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## Contents

### **1.1 ARM Trusted Firmware (ATF) 1.2**

1.1.1 Available under license

### **1.2 ATF v1.2 Marvell Patches 17.01.0**

1.2.1 Available under license

### **1.3 Gobi Drivers SWI\_2.25**

1.3.1 Available under license

### **1.4 mvpp2x (Marvell Ethernet Driver) 17.0.2**

### **1.5 netmap 20120813**

1.5.1 Available under license

### **1.6 TianaCore UEFI EDKII 2.6.7**

1.6.1 Available under license

### **1.7 UEFI EDKII v2.6.7 Marvell Patches 17.10.3**

1.7.1 Available under license

### **1.8 UEFI ext2 Driver 0.1**

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```
#ifndef _FDT_H
```

```
#define _FDT_H
```

```
/*
```

```
* libfdt - Flat Device Tree manipulation
```

```
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```

```
* Copyright 2012 Kim Phillips, Freescale Semiconductor.
```

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*
```

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```

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```

```

#ifndef __ASSEMBLY__

```

```

#include <libfdt_env.h>

```

```

struct fdt_header {
    fdt32_t magic; /* magic word FDT_MAGIC */
    fdt32_t totalsize; /* total size of DT block */
    fdt32_t off_dt_struct; /* offset to structure */
    fdt32_t off_dt_strings; /* offset to strings */
    fdt32_t off_mem_rsvmap; /* offset to memory reserve map */
    fdt32_t version; /* format version */
    fdt32_t last_comp_version; /* last compatible version */

    /* version 2 fields below */
    fdt32_t boot_cpuid_phys; /* Which physical CPU id we're
        booting on */
    /* version 3 fields below */
    fdt32_t size_dt_strings; /* size of the strings block */

    /* version 17 fields below */

```

```

fdt32_t size_dt_struct; /* size of the structure block */
};

struct fdt_reserve_entry {
    fdt64_t address;
    fdt64_t size;
};

struct fdt_node_header {
    fdt32_t tag;
    char name[];
};

struct fdt_property {
    fdt32_t tag;
    fdt32_t len;
    fdt32_t nameoff;
    char data[];
};

#endif /* !_ASSEMBLY */

#define FDT_MAGIC 0xd00dfeed /* 4: version, 4: total size */
#define FDT_TAGSIZE sizeof(fdt32_t)

#define FDT_BEGIN_NODE 0x1 /* Start node: full name */
#define FDT_END_NODE 0x2 /* End node */
#define FDT_PROP 0x3 /* Property: name off,
    size, content */
#define FDT_NOP 0x4 /* nop */
#define FDT_END 0x9

#define FDT_V1_SIZE (7*sizeof(fdt32_t))
#define FDT_V2_SIZE (FDT_V1_SIZE + sizeof(fdt32_t))
#define FDT_V3_SIZE (FDT_V2_SIZE + sizeof(fdt32_t))
#define FDT_V16_SIZE FDT_V3_SIZE
#define FDT_V17_SIZE (FDT_V16_SIZE + sizeof(fdt32_t))

#endif /* _FDT_H */
/*
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*/
#include "libfdt_env.h"

#include <fdt.h>
#include <libfdt.h>

#include "libfdt_internal.h"

```

```

int fdt_check_header(const void *fdt)
{
    if (fdt_magic(fdt) == FDT_MAGIC) {
        /* Complete tree */
        if (fdt_version(fdt) < FDT_FIRST_SUPPORTED_VERSION)
            return -FDT_ERR_BADVERSION;
        if (fdt_last_comp_version(fdt) > FDT_LAST_SUPPORTED_VERSION)
            return -FDT_ERR_BADVERSION;
    } else if (fdt_magic(fdt) == FDT_SW_MAGIC) {
        /* Unfinished sequential-write blob */
        if (fdt_size_dt_struct(fdt) == 0)
            return -FDT_ERR_BADSTATE;
    } else {
        return -FDT_ERR_BADMAGIC;
    }

    return 0;
}

```

```

const void *fdt_offset_ptr(const void *fdt, int offset, unsigned int len)
{
    const char *p;

    if (fdt_version(fdt) >= 0x11)
        if (((offset + len) < offset)
            || ((offset + len) > fdt_size_dt_struct(fdt)))
            return NULL;

    p = _fdt_offset_ptr(fdt, offset);

    if (p + len < p)
        return NULL;
    return p;
}

```

```

uint32_t fdt_next_tag(const void *fdt, int startoffset, int *nextoffset)
{
    const fdt32_t *tagp, *lenp;
    uint32_t tag;
    int offset = startoffset;
    const char *p;

    *nextoffset = -FDT_ERR_TRUNCATED;
    tagp = fdt_offset_ptr(fdt, offset, FDT_TAGSIZE);
    if (!tagp)
        return FDT_END; /* premature end */
    tag = fdt32_to_cpu(*tagp);
    offset += FDT_TAGSIZE;
}

```

