## Field RAM

This is a list of the RAM locations used by the field program (i.e. the main program that controls all non-world maps). The majority of the code that uses this data is in bank CO.

## \$0000-\$00FF: Field Direct Page

```
    +$00 Always #$0000
    +$02 Always #$FFFF
    +$04 Buttons Pressed this Frame (unmapped)
    +$06 Buttons Pressed this Frame (mapped based on button config)
    +$08 Buttons Pressed this Frame but not Last Frame
    +$0A Buttons in Repeat Mode
    +$0C Buttons Pressed Last Frame
    axlr----
    a: A button down
    x: X button down
    l: L button down
    r: R button down
    byetudlr
    b: B button down
    y: Y button down
    e: Select button down
    t: Start button down
    u: Up direction down
    d: Down direction down
    l: Left direction down
    r: Right direction down
$0E-$3F Scratchpad RAM
$40-$44 -
    $45 Frame Counter (gets incremented every NMI, never gets cleared)
    $46 VBlank Counter (gets incremented every NMI, can be cleared for frame
counting)
    $47 Event Counter (gets incremented every VBlank, never gets cleared)
    + $48 Pointer to Current Location in Object Animation Queue (+$10F7)
    $4A i--fffff
        i: Fade In/Out Toggle (0 = fading out, 1 = fading in)
        f: Fade Speed
    $4B iccccccc
        i: Fixed Color In/Out Toggle (0 = fading out, 1 = fading in)
        c: Fixed Color Speed
    $4C Current Screen Brightness (upper 4 bits active)
    $4D Current Screen Fixed Color Intensity (upper 5 bits active, goes to
$2132)
    $4E shbo4321 Current Color Add/Sub Designation (goes to $2131)
        s: enable color subtraction
        h: enable half color add/sub
        b: affect backdrop
```

```
    o: affect objects
    4: affect bg4
    3: affect bg3
    2: affect bg2
    1: affect bg1
    $4F Saved Color Add/Sub Designation (goes to $4E after color saturation
is complete)
    $50 ccmm--sd Color Addition Select (goes to $2130, always #$22)
    c: Clip colors to black before math (00 = Never, 01 = Outside Color
Window only, 10 = Inside Color Window only, 11 = Always)
    m: Prevent color math (00 = Never, 01 = Outside Color Window only,
10 = Inside Color Window only, 11 = Always)
    s: Add subscreen (instead of fixed color)
    d: Direct color mode for 256-color BGs
    $51 ---o4321 Main Screen Designation (goes to $212C)
            o: objects enabled in subscreen
            4: bg4 enabled
            3: bg3 enabled
            2: bg2 enabled
            1: bgl enabled (always set for main screen)
    $52 ---o4321 Current Sub Screen Designation (goes to $212D)
    $53 Saved Sub Screen Designation (goes to $52 after color saturation is
complete)
    $54 bgriiiii Fixed Color Add/Sub Data
            b: affect blue
            g: affect green
            r: affect red
            t: target color intensity (5 bits, low 2 bits always set)
            $55 VBlank Disable (gets set every VBlank)
    $56 Battle Enable
    $57 Random Battles Enabled
    $58 Re-load the same map
    $59 Open Menu
    $5A -----321
        3: bg3 map needs to be flipped
        2: bg2 map needs to be flipped
    1: bg1 map needs to be flipped
+++ $5B tttttttt ttttpppp xxxxxxxx
            t: BG1 Horizontal Scroll Position (in tiles)
            p: BG1 Horizontal Scroll Position (in pixels)
            x: BG1 Horizontal Scroll Position (in pixels/256)
+++ $5F tttttttt ttttpppp xxxxxxxx
            t: BG1 Vertical Scroll Position (in tiles)
            p: BG1 Vertical Scroll Position (in pixels)
            x: BG1 Vertical Scroll Position (in pixels/256)
+++ $63 tttttttt ttttpppp xxxxxxxx
            t: BG2 Horizontal Scroll Position (in tiles)
            p: BG2 Horizontal Scroll Position (in pixels)
            x: BG2 Horizontal Scroll Position (in pixels/256)
+++ $67 tttttttt ttttpppp xxxxxxxx
```

```
    t: BG2 Vertical Scroll Position (in tiles)
    p: BG2 Vertical Scroll Position (in pixels)
    x: BG2 Vertical Scroll Position (in pixels/256)
+++ $6B tttttttt ttttpppp xxxxxxxx
    t: BG3 Horizontal Scroll Position (in tiles)
    p: BG3 Horizontal Scroll Position (in pixels)
    x: BG3 Horizontal Scroll Position (in pixels/256)
+++ $6F tttttttt ttttpppp xxxxxxxx
    t: BG3 Vertical Scroll Position (in tiles)
    p: BG3 Vertical Scroll Position (in pixels)
    x: BG3 Vertical Scroll Position (in pixels/256)
    + $73 Movement BG1 X Scroll Speed (in pixels/frame/256, signed)
    + $75 Movement BG1 Y Scroll Speed
    + $77 Movement BG2 X Scroll Speed
    + $79 Movement BG2 Y Scroll Speed
    + $7B Movement BG3 X Scroll Speed
    + $7D Movement BG3 Y Scroll Speed
    + $7F Obj Vertical offset for Shake Screen
        $81 Set to zero and used to clear Sprite Graphics (fixed address DMA to
VRAM)
    + $82 Current Map Index
        $84 Enable Map Load
        $85 Enable Entrance Triggers
        $86 BG1 Map Horizontal Clip ($0F, $1F, $3F, $7F, $FF)
        $87 BG1 Map Vertical Clip
        $88 BG2 Map Horizontal Clip
        $89 BG2 Map Vertical Clip
        $8A BG3 Map Horizontal Clip
        $8B BG3 Map Vertical Clip
    ++ $8C Source of BG chunk change data
    + $8F XY Position of BG chunk to change
    + $91 Pointer to BG1 Map Data in VRAM (for vertical scrolling and full
updates)
    + $93 Pointer to BG1 Map Data in VRAM (for horizontal scrolling, first
column)
    + $95 Pointer to BG1 Map Data in VRAM (for horizontal scrolling, second
column)
    + $97 Pointer to BG2 Map Data in VRAM (for vertical scrolling and full
updates)
+ \$99 Pointer to BG2 Map Data in VRAM (for horizontal scrolling, first column)
+ \$9B Pointer to BG2 Map Data in VRAM (for horizontal scrolling, second column)
+ \$9D Pointer to BG3 Map Data in VRAM (for vertical scrolling and full updates)
+ \$9F Pointer to BG3 Map Data in VRAM (for horizontal scrolling, first column)
+ \$A1 Pointer to BG3 Map Data in VRAM (for horizontal scrolling, second column)
```


