

**How to add HDEF to your dsdt and
How to get a dsdt if you don't have one.**

Table of Contents

Step 1. Extract DSDT
Step 2. Verify DSDT
Step 3. Edit DSDT
a. DTGP
Step 4. Edit DSDT
a. HDEF
Step 5. Edit DSDT
a Existing HDEF
Step 6. Compile DSDT
Step 7. Test DSDT
Step 8. Install DSDT
Step 9. Restart

Step 0. Existing dsdt

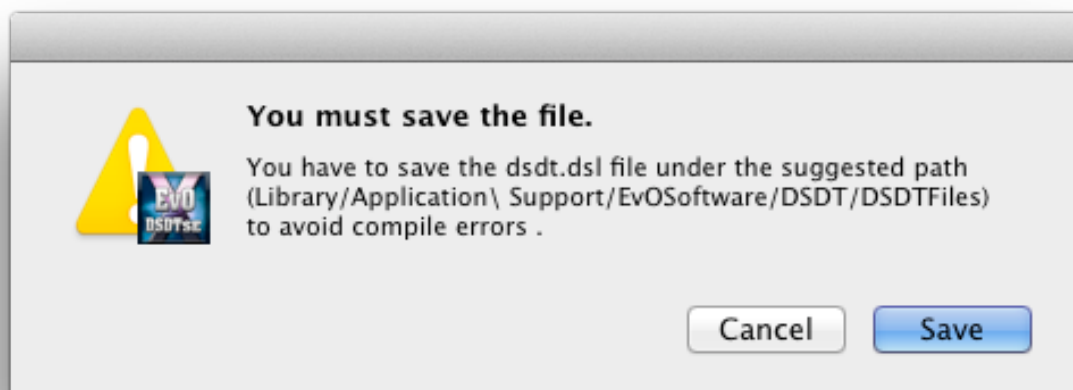
-If you have a dsdt.aml, skip to Step 2. Verify DSDT
a. Move to Trash any Desktop/dsdt.aml
b. Copy Extra/dsdt.aml to Desktop

Step 1. Extract DSDT

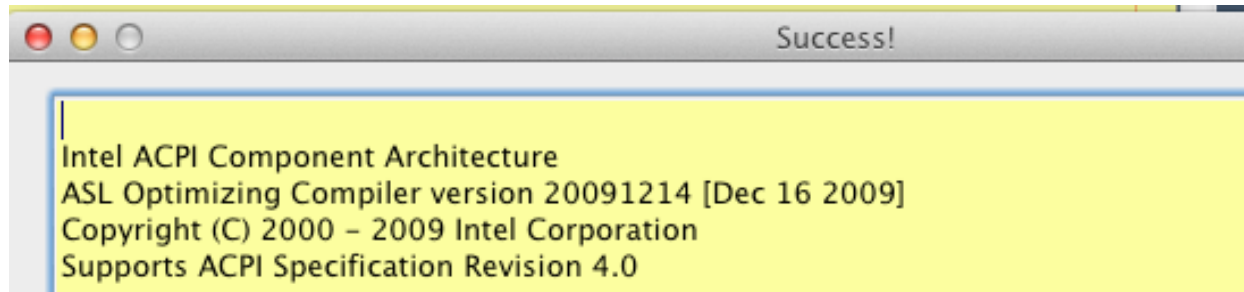
a. DSDTSE/Extract DSDT
b. DSDTSE/File/Save ..dsl to Desktop

Step 2. Verify DSDT

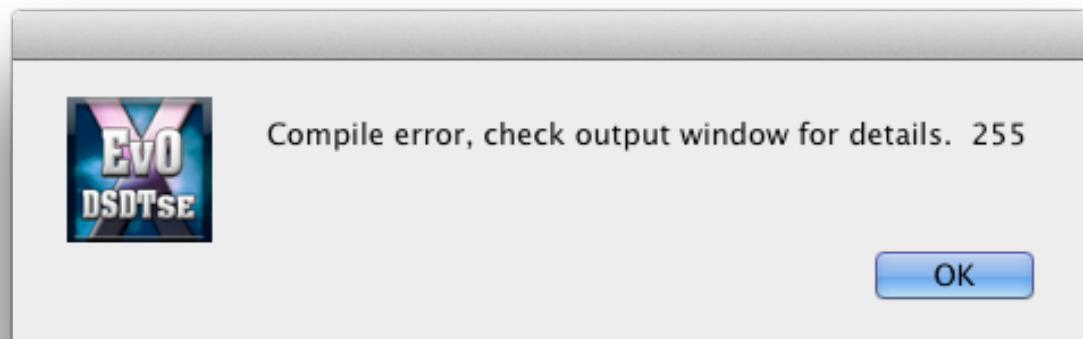
a. DSDTSE/Desktop/dsdt
b. DSDTSE/Compile DSDT
c. DSDTSE/You must save the file/Save/Save



