



ML: How to Add or Edit dsdt/HDEF

Mountain Lion/Realtek ALC8xx/Optimized AppleHDA

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Introducing a HDEF dsdt editing tool for Mountain Lion/Realtek ALC8xx/Optimized AppleHDA audio. The Apply button automatically adds or edits your dsdt/HDEF for Mountain Lion ALC8xx HD Audio.

Benefits

1. Automated HDEF dsdt editing.
2. Enables Mountain Lion/Realtek ALC8xx/Optimized AppleHDA audio.
4. Same Audio_ID for all Mountain Lion/Realtek ALC8xx supported codecs

Requirements

1. Mountain Lion - 10.8.2 and newer
2. Realtek ALC 8xy*, one of the following Device_IDs:
 - a. 10ec0885
 - b. 10ec0887
 - c. 10ec0888
 - d. 10ec0889
 - e. 10ec0892
 - f. 10ec0898

*See Notes below for ALC 8xy examples

3. Successfully compiled dsdt.aml
 - a. if no dsdt, MaciASL/File/New from ACPI/DSDT
4. Chimera - 1.2 or newer

Tools

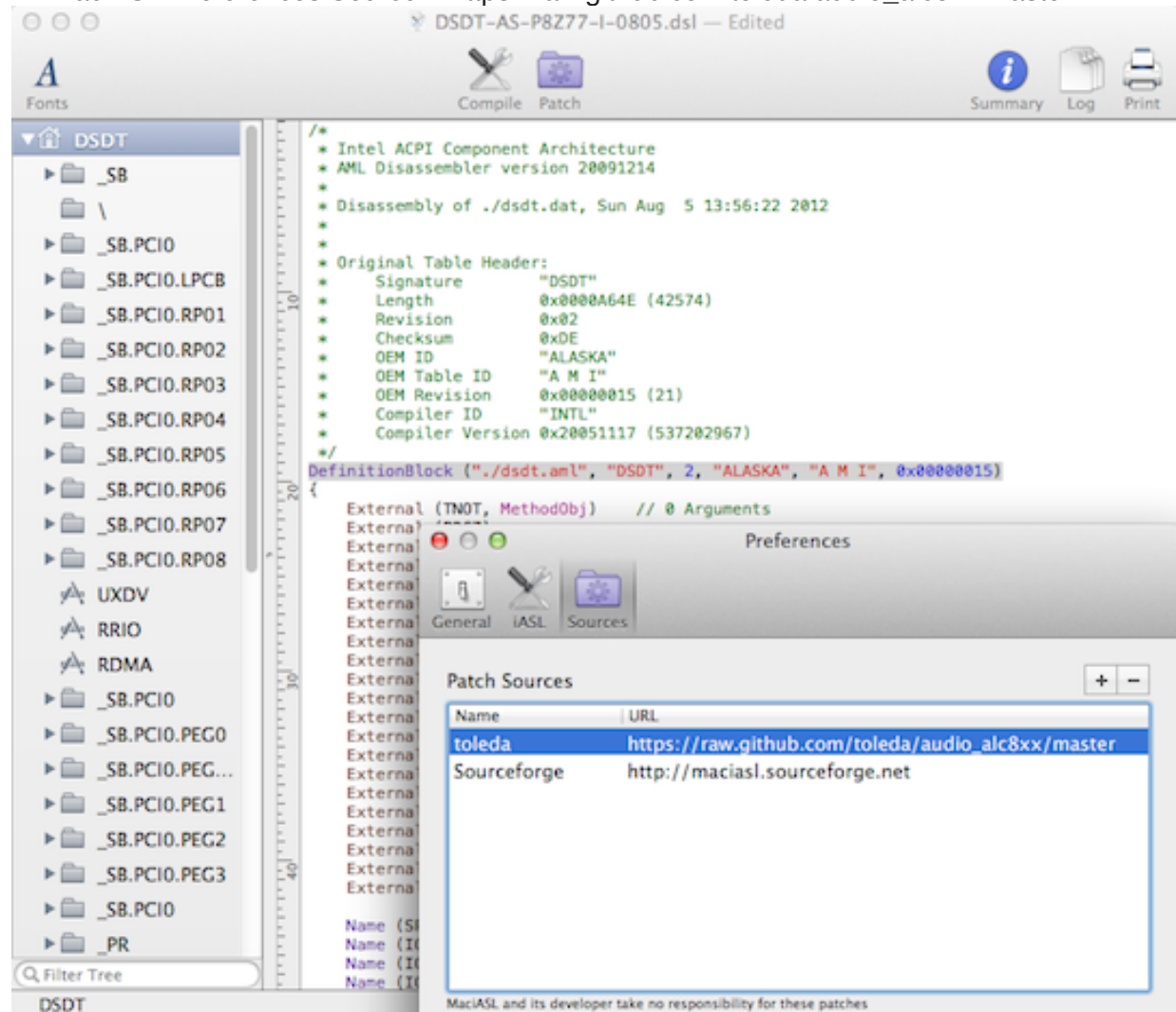
1. MaciASL SourceForge.net: MaciASL - Project Web Hosting - Open Source Software
2. IORegistryExplorer see [\[Guide\] How to Make a Copy of IOReg](#)
3. Applications/Utilities/Console
4. Applications/TextEdit
5. Carbon Copy Cloner or SuperDuper

