



## [Guide] ML: How to Add or Edit dsdt/HDEF v2

For ML Realtek ALC AppleHDA

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

### Version 2

1. Minimum edits, no Method (DTGP.., faster boot)
2. Added Audio ID: 3 (HD3K/HD4K HDMI audio)

audio\_ALCInjection

[github.com/toleda/audio\\_ALCInjection](https://github.com/toleda/audio_ALCInjection)

### Requirements

1. Mountain Lion - 10.8.4 and newer
2. Realtek ALC\*, one of the following Device\_IDs:
  - 2a. 10ec0885
  - 2b. 10ec0887
  - 2c. 10ec0888
  - 2d. 10ec0889
  - 2e. 10ec0892
  - 2f. 10ec0898

\*See Notes below for ALC 8xy examples

3. Successfully compiled dsdt.aml
  - a. if no dsdt, MaciASL/File/New from ACPI/DSDT

### Tools

1. MaciASL [SourceForge.net: MaciASL - Project Web Hosting - Open Source Software](https://sourceforge.net/projects/maciasl/)
2. IORegistryExplorer/File/Save a Copy As... ( use IOReg\_v2.1)
3. Applications/Utilities/Console
4. Carbon Copy Cloner or SuperDuper

### Backup System

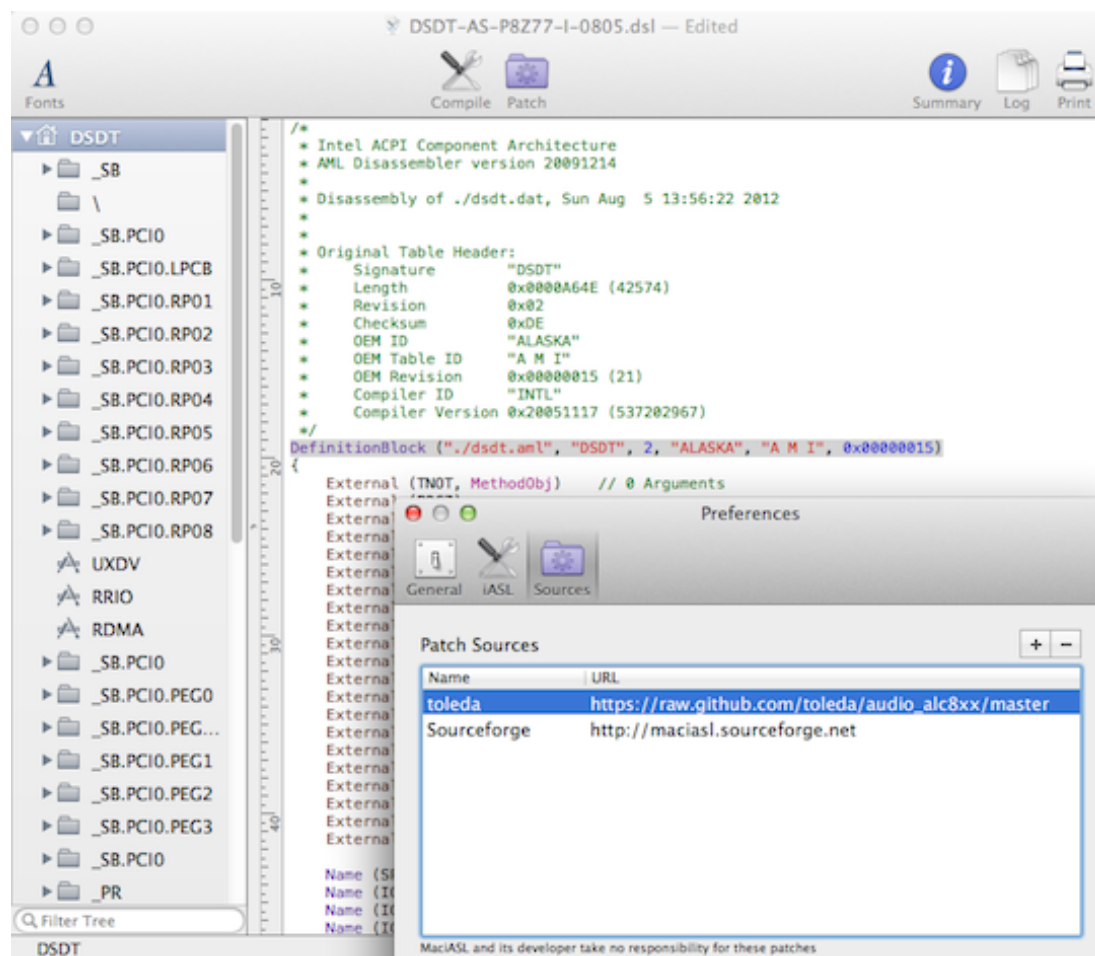
1. Make a bootable backup with Carbon Copy Cloner or SuperDuper

