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SPARK7111 Upgrade Guide

Author	Chris	Date:	2010-10-25
Review:		Date:	
Approve:		Date:	

Category

1 History

Date	Version	Modification	Author
2010-10-25	1. 0	Create Corresponds to SPARK7111 Software Version 1.1.** (etc: 1.1.16)	Chris

2 Spark7111 Upgrade Guide- Uboot

Please be aware of following characters written in Red color.

2.1 Functions Overview

In SPARK7111 U-boot, we can:

- Upgrade entire Enigma2 system

- Upgrade entire Spark system

- Upgrade U-boot itself by RS232

- switch default booting system between SPARK and Enigma2

Front panel functions Overview:

Key Combination	Function
[OK](press 5 sec) + [Down] + [OK]	Select engma2 as current system
[OK](press 5 sec) + [Up] + [OK]	Select Spark as current system
[OK](press 5 sec) + [Right]	Upgrade Current system By USB or TFTP
[OK](press 5 sec) + [Left]	Upgrade U-boot By RS232

Upgrade Overview:

host	target	Protocol/Way	Auto/Manual	Upgrade time	How to
SPARK Uboot	Uboot	RS232	Manual	1.5 min	By front panel
	Enigma2	USB	Manual	2 min	By front panel
		TFTP..	Manual	2 min	By front panel
	Spark	USB	Manual	4 min	By front panel
		TFTP..	Manual	4 min	By front panel

2.2 How to Upgrade Enigma2

Upgrade Enigma2 flow:

```
                    ┌─────────────────┐
                  ◇ Current system=  ◇ ──── N ──→ │ Upgrade SPARK │
                    ◇ Enigma2?        ◇           └─────────────────┘
                         │
                         Y
                    ┌─────────────────┐
                    │ Upgrade Enigma2 │
                    └─────────────────┘
                         │
            ◇ Open                      ◇ ──── N ──┐
            ◇ [C:/enigma2/uImage.img]   ◇          │
            ◇ In USB Stick Ok?          ◇          ↓
                         │               ◇ Open [uImage.img]     ◇ ── N ──┐
                         Y               ◇ In TFTP Server Ok?    ◇        │
                         │                        │                       │
                         │ ←────────────────── Y ─┘                       │
                    ┌──────────────────────┐                             │
                    │ Burn Enigma2 Kernel  │                             │
                    └──────────────────────┘                             │
                         │                                                │
            ◇ Open [C:/enigma2/          ◇ ──── N ──┐                     │
            ◇ e2jffs2.img]               ◇          │                     │
            ◇ In USB Stick Ok?           ◇          ↓                     │
                         │               ◇ Open [e2jffs2.img]   ◇ ── N ──┤
                         Y               ◇ In TFTP Server Ok?   ◇        │
                         │                        │                       │
                         │ ←────────────────── Y ─┘                       │
                    ┌──────────────────────────┐                         │
                    │ Burn Enigma2 Application │                         │
                    └──────────────────────────┘                         │
                         │                                                │
                    ┌─────────┐                              ┌──────────┐ │
                    │ Success │                              │ Failed   │←┘
                    └─────────┘                              └──────────┘
```
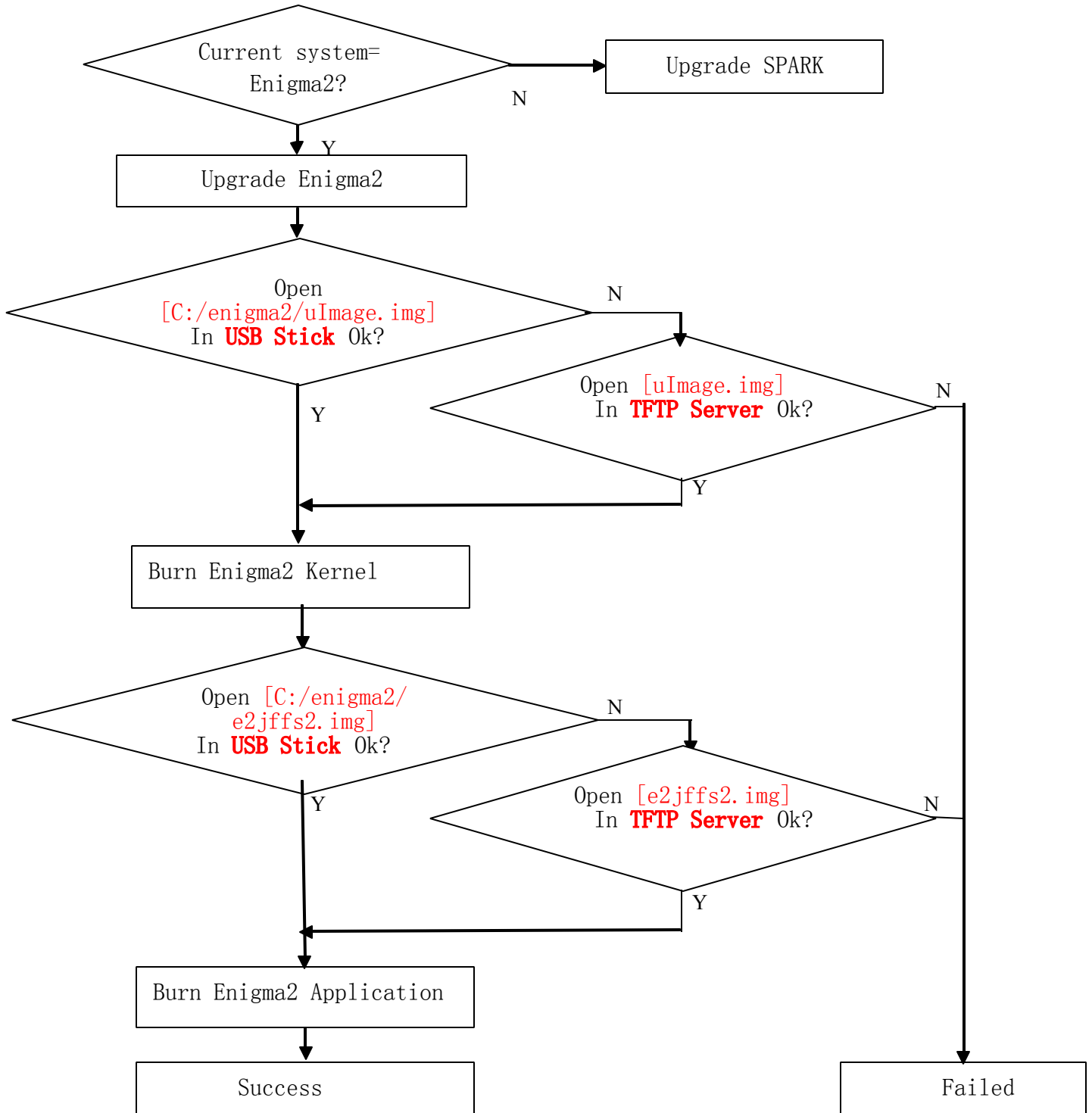
2.2.1 Upgrade Enigma2 by USB

