

HD Loader salvage utilities

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1 Introduction

The purpose of *HD Loader salvage utilities* is to locate and restore lost data. Generally the program applies the following two methods to locate lost data:

HD Loader method — scan each and every 128MB-block for HD Loader game header and use it to rebuild partition entries.

APA method — scan each and every 128MB-block for healthy partition entry.

Notice, that *HD Loader method* would “see” HD Loader games only, whereas *APA method* would list any healthy partitions. The two methods might be manually applied consecutively, and in any order.

2 Non-interactive repair

Read this section thoroughly, because there is a high chance to make things worse. Non-interactive repair is completely automated. If you want to have *any* control about what is going on, refer to Section 3.

APA method drawbacks are, that some utilities overwrite (zero or `__empty`) APA partition entry when it is deleted. In such cases, the tool will not be able to recognize those partitions. APA method is suitable for quick-and-easy repair of minor APA-chain errors, caused by unsuccessful game installation. In any case it will rarely break anything.

HD Loader method is far more dangerous, since it will ignore all non-HD Loader partitions. While APA method finds its way based on intact partition header, (which proves the last contents), HD Loader method is based on HD Loader game header, which might, or might not be a left-over. There is no way to find out if all parts of a game are healthy or some portions has been overwritten. Using this method is recommended *if you have HD Loader partitions only* and even then the results will vary depending on various factors. **It is not advised to use this method, because it might create new partitions for incomplete games, thus overwriting healthy partitions!**

3 Interactive repair

Interactive repair requires a valid partition table. You can use *APA method* described above, or initialize HDD using *hdl_dump* and do everything from scratch. If you decide to take the second path *it is important utility you initialize with not to zero partition headers*. *hdl_dump* does not zero anything unduly.

Having a valid partition table, the following two steps need to be performed until all the required data is restored:

- scan for healthy partitions or games;
- restore the *newest* partition or game, one at a time.

4 Usage

4.1 Automated repair

`hdlsalvage device method [commit]`

- `device` is the “location” of your Playstation 2 HDD; can be an IP-address, or device name (depending on your OS);
- `method` is one of `apa` or `hdl`, as described above;
- optional `commit` will save all changes on the HDD; if `commit` is omitted, `hdlsalvage` will only print the proposed partition table.

Sample automated repair session:

```
~$ hdl_dump initialize 192.168.0.10

~$ hdl_ls 192.168.0.10
start      size* type name
00000000   128MB    1 [__mbr                               ]
* image size for HD Loader games, space occupied otherwise
Total device size: 39296MB, used: 128MB, available: 39168MB

~$ hdlsalvage 192.168.0.10 apa
start      size* type name
00000000   128MB    1 [__mbr                               ]
00040000  3391MB   HDL PP.HDL.SCES_530.33/Formula 1 2005
00700000  2756MB   HDL PP.HDL.SCES_523.89/wrc4
00c80000   128MB   100 [HDLloader Settings                               ]
...
* image size for HD Loader games, space occupied otherwise
Total device size: 39296MB, used: 32896MB, available: 6400MB

~$ hdlsalvage 192.168.0.10 apa commit
```

```

~$ hdl ls 192.168.0.10
start      size* type name
00000000   128MB   1 [__mbr
00040000   3391MB  HDL PP.HDL.SCES_530.33/Formula 1 2005
00700000   2756MB  HDL PP.HDL.SCES_523.89/wrc4
00c80000   128MB  100 [HDLoader Settings
...
* image size for HD Loader games, space occupied otherwise
Total device size: 39296MB, used: 32896MB, available: 6400MB

~$

```

4.2 Manual repair

```

hdlrepair device method scan
hdlrepair device method restore that

```

- device is the same, as described above;
- method is one of `apa` or `hdl`, as described above;
- `scan` would list partitions, available for restoring;
- `restore` would restore that partition or game; that might be a starting sector (00040000), partition name ("PP.HDL.SCES_530.33") or HD Loader game name ("Formula 1 2005") and for current release is case-sensitive.

Sample manual repair session; notice, that `hdl scan` does not list `HDLoader Settings` partition, because it is not a HD Loader game:

```

~$ hdl_dump initialize 192.168.0.10

~$ hdl ls 192.168.0.10
start      size* type name
00000000   128MB   1 [__mbr
* image size for HD Loader games, space occupied otherwise
Total device size: 39296MB, used: 128MB, available: 39168MB

~$ hdlrestore 192.168.0.10 apa scan
start      size type name
00040000   3456MB 1337 PP.HDL.SCES_530.33/Formula 1 2005
00700000   2816MB 1337 PP.HDL.SCES_523.89/wrc4
00c80000   128MB  100 HDLoader Settings
...

~$ hdlrestore 192.168.0.10 hdl scan
start      size type name

```

```

00040000  3456MB 1337 PP.HDL.SCES_530.33/Formula 1 2005
00700000  2816MB 1337 PP.HDL.SCES_523.89/wrc4
01180000  4224MB 1337 PP.HDL.SLES_517.99/Soul Calibur II
...

~$ hdlrestore 192.168.0.10 hdl restore "Formula 1 2005"

~$ hdlrestore 192.168.0.10 hdl restore 00700000

~$ hdlls 192.168.0.10
start      size* type name
00000000   128MB   1  [__mbr
00040000   3391MB  HDL PP.HDL.SCES_530.33/Formula 1 2005
00700000   2756MB  HDL PP.HDL.SCES_523.89/wrc4
* image size for HD Loader games, space occupied otherwise
Total device size: 39296MB, used: 6400MB, available: 32896MB

~$ hdlrestore 192.168.0.10 apa scan
start      size type name
00c80000   128MB  100 HDLoader Settings
01180000   4224MB 1337 PP.HDL.SLES_517.99/Soul Calibur II
019c0000   4480MB 1337 PP.HDL.SLES_820.13/MGS3: Snake Eater
...

~$

```

Another thing you might notice is, that `scan` lists partitions that might be restored, only. Hence, when you restore a partition, it dissapears fro `scan` list.

5 Disclaimer

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