## \$A3-\$B9 Tile Properties Stuff

```
    +----+----+----+ adjacent tiles (bg1 tile index)
        | A3 | A4 | A5 |
        +----+----+----+
        | A6 | A7 | A8 |
        +----+----+----+
        | A9 |*AA*| AB | <-- object is at AA
        +----+----+----+
        AC | AD | AE |
        +----+---+----+
    + $AF Party's XY Position (in tiles)
        $B1 -----lu Tile z-level passability (copied from $B8, never used)
        $B2 ------lu Party z-level
            l: Lower Z Level
            u: Upper Z Level
        $B3 movement direction (same as $087E)
    + $B4 pointer to party object data (+$0300, $00F8 for normal priority,
$01B8 for low priority)
    + $B6 Tile properties from user top tile (from $A7)
    + $B8 Tile properties from user bottom tile (from $AA)
            lrdbtslu tile properties byte 1 ($F7 = always impassable, $07 =
counter tile, can be talked over)
                            l: Tile uses up/left movement (stairs)
                            r: Tile uses up/right movement (stairs)
                            d: Door Tile
                            b: Bottom sprite shown above priority 1 bg (not active for
bridge tiles, ZoneDoctor: "0.4")
                            t: Top sprite shown above priority 1 bg (not active for
bridge tiles, ZoneDoctor: "0.3")
                            s: Bridge tile (ZoneDoctor: "solid tile, cannot be walked
on")
    l: Passable on lower z-level (ZoneDoctor: "Solid to tier
2", if both of these are set, this tile can be a transition between upper
and lower)
    u: Passable on upper z-level (ZoneDoctor: "Solid to tier
1")
    nu--btrl tile properties byte 2
    n: NPC can randomly move here (ZoneDoctor: "Passable
quadrants")
    u: Always Face Up (ladder)
    -: (ZoneDoctor: "1.5")
    -: (ZoneDoctor: "1.4")
    b: Passable through bottom
    t: Passable through top
    r: Passable through right
    l: Passable through left
```


## \$BA- \$BC Dialog Window

\$BA Enable Dialog Window (\$01 = open, \$80 = close)

```
    $BB Dialog Window Size ($00: smallest, $05: fully open)
    $BC Dialog Window Top Y Position ($01: top, $12: bottom)
$BD-$D3 Dialog Text
    $BD Current Dialog Character
    $BE Next Dialog Character
    $BF Text's Current X Position on Dialog Window ($04-$E0)
    $C0 Width of Current Word
    + $C1 Pointer to Next Tile in VRAM (+$3800)
    + $C3 Pointer to Current Tile in VRAM (+$3800)
    $C5 Text Graphics Needs to be Copied to VRAM
    + $C6 Unused (set to #$0700)
    $C8 Max X Position on Dialog Window (always $E0?)
++ $C9 Pointer to Current Dialog Character
    $CC current region of dialog window that needs to be cleared in VRAM
(starts at 9, decrements once per frame)
            9 = none, waiting for keypress
\begin{tabular}{|c|c|}
\hline 8 & 7 \\
\hline 6 & 5 \\
\hline 4 & 3 \\
\hline 2 & 1 \\
\hline
\end{tabular}
    0 = none, no text displayed (or map name displayed)
    + $CD Character to Display (top byte is for extra characters from FF6j)
    $CF eppppppp
        e: text buffer is empty
        p: dialog text buffer position (+$7E9183)
    + $D0 Dialog Index
    $D2
    $D3 Keypress State (decrements when button is pressed or released)
        0 = not waiting for keypress
        1 = waiting for keypress
        2 = waiting for key release
$D4-$DE Object Stuff
    + $D4 pointer to sprite data at $0340 & $0400 (normal priority)
    + $D6 pointer to sprite data at $0300 & $0320 (high priority)
    + $D8 pointer to sprite data at $04C0 & $04E0 (low priority)
    + $DA Pointer to Current Object Data (+$0867)
    $DC Current Object (x2)
    $DD Total Number of Active Objects (x2)
    $DE Number of Objects Left
$DF-$EF Event Stuff
```

```
    $DF BG fixed color math begin (x2)
    $E0 BG fixed color math end (x2)
    $E1 ofs-----
        o: waiting for an object script to finish
        f: waiting for fade to finish
        s: waiting for scroll to finish
        $E2 Object to Wait for
    + $E3 Event Pause Counter (frames)
++ $E5 Event PC
    + $E8 Event Stack Pointer
    $EA Event Op Code
$EB-$EF Event Code Data (up to 5)
$F3-$FF Decompression Stuff
++ $F3 Decompression Source
++ $F6 Decompression Destination
    + $F9 (used by decompression subroutine)
    $FB (used by decompression subroutine)
    + $FC Decompression Size Counter
    $FE (used by decompression subroutine)
    $FF (used by decompression subroutine)
```


## \$0100-\$01FF: Battle RAM

See Battle RAM.

## \$0200-\$02FF: Menu RAM

See Menu RAM.

## \$0300-\$051F: Sprite Data

This data gets copied directly to the SNES OAM data every frame.

```
Format for sprites:
    $00 x position
    $01 y position
    + $02 vhoopppm mmmmmmmm
        v: vertical flip
        h: horizontal flip
        o: layer priority
        p: palette index
        m: graphic index
$0300-$033F High priority sprites
```

```
    $0300 object, top (8)
    $030C timer minute tens digit
    $0310 timer minute ones digit
    $0314 timer second tens digit
    $0318 timer second ones digit
    $031C timer colon
    $0320 object, bottom (8)
$0340-$047F Normal priority sprites
    $0340 object, top (40)
    $03E0 overlay (4)
    $03F0 unused (2)
    $03F8 party, top
    $03FC party, bottom
    $0400 object, bottom (40)
$04A0-$04FF Low priority sprites
    $04A0 overlay (4)
    $04B0 unused (2)
    $04B8 party, top
    $04BC party, bottom
    $04C0 object, top sprites (8)
    $04E0 object, bottom sprites (8)
$0500-$051F sxsxsxsx sprite high data (2 bits per sprite)
    s: large sprite flag (32x32)
    x: x position MSB
```