```

*nextoffset = -FDT_ERR_BADSTRUCTURE;
switch (tag) {
case FDT_BEGIN_NODE:
/* skip name */
do {
p = fdt_offset_ptr(fdt, offset++, 1);
} while (p && (*p != '\0'));
if (!p)
return FDT_END; /* premature end */
break;

case FDT_PROP:
lenp = fdt_offset_ptr(fdt, offset, sizeof(*lenp));
if (!lenp)
return FDT_END; /* premature end */
/* skip-name offset, length and value */
offset += sizeof(struct fdt_property) - FDT_TAGSIZE
+ fdt32_to_cpu(*lenp);
break;

case FDT_END:
case FDT_END_NODE:
case FDT_NOP:
break;

default:
return FDT_END;
}

if (!fdt_offset_ptr(fdt, startoffset, offset - startoffset))
return FDT_END; /* premature end */

*nextoffset = FDT_TAGALIGN(offset);
return tag;
}

int _fdt_check_node_offset(const void *fdt, int offset)
{
if ((offset < 0) || (offset % FDT_TAGSIZE)
|| (fdt_next_tag(fdt, offset, &offset) != FDT_BEGIN_NODE))
return -FDT_ERR_BADOFFSET;

return offset;
}

int _fdt_check_prop_offset(const void *fdt, int offset)
{

```



```

if ((offset < 0) || (offset % FDT_TAGSIZE)
    || (fdt_next_tag(fdt, offset, &offset) != FDT_PROP))
return -FDT_ERR_BADOFFSET;

return offset;
}

int fdt_next_node(const void *fdt, int offset, int *depth)
{
int nextoffset = 0;
uint32_t tag;

if (offset >= 0)
if ((nextoffset = _fdt_check_node_offset(fdt, offset)) < 0)
return nextoffset;

do {
offset = nextoffset;
tag = fdt_next_tag(fdt, offset, &nextoffset);

switch (tag) {
case FDT_PROP:
case FDT_NOP:
break;

case FDT_BEGIN_NODE:
if (depth)
(*depth)++;
break;

case FDT_END_NODE:
if (depth && (--(*depth)) < 0)
return nextoffset;
break;

case FDT_END:
if ((nextoffset >= 0)
    || ((nextoffset == -FDT_ERR_TRUNCATED) && !depth))
return -FDT_ERR_NOTFOUND;
else
return nextoffset;
}
} while (tag != FDT_BEGIN_NODE);

return offset;
}

int fdt_first_subnode(const void *fdt, int offset)

```

```

{
int depth = 0;

offset = fdt_next_node(fdt, offset, &depth);
if (offset < 0 || depth != 1)
return -FDT_ERR_NOTFOUND;

return offset;
}

int fdt_next_subnode(const void *fdt, int offset)
{
int depth = 1;

/*
 * With respect to the parent, the depth of the next subnode will be
 * the same as the last.
 */
do {
offset = fdt_next_node(fdt, offset, &depth);
if (offset < 0 || depth < 1)
return -FDT_ERR_NOTFOUND;
} while (depth > 1);

return offset;
}

const char *_fdt_find_string(const char *strtab, int tabsize, const char *s)
{
int len = strlen(s) + 1;
const char *last = strtab + tabsize - len;
const char *p;

for (p = strtab; p <= last; p++)
if (memcmp(p, s, len) == 0)
return p;
return NULL;
}

int fdt_move(const void *fdt, void *buf, int bufsize)
{
FDT_CHECK_HEADER(fdt);

if (fdt_totalsize(fdt) > bufsize)
return -FDT_ERR_NOSPACE;

memcpy(buf, fdt, fdt_totalsize(fdt));
return 0;
}

```

```

}
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#

LIBFDT_SRCS := $(addprefix lib/libfdt/, \
    fdt.c \
    fdt_addresses.c \
    fdt_empty_tree.c \
    fdt_ro.c \
    fdt_rw.c \
    fdt_strerror.c \
    fdt_sw.c \
    fdt_wip.c) \

INCLUDES += -include/lib/libfdt

```

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## 1.3 Gobi Drivers SWI\_2.25

### 1.3.1 Available under license :