- d. If "Success!" appears (warnings and remarks are OK)
- i. DSDTSE/Close Edit Window.
- ii. dsdt is verified
- iii. Proceed to Step 3. Edit DSDT/DTGP

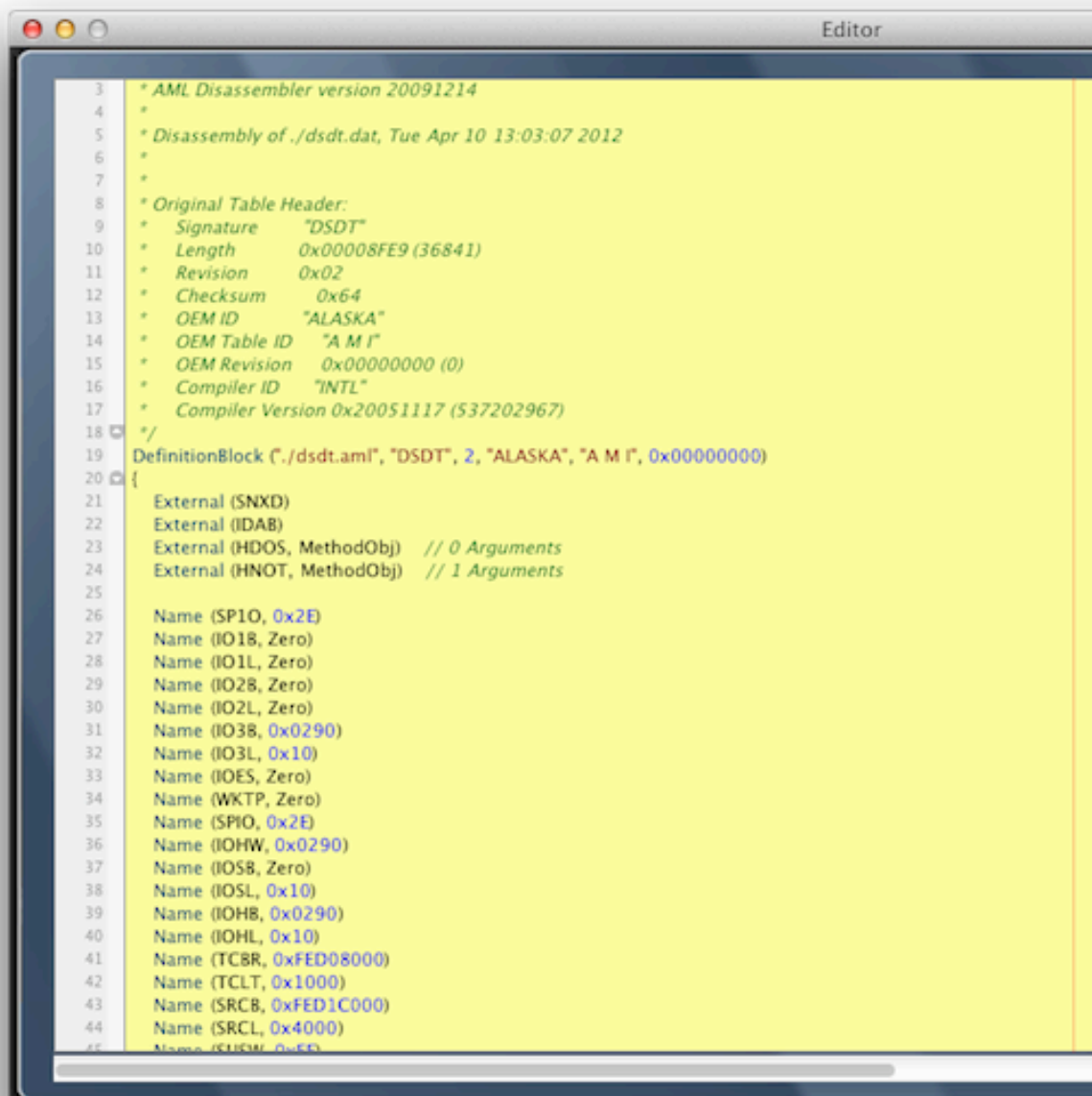


- e. If "Compile error " appears,
- 1. Seek assistance. (compile errors indicate HDEF editing would be unsuccessful)