## \$0520-\$119F: Field RAM

```
$0520-$0540 Map Properties
    $0520 Name Index
    $0521 t-s123wx
            t: load timer graphics (overwrites some chocobo graphics)
            s: enable spotlights
            1: wavy BG1
            2: wavy BG2
            3: wavy BG3
            w: enable Warp (spell and item)
            x: enable X-Zone (doesn't do anything)
    $0522 3bbbbbbb
            3: BG3 foreground (sets the priority bits for all bg3 tiles,
doesn't affect $2105)
            b: battle background index
    $0523
    $0524 Tile Properties Index
    $0525 b------
        b: enable random battles
    $0526 ?-----mm
```

```
    ?: set for colosseum guy's house exterior (unused)
    m: Window Mask Settings (used if flashlight, spotlight, or
pyramid is enabled)
+++++ $0527 aaaaaaab bbbbbbcc ccccdddd dddeeeee eeffffff fggggggg
    a: BG2 Tile Formation Index ($800 bytes -> $7FC800)
    b: BG1 Tile Formation Index ($800 bytes -> $7FC000)
    c: BG3 Graphics Index ($1000 bytes -> VRAM $3000)
    d: BG1/BG2 Tileset 4 ($1000 bytes -> VRAM $2000) doesn't get
copied if tileset 3 = tileset 4
    e: BG1/BG2 Tileset 3 ($1000 bytes -> VRAM $1800) $2000 bytes if
tileset 3 = tileset 4
    f: BG1/BG2 Tileset 2 ($1000 bytes -> VRAM $1000)
    g: BG1/BG2 Tileset 1 ($2000 bytes -> VRAM $0000)
    +++ $052D --cccccc ccccbbbb bbbbbbaa aaaaaaaa
    c: BG3 Map Data Index ($4000 bytes -> $7F8000)
    b: BG2 Map Data Index ($4000 bytes -> $7F4000)
    a: BG1 Map Data Index ($4000 bytes -> $7F0000)
    $0531 Sprite Overlay Index
    $0532 BG2 Horizontal Shift (positive values shift left, +/-)
    $0533 BG2 Vertical Shift (positive values shift up, +/-)
    $0534 BG3 Horizontal Shift
    $0535 BG3 Vertical Shift
    $0536 BG2/BG3 Scroll Mode
    $0537 aabbccdd
    a: BG1 Map Width Index
    b: BG1 Map Height Index
    c: BG2 Map Width Index
    d: BG2 Map Height Index
    $0538 aabb-def
            a: BG3 Map Width Index
            b: BG3 Map Height Index
            d: <unused> (copied to $0592)
            e: <unused> (copied to $0592)
            f: <unused> (copied to $0591)
        $0539 Palette Index
        $053A Palette Animation Index
        $053B aaabbbbb
            a: BG3 Animation Index ($1000 bytes -> VRAM $3000)
            b: BG1/BG2 Animation Index ($800 bytes -> VRAM $2800)
        $053C Song Index
        $053D -
        $053E Map Width ($00 for loop)
        $053F Map Height
        $0540 BG2/BG3 Color Math Mode
        $0541 BG1 X Center Coordinate (on screen, 16x16 tiles)
        $0542 BG1 Y Center Coordinate
        $0543 BG2 X Center Coordinate
        $0544 BG2 Y Center Coordinate
        $0545 BG3 X Center Coordinate
        $0546 BG3 Y Center Coordinate
```

```
    + $0547 Event BG1 Horizontal Scroll Speed ($0080 = 1 pixel/frame, +/-)
    + $0549 Event BG1 Vertical Scroll Speed
    + $054B Event BG2 Horizontal Scroll Speed
    + $054D Event BG2 Vertical Scroll Speed
    + $054F Event BG3 Horizontal Scroll Speed
    + $0551 Event BG3 Vertical Scroll Speed
    $0553 BG2 Horizontal Scroll Rate Multiplier (bg2 pixels/step)
    $0554 BG2 Vertical Scroll Rate Multiplier (bg2 pixels/step)
    $0555 BG3 Horizontal Scroll Rate Multiplier (bg3 pixels/step)
    $0556 BG3 Vertical Scroll Rate Multiplier (bg3 pixels/step)
    $0557 BG1 destination X center coordinate (when scrolling to a party
after an object collision)
    $0558 BG1 destination Y center coordinate
    $0559 lock screen (Disable Screen Scroll With Character Movement)
    $055A BG1 Map Data Update Status (decrements every frame)
            05 = needs update, but waiting for event command $75
            04 = top->RAM
            03 = bottom->RAM
            02 = top->VRAM
            01 = bottom->VRAM
            00 = no changes
    $055B BG2 Map Data Update Status
    $055C BG3 Map Data Update Status
    $055D Default party
    $055E Object Collision Status
            00 = no collisions
            01 = collision occurred, waiting for party to stop moving
            02 = collision being processed
    $055F Object Collision Facing Direction
    + $0560 Pointer to Character Object Data for Collision
    + $0562 Pointer to NPC Object Data for Collision
```

\$0564-\$0584 Dialog Window Stuff
\$0564 Show Text Only (no dialog window)
$\$ 0565$ Wallpaper Index
\$0566 Window 2 Frame Counter (for flashlight/pyramid/spotlights)
$\$ 0567$ Counter for map name dialog box (counts down from 100 every
frame)
\$0568 e-----d Dialog Flags
e: dialog item is fully rendered
d: enable dialog text
$+\$ 0569$ counter for dialog pause
+ \$056B kccccccc cccccccc
k: allow keypress
c: counter for keypress
\$056D Multiple Choice Selection is Changing
\$056E Current Multiple Choice Selection
\$056F Maximum Multiple Choice Selection
\$0570-\$057F Multiple Choice XY Positions (8 items, 2 bytes each)
+ \$0580 Current Multiple Choice Position (+\$3800 in VRAM)

```
    $0582 Update Dialog Text (for multiple choice indicator movement)
    $0583 Item Index for Dialog Window Display
    $0584 Spell Index for Dialog Window Display (unused, this is from
FF6j)
    $0585 BG1 Vertical Scroll Status
    0 = no update
    1 = update in RAM
    2 = update in VRAM
    $0586 BG1 Horizontal Scroll Status
    $0587 BG2 Vertical Scroll Status
    $0588 BG2 Horizontal Scroll Status
    $0589 BG3 Vertical Scroll Status
    $058A BG3 Horizontal Scroll Status
    + $058B BG1 VRAM Map Location ($4800 or $4C00)
    + $058D BG2 VRAM Map Location ($5000 or $5400)
    + $058F BG3 VRAM Map Location ($5800 or $5C00)
    $0591 -
    $0592 -
    $0593 -
$0594-$05C3 Event Stack for subroutines (up to 15 events)
$05C4-$05F3 Event Loop Count (3 bytes each)
$05F4-$0623 Event Stack for loops (up to 16 loops)
$0624-$062B Event Code for Map Startup
```

```
    +++ $0624 B2 xxxxxx Jump to xxxxxx
```

