; sprite #19, flipx & colour
1262 DD 36 08 02                   ld      8(ix), #2                        ; no flipx, colour=2
1266 36 02                         ld      (hl), #2                         ; no flipx, colour=2
1268 2C                            inc     l                                ; sprite #19, x coord
1269 DD 70 05                      ld      5(ix), b                         ; mario x coord (Y)
126C 70                            ld      (hl), b                          ; x coord
126D DD 36 0F 01                   ld      0xF(ix), #1
```

```
1271 21 0A 60                    ld      hl, #main_sequencer
1274 34                          inc     (hl)                        ; next sequence (3)
1275 11 01 06                    ld      de, #0x601                  ; display_lives_and_level
1278 CD 9F 30                    call    queue_fg_vector_fn
127B C9                          ret
127C                     ; ─────────────────────────────────────────────────
127C
127C                     died_in_gameplay:                           ; DATA XREF: 0000:071C↑o
127C CD BD 1D                    call    sub_0_1DBD                  ; 0000:0750↑o
127C
127F 3A 9D 63                    ld      a, (unk_0_639D)
1282 EF                          rst     0x28                        ; go!
1282                     ; ─────────────────────────────────────────────────
1283 8B 12                       .dw delay_before_spin               ; Jump Table
1285 AC 12                       .dw mario_death_spin
1287 DE 12                       .dw dead_mario_lying_down
1289 00 00                       .dw 0
128B                     ; ─────────────────────────────────────────────────
128B
128B                     delay_before_spin:                          ; DATA XREF: 0000:1283↑o
128B DF                          rst     0x18                        ; wait for 8-bit countdown
128C 21 4D 69                    ld      hl, #soft_sprite_ram+0x4D
128F 3E F0                       ld      a, #0xF0 ; '-'              ; mario sprite << 1
1291 CB 16                       rl      (hl)
1293 1F                          rra
1294 77                          ld      (hl), a
1295 21 9D 63                    ld      hl, #unk_0_639D
1298 34                          inc     (hl)
1299 3E 0D                       ld      a, #0xD
129B 32 9E 63                    ld      (unk_0_639E), a
129E 3E 08                       ld      a, #8
12A0 32 09 60                    ld      (eight_bit_countdown), a
12A3 CD BD 30                    call    sub_0_30BD
12A6 3E 03                       ld      a, #3
12A8 32 88 60                    ld      (unk_0_6088), a
12AB C9                          ret
12AC                     ; ─────────────────────────────────────────────────
12AC
12AC                     mario_death_spin:                           ; DATA XREF: 0000:1285↑o
12AC DF                          rst     0x18                        ; wait for 8-bit countdown
12AD 3E 08                       ld      a, #8
12AF 32 09 60                    ld      (eight_bit_countdown), a
12B2 21 9E 63                    ld      hl, #unk_0_639E
12B5 35                          dec     (hl)
12B6 CA CB 12                    jp      Z, loc_0_12CB
12B9 21 4D 69                    ld      hl, #soft_sprite_ram+0x4D
12BC 7E                          ld      a, (hl)
12BD 1F                          rra
12BE 3E 02                       ld      a, #2
12C0 1F                          rra
12C1 47                          ld      b, a
12C2 AE                          xor     (hl)
12C3 77                          ld      (hl), a
12C4 2C                          inc     l
12C5 78                          ld      a, b
12C6 E6 80                       and     #0x80 ; 'Ç'                ; flip mario upside down?
12C8 AE                          xor     (hl)
12C9 77                          ld      (hl), a
12CA C9                          ret
12CB                     ; ─────────────────────────────────────────────────
12CB
12CB                     loc_0_12CB:                                 ; CODE XREF: 0000:12B6↑j
12CB 21 4D 69                    ld      hl, #soft_sprite_ram+0x4D
12CE 3E F4                       ld      a, #0xF4 ; '¶'
12D0 CB 16                       rl      (hl)
12D2 1F                          rra
12D3 77                          ld      (hl), a
12D4 21 9D 63                    ld      hl, #unk_0_639D
12D7 34                          inc     (hl)
12D8 3E 80                       ld      a, #0x80 ; 'Ç'
12DA 32 09 60                    ld      (eight_bit_countdown), a
12DD C9                          ret
12DE                     ; ─────────────────────────────────────────────────
12DE
12DE                     dead_mario_lying_down:                      ; DATA XREF: 0000:1287↑o
12DE DF                          rst     0x18                        ; wait for 8-bit countdown
12DF CD DB 30                    call    sub_0_30DB
12E2 21 0A 60                    ld      hl, #main_sequencer
12E5 3A 0E 60                    ld      a, (current_player_E)
12E8 A7                          and     a                           ; player 1?
12E9 CA ED 12                    jp      Z, loc_0_12ED               ; yes, skip
12EC 34                          inc     (hl)
12ED
12ED                     loc_0_12ED:                                 ; CODE XREF: 0000:12E9↑j
12ED 34                          inc     (hl)
12EE 2B                          dec     hl
12EF 36 01                       ld      (hl), #1
12F1 C9                          ret
12F2                     ; ─────────────────────────────────────────────────
12F2
12F2                     copy_current_lvl_data_to_P1:                ; DATA XREF: 0000:071E↑o
12F2 CD 1C 01                    call    stop_sound
12F5 AF                          xor     a
12F6 32 2C 62                    ld      (unk_0_622C), a
12F9 21 28 62                    ld      hl, #lives_left
12FC 35                          dec     (hl)
12FD 7E                          ld      a, (hl)
12FE 11 40 60                    ld      de, #p1_level_data
1301 01 08 00                    ld      bc, #8
1304 ED B0                       ldir
1306 A7                          and     a
1307
1307                     loc_0_1307:
1307 C2 34 13                    jp      NZ, loc_0_1334
130A 3E 01                       ld      a, #1
130C 21 B2 60                    ld      hl, #p1_score
130F CD CA 13                    call    sub_0_13CA
1312 21 D4 76                    ld      hl, #VRAM_start+0x2D4
1315 3A 0F 60                    ld      a, (two_players)
1318 A7                          and     a
1319 28 07                       jr      Z, loc_0_1322
131B 11 02 03                    ld      de, #0x302                  ; display_message_02
131E CD 9F 30                    call    queue_fg_vector_fn
1321 2B                          dec     hl
1322
1322                     loc_0_1322:                                 ; CODE XREF: 0000:1319↑j
```

```
1322 CD 26 18                       call     clear_14x5_HL
1325 11 00 03                       ld       de, #0x300                          ; display_message_00
1328 CD 9F 30                       call     queue_fg_vector_fn
132B 21 09 60                       ld       hl, #eight_bit_countdown
132E 36 C0                          ld       (hl), #0xC0 ; 'L'
1330 23                             inc      hl
1331 36 10                          ld       (hl), #0x10
1333 C9                             ret
1334                    ; ─────────────────────────────────────────────────
1334
1334                    loc_0_1334:                                             ; CODE XREF: 0000:1307↑j
1334 0E 08                          ld       c, #8
1336 3A 0F 60                       ld       a, (two_players)
1339 A7                             and      a
133A CA 3F 13                       jp       Z, loc_0_133F
133D 0E 17                          ld       c, #0x17
133F
133F                    loc_0_133F:                                             ; CODE XREF: 0000:133A↑j
133F 79                             ld       a, c
1340 32 0A 60                       ld       (main_sequencer), a
1343 C9                             ret
1344                    ; ─────────────────────────────────────────────────
1344
1344                    copy_current_lvl_data_to_P2:                            ; DATA XREF: 0000:0720↑o
1344 CD 1C 01                       call     stop_sound
1347 AF                             xor      a
1348 32 2C 62                       ld       (unk_0_622C), a
134B 21 28 62                       ld       hl, #lives_left
134E 35                             dec      (hl)
134F 7E                             ld       a, (hl)
1350 11 48 60                       ld       de, #p2_level_data
1353 01 08 00                       ld       bc, #8
1356 ED B0                          ldir
1358 A7                             and      a
1359 C2 7F 13                       jp       NZ, loc_0_137F
135C 3E 03                          ld       a, #3
135E 21 B5 60                       ld       hl, #p2_score
1361 CD CA 13                       call     sub_0_13CA
1364 11 03 03                       ld       de, #0x303                          ; display_message_03
1367 CD 9F 30                       call     queue_fg_vector_fn
136A 11 00 03                       ld       de, #0x300                          ; display_message_00
136D CD 9F 30                       call     queue_fg_vector_fn
1370 21 D3 76                       ld       hl, #VRAM_start+0x2D3
1373 CD 26 18                       call     clear_14x5_HL
1376 21 09 60                       ld       hl, #eight_bit_countdown
1379 36 C0                          ld       (hl), #0xC0 ; 'L'
137B 23                             inc      hl
137C 36 11                          ld       (hl), #0x11
137E C9                             ret
137F                    ; ─────────────────────────────────────────────────
137F
137F                    loc_0_137F:                                             ; CODE XREF: 0000:1359↑j
137F 0E 17                          ld       c, #0x17                            ; set to switch players?
1381 3A 40 60                       ld       a, (p1_level_data)
1384 A7                             and      a
1385 C2 8A 13                       jp       NZ, loc_0_138A
1388 0E 08                          ld       c, #8
138A
138A                    loc_0_138A:                                             ; CODE XREF: 0000:1385↑j
138A 79                             ld       a, c
138B 32 0A 60                       ld       (main_sequencer), a
138E C9                             ret
138F                    ; ─────────────────────────────────────────────────
138F
138F                    p1_game_over:                                           ; DATA XREF: 0000:0722↑o
138F DF                             rst      0x18                                ; wait for 8-bit countdown
1390 0E 17                          ld       c, #0x17
1392 3A 48 60                       ld       a, (p2_level_data)
1395
1395                    loc_0_1395:                                             ; CODE XREF: 0000:13A7↑j
1395 34                             inc      (hl)
1396 A7                             and      a
1397 C2 9C 13                       jp       NZ, loc_0_139C
139A 0E 14                          ld       c, #0x14
139C
139C                    loc_0_139C:                                             ; CODE XREF: 0000:1397↑j
139C 79                             ld       a, c
139D 32 0A 60                       ld       (main_sequencer), a
13A0 C9                             ret
13A1                    ; ─────────────────────────────────────────────────
13A1
13A1                    p2_game_over:                                           ; DATA XREF: 0000:0724↑o
13A1 DF                             rst      0x18                                ; wait for 8-bit countdown
13A2 0E 17                          ld       c, #0x17
13A4 3A 40 60                       ld       a, (p1_level_data)
13A7 C3 95 13                       jp       loc_0_1395
13AA                    ; ─────────────────────────────────────────────────
13AA
13AA                    set_flip_and_current_P2:                                ; DATA XREF: 0000:0726↑o
13AA 3A 26 60                       ld       a, (upright)
13AD 32 82 7D                       ld       (flipscreen), a
13B0 AF                             xor      a
13B1 32 0A 60                       ld       (main_sequencer), a                 ; reset ingame sequencer
13B4 21 01 01                       ld       hl, #0x101
13B7 22 0D 60                       ld       (current_player_D), hl              ; both current player flags to P2
13BA C9                             ret
13BB                    ; ─────────────────────────────────────────────────
13BB
13BB                    set_flip_and_current_P1:                                ; DATA XREF: 0000:0728↑o
13BB AF                             xor      a
13BC 32 0D 60                       ld       (current_player_D), a               ; player 1
13BF 32 0E 60                       ld       (current_player_E), a               ; player 1
13C2 32 0A 60                       ld       (main_sequencer), a                 ; reset ingame sequencer
13C5 3C                             inc      a                                   ; default flipscreen
13C6 32 82 7D                       ld       (flipscreen), a
13C9 C9                             ret
13CA
13CA                    ; ▮▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
13CA
13CA
13CA                    sub_0_13CA:                                             ; CODE XREF: 0000:130F↑p
13CA 11 C6 61                                                                   ; 0000:1361↑p
13CA                                 ld       de, #unk_0_61C6
13CD 12                             ld       (de), a
13CE CF                             rst      8                                   ; return if attract mode
13CF 13                             inc      de
```

```
13D0 01 03 00                     ld      bc, #3
13D3 ED B0                        ldir
13D5 06 03                        ld      b, #3
13D7 21 B1 61                     ld      hl, #unk_0_61B1
13DA
13DA              loc_0_13DA:                                       ; CODE XREF: sub_0_13CA+1F↓j
13DA 1B                           dec     de
13DB 1A                           ld      a, (de)
13DC 0F                           rrca
13DD 0F                           rrca
13DE 0F                           rrca
13DF 0F                           rrca
13E0 E6 0F                        and     #0xF
13E2 77                           ld      (hl), a
13E3 23                           inc     hl
13E4 1A                           ld      a, (de)
13E5 E6 0F                        and     #0xF
13E7 77                           ld      (hl), a
13E8 23                           inc     hl
13E9 10 EF                        djnz    loc_0_13DA
13EB 06 0E                        ld      b, #0xE
13ED
13ED              loc_0_13ED:                                       ; CODE XREF: sub_0_13CA+26↓j
13ED 36 10                        ld      (hl), #0x10
13EF 23                           inc     hl
13F0 10 FB                        djnz    loc_0_13ED
13F2 36 3F                        ld      (hl), #0x3F ; '?'
13F4 06 05                        ld      b, #5
13F6 21 A5 61                     ld      hl, #hs_tbl_5th+0x1D
13F9 11 C7 61                     ld      de, #unk_0_61C7
13FC
13FC              loc_0_13FC:                                       ; CODE XREF: sub_0_13CA+51↓j
13FC 1A                           ld      a, (de)
13FD 96                           sub     (hl)
13FE 23                           inc     hl
13FF 13                           inc     de
1400 1A                           ld      a, (de)
1401 9E                           sbc     a, (hl)
1402 23                           inc     hl
1403 13                           inc     de
1404 1A                           ld      a, (de)
1405 9E                           sbc     a, (hl)
1406 D8                           ret     C
1407 C5                           push    bc
1408 06 19                        ld      b, #0x19
140A
140A              loc_0_140A:                                       ; CODE XREF: sub_0_13CA+47↓j
140A 4E                           ld      c, (hl)
140B 1A                           ld      a, (de)
140C 77                           ld      (hl), a
140D 79                           ld      a, c
140E 12                           ld      (de), a
140F 2B                           dec     hl
1410 1B                           dec     de
1411 10 F7                        djnz    loc_0_140A
1413 01 F5 FF                     ld      bc, #0xFFF5
1416 09                           add     hl, bc
1417 EB                           ex      de, hl
1418 09                           add     hl, bc
1419 EB                           ex      de, hl
141A C1                           pop     bc
141B 10 DF                        djnz    loc_0_13FC
141D C9                           ret
141D              ; End of function sub_0_13CA
141D
141E              ; ─────────────────────────────────────────────────────
141E
141E              draw_name_registered:                             ; DATA XREF: 0000:072A↑o
141E CD 16 06                     call    display_credits
1421 DF                           rst     0x18                      ; wait for 8-bit countdown
1422 CD 74 08                     call    clear_visible_area_and_sprites
1425 3E 00                        ld      a, #0
1427 32 0E 60                     ld      (current_player_E), a     ; player 1
142A 32 0D 60                     ld      (current_player_D), a     ; player 1
142D 21 1C 61                     ld      hl, #high_score_tbl_ram+0x1C
1430 11 22 00                     ld      de, #0x22 ; '"'
1433 06 05                        ld      b, #5
1435 3E 01                        ld      a, #1
1437
1437              loc_0_1437:                                       ; CODE XREF: 0000:143C↓j
1437 BE                           cp      (hl)
1438 CA 59 14                     jp      Z, loc_0_1459
143B 19                           add     hl, de
143C 10 F9                        djnz    loc_0_1437
143E 21 1C 61                     ld      hl, #high_score_tbl_ram+0x1C
1441 06 05                        ld      b, #5
1443 3E 03                        ld      a, #3
1445
1445              loc_0_1445:                                       ; CODE XREF: 0000:144A↓j
1445 BE                           cp      (hl)
1446 CA 4F 14                     jp      Z, loc_0_144F
1449 19                           add     hl, de
144A 10 F9                        djnz    loc_0_1445
144C C3 75 14                     jp      loc_0_1475
144F              ; ─────────────────────────────────────────────────────
144F
144F              loc_0_144F:                                       ; CODE XREF: 0000:1446↑j
144F 3E 01                        ld      a, #1
1451 32 0E 60                     ld      (current_player_E), a     ; player 2
1454 32 0D 60                     ld      (current_player_D), a     ; player 2
1457 3E 00                        ld      a, #0
1459
1459              loc_0_1459:                                       ; CODE XREF: 0000:1438↑j
1459 21 26 60                     ld      hl, #upright
145C B6                           or      (hl)
145D 32 82 7D                     ld      (flipscreen), a
1460 3E 00                        ld      a, #0
1462 32 09 60                     ld      (eight_bit_countdown), a
1465 21 0A 60                     ld      hl, #main_sequencer
1468 34                           inc     (hl)
1469 11 0D 03                     ld      de, #0x30D                 ; display_message_0D
146C 06 0C                        ld      b, #0xC
146E
146E              loc_0_146E:                                       ; CODE XREF: 0000:1472↓j
146E CD 9F 30                     call    queue_fg_vector_fn
1471 13                           inc     de
```

```
1472 10 FA                    djnz    loc_0_146E
1474 C9                       ret
1475              ; ───────────────────────────────────────────────
1475
1475              loc_0_1475:                                  ; CODE XREF: 0000:144C↑j
1475 3E 01                    ld      a, #1
1477 32 82 7D                 ld      (flipscreen), a
147A 32 05 60                 ld      (nmi_sequencer), a
147D 32 07 60                 ld      (attract_mode_flag), a        ; set attract mode flag
1480 3E 00                    ld      a, #0
1482 32 0A 60                 ld      (main_sequencer), a
1485 C9                       ret
1486              ; ───────────────────────────────────────────────
1486
1486              do_initials_entry:                           ; DATA XREF: 0000:072C↑o
1486 CD 16 06                 call    display_credits
1489 21 09 60                 ld      hl, #eight_bit_countdown
148C 7E                       ld      a, (hl)
148D A7                       and     a
148E C2 DC 14                 jp      NZ, loc_0_14DC
1491 32 86 7D                 ld      (palette_bank), a
1494 32 87 7D                 ld      (palette_bank+1), a
1497 36 01                    ld      (hl), #1
1499 21 30 60                 ld      hl, #unk_0_6030
149C 36 0A                    ld      (hl), #0xA
149E 23                       inc     hl
149F 36 00                    ld      (hl), #0
14A1 23                       inc     hl
14A2 36 10                    ld      (hl), #0x10
14A4 23                       inc     hl
14A5 36 1E                    ld      (hl), #0x1E
14A7 23                       inc     hl
14A8 36 3E                    ld      (hl), #0x3E ; '>'
14AA 23                       inc     hl
14AB 36 00                    ld      (hl), #0
14AD 21 E8 75                 ld      hl, #VRAM_start+0x1E8
14B0 22 36 60                 ld      (unk_0_6036), hl
14B3 21 1C 61                 ld      hl, #high_score_tbl_ram+0x1C
14B6 3A 0E 60                 ld      a, (current_player_E)         ; 0/1
14B9 07                       rlca                                  ; 0/2
14BA 3C                       inc     a                             ; 1/3
14BB 4F                       ld      c, a
14BC 11 22 00                 ld      de, #0x22 ; '"'
14BF 06 04                    ld      b, #4
14C1
14C1              loc_0_14C1:                                  ; CODE XREF: 0000:14C7↑j
14C1 7E                       ld      a, (hl)
14C2 B9                       cp      c
14C3 CA C9 14                 jp      Z, loc_0_14C9
14C6 19                       add     hl, de
14C7 10 F8                    djnz    loc_0_14C1
14C9
14C9              loc_0_14C9:                                  ; CODE XREF: 0000:14C3↑j
14C9 22 38 60                 ld      (unk_0_6038), hl              ; point to high score
14CC 11 F3 FF                 ld      de, #0xFFF3
14CF 19                       add     hl, de
14D0 22 3A 60                 ld      (unk_0_603A), hl
14D3 06 00                    ld      b, #0
14D5 3A 35 60                 ld      a, (unk_0_6035)
14D8 4F                       ld      c, a
14D9 CD FA 15                 call    sub_0_15FA                    ; high score initial select sprite
14DC
14DC              loc_0_14DC:                                  ; CODE XREF: 0000:148E↑j
14DC 21 34 60                 ld      hl, #unk_0_6034
14DF 35                       dec     (hl)
14E0 C2 FC 14                 jp      NZ, loc_0_14FC
14E3 36 3E                    ld      (hl), #0x3E ; '>'
14E5 2B                       dec     hl
14E6 35                       dec     (hl)
14E7 CA C6 15                 jp      Z, loc_0_15C6
14EA 7E                       ld      a, (hl)
14EB 06 FF                    ld      b, #0xFF
14ED
14ED              loc_0_14ED:                                  ; CODE XREF: 0000:14F0↑j
14ED 04                       inc     b
14EE D6 0A                    sub     #0xA
14F0 D2 ED 14                 jp      NC, loc_0_14ED
14F3 C6 0A                    add     a, #0xA
14F5 32 52 75                 ld      (VRAM_start+0x152), a
14F8 78                       ld      a, b
14F9 32 72 75                 ld      (VRAM_start+0x172), a
14FC
14FC              loc_0_14FC:                                  ; CODE XREF: 0000:14E0↑j
14FC 21 30 60                 ld      hl, #unk_0_6030
14FF 46                       ld      b, (hl)
1500 36 0A                    ld      (hl), #0xA
1502 3A 10 60                 ld      a, (controller_in)            ; edge-detected inputs
1505 CB 7F                    bit     7, a                          ; button pressed?
1507 C2 46 15                 jp      NZ, jump_pressed              ; yes, skip
150A E6 03                    and     #3                            ; left/right only
150C C2 14 15                 jp      NZ, left_right_pressed        ; yes, skip
150F 3C                       inc     a
1510 77                       ld      (hl), a
1511 C3 8A 15                 jp      loc_0_158A
1514              ; ───────────────────────────────────────────────
1514
1514              left_right_pressed:                          ; CODE XREF: 0000:150C↑j
1514 05                       dec     b
1515 CA 1D 15                 jp      Z, loc_0_151D
1518 78                       ld      a, b
1519 77                       ld      (hl), a
151A C3 8A 15                 jp      loc_0_158A
151D              ; ───────────────────────────────────────────────
151D
151D              loc_0_151D:                                  ; CODE XREF: 0000:1515↑j
151D CB 4F                    bit     1, a
151F C2 39 15                 jp      NZ, loc_0_1539
1522 3A 35 60                 ld      a, (unk_0_6035)
1525 3C                       inc     a
1526 FE 1E                    cp      #0x1E
1528 C2 2D 15                 jp      NZ, loc_0_152D
152B 3E 00                    ld      a, #0
152D
152D              loc_0_152D:                                  ; CODE XREF: 0000:1528↑j
152D 32 35 60                                                  ; 0000:153E↓j ...
152D                          ld      (unk_0_6035), a
```

```
1530 4F                          ld      c, a
1531 06 00                       ld      b, #0
1533 CD FA 15                    call    sub_0_15FA
1536 C3 8A 15                    jp      loc_0_158A
1539            ; ─────────────────────────────────────────────────────────────
1539
1539            loc_0_1539:                               ; CODE XREF: 0000:151F↑j
1539 3A 35 60                    ld      a, (unk_0_6035)
153C D6 01                       sub     #1
153E F2 2D 15                    jp      P, loc_0_152D
1541 3E 1D                       ld      a, #0x1D
1543 C3 2D 15                    jp      loc_0_152D
1546            ; ─────────────────────────────────────────────────────────────
1546
1546            jump_pressed:                             ; CODE XREF: 0000:1507↑j
1546 3A 35 60                    ld      a, (unk_0_6035)
1549 FE 1C                       cp      #0x1C
154B CA 6D 15                    jp      Z, loc_0_156D
154E FE 1D                       cp      #0x1D
1550 CA C6 15                    jp      Z, loc_0_15C6
1553 2A 36 60                    ld      hl, (unk_0_6036)
1556 01 88 75                    ld      bc, #VRAM_start+0x188
1559 A7                          and     a
155A ED 42                       sbc     hl, bc
155C CA 8A 15                    jp      Z, loc_0_158A
155F 09                          add     hl, bc
1560 C6 11                       add     a, #0x11
1562 77                          ld      (hl), a
1563 01 E0 FF                    ld      bc, #0xFFE0
1566 09                          add     hl, bc
1567
1567            loc_0_1567:                               ; CODE XREF: 0000:1583├j
1567 22 36 60                    ld      (unk_0_6036), hl
156A C3 8A 15                    jp      loc_0_158A
156D            ; ─────────────────────────────────────────────────────────────
156D
156D            loc_0_156D:                               ; CODE XREF: 0000:154B↑j
156D 2A 36 60                    ld      hl, (unk_0_6036)
1570 01 20 00                    ld      bc, #0x20 ; ' '
1573 09                          add     hl, bc
1574 A7                          and     a
1575 01 08 76                    ld      bc, #VRAM_start+0x208
1578 ED 42                       sbc     hl, bc
157A C2 86 15                    jp      NZ, loc_0_1586
157D 21 E8 75                    ld      hl, #VRAM_start+0x1E8
1580
1580            loc_0_1580:                               ; CODE XREF: 0000:1587├j
1580 3E 10                       ld      a, #0x10
1582 77                          ld      (hl), a
1583 C3 67 15                    jp      loc_0_1567
1586            ; ─────────────────────────────────────────────────────────────
1586
1586            loc_0_1586:                               ; CODE XREF: 0000:157A↑j
1586 09                          add     hl, bc
1587 C3 80 15                    jp      loc_0_1580
158A            ; ─────────────────────────────────────────────────────────────
158A
158A            loc_0_158A:                               ; CODE XREF: 0000:1511↑j
158A 21 32 60                                            ; 0000:151A↑j ...
158A                             ld      hl, #unk_0_6032
158D 35                          dec     (hl)
158E C2 F9 15                    jp      NZ, locret_0_15F9
1591 3A 31 60                    ld      a, (unk_0_6031)
1594 A7                          and     a
1595 C2 B8 15                    jp      NZ, loc_0_15B8
1598 3E 01                       ld      a, #1
159A 32 31 60                    ld      (unk_0_6031), a
159D 11 BF 01                    ld      de, #byte_0_1BD+2            ; empty/dummy score
15A0
15A0            loc_0_15A0:                               ; CODE XREF: 0000:15C3├j
15A0 FD 2A 38 60                 ld      iy, (unk_0_6038)            ; ptr high score
15A4 FD 6E 04                    ld      l, 4(iy)
15A7 FD 66 05                    ld      h, 5(iy)
15AA E5                          push    hl
15AB DD E1                       pop     ix
15AD CD 7C 05                    call    display_score_HL
15B0 3E 10                       ld      a, #0x10
15B2 32 32 60                    ld      (unk_0_6032), a
15B5 C3 F9 15                    jp      locret_0_15F9
15B8            ; ─────────────────────────────────────────────────────────────
15B8
15B8            loc_0_15B8:                               ; CODE XREF: 0000:1595↑j
15B8 AF                          xor     a
15B9 32 31 60                    ld      (unk_0_6031), a
15BC ED 5B 38 60                 ld      de, (unk_0_6038)            ; point to high score
15C0 13                          inc     de
15C1 13                          inc     de
15C2 13                          inc     de
15C3 C3 A0 15                    jp      loc_0_15A0
15C6            ; ─────────────────────────────────────────────────────────────
15C6
15C6            loc_0_15C6:                               ; CODE XREF: 0000:14E7↑j
15C6 ED 5B 38 60                                         ; 0000:1550↑j
15C6                             ld      de, (unk_0_6038)            ; point to high score
15CA AF                          xor     a
15CB 12                          ld      (de), a
15CC 21 09 60                    ld      hl, #eight_bit_countdown
15CF 36 80                       ld      (hl), #0x80 ; 'Ç'
15D1 23                          inc     hl
15D2 35                          dec     (hl)
15D3 06 0C                       ld      b, #0xC
15D5 21 E8 75                    ld      hl, #VRAM_start+0x1E8
15D8 FD 2A 3A 60                 ld      iy, (unk_0_603A)
15DC 11 E0 FF                    ld      de, #0xFFE0
15DF
15DF            loc_0_15DF:                               ; CODE XREF: 0000:15E6├j
15DF 7E                          ld      a, (hl)
15E0 FD 77 00                    ld      0(iy), a
15E3 FD 23                       inc     iy
15E5 19                          add     hl, de
15E6 10 F7                       djnz    loc_0_15DF
15E8 06 05                       ld      b, #5
15EA 11 14 03                    ld      de, #0x314                  ; display_message_14
15ED
15ED            loc_0_15ED:                               ; CODE XREF: 0000:15F1├j
15ED CD 9F 30                    call    queue_fg_vector_fn
```

```
15F0 13                        inc     de
15F1 10 FA                     djnz    loc_0_15ED
15F3 11 1A 03                  ld      de, #0x31A                          ; display_message_1A
15F6 CD 9F 30                  call    queue_fg_vector_fn
15F9
15F9            locret_0_15F9:                                             ; CODE XREF: 0000:158E↑j
15F9 C9                        ret                                        ; 0000:15B5↑j
15F9
15FA
15FA            ; ▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
15FA
15FA
15FA            sub_0_15FA:                                                ; CODE XREF: 0000:14D9↑p
15FA D5                        push    de                                 ; 0000:1533↑p
15FA                           push    de
15FB E5                        push    hl
15FC CB 21                     sla     c
15FE 21 0F 36                  ld      hl, #letter_coords
1601 09                        add     hl, bc
1602 EB                        ex      de, hl
1603 21 74 69                  ld      hl, #soft_sprite_ram+0x74           ; sprite for initials entry
1606 1A                        ld      a, (de)
1607 13                        inc     de
1608 77                        ld      (hl), a                            ; X coordinate
1609 23                        inc     hl
160A 36 72                     ld      (hl), #0x72 ; 'r'                   ; tile
160C 23                        inc     hl
160D 36 0C                     ld      (hl), #0xC                         ; palette
160F 23                        inc     hl
1610 1A                        ld      a, (de)
1611 77                        ld      (hl), a                            ; Y coordinate
1612 E1                        pop     hl
1613 D1                        pop     de
1614 C9                        ret
1614            ; End of function sub_0_15FA
1614
1615            ; ──────────────────────────────────────────────────────────
1615
1615            mario_pauline_reunion:                                     ; DATA XREF: 0000:072E↑o
1615 CD BD 30                  call    sub_0_30BD
1618 3A 27 62                  ld      a, (level_type)
161B 0F                        rrca
161C D2 2F 16                  jp      NC, loc_0_162F
161F 3A 88 63                  ld      a, (unk_0_6388)
1622 EF                        rst     0x28                               ; go!
1622            ; ──────────────────────────────────────────────────────────
1623 54 16                     .dw loc_0_1654                             ; Jump table
1625 70 16                     .dw loc_0_1670
1627 8A 16                     .dw loc_0_168A
1629 32 17                     .dw loc_0_1732
162B 57 17                     .dw loc_0_1757
162D 8E 17                     .dw loc_0_178E
162F            ; ──────────────────────────────────────────────────────────
162F
162F            loc_0_162F:                                                ; CODE XREF: 0000:161C↑j
162F 0F                        rrca
1630 D2 41 16                  jp      NC, loc_0_1641
1633 3A 88 63                  ld      a, (unk_0_6388)
1636 EF                        rst     0x28                               ; go!
1636            ; ──────────────────────────────────────────────────────────
1637 A3 16                     .dw loc_0_16A3                             ; Jump table
1639 BB 16                     .dw loc_0_16BB
163B 32 17                     .dw loc_0_1732
163D 57 17                     .dw loc_0_1757
163F 8E 17                     .dw loc_0_178E
1641            ; ──────────────────────────────────────────────────────────
1641
1641            loc_0_1641:                                                ; CODE XREF: 0000:1630↑j
1641 CD BD 1D                  call    sub_0_1DBD
1644 3A 88 63                  ld      a, (unk_0_6388)
1647 EF                        rst     0x28                               ; go1
1647            ; ──────────────────────────────────────────────────────────
1648 B6 17                     .dw unk_0_17B6                             ; Jump table
164A 69 30                     .dw loc_0_3069
164C 39 18                     .dw loc_0_1839
164E 6F 18                     .dw loc_0_186F
1650 80 18                     .dw loc_0_1880
1652 C6 18                     .dw loc_0_18C6
1654            ; ──────────────────────────────────────────────────────────
1654
1654            loc_0_1654:                                                ; DATA XREF: 0000:1623↑o
1654 CD 08 17                  call    sub_0_1708
1657 21 5C 38                  ld      hl, #kong_normal_spr
165A CD 4E 00                  call    copy_sprites_2_11_data
165D 3E 20                     ld      a, #0x20 ; ' '
165F 32 09 60                  ld      (eight_bit_countdown), a
1662
1662            loc_0_1662:                                                ; CODE XREF: 0000:16A0├j
1662 21 88 63                  ld      hl, #unk_0_6388
1665 34                        inc     (hl)
1666 3E 01                     ld      a, #1
1668 F7                        rst     0x30                               ; return if level bit not set
1669 21 0B 69                  ld      hl, #soft_sprite_ram+0xB           ; sprite #2, x coord
166C 0E FC                     ld      c, #0xFC ; '³'                     ; -4
166E FF                        rst     0x38                               ; subtract 4 from x coord for 10 sprites
166F C9                        ret
1670            ; ──────────────────────────────────────────────────────────
1670
1670            loc_0_1670:                                                ; DATA XREF: 0000:1625↑o
1670 DF                        rst     0x18                               ; wait for 8-bit countdown
1671 21 32 39                  ld      hl, #dk_throw_barrel_spr
1674 CD 4E 00                  call    copy_sprites_2_11_data
1677 3E 20                     ld      a, #0x20 ; ' '
1679 32 09 60                  ld      (eight_bit_countdown), a
167C 21 88 63                  ld      hl, #unk_0_6388
167F 34                        inc     (hl)
1680 3E 04                     ld      a, #4
1682 F7                        rst     0x30                               ; return if level bit not set
1683 21 0B 69                  ld      hl, #soft_sprite_ram+0xB           ; sprite #2, x coord
1686 0E 04                     ld      c, #4                              ; +4
1688 FF                        rst     0x38                               ; add 4 to x coord for 10 sprites
1689 C9                        ret
168A            ; ──────────────────────────────────────────────────────────
168A
168A            loc_0_168A:                                                ; DATA XREF: 0000:1627↑o
168A DF                        rst     0x18                               ; wait for 8-bit countdown
```

```
1752 21 88 63                   ld      hl, #unk_0_6388
1755 34                         inc     (hl)
1756 C9                         ret
1757          ; ─────────────────────────────────────────────────
1757
1757             loc_0_1757:                                      ; DATA XREF: 0000:162B↑o
1757 CD 6F 30                                                     ; 0000:163D↑o
1757 CD 6F 30                   call    sub_0_306F
175A CD 6C 17                   call    sub_0_176C
175D 23                         inc     hl
175E 13                         inc     de
175F CD 83 17                   call    sub_0_1783
1762 3E 40                      ld      a, #0x40 ; '@'
1764 32 09 60                   ld      (eight_bit_countdown), a
1767 21 88 63                   ld      hl, #unk_0_6388
176A 34                         inc     (hl)
176B C9                         ret
176C
176C          ; ▆▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
176C
176C
176C             sub_0_176C:                                      ; CODE XREF: 0000:175A↑p
176C 11 03 00                   ld      de, #3
176F 21 2F 69                   ld      hl, #soft_sprite_ram+0x2F
1772 06 0A                      ld      b, #0xA
1774
1774             loc_0_1774:                                      ; CODE XREF: sub_0_176C+14┤j
1774 A7                         and     a
1775 7E                         ld      a, (hl)
1776 ED 52                      sbc     hl, de
1778 FE 19                      cp      #0x19
177A D2 7F 17                   jp      NC, loc_0_177F
177D 36 00                      ld      (hl), #0
177F
177F             loc_0_177F:                                      ; CODE XREF: sub_0_176C+E↑j
177F 2B                         dec     hl
1780 10 F2                      djnz    loc_0_1774
1782 C9                         ret
1782          ; End of function sub_0_176C
1782
1783
1783          ; ▆▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
1783
1783
1783             sub_0_1783:                                      ; CODE XREF: 0000:175F↑p
1783 06 0A                      ld      b, #0xA
1785
1785             loc_0_1785:                                      ; CODE XREF: sub_0_1783+8┤j
1785 7E                         ld      a, (hl)
1786 A7                         and     a
1787 C2 26 00                   jp      NZ, pop_hl_ret
178A 19                         add     hl, de
178B 10 F8                      djnz    loc_0_1785
178D C9                         ret
178D          ; End of function sub_0_1783
178D
178E          ; ─────────────────────────────────────────────────
178E
178E             loc_0_178E:                                      ; DATA XREF: 0000:162D↑o
178E DF                                                           ; 0000:163F↑o
178E                            rst     0x18                      ; wait for 8-bit countdown
178F 2A 2A 62                   ld      hl, (seq_data)
1792 23                         inc     hl
1793 7E                         ld      a, (hl)
1794 FE 7F                      cp      #0x7F ; ' '               ; restart repeating levels?
1796 C2 9D 17                   jp      NZ, loc_0_179D            ; no, skip
1799 21 73 3A                   ld      hl, #level_seq_2          ; repeating levels
179C 7E                         ld      a, (hl)                   ; get new level
179D
179D             loc_0_179D:                                      ; CODE XREF: 0000:1796↑j
179D 22 2A 62                   ld      (seq_data), hl
17A0 32 27 62                   ld      (level_type), a
17A3 11 00 05                   ld      de, #0x500                ; update_bonus_timer
17A6 CD 9F 30                   call    queue_fg_vector_fn
17A9 AF                         xor     a
17AA 32 88 63                   ld      (unk_0_6388), a
17AD 21 09 60                   ld      hl, #eight_bit_countdown
17B0 36 30                      ld      (hl), #0x30 ; '0'
17B2 23                         inc     hl
17B3 36 08                      ld      (hl), #8                  ; sequencer = how high screen
17B5 C9                         ret
17B5          ; ─────────────────────────────────────────────────
17B6 00          unk_0_17B6:    .db     0 ;                       ; DATA XREF: 0000:1648↑o
17B7          ; ─────────────────────────────────────────────────
17B7 CD 1C 01                   call    stop_sound
17BA 21 8A 60                   ld      hl, #unk_0_608A
17BD 36 0E                      ld      (hl), #0xE
17BF 23                         inc     hl
17C0 36 03                      ld      (hl), #3
17C2 3E 10                      ld      a, #0x10                  ; <space>
17C4 11 20 00                   ld      de, #0x20 ; ' '           ; inc by column
17C7 21 23 76                   ld      hl, #VRAM_start+0x223
17CA CD 14 05                   call    display_3_tiles_HL
17CD 21 83 75                   ld      hl, #VRAM_start+0x183
17D0 CD 14 05                   call    display_3_tiles_HL
17D3 21 DA 76                   ld      hl, #VRAM_start+0x2DA
17D6 CD 26 18                   call    clear_14x5_HL
17D9 11 47 3A                   ld      de, #draw_data_rivet_end1
17DC CD A7 0D                   call    sub_0_DA7
17DF 21 D5 76                   ld      hl, #VRAM_start+0x2D5
17E2 CD 26 18                   call    clear_14x5_HL
17E5 11 4D 3A                   ld      de, #draw_data_rivet_end2
17E8 CD A7 0D                   call    sub_0_DA7
17EB 21 D0 76                   ld      hl, #VRAM_start+0x2D0
17EE CD 26 18                   call    clear_14x5_HL
17F1 11 53 3A                   ld      de, #draw_data_rivet_end3
17F4 CD A7 0D                   call    sub_0_DA7
17F7 21 CB 76                   ld      hl, #VRAM_start+0x2CB
17FA CD 26 18                   call    clear_14x5_HL
17FD 11 59 3A                   ld      de, #draw_data_rivet_end4
1800 CD A7 0D                   call    sub_0_DA7
1803 21 5C 38                   ld      hl, #kong_normal_spr
1806 CD 4E 00                   call    copy_sprites_2_11_data
1809 21 08 69                   ld      hl, #soft_sprite_ram+8    ; sprite #2, y coord
180C 0E 44                      ld      c, #68
180E FF                         rst     0x38                      ; add 68 to y coord for 10 sprites
```

```
180F 21 05 69                    ld      hl, #soft_sprite_ram+5          ; sprite #1, yflip & code
1812 36 13                       ld      (hl), #0x13                     ; pauline, straight-on
1814 3E 20                       ld      a, #0x20 ; ' '
1816 32 09 60                    ld      (eight_bit_countdown), a
1819 3E 80                       ld      a, #0x80 ; 'Ç'
181B 32 90 63                    ld      (kong_thrash_tmr), a
181E 21 88 63                    ld      hl, #unk_0_6388
1821 34                          inc     (hl)
1822 22 C0 63                    ld      (unk_0_63C0), hl
1825 C9                          ret
1826
1826             ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
1826
1826
1826             clear_14x5_HL:                                          ; CODE XREF: 0000:1322↑p
1826 11 DB FF                                                            ; 0000:1373↑p ...
1826                             ld      de, #0xFFDB
1829 0E 0E                       ld      c, #0xE
182B 3E 10                       ld      a, #0x10                        ; <space>
182D
182D             loc_0_182D:                                             ; CODE XREF: clear_14x5_HL+F┤j
182D 06 05                       ld      b, #5
182F
182F             loc_0_182F:                                             ; CODE XREF: clear_14x5_HL+B┤j
182F 77                          ld      (hl), a                         ; display space
1830 23                          inc     hl                              ; next row
1831 10 FC                       djnz    loc_0_182F                      ; loop 5 times
1833 19                          add     hl, de                          ; next column
1834 0D                          dec     c
1835 C2 2D 18                    jp      NZ, loc_0_182D                  ; loop through 14 columns
1838 C9                          ret
1838             ; End of function clear_14x5_HL
1838
1839                             ; ─────────────────────────────────────────────────────────
1839
1839             loc_0_1839:                                             ; DATA XREF: 0000:164C↑o
1839 21 90 63                    ld      hl, #kong_thrash_tmr
183C 34                          inc     (hl)
183D CA 59 18                    jp      Z, loc_0_1859
1840 7E                          ld      a, (hl)
1841 E6 07                       and     #7
1843 C0                          ret     NZ
1844 11 CF 39                    ld      de, #0x39CF
1847 CB 5E                       bit     3, (hl)
1849 20 03                       jr      NZ, loc_0_184E
184B 11 F7 39                    ld      de, #0x39F7
184E
184E             loc_0_184E:                                             ; CODE XREF: 0000:1849↑j
184E EB                          ex      de, hl
184F CD 4E 00                    call    copy_sprites_2_11_data
1852 21 08 69                    ld      hl, #soft_sprite_ram+8          ; sprite #2, y coord
1855 0E 44                       ld      c, #68
1857 FF                          rst     0x38                            ; add 68 to y coord for 10 sprites
1858 C9                          ret
1859                             ; ─────────────────────────────────────────────────────────
1859
1859             loc_0_1859:                                             ; CODE XREF: 0000:183D↑j
1859 21 5C 38                    ld      hl, #kong_normal_spr
185C CD 4E 00                    call    copy_sprites_2_11_data
185F 21 08 69                    ld      hl, #soft_sprite_ram+8          ; sprite #2, y coord
1862 0E 44                       ld      c, #68
1864 FF                          rst     0x38                            ; add 68 to y coord for 10 sprites
1865 3E 20                       ld      a, #0x20 ; ' '
1867 32 09 60                    ld      (eight_bit_countdown), a
186A 21 88 63                    ld      hl, #unk_0_6388
186D 34                          inc     (hl)
186E C9                          ret
186F                             ; ─────────────────────────────────────────────────────────
186F
186F             loc_0_186F:                                             ; DATA XREF: 0000:164E↑o
186F DF                          rst     0x18                            ; wait for 8-bit countdown
1870 21 1F 3A                    ld      hl, #fk_falling_spr
1873 CD 4E 00                    call    copy_sprites_2_11_data
1876 3E 03                       ld      a, #3                           ; tmr=3
1878 32 84 60                    ld      (digital_snd_tmr_kong_fall), a
187B 21 88 63                    ld      hl, #unk_0_6388
187E 34                          inc     (hl)
187F C9                          ret
1880                             ; ─────────────────────────────────────────────────────────
1880
1880             loc_0_1880:                                             ; DATA XREF: 0000:1650↑o
1880 21 0B 69                    ld      hl, #soft_sprite_ram+0xB        ; sprite #2, x coord
1883 0E 01                       ld      c, #1                           ; +1
1885 FF                          rst     0x38                            ; add 1 to x coord for 10 sprites
1886 3A 1B 69                    ld      a, (soft_sprite_ram+0x1B)
1889 FE D0                       cp      #0xD0 ; 'ð'
188B C0                          ret     NZ
188C 3E 20                       ld      a, #0x20 ; ' '
188E 32 19 69                    ld      (soft_sprite_ram+0x19), a
1891 21 24 6A                    ld      hl, #soft_sprite_ram+0x124
1894 36 7F                       ld      (hl), #0x7F ; ' '
1896 2C                          inc     l
1897 36 39                       ld      (hl), #0x39 ; '9'
1899 2C                          inc     l
189A 36 01                       ld      (hl), #1
189C 2C                          inc     l
189D 36 D8                       ld      (hl), #0xD8 ; 'Ï'
189F 21 C6 76                    ld      hl, #VRAM_start+0x2C6
18A2 CD 26 18                    call    clear_14x5_HL
18A5 11 5F 3A                    ld      de, #draw_data_rivet_end5
18A8 CD A7 0D                    call    sub_0_DA7
18AB 11 04 00                    ld      de, #4
18AE 01 28 02                    ld      bc, #0x228
18B1 21 03 69                    ld      hl, #soft_sprite_ram+3          ; sprite #0, x coord
18B4 CD 3D 00                    call    loc_0_3D
18B7 3E 00                       ld      a, #0
18B9 32 AF 62                    ld      (unk_0_62AF), a
18BC 3E 03                       ld      a, #3                           ; tmr=3
18BE 32 82 60                    ld      (digital_snd_tmr_thump), a
18C1 21 88 63                    ld      hl, #unk_0_6388
18C4 34                          inc     (hl)
18C5 C9                          ret
18C6                             ; ─────────────────────────────────────────────────────────
18C6
18C6             loc_0_18C6:                                             ; DATA XREF: 0000:1652↑o
18C6 21 AF 62                    ld      hl, #unk_0_62AF
```