```
/*=====
```

FILE:  
GobiSerial.c

DESCRIPTION:  
Linux Qualcomm Serial USB driver Implementation

PUBLIC DRIVER FUNCTIONS:

GobiProbe  
GobiOpen  
GobiClose  
GobiReadBulkCallback  
GobiSerialSuspend  
GobiSerialResume (if kernel is less than 2.6.24)

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/\*=====

FILE:

GobiUSBNet.c

DESCRIPTION:

Qualcomm USB Network device for Gobi 3000

FUNCTIONS:

GobiNetSuspend  
GobiNetResume  
GobiNetDriverBind  
GobiNetDriverUnbind  
GobiUSBNetURBCallback  
GobiUSBNetTXTimeout  
GobiUSBNetAutoPMThread  
GobiUSBNetStartXmit  
GobiUSBNetOpen  
GobiUSBNetStop  
GobiUSBNetProbe  
GobiUSBNetModInit  
GobiUSBNetModExit

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## 1.4 mvpp2x (Marvell Ethernet Driver) 17.0.2

## 1.5 netmap 20120813

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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|----------------|--------------|-----------|-------|---------------------|
| 0.9.0 thru 1.2 |              | 1991-1995 | CWI   | yes                 |

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| 1.3 thru 1.5.2 | 1.2       | 1995-1999 | CNRI       | yes     |
| 1.6            | 1.5.2     | 2000      | CNRI       | no      |
| 2.0            | 1.6       | 2000      | BeOpen.com | no      |
| 1.6.1          | 1.6       | 2001      | CNRI       | yes (2) |
| 2.1            | 2.0+1.6.1 | 2001      | PSF        | no      |
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| 1.6            | 1.5.2        | 2000      | CNRI       | no                  |
| 2.0            | 1.6          | 2000      | BeOpen.com | no                  |
| 1.6.1          | 1.6          | 2001      | CNRI       | yes (2)             |
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| 2.3.1          | 2.3          | 2002-2003 | PSF        | yes                 |
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| 2.3.3          | 2.3.2        | 2002-2003 | PSF        | yes                 |
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| 2.4            | 2.3          | 2004      | PSF        | yes                 |
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From b0c3ba9ae15b9739856e17e59df90e532424e961 Mon Sep 17 00:00:00 2001  
From: Marcin Wojtas <mw@semihalf.com>  
Date: Wed, 30 Nov 2016 16:00:05 +0100  
Subject: [PATCH 183/199] ExtPkg: Update ext driver

```
+/**
+ * \file fsw_efi_edk2_base.h
+ * Base definitions for the EDK EFI Toolkit environment.
+ */
+/*
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+
+#ifndef _FSW_EFI_EDK2_BASE_H_
-
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+/**
+ * \file fsw_lib.c
+ * Core file system wrapper library functions.
+ */

/*-
- * This code is based on:
- *
- * Copyright (c) 2006 Christoph Pfisterer
- *
- * Redistribution and use in source and binary forms, with or without
@@ -96,34 +82,6 @@ int fsw_strlen(struct fsw_string *s)
    return s->len;
}

-static const fsw_u16 fsw_latin_case_fold[] =
-{
- /* 0 */ 0xFFFF, 0x0001, 0x0002, 0x0003, 0x0004, 0x0005, 0x0006, 0x0007, 0x0008, 0x0009, 0x000A, 0x000B,
0x000C, 0x000D, 0x000E, 0x000F,
- /* 1 */ 0x0010, 0x0011, 0x0012, 0x0013, 0x0014, 0x0015, 0x0016, 0x0017, 0x0018, 0x0019, 0x001A, 0x001B,
0x001C, 0x001D, 0x001E, 0x001F,
- /* 2 */ 0x0020, 0x0021, 0x0022, 0x0023, 0x0024, 0x0025, 0x0026, 0x0027, 0x0028, 0x0029, 0x002A, 0x002B,
0x002C, 0x002D, 0x002E, 0x002F,
- /* 3 */ 0x0030, 0x0031, 0x0032, 0x0033, 0x0034, 0x0035, 0x0036, 0x0037, 0x0038, 0x0039, 0x003A, 0x003B,
0x003C, 0x003D, 0x003E, 0x003F,
- /* 4 */ 0x0040, 0x0061, 0x0062, 0x0063, 0x0064, 0x0065, 0x0066, 0x0067, 0x0068, 0x0069, 0x006A, 0x006B,

```