Step 3. Edit DSDT/DTGP

- DSDTSE/Desktop/dsdt
- Edit screen should look similar to the screenshot. As below



```
3  * AML Disassembler version 20091214
4  *
5  * Disassembly of ./dsdt.dat, Tue Apr 10 13:03:07 2012
6  *
7  *
8  * Original Table Header:
9  *   Signature      "DSDT"
10 *   Length         0x00008FE9 (36841)
11 *   Revision       0x02
12 *   Checksum       0x64
13 *   OEM ID         "ALASKA"
14 *   OEM Table ID   "A M I"
15 *   OEM Revision   0x00000000 (0)
16 *   Compiler ID    "INTL"
17 *   Compiler Version 0x20051117 (537202967)
18 */
19 DefinitionBlock ("./dsdt.aml", "DSDT", 2, "ALASKA", "A M I", 0x00000000)
20 {
21     External (SNXD)
22     External (IDAB)
23     External (HDOS, MethodObj) // 0 Arguments
24     External (HNOT, MethodObj) // 1 Arguments
25
26     Name (SP10, 0x2E)
27     Name (IO18, Zero)
28     Name (IO1L, Zero)
29     Name (IO28, Zero)
30     Name (IO2L, Zero)
31     Name (IO38, 0x0290)
32     Name (IO3L, 0x10)
33     Name (IOES, Zero)
34     Name (WKTP, Zero)
35     Name (SP10, 0x2E)
36     Name (IOHW, 0x0290)
37     Name (IOS8, Zero)
38     Name (IOSL, 0x10)
39     Name (IOH8, 0x0290)
40     Name (IOHL, 0x10)
41     Name (TC8R, 0xFED08000)
42     Name (TCLT, 0x1000)
43     Name (SRCB, 0xFED1C000)
44     Name (SRCL, 0x4000)
45     Name (SEU8M, 0xFED)
```

c. DSDTSE/Search DTGP

- If Method (DTGP....) appears, no DTGP edit is required, jump to Step 4, Edit DSDT/HDEF

d. DSDTSE/Downloads/DSDT-HDEF_Edits_v1

e. DSDTSE/Select Method (DTGP, 5, NotSerialized)

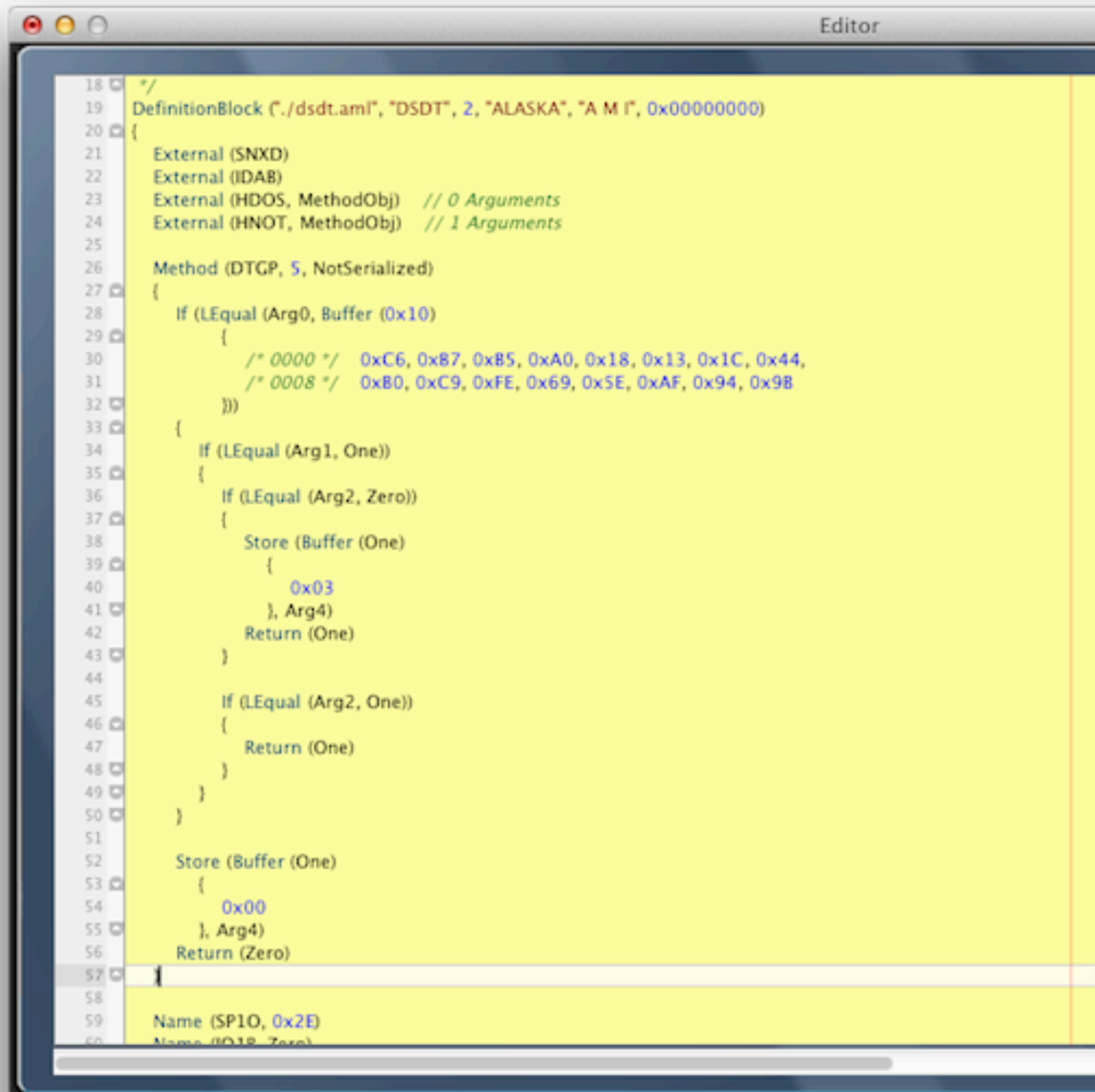
f. DSDTSE/Highlight Method (DTGP, 5, NotSerialized) - lines 8-39