```
18C9 35                          dec     (hl)
18CA CA 3D 19                    jp      Z, loc_0_193D
18CD 7E                          ld      a, (hl)
18CE E6 07                       and     #7
18D0 C0                          ret     NZ
18D1 21 25 6A                    ld      hl, #soft_sprite_ram+0x125
18D4 7E                          ld      a, (hl)
18D5 EE 80                       xor     #0x80 ; 'Ç'
18D7 77                          ld      (hl), a
18D8 21 19 69                    ld      hl, #soft_sprite_ram+0x19
18DB 46                          ld      b, (hl)
18DC CB A8                       res     5, b
18DE AF                          xor     a
18DF CD 09 30                    call    sub_0_3009
18E2 F6 20                       or      #0x20 ; ' '
18E4 77                          ld      (hl), a
18E5 21 AF 62                    ld      hl, #unk_0_62AF
18E8 7E                          ld      a, (hl)
18E9 FE E0                       cp      #0xE0 ; 'Ó'
18EB C2 10 19                    jp      NZ, loc_0_1910
18EE 3E 50                       ld      a, #0x50 ; 'P'
18F0 32 4F 69                    ld      (soft_sprite_ram+0x4F), a
18F3 3E 00                       ld      a, #0
18F5 32 4D 69                    ld      (soft_sprite_ram+0x4D), a
18F8 3E 9F                       ld      a, #0x9F ; 'ƒ'
18FA 32 4C 69                    ld      (soft_sprite_ram+0x4C), a
18FD 3A 03 62                    ld      a, (mario_y_coord)
1900 FE 80                       cp      #0x80 ; 'Ç'
1902 D2 0F 19                    jp      NC, loc_0_190F
1905 3E 80                       ld      a, #0x80 ; 'Ç'
1907 32 4D 69                    ld      (soft_sprite_ram+0x4D), a
190A 3E 5F                       ld      a, #0x5F ; '_'
190C 32 4C 69                    ld      (soft_sprite_ram+0x4C), a
190F
190F             loc_0_190F:                                              ; CODE XREF: 0000:1902↑j
190F 7E                          ld      a, (hl)
1910
1910             loc_0_1910:                                              ; CODE XREF: 0000:18EB↑j
1910 FE C0                       cp      #0xC0 ; 'L'
1912 C0                          ret     NZ
1913 21 8A 60                    ld      hl, #unk_0_608A
1916 36 0C                       ld      (hl), #0xC
1918 3A 29 62                    ld      a, (level)
191B 0F                          rrca
191C 38 02                       jr      C, loc_0_1920
191E 36 05                       ld      (hl), #5
1920
1920             loc_0_1920:                                              ; CODE XREF: 0000:191C↑j
1920 23                          inc     hl
1921 36 03                       ld      (hl), #3
1923 21 23 6A                    ld      hl, #soft_sprite_ram+0x123
1926 36 40                       ld      (hl), #0x40 ; '@'
1928 2B                          dec     hl
1929 36 09                       ld      (hl), #9
192B 2B                          dec     hl
192C 36 76                       ld      (hl), #0x76 ; 'v'
192E 2B                          dec     hl
192F 36 8F                       ld      (hl), #0x8F ; 'Å'
1931 3A 03 62                    ld      a, (mario_y_coord)
1934 FE 80                       cp      #0x80 ; 'Ç'
1936 D0                          ret     NC
1937 3E 6F                       ld      a, #0x6F ; 'o'
1939 32 20 6A                    ld      (soft_sprite_ram+0x120), a
193C C9                          ret
193D             ; ─────────────────────────────────────────────────
193D
193D
193D             loc_0_193D:                                              ; CODE XREF: 0000:18CA↑j
193D 2A 2A 62                    ld      hl, (seq_data)
1940 23                          inc     hl
1941 7E                          ld      a, (hl)
1942 FE 7F                       cp      #0x7F ; ' '            ; restart repeating levels?
1944 C2 4B 19                    jp      NZ, loc_0_194B         ; no, skip
1947 21 73 3A                    ld      hl, #level_seq_2       ; start repeating levels
194A 7E                          ld      a, (hl)                ; get new level
194B
194B             loc_0_194B:                                              ; CODE XREF: 0000:1944↑j
194B 22 2A 62                    ld      (seq_data), hl
194E 32 27 62                    ld      (level_type), a
1951 21 29 62                    ld      hl, #level
1954 34                          inc     (hl)                   ; next level counter
1955 11 00 05                    ld      de, #0x500             ; update_bonus_timer
1958 CD 9F 30                    call    queue_fg_vector_fn
195B AF                          xor     a
195C 32 2E 62                    ld      (unk_0_622E), a
195F 32 88 63                    ld      (unk_0_6388), a
1962 21 09 60                    ld      hl, #eight_bit_countdown
1965 36 E0                       ld      (hl), #0xE0 ; 'Ó'
1967 23                          inc     hl
1968 36 08                       ld      (hl), #8               ; set how high screen
196A C9                          ret
196B             ; ─────────────────────────────────────────────────
196B
196B             loc_0_196B:                                              ; DATA XREF: 0000:0730↑o
196B CD 52 08                    call    clear_tiles_and_sprites
196E 3A 0E 60                    ld      a, (current_player_E)  ; 0/1
1971 C6 12                       add     a, #18
1973 32 0A 60                    ld      (main_sequencer), a    ; 18/19
1976 C9                          ret
1977             ; ─────────────────────────────────────────────────
1977
1977             attract_mode_gameplay:                                   ; DATA XREF: 0000:074E↑o
1977 CD EE 21                    call    next_attract_action
197A
197A             gameplay:                                                ; DATA XREF: 0000:071A↑o
197A CD BD 1D                    call    sub_0_1DBD             ; another jump table
197D CD 8C 1E                    call    sub_0_1E8C
1980 CD C3 1A                    call    sub_0_1AC3
1983 CD 72 1F                    call    sub_0_1F72
1986 CD 8F 2C                    call    sub_0_2C8F
1989 CD 03 2C                    call    sub_0_2C03
198C CD ED 30                    call    sub_0_30ED            ; process fireballs?
198F CD 04 2E                    call    sub_0_2E04            ; process springs
1992 CD EA 24                    call    sub_0_24EA
1995 CD DB 2D                    call    sub_0_2DDB
1998 CD D4 2E                    call    sub_0_2ED4
199B CD 07 22                    call    sub_0_2207
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199E CD 33 1A                  call     sub_0_1A33
19A1 CD 85 2A                  call     sub_0_2A85
19A4 CD 46 1F                  call     sub_0_1F46
19A7 CD FA 26                  call     sub_0_26FA
19AA CD F2 25                  call     sub_0_25F2
19AD CD DA 19                  call     sub_0_19DA
19B0 CD FB 03                  call     animate_kong_and_pauline
19B3 CD 08 28                  call     sub_0_2808
19B6 CD 1D 28                  call     sub_0_281D
19B9 CD 57 1E                  call     sub_0_1E57
19BC CD 07 1A                  call     sub_0_1A07
19BF CD CB 2F                  call     sub_0_2FCB
19C2 00                        nop
19C3 00                        nop
19C4 00                        nop
19C5 3A 00 62                  ld       a, (mario_alive_flag)
19C8 A7                        and      a                          ; mario alive?
19C9 C0                        ret      NZ                         ; yes, return
19CA CD 1C 01                  call     stop_sound
19CD 21 82 60                  ld       hl, #digital_snd_tmr_thump
19D0 36 03                     ld       (hl), #3                   ; tmr=3
19D2
19D2          loc_0_19D2:                                          ; CODE XREF: 0000:1A30├j
19D2 21 0A 60                  ld       hl, #main_sequencer
19D5 34                        inc      (hl)                       ; next sequence
19D6 2B                        dec      hl                         ; 8-bit countdown
19D7 36 40                     ld       (hl), #64                  ; set counter
19D9 C9                        ret
19DA
19DA          ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
19DA
19DA
19DA          sub_0_19DA:                                          ; CODE XREF: 0000:19AD↑p
19DA 3A 03 62                  ld       a, (mario_y_coord)
19DD 06 03                     ld       b, #3
19DF 21 0C 6A                  ld       hl, #soft_sprite_ram+0x10C
19E2
19E2          loc_0_19E2:                                          ; CODE XREF: sub_0_19DA+10├j
19E2 BE                        cp       (hl)
19E3 CA ED 19                  jp       Z, loc_0_19ED
19E6 2C                        inc      l
19E7 2C                        inc      l
19E8 2C                        inc      l
19E9 2C                        inc      l
19EA 10 F6                     djnz     loc_0_19E2
19EC C9                        ret
19ED          ; ─────────────────────────────────────────────────
19ED
19ED          loc_0_19ED:                                          ; CODE XREF: sub_0_19DA+9↑j
19ED 3A 05 62                  ld       a, (mario_x_coord)
19F0 2C                        inc      l
19F1 2C                        inc      l
19F2 2C                        inc      l
19F3 BE                        cp       (hl)
19F4 C0                        ret      NZ
19F5 2D                        dec      l
19F6 2D                        dec      l
19F7 CB 5E                     bit      3, (hl)
19F9 C0                        ret      NZ
19FA 2D                        dec      l
19FB 22 43 63                  ld       (unk_0_6343), hl
19FE AF                        xor      a
19FF 32 42 63                  ld       (unk_0_6342), a
1A02 3C                        inc      a
1A03 32 40 63                  ld       (unk_0_6340), a
1A06 C9                        ret
1A06          ; End of function sub_0_19DA
1A06
1A07
1A07          ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
1A07
1A07
1A07          sub_0_1A07:                                          ; CODE XREF: 0000:19BC↑p
1A07 3A 86 63                  ld       a, (unk_0_6386)
1A0A EF                        rst      0x28                       ; go!
1A0A          ; ─────────────────────────────────────────────────
1A0B 1E 1A                     .dw locret_0_1A1E                   ; Jump table
1A0D 15 1A                     .dw loc_0_1A15
1A0F 1F 1A                     .dw loc_0_1A1F
1A11 2A 1A                     .dw loc_0_1A2A
1A13 00 00                     .dw 0
1A15          ; ─────────────────────────────────────────────────
1A15
1A15          loc_0_1A15:                                          ; DATA XREF: sub_0_1A07+6↑o
1A15 AF                        xor      a
1A16 32 87 63                  ld       (unk_0_6387), a
1A19 3E 02                     ld       a, #2
1A1B 32 86 63                  ld       (unk_0_6386), a
1A1E
1A1E          locret_0_1A1E:                                       ; DATA XREF: sub_0_1A07+4↑o
1A1E C9                        ret
1A1E          ; End of function sub_0_1A07
1A1E
1A1F          ; ─────────────────────────────────────────────────
1A1F
1A1F          loc_0_1A1F:                                          ; DATA XREF: sub_0_1A07+8↑o
1A1F 21 87 63                  ld       hl, #0x6387
1A22 35                        dec      (hl)
1A23 C0                        ret      NZ
1A24 3E 03                     ld       a, #3
1A26 32 86 63                  ld       (unk_0_6386), a
1A29 C9                        ret
1A2A          ; ─────────────────────────────────────────────────
1A2A
1A2A          loc_0_1A2A:                                          ; DATA XREF: sub_0_1A07+A↑o
1A2A 3A 16 62                  ld       a, (mario_jumping)
1A2D A7                        and      a
1A2E C0                        ret      NZ
1A2F E1                        pop      hl
1A30 C3 D2 19                  jp       loc_0_19D2
1A33
1A33          ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
1A33
1A33
1A33          sub_0_1A33:                                          ; CODE XREF: 0000:199E↑p
1A33 3E 08                     ld       a, #8
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1A35 F7                              rst     0x30                            ; return if level bit not set
1A36 3A 03 62                        ld      a, (mario_y_coord)
1A39 FE 4B                           cp      #0x4B ; 'K'
1A3B CA 4B 1A                        jp      Z, loc_0_1A4B
1A3E FE B3                           cp      #0xB3 ; '│'
1A40 CA 4B 1A                        jp      Z, loc_0_1A4B
1A43 3A 91 62                        ld      a, (unk_0_6291)
1A46 3D                              dec     a
1A47 CA 51 1A                        jp      Z, loc_0_1A51
1A4A C9                              ret
1A4B                      ; ──────────────────────────────────────────────
1A4B
1A4B             loc_0_1A4B:                                                 ; CODE XREF: sub_0_1A33+8↑j
1A4B 3E 01                                                                   ; sub_0_1A33+D↑j
1A4B                                 ld      a, #1
1A4D 32 91 62                        ld      (unk_0_6291), a
1A50 C9                              ret
1A51                      ; ──────────────────────────────────────────────
1A51
1A51             loc_0_1A51:                                                 ; CODE XREF: sub_0_1A33+14↑j
1A51 32 91 62                        ld      (unk_0_6291), a
1A54 47                              ld      b, a
1A55 3A 05 62                        ld      a, (mario_x_coord)
1A58 3D                              dec     a
1A59 FE D0                           cp      #0xD0 ; 'ð'
1A5B D0                              ret     NC
1A5C 07                              rlca
1A5D D2 62 1A                        jp      NC, loc_0_1A62
1A60 CB D0                           set     2, b
1A62
1A62             loc_0_1A62:                                                 ; CODE XREF: sub_0_1A33+2A↑j
1A62 07                              rlca
1A63 07                              rlca
1A64 D2 69 1A                        jp      NC, loc_0_1A69
1A67 CB C8                           set     1, b
1A69
1A69             loc_0_1A69:                                                 ; CODE XREF: sub_0_1A33+31↑j
1A69 E6 07                           and     #7
1A6B FE 06                           cp      #6
1A6D C2 72 1A                        jp      NZ, loc_0_1A72
1A70 CB C8                           set     1, b
1A72
1A72             loc_0_1A72:                                                 ; CODE XREF: sub_0_1A33+3A↑j
1A72 3A 03 62                        ld      a, (mario_y_coord)
1A75 07                              rlca
1A76 D2 7B 1A                        jp      NC, loc_0_1A7B
1A79 CB C0                           set     0, b
1A7B
1A7B             loc_0_1A7B:                                                 ; CODE XREF: sub_0_1A33+43↑j
1A7B 21 92 62                        ld      hl, #unk_0_6292
1A7E 78                              ld      a, b
1A7F 85                              add     a, l
1A80 6F                              ld      l, a
1A81 7E                              ld      a, (hl)
1A82 A7                              and     a
1A83 C8                              ret     Z
1A84 36 00                           ld      (hl), #0
1A86 21 90 62                        ld      hl, #unk_0_6290
1A89 35                              dec     (hl)
1A8A 78                              ld      a, b
1A8B 01 05 00                        ld      bc, #5
1A8E 1F                              rra
1A8F DA BD 1A                        jp      C, loc_0_1ABD
1A92 21 CB 02                        ld      hl, #0x2CB
1A95
1A95             loc_0_1A95:                                                 ; CODE XREF: sub_0_1A33+8D├j
1A95 A7                              and     a
1A96 CA 9E 1A                        jp      Z, loc_0_1A9E
1A99
1A99             loc_0_1A99:                                                 ; CODE XREF: sub_0_1A33+68├j
1A99 09                              add     hl, bc
1A9A 3D                              dec     a
1A9B C2 99 1A                        jp      NZ, loc_0_1A99
1A9E
1A9E             loc_0_1A9E:                                                 ; CODE XREF: sub_0_1A33+63↑j
1A9E 01 00 74                        ld      bc, #VRAM_start
1AA1 09                              add     hl, bc
1AA2 3E 10                           ld      a, #0x10
1AA4 77                              ld      (hl), a
1AA5 2D                              dec     l
1AA6 77                              ld      (hl), a
1AA7 2C                              inc     l
1AA8 2C                              inc     l
1AA9 77                              ld      (hl), a
1AAA 3E 01                           ld      a, #1
1AAC 32 40 63                        ld      (unk_0_6340), a
1AAF 32 42 63                        ld      (unk_0_6342), a
1AB2 32 25 62                        ld      (unk_0_6225), a
1AB5 3A 16 62                        ld      a, (mario_jumping)
1AB8 A7                              and     a
1AB9 CC 95 1D                        call    Z, sub_0_1D95
1ABC C9                              ret
1ABD                      ; ──────────────────────────────────────────────
1ABD
1ABD             loc_0_1ABD:                                                 ; CODE XREF: sub_0_1A33+5C↑j
1ABD 21 2B 01                        ld      hl, #0x12B
1AC0 C3 95 1A                        jp      loc_0_1A95
1AC0             ; End of function sub_0_1A33
1AC0
1AC3
1AC3             ; ▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
1AC3
1AC3
1AC3             sub_0_1AC3:                                                 ; CODE XREF: 0000:1980↑p
1AC3 3A 16 62                        ld      a, (mario_jumping)
1AC6 3D                              dec     a
1AC7 CA B2 1B                        jp      Z, loc_0_1BB2
1ACA 3A 1E 62                        ld      a, (unk_0_621E)
1ACD A7                              and     a
1ACE C2 55 1B                        jp      NZ, loc_0_1B55
1AD1 3A 17 62                        ld      a, (unk_0_6217)
1AD4 3D                              dec     a
1AD5 CA E6 1A                        jp      Z, loc_0_1AE6
1AD8 3A 15 62                        ld      a, (mario_climbing)
1ADB 3D                              dec     a
1ADC CA 38 1B                        jp      Z, loc_0_1B38
```

```
1ADF 3A 10 60                  ld      a, (controller_in)
1AE2 17                        rla                                          ; jump pressed?
1AE3 DA 6E 1B                  jp      C, loc_0_1B6E                        ; yes, skip
1AE6
1AE6              loc_0_1AE6:                                               ; CODE XREF: sub_0_1AC3+12↑j
1AE6 CD 1F 24                  call    sub_0_241F
1AE9 3A 10 60                  ld      a, (controller_in)
1AEC 1D                        dec     e
1AED CA F5 1A                  jp      Z, loc_0_1AF5
1AF0 CB 47                     bit     0, a
1AF2 C2 8F 1C                  jp      NZ, loc_0_1C8F
1AF5
1AF5              loc_0_1AF5:                                               ; CODE XREF: sub_0_1AC3+2A↑j
1AF5 15                        dec     d
1AF6 CA FE 1A                  jp      Z, loc_0_1AFE
1AF9 CB 4F                     bit     1, a
1AFB C2 AB 1C                  jp      NZ, loc_0_1CAB
1AFE
1AFE              loc_0_1AFE:                                               ; CODE XREF: sub_0_1AC3+33↑j
1AFE 3A 17 62                  ld      a, (unk_0_6217)
1B01 3D                        dec     a
1B02 C8                        ret     Z
1B03 3A 05 62                  ld      a, (mario_x_coord)
1B06 C6 08                     add     a, #8
1B08 57                        ld      d, a
1B09 3A 03 62                  ld      a, (mario_y_coord)
1B0C F6 03                     or      #3
1B0E CB 97                     res     2, a
1B10 01 15 00                  ld      bc, #0x15
1B13 CD 6E 23                  call    sub_0_236E
1B16 F5                        push    af
1B17 21 07 62                  ld      hl, #mario_flipy_sprite_tile
1B1A 7E                        ld      a, (hl)
1B1B E6 80                     and     #0x80 ; 'Ç'
1B1D F6 06                     or      #6                                   ; mario climbing character
1B1F 77                        ld      (hl), a
1B20 21 1A 62                  ld      hl, #unk_0_621A
1B23 3E 04                     ld      a, #4
1B25 B9                        cp      c
1B26 36 01                     ld      (hl), #1                             ; set as broken ladder
1B28 D2 2C 1B                  jp      NC, loc_0_1B2C
1B2B 35                        dec     (hl)                                 ; set as normal ladder
1B2C
1B2C              loc_0_1B2C:                                               ; CODE XREF: sub_0_1AC3+65↑j
1B2C F1                        pop     af
1B2D A7                        and     a
1B2E CA 4E 1B                  jp      Z, loc_0_1B4E
1B31 7E                        ld      a, (hl)
1B32 A7                        and     a
1B33 C0                        ret     NZ
1B34 2C                        inc     l
1B35 72                        ld      (hl), d
1B36 2C                        inc     l                                    ; set top coordinate of ladder
1B37 70                        ld      (hl), b                              ; set bottom Y coordinate of ladder
1B38
1B38              loc_0_1B38:                                               ; CODE XREF: sub_0_1AC3+19↑j
1B38 3A 10 60                  ld      a, (controller_in)
1B3B CB 5F                     bit     3, a                                 ; down?
1B3D C2 F2 1C                  jp      NZ, loc_0_1CF2                       ; yes, go
1B40 3A 15 62                  ld      a, (mario_climbing)
1B43 A7                        and     a
1B44 C8                        ret     Z
1B45
1B45              loc_0_1B45:                                               ; CODE XREF: sub_0_1AC3+8F├j
1B45 3A 10 60                  ld      a, (controller_in)
1B48 CB 57                     bit     2, a                                 ; up?
1B4A C2 03 1D                  jp      NZ, loc_0_1D03                       ; yes, go
1B4D C9                        ret
1B4E              ; ──────────────────────────────────────────────────────
1B4E
1B4E              loc_0_1B4E:                                               ; CODE XREF: sub_0_1AC3+6B↑j
1B4E 2C                        inc     l
1B4F 70                        ld      (hl), b
1B50 2C                        inc     l                                    ; set top Y corordinate of ladder
1B51 72                        ld      (hl), d                              ; set bottom coordinate of ladder
1B52 C3 45 1B                  jp      loc_0_1B45
1B55              ; ──────────────────────────────────────────────────────
1B55
1B55              loc_0_1B55:                                               ; CODE XREF: sub_0_1AC3+B↑j
1B55 21 1E 62                  ld      hl, #unk_0_621E
1B58 35                        dec     (hl)
1B59 C0                        ret     NZ
1B5A 3A 18 62                  ld      a, (unk_0_6218)
1B5D 32 17 62                  ld      (unk_0_6217), a
1B60 21 07 62                  ld      hl, #mario_flipy_sprite_tile
1B63 7E                        ld      a, (hl)
1B64 E6 80                     and     #0x80 ; 'Ç'                          ; h-flip mario
1B66 77                        ld      (hl), a
1B67 AF                        xor     a
1B68 32 02 62                  ld      (unk_0_6202), a
1B6B C3 A6 1D                  jp      loc_0_1DA6
1B6E              ; ──────────────────────────────────────────────────────
1B6E
1B6E              loc_0_1B6E:                                               ; CODE XREF: sub_0_1AC3+20↑j
1B6E 3E 01                     ld      a, #1                                ; start_jump
1B70 32 16 62                  ld      (mario_jumping), a                   ; set mario jumping
1B73 21 10 62                  ld      hl, #unk_0_6210
1B76 3A 10 60                  ld      a, (controller_in)
1B79 01 80 00                  ld      bc, #0x80 ; 'Ç'
1B7C 1F                        rra                                          ; right?
1B7D DA 8A 1B                  jp      C, loc_0_1B8A                        ; yes, skip
1B80 01 80 FF                  ld      bc, #0xFF80
1B83 1F                        rra                                          ; left?
1B84 DA 8A 1B                  jp      C, loc_0_1B8A                        ; yes, skip
1B87 01 00 00                  ld      bc, #0
1B8A
1B8A              loc_0_1B8A:                                               ; CODE XREF: sub_0_1AC3+BA↑j
1B8A AF                                                                     ; sub_0_1AC3+C1↑j
1B8A                           xor     a
1B8B 70                        ld      (hl), b
1B8C 2C                        inc     l
1B8D 71                        ld      (hl), c
1B8E 2C                        inc     l
1B8F 36 01                     ld      (hl), #1
1B91 2C                        inc     l
1B92 36 48                     ld      (hl), #0x48 ; 'H'
```

```
1B94 2C                          inc     l
1B95 77                          ld      (hl), a
1B96 32 04 62                    ld      (unk_0_6204), a
1B99 32 06 62                    ld      (unk_0_6206), a
1B9C 3A 07 62                    ld      a, (mario_flipy_sprite_tile)
1B9F E6 80                       and     #0x80 ; 'Ç'
1BA1 F6 0E                       or      #0xE                             ; mario jumping character
1BA3 32 07 62                    ld      (mario_flipy_sprite_tile), a
1BA6 3A 05 62                    ld      a, (mario_x_coord)
1BA9 32 0E 62                    ld      (unk_0_620E), a
1BAC 21 81 60                    ld      hl, #digital_snd_tmr_jump
1BAF 36 03                       ld      (hl), #3                         ; tmr=3
1BB1 C9                          ret
1BB2            ; ─────────────────────────────────────────────────────
1BB2
1BB2            loc_0_1BB2:                                               ; CODE XREF: sub_0_1AC3+4↑j
1BB2 DD 21 00 62                 ld      ix, #mario_alive_flag
1BB6 3A 03 62                    ld      a, (mario_y_coord)
1BB9 DD 77 0B                    ld      0xB(ix), a                       ; store X position before a jump
1BBC 3A 05 62                    ld      a, (mario_x_coord)
1BBF DD 77 0C                    ld      0xC(ix), a                       ; store Y position before a jump
1BC2 CD 9C 23                    call    sub_0_239C
1BC5 CD 1F 24                    call    sub_0_241F
1BC8 15                          dec     d
1BC9 C2 F2 1B                    jp      NZ, loc_0_1BF2
1BCC DD 36 10 00                 ld      0x10(ix), #0
1BD0 DD 36 11 80                 ld      0x11(ix), #0x80 ; 'Ç'
1BD4 DD CB 07 FE                 set     7, 7(ix)                         ; h-flip sprite
1BD8
1BD8            loc_0_1BD8:                                               ; CODE XREF: sub_0_1AC3+13F↑j
1BD8 3A 20 62                    ld      a, (unk_0_6220)
1BDB 3D                          dec     a
1BDC CA EC 1B                    jp      Z, loc_0_1BEC
1BDF CD 07 24                    call    sub_0_2407
1BE2 DD 74 12                    ld      0x12(ix), h
1BE5 DD 75 13                    ld      0x13(ix), l
1BE8 DD 36 14 00                 ld      0x14(ix), #0
1BEC
1BEC            loc_0_1BEC:                                               ; CODE XREF: sub_0_1AC3+119↑j
1BEC CD 9C 23                    call    sub_0_239C
1BEF C3 05 1C                    jp      loc_0_1C05
1BF2            ; ─────────────────────────────────────────────────────
1BF2
1BF2            loc_0_1BF2:                                               ; CODE XREF: sub_0_1AC3+106↑j
1BF2 1D                          dec     e
1BF3 C2 05 1C                    jp      NZ, loc_0_1C05
1BF6 DD 36 10 FF                 ld      0x10(ix), #0xFF
1BFA DD 36 11 80                 ld      0x11(ix), #0x80 ; 'Ç'
1BFE DD CB 07 BE                 res     7, 7(ix)                         ; un-hflip sprite
1C02 C3 D8 1B                    jp      loc_0_1BD8
1C05            ; ─────────────────────────────────────────────────────
1C05
1C05            loc_0_1C05:                                               ; CODE XREF: sub_0_1AC3+12C↑j
1C05 CD 1C 2B                    call    sub_0_2B1C                       ; sub_0_1AC3+130↑j
1C05
1C08 3D                          dec     a                                ; are we jumping?
1C09 CA 3A 1C                    jp      Z, loc_0_1C3A
1C0C 3A 1F 62                    ld      a, (unk_0_621F)
1C0F 3D                          dec     a
1C10 CA 76 1C                    jp      Z, loc_0_1C76
1C13 3A 14 62                    ld      a, (unk_0_6214)
1C16 D6 14                       sub     #0x14
1C18 C2 33 1C                    jp      NZ, loc_0_1C33
1C1B 3E 01                       ld      a, #1                            ; peak of the jump
1C1D 32 1F 62                    ld      (unk_0_621F), a
1C20 CD 53 28                    call    sub_0_2853                       ; check for bonus points?
1C23 A7                          and     a                                ; any bonus points?
1C24 CA A6 1D                    jp      Z, loc_0_1DA6                     ; no, exit
1C27 32 42 63                    ld      (unk_0_6342), a
1C2A 3E 01                       ld      a, #1                            ; register bonus
1C2C 32 40 63                    ld      (unk_0_6340), a
1C2F 32 25 62                    ld      (unk_0_6225), a
1C32 00                          nop
1C33
1C33            loc_0_1C33:                                               ; CODE XREF: sub_0_1AC3+155↑j
1C33 3C                          inc     a
1C34 CC 54 29                    call    Z, sub_0_2954
1C37 C3 A6 1D                    jp      loc_0_1DA6
1C3A            ; ─────────────────────────────────────────────────────
1C3A
1C3A            loc_0_1C3A:                                               ; CODE XREF: sub_0_1AC3+146↑j
1C3A 05                          dec     b
1C3B CA 4F 1C                    jp      Z, loc_0_1C4F
1C3E 3C                          inc     a
1C3F 32 1F 62                    ld      (unk_0_621F), a
1C42 AF                          xor     a
1C43 21 10 62                    ld      hl, #0x6210
1C46 06 05                       ld      b, #5
1C48
1C48            loc_0_1C48:                                               ; CODE XREF: sub_0_1AC3+187↓j
1C48 77                          ld      (hl), a
1C49 2C                          inc     l
1C4A 10 FC                       djnz    loc_0_1C48
1C4C C3 A6 1D                    jp      loc_0_1DA6
1C4F            ; ─────────────────────────────────────────────────────
1C4F
1C4F            loc_0_1C4F:                                               ; CODE XREF: sub_0_1AC3+178↑j
1C4F 32 16 62                    ld      (mario_jumping), a
1C52 3A 20 62                    ld      a, (unk_0_6220)
1C55 EE 01                       xor     #1
1C57 32 00 62                    ld      (mario_alive_flag), a            ; set whether mario survives a jump
1C5A 21 07 62                    ld      hl, #mario_flipy_sprite_tile
1C5D 7E                          ld      a, (hl)
1C5E E6 80                       and     #0x80 ; 'Ç'
1C60 F6 0F                       or      #0xF                             ; mario landing character
1C62 77                          ld      (hl), a
1C63 3E 04                       ld      a, #4
1C65 32 1E 62                    ld      (unk_0_621E), a
1C68 AF                          xor     a
1C69 32 1F 62                    ld      (unk_0_621F), a
1C6C 3A 25 62                    ld      a, (unk_0_6225)
1C6F 3D                          dec     a
1C70 CC 95 1D                    call    Z, sub_0_1D95
1C73 C3 A6 1D                    jp      loc_0_1DA6
1C76            ; ─────────────────────────────────────────────────────
1C76
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1C76                    loc_0_1C76:                                          ; CODE XREF: sub_0_1AC3+14D↑j
1C76 3A 05 62                   ld      a, (mario_x_coord)
1C79 21 0E 62                   ld      hl, #unk_0_620E
1C7C D6 0F                      sub     #0xF
1C7E BE                         cp      (hl)
1C7F DA A6 1D                   jp      C, loc_0_1DA6
1C82 3E 01                      ld      a, #1
1C84 32 20 62                   ld      (unk_0_6220), a
1C87 21 84 60                   ld      hl, #0x6084
1C8A 36 03                      ld      (hl), #3
1C8C C3 A6 1D                   jp      loc_0_1DA6
1C8F               ; ─────────────────────────────────────────────────────────
1C8F
1C8F                    loc_0_1C8F:                                          ; CODE XREF: sub_0_1AC3+2F↑j
1C8F 06 01                      ld      b, #1
1C91 3A 0F 62                   ld      a, (unk_0_620F)
1C94 A7                         and     a
1C95 C2 D2 1C                   jp      NZ, loc_0_1CD2
1C98 3A 02 62                   ld      a, (unk_0_6202)
1C9B 47                         ld      b, a
1C9C 3E 05                      ld      a, #5
1C9E CD 09 30                   call    sub_0_3009
1CA1 32 02 62                   ld      (unk_0_6202), a
1CA4 E6 03                      and     #3
1CA6 F6 80                      or      #0x80 ; 'Ç'
1CA8 C3 C2 1C                   jp      loc_0_1CC2
1CAB               ; ─────────────────────────────────────────────────────────
1CAB
1CAB                    loc_0_1CAB:                                          ; CODE XREF: sub_0_1AC3+38↑j
1CAB 06 FF                      ld      b, #0xFF
1CAD 3A 0F 62                   ld      a, (unk_0_620F)
1CB0 A7                         and     a
1CB1 C2 D2 1C                   jp      NZ, loc_0_1CD2
1CB4 3A 02 62                   ld      a, (unk_0_6202)
1CB7 47                         ld      b, a
1CB8 3E 01                      ld      a, #1
1CBA CD 09 30                   call    sub_0_3009
1CBD 32 02 62                   ld      (unk_0_6202), a
1CC0 E6 03                      and     #3                                   ; animate mario running
1CC2
1CC2                    loc_0_1CC2:                                          ; CODE XREF: sub_0_1AC3+1E5↑j
1CC2 21 07 62                   ld      hl, #mario_flipy_sprite_tile
1CC5 77                         ld      (hl), a                              ; set amrio character
1CC6 1F                         rra
1CC7 DC 8F 1D                   call    C, sub_0_1D8F
1CCA 3E 02                      ld      a, #2
1CCC 32 0F 62                   ld      (unk_0_620F), a
1CCF C3 A6 1D                   jp      loc_0_1DA6
1CD2               ; ─────────────────────────────────────────────────────────
1CD2
1CD2                    loc_0_1CD2:                                          ; CODE XREF: sub_0_1AC3+1D2↑j
1CD2 21 03 62                                                                ; sub_0_1AC3+1EE↑j
1CD2                            ld      hl, #mario_y_coord
1CD5 7E                         ld      a, (hl)
1CD6 80                         add     a, b
1CD7 77                         ld      (hl), a
1CD8 3A 27 62                   ld      a, (level_type)
1CDB 3D                         dec     a
1CDC C2 EB 1C                   jp      NZ, loc_0_1CEB
1CDF 66                         ld      h, (hl)
1CE0 3A 05 62                   ld      a, (mario_x_coord)
1CE3 6F                         ld      l, a
1CE4 CD 33 23                   call    sub_0_2333
1CE7 7D                         ld      a, l
1CE8 32 05 62                   ld      (mario_x_coord), a
1CEB
1CEB                    loc_0_1CEB:                                          ; CODE XREF: sub_0_1AC3+219↑j
1CEB 21 0F 62                   ld      hl, #unk_0_620F
1CEE 35                         dec     (hl)
1CEF C3 A6 1D                   jp      loc_0_1DA6
1CF2               ; ─────────────────────────────────────────────────────────
1CF2
1CF2                    loc_0_1CF2:                                          ; CODE XREF: sub_0_1AC3+7A↑j
1CF2 3A 0F 62                   ld      a, (unk_0_620F)                      ; check timer
1CF5 A7                         and     a                                    ; expired?
1CF6 C2 8A 1D                   jp      NZ, loc_0_1D8A                       ; no, skip
1CF9 3E 03                      ld      a, #3
1CFB 32 0F 62                   ld      (unk_0_620F), a                      ; reset timer
1CFE 3E 02                      ld      a, #2
1D00 C3 11 1D                   jp      loc_0_1D11
1D03               ; ─────────────────────────────────────────────────────────
1D03
1D03                    loc_0_1D03:                                          ; CODE XREF: sub_0_1AC3+87↑j
1D03 3A 0F 62                   ld      a, (unk_0_620F)                      ; check timer
1D06 A7                         and     a                                    ; expired?
1D07 C2 76 1D                   jp      NZ, loc_0_1D76                       ; no, skip
1D0A 3E 04                      ld      a, #4
1D0C 32 0F 62                   ld      (unk_0_620F), a                      ; reset timer
1D0F 3E FE                      ld      a, #0xFE ; '■'
1D11
1D11                    loc_0_1D11:                                          ; CODE XREF: sub_0_1AC3+23D↑j
1D11 21 05 62                   ld      hl, #mario_x_coord
1D14 86                         add     a, (hl)
1D15 77                         ld      (hl), a
1D16 47                         ld      b, a
1D17 3A 22 62                   ld      a, (unk_0_6222)
1D1A EE 01                      xor     #1
1D1C 32 22 62                   ld      (unk_0_6222), a
1D1F C2 51 1D                   jp      NZ, loc_0_1D51
1D22 78                         ld      a, b
1D23 C6 08                      add     a, #8
1D25 21 1C 62                   ld      hl, #unk_0_621C
1D28 BE                         cp      (hl)                                 ; bottom y coordinate of ladder
1D29 CA 67 1D                   jp      Z, loc_0_1D67                        ; stop from climbing
1D2C 2D                         dec     l
1D2D 96                         sub     (hl)                                 ; top y coordinate of ladder
1D2E CA 67 1D                   jp      Z, loc_0_1D67                        ; stop from climbing
1D31 06 05                      ld      b, #5
1D33 D6 08                      sub     #8
1D35 CA 3F 1D                   jp      Z, loc_0_1D3F
1D38 05                         dec     b
1D39 D6 04                      sub     #4
1D3B CA 3F 1D                   jp      Z, loc_0_1D3F
1D3E 05                         dec     b
1D3F
1D3F                    loc_0_1D3F:                                          ; CODE XREF: sub_0_1AC3+272↑j
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1D3F 3E 80                                                          ; sub_0_1AC3+278↑j
1D3F                         ld      a, #0x80 ; 'Ç'
1D41 21 07 62               ld      hl, #mario_flipy_sprite_tile
1D44 A6                     and     (hl)
1D45 EE 80                  xor     #0x80 ; 'Ç'                      ; hflip mario
1D47 B0                     or      b
1D48 77                     ld      (hl), a
1D49
1D49            loc_0_1D49:                                         ; CODE XREF: sub_0_1AC3+2A1↓j
1D49 3E 01                  ld      a, #1                           ; flag mario climbing a ladder
1D4B 32 15 62               ld      (mario_climbing), a
1D4E C3 A6 1D               jp      loc_0_1DA6
1D51            ; ─────────────────────────────────────────────────
1D51
1D51            loc_0_1D51:                                         ; CODE XREF: sub_0_1AC3+25C↑j
1D51 2D                     dec     l
1D52 2D                     dec     l
1D53 7E                     ld      a, (hl)
1D54 F6 03                  or      #3
1D56 CB 97                  res     2, a
1D58 77                     ld      (hl), a
1D59 3A 24 62               ld      a, (unk_0_6224)
1D5C EE 01                  xor     #1
1D5E 32 24 62               ld      (unk_0_6224), a
1D61 CC 8F 1D               call    Z, sub_0_1D8F
1D64 C3 49 1D               jp      loc_0_1D49
1D67            ; ─────────────────────────────────────────────────
1D67
1D67            loc_0_1D67:                                         ; CODE XREF: sub_0_1AC3+266↑j
1D67 3E 06                                                          ; sub_0_1AC3+26B↑j
1D67                        ld      a, #6                           ; mario climbing character
1D69 32 07 62               ld      (mario_flipy_sprite_tile), a
1D6C AF                     xor     a
1D6D 32 19 62               ld      (unk_0_6219), a
1D70 32 15 62               ld      (mario_climbing), a             ; flaf not climbing a ladder
1D73 C3 A6 1D               jp      loc_0_1DA6
1D76            ; ─────────────────────────────────────────────────
1D76
1D76            loc_0_1D76:                                         ; CODE XREF: sub_0_1AC3+244↑j
1D76 3A 1A 62               ld      a, (unk_0_621A)
1D79 A7                     and     a
1D7A CA 8A 1D               jp      Z, loc_0_1D8A
1D7D 32 19 62               ld      (unk_0_6219), a
1D80 3A 1C 62               ld      a, (unk_0_621C)
1D83 D6 13                  sub     #0x13
1D85 21 05 62               ld      hl, #mario_x_coord
1D88 BE                     cp      (hl)
1D89 D0                     ret     NC
1D8A
1D8A            loc_0_1D8A:                                         ; CODE XREF: sub_0_1AC3+233↑j
1D8A 21 0F 62                                                       ; sub_0_1AC3+2B7↑j
1D8A                        ld      hl, #unk_0_620F
1D8D 35                     dec     (hl)
1D8E C9                     ret
1D8E            ; End of function sub_0_1AC3
1D8E
1D8F
1D8F            ; ██████████████ S U B R O U T I N E ██████████████████████████████████
1D8F
1D8F
1D8F            sub_0_1D8F:                                         ; CODE XREF: sub_0_1AC3+204↑p
1D8F 3E 03                                                         ; sub_0_1AC3+29E↑p
1D8F                        ld      a, #3                           ; tmr=3
1D91 32 80 60               ld      (digital_snd_tmr_walk), a
1D94 C9                     ret
1D94            ; End of function sub_0_1D8F
1D94
1D95
1D95            ; ██████████████ S U B R O U T I N E ██████████████████████████████████
1D95
1D95
1D95            sub_0_1D95:                                         ; CODE XREF: sub_0_1A33+86↑p
1D95 32 25 62                                                      ; sub_0_1AC3+1AD↑p
1D95                        ld      (unk_0_6225), a
1D98 3A 27 62               ld      a, (level_type)
1D9B 3D                     dec     a
1D9C C8                     ret     Z
1D9D 21 8A 60               ld      hl, #unk_0_608A
1DA0 36 0D                  ld      (hl), #0xD
1DA2 2C                     inc     l
1DA3 36 03                  ld      (hl), #3
1DA5 C9                     ret
1DA5            ; End of function sub_0_1D95
1DA5
1DA6            ; ─────────────────────────────────────────────────
1DA6
1DA6            loc_0_1DA6:                                         ; CODE XREF: sub_0_1AC3+A8↑j
1DA6 21 4C 69                                                      ; sub_0_1AC3+161↑j ...
1DA6                        ld      hl, #soft_sprite_ram+0x4C
1DA9 3A 03 62               ld      a, (mario_y_coord)
1DAC 77                     ld      (hl), a
1DAD 3A 07 62               ld      a, (mario_flipy_sprite_tile)
1DB0 2C                     inc     l
1DB1 77                     ld      (hl), a
1DB2 3A 08 62               ld      a, (mario_flipx_colour)
1DB5 2C                     inc     l
1DB6 77                     ld      (hl), a
1DB7 3A 05 62               ld      a, (mario_x_coord)
1DBA 2C                     inc     l
1DBB 77                     ld      (hl), a
1DBC C9                     ret
1DBD
1DBD            ; ██████████████ S U B R O U T I N E ██████████████████████████████████
1DBD
1DBD
1DBD            sub_0_1DBD:                                         ; CODE XREF: 0000:127C↑p
1DBD 3A 40 63                                                      ; 0000:1641↑p ...
1DBD                        ld      a, (unk_0_6340)
1DC0 EF                     rst     0x28                            ; go!
1DC0            ; ─────────────────────────────────────────────────
1DC1 49 1E                  .dw     ret
1DC3 C9 1D                  .dw     loc_0_1DC9
1DC5 4A 1E                  .dw     loc_0_1E4A
1DC7 00                     .db     0 ;
1DC8 00                     .db     0 ;
1DC9            ; ─────────────────────────────────────────────────
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1DC9
1DC9                    loc_0_1DC9:                                            ; DATA XREF: sub_0_1DBD+6↑o
1DC9 3E 40                      ld      a, #0x40  ; '@'
1DCB 32 41 63                   ld      (unk_0_6341), a
1DCE 3E 02                      ld      a, #2
1DD0 32 40 63                   ld      (unk_0_6340), a
1DD3 3A 42 63                   ld      a, (unk_0_6342)
1DD6 1F                         rra
1DD7 DA 70 3E                   jp      C, loc_0_3E70
1DDA 1F                         rra
1DDB DA 00 1E                   jp      C, loc_0_1E00
1DDE 1F                         rra
1DDF DA F5 1D                   jp      C, loc_0_1DF5
1DE2 21 85 60                   ld      hl, #digital_snd_tmr_barrel_jump_priz
1DE5 36 03                      ld      (hl), #3                              ; tmr=3
1DE7 3A 29 62                   ld      a, (level)
1DEA 3D                         dec     a
1DEB CA 00 1E                   jp      Z, loc_0_1E00
1DEE 3D                         dec     a
1DEF CA 08 1E                   jp      Z, award_500_pts
1DF2 C3 10 1E                   jp      award_800_pts
1DF5            ; ──────────────────────────────────────────────────────────────────
1DF5
1DF5                    loc_0_1DF5:                                            ; CODE XREF: sub_0_1DBD+22↑j
1DF5 3A 18 60                   ld      a, (random_no)
1DF8 1F                         rra                                           ; 50% chance for 500 pts
1DF9 DA 08 1E                   jp      C, award_500_pts                      ; award 500 pts
1DFC 1F                         rra                                           ; 25% chance for 800 pts
1DFD DA 10 1E                   jp      C, award_800_pts                      ; award 800 pts
1E00
1E00                    loc_0_1E00:                                            ; CODE XREF: sub_0_1DBD+1E↑j
1E00 06 7D                                                                    ; sub_0_1DBD+2E↑j
1E00                            ld      b, #0x7D  ; '}'                       ; '300' sprite tile
1E02 11 03 00                   ld      de, #3                                ; award 3 (300) points
1E05 C3 15 1E                   jp      award_points
1E08            ; ──────────────────────────────────────────────────────────────────
1E08
1E08                    award_500_pts:                                         ; CODE XREF: sub_0_1DBD+32↑j
1E08 06 7E                                                                    ; sub_0_1DBD+3C↑j
1E08                            ld      b, #0x7E  ; '~'                       ; '500' sprite tile
1E0A 11 05 00                   ld      de, #5                                ; award 5 (500) points
1E0D C3 15 1E                   jp      award_points
1E10            ; ──────────────────────────────────────────────────────────────────
1E10
1E10                    award_800_pts:                                         ; CODE XREF: sub_0_1DBD+35↑j
1E10 06 7F                                                                    ; sub_0_1DBD+40↑j
1E10                            ld      b, #0x7F  ; ' '                       ; '800' sprite tile
1E12 11 08 00                   ld      de, #8                                ; add_bonus_and_update_high_score (800)
1E15
1E15                    award_points:                                          ; CODE XREF: sub_0_1DBD+48↑j
1E15 CD 9F 30                                                                 ; sub_0_1DBD+50↑j
1E15                            call    queue_fg_vector_fn                    ; schedule award points
1E18 2A 43 63                   ld      hl, (unk_0_6343)                      ; ptr x position
1E1B 7E                         ld      a, (hl)                               ; prize x position
1E1C 36 00                      ld      (hl), #0                              ; erase prize
1E1E 2C                         inc     l
1E1F 2C                         inc     l                                     ; go to y position
1E20 2C                         inc     l
1E21 4E                         ld      c, (hl)                               ; get y position
1E22 C3 36 1E                   jp      loc_0_1E36                            ; program award sprite
1E25            ; ──────────────────────────────────────────────────────────────────
1E25 11 01 00                   ld      de, #1                                ; add_bonus_and_update_high_score (100)
1E28
1E28                    loc_0_1E28:                                            ; CODE XREF: 0000:3E76├j
1E28 CD 9F 30                                                                 ; 0000:3E7E├j ...
1E28                            call    queue_fg_vector_fn                    ; schedule award points
1E2B 3A 05 62                   ld      a, (mario_x_coord)
1E2E C6 14                      add     a, #0x14
1E30 4F                         ld      c, a
1E31 3A 03 62                   ld      a, (mario_y_coord)
1E34 00                         nop
1E35 00                         nop
1E36
1E36                    loc_0_1E36:                                            ; CODE XREF: sub_0_1DBD+65↑j
1E36 21 30 6A                   ld      hl, #soft_sprite_ram+0x130            ; add bonus points sprite to display
1E39 77                         ld      (hl), a
1E3A 2C                         inc     l
1E3B 70                         ld      (hl), b
1E3C 2C                         inc     l
1E3D 36 07                      ld      (hl), #7
1E3F 2C                         inc     l
1E40 71                         ld      (hl), c
1E41 3E 05                      ld      a, #5
1E43 F7                         rst     0x30                                  ; return if level bit not set
1E44 21 85 60                   ld      hl, #digital_snd_tmr_barrel_jump_priz
1E47 36 03                      ld      (hl), #3                              ; tmr=3
1E49
1E49            ret:                                                           ; DATA XREF: sub_0_1DBD+4↑o
1E49 C9                         ret
1E49            ; End of function sub_0_1DBD
1E49
1E4A            ; ──────────────────────────────────────────────────────────────────
1E4A
1E4A                    loc_0_1E4A:                                            ; DATA XREF: sub_0_1DBD+8↑o
1E4A 21 41 63                   ld      hl, #unk_0_6341
1E4D 35                         dec     (hl)
1E4E C0                         ret     NZ
1E4F AF                         xor     a
1E50 32 30 6A                   ld      (soft_sprite_ram+0x130), a
1E53 32 40 63                   ld      (unk_0_6340), a
1E56 C9                         ret
1E57
1E57            ; ██████████████ S U B R O U T I N E ██████████████████████████████████
1E57
1E57
1E57                    sub_0_1E57:                                            ; CODE XREF: 0000:19B9↑p
1E57 3A 27 62                   ld      a, (level_type)
1E5A CB 57                      bit     2, a
1E5C C2 80 1E                   jp      NZ, loc_0_1E80
1E5F 1F                         rra
1E60 3A 05 62                   ld      a, (mario_x_coord)
1E63 DA 7A 1E                   jp      C, loc_0_1E7A
1E66 FE 51                      cp      #0x51  ; 'Q'
1E68 D0                         ret     NC
1E69 3A 03 62                   ld      a, (mario_y_coord)
1E6C 17                         rla
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1E6D
1E6D                    loc_0_1E6D:                                         ; CODE XREF: sub_0_1E57+26┤j
1E6D 3E 00                          ld      a, #0
1E6F DA 74 1E                       jp      C, loc_0_1E74
1E72 3E 80                          ld      a, #0x80 ; 'Ç'
1E74
1E74                    loc_0_1E74:                                         ; CODE XREF: sub_0_1E57+18↑j
1E74 32 4D 69                       ld      (soft_sprite_ram+0x4D), a
1E77 C3 85 1E                       jp      loc_0_1E85
1E7A            ; ─────────────────────────────────────────────────
1E7A
1E7A                    loc_0_1E7A:                                         ; CODE XREF: sub_0_1E57+C↑j
1E7A FE 31                          cp      #0x31 ; '1'
1E7C D0                             ret     NC
1E7D C3 6D 1E                       jp      loc_0_1E6D
1E80            ; ─────────────────────────────────────────────────
1E80
1E80                    loc_0_1E80:                                         ; CODE XREF: sub_0_1E57+5↑j
1E80 3A 90 62                       ld      a, (unk_0_6290)
1E83 A7                             and     a
1E84 C0                             ret     NZ
1E85
1E85                    loc_0_1E85:                                         ; CODE XREF: sub_0_1E57+20↑j
1E85 3E 16                          ld      a, #0x16
1E87 32 0A 60                       ld      (main_sequencer), a
1E8A E1                             pop     hl
1E8B C9                             ret
1E8B            ; End of function sub_0_1E57
1E8B
1E8C
1E8C            ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
1E8C
1E8C
1E8C                    sub_0_1E8C:                                         ; CODE XREF: 0000:197D↑p
1E8C 3A 50 63                       ld      a, (unk_0_6350)
1E8F A7                             and     a
1E90 C8                             ret     Z
1E91 CD 96 1E                       call    sub_0_1E96
1E94 E1                             pop     hl
1E95 C9                             ret
1E95            ; End of function sub_0_1E8C
1E95
1E96
1E96            ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
1E96
1E96
1E96                    sub_0_1E96:                                         ; CODE XREF: sub_0_1E8C+5↑p
1E96 3A 45 63                       ld      a, (unk_0_6345)
1E99 EF                             rst     0x28                            ; go!
1E99            ; ─────────────────────────────────────────────────
1E9A A0 1E                          .dw loc_0_1EA0
1E9C 09 1F                          .dw loc_0_1F09
1E9E 23 1F                          .dw loc_0_1F23                          ; Jump table
1EA0            ; ─────────────────────────────────────────────────
1EA0
1EA0                    loc_0_1EA0:                                         ; DATA XREF: sub_0_1E96+4↑o
1EA0 3A 52 63                       ld      a, (unk_0_6352)                 ; hammer just hit something
1EA3 FE 65                          cp      #0x65 ; 'e'
1EA5 21 B8 69                       ld      hl, #soft_sprite_ram+0xB8       ; process hammer hit effect (start)
1EA8 CA B4 1E                       jp      Z, loc_0_1EB4
1EAB 21 D0 69                       ld      hl, #soft_sprite_ram+0xD0       ; fireball area in sprite ram
1EAE DA B4 1E                       jp      C, loc_0_1EB4
1EB1 21 80 69                       ld      hl, #soft_sprite_ram+0x80
1EB4
1EB4                    loc_0_1EB4:                                         ; CODE XREF: sub_0_1E96+12↑j
1EB4 DD 2A 51 63                                                           ; sub_0_1E96+18↑j
1EB4                                ld      ix, (unk_0_6351)
1EB8 16 00                          ld      d, #0
1EBA 3A 53 63                       ld      a, (unk_0_6353)
1EBD 5F                             ld      e, a
1EBE 01 04 00                       ld      bc, #4
1EC1 3A 54 63                       ld      a, (unk_0_6354)
1EC4 A7                             and     a
1EC5 CA CF 1E                       jp      Z, loc_0_1ECF
1EC8
1EC8                    loc_0_1EC8:                                         ; CODE XREF: sub_0_1E96+36┤j
1EC8 09                             add     hl, bc
1EC9 DD 19                          add     ix, de
1ECB 3D                             dec     a
1ECC C2 C8 1E                       jp      NZ, loc_0_1EC8
1ECF
1ECF                    loc_0_1ECF:                                         ; CODE XREF: sub_0_1E96+2F↑j
1ECF DD 36 00 00                    ld      0(ix), #0
1ED3 DD 7E 15                       ld      a, 0x15(ix)
1ED6 A7                             and     a
1ED7 3E 02                          ld      a, #2
1ED9 CA DE 1E                       jp      Z, loc_0_1EDE
1EDC 3E 04                          ld      a, #4
1EDE
1EDE                    loc_0_1EDE:                                         ; CODE XREF: sub_0_1E96+43↑j
1EDE 32 42 63                       ld      (unk_0_6342), a
1EE1 01 2C 6A                       ld      bc, #soft_sprite_ram+0x12C
1EE4 7E                             ld      a, (hl)
1EE5 36 00                          ld      (hl), #0
1EE7 02                             ld      (bc), a                         ; flash sprite x coord
1EE8 0C                             inc     c
1EE9 2C                             inc     l
1EEA 3E 60                          ld      a, #0x60 ; '`'                  ; initial hit sprite character
1EEC 02                             ld      (bc), a                         ; flash sprite character
1EED 0C                             inc     c
1EEE 2C                             inc     l
1EEF 3E 0C                          ld      a, #0xC
1EF1 02                             ld      (bc), a
1EF2 0C                             inc     c
1EF3 2C                             inc     l
1EF4 7E                             ld      a, (hl)
1EF5 02                             ld      (bc), a                         ; flash sprite y coord
1EF6 21 45 63                       ld      hl, #unk_0_6345
1EF9 34                             inc     (hl)
1EFA 2C                             inc     l
1EFB 36 06                          ld      (hl), #6
1EFD 2C                             inc     l
1EFE 36 05                          ld      (hl), #5
1F00 21 8A 60                       ld      hl, #unk_0_608A
1F03 36 06                          ld      (hl), #6
1F05 2C                             inc     l
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1F06 36 03                          ld       (hl), #3
1F08 C9                             ret
1F08                    ; End of function sub_0_1E96
1F08
1F09                    ; ─────────────────────────────────────────────────
1F09
1F09                    loc_0_1F09:                                          ; DATA XREF: sub_0_1E96+6↑o
1F09 21 46 63                       ld       hl, #unk_0_6346                 ; process hammer hit effect (middle)
1F0C 35                             dec      (hl)
1F0D C0                             ret      NZ
1F0E 36 06                          ld       (hl), #6
1F10 2C                             inc      l
1F11 35                             dec      (hl)
1F12 CA 1D 1F                       jp       Z, loc_0_1F1D
1F15 21 2D 6A                       ld       hl, #0x6A2D
1F18 7E                             ld       a, (hl)
1F19 EE 01                          xor      #1                              ; animate hit flash
1F1B 77                             ld       (hl), a
1F1C C9                             ret
1F1D                    ; ─────────────────────────────────────────────────
1F1D
1F1D                    loc_0_1F1D:                                          ; CODE XREF: 0000:1F12↑j
1F1D 36 04                          ld       (hl), #4
1F1F 2D                             dec      l
1F20 2D                             dec      l
1F21 34                             inc      (hl)
1F22 C9                             ret
1F23                    ; ─────────────────────────────────────────────────
1F23
1F23                    loc_0_1F23:                                          ; DATA XREF: sub_0_1E96+8↑o
1F23 21 46 63                       ld       hl, #unk_0_6346                 ; process hammer hit effect (end)
1F26 35                             dec      (hl)
1F27 C0                             ret      NZ
1F28 36 0C                          ld       (hl), #0xC
1F2A 2C                             inc      l
1F2B 35                             dec      (hl)
1F2C CA 34 1F                       jp       Z, loc_0_1F34
1F2F 21 2D 6A                       ld       hl, #soft_sprite_ram+0x12D
1F32 34                             inc      (hl)                            ; animate hit flash
1F33 C9                             ret
1F34                    ; ─────────────────────────────────────────────────
1F34
1F34                    loc_0_1F34:                                          ; CODE XREF: 0000:1F2C↑j
1F34 2D                             dec      l
1F35 2D                             dec      l
1F36 AF                             xor      a
1F37 77                             ld       (hl), a
1F38 32 50 63                       ld       (unk_0_6350), a                 ; stop effect process
1F3B 3C                             inc      a
1F3C 32 40 63                       ld       (unk_0_6340), a
1F3F 21 2C 6A                       ld       hl, #soft_sprite_ram+0x12C
1F42 22 43 63                       ld       (unk_0_6343), hl
1F45 C9                             ret
1F46          ; ████████████████ S U B R O U T I N E ███████████████████████████████████████
1F46
1F46
1F46                    sub_0_1F46:                                          ; CODE XREF: 0000:19A4↑p
1F46 3A 21 62                       ld       a, (unk_0_6221)
1F49 A7                             and      a
1F4A C8                             ret      Z
1F4B AF                             xor      a
1F4C 32 04 62                       ld       (unk_0_6204), a
1F4F 32 06 62                       ld       (unk_0_6206), a
1F52 32 21 62                       ld       (unk_0_6221), a
1F55 32 10 62                       ld       (unk_0_6210), a
1F58 32 11 62                       ld       (unk_0_6211), a
1F5B 32 12 62                       ld       (unk_0_6212), a
1F5E 32 13 62                       ld       (unk_0_6213), a
1F61 32 14 62                       ld       (unk_0_6214), a
1F64 3C                             inc      a
1F65 32 16 62                       ld       (mario_jumping), a
1F68 32 1F 62                       ld       (unk_0_621F), a
1F6B 3A 05 62                       ld       a, (mario_x_coord)
1F6E 32 0E 62                       ld       (unk_0_620E), a
1F71 C9                             ret
1F71                    ; End of function sub_0_1F46
1F71
1F72          ; ████████████████ S U B R O U T I N E ███████████████████████████████████████
1F72
1F72
1F72                    sub_0_1F72:                                          ; CODE XREF: 0000:1983↑p
1F72 3A 27 62                       ld       a, (level_type)
1F75 3D                             dec      a
1F76 C0                             ret      NZ
1F77 DD 21 00 67                    ld       ix, #unk_0_6700
1F7B 21 80 69                       ld       hl, #soft_sprite_ram+0x80
1F7E 11 20 00                       ld       de, #0x20 ; ' '
1F81 06 0A                          ld       b, #0xA
1F83
1F83                    loc_0_1F83:                                          ; CODE XREF: sub_0_1F72+1E↓j
1F83 DD 7E 00                       ld       a, 0(ix)
1F86 3D                             dec      a
1F87 CA 93 1F                       jp       Z, loc_0_1F93
1F8A 2C                             inc      l
1F8B 2C                             inc      l
1F8C 2C                             inc      l
1F8D
1F8D                    loc_0_1F8D:                                          ; CODE XREF: 0000:21CE↓j
1F8D 2C                             inc      l
1F8E DD 19                          add      ix, de
1F90 10 F1                          djnz     loc_0_1F83
1F92 C9                             ret
1F93                    ; ─────────────────────────────────────────────────
1F93
1F93                    loc_0_1F93:                                          ; CODE XREF: sub_0_1F72+15↑j
1F93 DD 7E 01                       ld       a, 1(ix)
1F96 3D                             dec      a
1F97 CA EC 20                       jp       Z, loc_0_20EC
1F9A DD 7E 02                       ld       a, 2(ix)
1F9D 1F                             rra
1F9E DA AC 1F                       jp       C, loc_0_1FAC
1FA1 1F                             rra
1FA2 DA E5 1F                       jp       C, loc_0_1FE5
1FA5 1F                             rra
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1FA6 DA EF 1F                jp      C, loc_0_1FEF
1FA9 C3 53 20                jp      loc_0_2053
1FAC                 ; ─────────────────────────────────────────────────
1FAC
1FAC                 loc_0_1FAC:                                       ; CODE XREF: sub_0_1F72+2C↑j
1FAC D9                      exx
1FAD DD 34 05                inc     5(ix)
1FB0 DD 7E 17                ld      a, 0x17(ix)
1FB3 DD BE 05                cp      5(ix)
1FB6 C2 CE 1F                jp      NZ, loc_0_1FCE
1FB9 DD 7E 15                ld      a, 0x15(ix)
1FBC 07                      rlca
1FBD 07                      rlca
1FBE C6 15                   add     a, #0x15                         ; switch downwards (sideways) barrel to rolling barrel
1FC0 DD 77 07                ld      7(ix), a
1FC3 DD 7E 02                ld      a, 2(ix)
1FC6 EE 07                   xor     #7
1FC8 DD 77 02                ld      2(ix), a
1FCB C3 BA 21                jp      loc_0_21BA
1FCE                 ; ─────────────────────────────────────────────────
1FCE
1FCE                 loc_0_1FCE:                                       ; CODE XREF: sub_0_1F72+44↑j
1FCE DD 7E 0F                                                         ; sub_0_1F72+199↑j
1FCE                         ld      a, 0xF(ix)
1FD1 3D                      dec     a
1FD2 C2 DF 1F                jp      NZ, loc_0_1FDF
1FD5 DD 7E 07                ld      a, 7(ix)                         ; animate sideways barrel sprite
1FD8 EE 01                   xor     #1
1FDA DD 77 07                ld      7(ix), a
1FDD 3E 04                   ld      a, #4
1FDF
1FDF                 loc_0_1FDF:                                       ; CODE XREF: sub_0_1F72+60↑j
1FDF DD 77 0F                ld      0xF(ix), a
1FE2 C3 BA 21                jp      loc_0_21BA
1FE5                 ; ─────────────────────────────────────────────────
1FE5
1FE5                 loc_0_1FE5:                                       ; CODE XREF: sub_0_1F72+30↑j
1FE5 D9                      exx
1FE6 01 00 01                ld      bc, #0x100
1FE9 DD 34 03                inc     3(ix)
1FEC C3 F6 1F                jp      loc_0_1FF6
1FEF                 ; ─────────────────────────────────────────────────
1FEF
1FEF                 loc_0_1FEF:                                       ; CODE XREF: sub_0_1F72+34↑j
1FEF D9                      exx
1FF0 01 04 FF                ld      bc, #0xFF04
1FF3 DD 35 03                dec     3(ix)
1FF6
1FF6                 loc_0_1FF6:                                       ; CODE XREF: sub_0_1F72+7A↑j
1FF6 DD 66 03                ld      h, 3(ix)
1FF9 DD 6E 05                ld      l, 5(ix)
1FFC 7C                      ld      a, h
1FFD E6 07                   and     #7
1FFF FE 03                   cp      #3
2001 CA 5F 21                jp      Z, loc_0_215F
2004 2D                      dec     l
2005 2D                      dec     l
2006 2D                      dec     l
2007 CD 33 23                call    sub_0_2333
200A 2C                      inc     l
200B 2C                      inc     l
200C 2C                      inc     l
200D 7D                      ld      a, l
200E DD 77 05                ld      5(ix), a
2011 CD DE 23                call    sub_0_23DE
2014 CD B4 24                call    sub_0_24B4
2017 DD 7E 03                ld      a, 3(ix)
201A FE 1C                   cp      #0x1C
201C DA 2F 20                jp      C, loc_0_202F
201F FE E4                   cp      #0xE4 ; 'õ'
2021 DA BA 21                jp      C, loc_0_21BA
2024 AF                      xor     a
2025 DD 77 10                ld      0x10(ix), a
2028 DD 36 11 60             ld      0x11(ix), #0x60 ; '`'
202C C3 38 20                jp      loc_0_2038
202F                 ; ─────────────────────────────────────────────────
202F
202F                 loc_0_202F:                                       ; CODE XREF: sub_0_1F72+AA↑j
202F AF                      xor     a
2030 DD 36 10 FF             ld      0x10(ix), #0xFF
2034 DD 36 11 A0             ld      0x11(ix), #0xA0 ; 'á'
2038
2038                 loc_0_2038:                                       ; CODE XREF: sub_0_1F72+BA↑j
2038 DD 36 12 FF             ld      0x12(ix), #0xFF
203C DD 36 13 F0             ld      0x13(ix), #0xF0 ; '-'
2040 DD 77 14                ld      0x14(ix), a
2043 DD 77 0E                ld      0xE(ix), a
2046 DD 77 04                ld      4(ix), a
2049 DD 77 06                ld      6(ix), a
204C DD 36 02 08             ld      2(ix), #8
2050 C3 BA 21                jp      loc_0_21BA
2053                 ; ─────────────────────────────────────────────────
2053
2053                 loc_0_2053:                                       ; CODE XREF: sub_0_1F72+37↑j
2053 D9                      exx
2054 CD 9C 23                call    sub_0_239C
2057 CD 2F 2A                call    sub_0_2A2F
205A A7                      and     a
205B C2 83 20                jp      NZ, loc_0_2083
205E DD 7E 03                ld      a, 3(ix)
2061 C6 08                   add     a, #8
2063 FE 10                   cp      #0x10
2065 DA 79 20                jp      C, loc_0_2079
2068 CD B4 24                call    sub_0_24B4
206B DD 7E 10                ld      a, 0x10(ix)
206E E6 01                   and     #1
2070 07                      rlca
2071 07                      rlca
2072 4F                      ld      c, a
2073 CD DE 23                call    sub_0_23DE
2076 C3 BA 21                jp      loc_0_21BA
2079                 ; ─────────────────────────────────────────────────
2079
2079                 loc_0_2079:                                       ; CODE XREF: sub_0_1F72+F3↑j
2079 AF                      xor     a
207A DD 77 00                ld      0(ix), a
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207D DD 77 03                  ld      3(ix), a
2080 C3 BA 21                  jp      loc_0_21BA
2083              ; ─────────────────────────────────────────────
2083
2083             loc_0_2083:                                    ; CODE XREF: sub_0_1F72+E9↑j
2083 DD 34 0E                  inc     0xE(ix)
2086 DD 7E 0E                  ld      a, 0xE(ix)
2089 3D                        dec     a
208A CA A2 20                  jp      Z, loc_0_20A2
208D 3D                        dec     a
208E CA C3 20                  jp      Z, loc_0_20C3
2091 DD 7E 10                  ld      a, 0x10(ix)
2094 3D                        dec     a
2095 3E 04                     ld      a, #4
2097 C2 9C 20                  jp      NZ, loc_0_209C
209A 3E 02                     ld      a, #2
209C
209C             loc_0_209C:                                    ; CODE XREF: sub_0_1F72+125↑j
209C DD 77 02                  ld      2(ix), a
209F C3 BA 21                  jp      loc_0_21BA
20A2              ; ─────────────────────────────────────────────
20A2
20A2             loc_0_20A2:                                    ; CODE XREF: sub_0_1F72+118↑j
20A2 DD 7E 15                  ld      a, 0x15(ix)
20A5 A7                        and     a
20A6 C2 B5 20                  jp      NZ, loc_0_20B5
20A9 21 05 62                  ld      hl, #mario_x_coord
20AC DD 7E 05                  ld      a, 5(ix)
20AF D6 16                     sub     #0x16                    ; check har far mario has fallen when jumping
20B1 BE                        cp      (hl)
20B2 D2 C3 20                  jp      NC, loc_0_20C3
20B5
20B5             loc_0_20B5:                                    ; CODE XREF: sub_0_1F72+134↑j
20B5 DD 7E 10                  ld      a, 0x10(ix)
20B8 A7                        and     a
20B9 C2 E1 20                  jp      NZ, loc_0_20E1
20BC DD 77 11                  ld      0x11(ix), a
20BF DD 36 10 FF               ld      0x10(ix), #0xFF
20C3
20C3             loc_0_20C3:                                    ; CODE XREF: sub_0_1F72+11C↑j
20C3 CD 07 24                  ;                                 sub_0_1F72+140↑j ...
20C3                           call    sub_0_2407
20C6 CB 3C                     srl     h
20C8 CB 1D                     rr      l
20CA CB 3C                     srl     h
20CC CB 1D                     rr      l
20CE DD 74 12                  ld      0x12(ix), h
20D1 DD 75 13                  ld      0x13(ix), l
20D4 AF                        xor     a
20D5 DD 77 14                  ld      0x14(ix), a
20D8 DD 77 04                  ld      4(ix), a
20DB DD 77 06                  ld      6(ix), a
20DE C3 BA 21                  jp      loc_0_21BA
20E1              ; ─────────────────────────────────────────────
20E1
20E1             loc_0_20E1:                                    ; CODE XREF: sub_0_1F72+147↑j
20E1 DD 36 10 01               ld      0x10(ix), #1
20E5 DD 36 11 00               ld      0x11(ix), #0
20E9 C3 C3 20                  jp      loc_0_20C3
20EC              ; ─────────────────────────────────────────────
20EC
20EC             loc_0_20EC:                                    ; CODE XREF: sub_0_1F72+25↑j
20EC D9                        exx
20ED CD 9C 23                  call    sub_0_239C
20F0 7C                        ld      a, h
20F1 D6 1A                     sub     #0x1A
20F3 DD 46 19                  ld      b, 0x19(ix)
20F6 B8                        cp      b
20F7 DA 04 21                  jp      C, loc_0_2104
20FA CD 2F 2A                  call    sub_0_2A2F
20FD A7                        and     a
20FE C2 18 21                  jp      NZ, loc_0_2118
2101 CD B4 24                  call    sub_0_24B4
2104
2104             loc_0_2104:                                    ; CODE XREF: sub_0_1F72+185↑j
2104 DD 7E 03                  ld      a, 3(ix)
2107 C6 08                     add     a, #8
2109 FE 10                     cp      #0x10
210B D2 CE 1F                  jp      NC, loc_0_1FCE
210E AF                        xor     a
210F DD 77 00                  ld      0(ix), a
2112 DD 77 03                  ld      3(ix), a
2115 C3 BA 21                  jp      loc_0_21BA
2118              ; ─────────────────────────────────────────────
2118
2118             loc_0_2118:                                    ; CODE XREF: sub_0_1F72+18C↑j
2118 DD 7E 05                  ld      a, 5(ix)
211B FE E0                     cp      #0xE0 ; 'ô'
211D DA 46 21                  jp      C, loc_0_2146
2120 DD 7E 07                  ld      a, 7(ix)
2123 E6 FC                     and     #0xFC ; '³'               ; switch falling (sideways) barrel to rolling bounce barrel
2125 F6 01                     or      #1
2127 DD 77 07                  ld      7(ix), a
212A AF                        xor     a
212B DD 77 01                  ld      1(ix), a
212E DD 77 02                  ld      2(ix), a
2131 DD 36 10 FF               ld      0x10(ix), #0xFF
2135 DD 77 11                  ld      0x11(ix), a
2138 DD 77 12                  ld      0x12(ix), a
213B DD 36 13 B0               ld      0x13(ix), #0xB0 ; '▒'
213F DD 36 0E 01               ld      0xE(ix), #1
2143 C3 53 21                  jp      loc_0_2153
2146              ; ─────────────────────────────────────────────
2146
2146             loc_0_2146:                                    ; CODE XREF: sub_0_1F72+1AB↑j
2146 CD 07 24                  call    sub_0_2407
2149 CD CB 22                  call    sub_0_22CB
214C DD 7E 05                  ld      a, 5(ix)
214F DD 77 19                  ld      0x19(ix), a
2152 AF                        xor     a
2153
2153             loc_0_2153:                                    ; CODE XREF: sub_0_1F72+1D1↑j
2153 DD 77 14                  ld      0x14(ix), a
2156 DD 77 04                  ld      4(ix), a
2159 DD 77 06                  ld      6(ix), a
215C C3 BA 21                  jp      loc_0_21BA
```