    +++ $0624 B2 xxxxxx Jump to xxxxxx
    + $0628 D3 CF Clear event bit $1EB9.7 (enable user control of
    + $0628 D3 CF Clear event bit $1EB9.7 (enable user control of
    character)
character)
\$062A FD Add 1 to event PC (does nothing)
\$062A FD Add 1 to event PC (does nothing)
\$062B FE Return
\$062B FE Return
\$062C Minimum X Scroll Position (in pixels, \$FF means no min or max)
\$062C Minimum X Scroll Position (in pixels, \$FF means no min or max)
\$062D Maximum X Scroll Position (in pixels)
\$062D Maximum X Scroll Position (in pixels)
\$062E Minimum Y Scroll Position (in pixels, \$FF means no min or max)
\$062E Minimum Y Scroll Position (in pixels, \$FF means no min or max)
\$062F Maximum Y Scroll Position (in pixels)
\$062F Maximum Y Scroll Position (in pixels)
\$0630 Horizontal Scanline Position
\$0630 Horizontal Scanline Position
\$0631 Vertical Scanline Position
\$0631 Vertical Scanline Position
\$0632 Max Vertical Scanline Position (can be used to watch CPU load)
\$0632 Max Vertical Scanline Position (can be used to watch CPU load)
\$0633-\$0742 Sprite Overlay Stuff
\$0633-\$0742 Sprite Overlay Stuff
\$0633-\$0642 Sprite Overlay Graphics Indexes (16 tiles)
\$0633-\$0642 Sprite Overlay Graphics Indexes (16 tiles)
\$0643-\$0742 yxo-000- Sprite Overlay Tile Formation (for each bg1 tile, \$FF
\$0643-\$0742 yxo-000- Sprite Overlay Tile Formation (for each bg1 tile, \$FF
means no overlay tile)
means no overlay tile)
y: flip overlay graphics vertical
y: flip overlay graphics vertical
x: flip overlay graphics horizontal
x: flip overlay graphics horizontal
o: overlay tile index
o: overlay tile index
\$0743 x-----dd
\$0743 x-----dd
x: don't update facing direction (for party switch)
x: don't update facing direction (for party switch)
d: party facing direction

```
    d: party facing direction
```

```
    $0744 ------lu Saved/Destination Z Level
    l: Lower Z Level
    u: Upper Z Level
    $0745 Enable Map Name Dialog Box
$0746-$0749 -
    $074A o321ffaa
            o: shake obj layer
            3: shake BG3
            2: shake BG2
            1: shake BG1
            f: frequency
            a: amplitude
    $074B current shake screen amplitude
    + $074C BG1 vertical offset for shake screen
    + $074E BG2 vertical offset for shake screen
    + $0750 BG3 vertical offset for shake screen
    $0752 ??? Spotlight color add/sub (unused)
    $0753 ??? Spotlight color add/sub (unused)
$0754-$075B Decimal Number for Dialog Text Display
    + $075C ??? Pyramid
    + $075E ??? Pyramid
    + $0760 ??? Pyramid
    $0762 Enable Party Change
$0763-$077A Active Overlay Data (6 items, 4 bytes each, last two are unused)
    $0763 Overlay Tile X Position
    $0764 Overlay Tile Y Position
    $0765 Overlay Tile Graphic Index ($00 = no tile)
    $0766 vh-----f
            v: vertical flip
            h: horizontal flip
            f: 1 = upper z-level, 0 = lower z-level
    $077B f--sssss
            f: enable flashlight
            s: flashlight radius in pixels * 2 (target)
    $077C --ssssss
            s: flashlight radius in pixels (current)
+ $077D Pyamid/Flashlight XY Position
+ $077F Pointer to Pyramid Object Data (+0867)
    $0781 Enable Pyramid
    $0782 -
    + $0783 ??? (spotlights)
    + $0785 ??? (spotlights)
    $0787 -
    $0788 -
    $0789 "Monster-in-a-Box" Formation Index
    $078A bs-----
        b: disable battle blur
        s: disable sound effect
```

```
            $078B Number of Random Battles on Map
    + $078C Number of Steps On Map For Random Battles
    $078E Party is on a trigger (disables random battles)
    $078F Number of active NPCs
$0790-$0794 Pyramid/Spotlights data
    $0795 Character Portrait Index
    + $0796 Screen Mosaic Counter
    $0798 Wait for character objects to get updated
$0799-$07FA Pointers to Object Data (multiples of $29, 2 bytes each)
$07FB-$0866 Pointers to Active Objects
    + $07FB Party Character 0
    + $07FD Party Character 1
    + $07FF Party Character 2
    + $0801 Party Character 3
    + $0803 Showing Character
$0867-$1068 Object Data (50 items, 41 bytes each, $00-$0F are characters,
$10-$2F are NPC's, $30 is camera ($07B0), $31 is showing character or for
unused objects ($07D9))
    $0867 verbbppp Object Settings
            v: Visible
            e: Enabled (active)
            r: Battle Row (back row if set) \
            b: Battle Order |--> characters only, though
$1850 is "master" data
    p: Party /
    $0868 vvvddoom Sprite Settings
                            v: Vehicle Index (or animation speed for special graphics, which
is unusable)
    000 = character only, no vehicle
    001 = chocobo, character not shown
    010 = magitek, character not shown
    011 = raft, character not shown
    100 = special NPC graphics (ZoneDoctor: "4.7")
    101 = chocobo, character shown
    110 = magitek, character not shown
    111 = raft, character not shown
    d: saved facing direction for movement (while object is
activated)
                            o: layer priority (for layering wrt bg tiles, ZoneDoctor: "Can
walk under/over")
            00 = default, based on bg tile properties
            01 = upper sprite above bg, lower sprite below bg
            02 = both sprites above bg
            03 = both sprites below bg
            m: Enable Walking Animation When Moving *OR* horizontal flip for
special NPC graphics (copied from $0889.7)
    ++ $0869 tttttttt ttttpppp xxxxxxxx
            t: X Position (in tiles)
            p: X Position (in pixels)
```

```
    x: X Position (in pixels/4096)
    ++ $086C tttttttt ttttpppp yyyyyyyy
    t: Y Position (in tiles)
    p: Y Position (in pixels)
    y: Y Position (in pixels/4096)
    + $086F Y Shift for jumping (in pixels, high byte always 0)
    + $0871 Horizontal Movement Speed
    + $0873 Vertical Movement Speed
    $0875 Object Speed
    $0876 -hpppppp Current Graphic Position
            h: horizontal flip
            p: graphics position
    $0877 -hpppppp Next Graphic Position
            h: horizontal flip
            p: graphics position
    $0878 Actor Index
    $0879 Graphic Index
    + $087A Pointer to Location in Map Data (+$7E2000 or +$7F0000)
        $087C 2cxpmmmm Movement Type
            2: object scrolls with BG2 rather than BG1 (ZoneDoctor:
"Solidify action path")
    c: object event activates on collision
    x: don't face target when activated *OR* 32x32 sprite size for
special NPC graphics (ZoneDoctor: "No face on trigger")
    p: passability flag (0 = passable, 1 = not passable)
    m: object movement type
        0 = none
        1 = script-controlled
        2 = user-controlled
        3 = random
        4 = activated (facing something)
    $087D saved copy of $087C (during event execution)
    $087E ---ddddd
        d: moving direction
        $00 = not moving
        $01 = up
        $02 = right
        $03 = down
        $04 = left
        $05 = up/right
        $06 = down/right
        $07 = down/left
        $08 = up/left
        $09 = right/up 1x2
        $0A = right/up 2x1
        $0B = right/down 2x1
        $0C = right/down 1x2
        $0D = left/down 1x2
        $0E = left/down 2x1
        $0F = left/up 2x1
        $10 = left/up 1x2
```

```
    $087F ------dd
            d: facing direction
                00 = up
                01 = right
                10 = down
                11 = left
    $0880 vhooppp- (upper sprite)
    $0881 vhooppp- (lower sprite)
            v: Vertical Flip
            h: Horizontal Flip
            o: sprite layer priority (always 2 or 3)
            p: Palette Index
    $0882 Object script wait counter
    ++ $0883 Object script pointer
    $0886 Number of Steps to Take
    $0887 jjpppppp
            j: Jump Type (00 = low, 01 = high)
            p: Jump Counter (pointer to $C059AD, decrements every frame)
    $0888 -----blu (copied from tile properties)
            b: bridge tile
            l: lower Z level
            u: upper Z level
    ++ $0889 Pointer to Event Script (normal objects only)
    $0889 hvvvvvvv (special NPC graphics only)
            h: horizontal flip
            v: VRAM address (in tiles, +$7000)
    $088A sssmmmmm (special NPC graphics only)
            s: amount to shift (in pixels * 2 if there is no master object,
in tiles if there is)
            m: master object number (NPC number)
    $088B ------md (special NPC graphics only)
    m: enable master/slave object (this object follows another NPC
whenever it moves)
    d: direction to shift (0 = right, 1 = down)
    $088C ppannggg
    p: sprite priority (layering wrt other sprites, 0 = normal, 1 =
high, 2,3 = low) (ZoneDoctor: "8.3", "8.4")
    a: enable special animation (set when g is not zero)
    n: special animation frame type (active when g is not zero)
        00 = 1 frame
        01 = 2 frames (one image flips horizontally)
        10 = 2 frames
        11 = 4 frames
            g: special animation offset (see C0/5831) (ZoneDoctor: "8.5",
"8.6", "8.7")
    + $088D Object Map Index
        $088F Pointer to Animation Queue (+$10F7)
$1069-$10D0 BG1/BG2 Animation Data (8 items, 13 bytes each)
```

```
    + $1069 Animation Counter
    + $106B Animation Speed ($0400 = 1:1 @ 60Hz)
    $106D Graphic Bank Pointer
    + $106E Frame 1 Pointer
    + $1070 Frame 2 Pointer
    + $1072 Frame 3 Pointer
    + $1074 Frame 4 Pointer
$10D1-$10E6 BG3 Animation Data
    + $10D1 Animation Counter
    + $10D3 Animation Speed
    + $10D5 Size
    + $10D7 Frame 1 Pointer
    + $10D9 Frame 2 Pointer
    + $10DB Frame 3 Pointer
    + $10DD Frame 4 Pointer
    + $10DF Frame 5 Pointer
    + $10E1 Frame 6 Pointer
    + $10E3 Frame 7 Pointer
    + $10E5 Frame 8 Pointer
$10E7-$10F6 Palette Animation Data (2 items, 8 bytes each)
    $10E7 counter 1 (frames per palette update)
    $10E8 counter 1 reset value [byte 1]
    $10E9 counter 2 (palette updates per reset)
    $10EA ttttrrrr [byte 0]
            t: palette animation type (0 = none, 1 = cycle, 2 = ROM, 3 =
subtract pulse)
            r: counter 2 reset value
    $10EB first color pointer (color index * 2) [byte 2]
    $10EC (number of affected colors - 1) * 2 (-1 only for type 2 and 3)
[byte 3]
    $10ED color index in ROM (only used by type 2 [byte 4]
    $10EE unused [byte 5]
$10F7-$1126 Object Animation Data (24 items, 2 bytes each)
    + $10F7 pointer to object data, $07B0 if a slot is empty, only 6 get
updated per frame
    + $1127 Open Door Count (x2)
$1129-$1158 Open Door XY positions
    + $1159 - (debug mode ???)
    + $115B Event Bits Being Displayed (debug mode)
$115C-$1187 -
$1188-$119F Timer Data (4 items, 6 bytes each)
$1188 pfrm----
```

```
    p: Pause timer in menu and battle.
    f: Timer is visible on field (timer 0 only).
    r: End battle or exit menu if timer runs out.
    m: Timer is visible in menu and battle (timer 0 only).
    + $1189 counter (frames)
    ++ $118B pointer to event code (+CA0000)
```