Preparation:

1. We only recommend Kingston USB stick, we don't support USB hard disk

2. Please make sure your USB stick only have 1 partition and the file system is FAT32

3. Set default booting system to [enigma2].

Upgrade Step:

1. Make sure [C:/engima2] is exist, if not, please create this folder.

2. copy [uImage] and [e2jffs2.img] to [C:/engima2]

3. Connect USB stick to STB

4. Keep Pressing [OK] Button in Front Panel, then power on STB.

5. After 5 seconds, you will see [Forc] in LED, release [OK] button and press [Right] Button.

6. if everything OK, You will see [U LD] shining in LED

7. if upgrade success, You will see [SUCC] and STB reboot automatically

   If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

2.2.2 Upgrade Enigma2 by TFTP

Since we have some restrictions and can not support all kinds of USB stick, we provide another option (TFTP) to upgrade Enigma2.

Preparation:

1. Install TFTP tools [csicotftp11.rar] to your PC

2. Set your PC IP addr to [192.168.40.19]

3. connect your PC to STB by LAN, now we only support LAN, do not support WLAN

4. Set default booting system to [enigma2]

Upgrade Step:

1. copy [uImage] and [e2jffs2.img] to any folder of your PC, for example [C:/engima2]
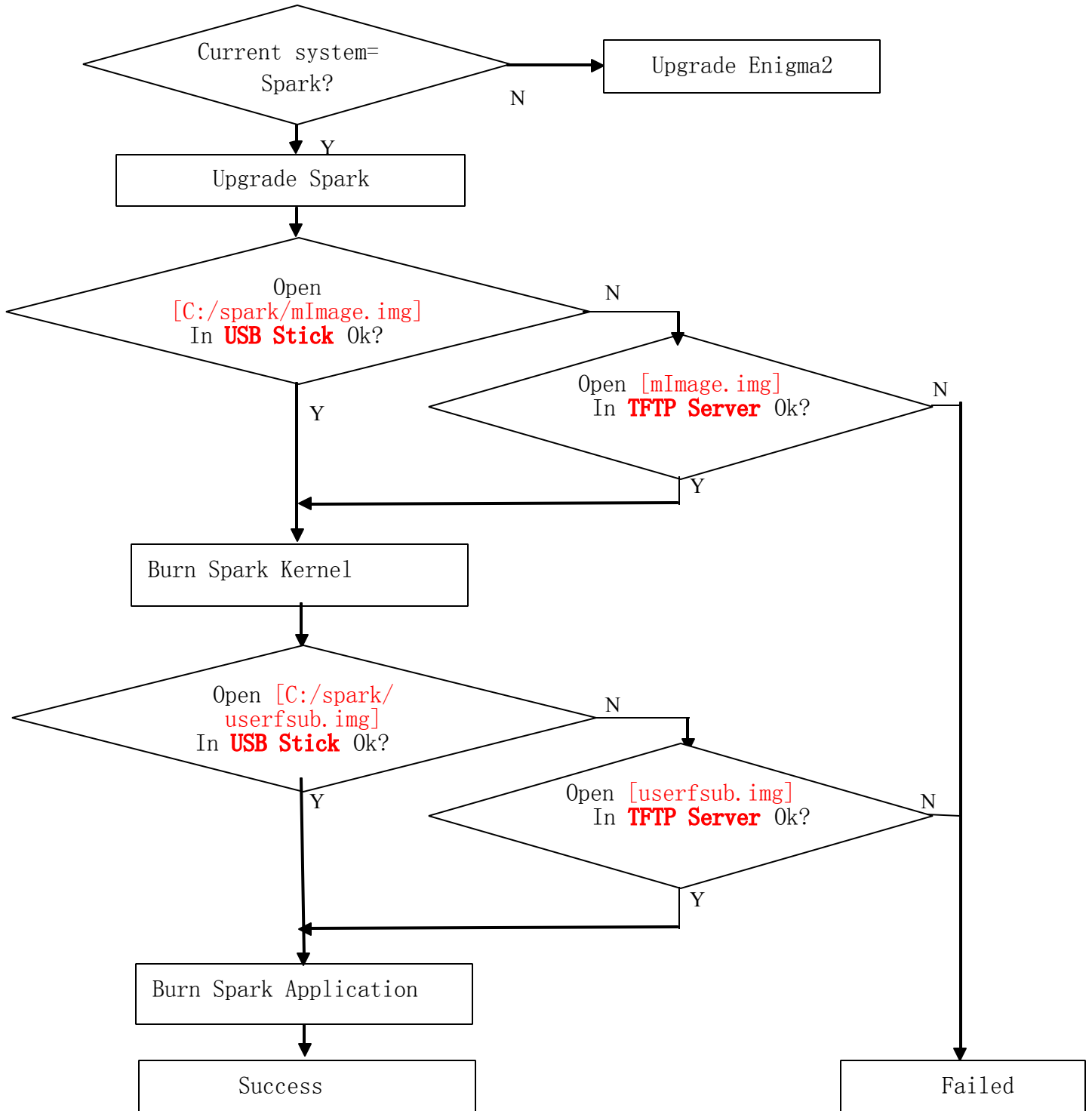
2. select folder in TFTP tools:
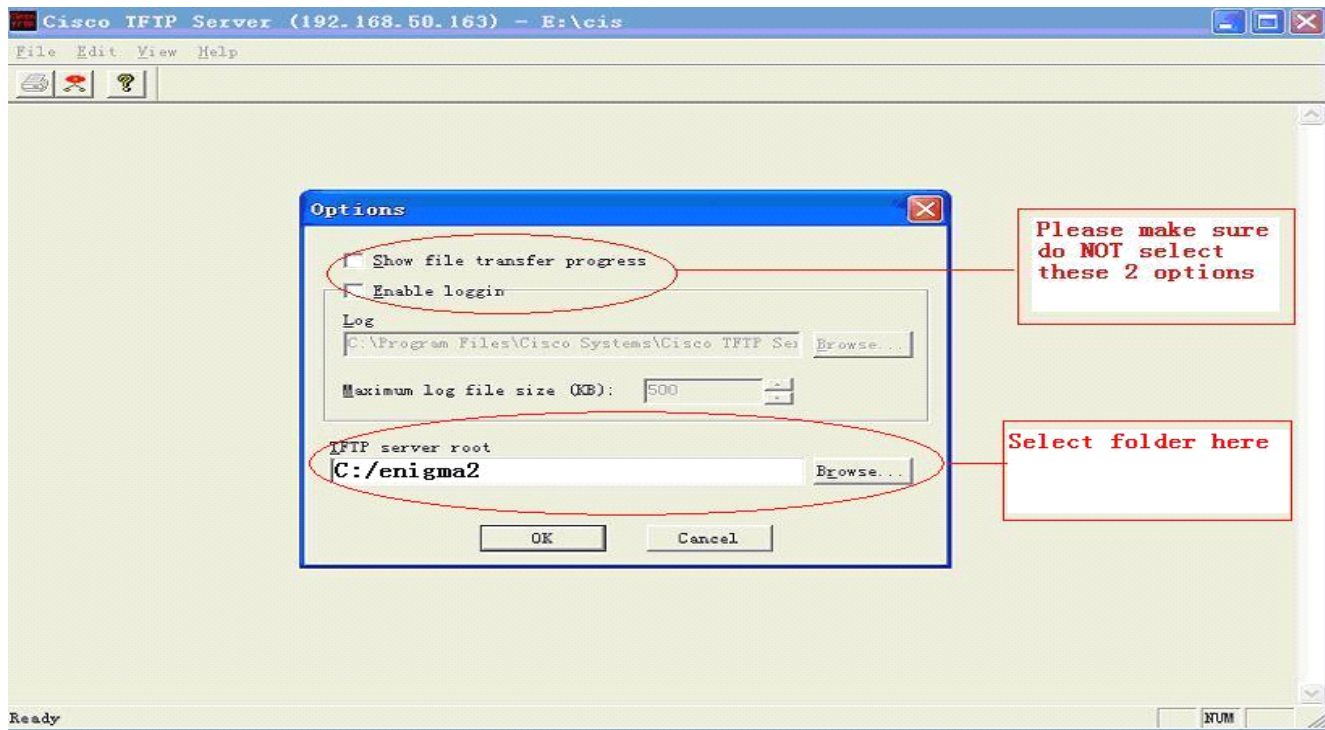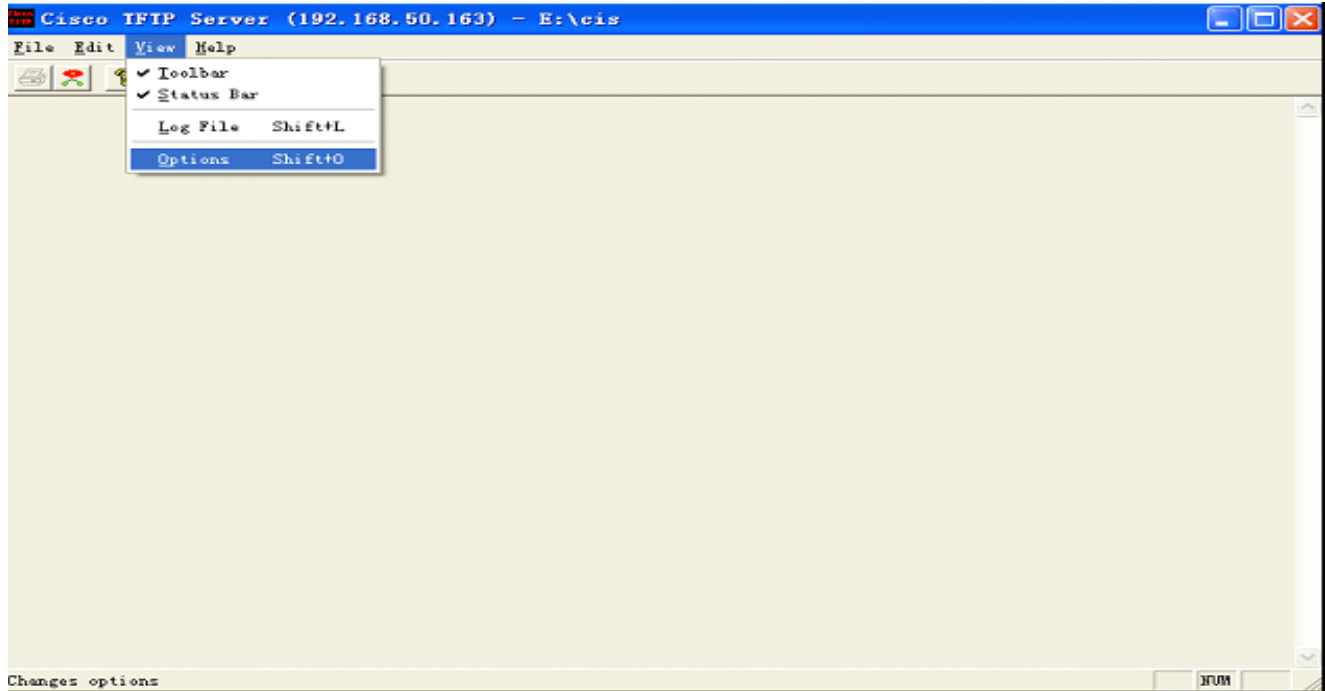
3. Keep Pressing [OK] Button in Front Panel, then power on STB.