g. DSDTSE/Copy Method (DTGP, 5, NotSerialized) to clipboard

h. As below

```
1 File: DSDT-HDEF_Edits_v1
2
3 Line    Contents
4 8      DTGP
5 42     HDEF
6
7
8 Method (DTGP, 5, NotSerialized)
9 {
10     If (LEqual (Arg0, Buffer (0x10))
11     {
12         /* 0000 */ 0xC6, 0xB7, 0xB5, 0xA0, 0x18, 0x13, 0x1C, 0x44,
13         /* 0008 */ 0xB0, 0xC9, 0xFE, 0x69, 0x5E, 0xAF, 0x94, 0x9B
14     })
15     {
16         If (LEqual (Arg1, One))
17         {
18             If (LEqual (Arg2, Zero))
19             {
20                 Store (Buffer (One)
21                 {
22                     0x03
23                 }, Arg4)
24                 Return (One)
25             }
26             If (LEqual (Arg2, One))
27             {
28                 Return (One)
29             }
30         }
31     }
32 }
33
34 Store (Buffer (One)
35 {
36     0x00
37 }, Arg4)
38 Return (Zero)
39 }
40
41
42 Device (HDEF)
```

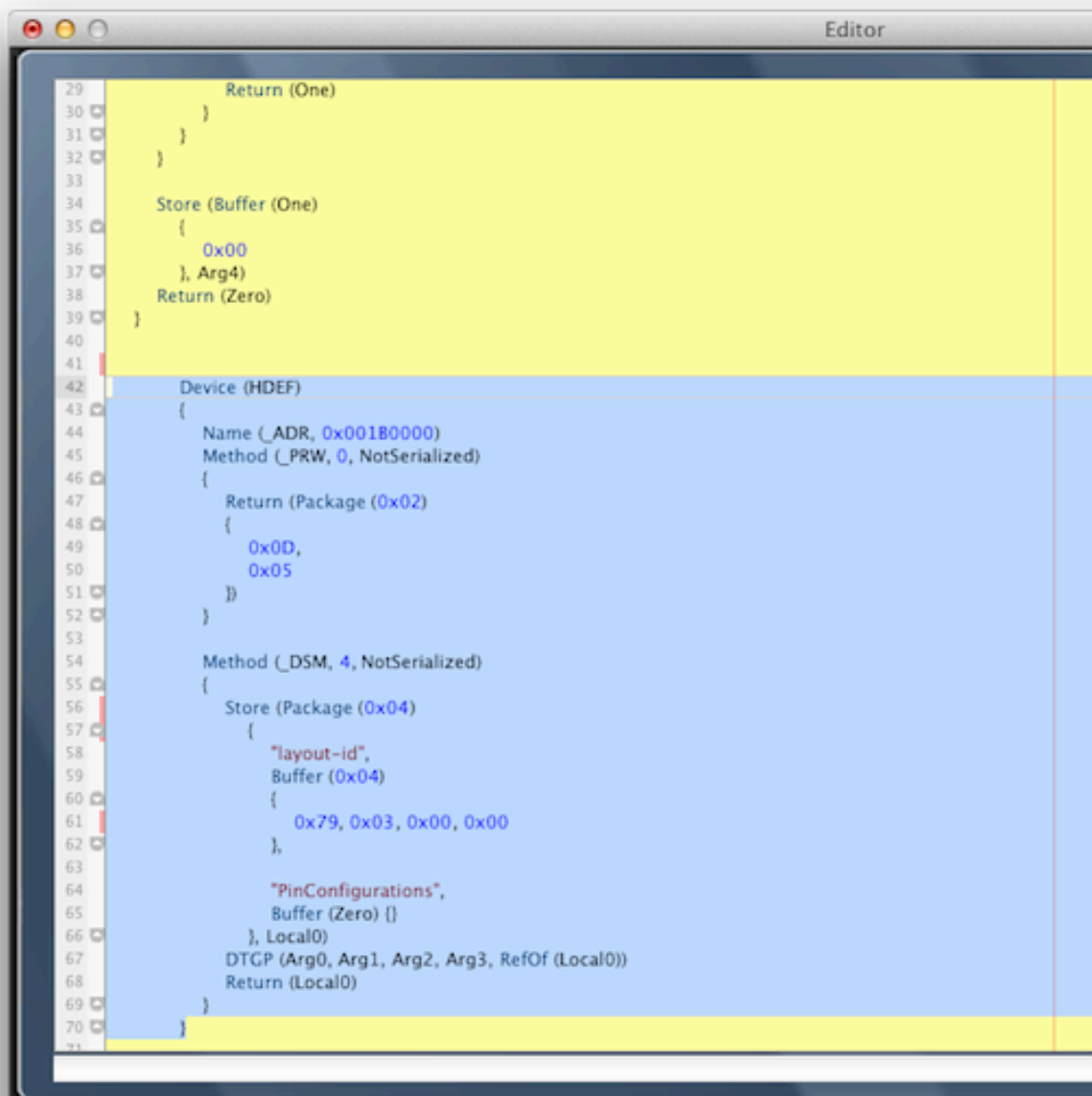
- i. DSDTSE/Desktop/dsdt
- j. DSDTSE/Select a blank line after DefinitionBlock and before Name
- k. DSDTSE/Add 3 empty lines
- l. DSDTSE/Paste Method (DTGP, 5, NotSerialized) from clipboard to dsdt
- m. As below