## \$11A0-\$11FF: Shared RAM

Shared between Field, Battle, and World programs.

```
$11A0-$11E0 Character Stats ($40 bytes, shared with bank $C2)
    +$11A0 Mag. Power
    +$11A2 Stamina
    +$11A4 Speed
    +$11A6 Vigor
    +$11A8 Evade
    +$11AA MBlock
        $11AC Battle Power (main hand)
        $11AD Battle Power (off-hand)
        $11AE Weapon Hit Rate (main hand)
        $11AF Weapon Hit Rate (off-hand)
        $11B0 Weapon Element (main hand)
        $11B1 Weapon Element (off-hand)
    +$11B2 bbhhhhhh hhhhhhhh
            b: hp boost (0 = none, 1 = 25% boost, 2 = 50% boost, 3 = 12.5%
boost)
    h: max hp
    $11B4 Weapon Spell Cast
    $11B5 -
    $11B6 Absorbed Elements
    $11B7 Nullified Elements
    $11B8 Weak Elements
    $11B9 Halved Elements
    $11BA Defense
    $11BB Magic Defense
    $11BC Status 2 Effects
    $11BD
    $11BE ----mpbb
        m: can block magic attacks
            p: can block physical attacks
            b: block graphic (0 = Dagger, 1 = Sword, 2 = Shield, 3 = Zephyr
Cape)
$11BF-$11C5 -
    $11C6 Weapon
    $11C7 Shield
    $11C8 Helmet
    $11C9 Armor
```

```
    $11CA Relic 1
    $11CB Relic 2
    $11CC -
    $11CD -
    $11CE ---4321-
        1: weapon in off-hand
        2: weapon in main hand
        3: unarmed in off-hand
            4: unarmed in main hand
$11CF ---4----
                            4: weapons in both hands. will oddly clear Genji Glove effect
```

in \$11D8, for damage purposes.
\$11D0 ----zhsd Physical Block Graphic
\$11D1 ----zhsd Magical Block Graphic
z: zephyr Cape
h: shield
s: sword
d: dagger
\$11D2 Status 1 Immunity
\$11D3 Status 2 Immunity
\$11D4 Status 3 Effects
\$11D5 76543210
7: MP +12.5\% (bard's hat)
6: MP +50\% (crystal orb)
5: MP +25\% (minerva)
4: HP +12.5\% (green beret)
3: HP +50\% (muscle belt)
2: HP +25\% (red cap)
1: raise magic damage (double earrings or hero ring)
0: raise fight damage (atlas armlet, hero ring)
\$11D6 76543210
7: jump continuously (dragon horn)
6: steal -> capture (thief glove)
5: slot -> gp rain (coin toss)
4: sketch -> control (fakemustache)
3: magic -> x-magic (gem box)
2: fight -> jump (dragoonboots)
1: prevent back/pincer attacks (back guard)
0: increase pre-emptive attack rate (gale hairpin)
\$11D7 76543210
7: raise vigor +50\% (hyper wrist)
6: MP cost = 1 (economizer)
5: MP cost $=50 \%$ (gold hairpin)
4: 100\% Hit Rate, ignore target's MBlock (sniper sight)
3: Increase Control Rate (coronet)
2: Increase Sketch Rate (beret)
1: raise magic damage (single earring or hero ring)
0: Increase Steal Rate (sneak ring)
\$11D8 -thgaebo
t: protects weak allies (true knight)
h: can equip heavy items (merit award)

```
            g: can equip 2 weapons (genji glove)
            a: uses weapon 2-handed (gauntlet)
            e: randomly evade (beads)
            b: randomly counter (black belt)
            o: fight -> x-fight (offering)
    $11D9 7--43210
            7: make character undead (relic ring)
            4: double GP (cat hood)
            3: double experience (exp. egg)
            2: casts wall when HP is low
            1: casts safe when HP is low (mithril glove, czarina ring)
            0: casts shell when HP is low (barrier ring, czarina ring)
    $11DA 765---1- Weapon Effects (main hand)
    $11DB 765---1- Weapon Effects (off-hand)
            7: enable runic
            6: 2-hand
            5: no back row penalty
            1: swdtech
        $11DC Run Factor
        $11DD -
        $11DE
        $11DF t-s---mc Field Equipment Effects
            t: tintina bar effect (doesn't work)
            s: sprint shoes effect (1.5x walk speed)
            m: moogle charm effect (no random battles)
            c: charm bangle effect (50% less random battles)
    + $11E0 r-----bb bbbbbbbb
            r: randomly pick this battle or one of the next 3 (see C2/30E8)
            b: battle index
    + $11E2 ???????? ??bbbbbb
            b: battle background index
    $11E4 ----3210
            3: continue current music (no battle music)
            2: on the veldt (enable leap in status menu)
            1: on the veldt (enable leap in battle)
            0: gau can appear after battle
$11E5-$11EF -
    $11F0 Screen Mosaic Speed
    $11F1 Enable Restore Saved Game
    $11F2 (shared with bank $EE)
    $11F3 (shared with bank $EE)
    + $11F4 (shared with bank $EE)
    + $11F6 (shared with bank $EE)
    $11F8 (shared with bank $EE)
    $11F9 World Map Battle BG index (table at C0/C27F)
            0: field (WoB)
            1: forest (WoR)
            2: desert (WoB or WoR)
            3: forest (WoB)
            4: building/field (WoB/WoR)
```

```
            5: field (WoR)
            6: the veldt
            7: falling through the clouds
    $11FA efs---vv Map Startup Flags
        e: enable map startup event
        f: disable map fade in when loading
        s: don't update map size when loading map
        v: world map vehicle
        0 = no vehicle
        1 = airship
        2 = chocobo
    $11FB Showing Character's Graphic Index
    $11FC Showing Character's Palette Index
++ $11FD World Map Event Pointer
```


## \$1200-\$12FF: Copy of Direct Page

The field direct page ( $\$ 0000-\$ 00 F F$ ) gets copied here during battle and when on the world world map.