4. After 5 seconds you will see [Forc] in LED, release [OK] button and press [Right] Button.

5. if everything OK, You will see [T LD] shining in LED and you will see some debug information in TFTP Server, like

" Mon Oct 25 14:02:36 2010: Sending 'uImage' file to 192.168.40.19 in binary mode

Mon Oct 25 14:02:39 2010: Successful.

Mon Oct 25 14:02:50 2010: Sending 'e2jffs2.img' file to 192.168.40.19 in binary mode

Mon Oct 25 14:03:33 2010: Successful. "

6. if upgrade success, You will see [SUCC] and STB reboot automatically

If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

2.3 How to Upgrade Spark

Upgrade Spark flow:

```
                    Current system=         N      Upgrade Enigma2
                       Spark?
                         │ Y
                         ▼
                    Upgrade Spark
                         │
                         ▼
                      Open                  N
              [C:/spark/mImage.img]
                In USB Stick Ok?
                         │                       Open [mImage.img]        N
                         │ Y                      In TFTP Server Ok?
                         │                                │ Y
                         ▼◄───────────────────────────────┘
                  Burn Spark Kernel
                         │
                         ▼
                   Open [C:/spark/          N
                    userfsub.img]
                  In USB Stick Ok?
                         │                       Open [userfsub.img]      N
                         │ Y                      In TFTP Server Ok?
                         │                                │ Y
                         ▼◄───────────────────────────────┘
                Burn Spark Application
                         │
                         ▼
                     Success                              Failed
```

2.3.1 Upgrade Spark by USB

Preparation:

1. We only recommend Kingston USB stick, we don't support USB hard disk

2. Please make sure your USB stick only have 1 partition and the file system is FAT32

3. Set default booting system to [spark].

Upgrade Step:

1. Make sure [C:/spark] is exist, if not, please create this folder.

2. copy [mImage] and [userfsub.img] to [C:/spark]

3. Connect USB stick to STB

4. Keep Pressing [OK] Button in Front Panel, then power on STB.

5. After 5 seconds, you will see [Forc] in LED, release [OK] button and press [Right] Button.

6. if everything OK, You will see [U LD] shining in LED

7. if upgrade success, You will see [SUCC] and STB reboot automatically

8. If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

2.3.2 Upgrade Spark by TFTP

Since we have some restrictions and can not support all kinds of USB stick, we provide another option (TFTP) to upgrade Enigma2/Spark.