```
18 */
19 DefinitionBlock (".\dsdt.aml", "DSDT", 2, "ALASKA", "A M I", 0x00000000)
20 {
21     External (SNXD)
22     External (IDAB)
23     External (HDOS, MethodObj) // 0 Arguments
24     External (HNOT, MethodObj) // 1 Arguments
25
26     Method (DTGP, 5, NotSerialized)
27     {
28         If (LEqual (Arg0, Buffer (0x10)
29         {
30             /* 0000 */ 0xC6, 0xB7, 0xB5, 0xA0, 0x18, 0x13, 0x1C, 0x44,
31             /* 0008 */ 0xBD, 0xC9, 0xFE, 0x69, 0x5E, 0xAF, 0x94, 0x9B
32         })
33         {
34             If (LEqual (Arg1, One))
35             {
36                 If (LEqual (Arg2, Zero))
37                 {
38                     Store (Buffer (One)
39                     {
40                         0x03
41                     }, Arg4)
42                     Return (One)
43                 }
44
45                 If (LEqual (Arg2, One))
46                 {
47                     Return (One)
48                 }
49             }
50         }
51
52         Store (Buffer (One)
53         {
54             0x00
55         }, Arg4)
56         Return (Zero)
57     }
58
59     Name (SP10, 0x2E)
60     Name (O1B, Zero)
```