```
215F                    ; ─────────────────────────────────────────────────────────
215F
215F                    loc_0_215F:                                          ; CODE XREF: sub_0_1F72+8F↑j
215F 7D                             ld      a, l
2160 C6 05                          add     a, #5
2162 57                             ld      d, a
2163 7C                             ld      a, h
2164 01 15 00                       ld      bc, #0x15
2167 CD 6D 21                       call    sub_0_216D
216A C3 BA 21                       jp      loc_0_21BA
216A                    ; End of function sub_0_1F72
216A
216D
216D                    ; ██████████  S U B R O U T I N E  ████████████████████████████████
216D
216D
216D                    sub_0_216D:                                          ; CODE XREF: sub_0_1F72+1F5↑p
216D CD 6E 23                       call    sub_0_236E
2170 3D                             dec     a
2171 C0                             ret     NZ
2172 78                             ld      a, b
2173 D6 05                          sub     #5
2175 DD 77 17                       ld      0x17(ix), a
2178 3A 48 63                       ld      a, (unk_0_6348)
217B A7                             and     a
217C CA B2 21                       jp      Z, loc_0_21B2
217F 3A 05 62                       ld      a, (mario_x_coord)
2182 D6 04                          sub     #4
2184 BA                             cp      d
2185 D8                             ret     C
2186 3A 80 63                       ld      a, (unk_0_6380)
2189 1F                             rra
218A 3C                             inc     a
218B 47                             ld      b, a
218C 3A 18 60                       ld      a, (random_no)
218F 4F                             ld      c, a
2190 E6 03                          and     #3
2192 B8                             cp      b
2193 D0                             ret     NC
2194 21 10 60                       ld      hl, #controller_in
2197 3A 03 62                       ld      a, (mario_y_coord)
219A BB                             cp      e
219B CA B2 21                       jp      Z, loc_0_21B2
219E D2 A9 21                       jp      NC, loc_0_21A9
21A1 CB 46                          bit     0, (hl)                          ; right?
21A3 CA AE 21                       jp      Z, loc_0_21AE                    ; no, skip
21A6 C3 B2 21                       jp      loc_0_21B2
21A9                    ; ─────────────────────────────────────────────────────────
21A9
21A9                    loc_0_21A9:                                          ; CODE XREF: sub_0_216D+31↑j
21A9 CB 4E                          bit     1, (hl)                          ; left?
21AB C2 B2 21                       jp      NZ, loc_0_21B2                   ; yes, skip
21AE
21AE                    loc_0_21AE:                                          ; CODE XREF: sub_0_216D+36↑j
21AE 79                             ld      a, c
21AF E6 18                          and     #0x18
21B1 C0                             ret     NZ
21B2
21B2                    loc_0_21B2:                                          ; CODE XREF: sub_0_216D+F↑j
21B2 DD 34 07                                                                ; sub_0_216D+2E↑j ...
21B2                                 inc     7(ix)                           ; sprite tile #
21B5 DD CB 02 C6                    set     0, 2(ix)                         ; switch rolling barrel to going-down-ladder barrel
21B9 C9                             ret
21B9                    ; End of function sub_0_216D
21B9
21BA                    ; ─────────────────────────────────────────────────────────
21BA
21BA                    loc_0_21BA:                                          ; CODE XREF: sub_0_1F72+59↑j
21BA D9                                                                      ; sub_0_1F72+70↑j ...
21BA                                 exx
21BB DD 7E 03                       ld      a, 3(ix)                         ; set sprite X
21BE 77                             ld      (hl), a
21BF 2C                             inc     l
21C0 DD 7E 07                       ld      a, 7(ix)                         ; set sprite tile #
21C3 77                             ld      (hl), a
21C4 2C                             inc     l
21C5 DD 7E 08                       ld      a, 8(ix)                         ; set sprite vflip & palette
21C8 77                             ld      (hl), a
21C9 2C                             inc     l
21CA DD 7E 05                       ld      a, 5(ix)                         ; set sprite Y
21CD 77                             ld      (hl), a
21CE C3 8D 1F                       jp      loc_0_1F8D
21CE                    ; ─────────────────────────────────────────────────────────
21D1 80 FE             attract_mario_inputs:.dw 0xFE80                       ; DATA XREF: next_attract_action↓o
21D1                                                                         ; 1st byte is input, 2nd is timer
21D3 01 C0                          .dw 0xC001
21D5 04 50                          .dw 0x5004
21D7 02 10                          .dw 0x1002
21D9 82 60                          .dw 0x6082
21DB 02 10                          .dw 0x1002
21DD 82 CA                          .dw 0xCA82
21DF 01 10                          .dw 0x1001
21E1 81 FF                          .dw 0xFF81
21E3 02 38                          .dw 0x3802
21E5 01 80                          .dw 0x8001
21E7 02 FF                          .dw 0xFF02
21E9 04 80                          .dw 0x8004
21EB 04 60                          .dw 0x6004
21ED 80                             .db 0x80
21EE
21EE                    ; ██████████  S U B R O U T I N E  ████████████████████████████████
21EE
21EE
21EE                    next_attract_action:                                 ; CODE XREF: 0000:1977↑p
21EE 11 D1 21                       ld      de, #attract_mario_inputs
21F1 21 CC 63                       ld      hl, #attract_movement_entry
21F4 7E                             ld      a, (hl)                          ; get entry
21F5 07                             rlca                                     ; convert to word
21F6 83                             add     a, e                             ; add to base
21F7 5F                             ld      e, a                             ; ptr to entry
21F8 1A                             ld      a, (de)                          ; 1st byte of entry
21F9 32 10 60                       ld      (controller_in), a               ; store simulated inputs
21FC 2C                             inc     l
21FD 7E                             ld      a, (hl)                          ; get movement timer
21FE 35                             dec     (hl)                             ; done?
21FF A7                             and     a
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2200 C0                          ret       NZ                              ; no, return
2201 1C                          inc       e                               ; ptr 2nd byte of entry
2202 1A                          ld        a, (de)                         ; get 2nd byte
2203 77                          ld        (hl), a                         ; store as timer
2204 2D                          dec       l                               ; back to entry
2205 34                          inc       (hl)                            ; next entry
2206 C9                          ret
2206             ; End of function next_attract_action
2206
2207
2207             ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2207
2207
2207             sub_0_2207:                                              ; CODE XREF: 0000:199B↑p
2207 3E 02                       ld        a, #2
2209 F7                          rst       0x30                            ; return if level bit not set
220A 3A 1A 60                    ld        a, (gen_purpose_timer)
220D 1F                          rra
220E 21 80 62                    ld        hl, #unk_0_6280
2211 7E                          ld        a, (hl)
2212 DA 19 22                    jp        C, loc_0_2219
2215 21 88 62                    ld        hl, #unk_0_6288
2218 7E                          ld        a, (hl)
2219
2219             loc_0_2219:                                              ; CODE XREF: sub_0_2207+B↑j
2219 E5                          push      hl
221A EF                          rst       0x28                            ; go!
221B 27                          daa
221C 22 59 22                    ld        (loc_0_2259), hl
221F 99                          sbc       a, c
2220 22 A2 22                    ld        (loc_0_22A2), hl
2223 00                          nop
2224 00                          nop
2225 00                          nop
2226 00                          nop
2227 E1                          pop       hl
2228 2C                          inc       l
2229 35                          dec       (hl)
222A C2 3A 22                    jp        NZ, loc_0_223A
222D 2D                          dec       l
222E 34                          inc       (hl)
222F 2C                          inc       l
2230 2C                          inc       l
2231 CD 43 22                    call      sub_0_2243
2234 3E 01                       ld        a, #1
2236 32 1A 62                    ld        (unk_0_621A), a
2239 C9                          ret
223A             ; ──────────────────────────────────────────────────────
223A
223A             loc_0_223A:                                              ; CODE XREF: sub_0_2207+23↑j
223A 2C                          inc       l
223B CD 43 22                    call      sub_0_2243
223E AF                          xor       a
223F 32 1A 62                    ld        (unk_0_621A), a
2242 C9                          ret
2242             ; End of function sub_0_2207
2242
2243
2243             ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2243
2243
2243             sub_0_2243:                                              ; CODE XREF: sub_0_2207+2A↑p
2243 3A 05 62                                                            ; sub_0_2207+34↑p ...
2243                             ld        a, (mario_x_coord)
2246 FE 7A                       cp        #0x7A ; 'z'
2248 D2 57 22                    jp        NC, loc_0_2257
224B 3A 16 62                    ld        a, (mario_jumping)
224E A7                          and       a
224F C2 57 22                    jp        NZ, loc_0_2257
2252 3A 03 62                    ld        a, (mario_y_coord)
2255 BE                          cp        (hl)
2256 C8                          ret       Z
2257
2257             loc_0_2257:                                              ; CODE XREF: sub_0_2243+5↑j
2257 E1                                                                  ; sub_0_2243+C↑j
2257                             pop       hl
2258 C9                          ret
2258             ; End of function sub_0_2243
2258
2259*            ; ──────────────────────────────────────────────────────
2259*
2259*            loc_0_2259:                                              ; DATA XREF: sub_0_2207+15↑w
2259*E1                          pop       hl
225A 2C                          inc       l
225B 2C                          inc       l
225C 2C                          inc       l
225D 2C                          inc       l
225E 35                          dec       (hl)
225F C0                          ret       NZ
2260 3E 04                       ld        a, #4
2262 77                          ld        (hl), a
2263 2D                          dec       l
2264 34                          inc       (hl)
2265 CD BD 22                    call      sub_0_22BD
2268 3E 78                       ld        a, #0x78 ; 'x'
226A BE                          cp        (hl)
226B C2 75 22                    jp        NZ, loc_0_2275
226E 2D                          dec       l
226F 2D                          dec       l
2270 2D                          dec       l
2271 34                          inc       (hl)
2272 2C                          inc       l
2273 2C                          inc       l
2274 2C                          inc       l
2275
2275             loc_0_2275:                                              ; CODE XREF: 0000:226B↑j
2275 2D                          dec       l
2276 CD 43 22                    call      sub_0_2243
2279 3A 05 62                    ld        a, (mario_x_coord)
227C FE 68                       cp        #0x68 ; 'h'
227E D2 8A 22                    jp        NC, loc_0_228A
2281
2281             loc_0_2281:                                              ; CODE XREF: 0000:228B↓j
2281 21 05 62                    ld        hl, #mario_x_coord
2284 34                          inc       (hl)
2285 CD C0 3F                    call      sub_0_3FC0
```

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2288 34                          inc     (hl)
2289 C9                          ret
228A            ; ─────────────────────────────────────────────────────
228A
228A                 loc_0_228A:                                    ; CODE XREF: 0000:227E↑j
228A 1F                          rra
228B DA 81 22                    jp      C, loc_0_2281
228E 1F                          rra
228F 3E 01                       ld      a, #1
2291 DA 95 22                    jp      C, loc_0_2295
2294 AF                          xor     a
2295
2295                 loc_0_2295:                                    ; CODE XREF: 0000:2291↑j
2295 32 22 62                    ld      (unk_0_6222), a
2298 C9                          ret
2299            ; ─────────────────────────────────────────────────────
2299 E1                          pop     hl
229A 3A 18 60                    ld      a, (random_no)
229D E6 3C                       and     #0x3C ; '<'
229F C0                          ret     NZ
22A0 34                          inc     (hl)
22A1 C9                          ret
22A2*           ; ─────────────────────────────────────────────────────
22A2*
22A2*                loc_0_22A2:                                    ; DATA XREF: sub_0_2207+19↑w
22A2*E1                           pop     hl
22A3 2C                          inc     l
22A4 2C                          inc     l
22A5 2C                          inc     l
22A6 2C                          inc     l
22A7 35                          dec     (hl)
22A8 C0                          ret     NZ
22A9 36 02                       ld      (hl), #2
22AB 2D                          dec     l
22AC 35                          dec     (hl)
22AD CD BD 22                    call    sub_0_22BD
22B0 3E 68                       ld      a, #0x68 ; 'h'
22B2 BE                          cp      (hl)
22B3 C0                          ret     NZ
22B4 AF                          xor     a
22B5 06 80                       ld      b, #0x80 ; 'Ç'
22B7 2D                          dec     l
22B8 2D                          dec     l
22B9 70                          ld      (hl), b
22BA 2D                          dec     l
22BB 77                          ld      (hl), a
22BC C9                          ret
22BD
22BD            ; � S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
22BD
22BD
22BD                 sub_0_22BD:                                    ; CODE XREF: 0000:2265↑p
22BD 7E                                                             ; 0000:22AD↑p
22BD                              ld      a, (hl)
22BE CB 5D                       bit     3, l
22C0 11 4B 69                    ld      de, #soft_sprite_ram+0x4B
22C3 C2 C9 22                    jp      NZ, loc_0_22C9
22C6 11 47 69                    ld      de, #soft_sprite_ram+0x47
22C9
22C9                 loc_0_22C9:                                    ; CODE XREF: sub_0_22BD+6↑j
22C9 12                          ld      (de), a
22CA C9                          ret
22CA            ; End of function sub_0_22BD
22CA
22CB
22CB            ; ▓▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
22CB
22CB
22CB                 sub_0_22CB:                                    ; CODE XREF: sub_0_1F72+1D7↑p
22CB 3A 48 63                    ld      a, (unk_0_6348)
22CE A7                          and     a
22CF CA E1 22                    jp      Z, loc_0_22E1
22D2 3A 80 63                    ld      a, (unk_0_6380)
22D5 3D                          dec     a
22D6 EF                          rst     0x28                       ; go!
22D6            ; ─────────────────────────────────────────────────────
22D7 F6 22                       .dw     loc_0_22F6                 ; Jump table
22D9 F6 22                       .dw     loc_0_22F6
22DB 03 23                       .dw     loc_0_2303
22DD 03 23                       .dw     loc_0_2303
22DF 1A 23                       .dw     loc_0_231A
22E1            ; ─────────────────────────────────────────────────────
22E1
22E1                 loc_0_22E1:                                    ; CODE XREF: sub_0_22CB+4↑j
22E1 3A 29 62                    ld      a, (level)
22E4 47                          ld      b, a
22E5 05                          dec     b
22E6 3E 01                       ld      a, #1
22E8 CA F9 22                    jp      Z, loc_0_22F9
22EB 05                          dec     b
22EC 3E B1                       ld      a, #0xB1 ; '▓'
22EE CA F9 22                    jp      Z, loc_0_22F9
22F1 3E E9                       ld      a, #0xE9 ; 'Ú'
22F3 C3 F9 22                    jp      loc_0_22F9
22F6            ; ─────────────────────────────────────────────────────
22F6
22F6                 loc_0_22F6:                                    ; DATA XREF: sub_0_22CB+C↑o
22F6 3A 18 60                                                       ; sub_0_22CB+E↑o
22F6                              ld      a, (random_no)
22F9
22F9                 loc_0_22F9:                                    ; CODE XREF: sub_0_22CB+1D↑j
22F9 DD 77 11                                                       ; sub_0_22CB+23↑j ...
22F9                              ld      0x11(ix), a
22FC E6 01                       and     #1
22FE 3D                          dec     a
22FF DD 77 10                    ld      0x10(ix), a
2302 C9                          ret
2302            ; End of function sub_0_22CB
2302
2303            ; ─────────────────────────────────────────────────────
2303
2303                 loc_0_2303:                                    ; DATA XREF: sub_0_22CB+10↑o
2303 3A 18 60                                                       ; sub_0_22CB+12↑o
2303                              ld      a, (random_no)
2306 DD 77 11                    ld      0x11(ix), a
2309 3A 03 62                    ld      a, (mario_y_coord)
```

```
230C DD BE 03                    cp       3(ix)
230F 3E 01                       ld       a, #1
2311 D2 16 23                    jp       NC, loc_0_2316
2314 3D                          dec      a
2315 3D                          dec      a
2316
2316              loc_0_2316:                               ; CODE XREF: 0000:2311↑j
2316 DD 77 10                    ld       0x10(ix), a
2319 C9                          ret
231A          ; ─────────────────────────────────────
231A
231A              loc_0_231A:                               ; DATA XREF: sub_0_22CB+14↑o
231A 3A 03 62                    ld       a, (mario_y_coord)
231D DD 96 03                    sub      3(ix)
2320 0E FF                       ld       c, #0xFF
2322 DA 26 23                    jp       C, loc_0_2326
2325 0C                          inc      c
2326
2326              loc_0_2326:                               ; CODE XREF: 0000:2322↑j
2326 07                          rlca
2327 CB 11                       rl       c
2329 07                          rlca
232A CB 11                       rl       c
232C DD 71 10                    ld       0x10(ix), c
232F DD 77 11                    ld       0x11(ix), a
2332 C9                          ret
2333
2333          ; ▌▌▌▌▌▌▌▌▌▌▌▌▌ S U B R O U T I N E ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
2333
2333
2333              sub_0_2333:                               ; CODE XREF: sub_0_1AC3+221↑p
2333 3E 0F                                                 ; sub_0_1F72+95↑p ...
2333                             ld       a, #0xF
2335 A4                          and      h
2336 05                          dec      b
2337 CA 42 23                    jp       Z, loc_0_2342
233A FE 0F                       cp       #0xF
233C D8                          ret      C
233D 06 FF                       ld       b, #0xFF
233F C3 47 23                    jp       loc_0_2347
2342          ; ─────────────────────────────────────
2342
2342              loc_0_2342:                               ; CODE XREF: sub_0_2333+4↑j
2342 FE 01                       cp       #1
2344 D0                          ret      NC
2345 06 01                       ld       b, #1
2347
2347              loc_0_2347:                               ; CODE XREF: sub_0_2333+C↑j
2347 3E F0                       ld       a, #0xF0 ; '-'
2349 BD                          cp       l
234A CA 60 23                    jp       Z, loc_0_2360
234D 3E 4C                       ld       a, #0x4C ; 'L'
234F BD                          cp       l
2350 CA 66 23                    jp       Z, loc_0_2366
2353 7D                          ld       a, l
2354 CB 6F                       bit      5, a
2356 CA 5C 23                    jp       Z, loc_0_235C
2359
2359              loc_0_2359:                               ; CODE XREF: sub_0_2333+2F↓j
2359 90                          sub      b
235A
235A              loc_0_235A:                               ; CODE XREF: sub_0_2333+2A↓j
235A 6F                          ld       l, a
235B C9                          ret
235C          ; ─────────────────────────────────────
235C
235C              loc_0_235C:                               ; CODE XREF: sub_0_2333+23↑j
235C 80                                                    ; sub_0_2333+38↓j
235C                             add      a, b
235D C3 5A 23                    jp       loc_0_235A
2360          ; ─────────────────────────────────────
2360
2360              loc_0_2360:                               ; CODE XREF: sub_0_2333+17↑j
2360 CB 7C                       bit      7, h
2362 C2 59 23                    jp       NZ, loc_0_2359
2365 C9                          ret
2366          ; ─────────────────────────────────────
2366
2366              loc_0_2366:                               ; CODE XREF: sub_0_2333+1D↑j
2366 7C                          ld       a, h
2367 FE 98                       cp       #0x98 ; 'ÿ'
2369 D8                          ret      C
236A 7D                          ld       a, l
236B C3 5C 23                    jp       loc_0_235C
236B          ; End of function sub_0_2333
236B
236B
236E          ; ▌▌▌▌▌▌▌▌▌▌▌▌▌ S U B R O U T I N E ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
236E
236E
236E              sub_0_236E:                               ; CODE XREF: sub_0_1AC3+50↑p
236E 21 00 63                                              ; sub_0_216D↑p ...
236E                             ld       hl, #unk_0_6300
2371
2371              loc_0_2371:                               ; CODE XREF: sub_0_236E+1E↓j
2371 ED B1                       cpir
2373 C2 9A 23                    jp       NZ, loc_0_239A
2376 E5                          push     hl
2377 C5                          push     bc
2378 01 14 00                    ld       bc, #0x14
237B 09                          add      hl, bc
237C 0C                          inc      c
237D 5F                          ld       e, a
237E 7A                          ld       a, d
237F BE                          cp       (hl)
2380 CA 8F 23                    jp       Z, loc_0_238F
2383 09                          add      hl, bc
2384 BE                          cp       (hl)
2385 CA 95 23                    jp       Z, loc_0_2395
2388 57                          ld       d, a
2389 7B                          ld       a, e
238A C1                          pop      bc
238B E1                          pop      hl
238C C3 71 23                    jp       loc_0_2371
238F          ; ─────────────────────────────────────
238F
```

```
238F                loc_0_238F:                                      ; CODE XREF: sub_0_236E+12↑j
238F 09                             add     hl, bc
2390 3E 01                          ld      a, #1
2392 C3 98 23                       jp      loc_0_2398
2395                ; ─────────────────────────────────────────────────────
2395
2395                loc_0_2395:                                      ; CODE XREF: sub_0_236E+17↑j
2395 AF                             xor     a
2396 ED 42                          sbc     hl, bc
2398
2398                loc_0_2398:                                      ; CODE XREF: sub_0_236E+24↑j
2398 C1                             pop     bc
2399 46                             ld      b, (hl)
239A
239A                loc_0_239A:                                      ; CODE XREF: sub_0_236E+5↑j
239A E1                             pop     hl
239B C9                             ret
239B                ; End of function sub_0_236E
239B
239C
239C                ; ▇▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
239C
239C
239C                sub_0_239C:                                      ; CODE XREF: sub_0_1AC3+FF↑p
239C DD 7E 04                                                        ; sub_0_1AC3+129↑p ...
239C                             ld      a, 4(ix)
239F DD 86 11                     add     a, 0x11(ix)
23A2 DD 77 04                     ld      4(ix), a
23A5 DD 7E 03                     ld      a, 3(ix)
23A8 DD 8E 10                     adc     a, 0x10(ix)
23AB DD 77 03                     ld      3(ix), a
23AE DD 7E 06                     ld      a, 6(ix)
23B1 DD 96 13                     sub     0x13(ix)
23B4 6F                          ld      l, a
23B5 DD 7E 05                     ld      a, 5(ix)
23B8 DD 9E 12                     sbc     a, 0x12(ix)
23BB 67                          ld      h, a
23BC DD 7E 14                     ld      a, 0x14(ix)
23BF A7                          and     a
23C0 17                          rla
23C1 3C                          inc     a
23C2 06 00                       ld      b, #0
23C4 CB 10                       rl      b
23C6 CB 27                       sla     a
23C8 CB 10                       rl      b
23CA CB 27                       sla     a
23CC CB 10                       rl      b
23CE CB 27                       sla     a
23D0 CB 10                       rl      b
23D2 4F                          ld      c, a
23D3 09                          add     hl, bc
23D4 DD 74 05                     ld      5(ix), h
23D7 DD 75 06                     ld      6(ix), l
23DA DD 34 14                     inc     0x14(ix)
23DD C9                          ret
23DD                ; End of function sub_0_239C
23DD
23DE
23DE                ; ▇▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
23DE
23DE
23DE                sub_0_23DE:                                      ; CODE XREF: sub_0_1F72+9F↑p
23DE DD 7E 0F                                                        ; sub_0_1F72+101↑p
23DE                             ld      a, 0xF(ix)
23E1 3D                          dec     a
23E2 C2 03 24                    jp      NZ, loc_0_2403
23E5 AF                          xor     a                           ; animate rolling barrels
23E6 DD CB 07 26                 sla     7(ix)                       ; toggle H & V flips
23EA 17                          rla
23EB DD CB 08 26                 sla     8(ix)                       ; toggle H & V flips
23EF 17                          rla
23F0 47                          ld      b, a
23F1 3E 03                       ld      a, #3
23F3 B1                          or      c
23F4 CD 09 30                    call    sub_0_3009
23F7 1F                          rra
23F8 DD CB 08 1E                 rr      8(ix)                       ; toggle H & V flips
23FC 1F                          rra
23FD DD CB 07 1E                 rr      7(ix)                       ; toggle H & V flips
2401 3E 04                       ld      a, #4
2403
2403                loc_0_2403:                                      ; CODE XREF: sub_0_23DE+4↑j
2403 DD 77 0F                    ld      0xF(ix), a
2406 C9                          ret
2406                ; End of function sub_0_23DE
2406
2407
2407                ; ▇▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
2407
2407
2407                sub_0_2407:                                      ; CODE XREF: sub_0_1AC3+11C↑p
2407 DD 7E 14                                                        ; sub_0_1F72+151↑p ...
2407                             ld      a, 0x14(ix)
240A 07                          rlca
240B 07                          rlca
240C 07                          rlca
240D 07                          rlca
240E 4F                          ld      c, a
240F E6 0F                       and     #0xF
2411 67                          ld      h, a
2412 79                          ld      a, c
2413 E6 F0                       and     #0xF0 ; '-'
2415 6F                          ld      l, a
2416 DD 4E 13                    ld      c, 0x13(ix)
2419 DD 46 12                    ld      b, 0x12(ix)
241C ED 42                       sbc     hl, bc
241E C9                          ret
241E                ; End of function sub_0_2407
241E
241F
241F                ; ▇▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
241F
241F
241F                sub_0_241F:                                      ; CODE XREF: sub_0_1AC3+23↑p
241F 11 00 01                                                        ; sub_0_1AC3+102↑p ...
241F                             ld      de, #0x100
```

```
2422 3A 03 62                        ld        a, (mario_y_coord)
2425 FE 16                           cp        #0x16
2427 D8                              ret       C
2428 15                              dec       d
2429 1C                              inc       e
242A FE EA                           cp        #0xEA ; 'Û'
242C D0                              ret       NC
242D 1D                              dec       e
242E 3A 27 62                        ld        a, (level_type)
2431 0F                              rrca
2432 D0                              ret       NC
2433 3A 05 62                        ld        a, (mario_x_coord)
2436 FE 58                           cp        #0x58 ; 'X'
2438 D0                              ret       NC
2439 3A 03 62                        ld        a, (mario_y_coord)
243C FE 6C                           cp        #0x6C ; 'l'
243E D0                              ret       NC
243F 14                              inc       d
2440 C9                              ret
2440             ; End of function sub_0_241F
2440
2441
2441             ; ▩▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
2441
2441
2441             sub_0_2441:                                    ; CODE XREF: 0000:0D62↑p
2441 21 0C 3F                        ld        hl, #byte_0_3F09+3    ; anti-tamper check?
2444 3E 5E                           ld        a, #0x5E ; '^'
2446 06 06                           ld        b, #6
2448
2448             loc_0_2448:                                    ; CODE XREF: sub_0_2441+9↓j
2448 86                              add       a, (hl)
2449 23                              inc       hl
244A 10 FC                           djnz      loc_0_2448
244C FD 21 10 63                     ld        iy, #unk_0_6310
2450 A7                              and       a
2451 CA 56 24                        jp        Z, loc_0_2456
2454 FD 23                           inc       iy
2456
2456             loc_0_2456:                                    ; CODE XREF: sub_0_2441+10↑j
2456 3A 27 62                        ld        a, (level_type)
2459 3D                              dec       a
245A 21 E4 3A                        ld        hl, #barrel_level_tilemap_data
245D CA 71 24                        jp        Z, loc_0_2471
2460 3D                              dec       a
2461 21 5D 3B                        ld        hl, #cement_pie_level_tilemap_data
2464 CA 71 24                        jp        Z, loc_0_2471
2467 3D                              dec       a
2468 21 E5 3B                        ld        hl, #elevator_level_tilemap_data
246B CA 71 24                        jp        Z, loc_0_2471
246E 21 8B 3C                        ld        hl, #rivet_level_tilemap_data
2471
2471             loc_0_2471:                                    ; CODE XREF: sub_0_2441+1C↑j
2471 DD 21 00 63                                                ; sub_0_2441+23↑j ...
2471                                 ld        ix, #unk_0_6300
2475 11 05 00                        ld        de, #5
2478
2478             loc_0_2478:                                    ; CODE XREF: sub_0_2441+44↓j
2478 7E                                                         ; sub_0_2441+5A↓j ...
2478                                 ld        a, (hl)
2479 A7                              and       a
247A CA 88 24                        jp        Z, loc_0_2488
247D 3D                              dec       a
247E CA 9E 24                        jp        Z, loc_0_249E
2481 FE A9                           cp        #0xA9 ; '®'
2483 C8                              ret       Z
2484 19                              add       hl, de
2485 C3 78 24                        jp        loc_0_2478
2488             ; ─────────────────────────────────────────────
2488
2488             loc_0_2488:                                    ; CODE XREF: sub_0_2441+39↑j
2488 23                              inc       hl
2489 7E                              ld        a, (hl)
248A DD 77 00                        ld        0(ix), a
248D 23                              inc       hl
248E 7E                              ld        a, (hl)
248F DD 77 15                        ld        0x15(ix), a
2492 23                              inc       hl
2493 23                              inc       hl
2494 7E                              ld        a, (hl)
2495 DD 77 2A                        ld        0x2A(ix), a
2498 DD 23                           inc       ix
249A 23                              inc       hl
249B C3 78 24                        jp        loc_0_2478
249E             ; ─────────────────────────────────────────────
249E
249E             loc_0_249E:                                    ; CODE XREF: sub_0_2441+3D↑j
249E 23                              inc       hl
249F 7E                              ld        a, (hl)
24A0 FD 77 00                        ld        0(iy), a
24A3 23                              inc       hl
24A4 7E                              ld        a, (hl)
24A5 FD 77 15                        ld        0x15(iy), a
24A8 23                              inc       hl
24A9 23                              inc       hl
24AA 7E                              ld        a, (hl)
24AB FD 77 2A                        ld        0x2A(iy), a
24AE FD 23                           inc       iy
24B0 23                              inc       hl
24B1 C3 78 24                        jp        loc_0_2478
24B1             ; End of function sub_0_2441
24B1
24B4
24B4             ; ▩▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
24B4
24B4
24B4             sub_0_24B4:                                    ; CODE XREF: sub_0_1F72+A2↑p
24B4 DD 7E 05                                                  ; sub_0_1F72+F6↑p ...
24B4                                 ld        a, 5(ix)
24B7 FE E8                           cp        #0xE8 ; 'Þ'
24B9 D8                              ret       C
24BA DD 7E 03                        ld        a, 3(ix)
24BD FE 2A                           cp        #0x2A ; '*'
24BF D0                              ret       NC
24C0 FE 20                           cp        #0x20 ; ' '
24C2 D8                              ret       C
```

```
24C3 DD 7E 15                    ld      a, 0x15(ix)
24C6 A7                          and     a
24C7 CA D0 24                    jp      Z, loc_0_24D0
24CA 3E 03                       ld      a, #3
24CC 32 B9 62                    ld      (unk_0_62B9), a
24CF AF                          xor     a
24D0
24D0             loc_0_24D0:                                      ; CODE XREF: sub_0_24B4+13↑j
24D0 DD 77 00                    ld      0(ix), a
24D3 DD 77 03                    ld      3(ix), a
24D6 21 82 60                    ld      hl, #digital_snd_tmr_thump
24D9 36 03                       ld      (hl), #3                 ; tmr=3
24DB E1                          pop     hl
24DC 3A 48 63                    ld      a, (unk_0_6348)
24DF A7                          and     a
24E0 C2 BA 21                    jp      NZ, loc_0_21BA
24E3 3C                          inc     a
24E4 32 48 63                    ld      (unk_0_6348), a
24E7 C3 BA 21                    jp      loc_0_21BA
24E7             ; End of function sub_0_24B4
24E7
24EA
24EA             ; ▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
24EA
24EA
24EA             sub_0_24EA:                                      ; CODE XREF: 0000:1992↑p
24EA 3E 02                       ld      a, #2
24EC F7                          rst     0x30                     ; return if level bit not set
24ED CD 23 25                    call    sub_0_2523
24F0 CD 91 25                    call    sub_0_2591
24F3 DD 21 A0 65                 ld      ix, #unk_0_65A0
24F7 06 06                       ld      b, #6                    ; 6 sprites to update
24F9 21 B8 69                    ld      hl, #soft_sprite_ram+0xB8
24FC
24FC             loc_0_24FC:                                      ; CODE XREF: sub_0_24EA+2F┤j
24FC DD 7E 00                    ld      a, 0(ix)
24FF A7                          and     a
2500 CA 1C 25                    jp      Z, loc_0_251C
2503 DD 7E 03                    ld      a, 3(ix)                 ; sprite X
2506 77                          ld      (hl), a
2507 2C                          inc     l
2508 DD 7E 07                    ld      a, 7(ix)                 ; sprite tile #
250B 77                          ld      (hl), a
250C 2C                          inc     l
250D DD 7E 08                    ld      a, 8(ix)                 ; sprite v flip & palette
2510 77                          ld      (hl), a
2511 2C                          inc     l
2512 DD 7E 05                    ld      a, 5(ix)                 ; sprite Y
2515 77                          ld      (hl), a
2516 2C                          inc     l
2517
2517             loc_0_2517:                                      ; CODE XREF: sub_0_24EA+36┤j
2517 DD 19                       add     ix, de
2519 10 E1                       djnz    loc_0_24FC
251B C9                          ret
251C             ; ─────────────────────────────────────────────
251C
251C             loc_0_251C:                                      ; CODE XREF: sub_0_24EA+16↑j
251C 7D                          ld      a, l
251D C6 04                       add     a, #4
251F 6F                          ld      l, a
2520 C3 17 25                    jp      loc_0_2517
2520             ; End of function sub_0_24EA
2520
2523
2523             ; ▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2523
2523
2523             sub_0_2523:                                      ; CODE XREF: sub_0_24EA+3↑p
2523 21 9B 63                    ld      hl, #unk_0_639B
2526 7E                          ld      a, (hl)
2527 A7                          and     a
2528 C2 8F 25                    jp      NZ, loc_0_258F
252B 3A 9A 63                    ld      a, (unk_0_639A)
252E A7                          and     a
252F C8                          ret     Z
2530 06 06                       ld      b, #6
2532 11 10 00                    ld      de, #0x10
2535 DD 21 A0 65                 ld      ix, #unk_0_65A0
2539
2539             loc_0_2539:                                      ; CODE XREF: sub_0_2523+1F┤j
2539 DD CB 00 46                 bit     0, 0(ix)
253D CA 45 25                    jp      Z, loc_0_2545
2540 DD 19                       add     ix, de
2542 10 F5                       djnz    loc_0_2539
2544 C9                          ret
2545             ; ─────────────────────────────────────────────
2545
2545             loc_0_2545:                                      ; CODE XREF: sub_0_2523+1A↑j
2545 CD 57 00                    call    rand
2548 FE 60                       cp      #0x60 ; '`'
254A DD 36 05 7C                 ld      5(ix), #0x7C ; '|'
254E DA 58 25                    jp      C, loc_0_2558
2551 3A A3 62                    ld      a, (unk_0_62A3)
2554 3D                          dec     a
2555 C2 6E 25                    jp      NZ, loc_0_256E
2558
2558             loc_0_2558:                                      ; CODE XREF: sub_0_2523+2B↑j
2558 DD 36 05 CC                 ld      5(ix), #0xCC ; '╠'
255C 3A A6 62                    ld      a, (unk_0_62A6)
255F 07                          rlca
2560
2560             loc_0_2560:                                      ; CODE XREF: sub_0_2523+50┤j
2560 DD 36 03 07                 ld      3(ix), #7
2564 D2 76 25                    jp      NC, loc_0_2576
2567 DD 36 03 F8                 ld      3(ix), #0xF8 ; '°'
256B C3 76 25                    jp      loc_0_2576
256E             ; ─────────────────────────────────────────────
256E
256E             loc_0_256E:                                      ; CODE XREF: sub_0_2523+32↑j
256E CD 57 00                    call    rand
2571 FE 68                       cp      #0x68 ; 'h'
2573 C3 60 25                    jp      loc_0_2560
2576             ; ─────────────────────────────────────────────
2576
2576             loc_0_2576:                                      ; CODE XREF: sub_0_2523+41↑j
```

```
2576 DD 36 00 01                                                       ; sub_0_2523+48↑j
2576                              ld      0(ix), #1
257A DD 36 07 4B                 ld      7(ix), #0x4B ; 'K'            ; cement pie sprite tile
257E DD 36 09 08                 ld      9(ix), #8
2582 DD 36 0A 03                 ld      0xA(ix), #3
2586 3E 7C                       ld      a, #0x7C ; '|'
2588 32 9B 63                    ld      (unk_0_639B), a
258B AF                          xor     a
258C 32 9A 63                    ld      (unk_0_639A), a
258F
258F           loc_0_258F:                                             ; CODE XREF: sub_0_2523+5↑j
258F 35                          dec     (hl)
2590 C9                          ret
2590           ; End of function sub_0_2523
2590
2591
2591           ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
2591
2591
2591           sub_0_2591:                                             ; CODE XREF: sub_0_24EA+6↑p
2591 DD 21 A0 65                 ld      ix, #unk_0_65A0
2595 11 10 00                    ld      de, #0x10
2598 06 06                       ld      b, #6
259A
259A           loc_0_259A:                                             ; CODE XREF: sub_0_2591+2C↓j
259A DD CB 00 46                 bit     0, 0(ix)
259E CA BB 25                    jp      Z, loc_0_25BB
25A1 DD 7E 03                    ld      a, 3(ix)
25A4 67                          ld      h, a
25A5 C6 07                       add     a, #7
25A7 FE 0E                       cp      #0xE
25A9 DA D6 25                    jp      C, loc_0_25D6
25AC DD 7E 05                    ld      a, 5(ix)
25AF FE 7C                       cp      #0x7C ; '|'
25B1 CA C0 25                    jp      Z, loc_0_25C0
25B4 3A A6 63                    ld      a, (unk_0_63A6)
25B7 84                          add     a, h
25B8 DD 77 03                    ld      3(ix), a
25BB
25BB           loc_0_25BB:                                             ; CODE XREF: sub_0_2591+D↑j
25BB DD 19                                                             ; sub_0_2591+42↓j ...
25BB                             add     ix, de
25BD 10 DB                       djnz    loc_0_259A
25BF C9                          ret
25C0           ; ────────────────────────────────────────────
25C0
25C0           loc_0_25C0:                                             ; CODE XREF: sub_0_2591+20↑j
25C0 7C                          ld      a, h
25C1 FE 80                       cp      #0x80 ; 'Ç'
25C3 CA D6 25                    jp      Z, loc_0_25D6
25C6 3A A5 63                    ld      a, (unk_0_63A5)
25C9 D2 CF 25                    jp      NC, loc_0_25CF
25CC 3A A4 63                    ld      a, (unk_0_63A4)
25CF
25CF           loc_0_25CF:                                             ; CODE XREF: sub_0_2591+38↑j
25CF 84                          add     a, h
25D0 DD 77 03                    ld      3(ix), a
25D3 C3 BB 25                    jp      loc_0_25BB
25D6           ; ────────────────────────────────────────────
25D6
25D6           loc_0_25D6:                                             ; CODE XREF: sub_0_2591+18↑j
25D6 21 B8 69                                                         ; sub_0_2591+32↑j
25D6                             ld      hl, #soft_sprite_ram+0xB8
25D9 3E 06                       ld      a, #6
25DB 90                          sub     b
25DC
25DC           loc_0_25DC:                                             ; CODE XREF: sub_0_2591+53↓j
25DC CA E7 25                    jp      Z, loc_0_25E7
25DF 2C                          inc     l
25E0 2C                          inc     l
25E1 2C                          inc     l
25E2 2C                          inc     l
25E3 3D                          dec     a
25E4 C3 DC 25                    jp      loc_0_25DC
25E7           ; ────────────────────────────────────────────
25E7
25E7           loc_0_25E7:                                             ; CODE XREF: sub_0_2591+4B↑j
25E7 AF                          xor     a
25E8 DD 77 00                    ld      0(ix), a
25EB DD 77 03                    ld      3(ix), a
25EE 77                          ld      (hl), a
25EF C3 BB 25                    jp      loc_0_25BB
25EF           ; End of function sub_0_2591
25EF
25EF
25F2
25F2           ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
25F2
25F2
25F2           sub_0_25F2:                                             ; CODE XREF: 0000:19AA↑p
25F2 3E 02                       ld      a, #2
25F4 F7                          rst     0x30                          ; return if level bit not set
25F5 CD 02 26                    call    sub_0_2602
25F8 CD 2F 26                    call    sub_0_262F
25FB CD 79 26                    call    sub_0_2679
25FE CD D3 2A                    call    sub_0_2AD3
2601 C9                          ret
2601           ; End of function sub_0_25F2
2601
2602
2602           ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
2602
2602
2602           sub_0_2602:                                             ; CODE XREF: 0000:16D5↑p
2602 3A 1A 60                                                         ; sub_0_25F2+3↑p
2602                             ld      a, (gen_purpose_timer)
2605 0F                          rrca
2606 DA 16 26                    jp      C, loc_0_2616
2609 21 A0 62                    ld      hl, #unk_0_62A0
260C 35                          dec     (hl)
260D C2 16 26                    jp      NZ, loc_0_2616
2610 36 80                       ld      (hl), #0x80 ; 'Ç'
2612 2C                          inc     l
2613 CD DE 26                    call    sub_0_26DE
2616
2616           loc_0_2616:                                             ; CODE XREF: sub_0_2602+4↑j
2616 21 A1 62                                                         ; sub_0_2602+B↑j
```

```
2616                                    ld      hl, #unk_0_62A1
2619 CD E9 26                           call    sub_0_26E9
261C 32 A3 63                           ld      (unk_0_63A3), a
261F 3A 1A 60                           ld      a, (gen_purpose_timer)
2622 E6 1F                              and     #0x1F
2624 FE 01                              cp      #1
2626 C0                                 ret     NZ
2627 11 E4 69                           ld      de, #soft_sprite_ram+0xE4
262A EB                                 ex      de, hl
262B CD A6 26                           call    sub_0_26A6
262E C9                                 ret
262E                    ; End of function sub_0_2602
262E
262F
262F                    ; ▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
262F
262F
262F                    sub_0_262F:                                 ; CODE XREF: sub_0_25F2+6↑p
262F 21 A3 62                           ld      hl, #unk_0_62A3
2632 3A 05 62                           ld      a, (mario_x_coord)
2635 FE C0                              cp      #0xC0 ; 'ʟ'
2637 DA 6F 26                           jp      C, loc_0_266F
263A 3A 1A 60                           ld      a, (gen_purpose_timer)
263D 0F                                 rrca
263E DA 4C 26                           jp      C, loc_0_264C
2641 2D                                 dec     l
2642 35                                 dec     (hl)
2643 C2 4C 26                           jp      NZ, loc_0_264C
2646 36 C0                              ld      (hl), #0xC0 ; 'ʟ'
2648 2C                                 inc     l
2649 CD DE 26                           call    sub_0_26DE
264C
264C                    loc_0_264C:                                 ; CODE XREF: sub_0_262F+F↑j
264C 21 A3 62                                                      ; sub_0_262F+14↑j ...
264C                                    ld      hl, #unk_0_62A3
264F CD E9 26                           call    sub_0_26E9
2652 32 A5 63                           ld      (unk_0_63A5), a
2655 ED 44                              neg
2657 32 A4 63                           ld      (unk_0_63A4), a
265A 3A 1A 60                           ld      a, (gen_purpose_timer)
265D E6 1F                              and     #0x1F
265F C0                                 ret     NZ
2660 2D                                 dec     l
2661 11 EC 69                           ld      de, #soft_sprite_ram+0xEC
2664 EB                                 ex      de, hl
2665 CD A6 26                           call    sub_0_26A6
2668 E6 7F                              and     #0x7F ; ' '
266A 21 ED 69                           ld      hl, #soft_sprite_ram+0xED
266D 77                                 ld      (hl), a
266E C9                                 ret
266F                    ; ──────────────────────────────────────────────────────
266F
266F                    loc_0_266F:                                 ; CODE XREF: sub_0_262F+8↑j
266F CB 7E                              bit     7, (hl)
2671 C2 4C 26                           jp      NZ, loc_0_264C
2674 36 FF                              ld      (hl), #0xFF
2676 C3 4C 26                           jp      loc_0_264C
2676                    ; End of function sub_0_262F
2676
2679
2679                    ; ▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2679
2679
2679                    sub_0_2679:                                 ; CODE XREF: sub_0_25F2+9↑p
2679 3A 1A 60                           ld      a, (gen_purpose_timer)
267C 0F                                 rrca
267D DA 8D 26                           jp      C, loc_0_268D
2680 21 A5 62                           ld      hl, #unk_0_62A5
2683 35                                 dec     (hl)
2684 C2 8D 26                           jp      NZ, loc_0_268D
2687 36 FF                              ld      (hl), #0xFF
2689 2C                                 inc     l
268A CD DE 26                           call    sub_0_26DE
268D
268D                    loc_0_268D:                                 ; CODE XREF: sub_0_2679+4↑j
268D 21 A6 62                                                      ; sub_0_2679+B↑j
268D                                    ld      hl, #unk_0_62A6
2690 CD E9 26                           call    sub_0_26E9
2693 32 A6 63                           ld      (unk_0_63A6), a
2696 3A 1A 60                           ld      a, (gen_purpose_timer)
2699 E6 1F                              and     #0x1F
269B FE 02                              cp      #2
269D C0                                 ret     NZ
269E 11 F4 69                           ld      de, #soft_sprite_ram+0xF4
26A1 EB                                 ex      de, hl
26A2 CD A6 26                           call    sub_0_26A6
26A5 C9                                 ret
26A5                    ; End of function sub_0_2679
26A5
26A6
26A6                    ; ▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
26A6
26A6
26A6                    sub_0_26A6:                                 ; CODE XREF: sub_0_2602+29↑p
26A6 2C                                                            ; sub_0_262F+36↑p ...
26A6                                    inc     l
26A7 1A                                 ld      a, (de)
26A8 17                                 rla
26A9 DA C5 26                           jp      C, loc_0_26C5
26AC 7E                                 ld      a, (hl)
26AD 3C                                 inc     a
26AE FE 53                              cp      #0x53 ; 'S'
26B0 C2 B5 26                           jp      NZ, loc_0_26B5
26B3 3E 50                              ld      a, #0x50 ; 'P'
26B5
26B5                    loc_0_26B5:                                 ; CODE XREF: sub_0_26A6+A↑j
26B5 77                                 ld      (hl), a
26B6 7D                                 ld      a, l
26B7 C6 04                              add     a, #4
26B9 6F                                 ld      l, a
26BA 7E                                 ld      a, (hl)
26BB 3D                                 dec     a
26BC FE CF                              cp      #0xCF ; '¤'
26BE C2 C3 26                           jp      NZ, loc_0_26C3
26C1 3E D2                              ld      a, #0xD2 ; 'Ê'
26C3
```

```
26C3                    loc_0_26C3:                                      ; CODE XREF: sub_0_26A6+18↑j
26C3 77                         ld      (hl), a
26C4 C9                         ret
26C5            ; ─────────────────────────────────────────────────
26C5
26C5                    loc_0_26C5:                                      ; CODE XREF: sub_0_26A6+3↑j
26C5 7E                         ld      a, (hl)
26C6 3D                         dec     a
26C7 FE 4F                      cp      #0x4F ; 'O'
26C9 C2 CE 26                   jp      NZ, loc_0_26CE
26CC 3E 52                      ld      a, #0x52 ; 'R'
26CE
26CE                    loc_0_26CE:                                      ; CODE XREF: sub_0_26A6+23↑j
26CE 77                         ld      (hl), a
26CF 7D                         ld      a, l
26D0 C6 04                      add     a, #4
26D2 6F                         ld      l, a
26D3 7E                         ld      a, (hl)
26D4 3C                         inc     a
26D5 FE D3                      cp      #0xD3 ; 'Ë'
26D7 C2 DC 26                   jp      NZ, loc_0_26DC
26DA 3E D0                      ld      a, #0xD0 ; 'ð'
26DC
26DC                    loc_0_26DC:                                      ; CODE XREF: sub_0_26A6+31↑j
26DC 77                         ld      (hl), a
26DD C9                         ret
26DD            ; End of function sub_0_26A6
26DD
26DE
26DE            ; ▔▔▔▔▔▔▔▔▔▔▔▔ S U B R O U T I N E ▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔
26DE
26DE
26DE                    sub_0_26DE:                                      ; CODE XREF: sub_0_2602+11↑p
26DE CB 7E                                                              ; sub_0_262F+1A↑p ...
26DE                            bit     7, (hl)
26E0 CA E6 26                   jp      Z, loc_0_26E6
26E3 36 02                      ld      (hl), #2
26E5 C9                         ret
26E6            ; ─────────────────────────────────────────────────
26E6
26E6                    loc_0_26E6:                                      ; CODE XREF: sub_0_26DE+2↑j
26E6 36 FE                      ld      (hl), #0xFE ; '■'
26E8 C9                         ret
26E8            ; End of function sub_0_26DE
26E8
26E9
26E9            ; ▔▔▔▔▔▔▔▔▔▔▔▔ S U B R O U T I N E ▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔
26E9
26E9
26E9                    sub_0_26E9:                                      ; CODE XREF: sub_0_2602+17↑p
26E9 3A 1A 60                                                           ; sub_0_262F+20↑p ...
26E9                            ld      a, (gen_purpose_timer)
26EC E6 01                      and     #1
26EE C8                         ret     Z
26EF CB 7E                      bit     7, (hl)
26F1 3E FF                      ld      a, #0xFF
26F3 C2 F8 26                   jp      NZ, loc_0_26F8
26F6 3E 01                      ld      a, #1
26F8
26F8                    loc_0_26F8:                                      ; CODE XREF: sub_0_26E9+A↑j
26F8 77                         ld      (hl), a
26F9 C9                         ret
26F9            ; End of function sub_0_26E9
26F9
26FA
26FA            ; ▔▔▔▔▔▔▔▔▔▔▔▔ S U B R O U T I N E ▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔▔
26FA
26FA
26FA                    sub_0_26FA:                                      ; CODE XREF: 0000:19A7↑p
26FA 3E 04                      ld      a, #4
26FC F7                         rst     0x30                            ; return if level bit not set
26FD 3A 05 62                   ld      a, (mario_x_coord)
2700 FE F0                      cp      #0xF0 ; '-'
2702 D2 7F 27                   jp      NC, mario_dies_on_elevator      ; make mario die
2705 3A 29 62                   ld      a, (level)
2708 3D                         dec     a
2709 3A 1A 60                   ld      a, (gen_purpose_timer)
270C C2 1A 27                   jp      NZ, loc_0_271A
270F E6 03                      and     #3
2711 FE 01                      cp      #1
2713 CA 1E 27                   jp      Z, loc_0_271E
2716 DA 22 27                   jp      C, loc_0_2722
2719 C9                         ret
271A            ; ─────────────────────────────────────────────────
271A
271A                    loc_0_271A:                                      ; CODE XREF: sub_0_26FA+12↑j
271A 0F                         rrca
271B DA 22 27                   jp      C, loc_0_2722
271E
271E                    loc_0_271E:                                      ; CODE XREF: sub_0_26FA+19↑j
271E CD 45 27                   call    sub_0_2745
2721 C9                         ret
2722            ; ─────────────────────────────────────────────────
2722
2722                    loc_0_2722:                                      ; CODE XREF: sub_0_26FA+1C↑j
2722 CD 97 27                                                           ; sub_0_26FA+21↑j
2722                            call    sub_0_2797
2725 CD DA 27                   call    sub_0_27DA
2728 06 06                      ld      b, #6                           ; six elevators
272A 11 10 00                   ld      de, #0x10
272D 21 58 69                   ld      hl, #soft_sprite_ram+0x58
2730 DD 21 00 66                ld      ix, #unk_0_6600
2734
2734                    loc_0_2734:                                      ; CODE XREF: sub_0_26FA+48├j
2734 DD 7E 03                   ld      a, 3(ix)                        ; store coordinates
2737 77                         ld      (hl), a
2738 2C                         inc     l
2739 2C                         inc     l
273A 2C                         inc     l
273B DD 7E 05                   ld      a, 5(ix)
273E 77                         ld      (hl), a
273F 2C                         inc     l
2740 DD 19                      add     ix, de
2742 10 F0                      djnz    loc_0_2734
2744 C9                         ret
2744            ; End of function sub_0_26FA
```