### Remove Enabler

1. Trash any audio enablers
  - 1a. Ex., S/L/E/HDAEnabler1.kext, HDAEnabler8--.kext, ALC8xxHDA.kext, etc.
  - 1b. Repair permissions and fix cache

## Configure MaciASL

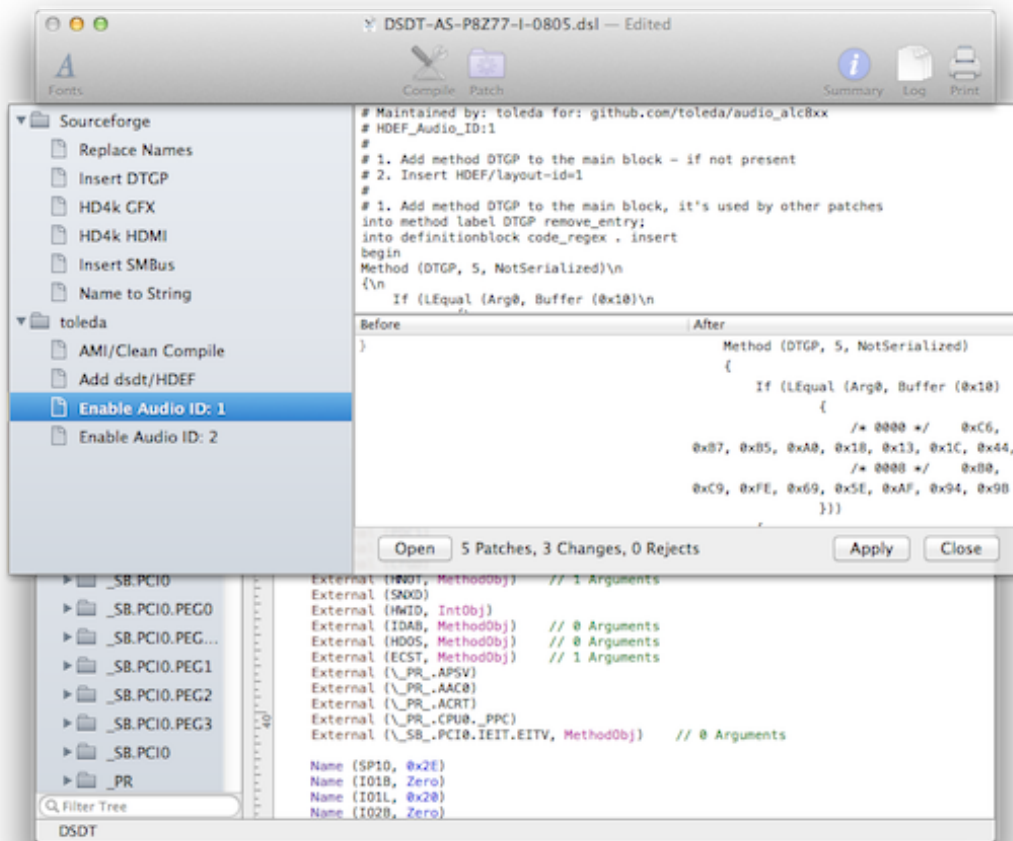
1. Copy Downloads/MaciASL to Applications
2. Open Applications/MaciASL
3. MaciASL/Preferences/Source/+/https://raw.githubusercontent.com/toleda/audio\_ALCInjection/master
- 3a. URL: [https://raw.githubusercontent.com/toleda/audio\\_ALCInjection/master](https://raw.githubusercontent.com/toleda/audio_ALCInjection/master)



## Apply Edits - MaciASL/File

1. MaciASL/File/Open dsdt.aml
  - 1a. Determine BIOS supplier (see DefinitionBlock, highlighted in Screenshot, above)
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/Audio ID: 1
  - 3c. Jump to 5.
4. MaciASL/Patch/toleda/Select
  - 4a. Enable Audio ID: 1 or
  - 4b. Enable Audio ID: 2 or