Preparation:

1. Install TFTP tools [csicotftp11.rar] to your PC

2. Set your PC IP addr to [192.168.40.19]

3. connect your PC to STB by LAN, now we only support LAN, do not support WLAN

4. Set default booting system to [spark]

Upgrade Step:

1. copy [mImage] and [userfsub.img] to any folder of your PC, for example [C:/spark]

2. select folder in TFTP tools:
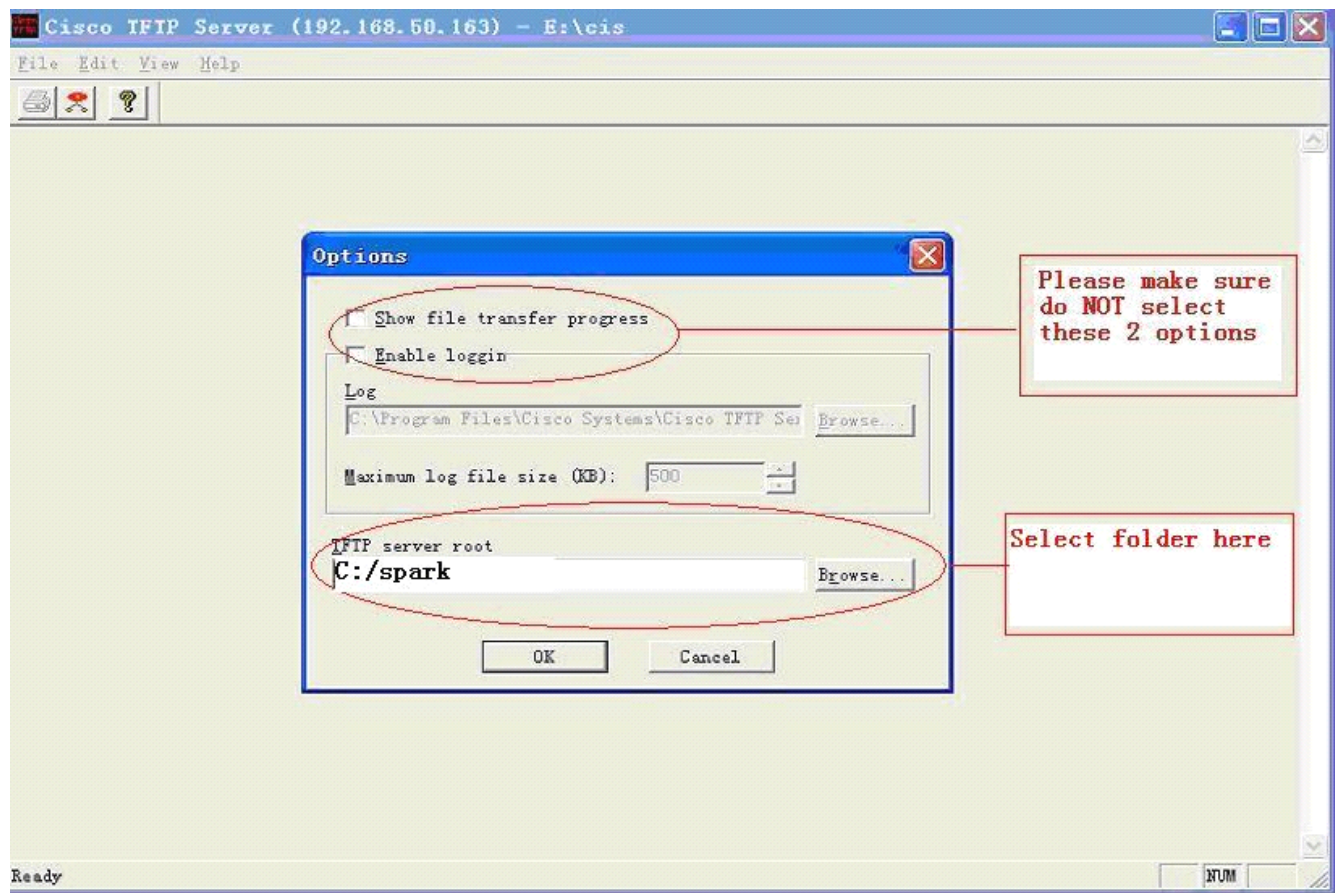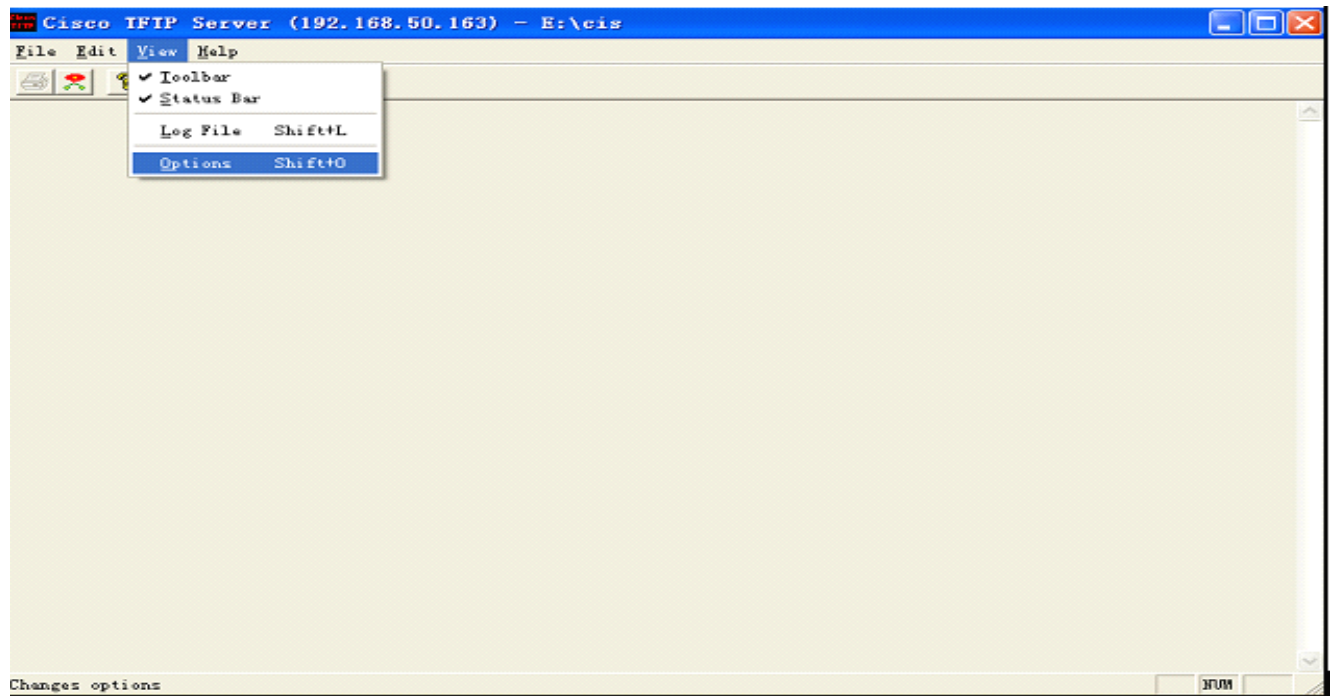
3. Keep Pressing [OK] Button in Front Panel, then power on STB.