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2744
2745
2745              ; ▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2745
2745
2745              sub_0_2745:                               ; CODE XREF: sub_0_26FA+24↑p
2745 3A 98 63            ld      a, (mario_on_elevator)
2748 A7                  and     a                         ; on elevator?
2749 C8                  ret     Z                         ; no, return
274A 3A 16 62            ld      a, (mario_jumping)
274D A7                  and     a                         ; jumping?
274E C0                  ret     NZ                        ; yes, return
274F 3A 03 62            ld      a, (mario_y_coord)
2752 FE 2C               cp      #0x2C ; ','
2754 DA 66 27            jp      C, loc_0_2766             ; not not elevator
2757 FE 43               cp      #0x43 ; 'C'
2759 DA 6F 27            jp      C, loc_0_276F             ; on left elevator
275C FE 6C               cp      #0x6C ; 'l'
275E DA 66 27            jp      C, loc_0_2766             ; not on elevator
2761 FE 83               cp      #0x83 ; 'â'
2763 DA 87 27            jp      C, loc_0_2787             ; on right elevator
2766
2766              loc_0_2766:                               ; CODE XREF: sub_0_2745+F↑j
2766 AF                                                     ; sub_0_2745+19↑j
2766                      xor     a                         ; mark off elevator
2767 32 98 63            ld      (mario_on_elevator), a
276A 3C                  inc     a
276B 32 21 62            ld      (unk_0_6221), a
276E C9                  ret
276F              ; ─────────────────────────────────────────────────────
276F
276F              loc_0_276F:                               ; CODE XREF: sub_0_2745+14↑j
276F 3A 05 62            ld      a, (mario_x_coord)
2772 FE 71               cp      #0x71 ; 'q'
2774 DA 7F 27            jp      C, mario_dies_on_elevator ; make mario die
2777 3D                  dec     a                         ; on upwards moving elevator
2778 32 05 62            ld      (mario_x_coord), a
277B 32 4F 69            ld      (soft_sprite_ram+0x4F), a
277E C9                  ret
277F              ; ─────────────────────────────────────────────────────
277F
277F              mario_dies_on_elevator:                   ; CODE XREF: sub_0_26FA+8↑j
277F AF                                                     ; sub_0_2745+2F↑j ...
277F                      xor     a
2780 32 00 62            ld      (mario_alive_flag), a
2783 32 98 63            ld      (mario_on_elevator), a
2786 C9                  ret
2787              ; ─────────────────────────────────────────────────────
2787
2787              loc_0_2787:                               ; CODE XREF: sub_0_2745+1E↑j
2787 3A 05 62            ld      a, (mario_x_coord)
278A FE E8               cp      #0xE8 ; 'Þ'
278C D2 7F 27            jp      NC, mario_dies_on_elevator
278F 3C                  inc     a                         ; on downwards moving elevator
2790 32 05 62            ld      (mario_x_coord), a
2793 32 4F 69            ld      (soft_sprite_ram+0x4F), a
2796 C9                  ret
2796              ; End of function sub_0_2745
2796
2797
2797              ; ▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2797
2797
2797              sub_0_2797:                               ; CODE XREF: sub_0_26FA+28↑p
2797 06 06             ld      b, #6                       ; move elevators to the right side
2799 11 10 00          ld      de, #0x10
279C DD 21 00 66       ld      ix, #unk_0_6600
27A0
27A0              loc_0_27A0:                               ; CODE XREF: sub_0_2797+2D├j
27A0 DD CB 00 46       bit     0, 0(ix)
27A4 CA C2 27          jp      Z, loc_0_27C2
27A7 DD CB 0D 5E       bit     3, 0xD(ix)
27AB CA C7 27          jp      Z, loc_0_27C7
27AE DD 7E 05          ld      a, 5(ix)
27B1 3D               dec     a
27B2 DD 77 05          ld      5(ix), a
27B5 FE 60            cp      #0x60 ; '`'
27B7 C2 C2 27          jp      NZ, loc_0_27C2
27BA DD 36 03 77       ld      3(ix), #0x77 ; 'w'
27BE DD 36 0D 04       ld      0xD(ix), #4
27C2
27C2              loc_0_27C2:                               ; CODE XREF: sub_0_2797+D↑j
27C2 DD 19                                                 ; sub_0_2797+20↑j ...
27C2                      add     ix, de
27C4 10 DA               djnz    loc_0_27A0
27C6 C9                  ret
27C7              ; ─────────────────────────────────────────────────────
27C7
27C7              loc_0_27C7:                               ; CODE XREF: sub_0_2797+14↑j
27C7 DD 7E 05          ld      a, 5(ix)
27CA 3C               inc     a
27CB DD 77 05          ld      5(ix), a
27CE FE F8            cp      #0xF8 ; '°'
27D0 C2 C2 27          jp      NZ, loc_0_27C2
27D3 DD 36 00 00       ld      0(ix), #0
27D7 C3 C2 27          jp      loc_0_27C2
27D7              ; End of function sub_0_2797
27D7
27DA
27DA              ; ▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
27DA
27DA
27DA              sub_0_27DA:                               ; CODE XREF: sub_0_26FA+2B↑p
27DA 21 A7 62          ld      hl, #unk_0_62A7             ; move elevators to the left side
27DD 7E               ld      a, (hl)
27DE A7               and     a
27DF C2 06 28          jp      NZ, loc_0_2806
27E2 06 06            ld      b, #6
27E4 DD 21 00 66       ld      ix, #unk_0_6600
27E8
27E8              loc_0_27E8:                               ; CODE XREF: sub_0_27DA+17├j
27E8 DD CB 00 46       bit     0, 0(ix)
27EC CA F4 27          jp      Z, loc_0_27F4
27EF DD 19            add     ix, de
27F1 10 F5            djnz    loc_0_27E8
27F3 C9               ret
```

```
27F4              ; ─────────────────────────────────────────────────
27F4
27F4              loc_0_27F4:                                       ; CODE XREF: sub_0_27DA+12↑j
27F4 DD 36 00 01                ld      0(ix), #1
27F8 DD 36 03 37                ld      3(ix), #0x37 ; '7'
27FC DD 36 05 F8                ld      5(ix), #0xF8 ; 'ø'
2800 DD 36 0D 08                ld      0xD(ix), #8
2804 36 34                      ld      (hl), #0x34 ; '4'
2806
2806              loc_0_2806:                                       ; CODE XREF: sub_0_27DA+5↑j
2806 35                         dec     (hl)
2807 C9                         ret
2807              ; End of function sub_0_27DA
2807
2808
2808              ; ▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
2808
2808
2808              sub_0_2808:                                       ; CODE XREF: 0000:19B3↑p
2808 FD 21 00 62                ld      iy, #mario_alive_flag
280C 3A 05 62                   ld      a, (mario_x_coord)
280F 4F                         ld      c, a
2810 21 07 04                   ld      hl, #0x407
2813 CD 6F 28                   call    sub_0_286F
2816 A7                         and     a
2817 C8                         ret     Z
2818 3D                         dec     a                           ; die
2819 32 00 62                   ld      (mario_alive_flag), a
281C C9                         ret
281C              ; End of function sub_0_2808
281C
281D
281D              ; ▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
281D
281D
281D              sub_0_281D:                                       ; CODE XREF: 0000:19B6↑p
281D 06 02                      ld      b, #2
281F 11 10 00                   ld      de, #0x10
2822 FD 21 80 66                ld      iy, #unk_0_6680             ; hammer character data
2826
2826              loc_0_2826:                                       ; CODE XREF: sub_0_281D+12├j
2826 FD CB 01 46                bit     0, 1(iy)
282A C2 32 28                   jp      NZ, loc_0_2832
282D FD 19                      add     iy, de
282F 10 F5                      djnz    loc_0_2826
2831 C9                         ret
2832              ; ─────────────────────────────────────────────────
2832
2832              loc_0_2832:                                       ; CODE XREF: sub_0_281D+D↑j
2832 FD 4E 05                   ld      c, 5(iy)
2835 FD 66 09                   ld      h, 9(iy)
2838 FD 6E 0A                   ld      l, 0xA(iy)
283B CD 6F 28                   call    sub_0_286F
283E A7                         and     a
283F C8                         ret     Z
2840 32 50 63                   ld      (unk_0_6350), a
2843 3A B9 63                   ld      a, (unk_0_63B9)
2846 90                         sub     b
2847 32 54 63                   ld      (unk_0_6354), a
284A 7B                         ld      a, e
284B 32 53 63                   ld      (unk_0_6353), a
284E DD 22 51 63                ld      (unk_0_6351), ix
2852 C9                         ret
2852              ; End of function sub_0_281D
2852
2853
2853              ; ▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
2853
2853
2853              sub_0_2853:                                       ; CODE XREF: sub_0_1AC3+15D↑p
2853 FD 21 00 62                ld      iy, #mario_alive_flag
2857 3A 05 62                   ld      a, (mario_x_coord)
285A
285A              loc_0_285A:
285A C6 0C                      add     a, #0xC
285C 4F                         ld      c, a
285D 3A 10 60                   ld      a, (controller_in)
2860 E6 03                      and     #3                          ; left/right only
2862 21 08 05                   ld      hl, #0x508
2865 CA 6B 28                   jp      Z, loc_0_286B               ; not left/right
2868 21 08 13                   ld      hl, #0x1308
286B
286B              loc_0_286B:                                       ; CODE XREF: sub_0_2853+12↑j
286B CD 88 3E                   call    sub_0_3E88
286E C9                         ret
286E              ; End of function sub_0_2853
286E
286F
286F              ; ▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
286F
286F
286F              sub_0_286F:                                       ; CODE XREF: sub_0_2808+B↑p
286F 3A 27 62                                                      ; sub_0_281D+1E↑p
286F                            ld      a, (level_type)
2872 E5                         push    hl
2873 EF                         rst     0x28                        ; go!
2873              ; ─────────────────────────────────────────────────
2874 00 00                      .dw 0                               ; Jump table
2876 80 28                      .dw l1_check_hammer_hit
2878 B0 28                      .dw l2_check_hammer_hit
287A E0 28                      .dw l3_check_hammer_hit
287C 01 29                      .dw l4_check_hammer_hit
287E 00 00                      .dw 0
2880              ; ─────────────────────────────────────────────────
2880
2880              l1_check_hammer_hit:                              ; DATA XREF: sub_0_286F+7↑o
2880 E1                         pop     hl
2881 06 0A                      ld      b, #0xA
2883 78                         ld      a, b
2884 32 B9 63                   ld      (unk_0_63B9), a
2887 11 20 00                   ld      de, #0x20 ; ' '
288A DD 21 00 67                ld      ix, #unk_0_6700
288E CD 13 29                   call    sub_0_2913
2891 06 05                      ld      b, #5
2893 78                         ld      a, b
2894 32 B9 63                   ld      (unk_0_63B9), a
```

```
2897 1E 20                      ld      e, #0x20 ; ' '
2899 DD 21 00 64                ld      ix, #unk_0_6400                  ; fireball character data
289D CD 13 29                   call    sub_0_2913
28A0 06 01                      ld      b, #1
28A2 78                         ld      a, b
28A3 32 B9 63                   ld      (unk_0_63B9), a
28A6 1E 00                      ld      e, #0
28A8 DD 21 A0 66                ld      ix, #unk_0_66A0
28AC CD 13 29                   call    sub_0_2913
28AF C9                         ret
28AF                    ; End of function sub_0_286F
28AF
28B0                    ; ─────────────────────────────────────────────────────
28B0
28B0            l2_check_hammer_hit:                                     ; DATA XREF: sub_0_286F+9↑o
28B0 E1                                                                  ; sub_0_3E88+9┆o
28B0                            pop     hl
28B1 06 05                      ld      b, #5
28B3 78                         ld      a, b
28B4 32 B9 63                   ld      (unk_0_63B9), a
28B7 11 20 00                   ld      de, #0x20 ; ' '
28BA DD 21 00 64                ld      ix, #unk_0_6400                  ; fireball character data
28BE CD 13 29                   call    sub_0_2913
28C1 06 06                      ld      b, #6
28C3 78                         ld      a, b
28C4 32 B9 63                   ld      (unk_0_63B9), a
28C7 1E 10                      ld      e, #0x10
28C9 DD 21 A0 65                ld      ix, #unk_0_65A0
28CD CD 13 29                   call    sub_0_2913
28D0 06 01                      ld      b, #1
28D2 78                         ld      a, b
28D3 32 B9 63                   ld      (unk_0_63B9), a
28D6 1E 00                      ld      e, #0
28D8 DD 21 A0 66                ld      ix, #unk_0_66A0
28DC CD 13 29                   call    sub_0_2913
28DF C9                         ret
28E0            ; ─────────────────────────────────────────────────────
28E0
28E0            l3_check_hammer_hit:                                     ; DATA XREF: sub_0_286F+B↑o
28E0 E1                                                                  ; sub_0_3E88+B┆o
28E0                            pop     hl
28E1 06 05                      ld      b, #5
28E3 78                         ld      a, b
28E4 32 B9 63                   ld      (unk_0_63B9), a
28E7 11 20 00                   ld      de, #0x20 ; ' '
28EA DD 21 00 64                ld      ix, #unk_0_6400                  ; fireball character data
28EE CD 13 29                   call    sub_0_2913
28F1 06 0A                      ld      b, #0xA
28F3 78                         ld      a, b
28F4 32 B9 63                   ld      (unk_0_63B9), a
28F7 1E 10                      ld      e, #0x10
28F9 DD 21 00 65                ld      ix, #unk_0_6500                  ; check if hammer hits a spring
28FD CD 13 29                   call    sub_0_2913
2900 C9                         ret
2901            ; ─────────────────────────────────────────────────────
2901
2901            l4_check_hammer_hit:                                     ; DATA XREF: sub_0_286F+D↑o
2901 E1                                                                  ; sub_0_3E88+D┆o
2901                            pop     hl
2902 06 07                      ld      b, #7
2904 78                         ld      a, b
2905 32 B9 63                   ld      (unk_0_63B9), a
2908 11 20 00                   ld      de, #0x20 ; ' '
290B DD 21 00 64                ld      ix, #unk_0_6400                  ; fireball character data
290F CD 13 29                   call    sub_0_2913
2912 C9                         ret
2913            ; ███████████████ S U B R O U T I N E ██████████████████████████████████
2913
2913
2913            sub_0_2913:                                              ; CODE XREF: sub_0_286F+1F↑p
2913 DD E5                                                               ; sub_0_286F+2E↑p ...
2913                            push    ix
2915
2915            loc_0_2915:                                              ; CODE XREF: sub_0_2913+3B┆j
2915 DD CB 00 46                bit     0, 0(ix)                         ; check if hammer hits something else
2919 CA 4C 29                   jp      Z, loc_0_294C
291C 79                         ld      a, c
291D DD 96 05                   sub     5(ix)
2920 D2 25 29                   jp      NC, loc_0_2925
2923 ED 44                      neg
2925
2925            loc_0_2925:                                              ; CODE XREF: sub_0_2913+D↑j
2925 3C                         inc     a
2926 95                         sub     l
2927 DA 30 29                   jp      C, loc_0_2930
292A DD 96 0A                   sub     0xA(ix)
292D D2 4C 29                   jp      NC, loc_0_294C
2930
2930            loc_0_2930:                                              ; CODE XREF: sub_0_2913+14↑j
2930 FD 7E 03                   ld      a, 3(iy)
2933 DD 96 03                   sub     3(ix)
2936 D2 3B 29                   jp      NC, loc_0_293B
2939 ED 44                      neg
293B
293B            loc_0_293B:                                              ; CODE XREF: sub_0_2913+23↑j
293B 94                         sub     h
293C DA 45 29                   jp      C, loc_0_2945
293F DD 96 09                   sub     9(ix)
2942 D2 4C 29                   jp      NC, loc_0_294C
2945
2945            loc_0_2945:                                              ; CODE XREF: sub_0_2913+29↑j
2945 3E 01                      ld      a, #1
2947 DD E1                      pop     ix
2949 33                         inc     sp
294A 33                         inc     sp
294B C9                         ret
294C            ; ─────────────────────────────────────────────────────
294C
294C            loc_0_294C:                                              ; CODE XREF: sub_0_2913+6↑j
294C DD 19                                                               ; sub_0_2913+1A↑j ...
294C                            add     ix, de
294E 10 C5                      djnz    loc_0_2915
2950 AF                         xor     a
2951 DD E1                      pop     ix
2953 C9                         ret
```

```
2953                  ; End of function sub_0_2913
2953
2954
2954                  ; ▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
2954
2954
2954                  sub_0_2954:                                    ; CODE XREF: sub_0_1AC3+171↑p
2954 3E 0B                    ld      a, #0xB
2956 F7                       rst     0x30                           ; return if level bit not set
2957 CD 74 29                 call    sub_0_2974
295A 32 18 62                 ld      (unk_0_6218), a
295D 0F                       rrca
295E 0F                       rrca
295F 32 85 60                 ld      (digital_snd_tmr_barrel_jump_priz), a
2962 78                       ld      a, b
2963 A7                       and     a
2964 C8                       ret     Z
2965 FE 01                    cp      #1
2967 CA 6F 29                 jp      Z, loc_0_296F
296A DD 36 01 01              ld      1(ix), #1
296E C9                       ret
296F                  ; ────────────────────────────────────────────
296F
296F                  loc_0_296F:                                    ; CODE XREF: sub_0_2954+13↑j
296F DD 36 11 01              ld      0x11(ix), #1
2973 C9                       ret
2973                  ; End of function sub_0_2954
2973
2974
2974                  ; ▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
2974
2974
2974                  sub_0_2974:                                    ; CODE XREF: sub_0_2954+3↑p
2974 FD 21 00 62              ld      iy, #mario_alive_flag
2978 3A 05 62                 ld      a, (mario_x_coord)
297B 4F                       ld      c, a
297C 21 08 04                 ld      hl, #0x408
297F 06 02                    ld      b, #2
2981 11 10 00                 ld      de, #0x10
2984 DD 21 80 66              ld      ix, #unk_0_6680                ; hammer character data
2988 CD 13 29                 call    sub_0_2913
298B C9                       ret
298B                  ; End of function sub_0_2974
298B
298B
298C
298C                  ; ▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
298C
298C
298C                  sub_0_298C:                                    ; CODE XREF: sub_0_3202+3C↓p
298C 2A C8 63                 ld      hl, (unk_0_63C8)
298F 7D                       ld      a, l
2990 C6 0E                    add     a, #0xE
2992 6F                       ld      l, a
2993 56                       ld      d, (hl)
2994 2C                       inc     l
2995 7E                       ld      a, (hl)
2996 C6 0C                    add     a, #0xC
2998 5F                       ld      e, a
2999 EB                       ex      de, hl
299A CD F0 2F                 call    sub_0_2FF0
299D 7E                       ld      a, (hl)
299E FE B0                    cp      #0xB0 ; '░'
29A0 DA AC 29                 jp      C, loc_0_29AC
29A3 E6 0F                    and     #0xF
29A5 FE 08                    cp      #8
29A7 D2 AC 29                 jp      NC, loc_0_29AC
29AA AF                       xor     a
29AB C9                       ret
29AC                  ; ────────────────────────────────────────────
29AC
29AC                  loc_0_29AC:                                    ; CODE XREF: sub_0_298C+14↑j
29AC 3E 01                                                          ; sub_0_298C+1B↑j
29AC                          ld      a, #1
29AE C9                       ret
29AE                  ; End of function sub_0_298C
29AE
29AF
29AF                  ; ▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
29AF
29AF
29AF                  sub_0_29AF:                                    ; CODE XREF: sub_0_2B1C+7↑p
29AF 3E 04                    ld      a, #4
29B1 F7                       rst     0x30                           ; return if level bit not set
29B2 FD 21 00 62              ld      iy, #mario_alive_flag
29B6 3A 05 62                 ld      a, (mario_x_coord)
29B9 4F                       ld      c, a
29BA 21 08 04                 ld      hl, #0x408
29BD CD 22 2A                 call    sub_0_2A22
29C0 A7                       and     a
29C1 CA 20 2A                 jp      Z, loc_0_2A20
29C4 3E 06                    ld      a, #6
29C6 90                       sub     b
29C7
29C7                  loc_0_29C7:                                    ; CODE XREF: sub_0_29AF+1E↓j
29C7 CA D0 29                 jp      Z, loc_0_29D0
29CA DD 19                    add     ix, de
29CC 3D                       dec     a
29CD C3 C7 29                 jp      loc_0_29C7
29D0                  ; ────────────────────────────────────────────
29D0
29D0                  loc_0_29D0:                                    ; CODE XREF: sub_0_29AF+18↓j
29D0 DD 7E 05                 ld      a, 5(ix)
29D3 D6 04                    sub     #4
29D5 57                       ld      d, a
29D6 3A 0C 62                 ld      a, (mario_y_before_jump)
29D9 C6 05                    add     a, #5
29DB BA                       cp      d                             ; check if on or below elevator
29DC D2 EE 29                 jp      NC, loc_0_29EE
29DF 7A                       ld      a, d
29E0 D6 08                    sub     #8
29E2 32 05 62                 ld      (mario_x_coord), a
29E5 3E 01                    ld      a, #1                         ; flag on elevator
29E7 47                       ld      b, a
29E8 32 98 63                 ld      (mario_on_elevator), a
29EB 33                       inc     sp
29EC 33                       inc     sp
```