## \$1300-\$14FF: Sound/Music RAM

See Sound/Music RAM.

## \$1500-\$15FF: Interrupt Code and CPU Stack

```
$1500-$1503 NMI Jump Code
$1504-$1507 IRQ Jump Code
$1508-$15FF CPU Stack
```


## \$1600-\$1FFF: Save RAM

This data (0x0A00 bytes) is saved to SRAM when the game is saved. Also see SRAM.

```
$1600-$184F Character Data (16 items, 37 bytes each)
    $1600 Actor Index
    $1601 Graphic Index
$1602-$1607 Name
    $1608 Level
    + $1609 Current HP
    + $160B bbhhhhhh hhhhhhhh
        b: hp boost (0 = none, 1 = 25% boost, 2 = 50% boost, 3 = 12.5%
boost)
    h: max hp
    + $160D Current MP
    + $160F bbmmmmmm mmmmmmmm
    b: mp boost (0 = none, 1 = 25% boost, 2 = 50% boost, 3 = 12.5%
```

```
boost)
            h: max mp
        ++ $1611 Experience Points
    $1614 weicmpzd Status 1
            w: wound
            e: petrify
            i: imp
            c: clear
            m: magitek
            p: poison
            z: zombie
            d: dark
    $1615 fihcmlzr Status 4
            f: float
            i: interceptor
            h: hide (unused)
            c: control (unused)
            m: morph (unused)
            l: life 3 (unused)
            z: freeze (unused)
            r: rage (unused)
$1616-$1619 Battle Commands
    $161A Vigor
    $161B Speed
    $161C Stamina
    $161D Mag. Power
    $161E Esper
    $161F Weapon
    $1620 Shield
    $1621 Helmet
    $1622 Armor
    + $1623 Relics
$1850-$185F verbbppp
            v: Visible
            e: Character is Enabled
            r: Battle Row (back row if set)
            b: Battle Order
            p: Party
    ++ $1860 Current GP
    ++ $1863 Current Game Time
    ++ $1866 Current Steps
$1869-$1968 Current Items
$1969-$1A68 Item Quantities
    +++ $1A69 Current Espers
    $1A6D Current Party
$1A6E-$1D4C Character Skill Data
$1A6E-$1CF4 Spells Known (12 characters, 54 spells each, 1 byte per spell)
    $1CF6 Morph Counter
```

```
    $1CF7 Known sword techs
$1CF8-$1D27 Sword tech names (from FF6j)
    $1D28 Known blitzes
$1D29-$1D2B Known lores
$1D2C-$1D4B Known rages
    $1D4C Known dances
$1D4D-$1DC8 Config Data
    $1D4D cmmmwbbb
            c: command set (window/short)
            m: message speed
            w: battle mode (active/wait)
            b: battle speed
        $1D4E gcsrwwww
            g: gauge
            c: cursor
            s: sound
            r: reequip
            w: wallpaper (values 0-7 valid)
    $1D4F ----4321
            4: player 2 control character 4
            3: player 2 control character 3
            2: player 2 control character 2
            1: player 2 control character 1
    $1D50 aaaabbbb
            a: A button mapping (0 = start, 1 = A, 2 = B, 3 = X, 4 = Y, 5 =
top L, 6 = top R, 7 = select)
            b: B button mapping
        $1D51 xxxxyyyy
            x: X button mapping
            y: Y button mapping
    $1D52 llllrrrr
            l: top L button mapping
            r: top R button mapping
    $1D53 tttteeee
            t: Start button mapping
            e: Select button mapping
    $1D54 mbcccsss
            m: controller 2 enabled
            b: custom button config
            c: font/window palette color selection
            s: spell order index
    + $1D55 Font Color
$1D57-$1DC6 Window Palette (8 palettes, 7 colors each)
    + $1DC7 Number of times the game has been saved
$1DC9-$1DDC Battle Variables
$1DC9 -
$1DCA -
```

```
    $1DCB -
    $1DCC -
    $1DCD -
    $1DCE -
    $1DCF abcdefgh
        a: if set, program compares current monster index with
                monster index at CF3780,X. if equal, monster index
                is changed to monster index at CF3782,X.
            b-h: same as a
    $1DD0 -----mtf
            m: permanent morph (for Phunbaba battle)
            t: morph lasts twice as long (set after Phunbaba battle)
            f: magic only (fanatic's tower)
    $1DD1 ztrbemsg Battle End Event Flags
            z: zone eater engulfed the party
            t: timers are shown in menu and battle
            r: ran out of time (before emperor's banquet)
            b: ran away from previous battle
            e: gained AP is displayed (espers have been acquired)
            m: morph is available
            s: enables scene with LOCKE and EDGAR if TERRA uses magic
            g: game over after battle ends
    $1DD2 --ums-gd
            u: LOCKE is wearing soldier uniform
            m: LOCKE is wearing merchant clothes
            s: SHADOW won't leave after battle
            g: GAU has been obtained
            d: Doom Gaze has been defeated
+ $1DD3 Doom Gaze's HP
    $1DD5 Battles Fought with Cursed Shield
    $1DD6 -
    $1DD7 -
    $1DD8 -
    $1DD9
    $1DDA
    $1DDB -
    $1DDC -
$1DDD-$1E1C Veldt Formations Available (64 bytes)
$1E1D-$1E3F -
$1E40-$1E7F Treasure Bits (indicates if chests have been collected)
$1E80-$1F5F Event Bits
    $1E80 1: first dialog with Arvis
            3: moogle battle at Narshe
            4: met Edgar
            5: learned about Sabin
            6: first dialog with Kefka at Figaro castle
            7: Sabin returned to Figaro castle
    $1E81 0: going to room at Figaro after first dialog with Kefka
```

```
            3: met Shadow
    $1E82 0: Sabin joined
    $1E84 4: Shadow's 1st dream
            6: Shadow's 2nd dream
            7: Shadow's 3rd dream
    $1E85 0: Shadow's 4th dream
    $1E93 ?f??????
            f: floating island has lifted off (not shown on mini map)
    $1EA5 76543210
            0: single dog attack, opening Narshe
            1: two guards attack, opening Narshe
            2: two dogs then two guards attack, opening Narshe
            3: dialog at mine entrance, opening Narshe
            4: gate open, opening Narshe
    $1EA6 76543210
            0: pincer attack, opening Narshe
            1: two guards + two mammths attack, opening Narshe
            3: save point explanation
            4: chocobo explanation
            5: whelk attack, opening Narshe
+ $1EB4 abcdefgh ijklmnop
            a: TERRA is available
    $1EB6 sotaldru
                            s: serpent trench arrow direction (0: right, l: left)
            o: map's object data needs to be loaded ???
            t: tile event bit (gets cleared when the party moves to a new
tile)
    a: A button is down
            l: character is facing left
            d: character is facing down
            r: character is facing right
            u: character is facing up
    $1EB7 sg??va?m
            s: on a save point
            g: not enough gp (set by event command $85)
            v: on the veldt
            a: airship is grounded
            m: play alternative world map music
    $1EB8 ?p???ms?
            p: enable character portrait
            m: disable main menu
            s: sprint shoes effect is disabled
    $1EB9 upes????
            u: user does not have control of character
            p: enable party switching
            e: encounters disabled
            s: don't change song when loading map
++ $1EBA current rare items
```

```
    $1EBD sc--rrrr
    s: fighting SHADOW at the colosseum
    c: a valid item was selected for the colosseum
    r: more rare items (unused)
$1EBE -
$1EBF -
$1ED7 ???m????
    m: continue current music during battle -> $11E4.3
$1ED8 aaaa???f
    a: party 1 event bits (cleared every step)
    f: enable horizontal fade bars from ending
$1ED9 ccccbbbb
    c: party 3 event bits (cleared every step)
    b: party 2 event bits (cleared every step)
+$1EDC ??cccccc cccccccc
    c: initialized characters
+$1EDE sncccccc cccccccc
    s: there is at least one saved game (go to load screen after
title screen instead of playing intro)
    n: go to first Narshe scene after magitek march (instead of back
to the title screen)
    c: available characters
$1EE0-$1F5F NPC Event Bits (to enable/disable NPC's, initialized for new
game, all other event bits are cleared)
$1F60-$1FFF
    + $1F60 World XY Position
    + $1F62 Airship XY Position
    + $1F64 --ddnzpm mmmmmmmm Current Map Index
            d: facing direction
            n: show map name
            z: z-level
            p: set destination as parent map
            m: map number
    + $1F66 Field XY Scroll Position (BG1)
    $1F68 Facing Direction (parent facing direction if bit 7 set)
    + $1F69 Parent Map
    + $1F6B Parent XY Position
        $1F6D Random Number (RNG Seed for NPC walking direction.)
    + $1F6E Danger counter for random battles
$1F70-$1F7F Saved Character Palette Indexes (for world map)
    $1F80 Current Song
$1F81-$1FA0 Saved Object Map Indexes
    $1FA1 Step counter used as an RNG Seed in determining the next random
encounter.
        $1FA2 Battle counter used as an RNG Seed in determining the monster
formation.
    $1FA3 RNG salt for use with $1FA2 (increments +23 when $1FA2 goes over
```

```
255.)
            $1FA4 RNG salt for use with $1FA1 (increments +17 when $1FA1 goes over
255.)
            $1FA5 Veldt battle group number.
            + $1FA6 Pointer to Current Showing Character's Object Data
$1FA8-$1FBF Saved timer data (from $1188)
    + $1FC0 Party XY Position
$1FC2-$1FD1 Event Variables
    + $1FC2 Points from Narshe security checkpoint/Emperor's banquet
    + $1FC4 Narshe security checkpoint variable
    + $1FC6 -
    + $1FC8 -
    + $1FCA -
    + $1FCC -
    + $1FCE Number of Dragons Left
    + $1FD0 Cid's Health/Pieces of Coral
        $1FD2 parent facing direction
$1FD3-$1FF2 Character Saved XY Positions (2 bytes each)
$1FF3-$1FF6 Party Z Levels
$1FF7-$1FFD -
    + $1FFE Saved Game Data CheckSum ($1600-$1FFD)
```