Backup System

1. Make a bootable backup with Carbon Copy Cloner or SuperDuper

Configure MaciASL

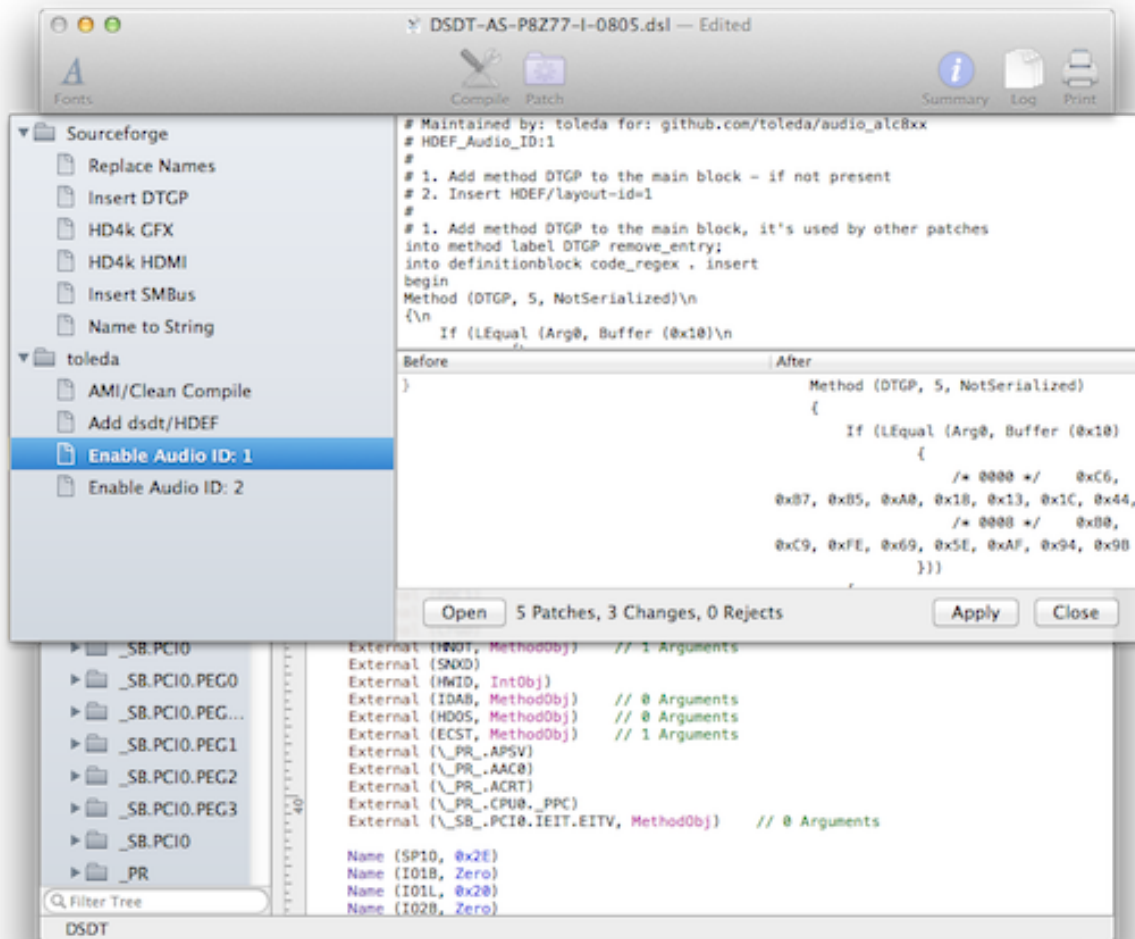
1. MaciASL/Preferences/Source/+/https://raw.githubusercontent.com/toleda/audio_alc8xx/master



