1 Introduction

HL1 files are required for proper saving and loading of the game.

I found out that HL1 files, obtained by saving on PC (version 1.1.1.0 worked for me) are compatible with PS2 HL. But be aware that Xash3D files are not compatible at all. If PC file is not working for some reason you can rip correct HL1 file off PCSX2 (see chapter 2).

As much as in PC version of the game, those files are required for saving and loading. PC version generates and stores those files on HDD. Because PS2 doesn't have HDD those files are stored in RAM during game saving and when save is completed they are immediately cleared. When you load save on PS2 the game searches for HL1 file inside DICTS.PAK and if it can't find this file then out of bounds spawn glitch happens.

Every map should have corresponding *.HL1 file inside DICTS.PAK (c0a0.bs2 -> c0a0.hl1).

Very important thing to know is that maximum length of *.HL1 file is 15 characters. If *.HL1 file name is bigger than 15 then game would not see it. Examples of correct and incorrect file names:

Name	Size	Validity
ba_power1.hl1	13	Correct
ba_elevator.hl1	15	Correct
ba_security1.hl1	16	Bad
ba_teleport1.hl1	16	Bad

To fix long name you need to rename both *.BS2 and *.HL1 files and patch all changelevel triggers on neighbor *.BS2 maps.

2 How to rip HL1 files from PCSX2 (works only for NTSC SLUS_200.66 v2.40 executable file)

As I said earlier, PS2 stores *.HL1 files in RAM during game saving. So I found a way to rip those files with PCSX2 and HxD:

1) Run PCSX2 and HxD

2) Open PCSX2 RAM in HxD

3) Run PS2 Half-Life

4) Open Debug window of PCSX2 (Debug -> Open Debug Window …)

5) Go to desired map and make save state

6) Set execute break points on addresses 0x0029A8B4, 0x0022BDF0, 0x0022BE18 and make ONLY THE FIRST ONE enabled

7) Quick save in game, Debug window should pop up, then enable other two break points

8) Hit "Run" button one time in Debugger, then take start address from V0 register, add 0x20000000 to it

9) Hit "Run" button again, then get end address in V1 register, add 0x20000000 to it

10) Go to HxD, hit F5 button on keyboard, then select area between obtained addresses

11) Selected fragment is *.HL1 dictionary file. Save it to HDD

12) Load state

13) To repeat go to step 5

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To check if file was ripped correctly you need to check its header:

```
Offset(h)  00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

00000000   56 41 4C 56 71 00 00 00 6A 37 01 00 47 01 00 00   VALVq...j7..G...
00000010   FF 0F 00 00 B4 16 00 00 00 00 00 00 00 00 00 00   я...г...........
00000020   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00000030   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00000040   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00000050   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00000060   00 00 00 00 41 44 4A 41 43 45 4E 43 59 00 00 00   ....ADJACENCY...
```

1) File should begin with VALVq symbols;
2) File size should be equal to sum of 0x18 and values from fields in orange borders (little endian, take bytes in reverse order 0x6A370100 -> 0x0001376A);