```

0x006C, 0x006D, 0x006E, 0x006F,
- /* 5 */ 0x0070, 0x0071, 0x0072, 0x0073, 0x0074, 0x0075, 0x0076, 0x0077, 0x0078, 0x0079, 0x007A, 0x005B,
0x005C, 0x005D, 0x005E, 0x005F,
- /* 6 */ 0x0060, 0x0061, 0x0062, 0x0063, 0x0064, 0x0065, 0x0066, 0x0067, 0x0068, 0x0069, 0x006A, 0x006B,
0x006C, 0x006D, 0x006E, 0x006F,
- /* 7 */ 0x0070, 0x0071, 0x0072, 0x0073, 0x0074, 0x0075, 0x0076, 0x0077, 0x0078, 0x0079, 0x007A, 0x007B,
0x007C, 0x007D, 0x007E, 0x007F,
- /* 8 */ 0x0080, 0x0081, 0x0082, 0x0083, 0x0084, 0x0085, 0x0086, 0x0087, 0x0088, 0x0089, 0x008A, 0x008B,
0x008C, 0x008D, 0x008E, 0x008F,
- /* 9 */ 0x0090, 0x0091, 0x0092, 0x0093, 0x0094, 0x0095, 0x0096, 0x0097, 0x0098, 0x0099, 0x009A, 0x009B,
0x009C, 0x009D, 0x009E, 0x009F,
- /* A */ 0x00A0, 0x00A1, 0x00A2, 0x00A3, 0x00A4, 0x00A5, 0x00A6, 0x00A7, 0x00A8, 0x00A9, 0x00AA,
0x00AB, 0x00AC, 0x00AD, 0x00AE, 0x00AF,
- /* B */ 0x00B0, 0x00B1, 0x00B2, 0x00B3, 0x00B4, 0x00B5, 0x00B6, 0x00B7, 0x00B8, 0x00B9, 0x00BA,
0x00BB, 0x00BC, 0x00BD, 0x00BE, 0x00BF,
- /* C */ 0x00C0, 0x00C1, 0x00C2, 0x00C3, 0x00C4, 0x00C5, 0x00E6, 0x00C7, 0x00C8, 0x00C9, 0x00CA,
0x00CB, 0x00CC, 0x00CD, 0x00CE, 0x00CF,
- /* D */ 0x00F0, 0x00D1, 0x00D2, 0x00D3, 0x00D4, 0x00D5, 0x00D6, 0x00D7, 0x00F8, 0x00D9, 0x00DA,
0x00DB, 0x00DC, 0x00DD, 0x00FE, 0x00DF,
- /* E */ 0x00E0, 0x00E1, 0x00E2, 0x00E3, 0x00E4, 0x00E5, 0x00E6, 0x00E7, 0x00E8, 0x00E9, 0x00EA,
0x00EB, 0x00EC, 0x00ED, 0x00EE, 0x00EF,
- /* F */ 0x00F0, 0x00F1, 0x00F2, 0x00F3, 0x00F4, 0x00F5, 0x00F6, 0x00F7, 0x00F8, 0x00F9, 0x00FA,
0x00FB, 0x00FC, 0x00FD, 0x00FE, 0x00FF,
-};
-
-
-fsw_u16 fsw_to_lower(fsw_u16 ch)
-{
- if (ch < 0x0100)
- return fsw_latin_case_fold[ch];
- return ch;
-}
-
/**
* Compare two strings for equality. The two strings are compared, taking their
* encoding into account. If they are considered equal, boolean true is returned.
@@ -247,7 +205,7 @@ fsw_status_t fsw_strdup_coerce(struct fsw_string *dest, int type, struct fsw_str
}

/**
- * Splits a string at the first occurrence of the separator character.
+ * Splits a string at the first occurrence of the separator character.
* The buffer string is searched for the separator character. If it is found, the
* element string descriptor is filled to point at the part of the buffer string
* before the separator. The buffer string itself is adjusted to point at the
diff --git a/ExtPkg/ExtPkgDxe/fsw_strfunc.h b/ExtPkg/ExtPkgDxe/fsw_strfunc.h
index 61cf25d..26408b0 100644
--- a/ExtPkg/ExtPkgDxe/fsw_strfunc.h

```

```

+++ b/ExtPkg/ExtPkgDxe/fsw_strfunc.h
@@ -1,22 +1,37 @@
-/* $Id: fsw_strfunc.h 29125 2010-05-06 09:43:05Z vboxsync $ */
-/** @file
- * fsw_strfunc.h
- */
+/* fsw_strfunc.h generated by mk_fsw_strfunc.py */

-/*
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*/

```

```

-/* fsw_strfunc.h generated by mk_fsw_strfunc.py */
-
static int fsw_streq_ISO88591_UTF8(void *s1data, void *s2data, int len)
{
    int i;
@@ -43,7 +58,6 @@ static int fsw_streq_ISO88591_UTF8(void *s1data, void *s2data, int len)
    return 1;
}

-#ifndef HOST_EFI
static int fsw_streq_ISO88591_UTF16(void *s1data, void *s2data, int len)
{
    int i;
@@ -59,7 +73,6 @@ static int fsw_streq_ISO88591_UTF16(void *s1data, void *s2data, int len)
    }
    return 1;
}
-#endif

static int fsw_streq_ISO88591_UTF16_SWAPPED(void *s1data, void *s2data, int len)
{
--
2.7.4

```

The below was written by Christoph Phisterer with respect to his original code. Since then, Oracle and the Clover team have modified the original files, and added the HFS+ driver, which bears Oracle and Apple copyrights and is released under terms of the GNU GPL.

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