

NAME

acpidump - dump ACPI tables and ASL

SYNOPSIS

acpidump [-d] [-t] [-h] [-v] [-f *dsdt_input*] [-o *dsdt_output*]

DESCRIPTION

The **acpidump** utility analyzes ACPI tables in physical memory and can dump them to a file. In addition, **acpidump** can call `iasl(8)` to disassemble AML (ACPI Machine Language) found in these tables and dump them as ASL (ACPI Source Language) to stdout.

ACPI tables have an essential data block (the DSDT, Differentiated System Description Table) that includes information used on the kernel side such as detailed information about PnP hardware, procedures for controlling power management support, and so on. The **acpidump** utility can extract the DSDT data block from physical memory and store it into an output file and optionally also disassemble it. If any Secondary System Description Table (SSDT) entries exist, they will also be included in the output file and disassembly.

When **acpidump** is invoked without the **-f** option, it will read ACPI tables from physical memory via `/dev/mem`. First it searches for the RSDP (Root System Description Pointer), which has the signature "RSD PTR ", and then gets the RSDT (Root System Description Table), which includes a list of pointers to physical memory addresses for other tables. The RSDT itself and all other tables linked from RSDT are generically called SDTs (System Description Tables) and their header has a common format which consists of items such as Signature, Length, Revision, Checksum, OEMID, OEM Table ID, OEM Revision, Creator ID and Creator Revision. When invoked with the **-t** flag, the **acpidump** utility dumps contents of the following tables:

- BERT
- DMAR
- DSDT
- ECDT
- EINJ
- ERST
- FACS
- FADT
- HEST
- HPET
- LPIT
- MADT
- MCFG

NFIT
RSD PTR
RSDT
SLIT
SRAT
TCPA
TPM2
WDDT

The RSDT contains a pointer to the physical memory address of the FACP (Fixed ACPI Description Table). The FACP defines static system information about power management support (ACPI Hardware Register Implementation) such as interrupt mode (INT_MODEL), SCI interrupt number, SMI command port (SMI_CMD) and the location of ACPI registers. The FACP also has a pointer to a physical memory address for the DSDT. While the other tables are fixed format, the DSDT consists of free-formatted AML data.

OPTIONS

The following options are supported by **acpidump**:

-d Disassemble the DSDT into ASL using **iasl(8)** and print the results to stdout.

-t Dump the contents of the various fixed tables listed above.

-h Displays usage and exit.

-v Enable verbose messages.

-f *dsdt_input*

Load the DSDT from the specified file instead of physical memory. Since only the DSDT is stored in the file, the **-t** flag may not be used with this option.

-o *dsdt_output*

Store the DSDT data block from physical memory into the specified file.

FILES

/dev/mem

EXAMPLES

If a developer requests a copy of your ASL, please use the following command to dump all tables and compress the result.

```
# acpidump -dt | gzip -c9 > my_computer.asl.gz
```

This example dumps the DSDT from physical memory to `foo.dsd`. It also prints the contents of various system tables and disassembles the AML contained in the DSDT to `stdout`, redirecting the output to `foo.asl`.

```
# acpidump -t -d -o foo.dsd > foo.asl
```

This example reads a DSDT file and disassembles it to `stdout`. Verbose messages are enabled.

```
# acpidump -v -d -f foo.dsd
```

SEE ALSO

`acpi(4)`, `mem(4)`, `acpiconf(8)`, `acpidb(8)`, `iasl(8)`

HISTORY

The **acpidump** utility first appeared in FreeBSD 5.0 and was rewritten to use `iasl(8)` for FreeBSD 5.2.

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BUGS

The current implementation does not dump the BOOT structure or other miscellaneous tables.