## \$7E/2000-\$7F/FFFF Field WRAM

```
$7E2000-$7E5FFF Object Map Data (object number x 2, $FF means no object)
$7E6000-$7E6BFF Terra Outline Graphics (not implemented)
$7E6C00-$7E71FF -
$7E7200-$7E73FF Color Palettes (unmodified)
    $7E7200 Dialog Text Palette (uses first four colors only)
    $7E7220 Map Palettes
    $7E72E0 Dialog Window Palette (last 8 colors only)
    $7E7300 Sprite Palettes
    $7E73E0 Vehicle Palette (overwritten for character portrait)
$7E7400-$7E75FF Color Palettes (active)
$7E7600-$7E76FF tile properties byte 1 ($F7 = always impassable, $07 =
counter tile, can be talked over)
        lrdbtslu
        l: tile uses up/left movement (stairs)
        r: tile uses up/right movement (stairs)
        d: door tile
        b: bottom sprite shown above priority 1 bg (not active for
bridge tiles, ZoneDoctor: "0.4")
        t: top sprite shown above priority 1 bg (not active for
bridge tiles, ZoneDoctor: "0.3")
                                s: bridge tile (ZoneDoctor: "solid tile, cannot be walked
on")
                                l: passable on lower z-level (ZoneDoctor: "Solid to tier 2",
if both of these are set, this tile can be a transition between upper and
lower)
    u: passable on upper z-level (ZoneDoctor: "Solid to tier 1")
```

```
$7E7700-$7E77FF tile properties byte 2
    nu--btrl
    n: npc can randomly move here (ZoneDoctor: "Passable
quadrants")
    u: always face up (ladder)
    -: (ZoneDoctor: "1.5")
    -: (ZoneDoctor: "1.4")
    b: passable through bottom
    t: passable through top
    r: passable through right
    l: passable through left
$7E7800-$7E78FF Sprite High Data Pointers
$7E7900-$7E79FF Sprite High Data Inverse Bit Masks
$7E7A00-$7E7AFF Sprite High Data Bit Masks
$7E7B00-$7E7B3F Flashlight Data
$7E7B40-$7E7E72 HDMA Tables
$7B40-$7B9A Unused HDMA Table
$7B9B-$7BF5 Channel #7: Mosaic/BG Location HDMA Table (+++$2106)
$7BF6-$7C50 Channel #4: BG1 Scroll HDMA Table (+$210D)
$7C51-$7CAB Channel #0: BG2 Scroll HDMA Table (+$210F)
$7CAC-$7D06 Channel #3: BG3 Scroll HDMA Table (+$2111)
$7D07-$7D61 Channel #2: Fixed Color Add/Sub HDMA Table ($2132)
$7D62-$7DBC Channel #5: Window 2 Position HDMA Table (+$2128)
$7DBD-$7E17 Channel #6: Main/Sub Screen Designation HDMA Table (+212C)
$7E18-$7E72 Channel #1: Color Add/Sub Settings HDMA Table (+2130)
$7E73-$7ECC Saved Screen Pixelation/BG Location HDMA Table
$7ECD-$7F26 Saved BG1 Scroll HDMA Table (+$210D)
$7F27-$7F80 Saved BG2 Scroll HDMA Table (+$210F)
$7F81-$7FDA Saved BG3 Scroll HDMA Table (+$2111)
$7FDB-$8034 Saved Fixed Color HDMA Table ($2132)
$8035-$808E Saved Window 2 Position HDMA Table (+$2128)
$808F-$80E8 Saved Main/Sub Screen Designation HDMA Table (+212C)
$80E9-$8142 Saved Addition Subtraction HDMA Table (+2130) ****
$7E8143-$7EFFFF HDMA Data
$8143-$8162 Unused Data
$8163-$81B2 Main/Sub Screen Designation Data (+212C)
$81B3-$8272 Mosaic/BG Location Data (+++$2106)
$8273-$8292 BG1 Upper Scroll Data (4 bytes each, horizontal then vertical)
$8293-$82B2 BG1 Lower Scroll Data
$82B3-$82D2 BG2 Upper Scroll Data
$82D3-$82F2 BG2 Lower Scroll Data
$82F3-$8312 BG3 Scroll Data
$8313-$8532 BG1 Scroll Data for Dialog Window
$8533-$8572 BG1 Scroll Data for Map Name Dialog Window
$8573-$85F2 BG3 Scroll Data for Map Name Dialog Window
$85F3-$8712 BG3 Scroll Data for Dialog Window
```

```
$8713-$8732 BG3 Scroll Data (unused)
$8733-$8752 BG3 Scroll Data for Horizontal Fade Bars (from ending)
$8753-$8762 Fixed Color Add/Sub Data (default)
$8763-$87A2 Fixed Color Add/Sub Data for Spotlights (unused)
$87A3-$8902 Fixed Color Add/Sub Data (unused)
$8903-$8942 Fixed Color Add/Sub Data for Horizontal Fade Bars (from ending)
$8943-$8AD2 Fixed Color Add/Sub Data for Dialog Window
$8AD3-$8C62 Color Add/Sub Settings for Dialog Window
$8C63-$8C72 Color Add/Sub Settings (default)
$8C73-$8C82 Color Add/Sub Settings for Horizontal Fade Bars (from ending)
$8C93-$8CA2 Color Add/Sub Settings (unused)
$8CA3-$8CB2 Window 2 Position Data for Dialog Window
$8CB3-$8E53 Window 2 Position Data (odd frames)
$8E53-$8FF2 Window 2 Position Data (even frames)
$8FF3-$9002 Window 2 Position Data (first row)
\$9003-\$9182 Dialog Text Graphics Buffer
```

```
$9003-$9022 Current 16x16 Character Graphics, bpp 1-2 (main)
```