```
29ED C9                         ret
29EE                    ; ─────────────────────────────────────────────────
29EE
29EE
29EE                    loc_0_29EE:                              ; CODE XREF: sub_0_29AF+2D↑j
29EE 3A 0C 62               ld      a, (mario_y_before_jump)     ; collide with side of elevator
29F1 D6 0E                  sub     #0xE
29F3 BA                     cp      d
29F4 D2 1B 2A               jp      NC, loc_0_2A1B
29F7 3A 10 62               ld      a, (unk_0_6210)
29FA A7                     and     a
29FB 3A 03 62               ld      a, (mario_y_coord)
29FE CA 08 2A               jp      Z, loc_0_2A08
2A01 F6 07                  or      #7
2A03 D6 04                  sub     #4
2A05 C3 0E 2A               jp      loc_0_2A0E
2A08                    ; ─────────────────────────────────────────────────
2A08
2A08                    loc_0_2A08:                              ; CODE XREF: sub_0_29AF+4F↑j
2A08 D6 08                  sub     #8
2A0A F6 07                  or      #7
2A0C C6 04                  add     a, #4
2A0E
2A0E                    loc_0_2A0E:                              ; CODE XREF: sub_0_29AF+56↑j
2A0E 32 03 62               ld      (mario_y_coord), a
2A11 32 4C 69               ld      (soft_sprite_ram+0x4C), a
2A14 3E 01                  ld      a, #1
2A16 06 00                  ld      b, #0
2A18 33                     inc     sp
2A19 33                     inc     sp
2A1A C9                     ret
2A1B                    ; ─────────────────────────────────────────────────
2A1B
2A1B                    loc_0_2A1B:                              ; CODE XREF: sub_0_29AF+45↑j
2A1B AF                     xor     a
2A1C 32 00 62               ld      (mario_alive_flag), a
2A1F C9                     ret
2A20                    ; ─────────────────────────────────────────────────
2A20
2A20                    loc_0_2A20:                              ; CODE XREF: sub_0_29AF+12↑j
2A20 47                     ld      b, a
2A21 C9                     ret
2A21                    ; End of function sub_0_29AF
2A21
2A22
2A22                    ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2A22
2A22
2A22                    sub_0_2A22:                              ; CODE XREF: sub_0_29AF+E↑p
2A22 06 06                  ld      b, #6
2A24 11 10 00               ld      de, #0x10
2A27 DD 21 00 66            ld      ix, #unk_0_6600
2A2B CD 13 29               call    sub_0_2913
2A2E C9                     ret
2A2E                    ; End of function sub_0_2A22
2A2E
2A2F
2A2F                    ; ▆▆▆▆▆▆▆▆▆▆▆ S U B R O U T I N E ▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆
2A2F
2A2F
2A2F                    sub_0_2A2F:                              ; CODE XREF: sub_0_1F72+E5↑p
2A2F DD 7E 03                                                   ; sub_0_1F72+188↑p
2A2F                        ld      a, 3(ix)
2A32 67                     ld      h, a
2A33 DD 7E 05               ld      a, 5(ix)
2A36 C6 04                  add     a, #4
2A38 6F                     ld      l, a
2A39 E5                     push    hl
2A3A CD F0 2F               call    sub_0_2FF0
2A3D D1                     pop     de
2A3E 7E                     ld      a, (hl)
2A3F FE B0                  cp      #0xB0 ; '░'
2A41 DA 7B 2A               jp      C, loc_0_2A7B
2A44 E6 0F                  and     #0xF
2A46 FE 08                  cp      #8
2A48 D2 7B 2A               jp      NC, loc_0_2A7B
2A4B 7E                     ld      a, (hl)
2A4C FE C0                  cp      #0xC0 ; 'L'
2A4E CA 7B 2A               jp      Z, loc_0_2A7B
2A51 DA 69 2A               jp      C, loc_0_2A69
2A54 FE D0                  cp      #0xD0 ; 'ð'
2A56 DA 6E 2A               jp      C, loc_0_2A6E
2A59 FE E0                  cp      #0xE0 ; 'Ô'
2A5B DA 63 2A               jp      C, loc_0_2A63
2A5E FE F0                  cp      #0xF0 ; '-'
2A60 DA 6E 2A               jp      C, loc_0_2A6E
2A63
2A63                    loc_0_2A63:                              ; CODE XREF: sub_0_2A2F+2C↑j
2A63 E6 0F                  and     #0xF
2A65 3D                     dec     a
2A66 C3 72 2A               jp      loc_0_2A72
2A69                    ; ─────────────────────────────────────────────────
2A69
2A69                    loc_0_2A69:                              ; CODE XREF: sub_0_2A2F+22↑j
2A69 3E FF                  ld      a, #0xFF
2A6B C3 72 2A               jp      loc_0_2A72
2A6E                    ; ─────────────────────────────────────────────────
2A6E
2A6E                    loc_0_2A6E:                              ; CODE XREF: sub_0_2A2F+27↑j
2A6E E6 0F                                                      ; sub_0_2A2F+31↑j
2A6E                        and     #0xF
2A70 D6 09                  sub     #9
2A72
2A72                    loc_0_2A72:                              ; CODE XREF: sub_0_2A2F+37↑j
2A72 4F                                                         ; sub_0_2A2F+3C↑j
2A72                        ld      c, a
2A73 7B                     ld      a, e
2A74 E6 F8                  and     #0xF8 ; '°'
2A76 81                     add     a, c
2A77 BB                     cp      e
2A78 DA 7D 2A               jp      C, loc_0_2A7D
2A7B
2A7B                    loc_0_2A7B:                              ; CODE XREF: sub_0_2A2F+12↑j
2A7B AF                                                         ; sub_0_2A2F+19↑j ...
2A7B                        xor     a
2A7C C9                     ret
2A7D                    ; ─────────────────────────────────────────────────
```

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2A7D
2A7D                   loc_0_2A7D:                                          ; CODE XREF: sub_0_2A2F+49↑j
2A7D D6 04                           sub      #4
2A7F DD 77 05                        ld       5(ix), a
2A82 3E 01                           ld       a, #1
2A84 C9                              ret
2A84              ; End of function sub_0_2A2F
2A84
2A85
2A85              ; ▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
2A85
2A85
2A85                   sub_0_2A85:                                          ; CODE XREF: 0000:19A1↑p
2A85 3A 15 62                        ld       a, (mario_climbing)
2A88 A7                              and      a                             ; climbing?
2A89 C0                              ret      NZ                            ; yes, return
2A8A 3A 16 62                        ld       a, (mario_jumping)
2A8D A7                              and      a                             ; jumping?
2A8E C0                              ret      NZ                            ; yes, return
2A8F 3A 98 63                        ld       a, (mario_on_elevator)
2A92 FE 01                           cp       #1                            ; on elevator?
2A94 C8                              ret      Z                             ; yes, return
2A95 3A 03 62                        ld       a, (mario_y_coord)
2A98 D6 03                           sub      #3
2A9A 67                              ld       h, a
2A9B 3A 05 62                        ld       a, (mario_x_coord)
2A9E C6 0C                           add      a, #0xC
2AA0 6F                              ld       l, a
2AA1 E5                              push     hl
2AA2 CD F0 2F                        call     sub_0_2FF0
2AA5 D1                              pop      de
2AA6 7E                              ld       a, (hl)
2AA7 FE B0                           cp       #0xB0 ; '▒'
2AA9 DA B4 2A                        jp       C, loc_0_2AB4
2AAC E6 0F                           and      #0xF
2AAE FE 08                           cp       #8
2AB0 D2 B4 2A                        jp       NC, loc_0_2AB4
2AB3 C9                              ret
2AB4              ; ────────────────────────────────────────────────
2AB4
2AB4                   loc_0_2AB4:                                          ; CODE XREF: sub_0_2A85+24↑j
2AB4 7A                                                                     ; sub_0_2A85+2B↑j
2AB4                                  ld       a, d
2AB5 E6 07                           and      #7
2AB7 CA CD 2A                        jp       Z, loc_0_2ACD
2ABA 01 20 00                        ld       bc, #0x20 ; ' '
2ABD ED 42                           sbc      hl, bc
2ABF 7E                              ld       a, (hl)
2AC0 FE B0                           cp       #0xB0 ; '▒'
2AC2 DA CD 2A                        jp       C, loc_0_2ACD
2AC5 E6 0F                           and      #0xF
2AC7 FE 08                           cp       #8
2AC9 D2 CD 2A                        jp       NC, loc_0_2ACD
2ACC C9                              ret
2ACD              ; ────────────────────────────────────────────────
2ACD
2ACD                   loc_0_2ACD:                                          ; CODE XREF: sub_0_2A85+32↑j
2ACD 3E 01                                                                  ; sub_0_2A85+3D↑j ...
2ACD                                  ld       a, #1
2ACF 32 21 62                        ld       (unk_0_6221), a
2AD2 C9                              ret
2AD2              ; End of function sub_0_2A85
2AD2
2AD3
2AD3              ; ▩▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
2AD3
2AD3
2AD3                   sub_0_2AD3:                                          ; CODE XREF: sub_0_25F2+C↑p
2AD3 3A 03 62                        ld       a, (mario_y_coord)
2AD6 47                              ld       b, a
2AD7 3A 05 62                        ld       a, (mario_x_coord)
2ADA FE 50                           cp       #0x50 ; 'P'
2ADC CA EA 2A                        jp       Z, loc_0_2AEA
2ADF FE 78                           cp       #0x78 ; 'x'
2AE1 CA F6 2A                        jp       Z, loc_0_2AF6
2AE4 FE C8                           cp       #0xC8 ; '╚'
2AE6 CA F0 2A                        jp       Z, loc_0_2AF0
2AE9 C9                              ret
2AEA              ; ────────────────────────────────────────────────
2AEA
2AEA                   loc_0_2AEA:                                          ; CODE XREF: sub_0_2AD3+9↑j
2AEA 3A A3 63                        ld       a, (unk_0_63A3)
2AED C3 02 2B                        jp       loc_0_2B02
2AF0              ; ────────────────────────────────────────────────
2AF0
2AF0                   loc_0_2AF0:                                          ; CODE XREF: sub_0_2AD3+13↑j
2AF0 3A A6 63                        ld       a, (unk_0_63A6)
2AF3 C3 02 2B                        jp       loc_0_2B02
2AF6              ; ────────────────────────────────────────────────
2AF6
2AF6                   loc_0_2AF6:                                          ; CODE XREF: sub_0_2AD3+E↑j
2AF6 78                              ld       a, b
2AF7 FE 80                           cp       #0x80 ; 'Ç'
2AF9 3A A5 63                        ld       a, (unk_0_63A5)
2AFC D2 02 2B                        jp       NC, loc_0_2B02
2AFF 3A A4 63                        ld       a, (unk_0_63A4)
2B02
2B02                   loc_0_2B02:                                          ; CODE XREF: sub_0_2AD3+1A↑j
2B02 80                                                                     ; sub_0_2AD3+20↑j ...
2B02                                  add      a, b
2B03 32 03 62                        ld       (mario_y_coord), a
2B06 32 4C 69                        ld       (soft_sprite_ram+0x4C), a
2B09 CD 1F 24                        call     sub_0_241F
2B0C 21 03 62                        ld       hl, #mario_y_coord
2B0F 1D                              dec      e
2B10 CA 18 2B                        jp       Z, loc_0_2B18
2B13 15                              dec      d
2B14 CA 1A 2B                        jp       Z, loc_0_2B1A
2B17 C9                              ret
2B18              ; ────────────────────────────────────────────────
2B18
2B18                   loc_0_2B18:                                          ; CODE XREF: sub_0_2AD3+3D↑j
2B18 35                              dec      (hl)
2B19 C9                              ret
2B1A              ; ────────────────────────────────────────────────
2B1A
```

```
2B1A                loc_0_2B1A:                                    ; CODE XREF: sub_0_2AD3+41↑j
2B1A 34                             inc      (hl)
2B1B C9                             ret
2B1B                ; End of function sub_0_2AD3
2B1B
2B1C
2B1C                ; ▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2B1C
2B1C
2B1C                sub_0_2B1C:                                    ; CODE XREF: sub_0_1AC3+142↑p
2B1C DD 21 00 62                    ld       ix, #mario_alive_flag
2B20 CD 29 2B                       call     sub_0_2B29
2B23 CD AF 29                       call     sub_0_29AF
2B26 AF                             xor      a
2B27 47                             ld       b, a
2B28 C9                             ret
2B28                ; End of function sub_0_2B1C
2B28
2B29
2B29                ; ▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2B29
2B29
2B29                sub_0_2B29:                                    ; CODE XREF: sub_0_2B1C+4↑p
2B29 3A 27 62                       ld       a, (level_type)
2B2C 3D                             dec      a
2B2D C2 53 2B                       jp       NZ, loc_0_2B53
2B30 3A 03 62                       ld       a, (mario_y_coord)
2B33 67                             ld       h, a
2B34 3A 05 62                       ld       a, (mario_x_coord)
2B37 C6 07                          add      a, #7
2B39 6F                             ld       l, a
2B3A CD 9B 2B                       call     sub_0_2B9B
2B3D A7                             and      a
2B3E CA 51 2B                       jp       Z, loc_0_2B51
2B41 7B                             ld       a, e
2B42 91                             sub      c
2B43 FE 04                          cp       #4
2B45 D2 74 2B                       jp       NC, loc_0_2B74
2B48 79                             ld       a, c
2B49 D6 07                          sub      #7
2B4B 32 05 62                       ld       (mario_x_coord), a
2B4E 3E 01                          ld       a, #1
2B50 47                             ld       b, a
2B51
2B51                loc_0_2B51:                                    ; CODE XREF: sub_0_2B29+15↑j
2B51 E1                             pop      hl
2B52 C9                             ret
2B53                ; ──────────────────────────────────────────────────────
2B53
2B53                loc_0_2B53:                                    ; CODE XREF: sub_0_2B29+4↑j
2B53 3A 03 62                       ld       a, (mario_y_coord)
2B56 D6 03                          sub      #3
2B58 67                             ld       h, a
2B59 3A 05 62                       ld       a, (mario_x_coord)
2B5C C6 07                          add      a, #7
2B5E 6F                             ld       l, a
2B5F CD 9B 2B                       call     sub_0_2B9B
2B62 FE 02                          cp       #2
2B64 CA 7A 2B                       jp       Z, loc_0_2B7A
2B67 7A                             ld       a, d
2B68 C6 07                          add      a, #7
2B6A 67                             ld       h, a
2B6B 6B                             ld       l, e
2B6C CD 9B 2B                       call     sub_0_2B9B
2B6F A7                             and      a
2B70 C8                             ret      Z
2B71 C3 7A 2B                       jp       loc_0_2B7A
2B74                ; ──────────────────────────────────────────────────────
2B74
2B74                loc_0_2B74:                                    ; CODE XREF: sub_0_2B29+1C↑j
2B74 3E 00                          ld       a, #0
2B76 06 00                          ld       b, #0
2B78 E1                             pop      hl
2B79 C9                             ret
2B7A                ; ──────────────────────────────────────────────────────
2B7A
2B7A                loc_0_2B7A:                                    ; CODE XREF: sub_0_2B29+3B↑j
2B7A 3A 10 62                       ; sub_0_2B29+48↑j
2B7A                                ld       a, (unk_0_6210)
2B7D A7                             and      a
2B7E 3A 03 62                       ld       a, (mario_y_coord)
2B81 CA 8B 2B                       jp       Z, loc_0_2B8B
2B84 F6 07                          or       #7
2B86 D6 04                          sub      #4
2B88 C3 91 2B                       jp       loc_0_2B91
2B8B                ; ──────────────────────────────────────────────────────
2B8B
2B8B                loc_0_2B8B:                                    ; CODE XREF: sub_0_2B29+58↑j
2B8B D6 08                          sub      #8
2B8D F6 07                          or       #7
2B8F C6 04                          add      a, #4
2B91
2B91                loc_0_2B91:                                    ; CODE XREF: sub_0_2B29+5F↑j
2B91 32 03 62                       ld       (mario_y_coord), a
2B94 32 4C 69                       ld       (soft_sprite_ram+0x4C), a
2B97 3E 01                          ld       a, #1
2B99 E1                             pop      hl
2B9A C9                             ret
2B9A                ; End of function sub_0_2B29
2B9A
2B9B
2B9B                ; ▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2B9B
2B9B
2B9B                sub_0_2B9B:                                    ; CODE XREF: sub_0_2B29+11↑p
2B9B E5                             ; sub_0_2B29+36↑p ...
2B9B                                push     hl
2B9C CD F0 2F                       call     sub_0_2FF0
2B9F D1                             pop      de
2BA0 7E                             ld       a, (hl)
2BA1 FE B0                          cp       #0xB0 ; '▒'
2BA3 DA D9 2B                       jp       C, loc_0_2BD9
2BA6 E6 0F                          and      #0xF
2BA8 FE 08                          cp       #8
2BAA D2 D9 2B                       jp       NC, loc_0_2BD9
2BAD 7E                             ld       a, (hl)
```

```
2BAE FE C0                         cp      #0xC0 ; 'L'
2BB0 CA D9 2B                      jp      Z, loc_0_2BD9
2BB3 DA DC 2B                      jp      C, loc_0_2BDC
2BB6 FE D0                         cp      #0xD0 ; 'ð'
2BB8 DA CB 2B                      jp      C, loc_0_2BCB
2BBB FE E0                         cp      #0xE0 ; 'Ő'
2BBD DA C5 2B                      jp      C, loc_0_2BC5
2BC0 FE F0                         cp      #0xF0 ; '-'
2BC2 DA CB 2B                      jp      C, loc_0_2BCB
2BC5
2BC5              loc_0_2BC5:                                       ; CODE XREF: sub_0_2B9B+22↑j
2BC5 E6 0F                         and     #0xF
2BC7 3D                            dec     a
2BC8 C3 CF 2B                      jp      loc_0_2BCF
2BCB             ; ─────────────────────────────────────────────
2BCB
2BCB              loc_0_2BCB:                                       ; CODE XREF: sub_0_2B9B+1D↑j
2BCB E6 0F                         and     #0xF                    ; sub_0_2B9B+27↑j
2BCD D6 09                         sub     #9
2BCF
2BCF              loc_0_2BCF:                                       ; CODE XREF: sub_0_2B9B+2D↑j
2BCF 4F                            ld      c, a
2BD0 7B                            ld      a, e
2BD1 E6 F8                         and     #0xF8 ; '°'
2BD3 81                            add     a, c
2BD4 4F                            ld      c, a
2BD5 BB                            cp      e
2BD6 DA E1 2B                      jp      C, loc_0_2BE1
2BD9
2BD9              loc_0_2BD9:                                       ; CODE XREF: sub_0_2B9B+8↑j
2BD9 AF                            xor     a                       ; sub_0_2B9B+F↑j ...
2BD9
2BDA 47                            ld      b, a
2BDB C9                            ret
2BDC             ; ─────────────────────────────────────────────
2BDC
2BDC              loc_0_2BDC:                                       ; CODE XREF: sub_0_2B9B+18↑j
2BDC 7B                            ld      a, e
2BDD E6 F8                         and     #0xF8 ; '°'
2BDF 3D                            dec     a
2BE0 4F                            ld      c, a
2BE1
2BE1              loc_0_2BE1:                                       ; CODE XREF: sub_0_2B9B+3B↑j
2BE1 3A 0C 62                      ld      a, (mario_y_before_jump)
2BE4 DD 96 05                      sub     5(ix)
2BE7 83                            add     a, e
2BE8 B9                            cp      c
2BE9 CA EF 2B                      jp      Z, loc_0_2BEF
2BEC D2 F8 2B                      jp      NC, loc_0_2BF8
2BEF
2BEF              loc_0_2BEF:                                       ; CODE XREF: sub_0_2B9B+4E↑j
2BEF 79                            ld      a, c
2BF0 D6 07                         sub     #7
2BF2 32 05 62                      ld      (mario_x_coord), a
2BF5 C3 FD 2B                      jp      loc_0_2BFD
2BF8             ; ─────────────────────────────────────────────
2BF8
2BF8              loc_0_2BF8:                                       ; CODE XREF: sub_0_2B9B+51↑j
2BF8 3E 02                         ld      a, #2
2BFA 06 00                         ld      b, #0
2BFC C9                            ret
2BFD             ; ─────────────────────────────────────────────
2BFD
2BFD              loc_0_2BFD:                                       ; CODE XREF: sub_0_2B9B+5A↑j
2BFD 3E 01                         ld      a, #1
2BFF 47                            ld      b, a
2C00 E1                            pop     hl
2C01 E1                            pop     hl
2C02 C9                            ret
2C02         ; End of function sub_0_2B9B
2C02
2C03
2C03             ; ██████████████ S U B R O U T I N E ████████████████████████████████████████
2C03
2C03
2C03              sub_0_2C03:                                       ; CODE XREF: 0000:1989↑p
2C03 3E 01                         ld      a, #1
2C05 F7                            rst     0x30                    ; return if level bit not set
2C06 D7                            rst     0x10                    ; return if mario not alive
2C07 3A 93 63                      ld      a, (barrel_deployment)
2C0A 0F                            rrca
2C0B D8                            ret     C
2C0C 3A B1 62                      ld      a, (unk_0_62B1)
2C0F A7                            and     a
2C10 C8                            ret     Z
2C11 4F                            ld      c, a
2C12 3A B0 62                      ld      a, (unk_0_62B0)
2C15 D6 02                         sub     #2
2C17 B9                            cp      c
2C18 DA 7B 2C                      jp      C, loc_0_2C7B
2C1B 3A 82 63                      ld      a, (unk_0_6382)
2C1E CB 4F                         bit     1, a
2C20 C2 86 2C                      jp      NZ, loc_0_2C86
2C23 3A 80 63                      ld      a, (unk_0_6380)
2C26 47                            ld      b, a
2C27 3A 1A 60                      ld      a, (gen_purpose_timer)
2C2A E6 1F                         and     #0x1F
2C2C
2C2C              loc_0_2C2C:                                       ; CODE XREF: sub_0_2C03+2D├j
2C2C B8                            cp      b
2C2D CA 33 2C                      jp      Z, loc_0_2C33
2C30 10 FA                         djnz    loc_0_2C2C
2C32 C9                            ret
2C33             ; ─────────────────────────────────────────────
2C33
2C33              loc_0_2C33:                                       ; CODE XREF: sub_0_2C03+2A↑j
2C33 3A B0 62                      ld      a, (unk_0_62B0)
2C36 CB 3F                         srl     a
2C38 B9                            cp      c
2C39 DA 41 2C                      jp      C, loc_0_2C41
2C3C 3A 19 60                      ld      a, (random_no+1)
2C3F 0F                            rrca
2C40 D0                            ret     NC
2C41
2C41              loc_0_2C41:                                       ; CODE XREF: sub_0_2C03+36↑j
```

```
2C41 CD 57 00            call     rand
2C44 E6 0F               and      #0xF
2C46 C2 86 2C            jp       NZ, loc_0_2C86
2C49
2C49          loc_0_2C49:                                       ; CODE XREF: sub_0_2C03+7B↓j
2C49 3E 01               ld       a, #1
2C4B
2C4B          loc_0_2C4B:                                       ; CODE XREF: sub_0_2C03+80↓j
2C4B 32 82 63            ld       (unk_0_6382), a
2C4E 3C                  inc      a
2C4F
2C4F          loc_0_2C4F:                                       ; CODE XREF: sub_0_2C03+89↓j
2C4F 32 8F 63            ld       (unk_0_638F), a
2C52 3E 01               ld       a, #1
2C54 32 92 63            ld       (unk_0_6392), a
2C57 3A B2 62            ld       a, (unk_0_62B2)
2C5A B9                  cp       c
2C5B C0                  ret      NZ
2C5C D6 08               sub      #8
2C5E 32 B2 62            ld       (unk_0_62B2), a
2C61 11 20 00            ld       de, #0x20 ; ' '
2C64 21 00 64            ld       hl, #unk_0_6400                ; fireball character data
2C67 06 05               ld       b, #5
2C69
2C69          loc_0_2C69:                                       ; CODE XREF: sub_0_2C03+6C↓j
2C69 7E                  ld       a, (hl)
2C6A A7                  and      a
2C6B CA 72 2C            jp       Z, loc_0_2C72
2C6E 19                  add      hl, de
2C6F 10 F8               djnz     loc_0_2C69
2C71 C9                  ret
2C72          ; ───────────────────────────────────────────
2C72
2C72          loc_0_2C72:                                       ; CODE XREF: sub_0_2C03+68↑j
2C72 3A 82 63            ld       a, (unk_0_6382)
2C75 F6 80               or       #0x80 ; 'Ç'
2C77 32 82 63            ld       (unk_0_6382), a
2C7A C9                  ret
2C7B          ; ───────────────────────────────────────────
2C7B
2C7B          loc_0_2C7B:                                       ; CODE XREF: sub_0_2C03+15↑j
2C7B C6 02               add      a, #2
2C7D B9                  cp       c
2C7E CA 49 2C            jp       Z, loc_0_2C49
2C81 3E 02               ld       a, #2
2C83 C3 4B 2C            jp       loc_0_2C4B
2C86          ; ───────────────────────────────────────────
2C86
2C86          loc_0_2C86:                                       ; CODE XREF: sub_0_2C03+1D↑j
2C86 AF                                                         ; sub_0_2C03+43↑j
2C86                     xor      a
2C87 32 82 63            ld       (unk_0_6382), a
2C8A 3E 03               ld       a, #3
2C8C C3 4F 2C            jp       loc_0_2C4F
2C8C          ; End of function sub_0_2C03
2C8C
2C8F
2C8F          ; ▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
2C8F
2C8F
2C8F          sub_0_2C8F:                                       ; CODE XREF: 0000:1986↑p
2C8F 3E 01               ld       a, #1
2C91 F7                  rst      0x30                           ; return if level bit not set
2C92 D7                  rst      0x10                           ; return if mario not alive
2C93 3A 93 63            ld       a, (barrel_deployment)
2C96 0F                  rrca
2C97 DA 15 2D            jp       C, loc_0_2D15
2C9A 3A 92 63            ld       a, (unk_0_6392)
2C9D 0F                  rrca
2C9E D0                  ret      NC
2C9F DD 21 00 67         ld       ix, #unk_0_6700
2CA3 11 20 00            ld       de, #0x20 ; ' '
2CA6 06 0A               ld       b, #0xA
2CA8
2CA8          loc_0_2CA8:                                       ; CODE XREF: sub_0_2C8F+26↓j
2CA8 DD 7E 00            ld       a, 0(ix)
2CAB 0F                  rrca
2CAC DA B3 2C            jp       C, loc_0_2CB3
2CAF 0F                  rrca
2CB0 D2 B8 2C            jp       NC, loc_0_2CB8
2CB3
2CB3          loc_0_2CB3:                                       ; CODE XREF: sub_0_2C8F+1D↑j
2CB3 DD 19               add      ix, de
2CB5 10 F1               djnz     loc_0_2CA8
2CB7 C9                  ret
2CB8          ; ───────────────────────────────────────────
2CB8
2CB8          loc_0_2CB8:                                       ; CODE XREF: sub_0_2C8F+21↑j
2CB8 DD 22 AA 62         ld       (unk_0_62AA), ix
2CBC DD 36 00 02         ld       0(ix), #2
2CC0 16 00               ld       d, #0
2CC2 3E 0A               ld       a, #0xA
2CC4 90                  sub      b
2CC5 87                  add      a, a
2CC6 87                  add      a, a
2CC7 5F                  ld       e, a
2CC8 21 80 69            ld       hl, #soft_sprite_ram+0x80
2CCB 19                  add      hl, de
2CCC 22 AC 62            ld       (unk_0_62AC), hl
2CCF 3E 01               ld       a, #1
2CD1 32 93 63            ld       (barrel_deployment), a
2CD4 11 01 05            ld       de, #0x501                     ; update_bonus_timer
2CD7 CD 9F 30            call     queue_fg_vector_fn
2CDA 21 B1 62            ld       hl, #unk_0_62B1
2CDD 35                  dec      (hl)
2CDE C2 E6 2C            jp       NZ, loc_0_2CE6
2CE1 3E 01               ld       a, #1
2CE3 32 86 63            ld       (unk_0_6386), a
2CE6
2CE6          loc_0_2CE6:                                       ; CODE XREF: sub_0_2C8F+4F↑j
2CE6 7E                  ld       a, (hl)
2CE7 FE 04               cp       #4
2CE9 D2 F6 2C            jp       NC, loc_0_2CF6
2CEC 21 A8 69            ld       hl, #soft_sprite_ram+0xA8
2CEF 87                  add      a, a
2CF0 87                  add      a, a
```

```
2CF1 5F                            ld      e, a
2CF2 16 00                         ld      d, #0
2CF4 19                            add     hl, de
2CF5 72                            ld      (hl), d
2CF6
2CF6                loc_0_2CF6:                              ; CODE XREF: sub_0_2C8F+5A↑j
2CF6 DD 36 07 15                   ld      7(ix), #0x15            ; sideways barrel sprite tile
2CFA DD 36 08 0B                   ld      8(ix), #0xB
2CFE DD 36 15 00                   ld      0x15(ix), #0
2D02 3A 82 63                      ld      a, (unk_0_6382)
2D05 07                            rlca
2D06 D2 15 2D                      jp      NC, loc_0_2D15
2D09 DD 36 07 19                   ld      7(ix), #0x19           ; sideways blue barrel sprite tile
2D0D DD 36 08 0C                   ld      8(ix), #0xC            ; set blue palette for barrel
2D11 DD 36 15 01                   ld      0x15(ix), #1
2D15
2D15                loc_0_2D15:                              ; CODE XREF: sub_0_2C8F+8↑j
2D15 21 AF 62                                               ; sub_0_2C8F+77↑j
2D15                               ld      hl, #unk_0_62AF
2D18 35                            dec     (hl)
2D19 C0                            ret     NZ
2D1A 36 18                         ld      (hl), #0x18
2D1C 3A 8F 63                      ld      a, (unk_0_638F)
2D1F A7                            and     a
2D20 CA 51 2D                      jp      Z, loc_0_2D51
2D23 4F                            ld      c, a
2D24 21 32 39                      ld      hl, #dk_throw_barrel_spr
2D27 3A 82 63                      ld      a, (unk_0_6382)
2D2A 0F                            rrca
2D2B DA 2F 2D                      jp      C, loc_0_2D2F
2D2E 0D                            dec     c
2D2F
2D2F                loc_0_2D2F:                              ; CODE XREF: sub_0_2C8F+9C↑j
2D2F 79                            ld      a, c
2D30 87                            add     a, a
2D31 87                            add     a, a
2D32 87                            add     a, a
2D33 4F                            ld      c, a
2D34 87                            add     a, a
2D35 87                            add     a, a
2D36 81                            add     a, c
2D37 5F                            ld      e, a
2D38 16 00                         ld      d, #0
2D3A 19                            add     hl, de
2D3B CD 4E 00                      call    copy_sprites_2_11_data
2D3E 21 8F 63                      ld      hl, #unk_0_638F
2D41 35                            dec     (hl)
2D42 C2 51 2D                      jp      NZ, loc_0_2D51
2D45 3E 01                         ld      a, #1
2D47 32 AF 62                      ld      (unk_0_62AF), a
2D4A 3A 82 63                      ld      a, (unk_0_6382)
2D4D 0F                            rrca
2D4E DA 83 2D                      jp      C, loc_0_2D83
2D51
2D51                loc_0_2D51:                              ; CODE XREF: sub_0_2C8F+91↑j
2D51 2A A8 62                                               ; sub_0_2C8F+B3↑j
2D51                               ld      hl, (unk_0_62A8)
2D54
2D54                loc_0_2D54:                              ; CODE XREF: sub_0_2C8F+FA├j
2D54 7E                            ld      a, (hl)
2D55 DD 2A AA 62                   ld      ix, (unk_0_62AA)
2D59 ED 5B AC 62                   ld      de, (unk_0_62AC)
2D5D FE 7F                         cp      #0x7F ; ' '
2D5F CA 8C 2D                      jp      Z, loc_0_2D8C
2D62 4F                            ld      c, a
2D63 E6 7F                         and     #0x7F ; ' '
2D65 12                            ld      (de), a                ; sprite data X coord
2D66 DD 7E 07                      ld      a, 7(ix)               ; sprite tile #
2D69 CB 79                         bit     7, c
2D6B CA 70 2D                      jp      Z, loc_0_2D70
2D6E EE 03                         xor     #3
2D70
2D70                loc_0_2D70:                              ; CODE XREF: sub_0_2C8F+DC↑j
2D70 13                            inc     de
2D71 12                            ld      (de), a                ; sprite tile # (barrel)
2D72 DD 77 07                      ld      7(ix), a               ; sprite tile #
2D75 DD 7E 08                      ld      a, 8(ix)
2D78 13                            inc     de
2D79 12                            ld      (de), a
2D7A 23                            inc     hl
2D7B 7E                            ld      a, (hl)
2D7C 13                            inc     de
2D7D 12                            ld      (de), a
2D7E 23                            inc     hl
2D7F 22 A8 62                      ld      (unk_0_62A8), hl
2D82 C9                            ret
2D83                ; ────────────────────────────────────────────────
2D83
2D83                loc_0_2D83:                              ; CODE XREF: sub_0_2C8F+BF↑j
2D83 21 CC 39                      ld      hl, #barrel_falling_data
2D86 22 A8 62                      ld      (unk_0_62A8), hl
2D89 C3 54 2D                      jp      loc_0_2D54
2D8C                ; ────────────────────────────────────────────────
2D8C
2D8C                loc_0_2D8C:                              ; CODE XREF: sub_0_2C8F+D0↑j
2D8C 21 C3 39                      ld      hl, #barell_rolling_data
2D8F 22 A8 62                      ld      (unk_0_62A8), hl
2D92 DD 36 01 01                   ld      1(ix), #1
2D96 3A 82 63                      ld      a, (unk_0_6382)
2D99 0F                            rrca
2D9A DA A5 2D                      jp      C, loc_0_2DA5
2D9D DD 36 01 00                   ld      1(ix), #0
2DA1 DD 36 02 02                   ld      2(ix), #2
2DA5
2DA5                loc_0_2DA5:                              ; CODE XREF: sub_0_2C8F+10B↑j
2DA5 DD 36 00 01                   ld      0(ix), #1
2DA9 DD 36 0F 01                   ld      0xF(ix), #1
2DAD AF                            xor     a
2DAE DD 77 10                      ld      0x10(ix), a
2DB1 DD 77 11                      ld      0x11(ix), a
2DB4 DD 77 12                      ld      0x12(ix), a
2DB7 DD 77 13                      ld      0x13(ix), a
2DBA DD 77 14                      ld      0x14(ix), a
2DBD 32 93 63                      ld      (barrel_deployment), a
2DC0 32 92 63                      ld      (unk_0_6392), a
2DC3 1A                            ld      a, (de)
```

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2DC4 DD 77 03                    ld      3(ix), a
2DC7 13                          inc     de
2DC8 13                          inc     de
2DC9 13                          inc     de
2DCA 1A                          ld      a, (de)
2DCB DD 77 05                    ld      5(ix), a
2DCE 21 5C 38                    ld      hl, #kong_normal_spr
2DD1 CD 4E 00                    call    copy_sprites_2_11_data
2DD4 21 0B 69                    ld      hl, #soft_sprite_ram+0xB           ; sprite #2, x coord
2DD7 0E FC                       ld      c, #0xFC ; '³'                     ; -4
2DD9 FF                          rst     0x38                              ; subtract 4 from x coord for 10 sprites
2DDA C9                          ret
2DDA              ; End of function sub_0_2C8F
2DDA
2DDB
2DDB              ; �switchSUBROUTINE▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
2DDB
2DDB
2DDB              sub_0_2DDB:                                              ; CODE XREF: 0000:1995↑p
2DDB 3E 0A                       ld      a, #0xA
2DDD F7                          rst     0x30                              ; return if level bit not set
2DDE D7                          rst     0x10                              ; return if mario not allive
2DDF 3A 80 63                    ld      a, (unk_0_6380)
2DE2 3C                          inc     a
2DE3 A7                          and     a
2DE4 1F                          rra
2DE5 47                          ld      b, a
2DE6 3A 27 62                    ld      a, (level_type)
2DE9 FE 02                       cp      #2
2DEB 20 01                       jr      NZ, loc_0_2DEE
2DED 04                          inc     b
2DEE
2DEE              loc_0_2DEE:                                              ; CODE XREF: sub_0_2DDB+10↑j
2DEE 3E FE                       ld      a, #0xFE ; '■'
2DF0 37                          scf
2DF1
2DF1              loc_0_2DF1:                                              ; CODE XREF: sub_0_2DDB+18↓j
2DF1 1F                          rra
2DF2 A7                          and     a
2DF3 10 FC                       djnz    loc_0_2DF1
2DF5 47                          ld      b, a
2DF6 3A 1A 60                    ld      a, (gen_purpose_timer)
2DF9 A0                          and     b
2DFA C0                          ret     NZ
2DFB 3E 01                       ld      a, #1
2DFD 32 A0 63                    ld      (unk_0_63A0), a
2E00 32 9A 63                    ld      (unk_0_639A), a
2E03 C9                          ret
2E03              ; End of function sub_0_2DDB
2E03
2E04
2E04              ; ▒▒▒▒▒▒▒▒▒SUBROUTINE▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒
2E04
2E04
2E04              sub_0_2E04:                                              ; CODE XREF: 0000:198F↑p
2E04 3E 04                       ld      a, #4
2E06 F7                          rst     0x30                              ; return if level bit not set
2E07 D7                          rst     0x10                              ; return if mario not alive
2E08 DD 21 00 65                 ld      ix, #unk_0_6500
2E0C FD 21 80 69                 ld      iy, #soft_sprite_ram+0x80
2E10 06 0A                       ld      b, #0xA
2E12
2E12              loc_0_2E12:                                              ; CODE XREF: sub_0_2E04+7D↓j
2E12 DD 7E 00                    ld      a, 0(ix)                          ; any active springs?
2E15 0F                          rrca
2E16 D2 A7 2E                    jp      NC, loc_0_2EA7                    ; no, skip
2E19 3A 1A 60                    ld      a, (gen_purpose_timer)
2E1C E6 0F                       and     #0xF
2E1E C2 29 2E                    jp      NZ, loc_0_2E29
2E21 FD 7E 01                    ld      a, 1(iy)                          ; animate spring sprites
2E24 EE 07                       xor     #7
2E26 FD 77 01                    ld      1(iy), a
2E29
2E29              loc_0_2E29:                                              ; CODE XREF: sub_0_2E04+1A↑j
2E29 DD 7E 0D                    ld      a, 0xD(ix)
2E2C FE 04                       cp      #4
2E2E CA 84 2E                    jp      Z, loc_0_2E84
2E31 DD 34 03                    inc     3(ix)
2E34 DD 34 03                    inc     3(ix)
2E37 DD 6E 0E                    ld      l, 0xE(ix)
2E3A DD 66 0F                    ld      h, 0xF(ix)
2E3D 7E                          ld      a, (hl)
2E3E 4F                          ld      c, a
2E3F FE 7F                       cp      #0x7F ; ' '
2E41 CA 9C 2E                    jp      Z, loc_0_2E9C
2E44 23                          inc     hl
2E45 DD 86 05                    add     a, 5(ix)
2E48 DD 77 05                    ld      5(ix), a
2E4B
2E4B              loc_0_2E4B:                                              ; CODE XREF: sub_0_2E04+A0↓j
2E4B DD 75 0E                    ld      0xE(ix), l
2E4E DD 74 0F                    ld      0xF(ix), h
2E51 DD 7E 03                    ld      a, 3(ix)
2E54 FE B7                       cp      #0xB7 ; 'Ã'
2E56 DA 6C 2E                    jp      C, loc_0_2E6C
2E59 79                          ld      a, c
2E5A FE 7F                       cp      #0x7F ; ' '
2E5C C2 6C 2E                    jp      NZ, loc_0_2E6C
2E5F DD 36 0D 04                 ld      0xD(ix), #4
2E63 AF                          xor     a                                 ; stop timer
2E64 32 83 60                    ld      (digital_snd_tmr_coin_spring), a
2E67 3E 03                       ld      a, #3                             ; tmr=3
2E69 32 84 60                    ld      (digital_snd_tmr_kong_fall), a
2E6C
2E6C              loc_0_2E6C:                                              ; CODE XREF: sub_0_2E04+52↑j
2E6C DD 7E 03                                                             ; sub_0_2E04+58↑j ...
2E6C                             ld      a, 3(ix)
2E6F FD 77 00                    ld      0(iy), a                          ; x corrd to sprite data
2E72 DD 7E 05                    ld      a, 5(ix)
2E75 FD 77 03                    ld      3(iy), a                          ; y coord to sprite data
2E78
2E78              loc_0_2E78:                                              ; CODE XREF: sub_0_2E04+A7↓j
2E78 11 10 00                                                             ; sub_0_2E04+CD↓j
2E78                             ld      de, #0x10                         ; 16 bytes/sprite
2E7B DD 19                       add     ix, de                            ; next spring data
2E7D 1E 04                       ld      e, #4
```

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2E7F FD 19                      add     iy, de                        ; next sprite data
2E81 10 8F                      djnz    loc_0_2E12
2E83 C9                         ret
2E84               ; ─────────────────────────────────────────────────
2E84
2E84               loc_0_2E84:                                         ; CODE XREF: sub_0_2E04+2A↑j
2E84 3E 03                      ld      a, #3
2E86 DD 86 05                   add     a, 5(ix)
2E89 DD 77 05                   ld      5(ix), a
2E8C FE F8                      cp      #0xF8 ; '°'
2E8E DA 6C 2E                   jp      C, loc_0_2E6C
2E91 DD 36 03 00                ld      3(ix), #0
2E95 DD 36 00 00                ld      0(ix), #0
2E99 C3 6C 2E                   jp      loc_0_2E6C
2E9C               ; ─────────────────────────────────────────────────
2E9C
2E9C               loc_0_2E9C:                                         ; CODE XREF: sub_0_2E04+3D↑j
2E9C 21 AA 39                   ld      hl, #bouncing_spring_data
2E9F 3E 03                      ld      a, #3                         ; tmr=3
2EA1 32 83 60                   ld      (digital_snd_tmr_coin_spring), a
2EA4 C3 4B 2E                   jp      loc_0_2E4B
2EA7               ; ─────────────────────────────────────────────────
2EA7
2EA7               loc_0_2EA7:                                         ; CODE XREF: sub_0_2E04+12↑j
2EA7 3A 96 63                   ld      a, (unk_0_6396)
2EAA 0F                         rrca
2EAB D2 78 2E                   jp      NC, loc_0_2E78
2EAE AF                         xor     a
2EAF 32 96 63                   ld      (unk_0_6396), a
2EB2 DD 36 05 50                ld      5(ix), #0x50 ; 'P'
2EB6 DD 36 0D 01                ld      0xD(ix), #1
2EBA CD 57 00                   call    rand
2EBD E6 0F                      and     #0xF
2EBF C6 F8                      add     a, #0xF8 ; '°'
2EC1 DD 77 03                   ld      3(ix), a
2EC4 DD 36 00 01                ld      0(ix), #1
2EC8 21 AA 39                   ld      hl, #bouncing_spring_data
2ECB DD 75 0E                   ld      0xE(ix), l
2ECE DD 74 0F                   ld      0xF(ix), h
2ED1 C3 78 2E                   jp      loc_0_2E78                    ; end of spring routine
2ED1               ; End of function sub_0_2E04
2ED1
2ED4
2ED4               ; ▇▇▇▇▇▇▇▇▇▇▇▇ S U B R O U T I N E ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
2ED4
2ED4
2ED4               sub_0_2ED4:                                         ; CODE XREF: 0000:1998↑p
2ED4 3E 0B                      ld      a, #0xB
2ED6 F7                         rst     0x30                          ; return if level bit not set
2ED7 D7                         rst     0x10                          ; return if mario not alive
2ED8 11 18 6A                   ld      de, #soft_sprite_ram+0x118    ; hammers in sprite ram
2EDB DD 21 80 66                ld      ix, #unk_0_6680               ; hammer character data
2EDF DD 7E 01                   ld      a, 1(ix)
2EE2 0F                         rrca
2EE3 DA ED 2E                   jp      C, loc_0_2EED
2EE6 11 1C 6A                   ld      de, #soft_sprite_ram+0x11C
2EE9 DD 21 90 66                ld      ix, #unk_0_6690
2EED
2EED               loc_0_2EED:                                         ; CODE XREF: sub_0_2ED4+F↑j
2EED DD 36 0E 00                ld      0xE(ix), #0
2EF1 DD 36 0F F0                ld      0xF(ix), #0xF0 ; '-'
2EF5 3A 17 62                   ld      a, (unk_0_6217)
2EF8 0F                         rrca
2EF9 D2 97 2F                   jp      NC, loc_0_2F97
2EFC AF                         xor     a
2EFD 32 18 62                   ld      (unk_0_6218), a
2F00 21 89 60                   ld      hl, #unk_0_6089
2F03 36 04                      ld      (hl), #4
2F05 DD 36 09 06                ld      9(ix), #6
2F09 DD 36 0A 03                ld      0xA(ix), #3
2F0D 06 1E                      ld      b, #0x1E
2F0F 3A 07 62                   ld      a, (mario_flipy_sprite_tile)
2F12 CB 27                      sla     a
2F14 D2 1B 2F                   jp      NC, loc_0_2F1B
2F17 F6 80                      or      #0x80 ; 'Ç'
2F19 CB F8                      set     7, b
2F1B
2F1B               loc_0_2F1B:                                         ; CODE XREF: sub_0_2ED4+40↑j
2F1B F6 08                      or      #8
2F1D 4F                         ld      c, a
2F1E 3A 94 63                   ld      a, (unk_0_6394)
2F21 CB 5F                      bit     3, a
2F23 CA 43 2F                   jp      Z, loc_0_2F43
2F26 CB C0                      set     0, b
2F28 CB C1                      set     0, c
2F2A DD 36 09 05                ld      9(ix), #5
2F2E DD 36 0A 06                ld      0xA(ix), #6
2F32 DD 36 0F 00                ld      0xF(ix), #0
2F36 DD 36 0E F0                ld      0xE(ix), #0xF0 ; '-'
2F3A CB 79                      bit     7, c
2F3C CA 43 2F                   jp      Z, loc_0_2F43
2F3F DD 36 0E 10                ld      0xE(ix), #0x10
2F43
2F43               loc_0_2F43:                                         ; CODE XREF: sub_0_2ED4+4F↑j
2F43 79                                                                ; sub_0_2ED4+68↑j
2F43                            ld      a, c
2F44 32 4D 69                   ld      (soft_sprite_ram+0x4D), a
2F47 0E 07                      ld      c, #7
2F49 21 94 63                   ld      hl, #unk_0_6394
2F4C 34                         inc     (hl)
2F4D C2 B7 2F                   jp      NZ, loc_0_2FB7
2F50 21 95 63                   ld      hl, #unk_0_6395
2F53 34                         inc     (hl)
2F54 7E                         ld      a, (hl)
2F55 FE 02                      cp      #2
2F57 C2 BE 2F                   jp      NZ, loc_0_2FBE
2F5A AF                         xor     a
2F5B 32 95 63                   ld      (unk_0_6395), a
2F5E 32 17 62                   ld      (unk_0_6217), a
2F61 DD 77 01                   ld      1(ix), a
2F64 3A 03 62                   ld      a, (mario_y_coord)
2F67 ED 44                      neg
2F69 DD 77 0E                   ld      0xE(ix), a
2F6C 3A 07 62                   ld      a, (mario_flipy_sprite_tile)
2F6F 32 4D 69                   ld      (soft_sprite_ram+0x4D), a
2F72 DD 36 00 00                ld      0(ix), #0
```

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2F76 3A 89 63                     ld      a, (unk_0_6389)
2F79 32 89 60                     ld      (unk_0_6089), a
2F7C
2F7C             loc_0_2F7C:                                        ; CODE XREF: sub_0_2ED4+E0├j
2F7C EB                                                             ; sub_0_2ED4+E7├j ...
2F7C                              ex      de, hl
2F7D 3A 03 62                     ld      a, (mario_y_coord)        ; calc hammer X
2F80 DD 86 0E                     add     a, 0xE(ix)
2F83 77                           ld      (hl), a
2F84 DD 77 03                     ld      3(ix), a
2F87 23                           inc     hl
2F88 70                           ld      (hl), b
2F89 23                           inc     hl
2F8A 71                           ld      (hl), c
2F8B 23                           inc     hl
2F8C 3A 05 62                     ld      a, (mario_x_coord)        ; calc hammer Y
2F8F DD 86 0F                     add     a, 0xF(ix)
2F92 77                           ld      (hl), a
2F93 DD 77 05                     ld      5(ix), a
2F96 C9                           ret
2F97             ; ──────────────────────────────────────────────
2F97
2F97             loc_0_2F97:                                        ; CODE XREF: sub_0_2ED4+25↑j
2F97 3A 18 62                     ld      a, (unk_0_6218)
2F9A 0F                           rrca
2F9B D0                           ret     NC
2F9C DD 36 09 06                  ld      9(ix), #6
2FA0 DD 36 0A 03                  ld      0xA(ix), #3
2FA4 3A 07 62                     ld      a, (mario_flipy_sprite_tile)
2FA7 07                           rlca
2FA8 3E 3C                        ld      a, #0x3C ; '<'
2FAA 1F                           rra
2FAB 47                           ld      b, a                      ; hammer tile #
2FAC 0E 07                        ld      c, #7
2FAE 3A 89 60                     ld      a, (unk_0_6089)
2FB1 32 89 63                     ld      (unk_0_6389), a
2FB4 C3 7C 2F                     jp      loc_0_2F7C
2FB7             ; ──────────────────────────────────────────────
2FB7
2FB7             loc_0_2FB7:                                        ; CODE XREF: sub_0_2ED4+79↑j
2FB7 3A 95 63                     ld      a, (unk_0_6395)
2FBA A7                           and     a
2FBB CA 7C 2F                     jp      Z, loc_0_2F7C
2FBE
2FBE             loc_0_2FBE:                                        ; CODE XREF: sub_0_2ED4+83↑j
2FBE 3A 1A 60                     ld      a, (gen_purpose_timer)
2FC1 CB 5F                        bit     3, a
2FC3 CA 7C 2F                     jp      Z, loc_0_2F7C
2FC6 0E 01                        ld      c, #1
2FC8 C3 7C 2F                     jp      loc_0_2F7C
2FC8             ; End of function sub_0_2ED4
2FC8
2FCB
2FCB             ; ▓▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2FCB
2FCB
2FCB             sub_0_2FCB:                                        ; CODE XREF: 0000:19BF↑p
2FCB 3E 0E                        ld      a, #0xE
2FCD F7                           rst     0x30                      ; return if level bit not set
2FCE 21 B4 62                     ld      hl, #unk_0_62B4
2FD1 35                           dec     (hl)
2FD2 C0                           ret     NZ
2FD3 3E 03                        ld      a, #3
2FD5 32 B9 62                     ld      (unk_0_62B9), a
2FD8 32 96 63                     ld      (unk_0_6396), a
2FDB 11 01 05                     ld      de, #0x501                ; update_bonus_timer
2FDE CD 9F 30                     call    queue_fg_vector_fn
2FE1 3A B3 62                     ld      a, (unk_0_62B3)
2FE4 77                           ld      (hl), a
2FE5 21 B1 62                     ld      hl, #unk_0_62B1
2FE8 35                           dec     (hl)
2FE9 C0                           ret     NZ
2FEA 3E 01                        ld      a, #1
2FEC 32 86 63                     ld      (unk_0_6386), a
2FEF C9                           ret
2FEF             ; End of function sub_0_2FCB
2FEF
2FF0
2FF0             ; ▓▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
2FF0
2FF0
2FF0             sub_0_2FF0:                                        ; CODE XREF: sub_0_DA7+10↑p
2FF0 7D                                                             ; sub_0_DA7+3D↑p ...
2FF0                              ld      a, l                      ; byte2
2FF1 0F                           rrca
2FF2 0F                           rrca
2FF3 0F                           rrca                              ; byte2/8
2FF4 E6 1F                        and     #31
2FF6 6F                           ld      l, a                      ; L=byte2/8
2FF7 7C                           ld      a, h                      ; byte1
2FF8 2F                           cpl
2FF9 E6 F8                        and     #0xF8 ; '°'
2FFB 5F                           ld      e, a
2FFC AF                           xor     a
2FFD 67                           ld      h, a
2FFE CB 13                        rl      e
3000 17                           rla
3001 CB 13                        rl      e
3003 17                           rla
3004 C6 74                        add     a, #0x74 ; 't'            ; start of video RAM
3006 57                           ld      d, a
3007 19                           add     hl, de                    ; HL = screen address
3008 C9                           ret
3008             ; End of function sub_0_2FF0
3008
3009
3009             ; ▓▓▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
3009
3009
3009             sub_0_3009:                                        ; CODE XREF: 0000:18DF↑p
3009 57                                                             ; sub_0_1AC3+1DB↑p ...
3009                              ld      d, a
300A 0F                           rrca
300B DA 22 30                     jp      C, loc_0_3022
300E 0E 93                        ld      c, #0x93 ; 'õ'
3010 0F                           rrca
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3011 0F                           rrca
3012 D2 17 30                     jp        NC, loc_0_3017
3015 0E 6C                        ld        c, #0x6C ; 'l'
3017
3017             loc_0_3017:                                              ; CODE XREF: sub_0_3009+9↑j
3017 07                           rlca
3018 DA 31 30                     jp        C, loc_0_3031
301B 79                           ld        a, c
301C E6 F0                        and       #0xF0 ; '-'
301E 4F                           ld        c, a
301F C3 31 30                     jp        loc_0_3031
3022             ; ─────────────────────────────────────────────
3022
3022             loc_0_3022:                                              ; CODE XREF: sub_0_3009+2↑j
3022 0E B4                        ld        c, #0xB4 ; '┤'
3024 0F                           rrca
3025 0F                           rrca
3026 D2 2B 30                     jp        NC, loc_0_302B
3029 0E 1E                        ld        c, #0x1E
302B
302B             loc_0_302B:                                              ; CODE XREF: sub_0_3009+1D↑j
302B CB 50                        bit       2, b
302D CA 31 30                     jp        Z, loc_0_3031
3030 05                           dec       b
3031
3031             loc_0_3031:                                              ; CODE XREF: sub_0_3009+F↑j
3031                                                                      ; sub_0_3009+16↑j ...
3031 79                           ld        a, c
3032 0F                           rrca
3033 0F                           rrca
3034 4F                           ld        c, a
3035 E6 03                        and       #3
3037 B8                           cp        b
3038 C2 31 30                     jp        NZ, loc_0_3031
303B 79                           ld        a, c
303C 0F                           rrca
303D 0F                           rrca
303E E6 03                        and       #3
3040 FE 03                        cp        #3
3042 C0                           ret       NZ
3043 CB 92                        res       2, d
3045 15                           dec       d
3046 C0                           ret       NZ
3047 3E 04                        ld        a, #4
3049 C9                           ret
3049             ; End of function sub_0_3009
3049
304A
304A             ; ▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
304A
304A
304A             sub_0_304A:                                              ; CODE XREF: 0000:0AF0↑p
304A 11 E0 FF                                                            ; 0000:0B38↑p
304A                              ld        de, #0xFFE0
304D 3A 8E 63                     ld        a, (unk_0_638E)
3050 4F                           ld        c, a
3051 06 00                        ld        b, #0
3053 21 00 76                     ld        hl, #VRAM_start+0x200
3056 CD 64 30                     call      sub_0_3064
3059 21 C0 75                     ld        hl, #VRAM_start+0x1C0
305C CD 64 30                     call      sub_0_3064
305F 21 8E 63                     ld        hl, #unk_0_638E
3062 35                           dec       (hl)
3063 C9                           ret
3063             ; End of function sub_0_304A
3063
3064
3064             ; ▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
3064
3064
3064             sub_0_3064:                                              ; CODE XREF: sub_0_304A+C↑p
3064 09                                                                  ; sub_0_304A+12↑p
3064                              add       hl, bc
3065 7E                           ld        a, (hl)
3066 19                           add       hl, de
3067 77                           ld        (hl), a
3068 C9                           ret
3068             ; End of function sub_0_3064
3068
3069             ; ─────────────────────────────────────────────
3069
3069             loc_0_3069:                                              ; DATA XREF: 0000:0A80↑o
3069 DF                                                                  ; 0000:0A84↑o ...
3069                              rst       0x18                          ; wait for 8-bit countdown
306A 2A C0 63                     ld        hl, (unk_0_63C0)
306D 34                           inc       (hl)
306E C9                           ret
306F
306F             ; ▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
306F
306F
306F             sub_0_306F:                                              ; CODE XREF: 0000:0AE8↑p
306F 21 AF 62                                                            ; 0000:1732↑p ...
306F                              ld        hl, #unk_0_62AF
3072 34                           inc       (hl)
3073 7E                           ld        a, (hl)
3074 E6 07                        and       #7
3076 C0                           ret       NZ
3077 21 0B 69                     ld        hl, #soft_sprite_ram+0xB      ; sprite #2, x coord
307A 0E FC                        ld        c, #0xFC ; '³'
307C FF                           rst       0x38
307D 0E 81                        ld        c, #0x81 ; 'ü'
307F 21 09 69                     ld        hl, #soft_sprite_ram+9        ; sprite #2, flipy & code
3082 CD 96 30                     call      sub_0_3096
3085 21 1D 69                     ld        hl, #soft_sprite_ram+0x1D
3088 CD 96 30                     call      sub_0_3096
308B CD 57 00                     call      rand
308E E6 80                        and       #0x80 ; 'Ç'
3090 21 2D 69                     ld        hl, #soft_sprite_ram+0x2D
3093 AE                           xor       (hl)
3094 77                           ld        (hl), a
3095 C9                           ret
3095             ; End of function sub_0_306F
3095
3096
3096             ; ▮▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
```

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3096
3096
3096              sub_0_3096:                                        ; CODE XREF: sub_0_306F+13↑p
3096 06 02                                                          ; sub_0_306F+19↑p
3096                          ld      b, #2
3098
3098              loc_0_3098:                                        ; CODE XREF: sub_0_3096+6↓j
3098 79                       ld      a, c
3099 AE                       xor     (hl)
309A 77                       ld      (hl), a
309B 19                       add     hl, de
309C 10 FA                    djnz    loc_0_3098
309E C9                       ret
309E          ; End of function sub_0_3096
309E
309F
309F              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
309F
309F
309F              queue_fg_vector_fn:                                ; CODE XREF: sub_0_17B+3B↑p
309F E5                                                             ; 0000:01F7↑p ...
309F                          push    hl
30A0 21 C0 60                 ld      hl, #fg_vector_fn_params
30A3 3A B0 60                 ld      a, (fg_fn_queue_tail)
30A6 6F                       ld      l, a                          ; point to end of queue
30A7 CB 7E                    bit     7, (hl)                       ; empty entry?
30A9 CA BB 30                 jp      Z, loc_0_30BB                 ; no, exit
30AC 72                       ld      (hl), d                       ; vector number
30AD 2C                       inc     l
30AE 73                       ld      (hl), e                       ; msg number
30AF 2C                       inc     l
30B0 7D                       ld      a, l                          ; new tail
30B1 FE C0                    cp      #0xC0 ; '└'                   ; wrap?
30B3 D2 B8 30                 jp      NC, loc_0_30B8                ; no, skip
30B6 3E C0                    ld      a, #0xC0 ; '└'
30B8
30B8              loc_0_30B8:                                        ; CODE XREF: queue_fg_vector_fn+14↑j
30B8 32 B0 60                 ld      (fg_fn_queue_tail), a         ; store tail
30BB
30BB              loc_0_30BB:                                        ; CODE XREF: queue_fg_vector_fn+A↑j
30BB E1                       pop     hl
30BC C9                       ret
30BC          ; End of function queue_fg_vector_fn
30BC
30BD
30BD              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
30BD
30BD
30BD              sub_0_30BD:                                        ; CODE XREF: 0000:12A3↑p
30BD 21 50 69                                                       ; 0000:1615↑p
30BD                          ld      hl, #soft_sprite_ram+0x50
30C0 06 02                    ld      b, #2
30C2 CD E4 30                 call    sub_0_30E4
30C5 2E 80                    ld      l, #0x80 ; 'Ç'
30C7 06 0A                    ld      b, #0xA
30C9 CD E4 30                 call    sub_0_30E4
30CC 2E B8                    ld      l, #0xB8 ; '©'
30CE 06 0B                    ld      b, #0xB
30D0 CD E4 30                 call    sub_0_30E4
30D3 21 0C 6A                 ld      hl, #soft_sprite_ram+0x10C
30D6 06 05                    ld      b, #5
30D8 C3 E4 30                 jp      sub_0_30E4
30D8          ; End of function sub_0_30BD
30D8
30DB
30DB              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
30DB
30DB
30DB              sub_0_30DB:                                        ; CODE XREF: 0000:12DF↑p
30DB 21 4C 69                 ld      hl, #soft_sprite_ram+0x4C
30DE 36 00                    ld      (hl), #0
30E0 2E 58                    ld      l, #0x58 ; 'X'
30E2 06 06                    ld      b, #6
30E2          ; End of function sub_0_30DB
30E2
30E4
30E4              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
30E4
30E4
30E4              sub_0_30E4:                                        ; CODE XREF: sub_0_30BD+5↑p
30E4 7D                                                             ; sub_0_30BD+C↑p ...
30E4                          ld      a, l
30E5
30E5              loc_0_30E5:                                        ; CODE XREF: sub_0_30E4+6↓j
30E5 36 00                    ld      (hl), #0
30E7 C6 04                    add     a, #4
30E9 6F                       ld      l, a
30EA 10 F9                    djnz    loc_0_30E5
30EC C9                       ret
30EC          ; End of function sub_0_30E4
30EC
30ED
30ED              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
30ED
30ED
30ED              sub_0_30ED:                                        ; CODE XREF: 0000:198C↑p
30ED CD FA 30                 call    sub_0_30FA
30F0 CD 3C 31                 call    sub_0_313C                    ; spawn fireballs?
30F3 CD B1 31                 call    sub_0_31B1                    ; process fireball AI?
30F6 CD F3 34                 call    sub_0_34F3                    ; add fireballs to sprite display
30F9 C9                       ret
30F9          ; End of function sub_0_30ED
30F9
30FA
30FA              ;▪▪▪▪▪▪▪▪▪▪▪▪ S U B R O U T I N E ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪
30FA
30FA
30FA              sub_0_30FA:                                        ; CODE XREF: sub_0_30ED↑p
30FA 3A 80 63                 ld      a, (unk_0_6380)
30FD FE 06                    cp      #6
30FF 38 02                    jr      C, loc_0_3103
3101 3E 05                    ld      a, #5
3103
3103              loc_0_3103:                                        ; CODE XREF: sub_0_30FA+5↑j
3103 EF                       rst     0x28                          ; go!
3103          ; ─────────────────────────────────────────────────────────
```

```
3104 10 31                          .dw  loc_0_3110                       ; Jump table
3106 10 31                          .dw  loc_0_3110
3108 1B 31                          .dw  loc_0_311B
310A 26 31                          .dw  loc_0_3126
310C 26 31                          .dw  loc_0_3126
310E 31 31                          .dw  loc_0_3131
3110          ; ─────────────────────────────────────────────────────────
3110
3110          loc_0_3110:                                                  ; DATA XREF: sub_0_30FA+A↑o
3110 3A 1A 60                                                              ; sub_0_30FA+C↑o
3110                        ld      a, (gen_purpose_timer)
3113 E6 01                 and     #1
3115 FE 01                 cp      #1
3117 C8                    ret     Z
3118 33                    inc     sp
3119 33                    inc     sp
311A C9                    ret
311B          ; ─────────────────────────────────────────────────────────
311B
311B          loc_0_311B:                                                  ; DATA XREF: sub_0_30FA+E↑o
311B 3A 1A 60              ld      a, (gen_purpose_timer)
311E E6 07                 and     #7
3120 FE 05                 cp      #5
3122 F8                    ret     M
3123 33                    inc     sp
3124 33                    inc     sp
3125 C9                    ret
3126          ; ─────────────────────────────────────────────────────────
3126
3126          loc_0_3126:                                                  ; DATA XREF: sub_0_30FA+10↑o
3126 3A 1A 60                                                              ; sub_0_30FA+12↑o
3126                        ld      a, (gen_purpose_timer)
3129 E6 03                 and     #3
312B FE 03                 cp      #3
312D F8                    ret     M
312E 33                    inc     sp
312F 33                    inc     sp
3130 C9                    ret
3131          ; ─────────────────────────────────────────────────────────
3131
3131          loc_0_3131:                                                  ; DATA XREF: sub_0_30FA+14↑o
3131 3A 1A 60              ld      a, (gen_purpose_timer)
3134 E6 07                 and     #7
3136 FE 07                 cp      #7
3138 F8                    ret     M
3139 33                    inc     sp
313A 33                    inc     sp
313B C9                    ret
313B          ; End of function sub_0_30FA
313B
313C
313C          ; ▉▉▉▉▉▉▉▉▉▉▉▉ S U B R O U T I N E ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉
313C
313C
313C          sub_0_313C:                                                  ; CODE XREF: sub_0_30ED+3↑p
313C DD 21 00 64           ld      ix, #unk_0_6400                         ; fireball character data
3140 AF                    xor     a
3141 32 A1 63              ld      (unk_0_63A1), a
3144 06 05                 ld      b, #5
3146 11 20 00              ld      de, #0x20 ; ' '
3149
3149          loc_0_3149:                                                  ; CODE XREF: sub_0_313C+30⊦j
3149 DD 7E 00              ld      a, 0(ix)
314C FE 00                 cp      #0
314E CA 7C 31              jp      Z, loc_0_317C
3151 3A A1 63              ld      a, (unk_0_63A1)
3154 3C                    inc     a
3155 32 A1 63              ld      (unk_0_63A1), a
3158 3E 01                 ld      a, #1
315A DD 77 08              ld      8(ix), a
315D 3A 17 62              ld      a, (unk_0_6217)
3160 FE 01                 cp      #1
3162 C2 6A 31              jp      NZ, loc_0_316A
3165 3E 00                 ld      a, #0
3167 DD 77 08              ld      8(ix), a
316A
316A          loc_0_316A:                                                  ; CODE XREF: sub_0_313C+26↑j
316A DD 19                                                                 ; sub_0_313C+45⊦j ...
316A                        add     ix, de
316C 10 DB                 djnz    loc_0_3149
316E 21 A0 63              ld      hl, #unk_0_63A0
3171 36 00                 ld      (hl), #0
3173 3A A1 63              ld      a, (unk_0_63A1)
3176 FE 00                 cp      #0
3178 C0                    ret     NZ
3179 33                    inc     sp
317A 33                    inc     sp
317B C9                    ret
317C          ; ─────────────────────────────────────────────────────────
317C
317C          loc_0_317C:                                                  ; CODE XREF: sub_0_313C+12↑j
317C 3A A1 63              ld      a, (unk_0_63A1)
317F FE 05                 cp      #5
3181 CA 6A 31              jp      Z, loc_0_316A
3184 3A 27 62              ld      a, (level_type)
3187 FE 02                 cp      #2                                      ; cement level?
3189 C2 95 31              jp      NZ, loc_0_3195                          ; no, continue
318C 3A A1 63              ld      a, (unk_0_63A1)                         ; cement level timers
318F 4F                    ld      c, a
3190 3A 80 63              ld      a, (unk_0_6380)
3193 B9                    cp      c
3194 C8                    ret     Z
3195
3195          loc_0_3195:                                                  ; CODE XREF: sub_0_313C+4D↑j
3195 3A A0 63              ld      a, (unk_0_63A0)                         ; spawn a fireball
3198 FE 01                 cp      #1
319A C2 6A 31              jp      NZ, loc_0_316A
319D DD 77 00              ld      0(ix), a
31A0 DD 77 18              ld      0x18(ix), a
31A3 AF                    xor     a
31A4 32 A0 63              ld      (unk_0_63A0), a
31A7 3A A1 63              ld      a, (unk_0_63A1)
31AA 3C                    inc     a
31AB 32 A1 63              ld      (unk_0_63A1), a
31AE C3 6A 31              jp      loc_0_316A
31AE          ; End of function sub_0_313C
```