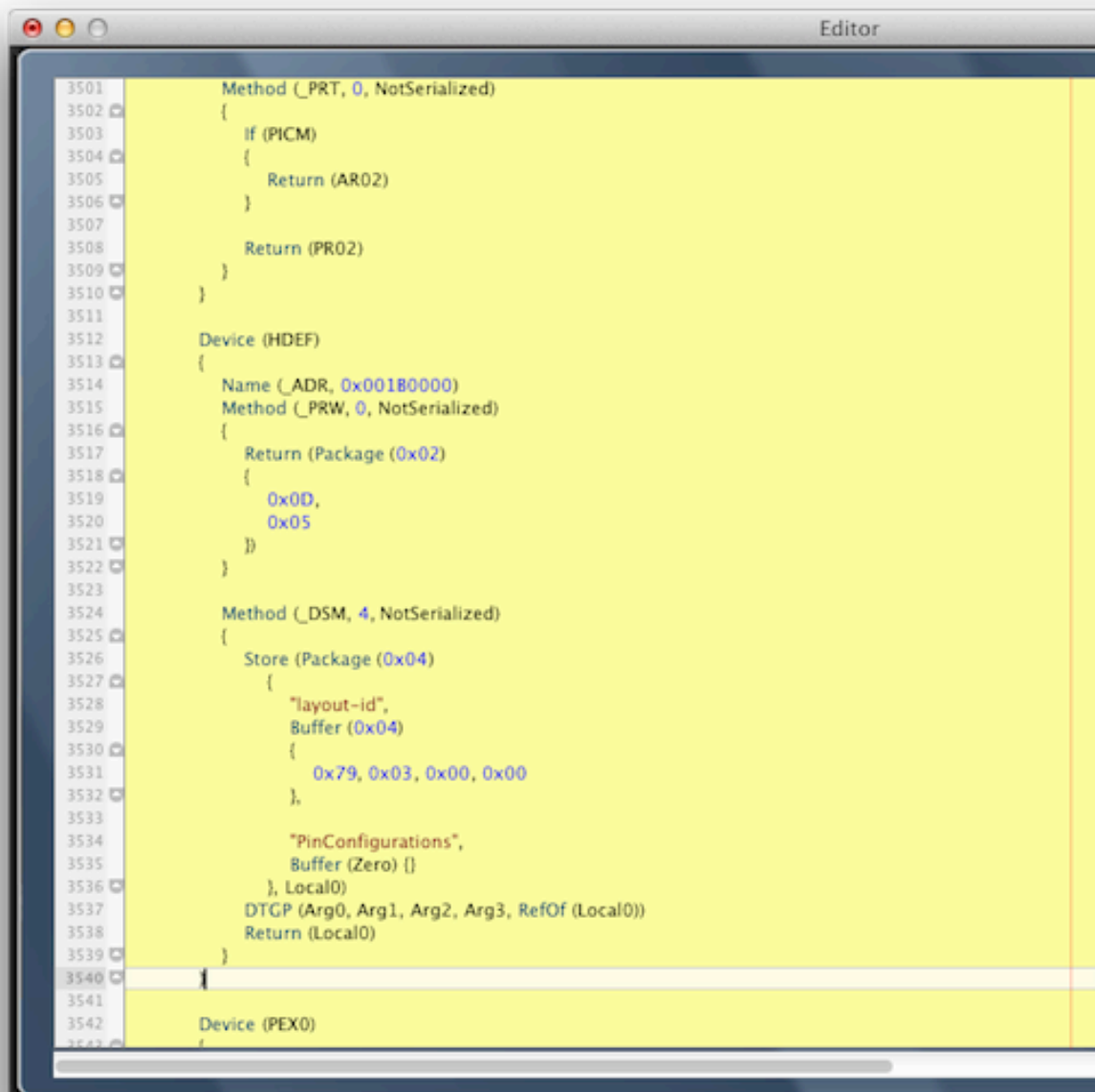
Step 4. Edit DSDT/HDEF

- a. DSDTSE/Desktop/dsdt
- b. DSDTSE/Search HDEF
- If Device (HDEF....) appears jump to Step 5, Edit DSDT/Existing HDEF
- c. DSDTSE/Downloads/DSDT-HDEF_Edits_v1
- d. DSDTSE/Select Device (HDEF)
- e. DSDTSE/Highlight Device (HDEF) - lines 42-70
- f. DSDTSE/Copy Device (HDEF) to clipboard to dsdt
- g. As below



```
29      Return (One)
30    }
31  }
32}
33
34  Store (Buffer (One)
35  {
36    0x00
37  }, Arg4)
38  Return (Zero)
39}
40
41
42  Device (HDEF)
43  {
44    Name (_ADR, 0x00180000)
45    Method (_PRW, 0, NotSerialized)
46    {
47      Return (Package (0x02)
48      {
49        0x00,
50        0x05
51      })
52    }
53
54    Method (_DSM, 4, NotSerialized)
55    {
56      Store (Package (0x04)
57      {
58        "layout-id",
59        Buffer (0x04)
60        {
61          0x79, 0x03, 0x00, 0x00
62        },
63
64        "PinConfigurations",
65        Buffer (Zero) {}
66      }, Local0)
67      DTGP (Arg0, Arg1, Arg2, Arg3, RefOf (Local0))
68      Return (Local0)
69    }
70  }
71}
```