Apply Edits - MaciASL/File

1. MaciASL/File/Open dsdt.aml
 - 1a. Determine BIOS supplier
2. MaciASL/Compile, if no errors, jump to 3
 - 2a. MaciASL/Patch/toleda/AMI/Clean Compile (Note: AMI only)
 - 2b. MaciASL/Compile, if no errors, jump to 3
 - 2c. If errors, seek assistance
3. MaciASL/Edit/Find/Find.../HDEF
 - 3a. If "Device (HDEF)" present, jump to 4
 - 3b. MaciASL/Patch/toleda/Add dsdt/HDEF
 - 3c. MaciASL/Apply

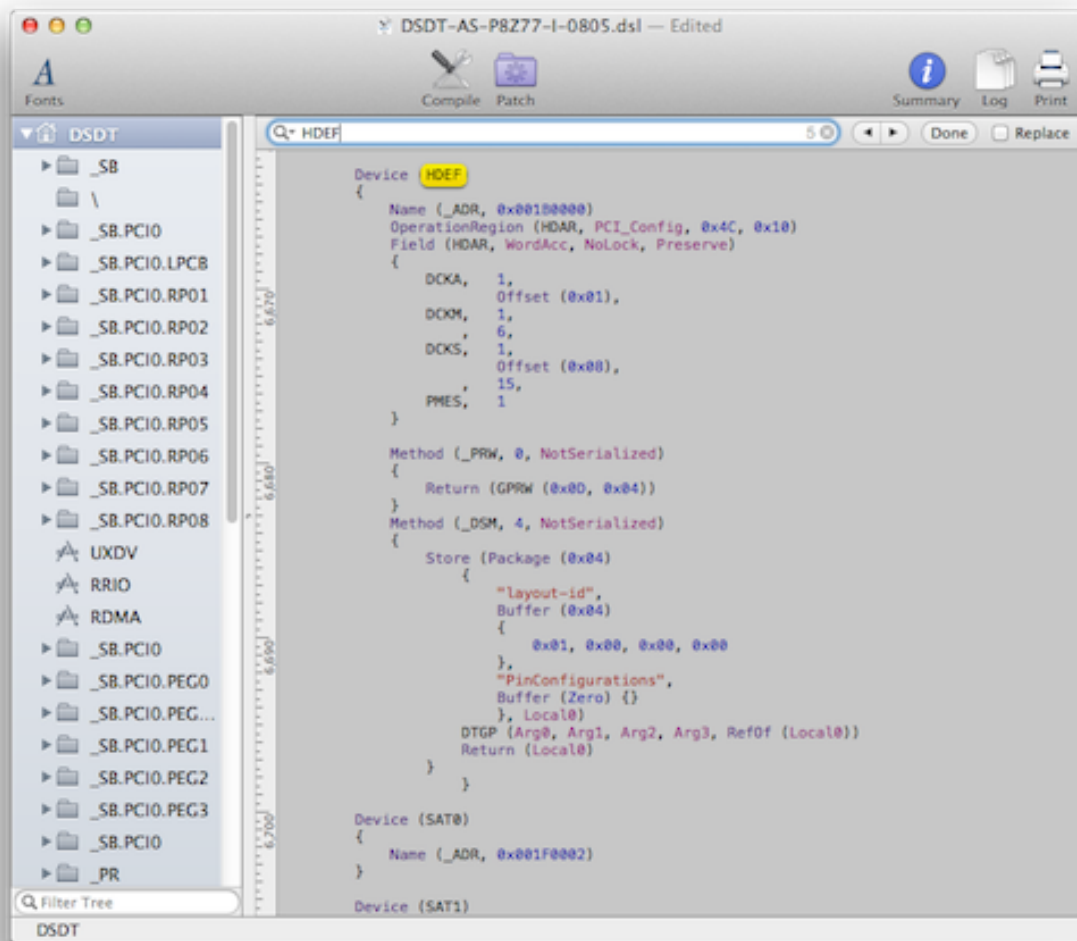
4. MaciASL/Patch/toleda/Select
- 4a. Enable Audio ID: 1 or
- 4b. Enable Audio ID: 2



5. MaciASL/Apply
6. MaciASL/Close
7. MaciASL/Compile, if no errors, jump to **Verify Edits**
- 7a. If errors, seek assistance

Verify Edits - MaciASL/File

1. MaciASL/Edit/Find HDEF (1x), represented as Device (HDEF)
2. Verify HDEF/layout-id is either
 - a. 0x01, 0x00, 0x00, 0x00 or
 - b. 0x02, 0x010, 0x00, 0x00