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31AE
31B1
31B1                ; ██████████████ S U B R O U T I N E ██████████████████████████████████
31B1
31B1
31B1                sub_0_31B1:                                    ; CODE XREF: sub_0_30ED+6↑p
31B1 CD DD 31                       call    sub_0_31DD
31B4 AF                             xor     a
31B5 32 A2 63                       ld      (unk_0_63A2), a
31B8 21 E0 63                       ld      hl, #unk_0_63E0
31BB 22 C8 63                       ld      (unk_0_63C8), hl
31BE
31BE                loc_0_31BE:                                    ; CODE XREF: sub_0_31B1+28↓j
31BE 2A C8 63                       ld      hl, (unk_0_63C8)
31C1 01 20 00                       ld      bc, #0x20 ; ' '
31C4 09                             add     hl, bc
31C5 22 C8 63                       ld      (unk_0_63C8), hl
31C8 7E                             ld      a, (hl)
31C9 A7                             and     a
31CA CA D0 31                       jp      Z, loc_0_31D0
31CD CD 02 32                       call    sub_0_3202
31D0
31D0                loc_0_31D0:                                    ; CODE XREF: sub_0_31B1+19↑j
31D0 3A A2 63                       ld      a, (unk_0_63A2)
31D3 3C                             inc     a
31D4 32 A2 63                       ld      (unk_0_63A2), a
31D7 FE 05                          cp      #5
31D9 C2 BE 31                       jp      NZ, loc_0_31BE
31DC C9                             ret
31DC                ; End of function sub_0_31B1
31DC
31DD
31DD                ; ██████████████ S U B R O U T I N E ██████████████████████████████████
31DD
31DD
31DD                sub_0_31DD:                                    ; CODE XREF: sub_0_31B1↑p
31DD 3A 80 63                       ld      a, (unk_0_6380)
31E0 FE 03                          cp      #3
31E2 F8                             ret     M
31E3 CD F6 31                       call    sub_0_31F6
31E6 FE 01                          cp      #1
31E8 C0                             ret     NZ
31E9 21 39 64                       ld      hl, #unk_0_6439
31EC 3E 02                          ld      a, #2
31EE 77                             ld      (hl), a
31EF 21 79 64                       ld      hl, #unk_0_6479
31F2 3E 02                          ld      a, #2
31F4 77                             ld      (hl), a
31F5 C9                             ret
31F5                ; End of function sub_0_31DD
31F5
31F6
31F6                ; ██████████████ S U B R O U T I N E ██████████████████████████████████
31F6
31F6
31F6                sub_0_31F6:                                    ; CODE XREF: sub_0_31DD+6↑p
31F6 3A 18 60                       ld      a, (random_no)
31F9 E6 03                          and     #3
31FB FE 01                          cp      #1
31FD C0                             ret     NZ
31FE 3A 1A 60                       ld      a, (gen_purpose_timer)
3201 C9                             ret
3201                ; End of function sub_0_31F6
3201
3202
3202                ; ██████████████ S U B R O U T I N E ██████████████████████████████████
3202
3202
3202                sub_0_3202:                                    ; CODE XREF: sub_0_31B1+1C↑p
3202 DD 2A C8 63                    ld      ix, (unk_0_63C8)
3206 DD 7E 18                       ld      a, 0x18(ix)
3209 FE 01                          cp      #1
320B CA 7A 32                       jp      Z, loc_0_327A
320E DD 7E 0D                       ld      a, 0xD(ix)
3211 FE 04                          cp      #4
3213 F2 30 32                       jp      P, loc_0_3230
3216 DD 7E 19                       ld      a, 0x19(ix)
3219 FE 02                          cp      #2
321B CA 7E 32                       jp      Z, loc_0_327E
321E CD 0F 33                       call    sub_0_330F
3221 3A 18 60                       ld      a, (random_no)
3224 E6 03                          and     #3
3226 C2 33 32                       jp      NZ, loc_0_3233
3229
3229                loc_0_3229:                                    ; CODE XREF: sub_0_3202+7F↓j
3229 DD 7E 0D                       ld      a, 0xD(ix)
322C A7                             and     a
322D CA 57 32                       jp      Z, loc_0_3257
3230
3230                loc_0_3230:                                    ; CODE XREF: sub_0_3202+11↑j
3230 CD 3D 33                       call    sub_0_333D
3233
3233                loc_0_3233:                                    ; CODE XREF: sub_0_3202+24↑j
3233 DD 7E 0D                       ld      a, 0xD(ix)
3236 FE 04                          cp      #4
3238 F2 91 32                       jp      P, loc_0_3291
323B CD AD 33                       call    sub_0_33AD
323E CD 8C 29                       call    sub_0_298C
3241 FE 01                          cp      #1
3243 CA 97 32                       jp      Z, loc_0_3297
3246 DD 2A C8 63                    ld      ix, (unk_0_63C8)
324A DD 7E 0E                       ld      a, 0xE(ix)
324D FE 10                          cp      #0x10
324F DA 8C 32                       jp      C, loc_0_328C
3252 FE F0                          cp      #0xF0 ; '≡'
3254 D2 84 32                       jp      NC, loc_0_3284
3257
3257                loc_0_3257:                                    ; CODE XREF: sub_0_3202+2B↑j
3257 DD 7E 13                                                     ; sub_0_3202+87↓j ...
3257                                ld      a, 0x13(ix)
325A FE 00                          cp      #0
325C C2 B9 32                       jp      NZ, loc_0_32B9
325F 3E 11                          ld      a, #0x11
3261
3261                loc_0_3261:                                    ; CODE XREF: sub_0_3202+B8↓j
3261 DD 77 13                       ld      0x13(ix), a
```

```
3264 16 00                          ld      d, #0
3266 5F                             ld      e, a
3267 21 7A 3A                       ld      hl, #fireball_bouncing_data
326A 19                             add     hl, de
326B 7E                             ld      a, (hl)
326C DD 46 0E                       ld      b, 0xE(ix)
326F DD 70 03                       ld      3(ix), b
3272 DD 4E 0F                       ld      c, 0xF(ix)
3275 81                             add     a, c
3276 DD 77 05                       ld      5(ix), a
3279 C9                             ret
327A                ; ─────────────────────────────────────────
327A
327A                loc_0_327A:                                 ; CODE XREF: sub_0_3202+9↑j
327A CD BD 32                       call    sub_0_32BD
327D C9                             ret
327E                ; ─────────────────────────────────────────
327E
327E                loc_0_327E:                                 ; CODE XREF: sub_0_3202+19↑j
327E CD D6 32                       call    sub_0_32D6
3281 C3 29 32                       jp      loc_0_3229
3284                ; ─────────────────────────────────────────
3284
3284                loc_0_3284:                                 ; CODE XREF: sub_0_3202+52↑j
3284 3E 02                          ld      a, #2
3286
3286                loc_0_3286:                                 ; CODE XREF: sub_0_3202+8C├j
3286 DD 77 0D                       ld      0xD(ix), a
3289 C3 57 32                       jp      loc_0_3257
328C                ; ─────────────────────────────────────────
328C
328C                loc_0_328C:                                 ; CODE XREF: sub_0_3202+4D↑j
328C 3E 01                          ld      a, #1
328E C3 86 32                       jp      loc_0_3286
3291                ; ─────────────────────────────────────────
3291
3291                loc_0_3291:                                 ; CODE XREF: sub_0_3202+36↑j
3291 CD E7 33                       call    sub_0_33E7
3294 C3 57 32                       jp      loc_0_3257
3297                ; ─────────────────────────────────────────
3297
3297                loc_0_3297:                                 ; CODE XREF: sub_0_3202+41↑j
3297 DD 2A C8 63                    ld      ix, (unk_0_63C8)
329B DD 7E 0D                       ld      a, 0xD(ix)
329E FE 01                          cp      #1
32A0 C2 B1 32                       jp      NZ, loc_0_32B1
32A3 3E 02                          ld      a, #2
32A5 DD 35 0E                       dec     0xE(ix)
32A8
32A8                loc_0_32A8:                                 ; CODE XREF: sub_0_3202+B4├j
32A8 DD 77 0D                       ld      0xD(ix), a
32AB CD C3 33                       call    sub_0_33C3
32AE C3 57 32                       jp      loc_0_3257
32B1                ; ─────────────────────────────────────────
32B1
32B1                loc_0_32B1:                                 ; CODE XREF: sub_0_3202+9E↑j
32B1 3E 01                          ld      a, #1
32B3 DD 34 0E                       inc     0xE(ix)
32B6 C3 A8 32                       jp      loc_0_32A8
32B9                ; ─────────────────────────────────────────
32B9
32B9                loc_0_32B9:                                 ; CODE XREF: sub_0_3202+5A↑j
32B9 3D                             dec     a
32BA C3 61 32                       jp      loc_0_3261
32BA                ; End of function sub_0_3202
32BA
32BA
32BD                ; ▐███████████ S U B R O U T I N E ████████████████████████████
32BD
32BD
32BD                sub_0_32BD:                                 ; CODE XREF: sub_0_3202+78↑p
32BD 3A 27 62                       ld      a, (level_type)
32C0 FE 01                          cp      #1
32C2 CA CE 32                       jp      Z, loc_0_32CE
32C5 FE 02                          cp      #2
32C7 CA D2 32                       jp      Z, loc_0_32D2
32CA CD B9 34                       call    sub_0_34B9
32CD C9                             ret
32CE                ; ─────────────────────────────────────────
32CE
32CE                loc_0_32CE:                                 ; CODE XREF: sub_0_32BD+5↑j
32CE CD 2C 34                       call    sub_0_342C
32D1 C9                             ret
32D2                ; ─────────────────────────────────────────
32D2
32D2                loc_0_32D2:                                 ; CODE XREF: sub_0_32BD+A↑j
32D2 CD 78 34                       call    sub_0_3478
32D5 C9                             ret
32D5                ; End of function sub_0_32BD
32D5
32D6
32D6                ; ▐███████████ S U B R O U T I N E ████████████████████████████
32D6
32D6
32D6                sub_0_32D6:                                 ; CODE XREF: sub_0_3202+7C↑p
32D6 DD 7E 1C                       ld      a, 0x1C(ix)
32D9 FE 00                          cp      #0
32DB C2 FD 32                       jp      NZ, loc_0_32FD
32DE DD 7E 1D                       ld      a, 0x1D(ix)
32E1 FE 01                          cp      #1
32E3 C2 0B 33                       jp      NZ, loc_0_330B
32E6 DD 36 1D 00                    ld      0x1D(ix), #0
32EA 3A 05 62                       ld      a, (mario_x_coord)
32ED DD 46 0F                       ld      b, 0xF(ix)
32F0 90                             sub     b
32F1 DA 03 33                       jp      C, loc_0_3303
32F4 DD 36 1C FF                    ld      0x1C(ix), #0xFF
32F8
32F8                loc_0_32F8:                                 ; CODE XREF: sub_0_32D6+2A├j
32F8 DD 36 0D 00                    ld      0xD(ix), #0
32FC C9                             ret
32FD                ; ─────────────────────────────────────────
32FD
32FD                loc_0_32FD:                                 ; CODE XREF: sub_0_32D6+5↑j
32FD DD 35 1C                       dec     0x1C(ix)
3300 C2 F8 32                       jp      NZ, loc_0_32F8
```