- h. DSDTSE/Desktop/dsdt
- i. DSDTSE/Search PEX0
 - if no PEX0, Search 0x001C0000, note Device (name), use name for PEX0
- j. DSDTSE/Add 3 empty lines before PEX0
- k. DSDTSE/Paste Device (HDEF) from clipboard to dsdt
- l. As below



```
3501      Method (_PRT, 0, NotSerialized)
3502      {
3503          If (PICM)
3504          {
3505              Return (AR02)
3506          }
3507
3508          Return (PR02)
3509      }
3510  }
3511
3512  Device (HDEF)
3513  {
3514      Name (_ADR, 0x001B0000)
3515      Method (_PRW, 0, NotSerialized)
3516      {
3517          Return (Package (0x02)
3518          {
3519              0x00,
3520              0x05
3521          })
3522      }
3523
3524      Method (_DSM, 4, NotSerialized)
3525      {
3526          Store (Package (0x04)
3527          {
3528              "layout-id",
3529              Buffer (0x04)
3530              {
3531                  0x79, 0x03, 0x00, 0x00
3532              },
3533              "PinConfigurations",
3534              Buffer (Zero) []
3535          }, Local0)
3536          DTGP (Arg0, Arg1, Arg2, Arg3, RefOf (Local0))
3537          Return (Local0)
3538      }
3539  }
3540
3541
3542  Device (PEX0)
```

- m. Jump to Step 6. Compile DSDT

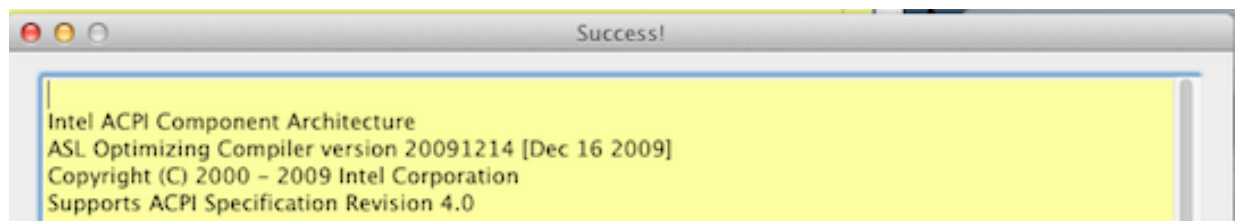
Step 5, Edit DSDT/ Existing HDEF

- a. DSDTSE/Desktop/dsdt
- b. DSDTSE/Search HDEF
 - If Device (HDEF) includes "layout-id", existing HDEF is correct, jump to Step 6. Compile DSDT
- c. DSDTSE/Downloads/DSDT-HDEF_Edits_v1
- d. DSDTSE/Select Device (HDEF)
- e. DSDTSE/Highlight Method (_DSM...) - lines 54-69
- f. DSDTSE/Copy Method (_DSM...) to clipboard
- g. DSDTSE/Paste Method (_DSM...) from clipboard to dsdt

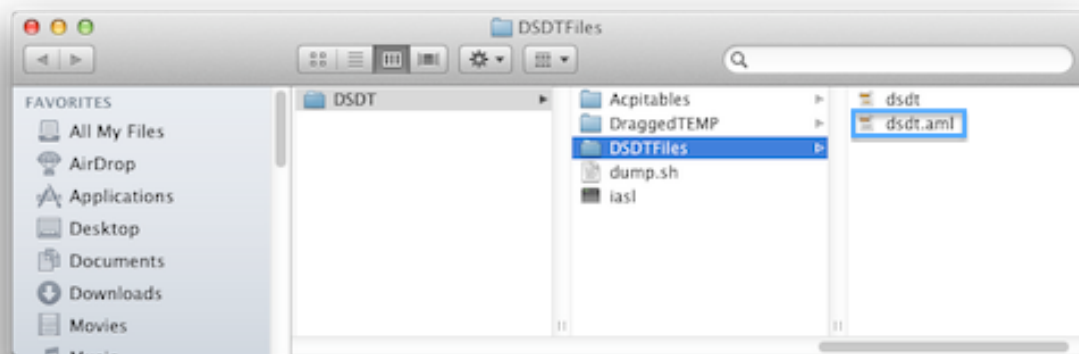
- h. DSDTSE/Desktop/dsdt
- i. DSDTSE/Search HDEF
 - If Device (HDEF) includes Method (_PRW...), edited HDEF is correct, jump to Step 6. Compile DSDT
- j. DSDTSE/Downloads/DSDT-HDEF_Edits_v1
- k. DSDTSE/Select Device (HDEF)
- l. DSDTSE/Highlight Method (_PRW...) - lines 45-52
- m. DSDTSE/Copy Method (_PRW...) to clipboard
- n. DSDTSE/Paste Method (_PRW...) from clipboard to dsdt

Step 6. Compile DSDT

- a. DSDTSE/Desktop/dsdt
- b. DSDTSE/File/Save .dsl to Desktop
- c. DSDTSE/Compile DSDT
- d. If errors, fix if possible. Otherwise start over at Step 2.