\$9003-\$9022 Current 16x16 Character Graphics, bpp 1-2 (main)
\$9023-\$9042 Next 16x16 Character Graphics, bpp 1-2 (main)
\$9023-\$9042 Next 16x16 Character Graphics, bpp 1-2 (main)
\$9043-\$9062 Current 16x16 Character Graphics, bpp 3-4 (shadow)
\$9043-\$9062 Current 16x16 Character Graphics, bpp 3-4 (shadow)
\$9063-\$9082 Next 16x16 Character Graphics, bpp 3-4 (shadow)
\$9063-\$9082 Next 16x16 Character Graphics, bpp 3-4 (shadow)
\$9083-\$90C2 Dialog Text Graphics VRAM Buffer (\$40 bytes -> VRAM \$3800)
\$9083-\$90C2 Dialog Text Graphics VRAM Buffer (\$40 bytes -> VRAM \$3800)
\$90C3-\$9102
\$90C3-\$9102
\$9103-\$9122 Current 16x16 Text Graphics, bpp 1-2 (main)
\$9103-\$9122 Current 16x16 Text Graphics, bpp 1-2 (main)
\$9123-\$9142 Next 16x16 Text Graphics, bpp 1-2 (main)
\$9123-\$9142 Next 16x16 Text Graphics, bpp 1-2 (main)
\$9143-\$9162 Current 16x16 Text Graphics, bpp 3-4 (shadow)
\$9143-\$9162 Current 16x16 Text Graphics, bpp 3-4 (shadow)
\$9163-\$9182 Next 16x16 Text Graphics, bpp 3-4 (shadow)
\$9163-\$9182 Next 16x16 Text Graphics, bpp 3-4 (shadow)
\$9183-\$9DFF Dialog Text Buffer
\$9E00-\$9EFF VWF Widths
$9F00-$A6FF BG1/BG2 Animation Graphics
$BF00-$CEFF BG3 Animation Graphics
$F120-$F800 Saved \$0520-\$0C00
\$7F0000-\$7FBFFF Map Data
\$0000-\$3FFF BG1 Map Data
\$4000-\$7FFF BG2 Map Data
$8000-$BFFF BG3 Map Data xytttttt (x = x flip, y = y flip, t = tile index)
$C000-$C7FF BG1 Tile Formation
$C800-$CFFF BG2 Tile Formation
$D000-$D03F BG3 Tile Formation (palette only)
$D040-$D83F Used as a buffer for decompressing map data etc.
$D840-$D8BF Partial BG1 Map for Horizontal Scrolling (2 x 32 tiles, 2 bytes
per 8x8 tile) (first column, second column)
$D8C0-$D93F Partial BG2 Map for Horizontal Scrolling (2 x 32 tiles, 2 bytes
per 8x8 tile) (first column, second column)
$D940-$D9BF Partial BG3 Map for Horizontal Scrolling (2 x 32 tiles, 2 bytes

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per 8x8 tile) (first column, second column)
$D9C0-$DA3F Partial BG1 Map for Vertical Scrolling (2 x 32 tiles, 2 bytes
per 8x8 tile)
$E1C0-$E23F Partial BG2 Map for Vertical Scrolling (2 x 32 tiles, 2 bytes
per 8x8 tile)
$E9C0-$EA3F Partial BG3 Map for Vertical Scrolling (2 x 32 tiles, 2 bytes
per 8x8 tile)
$D9C0-$E1BF BG1 Map for Full Updates (32 x 32 tiles, 2 bytes per 8x8 tile)
$E1C0-$E9BF BG2 Map for Full Updates (32 x 32 tiles, 2 bytes per 8x8 tile)
$E9C0-$F1BF BG3 Map for Full Updates (32 x 32 tiles, 2 bytes per 8x8 tile)
$F1C0-$F1CF Saved Actor Index
$F1D0-$F1DF Saved Level
$F1E0-$F20F Saved Experience

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\$F800-\$FFFF Decompression Buffer

\section*{Field VRAM}
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\$0000-\$2FFF BG1/BG2 Graphics
\$2800 BG1/BG2 Animation Graphics
\$2E00 Dialog Window Graphics (28 tiles)
\$3000-\$3FFF BG3 Graphics
\$3800 Dialog Text Graphics
\$4000-\$43FF Dialog Window Map Data
\$4020 Window at top of screen
\$4240 Window at bottom of screen
\$4400-\$47FF Dialog Text Map Data
\$4420 Window at top of screen
\$4640 Window at bottom of screen
\$4800-\$4FFF BG1 Map Data - 2 buffers that are swapped between during on-
screen element updates (e.g. opening doors and chests.)
\$4800 - Start Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$4C00 - Alternate Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$5000-\$57FF BG2 Map Data - 2 buffers that are swapped between during on-
screen element updates (e.g. in Narshe cave).
\$5000 - Start Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$5400 - Alternate Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$5800-\$5FFF BG3 Map Data - 2 buffers that are swapped between during on-
screen element updates.
\$5800 - Start Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$5c00 - Alternate Buffer (4bbp, 32x32 map size, 8x8 tile size)
\$6000-\$7FFF Sprite Graphics
\$6000 Object Graphics
\$6C00 Overlay Graphics
\$7000 Character Portrait Graphics
\$7200 Vehicle Graphics

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