

# The SMBX1...64 \*.SAV file specification

*Reverse-engined by Wohlstand 04/29/2014*

This is a saved game file. This file is a TEXT file. All parameters are written sequentially with separating by CRLF new-line character (This file format requires CRLF line feed only and LF-only file will cause crash of SMBX).

This file is creating automatically on each attempting to save a game.

In the SMBX64 standard, this file is saved in the same folder along with the world files of an episode. The files are named in the following manner: “save1.sav”, “save2.sav” and “save3.sav”. SMXB64 only allows three game-save files in an episode folder.

## Introduction

### Limits for world map objects:

Tiles:	20000
Paths:	2000
Music-Boxes:	1000
Sceneries:	5000
Levels:	400

## File Format Specification

### Structure:

- [Header and character's attributes]
- [Visibility of levels objects, associated by array index in World map]
- “next”
- [Visibility of paths, associated by array index in World map]
- “next”
- [Visibility of scenery, associated by array index in World map]
- “next”
- [gotten stars, pointers to the level section with gotten star]
- “next”
- [Number of stars (parameter, gotten from world map)]

### The reference designations:

- standard parameter
- **Comment title**
- Comment description
- **loop**
- **variable**
- *Special option, only used under special conditions, differently is absent*
- **File format version limit**
- **Data type**

--File format description--

**First 31 lines (Header and character's attributes):**

Parameter	Description
64	(unsigned int) File format version (Last in SMBX is 64)
8	(unsigned int) number of lives (0-99)
84	(unsigned int) number of coins (0-99)
96	(long) Player's position on world map X
448	(long) Player's position on world map Y
1	(unsigned int) <b>Mario's</b> power-up (1-7) 1-small, 2-big, 3-fire, 4-racoon, 5-tanooki, 6-hammer, 7-ice
34	(unsigned long) Item slot contains (NPC-ID)
1	(unsigned int) Mount type (0,1,3) ( $\geq 56$ ) 0 – none, 1 – shoe, 3 - yoshi
3	(unsigned int) Mounted object ID (0 if mounts are absence) shoes: 1 – green, 2 – red, 3 – blue Yoshis: 1 – green, 2 – blue, 3, 4, 5, 6, 7, 8
0	(unsigned int) Mario's health (not allowed for Mario by SMBX64) ( $\geq 56$ )
5	(unsigned int) <b>Luigi's</b> power-up (1-7) 1-small, 2-big, 3-fire, 4-racoon, 5-tanooki, 6-hammer, 7-ice
0	(unsigned long) Item slot contains (NPC-ID)
0	(unsigned int) Mount type (0,1,3) ( $\geq 56$ )
0	(unsigned int) Mounted object ID (0 if absence, 1-3 shoes, 1-8 yoshis)
0	(unsigned int) Luigi's health (not allowed for Luigi by SMBX64) ( $\geq 56$ )
6	(unsigned int) <b>Peach's</b> power-up (1-7) ( $\geq 56$ ) 1-small, 2-big, 3-fire, 4-racoon, 5-tanooki, 6-bombs, 7-ice
0	(unsigned long) Item Slot contains ( $\geq 56$ ) (not allowed for Peach by SMBX64)
1	(unsigned int) Mount type (0,1,3) ( $\geq 56$ ) (Yoshis not allowed for Peach by SMBX64, 3 will not give effects)
3	(unsigned int) Mounted object ID (0 if mounts are absence) shoes: 1 – green, 2 – red, 3 – blue ( $\geq 56$ )
3	(unsigned int) Peach's health ( $\geq 56$ )
3	(unsigned int) <b>Toad's</b> power-up (1-7) ( $\geq 56$ ) 1-small, 2-big, 3-fire, 4-racoon, 5-tanooki, 6-boomerang, 7-ice
0	(unsigned long) Item Slot contains ( $\geq 56$ ) (not allowed for Toad by SMBX64)
1	(unsigned int) Mount type (0,1,3) ( $\geq 56$ ) (Yoshis not allowed for Toad by SMBX64, 3 will not give effects)
2	(unsigned int) Mounted object ID (0 if mounts are absence) shoes: 1 – green, 2 – red, 3 – blue ( $\geq 56$ )
3	(unsigned int) Toad's health (1-3) ( $\geq 56$ )
2	(unsigned int) <b>Link's</b> power-up (1-7) ( $\geq 56$ )
0	(unsigned long) Item Slot contains ( $\geq 56$ ) (not allowed for Link by SMBX64)
0	(unsigned int) Mount type (not allowed for Link by SMBX64)( $\geq 56$ )
0	(unsigned int) Mounted object (not allowed for Link by SMBX64) ( $\geq 56$ )
2	(unsigned int) Link's health ( $\geq 56$ )
12	(unsigned long) Current world music ID
#FALSE#	(bool) Game was completed ( $\geq 56$ )

### Visibility of level objects

(Loop = number of level objects on the world map, or while current!="next")	
#TRUE#	(bool) Visibility of level object in world array by Index=CurrentLoop
(Loop end)	

Marker between level objects visibility and paths visibility

"next"

### Visibility of paths

(Loop = number of paths objects on the world map, or while current!="next")	
#TRUE#	(bool) Visibility of path in world array by Index=CurrentLoop
(Loop end)	

Marker between paths visibility and scenery visibility

"next"

### Visibility of scenery

(Loop = number of scenery on world map, or while current!="next")	
#TRUE#	(bool) Visibility of scenery in world array by Index=CurrentLoop
(Loop end)	

Marker between scenery visibility and gotten stars list

"next"

### Gotten stars

(Loop = while current != "next")		(>= 7)
"level 1-3.lv1"	(string)	Level file
2	(unsigned int)	level section with gotten star (0-20) (>= 16)
(Loop end)		

Marker between gotten stars and stars quantity

"next"

(>= 16)

10	(unsigned long) number of stars (parameter, gotten from world map) (>= 21)
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--End of file--