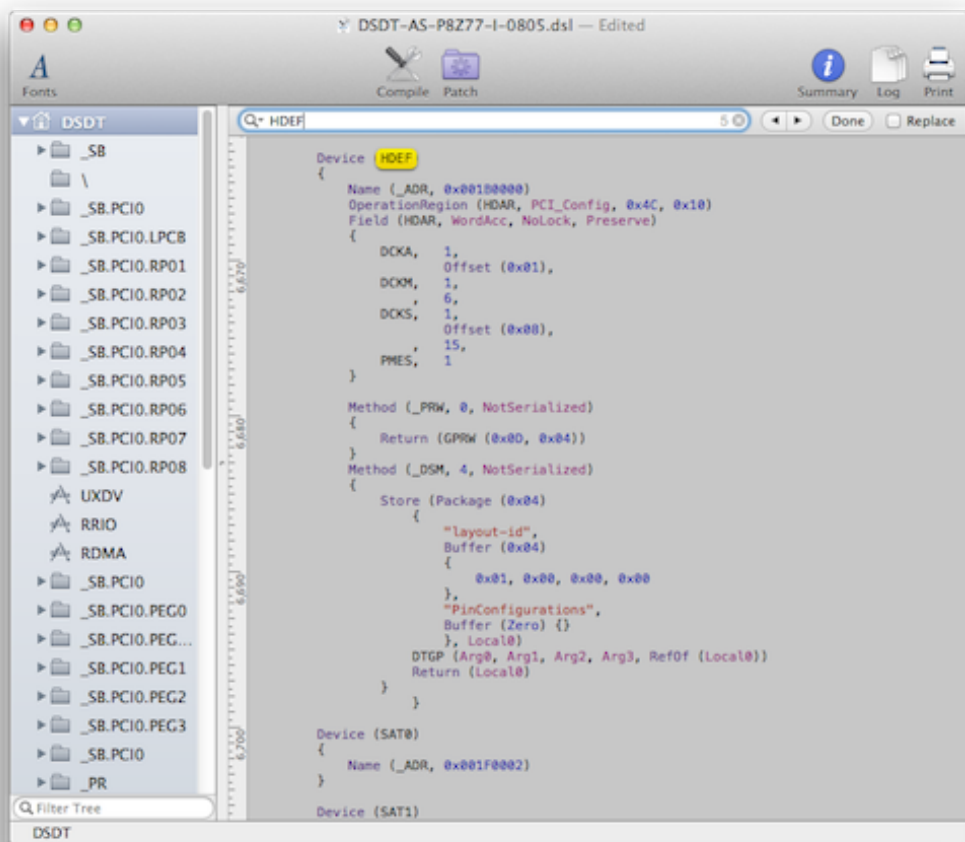
#### 4c. Enable Audio ID: 3



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

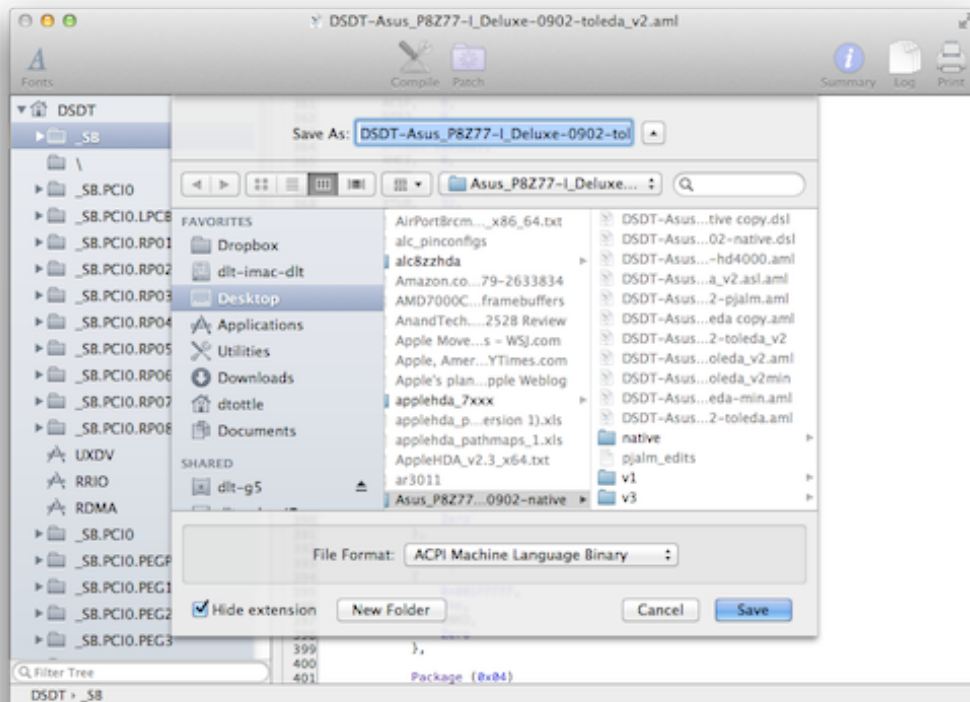
#### Verify Edits - MaciASL/File

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 or
  - c. 0x03, 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