```
3303
3303                     loc_0_3303:                               ; CODE XREF: sub_0_32D6+1B↑j
3303 DD 36 19 00                  ld      0x19(ix), #0
3307 DD 36 1C 00                  ld      0x1C(ix), #0
330B
330B                     loc_0_330B:                               ; CODE XREF: sub_0_32D6+D↑j
330B CD 0F 33                     call    sub_0_330F
330E C9                           ret
330E             ; End of function sub_0_32D6
330E
330F
330F             ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
330F
330F
330F                     sub_0_330F:                               ; CODE XREF: sub_0_3202+1C↑p
330F DD 7E 16                                                     ; sub_0_32D6+35↑p
330F                             ld      a, 0x16(ix)
3312 FE 00                       cp      #0
3314 C2 32 33                    jp      NZ, loc_0_3332
3317 DD 36 16 2B                 ld      0x16(ix), #0x2B ; '+'
331B DD 36 0D 00                 ld      0xD(ix), #0
331F 3A 18 60                    ld      a, (random_no)
3322 0F                          rrca
3323 D2 32 33                    jp      NC, loc_0_3332
3326 DD 7E 0D                    ld      a, 0xD(ix)
3329 FE 01                       cp      #1
332B CA 36 33                    jp      Z, loc_0_3336
332E DD 36 0D 01                 ld      0xD(ix), #1
3332
3332                     loc_0_3332:                               ; CODE XREF: sub_0_330F+5↑j
3332 DD 35 16                                                     ; sub_0_330F+14↑j ...
3332                             dec     0x16(ix)
3335 C9                          ret
3336             ; ──────────────────────────────────────────────────
3336
3336                     loc_0_3336:                               ; CODE XREF: sub_0_330F+1C↑j
3336 DD 36 0D 02                 ld      0xD(ix), #2
333A C3 32 33                    jp      loc_0_3332
333A             ; End of function sub_0_330F
333A
333D
333D             ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
333D
333D
333D                     sub_0_333D:                               ; CODE XREF: sub_0_3202+2E↑p
333D DD 7E 0D                    ld      a, 0xD(ix)
3340 FE 08                       cp      #8
3342 CA 71 33                    jp      Z, loc_0_3371
3345 FE 04                       cp      #4
3347 CA 8A 33                    jp      Z, loc_0_338A
334A CD A1 33                    call    sub_0_33A1
334D DD 7E 0F                    ld      a, 0xF(ix)
3350 C6 08                       add     a, #8
3352 57                          ld      d, a
3353 DD 7E 0E                    ld      a, 0xE(ix)
3356 01 15 00                    ld      bc, #0x15
3359 CD 6E 23                    call    sub_0_236E
335C A7                          and     a
335D CA 99 33                    jp      Z, loc_0_3399
3360 DD 70 1F                    ld      0x1F(ix), b
3363 3A 05 62                    ld      a, (mario_x_coord)
3366 47                          ld      b, a
3367 DD 7E 0F                    ld      a, 0xF(ix)
336A 90                          sub     b
336B D0                          ret     NC
336C DD 36 0D 04                 ld      0xD(ix), #4
3370 C9                          ret
3371             ; ──────────────────────────────────────────────────
3371
3371                     loc_0_3371:                               ; CODE XREF: sub_0_333D+5↑j
3371 DD 7E 0F                    ld      a, 0xF(ix)
3374 C6 08                       add     a, #8
3376 DD 46 1F                    ld      b, 0x1F(ix)
3379 B8                          cp      b
337A C0                          ret     NZ
337B DD 36 0D 00                 ld      0xD(ix), #0
337F DD 7E 19                    ld      a, 0x19(ix)
3382 FE 02                       cp      #2
3384 C0                          ret     NZ
3385 DD 36 1D 01                 ld      0x1D(ix), #1
3389 C9                          ret
338A             ; ──────────────────────────────────────────────────
338A
338A                     loc_0_338A:                               ; CODE XREF: sub_0_333D+A↑j
338A DD 7E 0F                    ld      a, 0xF(ix)
338D C6 08                       add     a, #8
338F DD 46 1F                    ld      b, 0x1F(ix)
3392 B8                          cp      b
3393 C0                          ret     NZ
3394 DD 36 0D 00                 ld      0xD(ix), #0
3398 C9                          ret
3399             ; ──────────────────────────────────────────────────
3399
3399                     loc_0_3399:                               ; CODE XREF: sub_0_333D+20↑j
3399 DD 70 1F                    ld      0x1F(ix), b
339C DD 36 0D 08                 ld      0xD(ix), #8
33A0 C9                          ret
33A0             ; End of function sub_0_333D
33A0
33A1
33A1             ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
33A1
33A1
33A1                     sub_0_33A1:                               ; CODE XREF: sub_0_333D+D↑p
33A1 3E 07                       ld      a, #7
33A3 F7                          rst     0x30            ; return if level bit not set
33A4 DD 7E 0F                    ld      a, 0xF(ix)
33A7 FE 59                       cp      #0x59 ; 'Y'
33A9 D0                          ret     NC
33AA 33                          inc     sp
33AB 33                          inc     sp
33AC C9                          ret
33AC             ; End of function sub_0_33A1
33AC
33AD
33AD             ; ▮▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
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33AD
33AD
33AD                 sub_0_33AD:                                        ; CODE XREF: sub_0_3202+39↑p
33AD DD 7E 0D                    ld       a, 0xD(ix)
33B0 FE 01                       cp       #1
33B2 CA D9 33                    jp       Z, loc_0_33D9
33B5 DD 7E 07                    ld       a, 7(ix)
33B8 E6 7F                       and      #0x7F ; ' '                   ; reset hflip
33BA DD 77 07                    ld       7(ix), a                     ; sprite tile #
33BD DD 35 0E                    dec      0xE(ix)
33C0
33C0                 loc_0_33C0:                                        ; CODE XREF: 0000:33E4↑j
33C0 CD 09 34                    call     sub_0_3409
33C0             ; End of function sub_0_33AD
33C0
33C3
33C3             ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
33C3
33C3
33C3                 sub_0_33C3:                                        ; CODE XREF: sub_0_3202+A9↑p
33C3 3A 27 62                    ld       a, (level_type)
33C6 FE 01                       cp       #1
33C8 C0                          ret      NZ
33C9 DD 66 0E                    ld       h, 0xE(ix)
33CC DD 6E 0F                    ld       l, 0xF(ix)
33CF DD 46 0D                    ld       b, 0xD(ix)
33D2 CD 33 23                    call     sub_0_2333
33D5 DD 75 0F                    ld       0xF(ix), l
33D8 C9                          ret
33D8             ; End of function sub_0_33C3
33D8
33D9             ; ─────────────────────────────────────────────────────
33D9
33D9                 loc_0_33D9:                                        ; CODE XREF: sub_0_33AD+5↑j
33D9 DD 7E 07                    ld       a, 7(ix)                     ; sprite tile #
33DC F6 80                       or       #0x80 ; 'Ç'                   ; set hflip
33DE DD 77 07                    ld       7(ix), a
33E1 DD 34 0E                    inc      0xE(ix)
33E4 C3 C0 33                    jp       loc_0_33C0
33E7
33E7             ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
33E7
33E7
33E7                 sub_0_33E7:                                        ; CODE XREF: sub_0_3202+8F↑p
33E7 CD 09 34                    call     sub_0_3409
33EA DD 7E 0D                    ld       a, 0xD(ix)
33ED FE 08                       cp       #8
33EF C2 05 34                    jp       NZ, loc_0_3405
33F2 DD 7E 14                    ld       a, 0x14(ix)
33F5 A7                          and      a
33F6 C2 01 34                    jp       NZ, loc_0_3401
33F9 DD 36 14 02                 ld       0x14(ix), #2
33FD DD 35 0F                    dec      0xF(ix)
3400 C9                          ret
3401             ; ─────────────────────────────────────────────────────
3401
3401                 loc_0_3401:                                        ; CODE XREF: sub_0_33E7+F↑j
3401 DD 35 14                    dec      0x14(ix)
3404 C9                          ret
3405             ; ─────────────────────────────────────────────────────
3405
3405                 loc_0_3405:                                        ; CODE XREF: sub_0_33E7+8↑j
3405 DD 34 0F                    inc      0xF(ix)
3408 C9                          ret
3408             ; End of function sub_0_33E7
3408
3409
3409             ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
3409
3409
3409                 sub_0_3409:                                        ; CODE XREF: sub_0_33AD+13↑p
3409 DD 7E 15                                                          ; sub_0_33E7↑p
3409                             ld       a, 0x15(ix)
340C A7                          and      a
340D C2 28 34                    jp       NZ, loc_0_3428
3410 DD 36 15 02                 ld       0x15(ix), #2
3414 DD 34 07                    inc      7(ix)                        ; inc fireball animation
3417 DD 7E 07                    ld       a, 7(ix)
341A E6 0F                       and      #0xF
341C FE 0F                       cp       #0xF                         ; last animation frame?
341E C0                          ret      NZ                           ; no, return
341F DD 7E 07                    ld       a, 7(ix)
3422 EE 02                       xor      #2                           ; reset animation frame
3424 DD 77 07                    ld       7(ix), a
3427 C9                          ret
3428             ; ─────────────────────────────────────────────────────
3428
3428                 loc_0_3428:                                        ; CODE XREF: sub_0_3409+4↑j
3428 DD 35 15                    dec      0x15(ix)
342B C9                          ret
342B             ; End of function sub_0_3409
342B
342C
342C             ; ▮▮▮▮▮▮▮▮▮▮▮ S U B R O U T I N E ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
342C
342C
342C                 sub_0_342C:                                        ; CODE XREF: sub_0_32BD+11↑p
342C DD 6E 1A                    ld       l, 0x1A(ix)
342F DD 66 1B                    ld       h, 0x1B(ix)
3432 AF                          xor      a
3433 01 00 00                    ld       bc, #0
3436 ED 4A                       adc      hl, bc
3438 C2 42 34                    jp       NZ, loc_0_3442
343B 21 8C 3A                    ld       hl, #fireball_bounce_data
343E DD 36 03 26                 ld       3(ix), #0x26 ; '&'
3442
3442                 loc_0_3442:                                        ; CODE XREF: sub_0_342C+C↑j
3442 DD 34 03                    inc      3(ix)
3445
3445                 loc_0_3445:                                        ; CODE XREF: sub_0_3478+2D├j
3445 7E                                                                ; sub_0_3478+3E├j
3445                             ld       a, (hl)
3446 FE AA                       cp       #0xAA ; '¬'
3448 CA 56 34                    jp       Z, loc_0_3456
344B DD 77 05                    ld       5(ix), a
344E 23                          inc      hl
```

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344F DD 75 1A                      ld      0x1A(ix), l
3452 DD 74 1B                      ld      0x1B(ix), h
3455 C9                            ret
3456          ; ───────────────────────────────────────────────────
3456
3456          loc_0_3456:                            ; CODE XREF: sub_0_342C+1C↑j
3456 AF                            xor     a
3457 DD 77 13                      ld      0x13(ix), a
345A DD 77 18                      ld      0x18(ix), a
345D DD 77 0D                      ld      0xD(ix), a
3460 DD 77 1C                      ld      0x1C(ix), a
3463 DD 7E 03                      ld      a, 3(ix)
3466 DD 77 0E                      ld      0xE(ix), a
3469 DD 7E 05                      ld      a, 5(ix)
346C DD 77 0F                      ld      0xF(ix), a
346F DD 36 1A 00                   ld      0x1A(ix), #0
3473 DD 36 1B 00                   ld      0x1B(ix), #0
3477 C9                            ret
3477          ; End of function sub_0_342C
3477
3478
3478          ; ▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
3478
3478
3478          sub_0_3478:                            ; CODE XREF: sub_0_32BD+15↑p
3478 DD 6E 1A                      ld      l, 0x1A(ix)
347B DD 66 1B                      ld      h, 0x1B(ix)
347E AF                            xor     a
347F 01 00 00                      ld      bc, #0
3482 ED 4A                         adc     hl, bc
3484 C2 9A 34                      jp      NZ, loc_0_349A
3487 21 AC 3A                      ld      hl, #cement_fireball_data
348A 3A 03 62                      ld      a, (mario_y_coord)
348D CB 7F                         bit     7, a
348F CA A8 34                      jp      Z, loc_0_34A8
3492 DD 36 0D 01                   ld      0xD(ix), #1
3496 DD 36 03 7E                   ld      3(ix), #0x7E ; '~'
349A
349A          loc_0_349A:                            ; CODE XREF: sub_0_3478+C↑j
349A DD 7E 0D                                        ; sub_0_3478+38⊢j
349A                               ld      a, 0xD(ix)
349D FE 01                         cp      #1
349F C2 B3 34                      jp      NZ, loc_0_34B3
34A2 DD 34 03                      inc     3(ix)
34A5 C3 45 34                      jp      loc_0_3445
34A8          ; ───────────────────────────────────────────────────
34A8
34A8          loc_0_34A8:                            ; CODE XREF: sub_0_3478+17↑j
34A8 DD 36 0D 02                   ld      0xD(ix), #2
34AC DD 36 03 80                   ld      3(ix), #0x80 ; 'Ç'
34B0 C3 9A 34                      jp      loc_0_349A
34B3          ; ───────────────────────────────────────────────────
34B3
34B3          loc_0_34B3:                            ; CODE XREF: sub_0_3478+27↑j
34B3 DD 35 03                      dec     3(ix)
34B6 C3 45 34                      jp      loc_0_3445
34B6          ; End of function sub_0_3478
34B6
34B9
34B9          ; ▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
34B9
34B9
34B9          sub_0_34B9:                            ; CODE XREF: sub_0_32BD+D↑p
34B9 3A 27 62                      ld      a, (level_type)
34BC FE 03                         cp      #3
34BE C8                            ret     Z
34BF 3A 03 62                      ld      a, (mario_y_coord)
34C2 CB 7F                         bit     7, a
34C4 C2 ED 34                      jp      NZ, loc_0_34ED
34C7 21 C4 3A                      ld      hl, #rivet_fireball_data
34CA
34CA          loc_0_34CA:                            ; CODE XREF: sub_0_34B9+37⊢j
34CA 06 00                         ld      b, #0
34CC 3A 19 60                      ld      a, (random_no+1)
34CF E6 06                         and     #6
34D1 4F                            ld      c, a
34D2 09                            add     hl, bc
34D3 7E                            ld      a, (hl)
34D4 DD 77 03                      ld      3(ix), a
34D7 DD 77 0E                      ld      0xE(ix), a
34DA 23                            inc     hl
34DB 7E                            ld      a, (hl)
34DC DD 77 05                      ld      5(ix), a
34DF DD 77 0F                      ld      0xF(ix), a
34E2 AF                            xor     a
34E3 DD 77 0D                      ld      0xD(ix), a
34E6 DD 77 18                      ld      0x18(ix), a
34E9 DD 77 1C                      ld      0x1C(ix), a
34EC C9                            ret
34ED          ; ───────────────────────────────────────────────────
34ED
34ED          loc_0_34ED:                            ; CODE XREF: sub_0_34B9+B↑j
34ED 21 D4 3A                      ld      hl, #rivet_fireball_start_points
34F0 C3 CA 34                      jp      loc_0_34CA
34F0          ; End of function sub_0_34B9
34F0
34F3
34F3          ; ▩▩▩▩▩▩▩▩▩▩▩ S U B R O U T I N E ▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩▩
34F3
34F3
34F3          sub_0_34F3:                            ; CODE XREF: sub_0_30ED+9↑p
34F3 21 00 64                      ld      hl, #unk_0_6400        ; fireball character data
34F6 11 D0 69                      ld      de, #soft_sprite_ram+0xD0 ; fireballs in sprite ram
34F9 06 05                         ld      b, #5                  ; 5 fireballs (max)
34FB
34FB          loc_0_34FB:                            ; CODE XREF: sub_0_34F3+28⊢j
34FB 7E                            ld      a, (hl)
34FC A7                            and     a
34FD CA 1E 35                      jp      Z, loc_0_351E
3500 2C                            inc     l
3501 2C                            inc     l
3502 2C                            inc     l
3503 7E                            ld      a, (hl)                ; fireball X coordinate
3504 12                            ld      (de), a
3505 3E 04                         ld      a, #4
3507 85                            add     a, l
```

```
3508 6F                          ld      l, a
3509 1C                          inc     e
350A 7E                          ld      a, (hl)                            ; fireball sprite tile #
350B 12                          ld      (de), a
350C 2C                          inc     l
350D 1C                          inc     e
350E 7E                          ld      a, (hl)                            ; fireball palette
350F 12                          ld      (de), a
3510 2D                          dec     l
3511 2D                          dec     l
3512 2D                          dec     l
3513 1C                          inc     e
3514 7E                          ld      a, (hl)                            ; fireball Y coord
3515 12                          ld      (de), a
3516 13                          inc     de
3517
3517          loc_0_3517:                                                   ; CODE XREF: sub_0_34F3+33┤j
3517 3E 1B                       ld      a, #0x1B
3519 85                          add     a, l
351A 6F                          ld      l, a
351B 10 DE                       djnz    loc_0_34FB
351D C9                          ret
351E          ; ───────────────────────────────────────────────
351E
351E          loc_0_351E:                                                   ; CODE XREF: sub_0_34F3+A↑j
351E 3E 05                       ld      a, #5
3520 85                          add     a, l
3521 6F                          ld      l, a
3522 3E 04                       ld      a, #4
3524 83                          add     a, e
3525 5F                          ld      e, a
3526 C3 17 35                    jp      loc_0_3517
3526          ; End of function sub_0_34F3
3526
3526          ; ───────────────────────────────────────────────
3529 00 00 00    Bonus_Points_Tbl:.db 0, 0, 0                              ; DATA XREF: add_bonus_and_update_high_score+9↑o
3529                                                                        ; 0 pts
352C 00 01 00              .db 0, 1, 0                                      ; 100 pts
352F 00 02 00              .db 0, 2, 0                                      ; 200 pts
3532 00 03 00              .db 0, 3, 0                                      ; 300 pts
3535 00 04 00              .db 0, 4, 0                                      ; 400 pts
3538 00 05 00              .db 0, 5, 0                                      ; 500 pts
353B 00 06 00              .db 0, 6, 0                                      ; 600 pts
353E 00 07 00              .db 0, 7, 0                                      ; 700 pts
3541 00 08 00              .db 0, 8, 0                                      ; 800 pts
3544 00 09 00              .db 0, 9, 0                                      ; 900 pts
3547 00 00 00              .db 0, 0, 0                                      ; 0 pts
354A 00 10 00              .db 0, 0x10, 0                                   ; 1000 pts
354D 00 20 00              .db 0, 0x20, 0                                   ; 2000 pts
3550 00 30 00              .db 0, 0x30, 0                                   ; 3000 pts
3553 00 40 00              .db 0, 0x40, 0                                   ; 4000 pts
3556 00 50 00              .db 0, 0x50, 0                                   ; 5000 pts
3559 00 60 00              .db 0, 0x60, 0                                   ; 6000 pts
355C 00 70 00              .db 0, 0x70, 0                                   ; 7000 pts
355F 00 80 00              .db 0, 0x80, 0                                   ; 8000 pts
3562 00 90 00              .db 0, 0x90, 0                                   ; 9000 pts
3565 94 77       high_score_tbl: .dw VRAM_start+0x394                       ; DATA XREF: read_dips_and_high_score_tbl+53↑o
3567 01 23 24 10+           .db 1, 0x23, 0x24, 0x10, 0x10, 0, 0, 7, 6, 5, 0, 0x10
3567 10 00 00 07+           .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10
3567 06 05 00 10+           .db 0x10, 0x10, 0x10, 0x10, 0x3F, 0, 0x50, 0x76, 0
3585 F4 76                  .dw VRAM_start+0x2F4
3587 96 77                  .dw VRAM_start+0x396
3589 02 1E 14 10+           .db 2, 0x1E, 0x14, 0x10, 0x10, 0, 0, 6, 1, 0, 0, 0x10
3589 10 00 00 06+           .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10
3589 01 00 00 10+           .db 0x10, 0x10, 0x10, 0x10, 0x3F, 0, 0, 0x61, 0
35A7 F6 76                  .dw VRAM_start+0x2F6
35A9 98 77                  .dw VRAM_start+0x398
35AB 03 22 14 10+           .db 3, 0x22, 0x14, 0x10, 0x10, 0, 0, 5, 9, 5, 0, 0x10
35AB 10 00 00 05+           .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10
35AB 09 05 00 10+           .db 0x10, 0x10, 0x10, 0x10, 0x3F, 0, 0x50, 0x59, 0
35C9 F8 76                  .dw VRAM_start+0x2F8
35CB 9A 77                  .dw VRAM_start+0x39A
35CD 04 24 18 10+           .db 4, 0x24, 0x18, 0x10, 0x10, 0, 0, 5, 0, 5, 0, 0x10
35CD 10 00 00 05+           .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10
35CD 00 05 00 10+           .db 0x10, 0x10, 0x10, 0x10, 0x3F, 0, 0x50, 0x50, 0
35EB FA 76                  .dw VRAM_start+0x2FA
35ED 9C 77                  .dw VRAM_start+0x39C
35EF 05 24 18 10+           .db 5, 0x24, 0x18, 0x10, 0x10, 0, 0, 4, 3, 0, 0, 0x10
35EF 10 00 00 04+           .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10, 0x10
35EF 03 00 00 10+           .db 0x10, 0x10, 0x10, 0x10, 0x3F, 0, 0, 0x43, 0
360D FC 76                  .dw VRAM_start+0x2FC
360F 3B 5C 4B 5C+letter_coords: .db 0x3B, 0x5C, 0x4B, 0x5C, 0x5B, 0x5C, 0x6B, 0x5C, 0x7B
360F 5B 5C 6B 5C+                                                          ; DATA XREF: sub_0_15FA+4↑o
360F 7B 5C 8B 5C+           .db 0x5C, 0x8B, 0x5C, 0x9B, 0x5C, 0xAB, 0x5C, 0xBB, 0x5C
360F 9B 5C AB 5C+           .db 0xCB, 0x5C, 0x3B, 0x6C, 0x4B, 0x6C, 0x5B, 0x6C, 0x6B
360F BB 5C CB 5C+           .db 0x6C, 0x7B, 0x6C, 0x8B, 0x6C, 0x9B, 0x6C, 0xAB, 0x6C
360F 3B 6C 4B 6C+           .db 0xBB, 0x6C, 0xCB, 0x6C, 0x3B, 0x7C, 0x4B, 0x7C, 0x5B
360F 5B 6C 6B 6C+           .db 0x7C, 0x6B, 0x7C, 0x7B, 0x7C, 0x8B, 0x7C, 0x9B, 0x7C
360F 7B 6C 8B 6C+           .db 0xAB, 0x7C, 0xBB, 0x7C, 0xCB, 0x7C
364B 8B 36       message_table:  .dw aGAME_OVER                            ; DATA XREF: print_message_A↑o
364D 01 00                  .dw 1
364F 98 36                  .dw aPLAYER
3651 A5 36                  .dw aPLAYER_
3653 B2 36                  .dw aHIGH_SCORE
3655 BF 36                  .dw aCREDIT
3657 06 00                  .dw 6
3659 CC 36                  .dw aHOW_HIGH_CAN_YOU_GET
365B 08 00                  .dw 8
365D E6 36                  .dw aONLY_1_PLAYER_BUTTON
365F FD 36                  .dw a1_OR_2_PLAYERS
3661 0B 00                  .dw 0xB
3663 15 37                  .dw aPUSH
3665 1C 37                  .dw aNAME_REGISTRATION
3667 30 37                  .dw aNAME
3669 38 37                  .dw a???
366B 47 37                  .dw aA_B_C_D_E_F_G_H_I_J
366D 5D 37                  .dw aK_L_M_N_O_P_Q_R_S_T
366F 73 37                  .dw aU_V_W_X_Y_Z_rub_end
3671 8B 37                  .dw aREGI_TIME
3673 00 61                  .dw high_score_tbl_ram
3675 22 61                  .dw hs_tbl_2nd
3677 44 61                  .dw hs_tbl_3rd
3679 66 61                  .dw hs_tbl_4th
367B 88 61                  .dw hs_tbl_5th
367D 9E 37                  .dw aRANK_SCORE_NAME
367F B6 37                  .dw aYOUR_NAME_WAS_REGISTERED
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3681 D2 37                       .dw aINSERT_COIN
3683 E1 37                       .dw aPLAYER_COIN
3685 1D 00                       .dw 0x1D
3687 00 3F                       .dw byte_0_3EFF+1
3689 09 3F                       .dw byte_0_3F09
368B 96 76 17 11+aGAME_OVER:     .db 0x96, 0x76, 0x17, 0x11, 0x1D, 0x15, 0x10, 0x10, 0x1F
368B 1D 15 10 10+                                                ; DATA XREF: 0000:364B↑o
368B 1F 26 15 22+                .db 0x26, 0x15, 0x22, 0x3F
3698 94 76 20 1C+aPLAYER:        .db 0x94, 0x76, 0x20, 0x1C, 0x11, 0x29, 0x15, 0x22, 0x10
3698 11 29 15 22+                                                ; DATA XREF: 0000:364F↑o
3698 10 30 32 31+                .db 0x30, 0x32, 0x31, 0x3F
36A5 94 76 20 1C+aPLAYER_:       .db 0x94, 0x76, 0x20, 0x1C, 0x11, 0x29, 0x15, 0x22, 0x10
36A5 11 29 15 22+                                                ; DATA XREF: 0000:3651↑o
36A5 10 30 33 31+                .db 0x30, 0x33, 0x31, 0x3F
36B2 80 76 18 19+aHIGH_SCORE:    .db 0x80, 0x76, 0x18, 0x19, 0x17, 0x18, 0x10, 0x23, 0x13
36B2 17 18 10 23+                                                ; DATA XREF: 0000:3653↑o
36B2 13 1F 22 15+                .db 0x1F, 0x22, 0x15, 0x3F
36BF 9F 75 13 22+aCREDIT:        .db 0x9F, 0x75, 0x13, 0x22, 0x15, 0x14, 0x19, 0x24, 0x10
36BF 15 14 19 24+                                                ; DATA XREF: 0000:3655↑o
36BF 10 10 10 10+                .db 0x10, 0x10, 0x10, 0x3F
36CC 5E 77 18 1F+aHOW_HIGH_CAN_YOU_GET:.db 0x5E, 0x77, 0x18, 0x1F, 0x27, 0x10, 0x18, 0x19, 0x17
36CC 27 10 18 19+                                                ; DATA XREF: 0000:3659↑o
36CC 17 18 10 13+                .db 0x18, 0x10, 0x13, 0x11, 0x1E, 0x10, 0x29, 0x1F, 0x25
36CC 11 1E 10 29+                .db 0x10, 0x17, 0x15, 0x24, 0x10, 0xFB, 0x10, 0x3F
36E6 29 77 1F 1E+aONLY_1_PLAYER_BUTTON:.db 0x29, 0x77, 0x1F, 0x1E, 0x1C, 0x29, 0x10, 1, 0x10
36E6 1C 29 10 01+                                                ; DATA XREF: 0000:365D↑o
36E6 10 20 1C 11+                .db 0x20, 0x1C, 0x11, 0x29, 0x15, 0x22, 0x10, 0x12, 0x25
36E6 29 15 22 10+                .db 0x24, 0x24, 0x1F, 0x1E, 0x3F
36FD 29 77 01 10+a1_OR_2_PLAYERS:.db 0x29, 0x77, 1, 0x10, 0x1F, 0x22, 0x10, 2, 0x10, 0x20
36FD 1F 22 10 02+                                                ; DATA XREF: 0000:365F↑o
36FD 10 20 1C 11+                .db 0x1C, 0x11, 0x29, 0x15, 0x22, 0x23, 0x10, 0x12, 0x25
36FD 29 15 22 23+                .db 0x24, 0x24, 0x1F, 0x1E, 0x3F
3715 27 76 20 25+aPUSH:          .db 0x27, 0x76, 0x20, 0x25, 0x23, 0x18, 0x3F    ; DATA XREF: 0000:3663↑o
371C 06 77 1E 11+aNAME_REGISTRATION:.db 6, 0x77, 0x1E, 0x11, 0x1D, 0x15, 0x10, 0x22, 0x15
371C 1D 15 10 22+                                                ; DATA XREF: 0000:3665↑o
371C 15 17 19 23+                .db 0x17, 0x19, 0x23, 0x24, 0x22, 0x11, 0x24, 0x19, 0x1F
371C 24 22 11 24+                .db 0x1E, 0x3F
3730 88 76 1E 11+aNAME:          .db 0x88, 0x76, 0x1E, 0x11, 0x1D, 0x15, 0x2E, 0x3F
3730 1D 15 2E 3F                                                 ; DATA XREF: 0000:3667↑o
3738 E9 75 2D 2D+a???:           .db 0xE9, 0x75, 0x2D, 0x2D, 0x2D, 0x10, 0x10, 0x10, 0x10
3738 2D 10 10 10+                                                ; DATA XREF: 0000:3669↑o
3738 10 10 10 10+                .db 0x10, 0x10, 0x10, 0x10, 0x10, 0x3F
3747 0B 77 11 10+aA_B_C_D_E_F_G_H_I_J:.db 0xB, 0x77, 0x11, 0x10, 0x12, 0x10, 0x13, 0x10, 0x14
3747 12 10 13 10+                                                ; DATA XREF: 0000:366B↑o
3747 14 10 15 10+                .db 0x10, 0x15, 0x10, 0x16, 0x10, 0x17, 0x10, 0x18, 0x10
3747 16 10 17 10+                .db 0x19, 0x10, 0x1A, 0x3F
375D 0D 77       aK_L_M_N_O_P_Q_R_S_T:.dw VRAM_start+0x30D    ; DATA XREF: 0000:366D↑o
375F 1B 10 1C 10+                .db 0x1B, 0x10, 0x1C, 0x10, 0x1D, 0x10, 0x1E, 0x10, 0x1F
375F 1D 10 1E 10+                .db 0x10, 0x20, 0x10, 0x21, 0x10, 0x22, 0x10, 0x23, 0x10
375F 1F 10 20 10+                .db 0x24, 0x3F
3773 0F 77       aU_V_W_X_Y_Z_rub_end:.dw VRAM_start+0x30F    ; DATA XREF: 0000:366F↑o
3775 25 10 26 10+                .db 0x25, 0x10, 0x26, 0x10, 0x27, 0x10, 0x28, 0x10, 0x29
3775 27 10 28 10+                .db 0x10, 0x2A, 0x10, 0x2B, 0x10, 0x2C, 0x44, 0x45, 0x46
3775 29 10 2A 10+                .db 0x47, 0x48, 0x10, 0x3F
378B F2 76       aREGI_TIME:     .dw VRAM_start+0x2F2          ; DATA XREF: 0000:3671↑o
378D 22 15 17 19+                .db 0x22, 0x15, 0x17, 0x19, 0x10, 0x24, 0x19, 0x1D, 0x15
378D 10 24 19 1D+                .db 0x10, 0x10, 0x30, 3, 0, 0x31, 0x10, 0x3F
379E 92 77       aRANK_SCORE_NAME:.dw VRAM_start+0x392         ; DATA XREF: 0000:367D↑o
37A0 22 11 1E 1B+                .db 0x22, 0x11, 0x1E, 0x1B, 0x10, 0x10, 0x23, 0x13, 0x1F
37A0 10 10 23 13+                .db 0x22, 0x15, 0x10, 0x10, 0x1E, 0x11, 0x1D, 0x15, 0x10
37A0 1F 22 15 10+                .db 0x10, 0x10, 0x10, 0x3F
37B6 72 77       aYOUR_NAME_WAS_REGISTERED:.dw VRAM_start+0x372    ; DATA XREF: 0000:367F↑o
37B8 29 1F 25 22+                .db 0x29, 0x1F, 0x25, 0x22, 0x10, 0x1E, 0x11, 0x1D, 0x15
37B8 10 1E 11 1D+                .db 0x10, 0x27, 0x11, 0x23, 0x10, 0x22, 0x15, 0x17, 0x19
37B8 15 10 27 11+                .db 0x23, 0x24, 0x15, 0x22, 0x15, 0x14, 0x42, 0x3F
37D2 A7 76       aINSERT_COIN:   .dw VRAM_start+0x2A7          ; DATA XREF: 0000:3681↑o
37D4 19 1E 23 15+                .db 0x19, 0x1E, 0x23, 0x15, 0x22, 0x24, 0x10, 0x13, 0x1F
37D4 22 24 10 13+                .db 0x19, 0x1E, 0x10, 0x3F
37E1 0A 77       aPLAYER_COIN:   .dw VRAM_start+0x30A          ; DATA XREF: 0000:3683↑o
37E3 10 10 20 1C+                .db 0x10, 0x10, 0x20, 0x1C, 0x11, 0x29, 0x15, 0x22, 0x10
37E3 11 29 15 22+                .db 0x10, 0x10, 0x10, 0x13, 0x1F, 0x19, 0x1E, 0x3F
37F4 FC 76                       .dw VRAM_start+0x2FC
37F6 49 4A 10 1E+a_NINTENDO:     .db 0x49, 0x4A, 0x10, 0x1E, 0x19, 0x1E, 0x24, 0x15, 0x1E
37F6 19 1E 24 15+                .db 0x14, 0x1F, 0x10, 0x10, 0x10, 0x10, 0x3F
3806 7C 75                       .dw VRAM_start+0x17C
3808 01 09 08 01+                .db 1, 9, 8, 1, 0x3F
380D 02 97 38 68+draw_data_climb:.db 2, 0x97, 0x38, 0x68, 0x38, 2, 0xDF, 0x54, 0x10, 0x54
380D 38 02 DF 54+                                                ; DATA XREF: 0000:0A92↑o
380D 10 54 02 EF+                .db 2, 0xEF, 0x6D, 0x20, 0x6D, 2, 0xDF, 0x8E, 0x10, 0x8E
380D 6D 20 6D 02+                .db 2, 0xEF, 0xAF, 0x20, 0xAF, 2, 0xDF, 0xD0, 0x10, 0xD0
380D DF 8E 10 8E+                .db 2, 0xEF, 0xF1, 0x10, 0xF1, 0, 0x53, 0x18, 0x53, 0x54
380D 02 EF AF 20+                .db 0, 0x63, 0x18, 0x63, 0x54, 0, 0x93, 0x38, 0x93, 0x54
380D AF 02 DF D0+                .db 0, 0x83, 0x54, 0x83, 0xF1, 0, 0x93, 0x54, 0x93, 0xF1
380D 10 D0 02 EF+                .db 0xAA
384A 8D 7D 8C    bonus_graphic_tiles:.db 0x8D, 0x7D, 0x8C             ; DATA XREF: 0000:064D↑o
384D 6F 00 7C                    .db 0x6F, 0, 0x7C
3850 6E 00 7C                    .db 0x6E, 0, 0x7C
3853 6D 00 7C                    .db 0x6D, 0, 0x7C
3856 6C 00 7C                    .db 0x6C, 0, 0x7C
3859 8F 7F 8E                    .db 0x8F, 0x7F, 0x8E
385C 47 27 08 50+kong_normal_spr:.db 0x47, 0x27, 8, 0x50       ; DATA XREF: animate_kong_and_pauline+74↑o
385C 2F A7 08 50+                                                ; 0000:0B1E↑o ...
385C 3B 25 08 50+                .db 0x2F, 0xA7, 8, 0x50
385C 00 70 08 48+                .db 0x3B, 0x25, 8, 0x50
385C 3B 23 07 40+                .db 0, 0x70, 8, 0x48
385C 46 A9 08 44+                .db 0x3B, 0x23, 7, 0x40
385C 00 70 08 44+                .db 0x46, 0xA9, 8, 0x44
385C 30 29 08 44+                .db 0, 0x70, 8, 0x48
385C 00 70 08 48+                .db 0x30, 0x29, 8, 0x44
385C 00 70 0A 48                 .db 0, 0x70, 8, 0x48
385C                             .db 0, 0x70, 0xA, 0x48
3884 6F 10 09 23+pauline_spr:    .db 0x6F, 0x10, 9, 0x23
3884 6F 11 0A 33                 .db 0x6F, 0x11, 0xA, 0x33
388C 50 34 08 3C kong_climbing_spr:.db 0x50, 0x34, 8, 0x3C    ; DATA XREF: 0000:0AC0↑o
388C                                                             ; 0000:168B↑o ...
3890 00 35 08 3C                 .db 0, 0x35, 8, 0x3C
3894 53 32 08 40                 .db 0x53, 0x32, 8, 0x40
3898 63 33 08 40                 .db 0x63, 0x33, 8, 0x40
389C 00 70 08 48                 .db 0, 0x70, 8, 0x48
38A0 53 36 08 50                 .db 0x53, 0x36, 8, 0x50
38A4 63 37 08 50                 .db 0x63, 0x37, 8, 0x50
38A8 6B 31 08 41                 .db 0x6B, 0x31, 8, 0x41
38AC 00 70 08 48                 .db 0, 0x70, 8, 0x48
38B0 6A 14 0A 48                 .db 0x6A, 0x14, 0xA, 0x48
38B4 FD FD FD FD+dk_intro_jump_up_data:.db 0xFD, 0xFD, 0xFD, 0xFD, 0xFD, 0xFD, 0xFD, 0xFE, 0xFE
38B4 FD FD FD FE+                                                ; DATA XREF: 0000:0AA9↑o
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38B4 FE FE FE FE+                    .db 0xFE, 0xFE, 0xFE, 0xFE, 0xFF, 0xFF, 0xFF, 0
38B4 FE FF FF FF+                    .db 0, 1, 1, 1, 0x7F
38CB FF FF FF FF+dk_intro_jump_across_data:.db 0xFF, 0xFF, 0xFF, 0xFF, 0, 0xFF, 0, 0, 1, 0
38CB FF 00 FF 00+                                                  ; DATA XREF: 0000:0AAF↑o
38CB 00 01 00 01+                                                  ; 0000:0B86↑o
38CB 01 01 01 01+                    .db 1, 1, 1, 1, 1, 0x7F
38DC 04 7F F0 10+draw_data_bend_girders_2:.db 4, 0x7F, 0xF0, 0x10, 0xF0, 2, 0xDF, 0xF2, 0x70, 0xF8
38DC F0 02 DF F2+                                                  ; DATA XREF: 0000:0B91↑o
38DC 70 F8 02 6F+                    .db 2, 0x6F, 0xF8, 0x10, 0xF8, 0xAA, 4, 0xDF, 0xD0, 0x90
38DC F8 10 F8 AA+                    .db 0xD0, 2, 0xDF, 0xDC, 0x20, 0xD1, 0xAA, 0xFF, 0xAF
38DC 04 DF D0 90+                    .db 0xFF, 0xFF, 0xFF, 4, 0xDF, 0xA8, 0x20, 0xA8, 4, 0x5F
38DC D0 02 DF DC+                    .db 0xB0, 0x20, 0xB0, 2, 0xDF, 0xB0, 0x20, 0xBB, 0xAA
38DC 20 D1 AA FF+                    .db 4, 0xDF, 0x88, 0x30, 0x88, 4, 0xDF, 0x90, 0xB0, 0x90
38DC FF FF FF FF+                    .db 2, 0xDF, 0x9A, 0x20, 0x8F, 0xAA, 4, 0xBF, 0x68, 0x20
38DC 04 DF A8 20+                    .db 0x68, 4, 0x3F, 0x70, 0x20, 0x70, 2, 0xDF, 0x6E, 0x20
38DC A8 04 5F B0+                    .db 0x79, 0xAA
392C 02 DF 58 A0+draw_data_bend_girders_1:.db 2, 0xDF, 0x58, 0xA0, 0x55, 0xAA   ; DATA XREF: 0000:0B48↑o
3932 00 70 08 44+dk_throw_barrel_spr:.db 0, 0x70, 8, 0x44, 0x2B, 0xAC, 8, 0x4C, 0x3B, 0xAE
3932 2B AC 08 4C+                                                  ; DATA XREF: 0000:1671↑o
3932 3B AE 08 4C+                                                  ; sub_0_2C8F+95↑o
3932 3B AF 08 3C+                    .db 8, 0x4C, 0x3B, 0xAF, 8, 0x3C, 0x4B, 0xB0, 7, 0x3C
3932 4B B0 07 3C+                    .db 0x4B, 0xAD, 8, 0x4C, 0, 0x70, 8, 0x44, 0, 0x70, 8
3932 4B AD 08 4C+                    .db 0x44, 0, 0x70, 8, 0x44, 0, 0x70, 0xA, 0x44, 0x47, 0x27
3932 00 70 08 44+                    .db 8, 0x4C, 0x2F, 0xA7, 8, 0x4C, 0x3B, 0x25, 8, 0x4C
3932 00 70 08 44+                    .db 0, 0x70, 8, 0x44, 0x3B, 0x23, 7, 0x3C, 0x4B, 0x2A
3932 00 70 08 44+                    .db 8, 0x3C, 0x4B, 0x2B, 8, 0x4C, 0x2B, 0xAA, 8, 0x3C
3932 00 70 0A 44+                    .db 0x2B, 0xAB, 8, 0x4C, 0, 0x70, 0xA, 0x44, 0, 0x70, 8
3932 47 27 08 4C+                    .db 0x44, 0x4B, 0x2C, 8, 0x4C, 0x3B, 0x2E, 8, 0x4C, 0x3B
3932 2F A7 08 4C+                    .db 0x2F, 8, 0x3C, 0x2B, 0x30, 7, 0x3C, 0x2B, 0x2D, 8
3932 3B 25 08 4C+                    .db 0x4C, 0, 0x70, 8, 0x44, 0, 0x70, 8, 0x44, 0, 0x70
3932 00 70 08 44+                    .db 8, 0x44, 0, 0x70, 0xA, 0x44
39AA FD FD FD FE+bouncing_spring_data:.db 0xFD, 0xFD, 0xFD, 0xFE, 0xFE, 0xFE, 0xFE, 0xFF, 0xFF
39AA FE FE FE FF+                                                  ; DATA XREF: sub_0_2E04+98↑o
39AA FF 00 FF 00+                                                  ; sub_0_2E04+C4↑o
39AA 00 01 00 01+                    .db 0, 0xFF, 0, 0, 1, 0, 1, 1, 2, 2, 2, 2, 3, 3, 3, 0x7F
39C3 1E 4E BB 4C+barell_rolling_data:.db 0x1E, 0x4E, 0xBB, 0x4C, 0xD8, 0x4E, 0x59, 0x4E, 0x7F
39C3 D8 4E 59 4E+                                                  ; DATA XREF: sub_0_2C8F+FD↑o
39CC BB 4D 7F     barrel_falling_data:.db 0xBB, 0x4D, 0x7F         ; DATA XREF: sub_0_2C8F+F4↑o
39CF 47 27 08 50 dk_thrash_right_spr:.db 0x47, 0x27, 8, 0x50       ; DATA XREF: animate_kong_and_pauline+43↑o
39CF                                                               ; 0000:0816↑o
39D3 2D 26 08 50                    .db 0x2D, 0x26, 8, 0x50
39D7 3B 25 08 50                    .db 0x3B, 0x25, 8, 0x50
39DB 00 70 08 48                    .db 0, 0x70, 8, 0x48
39DF 3B 24 07 40                    .db 0x3B, 0x24, 7, 0x40
39E3 4B 28 08 40                    .db 0x4B, 0x28, 8, 0x40
39E7 00 70 08 48                    .db 0, 0x70, 8, 0x48
39EB 30 29 08 44                    .db 0x30, 0x29, 8, 0x44
39EF 00 70 08 48                    .db 0, 0x70, 8, 0x48
39F3 00 70 0A 48                    .db 0, 0x70, 0xA, 0x48
39F7 49 A6 08 50 dk_thrash_left_spr:.db 0x49, 0xA6, 8, 0x50        ; DATA XREF: animate_kong_and_pauline+4A↑o
39FB 2F A7 08 50                    .db 0x2F, 0xA7, 8, 0x50
39FF 3B 25 08 50                    .db 0x3B, 0x25, 8, 0x50
3A03 00 70 08 48                    .db 0, 0x70, 8, 0x48
3A07 3B 24 07 40                    .db 0x3B, 0x24, 7, 0x40
3A0B 46 A9 08 44                    .db 0x46, 0xA9, 8, 0x44
3A0F 00 70 08 48                    .db 0, 0x70, 8, 0x48
3A13 2B A8 08 40                    .db 0x2B, 0xA8, 8, 0x40
3A17 00 70 08 48                    .db 0, 0x70, 8, 0x48
3A1B 00 70 0A 48                    .db 0, 0x70, 0xA, 0x48
3A1F 73 A7 88 60 fk_falling_spr: .db 0x73, 0xA7, 0x88, 0x60        ; DATA XREF: 0000:1870↑o
3A23 8B 27 88 60                    .db 0x8B, 0x27, 0x88, 0x60
3A27 7F 25 88 60                    .db 0x7F, 0x25, 0x88, 0x60
3A2B 00 70 88 68                    .db 0, 0x70, 0x88, 0x68
3A2F 7F 24 87 70                    .db 0x7F, 0x24, 0x87, 0x70
3A33 74 29 88 6C                    .db 0x74, 0x29, 0x88, 0x6C
3A37 00 70 88 68                    .db 0, 0x70, 0x88, 0x68
3A3B 8A A9 88 6C                    .db 0x8A, 0xA9, 0x88, 0x6C
3A3F 00 70 88 68                    .db 0, 0x70, 0x88, 0x68
3A43 00 70 8A 68                    .db 0, 0x70, 0x8A, 0x68
3A47 05 AF F0 50+draw_data_rivet_end1:.db 5, 0xAF, 0xF0, 0x50, 0xF0, 0xAA       ; DATA XREF: 0000:17D9↑o
3A4D 05 AF E8 50+draw_data_rivet_end2:.db 5, 0xAF, 0xE8, 0x50, 0xE8, 0xAA       ; DATA XREF: 0000:17E5↑o
3A53 05 AF E0 50+draw_data_rivet_end3:.db 5, 0xAF, 0xE0, 0x50, 0xE0, 0xAA       ; DATA XREF: 0000:17F1↑o
3A59 05 AF D8 50+draw_data_rivet_end4:.db 5, 0xAF, 0xD8, 0x50, 0xD8, 0xAA       ; DATA XREF: 0000:17FD↑o
3A5F 05 B7 58 48+draw_data_rivet_end5:.db 5, 0xB7, 0x58, 0x48, 0x58, 0xAA       ; DATA XREF: 0000:18A5↑o
3A65 01 04 01 03+level_seq_1:    .db 1, 4, 1, 3, 4, 1, 2, 3, 4, 1, 2, 1, 3, 4   ; DATA XREF: 0000:095F↑o
3A73 01 02 01 03+level_seq_2:    .db 1, 2, 1, 3, 1, 4, 0x7F                     ; DATA XREF: 0000:1799↑o
3A73 01 04 7F                                                     ; 0000:1947↑o
3A7A FF 00 FF FF+fireball_bouncing_data:.db 0xFF, 0, 0xFF, 0xFF, 0xFE, 0xFE, 0xFE, 0xFE, 0xFE
3A7A FE FE FE FE+                                                  ; DATA XREF: sub_0_3202+65↑o
3A7A FE FE FE FE+                    .db 0xFE, 0xFE, 0xFE, 0xFE, 0xFE, 0xFE, 0xFF, 0xFF, 0
3A8C E8 E5 E3 E2+fireball_bounce_data:.db 0xE8, 0xE5, 0xE3, 0xE2, 0xE1, 0xE0, 0xDF, 0xDE, 0xDD
3A8C E1 E0 DF DE+                                                  ; DATA XREF: sub_0_342C+F↑o
3A8C DD DD DC DC+                    .db 0xDD, 0xDC, 0xDC, 0xDC, 0xDC, 0xDC, 0xDD, 0xDD
3A8C DC DC DC DC+                    .db 0xDE, 0xDF, 0xE0, 0xE1, 0xE2, 0xE3, 0xE4, 0xE5, 0xE7
3A8C DD DD DE DF+                    .db 0xE9, 0xEB, 0xED, 0xF0, 0xAA
3AAC 80 7B 78 76+cement_fireball_data:.db 0x80, 0x7B, 0x78, 0x76, 0x74, 0x73, 0x72, 0x71, 0x70
3AAC 74 73 72 71+                                                  ; DATA XREF: sub_0_3478+F↑o
3AAC 70 70 6F 6F+                    .db 0x70, 0x6F, 0x6F, 0x6F, 0x70, 0x70, 0x71, 0x72, 0x73
3AAC 6F 70 70 71+                    .db 0x74, 0x75, 0x76, 0x77, 0x78, 0xAA
3AC4 EE F0 DB A0+rivet_fireball_data:.db 0xEE, 0xF0, 0xDB, 0xA0, 0xE6, 0xC8, 0xD6, 0x78, 0xEB
3AC4 E6 C8 D6 78+                                                  ; DATA XREF: sub_0_34B9+E↑o
3AC4 EB F0 DB A0+                    .db 0xF0, 0xDB, 0xA0, 0xE6, 0xC8, 0xE6, 0xC8
3AD4 1B C8 23 A0+rivet_fireball_start_points:.db 0x1B, 0xC8, 0x23, 0xA0, 0x2B, 0x78, 0x12, 0xF0, 0x1B
3AD4 2B 78 12 F0+                                                  ; DATA XREF: sub_0_34B9+34↑o
3AD4 1B C8 23 A0+                    .db 0xC8, 0x23, 0xA0, 0x12, 0xF0, 0x1B, 0xC8
3AE4 02 97 38 68+barrel_level_tilemap_data:.db 2, 0x97, 0x38, 0x68, 0x38, 2, 0x9F, 0x54, 0x10, 0x54
3AE4 38 02 9F 54+                                                  ; DATA XREF: 0000:0CD4↑o
3AE4 10 54 02 DF+                                                  ; sub_0_2441+19↑o
3AE4 58 A0 55 02+                    .db 2, 0xDF, 0x58, 0xA0, 0x55, 2, 0xEF, 0x6D, 0x20, 0x79
3AE4 EF 6D 20 79+                    .db 2, 0xDF, 0x9A, 0x10, 0x8E, 2, 0xEF, 0xAF, 0x20, 0xBB
3AE4 02 DF 9A 10+                    .db 2, 0xDF, 0xDC, 0x10, 0xD0, 2, 0xEF, 0xF0, 0x80, 0xF7
3AE4 8E 02 EF AF+                    .db 2, 0x7F, 0xF8, 0, 0xF8, 0, 0xCB, 0x57, 0xCB, 0x6F
3AE4 20 BB 02 DF+                    .db 0, 0xCB, 0x99, 0xCB, 0xB1, 0, 0xCB, 0xDB, 0xCB, 0xF3
3AE4 DC 10 D0 02+                    .db 0, 0x63, 0x18, 0x63, 0x54, 1, 0x63, 0xD5, 0x63, 0xF8
3AE4 FF F0 80 F7+                    .db 0, 0x33, 0x78, 0x33, 0x90, 0, 0x33, 0xBA, 0x33, 0xD2
3AE4 02 7F F8 00+                    .db 0, 0x53, 0x18, 0x53, 0x54, 1, 0x53, 0x92, 0x53, 0xB8
3AE4 F8 00 CB 57+                    .db 0, 0x5B, 0x76, 0x5B, 0x92, 0, 0x73, 0xB6, 0x73, 0xD6
3AE4 CB 6F 00 CB+                    .db 0, 0x83, 0x95, 0x83, 0xB5, 0, 0x93, 0x38, 0x93, 0x54
3AE4 99 CB B1 00+                    .db 1, 0xBB, 0x70, 0xBB, 0x98, 1, 0x6B, 0x54, 0x6B, 0x75
3AE4 CB DB CB F3+                    .db 0xAA
3B5D 06 8F 90 70+cement_pie_level_tilemap_data:.db 6, 0x8F, 0x90, 0x70, 0x90, 6, 0x8F, 0x98, 0x70, 0x98
3B5D 90 06 8F 98+                                                  ; DATA XREF: 0000:0CDF↑o
3B5D 70 98 06 8F+                                                  ; sub_0_2441+20↑o
3B5D A0 70 A0 00+                    .db 6, 0x8F, 0xA0, 0x70, 0xA0, 0, 0x63, 0x18, 0x63, 0x58
3B5D 63 18 63 58+                    .db 0, 0x63, 0x80, 0x63, 0xA8, 0, 0x63, 0xD0, 0x63, 0xF8
3B5D 00 63 80 63+                    .db 0, 0x53, 0x18, 0x53, 0x58, 0, 0x53, 0xA8, 0x53, 0xD0
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3B5D A8 00 63 D0+              .db 0, 0x9B, 0x80, 0x9B, 0xA8, 0, 0x9B, 0xD0, 0x9B, 0xF8
3B5D 63 F8 00 53+              .db 1, 0x23, 0x58, 0x23, 0x80, 1, 0xDB, 0x58, 0xDB, 0x80
3B5D 18 53 58 00+              .db 0, 0x2B, 0x80, 0x2B, 0xA8, 0, 0xD3, 0x80, 0xD3, 0xA8
3B5D 53 A8 53 D0+              .db 0, 0xA3, 0xA8, 0xA3, 0xD0, 0, 0x2B, 0xD0, 0x2B, 0xF8
3B5D 00 9B 80 9B+              .db 0, 0xD3, 0xD0, 0xD3, 0xF8, 0, 0x93, 0x38, 0x93, 0x58
3B5D A8 00 9B D0+              .db 2, 0x97, 0x38, 0x68, 0x38, 3, 0xEF, 0x58, 0x10, 0x58
3B5D 9B F8 01 23+              .db 3, 0xF7, 0x80, 0x88, 0x80, 3, 0x77, 0x80, 8, 0x80
3B5D 58 23 80 01+              .db 2, 0xA7, 0xA8, 0x50, 0xA8, 2, 0xE7, 0xA8, 0xB8, 0xA8
3B5D DB 58 DB 80+              .db 2, 0x3F, 0xA8, 0x18, 0xA8, 3, 0xEF, 0xD0, 0x10, 0xD0
3B5D 00 2B 80 2B+              .db 2, 0xEF, 0xF8, 0x10, 0xF8, 0xAA
3BE5 00 63 18 63+elevator_level_tilemap_data:.db 0, 0x63, 0x18, 0x63, 0x58, 0, 0x63, 0x88, 0x63, 0xD0
3BE5 58 00 63 88+                                         ; DATA XREF: 0000:0CFA↑o
3BE5 63 D0 00 53+                                         ; sub_0_2441+27↑o
3BE5 18 53 58 00+              .db 0, 0x53, 0x18, 0x53, 0x58, 0, 0x53, 0x88, 0x53, 0xD0
3BE5 53 88 53 D0+              .db 0, 0xE3, 0x68, 0xE3, 0x90, 0, 0xE3, 0xB8, 0xE3, 0xD0
3BE5 00 E3 68 E3+              .db 0, 0xCB, 0x90, 0xCB, 0xB0, 0, 0xB3, 0x58, 0xB3, 0x78
3BE5 90 00 E3 B8+              .db 0, 0x9B, 0x80, 0x9B, 0xA0, 0, 0x93, 0x38, 0x93, 0x58
3BE5 E3 D0 00 CB+              .db 0, 0x23, 0x88, 0x23, 0xC0, 0, 0x1B, 0xC0, 0x1B, 0xE8
3BE5 90 CB B0 00+              .db 2, 0x97, 0x38, 0x68, 0x38, 2, 0xB7, 0x58, 0x10, 0x58
3BE5 B3 58 B3 78+              .db 2, 0xEF, 0x68, 0xE0, 0x68, 2, 0xD7, 0x70, 0xC8, 0x70
3BE5 00 9B 80 9B+              .db 2, 0xBF, 0x78, 0xB0, 0x78, 2, 0xA7, 0x80, 0x90, 0x80
3BE5 A0 00 93 38+              .db 2, 0x67, 0x88, 0x48, 0x88, 2, 0x27, 0x88, 0x10, 0x88
3BE5 93 58 00 23+              .db 2, 0xEF, 0x90, 0xC8, 0x90, 2, 0xA7, 0xA0, 0x98, 0xA0
3BE5 88 23 C0 00+              .db 2, 0xBF, 0xA8, 0xB0, 0xA8, 2, 0xD7, 0xB0, 0xC8, 0xB0
3BE5 1B C0 1B E8+              .db 2, 0xEF, 0xB8, 0xE0, 0xB8, 2, 0x27, 0xC0, 0x10, 0xC0
3BE5 02 97 38 68+              .db 2, 0xEF, 0xD0, 0xD8, 0xD0, 2, 0x67, 0xD0, 0x50, 0xD0
3BE5 38 02 B7 58+              .db 2, 0xCF, 0xD8, 0xC0, 0xD8, 2, 0xB7, 0xE0, 0xA8, 0xE0
3BE5 10 58 02 EF+              .db 2, 0x9F, 0xE8, 0x88, 0xE8, 2, 0x27, 0xE8, 0x10, 0xE8
3BE5 68 E0 68 02+              .db 2, 0xEF, 0xF8, 0x10, 0xF8, 0xAA
3C8B 00 7B 80 7B+rivet_level_tilemap_data:.db 0, 0x7B, 0x80, 0x7B, 0xA8, 0, 0x7B, 0xD0, 0x7B, 0xF8
3C8B A8 00 7B D0+                                         ; DATA XREF: 0000:0CC3↑o
3C8B 7B F8 00 33+                                         ; sub_0_2441+2D↑o
3C8B 58 33 80 00+              .db 0, 0x33, 0x58, 0x33, 0x80, 0, 0x53, 0x58, 0x53, 0x80
3C8B 53 58 53 80+              .db 0, 0xAB, 0x58, 0xAB, 0x80, 0, 0xCB, 0x58, 0xCB, 0x80
3C8B 00 AB 58 AB+              .db 0, 0x2B, 0x80, 0x2B, 0xA8, 0, 0xD3, 0x80, 0xD3, 0xA8
3C8B 80 00 CB 58+              .db 0, 0x23, 0xA8, 0x23, 0xD0, 0, 0x5B, 0xA8, 0x5B, 0xD0
3C8B CB 80 00 2B+              .db 0, 0xA3, 0xA8, 0xA3, 0xD0, 0, 0xDB, 0xA8, 0xDB, 0xD0
3C8B 80 2B A8 00+              .db 0, 0x1B, 0xD0, 0x1B, 0xF8, 0, 0xE3, 0xD0, 0xE3, 0xF8
3C8B D3 80 D3 A8+              .db 5, 0xB7, 0x30, 0x48, 0x30, 5, 0xCF, 0x58, 0x30, 0x58
3C8B 00 23 A8 23+              .db 5, 0xD7, 0x80, 0x28, 0x80, 5, 0xDF, 0xA8, 0x20, 0xA8
3C8B D0 00 5B A8+              .db 5, 0xE7, 0xD0, 0x18, 0xD0, 5, 0xEF, 0xF8, 0x10, 0xF8
3C8B 5B D0 00 A3+              .db 0xAA
3CF0 10 82 85 8B+draw_data_how_high:.db 0x10, 0x82, 0x85, 0x8B, 0x10, 0x85, 0x80, 0x8B, 0x10
3CF0 10 85 80 8B+                                         ; DATA XREF: 0000:0C50↑o
3CF0 10 87 85 8B+              .db 0x87, 0x85, 0x8B, 0x81, 0x80, 0x80, 0x8B, 0x81, 0x82
3CF0 81 80 80 8B+              .db 0x85, 0x8B, 0x81, 0x85, 0x80, 0x8B
3D08 05          title_screen: .db 5                      ; DATA XREF: 0000:07F7↑o
3D08                                                       ; RLE-encoded "DONKEY KONG" title
3D09 88 77                     .dw VRAM_start+0x388
3D0B 01                        .db 1
3D0C 68 77                     .dw VRAM_start+0x368
3D0E 01                        .db 1
3D0F 6C 77                     .dw VRAM_start+0x36C
3D11 03                        .db 3
3D12 49 77                     .dw VRAM_start+0x349
3D14 05                        .db 5
3D15 08 77                     .dw VRAM_start+0x308
3D17 01                        .db 1
3D18 E8 76                     .dw VRAM_start+0x2E8
3D1A 01                        .db 1
3D1B EC 76                     .dw VRAM_start+0x2EC
3D1D 05                        .db 5
3D1E C8 76                     .dw VRAM_start+0x2C8
3D20 05                        .db 5
3D21 88 76                     .dw VRAM_start+0x288
3D23 02                        .db 2
3D24 69 76                     .dw VRAM_start+0x269
3D26 02                        .db 2
3D27 4A 76                     .dw VRAM_start+0x24A
3D29 05                        .db 5
3D2A 28 76                     .dw VRAM_start+0x228
3D2C 05                        .db 5
3D2D E8 75                     .dw VRAM_start+0x1E8
3D2F 01                        .db 1
3D30 CA 75                     .dw VRAM_start+0x1CA
3D32 03                        .db 3
3D33 A9 75                     .dw VRAM_start+0x1A9
3D35 01                        .db 1
3D36 88 75                     .dw VRAM_start+0x188
3D38 01                        .db 1
3D39 8C 75                     .dw VRAM_start+0x18C
3D3B 05                        .db 5
3D3C 48 75                     .dw VRAM_start+0x148
3D3E 01                        .db 1
3D3F 28 75                     .dw VRAM_start+0x128
3D41 01                        .db 1
3D42 2A 75                     .dw VRAM_start+0x12A
3D44 01                        .db 1
3D45 2C 75                     .dw VRAM_start+0x12C
3D47 01                        .db 1
3D48 08 75                     .dw VRAM_start+0x108
3D4A 01                        .db 1
3D4B 0A 75                     .dw VRAM_start+0x10A
3D4D 01                        .db 1
3D4E 0C 75                     .dw VRAM_start+0x10C
3D50 03                        .db 3
3D51 C8 74                     .dw VRAM_start+0xC8
3D53 03                        .db 3
3D54 AA 74                     .dw VRAM_start+0xAA
3D56 03                        .db 3
3D57 88 74                     .dw VRAM_start+0x88
3D59 05                        .db 5
3D5A 2F 77                     .dw VRAM_start+0x32F
3D5C 05                        .db 5
3D5D 0F 77                     .dw VRAM_start+0x30F
3D5F 02                        .db 2
3D60 F0 76                     .dw VRAM_start+0x2F0
3D62 02                        .db 2
3D63 CF 76                     .dw VRAM_start+0x2CF
3D65 02                        .db 2
3D66 D2 76                     .dw VRAM_start+0x2D2
3D68 05                        .db 5
3D69 8F 76                     .dw VRAM_start+0x28F
3D6B 05                        .db 5
3D6C 6F 76                     .dw VRAM_start+0x26F
3D6E 01                        .db 1
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3D6F 4F 76                          .dw  VRAM_start+0x24F
3D71 01                             .db  1
3D72 53 76                          .dw  VRAM_start+0x253
3D74 05                             .db  5
3D75 2F 76                          .dw  VRAM_start+0x22F
3D77 05                             .db  5
3D78 EF 75                          .dw  VRAM_start+0x1EF
3D7A 02                             .db  2
3D7B D0 75                          .dw  VRAM_start+0x1D0
3D7D 02                             .db  2
3D7E B1 75                          .dw  VRAM_start+0x1B1
3D80 05                             .db  5
3D81 8F 75                          .dw  VRAM_start+0x18F
3D83 03                             .db  3
3D84 50 75                          .dw  VRAM_start+0x150
3D86 05                             .db  5
3D87 2F 75                          .dw  VRAM_start+0x12F
3D89 01                             .db  1
3D8A 0F 75                          .dw  VRAM_start+0x10F
3D8C 01                             .db  1
3D8D 13 75                          .dw  VRAM_start+0x113
3D8F 01                             .db  1
3D90 EF 74                          .dw  VRAM_start+0xEF
3D92 01                             .db  1
3D93 F1 74                          .dw  VRAM_start+0xF1
3D95 01                             .db  1
3D96 F3 74                          .dw  VRAM_start+0xF3
3D98 02                             .db  2
3D99 D1 74                          .dw  VRAM_start+0xD1
3D9B 00                             .db  0
3D9C 00 00 23 68+level_init_data:.db 0, 0, 0x23, 0x68, 1, 0x11, 0, 0, 0, 0x10, 0xDB, 0x68
3D9C 01 11 00 00+                                                   ; DATA XREF: 0000:0F6F↑o
3D9C 00 10 DB 68+                   .db  1, 0x40, 0, 0, 8, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0
3D9C 01 40 00 00+                   .db  0, 0, 0, 0, 0x80, 1, 0xC0, 0xFF, 1, 0xFF, 0xFF, 0x34
3D9C 08 01 01 01+                   .db  0xC3, 0x39, 0, 0x67, 0x80, 0x69, 0x1A, 1, 0, 0, 0
3D9C 01 01 01 01+                   .db  0, 0, 0, 0, 4, 0, 0x10, 0, 0, 0, 0, 0
3DDC 1E 18 0B 4B+top_barrel_spr:  .db  0x1E, 0x18, 0xB, 0x4B, 0x14, 0x18, 0xB, 0x4B, 0x1E
3DDC 14 18 0B 4B+                                                   ; DATA XREF: 0000:0FD7↑o
3DDC 1E 18 0B 3B+                   .db  0x18, 0xB, 0x3B, 0x14, 0x18, 0xB, 0x3B
3DEC 3D 01 03 02 fireball_spr:   .db  0x3D, 1, 3, 2                ; DATA XREF: 0000:0FE2↑o
3DEC                                                               ; 0000:101F↑o ...
3DF0 4D 01 04 01 fireball_rivet_spr:.db 0x4D, 1, 4, 1             ; DATA XREF: 0000:1131↑o
3DF4 27 70 01 E0+girders_extra_spr:.db 0x27, 0x70, 1, 0xE0, 0, 0   ; DATA XREF: 0000:0FEF↑o
3DFA 7F 40 01 78+cement_extra_spr:.db 0x7F, 0x40, 1, 0x78, 2, 0    ; DATA XREF: 0000:1049↑o
3E00 27 49 0C F0 girder_oil_barrel_spr:.db 0x27, 0x49, 0xC, 0xF0   ; DATA XREF: 0000:0FF5↑o
3E04 7F 49 0C 88 cement_oil_barrel_spr:.db 0x7F, 0x49, 0xC, 0x88   ; DATA XREF: 0000:104F↑o
3E08 1E 07 03 09 hammer_pickup_spr:.db 0x1E, 7, 3, 9              ; DATA XREF: sub_0_11A6+9↑o
3E0C 24 64 BB C0 girder_hammer_locs:.db 0x24, 0x64, 0xBB, 0xC0     ; DATA XREF: 0000:1000↑o
3E10 23 8D 7B B4 cement_hammer_locs:.db 0x23, 0x8D, 0x7B, 0xB4     ; DATA XREF: 0000:1070↑o
3E14 1B 8C 7C 64 rivet_hammer_locs:.db 0x1B, 0x8C, 0x7C, 0x64      ; DATA XREF: 0000:113D↑o
3E18 4B 0E 04 02 cement_pie_spr: .db  0x4B, 0xE, 4, 2             ; DATA XREF: 0000:102E↑o
3E1C 23 46 03 68+cement_ladder_spr:.db 0x23, 0x46, 3, 0x68, 0xDB, 0x46, 3, 0x68  ; DATA XREF: 0000:105A↑o
3E24 17 50 00 5C+cement_conveyer_spr:.db 0x17, 0x50, 0, 0x5C, 0xE7, 0xD0, 0, 0x5C, 0x8C, 0x50
3E24 E7 D0 00 5C+                                                  ; DATA XREF: 0000:1065↑o
3E24 8C 50 00 84+                   .db  0, 0x84, 0x73, 0xD0, 0, 0x84, 0x17, 0x50, 0, 0xD4
3E24 73 D0 00 84+                   .db  0xE7, 0xD0, 0, 0xD4
3E3C 53 73 0A A0+cement_obj_spr: .db  0x53, 0x73, 0xA, 0xA0, 0x8B, 0x74, 0xA, 0xF0, 0xDB
3E3C 8B 74 0A F0+                                                  ; DATA XREF: 0000:1076↑o
3E3C DB 75 0A A0                     .db  0x75, 0xA, 0xA0
3E48 5B 73 0A C8+elevator_obj_spr:.db 0x5B, 0x73, 0xA, 0xC8, 0xE3, 0x74, 0xA, 0x60, 0x1B
3E48 E3 74 0A 60+                                                  ; DATA XREF: 0000:10DE↑o
3E48 1B 75 0A 80                     .db  0x75, 0xA, 0x80
3E54 DB 73 0A C8+rivit_obj_spr:  .db  0xDB, 0x73, 0xA, 0xC8, 0x93, 0x74, 0xA, 0xF0, 0x33
3E54 93 74 0A F0+                                                  ; DATA XREF: 0000:1143↑o
3E54 33 75 0A 50                     .db  0x75, 0xA, 0x50
3E60 44 03 08 04 elevator_spr:   .db  0x44, 3, 8, 4               ; DATA XREF: 0000:10C3↑o
3E64 37 F4 37 C0+elevator_spr_xy:.db  0x37, 0xF4, 0x37, 0xC0, 0x37, 0x8C, 0x77, 0x70, 0x77
3E64 37 8C 77 70+                                                  ; DATA XREF: 0000:10B7↑o
3E64 77 A4 77 D8                     .db  0xA4, 0x77, 0xD8
3E70              ; ──────────────────────────────────────
3E70
3E70              loc_0_3E70:                                       ; CODE XREF: sub_0_1DBD+1A↑j
3E70 11 01 00                         ld    de, #1
3E73
3E73              loc_0_3E73:
3E73 06 7B                            ld    b, #0x7B ; '{'
3E75 1F                               rra
3E76 D2 28 1E                         jp    NC, loc_0_1E28
3E79 1E 03                            ld    e, #3
3E7B 06 7D                            ld    b, #0x7D ; '}'
3E7D 1F                               rra
3E7E D2 28 1E                         jp    NC, loc_0_1E28
3E81 1E 05                            ld    e, #5
3E83 06 7F                            ld    b, #0x7F ; ' '
3E85 C3 28 1E                         jp    loc_0_1E28
3E88
3E88              ; ▓▓▓▓▓▓▓▓▓▓▓ S U B R O U T I N E ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
3E88
3E88
3E88              sub_0_3E88:                                       ; CODE XREF: sub_0_2853+18↑p
3E88 3A 27 62                         ld    a, (level_type)
3E8B E5                               push  hl
3E8C EF                               rst   0x28                    ; go!
3E8C              ; ──────────────────────────────────────            ; Jump table
3E8D 00 00                            .dw  0
3E8F 99 3E                            .dw  loc_0_3E99
3E91 B0 28                            .dw  l2_check_hammer_hit
3E93 E0 28                            .dw  l3_check_hammer_hit
3E95 01 29                            .dw  l4_check_hammer_hit
3E97 00 00                            .dw  0
3E99              ; ──────────────────────────────────────
3E99
3E99              loc_0_3E99:                                       ; DATA XREF: sub_0_3E88+7↑o
3E99 E1                               pop   hl
3E9A AF                               xor   a
3E9B 32 60 60                         ld    (unk_0_6060), a
3E9E 06 0A                            ld    b, #0xA
3EA0 11 20 00                         ld    de, #0x20 ; ' '
3EA3 DD 21 00 67                      ld    ix, #unk_0_6700
3EA7 CD C3 3E                         call  sub_0_3EC3
3EAA 06 05                            ld    b, #5
3EAC DD 21 00 64                      ld    ix, #unk_0_6400         ; fireball character data
3EB0 CD C3 3E                         call  sub_0_3EC3
3EB3 3A 60 60                         ld    a, (unk_0_6060)
3EB6 A7                               and   a
3EB7 C8                               ret   Z
```

```
3EB8 FE 01                      cp        #1
3EBA C8                         ret       Z
3EBB FE 03                      cp        #3
3EBD 3E 03                      ld        a, #3
3EBF D8                         ret       C
3EC0 3E 07                      ld        a, #7
3EC2 C9                         ret
3EC2             ; End of function sub_0_3E88
3EC2
3EC3
3EC3             ; ██████████ S U B R O U T I N E ██████████████████████████████████
3EC3
3EC3
3EC3             sub_0_3EC3:                                      ; CODE XREF: sub_0_3E88+1F↑p
3EC3 DD CB 00 46                                                 ; sub_0_3E88+28↑p ...
3EC3                            bit       0, 0(ix)
3EC7 CA FA 3E                   jp        Z, loc_0_3EFA
3ECA 79                         ld        a, c
3ECB DD 96 05                   sub       5(ix)
3ECE D2 D3 3E                   jp        NC, loc_0_3ED3
3ED1 ED 44                      neg
3ED3
3ED3             loc_0_3ED3:                                      ; CODE XREF: sub_0_3EC3+B↑j
3ED3 3C                         inc       a
3ED4 95                         sub       l
3ED5 DA DE 3E                   jp        C, loc_0_3EDE
3ED8 DD 96 0A                   sub       0xA(ix)
3EDB D2 FA 3E                   jp        NC, loc_0_3EFA
3EDE
3EDE             loc_0_3EDE:                                      ; CODE XREF: sub_0_3EC3+12↑j
3EDE FD 7E 03                   ld        a, 3(iy)
3EE1 DD 96 03                   sub       3(ix)
3EE4 D2 E9 3E                   jp        NC, loc_0_3EE9
3EE7 ED 44                      neg
3EE9
3EE9             loc_0_3EE9:                                      ; CODE XREF: sub_0_3EC3+21↑j
3EE9 94                         sub       h
3EEA DA F3 3E                   jp        C, loc_0_3EF3
3EED DD 96 09                   sub       9(ix)
3EF0 D2 FA 3E                   jp        NC, loc_0_3EFA
3EF3
3EF3             loc_0_3EF3:                                      ; CODE XREF: sub_0_3EC3+27↑j
3EF3 3A 60 60                   ld        a, (unk_0_6060)
3EF6 3C                         inc       a
3EF7 32 60 60                   ld        (unk_0_6060), a
3EFA
3EFA             loc_0_3EFA:                                      ; CODE XREF: sub_0_3EC3+4↑j
3EFA DD 19                                                       ; sub_0_3EC3+18↑j ...
3EFA                            add       ix, de
3EFC 10 C5                      djnz      sub_0_3EC3
3EFE C9                         ret
3EFE             ; End of function sub_0_3EC3
3EFE
3EFE             ; ────────────────────────────────────────────────────────────────
3EFF 00 5C 76 49+byte_0_3EFF:   .db 0, 0x5C, 0x76, 0x49, 0x4A, 1, 9, 8, 1, 0x3F ; DATA XREF: 0000:3687↑o
3F09 7D 77 1E 19+byte_0_3F09:   .db 0x7D, 0x77, 0x1E, 0x19, 0x1E, 0x24, 0x15, 0x1E, 0x14
3F09 1E 24 15 1E+                                                ; DATA XREF: 0000:3689↑o
3F09 14 1F 10 1F+                                                ; sub_0_2441↑o
3F09 16 10 11 1D+               .db 0x1F, 0x10, 0x1F, 0x16, 0x10, 0x11, 0x1D, 0x15, 0x22
3F09 15 22 19 13+               .db 0x19, 0x13, 0x11, 0x10, 0x19, 0x1E, 0x13, 0x2B, 0x3F
3F24
3F24             ; ██████████ S U B R O U T I N E ██████████████████████████████████
3F24
3F24
3F24             sub_0_3F24:                                      ; CODE XREF: 0000:081C↑p
3F24 21 AF 74                   ld        hl, #VRAM_start+0xAF
3F27 11 E0 FF                   ld        de, #0xFFE0
3F2A 36 9F                      ld        (hl), #0x9F ; 'f'
3F2C 19                         add       hl, de
3F2D 36 9E                      ld        (hl), #0x9E ; 'x'
3F2F C9                         ret
3F2F             ; End of function sub_0_3F24
3F2F
3F2F             ; ────────────────────────────────────────────────────────────────
3F30 50 52 4F 47+aProgramWeWouldTeachYou_Tel_toky:.ascii 'PROGRAM,WE WOULD TEACH YOU.*****TEL.TOKYO-JAPAN 044(244)'
3F30 52 41 4D 2C+               .ascii '2151    EXTENTION 304   SYSTEM DESIGN   IKEGAMI CO. LIM.'
3FA0             ; ────────────────────────────────────────────────────────────────
3FA0
3FA0             loc_0_3FA0:                                      ; CODE XREF: 0000:0CD1↑j
3FA0 CD A6 3F                   call      sub_0_3FA6
3FA3 C3 5F 0D                   jp        loc_0_D5F
3FA6             ; ██████████ S U B R O U T I N E ██████████████████████████████████
3FA6
3FA6
3FA6             sub_0_3FA6:                                      ; CODE XREF: 0000:3FA0↑p
3FA6 3E 02                      ld        a, #2
3FA8 F7                         rst       0x30                    ; return if level bit not set
3FA9 06 02                      ld        b, #2
3FAB 21 6C 77                   ld        hl, #VRAM_start+0x36C
3FAE
3FAE             loc_0_3FAE:                                      ; CODE XREF: sub_0_3FA6+11↓j
3FAE 36 10                      ld        (hl), #0x10
3FB0 23                         inc       hl
3FB1 23                         inc       hl
3FB2 36 C0                      ld        (hl), #0xC0 ; 'L'
3FB4 21 8C 74                   ld        hl, #VRAM_start+0x8C
3FB7 10 F5                      djnz      loc_0_3FAE
3FB9 C9                         ret
3FB9             ; End of function sub_0_3FA6
3FB9
3FB9             ; ────────────────────────────────────────────────────────────────
3FBA 00 00 00 00+               .db 0, 0, 0, 0, 0, 0
3FC0
3FC0             ; ██████████ S U B R O U T I N E ██████████████████████████████████
3FC0
3FC0
3FC0             sub_0_3FC0:                                      ; CODE XREF: 0000:2285↑p
3FC0 21 4D 69                   ld        hl, #soft_sprite_ram+0x4D
3FC3 36 03                      ld        (hl), #3
3FC5 2C                         inc       l
3FC6 2C                         inc       l
3FC7 C9                         ret
3FC7             ; End of function sub_0_3FC0
3FC7
3FC7             ; ────────────────────────────────────────────────────────────────
```

```
3FC8 00 00 41 7F+              .db 0, 0, 0x41, 0x7F, 0x7F, 0x41, 0, 0, 0, 0x7F, 0x7F
3FC8 7F 41 00 00+              .db 0x18, 0x3C, 0x76, 0x63, 0x41, 0, 0, 0x7F, 0x7F, 0x49
3FC8 00 7F 7F 18+              .db 0x49, 0x49, 0x41, 0, 0x1C, 0x3E, 0x63, 0x41, 0x49
3FC8 3C 76 63 41+              .db 0x79, 0x79, 0, 0x7C, 0x7E, 0x13, 0x11, 0x13, 0x7E
3FC8 00 00 7F 7F+              .db 0x7C, 0, 0x7F, 0x7F, 0xE, 0x1C, 0xE, 0x7F, 0x7F, 0
3FC8 49 49 49 41+              .db 0, 0x41, 0x7F, 0x7F, 0x41, 0, 0
3FC8 00 1C 3E 63+; end of 'ROM'
3FC8 41 49 79 79+              ; ========================================================================
6000
6000                          ; Segment type: Regular
6000                          ; segment 'RAM'
6000                                          .org 0x6000
6000 ??           RAM_start:    .ds 1                                        ; DATA XREF: 0000:0268↑o
6001 ??           no_of_credits:  .ds 1                                      ; DATA XREF: display_credits+5↑o
6001                                                                         ; 0000:073F↑r ...
6002 ??                         .ds 1
6003 ??           unk_0_6003:     .ds 1                                      ; DATA XREF: sub_0_17B+5↑o
6004 ??                         .ds 1
6005 ??           nmi_sequencer:  .ds 1                                      ; DATA XREF: 0000:00C6↑r
6005                                                                         ; sub_0_17B+12↑r ...
6006 ??                         .ds 1
6007 ??           attract_mode_flag:.ds 1
6008 ??           sixteen_bit_countdown_msb:.ds 1                            ; DATA XREF: return_NOT_16bit_timeout↑o
6009*??           eight_bit_countdown:.ds 1                                  ; DATA XREF: return_NOT_8bit_timeout↑o
6009*                                                                        ; 0000:078E↑o ...
600A ??           main_sequencer: .ds 1                                      ; DATA XREF: 0000:01EE↑w
600A                                                                         ; 0000:06FE↑r ...
600B ??                         .ds 1
600C ??                         .ds 1
600D ??           current_player_D:.ds 1
600E ??           current_player_E:.ds 1
600F ??           two_players:    .ds 1
6010 ??           controller_in:  .ds 1                                      ; DATA XREF: 0000:00AC↑w
6010                                                                         ; 0000:1502↑r ...
6011 ??           last_raw_in:    .ds 1
6012 ??                         .ds 1
6013 ??                         .ds 1
6014 ??                         .ds 1
6015 ??                         .ds 1
6016 ??                         .ds 1
6017 ??                         .ds 1
6018 ?? ??        random_no:      .ds 2                                      ; DATA XREF: rand↑r
6018                                                                         ; rand+B↑w ...
601A ??           gen_purpose_timer:.ds 1                                    ; DATA XREF: rand+3↑o
601A                                                                         ; 0000:00B5↑o ...
601B ??                         .ds 1
601C ??                         .ds 1
601D ??                         .ds 1
601E ??                         .ds 1
601F ??                         .ds 1
6020 ??           lives_per_game: .ds 1                                      ; DATA XREF: read_dips_and_high_score_tbl+4↑o
6020                                                                         ; 0000:0922↑r ...
6021 ??           bonus_setting:  .ds 1                                      ; DATA XREF: check_and_award_bonus+1E↑o
6021                                                                         ; 7/10/15/20K
6022 ?? ?? ?? ?? coinage:       .ds 4                                       ; DATA XREF: sub_0_17B+27↑o
6026 ??           upright:        .ds 1                                      ; DATA XREF: 0000:0087↑r
6026                                                                         ; 0000:099F↑r ...
6027 ??                         .ds 1
6028 ??                         .ds 1
6029 ??                         .ds 1
602A ??                         .ds 1
602B ??                         .ds 1
602C ??                         .ds 1
602D ??                         .ds 1
602E ??                         .ds 1
602F ??                         .ds 1
6030 ??           unk_0_6030:     .ds 1                                      ; DATA XREF: 0000:1499↑o
6030                                                                         ; 0000:14FC↑o
6031 ??           unk_0_6031:     .ds 1
6032 ??           unk_0_6032:     .ds 1                                      ; DATA XREF: 0000:158A↑o
6032                                                                         ; 0000:15B2↑w
6033 ??                         .ds 1
6034 ??           unk_0_6034:     .ds 1                                      ; DATA XREF: 0000:14DC↑o
6035 ??           unk_0_6035:     .ds 1
6036 ??           unk_0_6036:     .ds 1
6037 ??                         .ds 1
6038 ??           unk_0_6038:     .ds 1
6039 ??                         .ds 1
603A ??           unk_0_603A:     .ds 1
603B ??                         .ds 1
603C ??                         .ds 1
603D ??                         .ds 1
603E ??                         .ds 1
603F ??                         .ds 1
6040 ??           p1_level_data:  .ds 1                                      ; DATA XREF: 0000:093E↑o
6040                                                                         ; 0000:09AB↑o ...
6040                                                                         ; game init data copied here
6041 ??                         .ds 1
6042 ?? ??                      .ds 2                                       ; ptr sequence data
6044 ??                         .ds 1
6045 ??                         .ds 1
6046 ??                         .ds 1
6047 ??                         .ds 1
6048 ??           p2_level_data:  .ds 1                                      ; DATA XREF: 0000:0909↑o
6048                                                                         ; 0000:091F↑o ...
6049 ??                         .ds 1
604A ??                         .ds 1
604B ??                         .ds 1
604C ??                         .ds 1
604D ??                         .ds 1
604E ??                         .ds 1
604F ??                         .ds 1
6050 ??                         .ds 1
6051 ??                         .ds 1
6052 ??                         .ds 1
6053 ??                         .ds 1
6054 ??                         .ds 1
6055 ??                         .ds 1
6056 ??                         .ds 1
6057 ??                         .ds 1
6058 ??                         .ds 1
6059 ??                         .ds 1
605A ??                         .ds 1
605B ??                         .ds 1
605C ??                         .ds 1
```

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605D ??                        .ds 1
605E ??                        .ds 1
605F ??                        .ds 1
6060 ??          unk_0_6060:    .ds 1
6061 ??                        .ds 1
6062 ??                        .ds 1
6063 ??                        .ds 1
6064 ??                        .ds 1
6065 ??                        .ds 1
6066 ??                        .ds 1
6067 ??                        .ds 1
6068 ??                        .ds 1
6069 ??                        .ds 1
606A ??                        .ds 1
606B ??                        .ds 1
606C ??                        .ds 1
606D ??                        .ds 1
606E ??                        .ds 1
606F ??                        .ds 1
6070 ??                        .ds 1
6071 ??                        .ds 1
6072 ??                        .ds 1
6073 ??                        .ds 1
6074 ??                        .ds 1
6075 ??                        .ds 1
6076 ??                        .ds 1
6077 ??                        .ds 1
6078 ??                        .ds 1
6079 ??                        .ds 1
607A ??                        .ds 1
607B ??                        .ds 1
607C ??                        .ds 1
607D ??                        .ds 1
607E ??                        .ds 1
607F ??                        .ds 1
6080 ??          digital_snd_tmr_walk:.ds 1               ; DATA XREF: update_sounds↑o
6080                                                      ; stop_sound+6↑o ...
6081 ??          digital_snd_tmr_jump:.ds 1               ; DATA XREF: sub_0_1AC3+E9↑o
6082 ??          digital_snd_tmr_thump:.ds 1              ; DATA XREF: animate_kong_and_pauline+52↑w
6082                                                      ; 0000:0B45↑w ...
6083 ??          digital_snd_tmr_coin_spring:.ds 1
6084 ??          digital_snd_tmr_kong_fall:.ds 1
6085 ??          digital_snd_tmr_barrel_jump_priz:.ds 1   ; DATA XREF: sub_0_1DBD+25↑o
6085                                                      ; sub_0_1DBD+87↑o ...
6086 ??          digital_snd_tmr_6:.ds 1
6087 ??          digital_snd_tmr_7:.ds 1
6088 ??          unk_0_6088:    .ds 1                     ; DATA XREF: update_sounds+2E↑o
6088                                                      ; 0000:12A8↑w
6089 ??          unk_0_6089:    .ds 1                     ; DATA XREF: 0000:067A↑w
6089                                                      ; 0000:0CC0↑w ...
608A ??          unk_0_608A:    .ds 1                     ; DATA XREF: 0000:0ADB↑o
608A                                                      ; 0000:0BB3↑o ...
608B ??          unk_0_608B:    .ds 1                     ; DATA XREF: update_sounds+1A↑o
608C ??                        .ds 1
608D ??                        .ds 1
608E ??                        .ds 1
608F ??                        .ds 1
6090 ??                        .ds 1
6091 ??                        .ds 1
6092 ??                        .ds 1
6093 ??                        .ds 1
6094 ??                        .ds 1
6095 ??                        .ds 1
6096 ??                        .ds 1
6097 ??                        .ds 1
6098 ??                        .ds 1
6099 ??                        .ds 1
609A ??                        .ds 1
609B ??                        .ds 1
609C ??                        .ds 1
609D ??                        .ds 1
609E ??                        .ds 1
609F ??                        .ds 1
60A0 ??                        .ds 1
60A1 ??                        .ds 1
60A2 ??                        .ds 1
60A3 ??                        .ds 1
60A4 ??                        .ds 1
60A5 ??                        .ds 1
60A6 ??                        .ds 1
60A7 ??                        .ds 1
60A8 ??                        .ds 1
60A9 ??                        .ds 1
60AA ??                        .ds 1
60AB ??                        .ds 1
60AC ??                        .ds 1
60AD ??                        .ds 1
60AE ??                        .ds 1
60AF ??                        .ds 1
60B0 ??          fg_fn_queue_tail:.ds 1
60B1 ??          fg_fn_queue_head:.ds 1
60B2 ?? ?? ??    p1_score:      .ds 3                     ; DATA XREF: 0000:01C9↑o
60B2                                                      ; current_player_score_DE↑o ...
60B5 ?? ?? ??    p2_score:      .ds 3                     ; DATA XREF: current_player_score_DE+8↑o
60B5                                                      ; zero_score_or_high_score+D↑o ...
60B8 ?? ?? ??    high_score:    .ds 3                     ; DATA XREF: add_bonus_and_update_high_score+37↑o
60B8                                                      ; zero_score_or_high_score+15↑o ...
60BB ??                        .ds 1
60BC ??                        .ds 1
60BD ??                        .ds 1
60BE ??                        .ds 1
60BF ??                        .ds 1
60C0 ?? ?? ?? ??+fg_vector_fn_params:.ds 0x40             ; DATA XREF: 0000:0291↑o
60C0 ?? ?? ?? ??+                                         ; queue_fg_vector_fn+1↑o
6100 ?? ?? ?? ??+high_score_tbl_ram:.ds 0x22              ; DATA XREF: read_dips_and_high_score_tbl+56↑o
6100 ?? ?? ?? ??+                                         ; 0000:3673↑o
6100 ?? ?? ?? ??+                                         ; 1st
6122 ?? ?? ?? ??+hs_tbl_2nd:    .ds 0x22                  ; DATA XREF: 0000:3675↑o
6122 ?? ?? ?? ??+                                         ; 2nd
6144 ?? ?? ?? ??+hs_tbl_3rd:    .ds 0x22                  ; DATA XREF: 0000:3677↑o
6144 ?? ?? ?? ??+                                         ; 3rd
6166 ?? ?? ?? ??+hs_tbl_4th:    .ds 0x22                  ; DATA XREF: 0000:3679↑o
6166 ?? ?? ?? ??+                                         ; 4th
6188 ?? ?? ?? ??+hs_tbl_5th:    .ds 0x22                  ; DATA XREF: 0000:367B↑o
6188 ?? ?? ?? ??+                                         ; 5th
61AA ??                        .ds 1
```