- e. Note the Finder Window/DSDTFiles/dsdt.aml

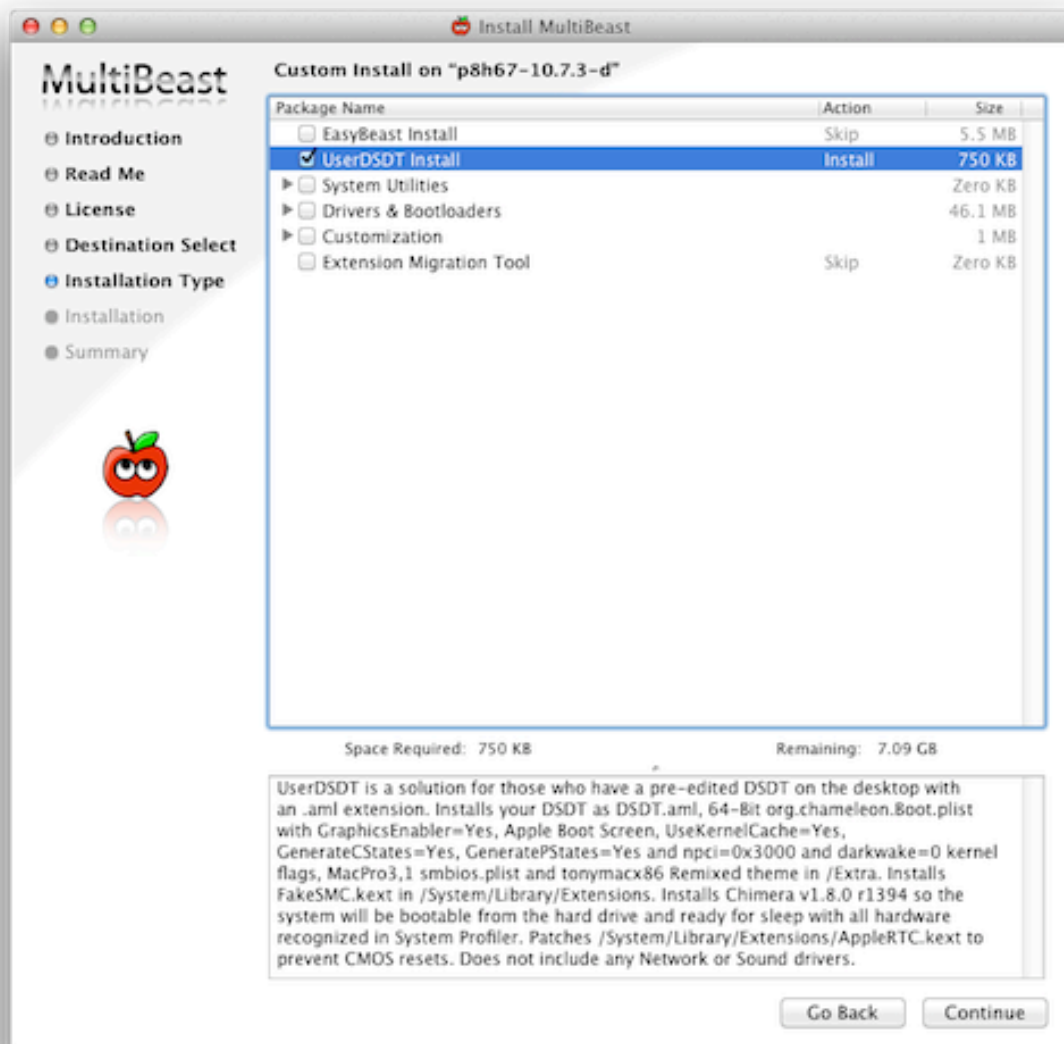


Step 7. Test DSDT

- Copy DSDTFiles/dsdt.aml to Desktop
- Restart
- At Chimera boot prompt, type "dsdt=Desktop/dsdt.aml -v" (no quotes)
- Desktop
 - If Desktop does not appear, there is a dsdt problem, seek assistance, restart
- DSDTSE/Registry info/Get
- IORegistryExplorer/Search HDEF/Select HDEF/Cancel HDEF Search

Step 8. Install DSDT

- MultiBeast/UserDSDT



Step 9. Success/Restart

- Copy AppleHDA.kext to Desktop
- Move to Trash any/all audio kexts and enablers from System/Library/Extensions
- Run KextBeast
- Restart
- Verify on board audio - System Preferences/Sound/Output