Save dsdt - MaciASL/File

1. MaciASL/File/Save As.../ACPI Machine Language Binary/Desktop/dsdt.aml (add extension)

Install dsdt.aml - MaciASL/File

1. MaciASL/File/Save As.../ACPI Machine Language Binary/Extra/dsdt. aml (add extension)
 1a. Alternative: Copy (Drag/Hold Option key) Desktop/dsdt.aml to Extra
 [image]

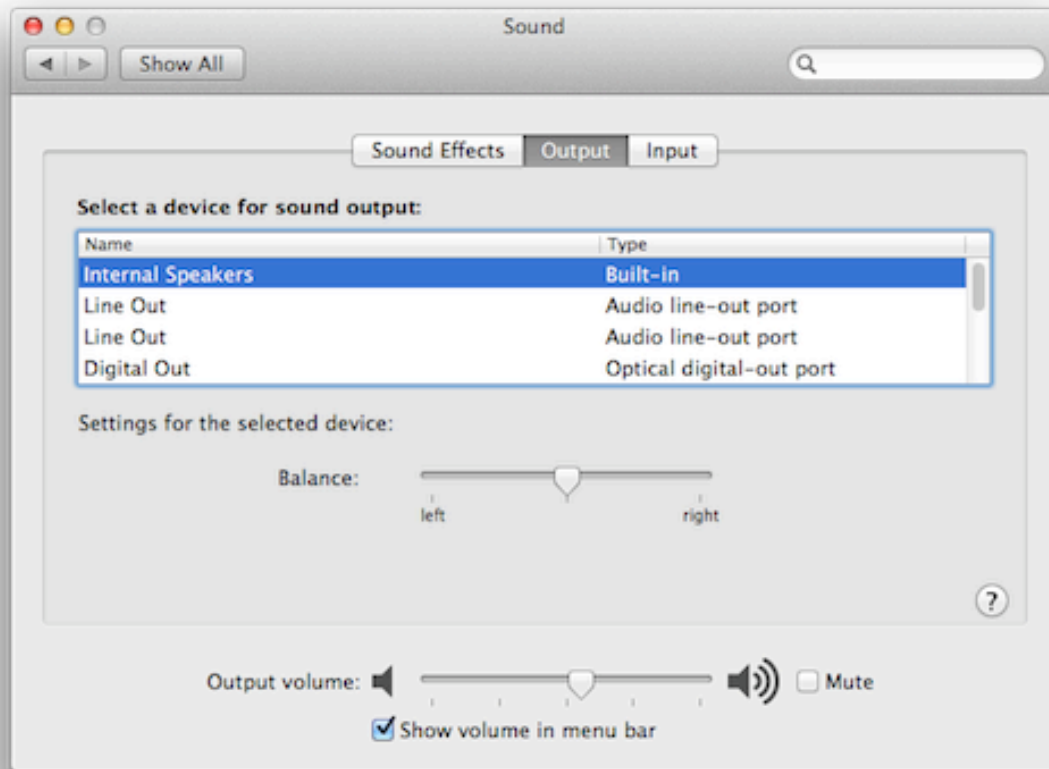
Install Mountain Lion/Optimized AppleHDA.kext

1. MultiBeast 5.2.1 or newer - Select/Drivers & Bootloaders/Drivers/Audio/Realtek ALC8xx/With DSDT/ALC8...

Restart

Verify Realtek 8xx Audio

1. System Preferences/Sound/Output



Notes

1. ALC 8xy can one of the following Realtek audio codecs:

- a. ALC 885 aka ALC 889a
- b. ALC 887 aka ALC 888b,
- c. ALC 888 aka ALC 888s
- d. ALC 889
- e. ALC 892
- f. ALC 898

dsdt Edits

1. HDEF

[CODE]Device (HDEF)

```
{  
    Name (_ADR, 0x001B0000)
```

....

....

```
    Method (_DSM, 4, NotSerialized)
```

```
{  
    Store (Package (0x04)  
    {
```

```
        "layout-id",  
        Buffer (0x04)  
        {  
            0x01, 0x00, 0x00, 0x00  
        },  
  
        "PinConfigurations",  
        Buffer (Zero) {}  
    }, Local0)  
DTGP (Arg0, Arg1, Arg2, Arg3, RefOf (Local0))  
Return (Local0)  
}  
}
```

[/CODE]

Credits:

VCH888; insanely-mac.com/forum/index.php?showtopic=140941

SJ_UnderWater: Native DSDT/AML IDE & Compiler: MaciASL Open Beta