```
61AB ??                        .ds 1
61AC ??                        .ds 1
61AD ??                        .ds 1
61AE ??                        .ds 1
61AF ??                        .ds 1
61B0 ??                        .ds 1
61B1 ??          unk_0_61B1:    .ds 1                              ; DATA XREF: sub_0_13CA+D↑o
61B2 ??                        .ds 1
61B3 ??                        .ds 1
61B4 ??                        .ds 1
61B5 ??                        .ds 1
61B6 ??                        .ds 1
61B7 ??                        .ds 1
61B8 ??                        .ds 1
61B9 ??                        .ds 1
61BA ??                        .ds 1
61BB ??                        .ds 1
61BC ??                        .ds 1
61BD ??                        .ds 1
61BE ??                        .ds 1
61BF ??                        .ds 1
61C0 ??                        .ds 1
61C1 ??                        .ds 1
61C2 ??                        .ds 1
61C3 ??                        .ds 1
61C4 ??                        .ds 1
61C5 ??                        .ds 1
61C6 ??          unk_0_61C6:    .ds 1                              ; DATA XREF: sub_0_13CA↑o
61C7 ??          unk_0_61C7:    .ds 1                              ; DATA XREF: sub_0_13CA+2F↑o
61C8 ??                        .ds 1
61C9 ??                        .ds 1
61CA ??                        .ds 1
61CB ??                        .ds 1
61CC ??                        .ds 1
61CD ??                        .ds 1
61CE ??                        .ds 1
61CF ??                        .ds 1
61D0 ??                        .ds 1
61D1 ??                        .ds 1
61D2 ??                        .ds 1
61D3 ??                        .ds 1
61D4 ??                        .ds 1
61D5 ??                        .ds 1
61D6 ??                        .ds 1
61D7 ??                        .ds 1
61D8 ??                        .ds 1
61D9 ??                        .ds 1
61DA ??                        .ds 1
61DB ??                        .ds 1
61DC ??                        .ds 1
61DD ??                        .ds 1
61DE ??                        .ds 1
61DF ??                        .ds 1
61E0 ??                        .ds 1
61E1 ??                        .ds 1
61E2 ??                        .ds 1
61E3 ??                        .ds 1
61E4 ??                        .ds 1
61E5 ??                        .ds 1
61E6 ??                        .ds 1
61E7 ??                        .ds 1
61E8 ??                        .ds 1
61E9 ??                        .ds 1
61EA ??                        .ds 1
61EB ??                        .ds 1
61EC ??                        .ds 1
61ED ??                        .ds 1
61EE ??                        .ds 1
61EF ??                        .ds 1
61F0 ??                        .ds 1
61F1 ??                        .ds 1
61F2 ??                        .ds 1
61F3 ??                        .ds 1
61F4 ??                        .ds 1
61F5 ??                        .ds 1
61F6 ??                        .ds 1
61F7 ??                        .ds 1
61F8 ??                        .ds 1
61F9 ??                        .ds 1
61FA ??                        .ds 1
61FB ??                        .ds 1
61FC ??                        .ds 1
61FD ??                        .ds 1
61FE ??                        .ds 1
61FF ??                        .ds 1
6200 ??          mario_alive_flag:.ds 1                            ; DATA XREF: return_if_mario_not_alive↑r
6200                                                               ; 0000:0BE3↑r ...
6201 ??                        .ds 1
6202 ??          unk_0_6202:    .ds 1
6203 ??          mario_y_coord: .ds 1                              ; DATA XREF: animate_kong_and_pauline+D6↑r
6203                                                               ; animate_kong_and_pauline+10E↑r ...
6204 ??          unk_0_6204:    .ds 1
6205 ??          mario_x_coord: .ds 1                              ; DATA XREF: sub_0_19DA+13↑r
6205                                                               ; sub_0_1A33+22↑r ...
6206 ??          unk_0_6206:    .ds 1
6207 ??          mario_flipy_sprite_tile:.ds 1                     ; DATA XREF: sub_0_1AC3+54↑o
6207                                                               ; sub_0_1AC3+9D↑o ...
6208 ??          mario_flipx_colour:.ds 1
6209 ??          unk_0_6209:    .ds 1                              ; DATA XREF: 0000:0FA5↑o
620A ??                        .ds 1
620B ??          mario_x_before_jump:.ds 1
620C ??          mario_y_before_jump:.ds 1
620D ??                        .ds 1
620E ??          unk_0_620E:    .ds 1                              ; DATA XREF: sub_0_1AC3+E6↑w
620E                                                               ; sub_0_1AC3+1B6↑o ...
620F ??          unk_0_620F:    .ds 1                              ; DATA XREF: sub_0_1AC3+1CE↑r
620F                                                               ; sub_0_1AC3+1EA↑r ...
620F                                                               ; mario_???
6210 ??          unk_0_6210:    .ds 1                              ; DATA XREF: sub_0_1AC3+B0↑o
6210                                                               ; sub_0_1F46+F↑w ...
6211 ??          unk_0_6211:    .ds 1
6212 ??          unk_0_6212:    .ds 1
6213 ??          unk_0_6213:    .ds 1
6214 ??          unk_0_6214:    .ds 1
6215 ??          mario_climbing: .ds 1
6216 ??          mario_jumping:  .ds 1
```

```
6217 ??           unk_0_6217:    .ds 1
6218 ??           unk_0_6218:    .ds 1
6219 ??           unk_0_6219:    .ds 1
621A ??           unk_0_621A:    .ds 1                                   ; DATA XREF: sub_0_1AC3+5D↑o
621A                                                                     ; sub_0_1AC3+2B3↑r ...
621B ??                          .ds 1
621C ??           unk_0_621C:    .ds 1                                   ; DATA XREF: sub_0_1AC3+262↑o
621C                                                                     ; sub_0_1AC3+2BD↑r
621D ??                          .ds 1
621E ??           unk_0_621E:    .ds 1                                   ; DATA XREF: sub_0_1AC3+7↑r
621E                                                                     ; sub_0_1AC3+92↑o ...
621F ??           unk_0_621F:    .ds 1
6220 ??           unk_0_6220:    .ds 1
6221 ??           unk_0_6221:    .ds 1
6222 ??           unk_0_6222:    .ds 1
6223 ??                          .ds 1
6224 ??           unk_0_6224:    .ds 1
6225 ??           unk_0_6225:    .ds 1
6226 ??                          .ds 1
6227 ??           level_type:    .ds 1                                   ; DATA XREF: sub_0_30+14↑o
6227                                                                     ; 0000:01EA↑w ...
6228 ??           lives_left:    .ds 1                                   ; DATA XREF: 0000:01D9↑w
6228                                                                     ; check_and_award_bonus+28↑o ...
6229 ??           level:         .ds 1                                   ; DATA XREF: 0000:01D6↑w
6229                                                                     ; sub_0_37F+15↑r ...
6229                                                                     ; keeps incrementing
622A ?? ??        seq_data:      .ds 2
622C ??           unk_0_622C:    .ds 1                                   ; DATA XREF: 0000:0A6E↑o
622C                                                                     ; 0000:12F6↑w ...
622D ??           awarded_bonus_life:.ds 1
622E ??           unk_0_622E:    .ds 1                                   ; DATA XREF: 0000:0C05↑r
622E                                                                     ; 0000:0C0E↑w ...
622F ??           unk_0_622F:    .ds 1
6230 ??                          .ds 1
6231 ??                          .ds 1
6232 ??                          .ds 1
6233 ??                          .ds 1
6234 ??                          .ds 1
6235 ??                          .ds 1
6236 ??                          .ds 1
6237 ??                          .ds 1
6238 ??                          .ds 1
6239 ??                          .ds 1
623A ??                          .ds 1
623B ??                          .ds 1
623C ??                          .ds 1
623D ??                          .ds 1
623E ??                          .ds 1
623F ??                          .ds 1
6240 ??                          .ds 1
6241 ??                          .ds 1
6242 ??                          .ds 1
6243 ??                          .ds 1
6244 ??                          .ds 1
6245 ??                          .ds 1
6246 ??                          .ds 1
6247 ??                          .ds 1
6248 ??                          .ds 1
6249 ??                          .ds 1
624A ??                          .ds 1
624B ??                          .ds 1
624C ??                          .ds 1
624D ??                          .ds 1
624E ??                          .ds 1
624F ??                          .ds 1
6250 ??                          .ds 1
6251 ??                          .ds 1
6252 ??                          .ds 1
6253 ??                          .ds 1
6254 ??                          .ds 1
6255 ??                          .ds 1
6256 ??                          .ds 1
6257 ??                          .ds 1
6258 ??                          .ds 1
6259 ??                          .ds 1
625A ??                          .ds 1
625B ??                          .ds 1
625C ??                          .ds 1
625D ??                          .ds 1
625E ??                          .ds 1
625F ??                          .ds 1
6260 ??                          .ds 1
6261 ??                          .ds 1
6262 ??                          .ds 1
6263 ??                          .ds 1
6264 ??                          .ds 1
6265 ??                          .ds 1
6266 ??                          .ds 1
6267 ??                          .ds 1
6268 ??                          .ds 1
6269 ??                          .ds 1
626A ??                          .ds 1
626B ??                          .ds 1
626C ??                          .ds 1
626D ??                          .ds 1
626E ??                          .ds 1
626F ??                          .ds 1
6270 ??                          .ds 1
6271 ??                          .ds 1
6272 ??                          .ds 1
6273 ??                          .ds 1
6274 ??                          .ds 1
6275 ??                          .ds 1
6276 ??                          .ds 1
6277 ??                          .ds 1
6278 ??                          .ds 1
6279 ??                          .ds 1
627A ??                          .ds 1
627B ??                          .ds 1
627C ??                          .ds 1
627D ??                          .ds 1
627E ??                          .ds 1
627F ??                          .ds 1
6280 ??           unk_0_6280:    .ds 1                                   ; DATA XREF: 0000:0F64↑o
6280                                                                     ; 0000:0F72↑o ...
6281 ??                          .ds 1
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6282 ??                         .ds 1
6283 ??                         .ds 1
6284 ??                         .ds 1
6285 ??                         .ds 1
6286 ??                         .ds 1
6287 ??                         .ds 1
6288 ??          unk_0_6288:     .ds 1                                          ; DATA XREF: sub_0_2207+E↑o
6289 ??                         .ds 1
628A ??                         .ds 1
628B ??                         .ds 1
628C ??                         .ds 1
628D ??                         .ds 1
628E ??                         .ds 1
628F ??                         .ds 1
6290 ??          unk_0_6290:     .ds 1                                          ; DATA XREF: sub_0_1A33+53↑o
6290                                                                            ; sub_0_1E57+29↑r
6291 ??          unk_0_6291:     .ds 1
6292 ??          unk_0_6292:     .ds 1                                          ; DATA XREF: sub_0_1A33+48↑o
6293 ??                         .ds 1
6294 ??                         .ds 1
6295 ??                         .ds 1
6296 ??                         .ds 1
6297 ??                         .ds 1
6298 ??                         .ds 1
6299 ??                         .ds 1
629A ??                         .ds 1
629B ??                         .ds 1
629C ??                         .ds 1
629D ??                         .ds 1
629E ??                         .ds 1
629F ??                         .ds 1
62A0 ??          unk_0_62A0:     .ds 1                                          ; DATA XREF: 0000:16BC↑w
62A0                                                                            ; 0000:16D2↑w ...
62A1 ??          unk_0_62A1:     .ds 1                                          ; DATA XREF: sub_0_2602+14↑o
62A2 ??                         .ds 1
62A3 ??          unk_0_62A3:     .ds 1                                          ; DATA XREF: sub_0_2523+2E↑r
62A3                                                                            ; sub_0_262F↑o ...
62A4 ??                         .ds 1
62A5 ??          unk_0_62A5:     .ds 1                                          ; DATA XREF: sub_0_2679+7↑o
62A6 ??          unk_0_62A6:     .ds 1                                          ; DATA XREF: sub_0_2523+39↑r
62A6                                                                            ; sub_0_2679+14↑o
62A7 ??          unk_0_62A7:     .ds 1                                          ; DATA XREF: sub_0_27DA↑o
62A8 ??          unk_0_62A8:     .ds 1
62A9 ??                         .ds 1
62AA ??          unk_0_62AA:     .ds 1
62AB ??                         .ds 1
62AC ??          unk_0_62AC:     .ds 1
62AD ??                         .ds 1
62AE ??                         .ds 1
62AF ??          unk_0_62AF:     .ds 1                                          ; DATA XREF: 0000:0AA6↑w
62AF                                                                            ; 0000:0AEB↑r ...
62B0 ??          unk_0_62B0:     .ds 1                                          ; DATA XREF: 0000:063A↑r
62B0                                                                            ; 0000:0F8E↑o ...
62B1 ??          unk_0_62B1:     .ds 1                                          ; DATA XREF: sub_0_2C03+9↑r
62B1                                                                            ; sub_0_2C8F+4B↑o ...
62B2 ??          unk_0_62B2:     .ds 1
62B3 ??          unk_0_62B3:     .ds 1
62B4 ??          unk_0_62B4:     .ds 1                                          ; DATA XREF: sub_0_2FCB+3↑o
62B5 ??                         .ds 1
62B6 ??                         .ds 1
62B7 ??                         .ds 1
62B8 ??          unk_0_62B8:     .ds 1                                          ; DATA XREF: sub_0_3A2+9↑o
62B9 ??          unk_0_62B9:     .ds 1
62BA ??          unk_0_62BA:     .ds 1                                          ; DATA XREF: sub_0_3A2+2F↑o
62BA                                                                            ; sub_0_3A2+3E↑w
62BB ??                         .ds 1
62BC ??                         .ds 1
62BD ??                         .ds 1
62BE ??                         .ds 1
62BF ??                         .ds 1
62C0 ??                         .ds 1
62C1 ??                         .ds 1
62C2 ??                         .ds 1
62C3 ??                         .ds 1
62C4 ??                         .ds 1
62C5 ??                         .ds 1
62C6 ??                         .ds 1
62C7 ??                         .ds 1
62C8 ??                         .ds 1
62C9 ??                         .ds 1
62CA ??                         .ds 1
62CB ??                         .ds 1
62CC ??                         .ds 1
62CD ??                         .ds 1
62CE ??                         .ds 1
62CF ??                         .ds 1
62D0 ??                         .ds 1
62D1 ??                         .ds 1
62D2 ??                         .ds 1
62D3 ??                         .ds 1
62D4 ??                         .ds 1
62D5 ??                         .ds 1
62D6 ??                         .ds 1
62D7 ??                         .ds 1
62D8 ??                         .ds 1
62D9 ??                         .ds 1
62DA ??                         .ds 1
62DB ??                         .ds 1
62DC ??                         .ds 1
62DD ??                         .ds 1
62DE ??                         .ds 1
62DF ??                         .ds 1
62E0 ??                         .ds 1
62E1 ??                         .ds 1
62E2 ??                         .ds 1
62E3 ??                         .ds 1
62E4 ??                         .ds 1
62E5 ??                         .ds 1
62E6 ??                         .ds 1
62E7 ??                         .ds 1
62E8 ??                         .ds 1
62E9 ??                         .ds 1
62EA ??                         .ds 1
62EB ??                         .ds 1
62EC ??                         .ds 1
62ED ??                         .ds 1
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62EE ??                      .ds 1
62EF ??                      .ds 1
62F0 ??                      .ds 1
62F1 ??                      .ds 1
62F2 ??                      .ds 1
62F3 ??                      .ds 1
62F4 ??                      .ds 1
62F5 ??                      .ds 1
62F6 ??                      .ds 1
62F7 ??                      .ds 1
62F8 ??                      .ds 1
62F9 ??                      .ds 1
62FA ??                      .ds 1
62FB ??                      .ds 1
62FC ??                      .ds 1
62FD ??                      .ds 1
62FE ??                      .ds 1
62FF ??                      .ds 1
6300 ??          unk_0_6300:  .ds 1                                ; DATA XREF: sub_0_236E↑o
6300                                                               ; sub_0_2441+30↑o
6301 ??                      .ds 1
6302 ??                      .ds 1
6303 ??                      .ds 1
6304 ??                      .ds 1
6305 ??                      .ds 1
6306 ??                      .ds 1
6307 ??                      .ds 1
6308 ??                      .ds 1
6309 ??                      .ds 1
630A ??                      .ds 1
630B ??                      .ds 1
630C ??                      .ds 1
630D ??                      .ds 1
630E ??                      .ds 1
630F ??                      .ds 1
6310 ??          unk_0_6310:  .ds 1                                ; DATA XREF: sub_0_2441+B↑o
6311 ??                      .ds 1
6312 ??                      .ds 1
6313 ??                      .ds 1
6314 ??                      .ds 1
6315 ??                      .ds 1
6316 ??                      .ds 1
6317 ??                      .ds 1
6318 ??                      .ds 1
6319 ??                      .ds 1
631A ??                      .ds 1
631B ??                      .ds 1
631C ??                      .ds 1
631D ??                      .ds 1
631E ??                      .ds 1
631F ??                      .ds 1
6320 ??                      .ds 1
6321 ??                      .ds 1
6322 ??                      .ds 1
6323 ??                      .ds 1
6324 ??                      .ds 1
6325 ??                      .ds 1
6326 ??                      .ds 1
6327 ??                      .ds 1
6328 ??                      .ds 1
6329 ??                      .ds 1
632A ??                      .ds 1
632B ??                      .ds 1
632C ??                      .ds 1
632D ??                      .ds 1
632E ??                      .ds 1
632F ??                      .ds 1
6330 ??                      .ds 1
6331 ??                      .ds 1
6332 ??                      .ds 1
6333 ??                      .ds 1
6334 ??                      .ds 1
6335 ??                      .ds 1
6336 ??                      .ds 1
6337 ??                      .ds 1
6338 ??                      .ds 1
6339 ??                      .ds 1
633A ??                      .ds 1
633B ??                      .ds 1
633C ??                      .ds 1
633D ??                      .ds 1
633E ??                      .ds 1
633F ??                      .ds 1
6340 ??          unk_0_6340:  .ds 1
6341 ??          unk_0_6341:  .ds 1                                ; DATA XREF: sub_0_1DBD+E↑w
6341                                                               ; 0000:1E4A↑o
6342 ??          unk_0_6342:  .ds 1
6343 ??          unk_0_6343:  .ds 1
6344 ??                      .ds 1
6345 ??          unk_0_6345:  .ds 1                                ; DATA XREF: sub_0_1E96↑r
6345                                                               ; sub_0_1E96+60↑o
6346 ??          unk_0_6346:  .ds 1                                ; DATA XREF: 0000:1F09↑o
6346                                                               ; 0000:1F23↑o
6347 ??                      .ds 1
6348 ??          unk_0_6348:  .ds 1
6349 ??                      .ds 1
634A ??                      .ds 1
634B ??                      .ds 1
634C ??                      .ds 1
634D ??                      .ds 1
634E ??                      .ds 1
634F ??                      .ds 1
6350 ??          unk_0_6350:  .ds 1
6351 ??          unk_0_6351:  .ds 1
6352 ??          unk_0_6352:  .ds 1
6353 ??          unk_0_6353:  .ds 1
6354 ??          unk_0_6354:  .ds 1
6355 ??                      .ds 1
6356 ??                      .ds 1
6357 ??                      .ds 1
6358 ??                      .ds 1
6359 ??                      .ds 1
635A ??                      .ds 1
635B ??                      .ds 1
635C ??                      .ds 1
635D ??                      .ds 1
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635E ??                          .ds 1
635F ??                          .ds 1
6360 ??                          .ds 1
6361 ??                          .ds 1
6362 ??                          .ds 1
6363 ??                          .ds 1
6364 ??                          .ds 1
6365 ??                          .ds 1
6366 ??                          .ds 1
6367 ??                          .ds 1
6368 ??                          .ds 1
6369 ??                          .ds 1
636A ??                          .ds 1
636B ??                          .ds 1
636C ??                          .ds 1
636D ??                          .ds 1
636E ??                          .ds 1
636F ??                          .ds 1
6370 ??                          .ds 1
6371 ??                          .ds 1
6372 ??                          .ds 1
6373 ??                          .ds 1
6374 ??                          .ds 1
6375 ??                          .ds 1
6376 ??                          .ds 1
6377 ??                          .ds 1
6378 ??                          .ds 1
6379 ??                          .ds 1
637A ??                          .ds 1
637B ??                          .ds 1
637C ??                          .ds 1
637D ??                          .ds 1
637E ??                          .ds 1
637F ??                          .ds 1
6380 ??          unk_0_6380:     .ds 1
6381 ??          unk_0_6381:     .ds 1                   ; DATA XREF: sub_0_37F+7↑o
6382 ??          unk_0_6382:     .ds 1
6383 ??          unk_0_6383:     .ds 1                   ; DATA XREF: 0000:02D1↑o
6384 ??          unk_0_6384:     .ds 1                   ; DATA XREF: sub_0_37F↑o
6385 ??          intro_sequencer:.ds 1                   ; DATA XREF: 0000:0A76↑r
6385                                                     ; 0000:0ABA↑o ...
6386 ??          unk_0_6386:     .ds 1
6387 ??          unk_0_6387:     .ds 1
6388 ??          unk_0_6388:     .ds 1                   ; DATA XREF: 0000:161F↑r
6388                                                     ; 0000:1633↑r ...
6389 ??          unk_0_6389:     .ds 1
638A ??          unk_0_638A:     .ds 1                   ; DATA XREF: 0000:07CB↑r
638A                                                     ; 0000:07D5↑w ...
638B ??          unk_0_638B:     .ds 1
638C ??          bonus_timer:    .ds 1
638D ??          unk_0_638D:     .ds 1                   ; DATA XREF: 0000:0B58↑w
638D                                                     ; 0000:0B94↑r ...
638E ??          unk_0_638E:     .ds 1                   ; DATA XREF: 0000:0AD4↑w
638E                                                     ; 0000:0B3B↑r ...
638F ??          unk_0_638F:     .ds 1                   ; DATA XREF: sub_0_2C03+4C↑w
638F                                                     ; sub_0_2C8F+8D↑r ...
6390 ??          kong_thrash_tmr:.ds 1                   ; DATA XREF: animate_kong_and_pauline+2B↑o
6390                                                     ; animate_kong_and_pauline+8B↑r ...
6391 ??          kong_thrash_flag:.ds 1
6392 ??          unk_0_6392:     .ds 1
6393 ??          barrel_deployment:.ds 1
6394 ??          unk_0_6394:     .ds 1                   ; DATA XREF: sub_0_2ED4+4A↑r
6394                                                     ; sub_0_2ED4+75↑o
6395 ??          unk_0_6395:     .ds 1                   ; DATA XREF: sub_0_2ED4+7C↑o
6395                                                     ; sub_0_2ED4+87↑w ...
6396 ??          unk_0_6396:     .ds 1
6397 ??                          .ds 1
6398 ??          mario_on_elevator:.ds 1
6399 ??                          .ds 1
639A ??          unk_0_639A:     .ds 1
639B ??          unk_0_639B:     .ds 1                   ; DATA XREF: sub_0_2523↑o
639B                                                     ; sub_0_2523+65↑w
639C ??                          .ds 1
639D ??          unk_0_639D:     .ds 1                   ; DATA XREF: 0000:127F↑r
639D                                                     ; 0000:1295↑o ...
639E ??          unk_0_639E:     .ds 1                   ; DATA XREF: 0000:129B↑w
639E                                                     ; 0000:12B2↑o
639F ??                          .ds 1
63A0 ??          unk_0_63A0:     .ds 1                   ; DATA XREF: sub_0_3A2+39↑w
63A0                                                     ; 0000:0768↑w ...
63A1 ??          unk_0_63A1:     .ds 1
63A2 ??          unk_0_63A2:     .ds 1
63A3 ??          unk_0_63A3:     .ds 1
63A4 ??          unk_0_63A4:     .ds 1
63A5 ??          unk_0_63A5:     .ds 1
63A6 ??          unk_0_63A6:     .ds 1
63A7 ??          unk_0_63A7:     .ds 1                   ; DATA XREF: 0000:0BFA↑o
63A7                                                     ; 0000:0C43↑r ...
63A8 ??          unk_0_63A8:     .ds 1
63A9 ??                          .ds 1
63AA ??                          .ds 1
63AB ??          unk_0_63AB:     .ds 1
63AC ??                          .ds 1
63AD ??          unk_0_63AD:     .ds 1
63AE ??                          .ds 1
63AF ??          unk_0_63AF:     .ds 1
63B0 ??          unk_0_63B0:     .ds 1
63B1 ??          unk_0_63B1:     .ds 1
63B2 ??          unk_0_63B2:     .ds 1
63B3 ??          unk_0_63B3:     .ds 1
63B4 ??          unk_0_63B4:     .ds 1
63B5 ??          unk_0_63B5:     .ds 1
63B6 ??                          .ds 1
63B7 ??          unk_0_63B7:     .ds 1
63B8 ??          unk_0_63B8:     .ds 1                   ; DATA XREF: 0000:0635↑r
63B8                                                     ; 0000:06AC↑o
63B9 ??          unk_0_63B9:     .ds 1
63BA ??                          .ds 1
63BB ??                          .ds 1
63BC ??                          .ds 1
63BD ??                          .ds 1
63BE ??                          .ds 1
63BF ??                          .ds 1
63C0 ??          unk_0_63C0:     .ds 1
63C1 ??                          .ds 1
63C2 ??          unk_0_63C2:     .ds 1
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63C3 ??                          .ds 1
63C4 ??          unk_0_63C4:      .ds 1
63C5 ??                          .ds 1
63C6 ??                          .ds 1
63C7 ??                          .ds 1
63C8 ??          unk_0_63C8:      .ds 1
63C9 ??                          .ds 1
63CA ??                          .ds 1
63CB ??                          .ds 1
63CC ??          attract_movement_entry:.ds 1                              ; DATA XREF: next_attract_action+3↑o
63CD ??                          .ds 1
63CE ??                          .ds 1
63CF ??                          .ds 1
63D0 ??                          .ds 1
63D1 ??                          .ds 1
63D2 ??                          .ds 1
63D3 ??                          .ds 1
63D4 ??                          .ds 1
63D5 ??                          .ds 1
63D6 ??                          .ds 1
63D7 ??                          .ds 1
63D8 ??                          .ds 1
63D9 ??                          .ds 1
63DA ??                          .ds 1
63DB ??                          .ds 1
63DC ??                          .ds 1
63DD ??                          .ds 1
63DE ??                          .ds 1
63DF ??                          .ds 1
63E0 ??          unk_0_63E0:      .ds 1                                     ; DATA XREF: sub_0_31B1+7↑o
63E1 ??                          .ds 1
63E2 ??                          .ds 1
63E3 ??                          .ds 1
63E4 ??                          .ds 1
63E5 ??                          .ds 1
63E6 ??                          .ds 1
63E7 ??                          .ds 1
63E8 ??                          .ds 1
63E9 ??                          .ds 1
63EA ??                          .ds 1
63EB ??                          .ds 1
63EC ??                          .ds 1
63ED ??                          .ds 1
63EE ??                          .ds 1
63EF ??                          .ds 1
63F0 ??                          .ds 1
63F1 ??                          .ds 1
63F2 ??                          .ds 1
63F3 ??                          .ds 1
63F4 ??                          .ds 1
63F5 ??                          .ds 1
63F6 ??                          .ds 1
63F7 ??                          .ds 1
63F8 ??                          .ds 1
63F9 ??                          .ds 1
63FA ??                          .ds 1
63FB ??                          .ds 1
63FC ??                          .ds 1
63FD ??                          .ds 1
63FE ??                          .ds 1
63FF ??                          .ds 1
6400 ??          unk_0_6400:      .ds 1                                     ; DATA XREF: 0000:10E9↑o
6400                                                                       ; sub_0_286F+2A↑o ...
6401 ??                          .ds 1
6402 ??                          .ds 1
6403 ??                          .ds 1
6404 ??                          .ds 1
6405 ??                          .ds 1
6406 ??                          .ds 1
6407 ??          unk_0_6407:      .ds 1                                     ; DATA XREF: 0000:0FE5↑o
6407                                                                       ; 0000:1022↑o ...
6408 ??                          .ds 1
6409 ??                          .ds 1
640A ??                          .ds 1
640B ??                          .ds 1
640C ??                          .ds 1
640D ??                          .ds 1
640E ??                          .ds 1
640F ??                          .ds 1
6410 ??                          .ds 1
6411 ??                          .ds 1
6412 ??                          .ds 1
6413 ??                          .ds 1
6414 ??                          .ds 1
6415 ??                          .ds 1
6416 ??                          .ds 1
6417 ??                          .ds 1
6418 ??                          .ds 1
6419 ??                          .ds 1
641A ??                          .ds 1
641B ??                          .ds 1
641C ??                          .ds 1
641D ??                          .ds 1
641E ??                          .ds 1
641F ??                          .ds 1
6420 ??                          .ds 1
6421 ??                          .ds 1
6422 ??                          .ds 1
6423 ??                          .ds 1
6424 ??                          .ds 1
6425 ??                          .ds 1
6426 ??                          .ds 1
6427 ??                          .ds 1
6428 ??                          .ds 1
6429 ??                          .ds 1
642A ??                          .ds 1
642B ??                          .ds 1
642C ??                          .ds 1
642D ??                          .ds 1
642E ??                          .ds 1
642F ??                          .ds 1
6430 ??                          .ds 1
6431 ??                          .ds 1
6432 ??                          .ds 1
6433 ??                          .ds 1
6434 ??                          .ds 1
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6435 ??                         .ds 1
6436 ??                         .ds 1
6437 ??                         .ds 1
6438 ??                         .ds 1
6439 ??          unk_0_6439:     .ds 1                                          ; DATA XREF: sub_0_31DD+C↑o
643A ??                         .ds 1
643B ??                         .ds 1
643C ??                         .ds 1
643D ??                         .ds 1
643E ??                         .ds 1
643F ??                         .ds 1
6440 ??                         .ds 1
6441 ??                         .ds 1
6442 ??                         .ds 1
6443 ??                         .ds 1
6444 ??                         .ds 1
6445 ??                         .ds 1
6446 ??                         .ds 1
6447 ??                         .ds 1
6448 ??                         .ds 1
6449 ??                         .ds 1
644A ??                         .ds 1
644B ??                         .ds 1
644C ??                         .ds 1
644D ??                         .ds 1
644E ??                         .ds 1
644F ??                         .ds 1
6450 ??                         .ds 1
6451 ??                         .ds 1
6452 ??                         .ds 1
6453 ??                         .ds 1
6454 ??                         .ds 1
6455 ??                         .ds 1
6456 ??                         .ds 1
6457 ??                         .ds 1
6458 ??                         .ds 1
6459 ??                         .ds 1
645A ??                         .ds 1
645B ??                         .ds 1
645C ??                         .ds 1
645D ??                         .ds 1
645E ??                         .ds 1
645F ??                         .ds 1
6460 ??                         .ds 1
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646A ??                         .ds 1
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646C ??                         .ds 1
646D ??                         .ds 1
646E ??                         .ds 1
646F ??                         .ds 1
6470 ??                         .ds 1
6471 ??                         .ds 1
6472 ??                         .ds 1
6473 ??                         .ds 1
6474 ??                         .ds 1
6475 ??                         .ds 1
6476 ??                         .ds 1
6477 ??                         .ds 1
6478 ??                         .ds 1
6479 ??          unk_0_6479:     .ds 1                                          ; DATA XREF: sub_0_31DD+12↑o
647A ??                         .ds 1
647B ??                         .ds 1
647C ??                         .ds 1
647D ??                         .ds 1
647E ??                         .ds 1
647F ??                         .ds 1
6480 ??                         .ds 1
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6489 ??                         .ds 1
648A ??                         .ds 1
648B ??                         .ds 1
648C ??                         .ds 1
648D ??                         .ds 1
648E ??                         .ds 1
648F ??                         .ds 1
6490 ??                         .ds 1
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6493 ??                         .ds 1
6494 ??                         .ds 1
6495 ??                         .ds 1
6496 ??                         .ds 1
6497 ??                         .ds 1
6498 ??                         .ds 1
6499 ??                         .ds 1
649A ??                         .ds 1
649B ??                         .ds 1
649C ??                         .ds 1
649D ??                         .ds 1
649E ??                         .ds 1
649F ??                         .ds 1
64A0 ??          unk_0_64A0:     .ds 1                                          ; DATA XREF: 0000:1166↑o
64A1 ??                         .ds 1
64A2 ??                         .ds 1
64A3 ??          unk_0_64A3:     .ds 1                                          ; DATA XREF: 0000:1151↑o
64A4 ??                         .ds 1
64A5 ??                         .ds 1
64A6 ??                         .ds 1
64A7 ??          unk_0_64A7:     .ds 1                                          ; DATA XREF: 0000:115D↑o
64A8 ??                         .ds 1
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64A9 ??                          .ds 1
64AA ??                          .ds 1
64AB ??                          .ds 1
64AC ??                          .ds 1
64AD ??                          .ds 1
64AE ??                          .ds 1
64AF ??                          .ds 1
64B0 ??                          .ds 1
64B1 ??                          .ds 1
64B2 ??                          .ds 1
64B3 ??                          .ds 1
64B4 ??                          .ds 1
64B5 ??                          .ds 1
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64B7 ??                          .ds 1
64B8 ??                          .ds 1
64B9 ??                          .ds 1
64BA ??                          .ds 1
64BB ??                          .ds 1
64BC ??                          .ds 1
64BD ??                          .ds 1
64BE ??                          .ds 1
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64C0 ??                          .ds 1
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64C8 ??                          .ds 1
64C9 ??                          .ds 1
64CA ??                          .ds 1
64CB ??                          .ds 1
64CC ??                          .ds 1
64CD ??                          .ds 1
64CE ??                          .ds 1
64CF ??                          .ds 1
64D0 ??                          .ds 1
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64D7 ??                          .ds 1
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64D9 ??                          .ds 1
64DA ??                          .ds 1
64DB ??                          .ds 1
64DC ??                          .ds 1
64DD ??                          .ds 1
64DE ??                          .ds 1
64DF ??                          .ds 1
64E0 ??                          .ds 1
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64E9 ??                          .ds 1
64EA ??                          .ds 1
64EB ??                          .ds 1
64EC ??                          .ds 1
64ED ??                          .ds 1
64EE ??                          .ds 1
64EF ??                          .ds 1
64F0 ??                          .ds 1
64F1 ??                          .ds 1
64F2 ??                          .ds 1
64F3 ??                          .ds 1
64F4 ??                          .ds 1
64F5 ??                          .ds 1
64F6 ??                          .ds 1
64F7 ??                          .ds 1
64F8 ??                          .ds 1
64F9 ??                          .ds 1
64FA ??                          .ds 1
64FB ??                          .ds 1
64FC ??                          .ds 1
64FD ??                          .ds 1
64FE ??                          .ds 1
64FF ??                          .ds 1
6500 ??          unk_0_6500:     .ds 1                                    ; DATA XREF: sub_0_1186+C↑o
6500                                                                      ; 0000:28F9↑o ...
6501 ??                          .ds 1
6502 ??                          .ds 1
6503 ??                          .ds 1
6504 ??                          .ds 1
6505 ??                          .ds 1
6506 ??                          .ds 1
6507 ??          unk_0_6507:     .ds 1                                    ; DATA XREF: sub_0_1186+3↑o
6508 ??                          .ds 1
6509 ??                          .ds 1
650A ??                          .ds 1
650B ??                          .ds 1
650C ??                          .ds 1
650D ??                          .ds 1
650E ??                          .ds 1
650F ??                          .ds 1
6510 ??                          .ds 1
6511 ??                          .ds 1
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6513 ??                          .ds 1
6514 ??                          .ds 1
6515 ??                          .ds 1
6516 ??                          .ds 1
6517 ??                          .ds 1
6518 ??                          .ds 1
6519 ??                          .ds 1
651A ??                          .ds 1
651B ??                          .ds 1
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651C ??                         .ds 1
651D ??                         .ds 1
651E ??                         .ds 1
651F ??                         .ds 1
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6523 ??                         .ds 1
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6588 ??                         .ds 1
6589 ??                         .ds 1
658A ??                         .ds 1
658B ??                         .ds 1
658C ??                         .ds 1
658D ??                         .ds 1
658E ??                         .ds 1
658F ??                         .ds 1
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6590 ??                         .ds 1
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6599 ??                         .ds 1
659A ??                         .ds 1
659B ??                         .ds 1
659C ??                         .ds 1
659D ??                         .ds 1
659E ??                         .ds 1
659F ??                         .ds 1
65A0 ??          unk_0_65A0:    .ds 1                           ; DATA XREF: 0000:103A↑o
65A0                                                            ; sub_0_24EA+9↑o ...
65A1 ??                         .ds 1
65A2 ??                         .ds 1
65A3 ??                         .ds 1
65A4 ??                         .ds 1
65A5 ??                         .ds 1
65A6 ??                         .ds 1
65A7 ??          unk_0_65A7:    .ds 1                           ; DATA XREF: 0000:1031↑o
65A8 ??                         .ds 1
65A9 ??                         .ds 1
65AA ??                         .ds 1
65AB ??                         .ds 1
65AC ??                         .ds 1
65AD ??                         .ds 1
65AE ??                         .ds 1
65AF ??                         .ds 1
65B0 ??                         .ds 1
65B1 ??                         .ds 1
65B2 ??                         .ds 1
65B3 ??                         .ds 1
65B4 ??                         .ds 1
65B5 ??                         .ds 1
65B6 ??                         .ds 1
65B7 ??                         .ds 1
65B8 ??                         .ds 1
65B9 ??                         .ds 1
65BA ??                         .ds 1
65BB ??                         .ds 1
65BC ??                         .ds 1
65BD ??                         .ds 1
65BE ??                         .ds 1
65BF ??                         .ds 1
65C0 ??                         .ds 1
65C1 ??                         .ds 1
65C2 ??                         .ds 1
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65C4 ??                         .ds 1
65C5 ??                         .ds 1
65C6 ??                         .ds 1
65C7 ??                         .ds 1
65C8 ??                         .ds 1
65C9 ??                         .ds 1
65CA ??                         .ds 1
65CB ??                         .ds 1
65CC ??                         .ds 1
65CD ??                         .ds 1
65CE ??                         .ds 1
65CF ??                         .ds 1
65D0 ??                         .ds 1
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65D3 ??                         .ds 1
65D4 ??                         .ds 1
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65D6 ??                         .ds 1
65D7 ??                         .ds 1
65D8 ??                         .ds 1
65D9 ??                         .ds 1
65DA ??                         .ds 1
65DB ??                         .ds 1
65DC ??                         .ds 1
65DD ??                         .ds 1
65DE ??                         .ds 1
65DF ??                         .ds 1
65E0 ??                         .ds 1
65E1 ??                         .ds 1
65E2 ??                         .ds 1
65E3 ??                         .ds 1
65E4 ??                         .ds 1
65E5 ??                         .ds 1
65E6 ??                         .ds 1
65E7 ??                         .ds 1
65E8 ??                         .ds 1
65E9 ??                         .ds 1
65EA ??                         .ds 1
65EB ??                         .ds 1
65EC ??                         .ds 1
65ED ??                         .ds 1
65EE ??                         .ds 1
65EF ??                         .ds 1
65F0 ??                         .ds 1
65F1 ??                         .ds 1
65F2 ??                         .ds 1
65F3 ??                         .ds 1
65F4 ??                         .ds 1
65F5 ??                         .ds 1
65F6 ??                         .ds 1
65F7 ??                         .ds 1
65F8 ??                         .ds 1
65F9 ??                         .ds 1
65FA ??                         .ds 1
65FB ??                         .ds 1
65FC ??                         .ds 1
65FD ??                         .ds 1
65FE ??                         .ds 1
65FF ??                         .ds 1
6600 ??          unk_0_6600:    .ds 1                           ; DATA XREF: 0000:1096↑o
6600                                                            ; 0000:10CF↑o ...
6601 ??                         .ds 1
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6602 ??                      .ds 1
6603 ??          unk_0_6603:  .ds 1                                           ; DATA XREF: 0000:10BA↑o
6604 ??                      .ds 1
6605 ??                      .ds 1
6606 ??                      .ds 1
6607 ??          unk_0_6607:  .ds 1                                           ; DATA XREF: 0000:10C6↑o
6608 ??                      .ds 1
6609 ??                      .ds 1
660A ??                      .ds 1
660B ??                      .ds 1
660C ??                      .ds 1
660D ??          unk_0_660D:  .ds 1                                           ; DATA XREF: 0000:10AA↑o
660E ??                      .ds 1
660F ??                      .ds 1
6610 ??                      .ds 1
6611 ??                      .ds 1
6612 ??                      .ds 1
6613 ??                      .ds 1
6614 ??                      .ds 1
6615 ??                      .ds 1
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6618 ??                      .ds 1
6619 ??                      .ds 1
661A ??                      .ds 1
661B ??                      .ds 1
661C ??                      .ds 1
661D ??                      .ds 1
661E ??                      .ds 1
661F ??                      .ds 1
6620 ??                      .ds 1
6621 ??                      .ds 1
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662A ??                      .ds 1
662B ??                      .ds 1
662C ??                      .ds 1
662D ??                      .ds 1
662E ??                      .ds 1
662F ??                      .ds 1
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6637 ??                      .ds 1
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6639 ??                      .ds 1
663A ??                      .ds 1
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663C ??                      .ds 1
663D ??                      .ds 1
663E ??                      .ds 1
663F ??                      .ds 1
6640 ??                      .ds 1
6641 ??                      .ds 1
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664C ??                      .ds 1
664D ??                      .ds 1
664E ??                      .ds 1
664F ??                      .ds 1
6650 ??                      .ds 1
6651 ??                      .ds 1
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6659 ??                      .ds 1
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6665 ??                      .ds 1
6666 ??                      .ds 1
6667 ??                      .ds 1
6668 ??                      .ds 1
6669 ??                      .ds 1
666A ??                      .ds 1
666B ??                      .ds 1
666C ??                      .ds 1
666D ??                      .ds 1
666E ??                      .ds 1
666F ??                      .ds 1
6670 ??                      .ds 1
6671 ??                      .ds 1
6672 ??                      .ds 1
6673 ??                      .ds 1
6674 ??                      .ds 1
6675 ??                      .ds 1
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6676 ??                           .ds 1
6677 ??                           .ds 1
6678 ??                           .ds 1
6679 ??                           .ds 1
667A ??                           .ds 1
667B ??                           .ds 1
667C ??                           .ds 1
667D ??                           .ds 1
667E ??                           .ds 1
667F ??                           .ds 1
6680 ??            unk_0_6680:     .ds 1                                          ; DATA XREF: sub_0_11A6+15↑o
6680                                                                             ; sub_0_281D+5↑o ...
6681 ??                           .ds 1
6682 ??                           .ds 1
6683 ??            unk_0_6683:     .ds 1                                          ; DATA XREF: sub_0_11A6↑o
6684 ??                           .ds 1
6685 ??                           .ds 1
6686 ??                           .ds 1
6687 ??            unk_0_6687:     .ds 1                                          ; DATA XREF: sub_0_11A6+C↑o
6688 ??                           .ds 1
6689 ??                           .ds 1
668A ??                           .ds 1
668B ??                           .ds 1
668C ??                           .ds 1
668D ??                           .ds 1
668E ??                           .ds 1
668F ??                           .ds 1
6690 ??            unk_0_6690:     .ds 1                                          ; DATA XREF: sub_0_2ED4+15↑o
6691 ??                           .ds 1
6692 ??                           .ds 1
6693 ??                           .ds 1
6694 ??                           .ds 1
6695 ??                           .ds 1
6696 ??                           .ds 1
6697 ??                           .ds 1
6698 ??                           .ds 1
6699 ??                           .ds 1
669A ??                           .ds 1
669B ??                           .ds 1
669C ??                           .ds 1
669D ??                           .ds 1
669E ??                           .ds 1
669F ??                           .ds 1
66A0 ??            unk_0_66A0:     .ds 1                                          ; DATA XREF: sub_0_3A2+1A↑o
66A0                                                                             ; sub_0_11FA↑o ...
66A1 ??                           .ds 1
66A2 ??                           .ds 1
66A3 ??                           .ds 1
66A4 ??                           .ds 1
66A5 ??                           .ds 1
66A6 ??                           .ds 1
66A7 ??                           .ds 1
66A8 ??                           .ds 1
66A9 ??                           .ds 1
66AA ??                           .ds 1
66AB ??                           .ds 1
66AC ??                           .ds 1
66AD ??                           .ds 1
66AE ??                           .ds 1
66AF ??                           .ds 1
66B0 ??                           .ds 1
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66B2 ??                           .ds 1
66B3 ??                           .ds 1
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66B5 ??                           .ds 1
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66B9 ??                           .ds 1
66BA ??                           .ds 1
66BB ??                           .ds 1
66BC ??                           .ds 1
66BD ??                           .ds 1
66BE ??                           .ds 1
66BF ??                           .ds 1
66C0 ??                           .ds 1
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66C5 ??                           .ds 1
66C6 ??                           .ds 1
66C7 ??                           .ds 1
66C8 ??                           .ds 1
66C9 ??                           .ds 1
66CA ??                           .ds 1
66CB ??                           .ds 1
66CC ??                           .ds 1
66CD ??                           .ds 1
66CE ??                           .ds 1
66CF ??                           .ds 1
66D0 ??                           .ds 1
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66D2 ??                           .ds 1
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66D7 ??                           .ds 1
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66D9 ??                           .ds 1
66DA ??                           .ds 1
66DB ??                           .ds 1
66DC ??                           .ds 1
66DD ??                           .ds 1
66DE ??                           .ds 1
66DF ??                           .ds 1
66E0 ??                           .ds 1
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66E2 ??                           .ds 1
66E3 ??                           .ds 1
66E4 ??                           .ds 1
66E5 ??                           .ds 1
66E6 ??                           .ds 1
66E7 ??                           .ds 1
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66E8 ??                          .ds 1
66E9 ??                          .ds 1
66EA ??                          .ds 1
66EB ??                          .ds 1
66EC ??                          .ds 1
66ED ??                          .ds 1
66EE ??                          .ds 1
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66F3 ??                          .ds 1
66F4 ??                          .ds 1
66F5 ??                          .ds 1
66F6 ??                          .ds 1
66F7 ??                          .ds 1
66F8 ??                          .ds 1
66F9 ??                          .ds 1
66FA ??                          .ds 1
66FB ??                          .ds 1
66FC ??                          .ds 1
66FD ??                          .ds 1
66FE ??                          .ds 1
66FF ??                          .ds 1
6700 ??          unk_0_6700:     .ds 1                                    ; DATA XREF: sub_0_1F72+5↑o
6700                                                                      ; sub_0_286F+1B↑o ...
6701 ??                          .ds 1
6702 ??                          .ds 1
6703 ??                          .ds 1
6704 ??                          .ds 1
6705 ??                          .ds 1
6706 ??                          .ds 1
6707 ??          unk_0_6707:     .ds 1                                    ; DATA XREF: 0000:1009↑o
6708 ??                          .ds 1
6709 ??                          .ds 1
670A ??                          .ds 1
670B ??                          .ds 1
670C ??                          .ds 1
670D ??                          .ds 1
670E ??                          .ds 1
670F ??                          .ds 1
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671A ??                          .ds 1
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671C ??                          .ds 1
671D ??                          .ds 1
671E ??                          .ds 1
671F ??                          .ds 1
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6729 ??                          .ds 1
672A ??                          .ds 1
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672C ??                          .ds 1
672D ??                          .ds 1
672E ??                          .ds 1
672F ??                          .ds 1
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673D ??                          .ds 1
673E ??                          .ds 1
673F ??                          .ds 1
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6742 ??                          .ds 1
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6747 ??                          .ds 1
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6749 ??                          .ds 1
674A ??                          .ds 1
674B ??                          .ds 1
674C ??                          .ds 1
674D ??                          .ds 1
674E ??                          .ds 1
674F ??                          .ds 1
6750 ??                          .ds 1
6751 ??                          .ds 1
6752 ??                          .ds 1
6753 ??                          .ds 1
6754 ??                          .ds 1
6755 ??                          .ds 1
6756 ??                          .ds 1
6757 ??                          .ds 1
6758 ??                          .ds 1
6759 ??                          .ds 1
675A ??                          .ds 1
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675B ??                          .ds 1
675C ??                          .ds 1
675D ??                          .ds 1
675E ??                          .ds 1
675F ??                          .ds 1
6760 ??                          .ds 1
6761 ??                          .ds 1
6762 ??                          .ds 1
6763 ??                          .ds 1
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6900 ?? ?? ?? ??+                                   ;   0- 1 = pauline
6900 ?? ?? ?? ??+                                   ;   2-11 = kong
6900 ?? ?? ?? ??+                                   ; 12-
6900 ?? ?? ?? ??+                                   ;     19 = mario
6A80 ??                          .ds 1
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6BEE ??                          .ds 1
6BEF ??                          .ds 1
6BF0 ??                          .ds 1
6BF1 ??                          .ds 1
6BF2 ??                          .ds 1
6BF3 ??                          .ds 1
6BF4 ??                          .ds 1
6BF5 ??                          .ds 1
6BF6 ??                          .ds 1
6BF7 ??                          .ds 1
6BF8 ??                          .ds 1
6BF9 ??                          .ds 1
6BFA ??                          .ds 1
6BFB ??                          .ds 1
6BFC ??                          .ds 1
6BFD ??                          .ds 1
6BFE ??                          .ds 1
6BFF ??                          .ds 1
6BFF             ; end of 'RAM'
```

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```

```
6BFF
7000                 ; ═══════════════════════════════════════════════════════════════
7000
7000                 ; Segment type: Regular
7000                 ; segment 'SPRAM'
7000                                 .org 0x7000
7000 ?? ?? ?? ??+SPRAM_start:      .ds 0x400                           ; DATA XREF: 0000:013D↑o
7000 ?? ?? ?? ??+                                                      ; 0000:0276↑o
7000 ?? ?? ?? ??+; end of 'SPRAM'                                      ; 2 banks of 128 sprites
7000 ?? ?? ?? ??+                                                      ; - only 16 displayed per scanline
7000 ?? ?? ?? ??+                                                      ; @0 7:0=y
7000 ?? ?? ?? ??+                                                      ; @1 7=flipy,6:0=code
7000 ?? ?? ?? ??+                                                      ; @2 7=flipx,3:0=colour
7000 ?? ?? ?? ??+                                                      ; @3 7:0=x
7400                 ; ═══════════════════════════════════════════════════════════════
7400
7400                 ; Segment type: Regular
7400                 ; segment 'VRAM'
7400                                 .org 0x7400
7400 ?? ?? ?? ??+VRAM_start:       .ds 0x400                           ; DATA XREF: 0000:0285↑o
7400 ?? ?? ?? ??+                                                      ; clear_tiles_and_sprites↑o ...
7400 ?? ?? ?? ??+; end of 'VRAM'
7400 ?? ?? ?? ??+
7800                 ; ═══════════════════════════════════════════════════════════════
7800
7800                 ; Segment type: Regular
7800                 ; segment 'I8257'
7800                                 .org 0x7800
7800 ?? ?? ?? ??+i8257_io:         .ds 0x10
7800 ?? ?? ?? ??+; end of 'I8257'
7800 ?? ?? ?? ??+
7C00                 ; ═══════════════════════════════════════════════════════════════
7C00
7C00                 ; Segment type: Regular
7C00                 ; segment 'IN0'
7C00                                 .org 0x7C00
7C00 ??          in0:              .ds 1
7C00                 ; end of 'IN0'
7C00
7C80                 ; ═══════════════════════════════════════════════════════════════
7C80
7C80                 ; Segment type: Regular
7C80                 ; segment 'IN1'
7C80                                 .org 0x7C80
7C80 ??          in1:              .ds 1
7C80                 ; end of 'IN1'
7C80
7D00                 ; ═══════════════════════════════════════════════════════════════
7D00
7D00                 ; Segment type: Regular
7D00                 ; segment 'IO'
7D00                                 .org 0x7D00
7D00 ??          in2_snd_latch:    .ds 1                               ; DATA XREF: 0000:0072↑r
7D00                                                                   ; update_sounds+3↑o ...
7D01 ??                            .ds 1
7D02 ??                            .ds 1
7D03 ??                            .ds 1
7D04 ??                            .ds 1
7D05 ??                            .ds 1
7D06 ??                            .ds 1
7D07 ??                            .ds 1
7D08 ?? ?? ?? ??+                  .ds 0x78
7D80 ??          dsw_audio_irq:    .ds 1
7D81 ??                            .ds 1
7D82 ??          flipscreen:       .ds 1                               ; DATA XREF: 0000:01E4↑w
7D82                                                                   ; 0000:02AF↑w ...
7D83 ??          spritebank:       .ds 1
7D84 ??          nmi_mask:         .ds 1
7D85 ??          p8257_drq:        .ds 1
7D86 ?? ??       palette_bank:     .ds 2                               ; DATA XREF: 0000:02A8↑w
7D86                                                                   ; 0000:0779↑o ...
7D88 ?? ?? ?? ??+                  .ds 0x78
7D88 ?? ?? ?? ??+; end of 'IO'
7D88 ?? ?? ?? ??+
7D88 ?? ?? ?? ??+; end of file
```