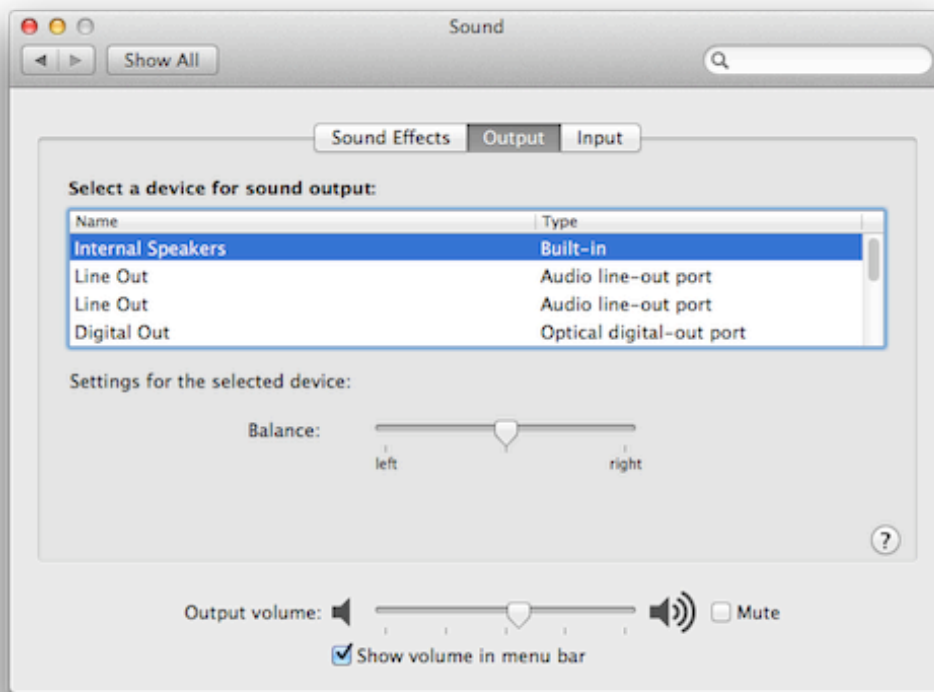
1. MaciASL/File/Save As.../ACPI Machine Language Binary/Extra/dsdt.aml (add extension)
- 1a. Alternative: Copy (Drag/Hold Option key) Desktop/dsdt.aml to Extra

### Install Mountain Lion Realtek ALC AppleHDA.kext

#### Restart

### Verify Realtek ALC Audio

1. System Preferences/Sound/Output



### Troubleshooting

1. ML-Realtek ALC AppleHDA Capabilities.pdf
2. Post to <http://www.insanelymac.com/forum/topic/290796-realtek-alc-applehda-audio-injection/>
3. Post to <http://www.tonymacx86.com/audio/76309-mountain-lion-multibeast-no-audio-solutions-problem-reporting.html>

### Notes

1. ALC 8xy can one of the following Realtek audio codecs:
  - 1a. ALC 885 aka ALC 889a
  - 1b. ALC 887 aka ALC 888b,
  - 1c. ALC 888 aka ALC 888s
  - 1d. ALC 889
  - 1e. ALC 892
  - 1f. ALC 898

### dsdt Edits

```

1. HDEF
[CODE]
After patch:
Device (HDEF)
{
    Name (_ADR, 0x001B0000)
    ....
    ....
    Method (_DSM, 4, NotSerialized)
    {
        If (LEqual (Arg2, Zero)) { Return (Buffer() { 0x03 }) }
    }

```

```

Return (Package()
{
    "layout-id", Buffer() { 0x01, 0x00, 0x00, 0x00 },
    "PinConfigurations", Buffer(Zero) {},
    "hda-gfx", Buffer() { "onboard-1" },
})
}
}

```

Compiled (.aml)

Device (HDEF)

```

{
    Name (_ADR, 0x001B0000)
....
....
    Method (_DSM, 4, NotSerialized) // _DSM: Device-Specific Method
    {
        If (LEqual (Arg2, Zero))
        {
            Return (Buffer (One)
            {
                0x03
            })
        }

        Return (Package (0x06)
        {
            "layout-id",
            Buffer (0x04)
            {
                0x01, 0x00, 0x00, 0x00
            },

            "PinConfigurations",
            Buffer (Zero) {},
            "hda-gfx",
            Buffer (0x0A)
            {
                "onboard-1"
            }
        })
    }
}

```

[/CODE]

Credits:

VCH888; [ALC889A, Gigabyte \(Intel\): now having a working front mic - Page 38 - Sound - InsanelyMac Forum](#)

SJ\_UnderWater: [SourceForge.net: MaciASL - Project Web Hosting - Open Source Software](#)

PikeRAAlpha