4. After 5 seconds you will see [Forc] in LED, release [OK] button and press [Right] Button.

5. if everything OK, You will see [T LD] shining in LED and you will see some debug information in TFTP Server, like

" Mon Oct 25 14:02:36 2010: Sending 'mImage' file to 192.168.40.19 in binary mode

Mon Oct 25 14:02:39 2010: Successful.

Mon Oct 25 14:02:50 2010: Sending 'userfsub.img' file to 192.168.40.19 in binary mode

Mon Oct 25 14:03:33 2010: Successful. "

6. if upgrade success, You will see [SUCC] and STB reboot automatically

   If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

2.4 How to switch from Spark to Enigma2

1. Keep Pressing [OK] Button in Front Panel, then power on STB.
2. After 5 seconds, you will see [Forc] in LED, release [OK] button and Press [Down] button you will see [EN16] in LED
3. Press [OK] to confirm your selection, STB will reboot automatically

2.5 How to switch from Enigma2 to spark

1. Keep Pressing [OK] Button in Front Panel, then power on STB.
2. After 5 seconds, you will see [Forc] in LED, release [OK] button and Press [UP] button you will see [SPAR] in LED
3. Press [OK] to confirm your selection, STB will reboot automatically

2.6 How to Upgrade Uboot by RS232

Preparation:

1. Open [HyperTerminal] and set default parameters

Symbol rate: [1152000]
Data bits: [8]
Parity: [None]
Stop Bits: [1]
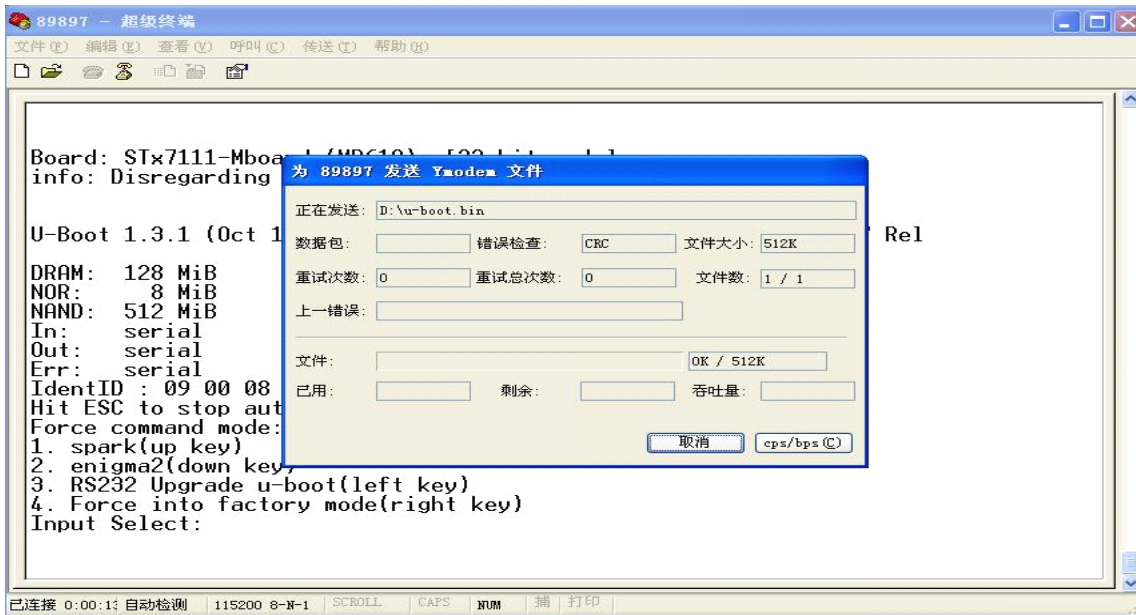Data Flow Control: [None]
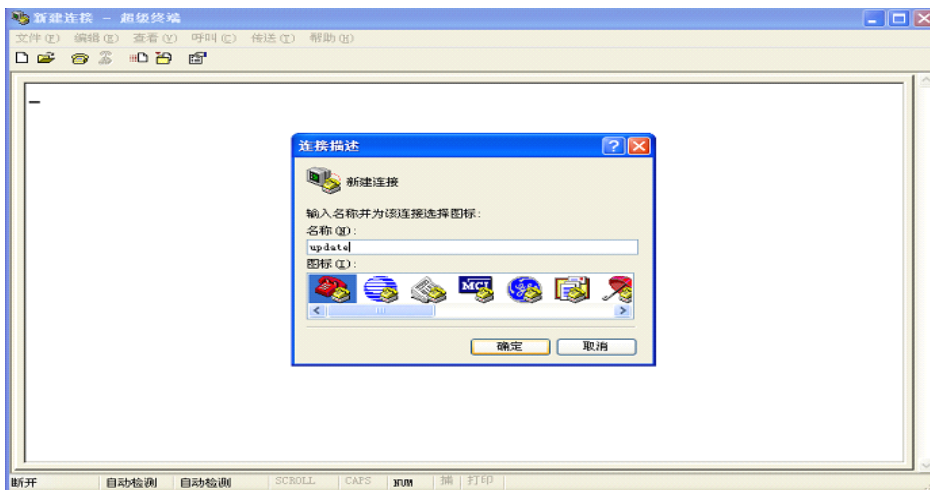
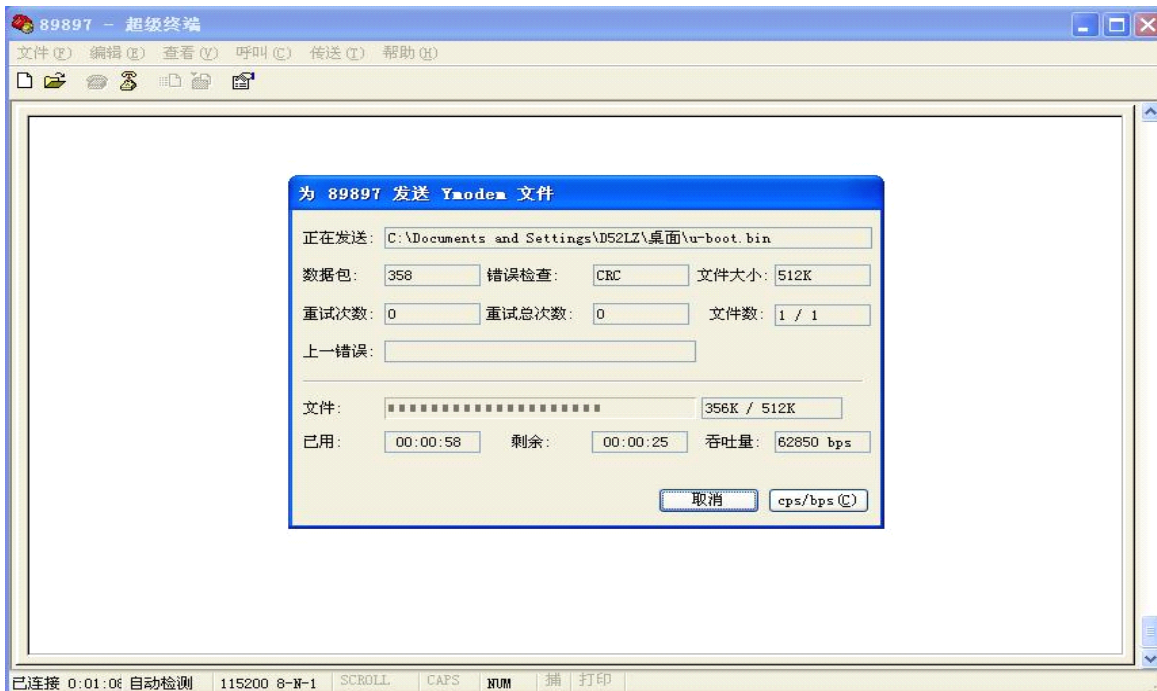2. Select [Transfer/File Transfer] Option
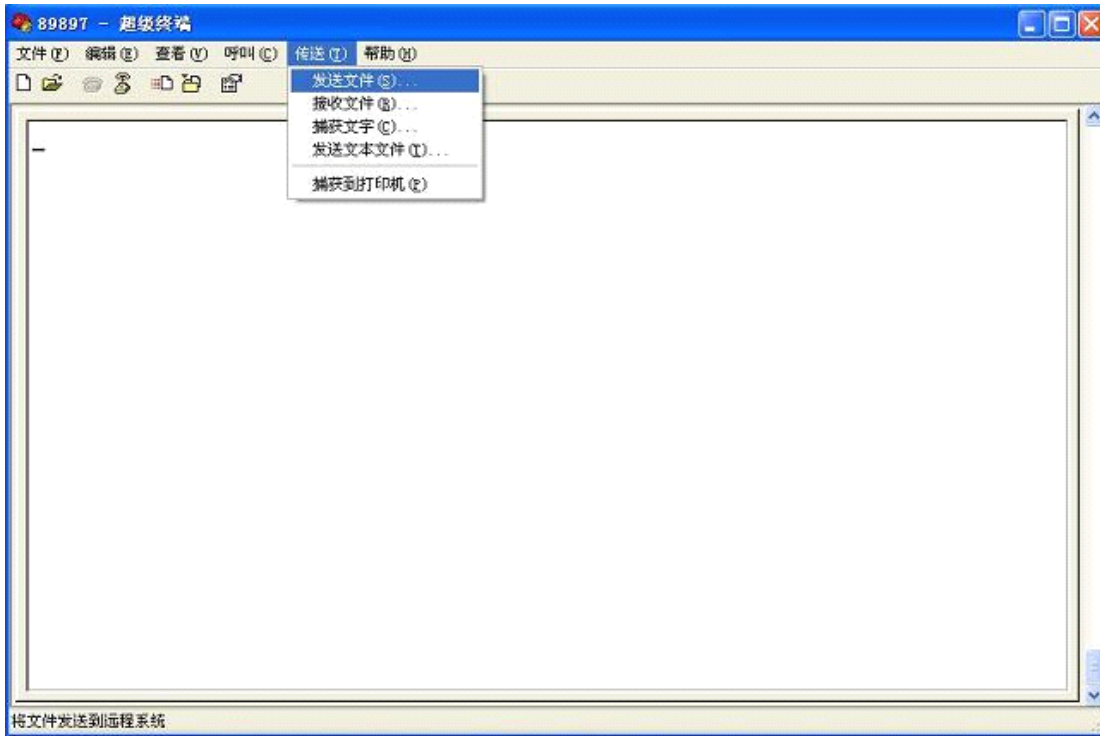
3. Select [u-boot.bin] and use [Ymodem] Option, send file
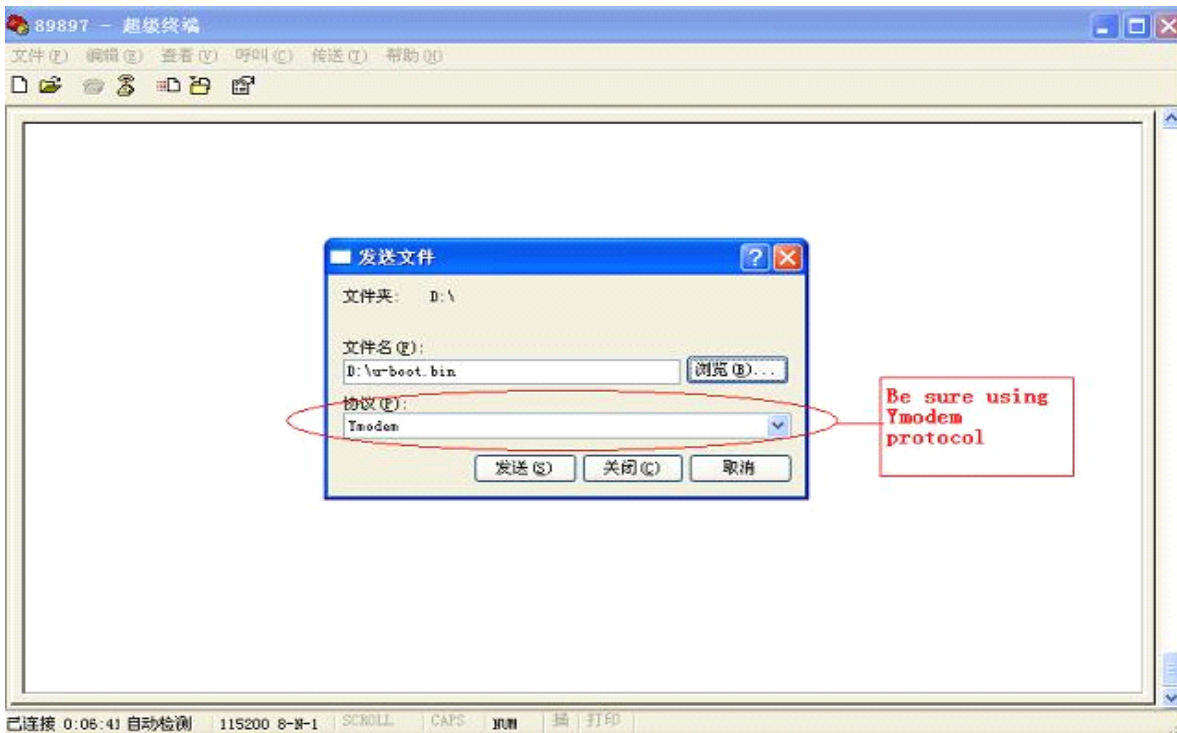
Upgrade Step:

1. Keep Pressing [OK] Button in Front Panel, then power on STB.

2. After 5 seconds you will see [Forc] in LED, release [OK] button and press [Left] Button.

3. If everything is ok, in STB you will see [LOAD] shinning in LED. In HyperTerminal, you will see:

3 Spark7111 Upgrade Guide- Application

3.1 Functions Overview

In SPARK7111 Application, we can:

● Upgrade Spark Dbase, System can recover if power down

● Upgrade Spark Application, System can recover if power down

● Upgrade Spark Application+Dbase, System can recover if power down

● Upgrade Spark whole system (hidden),System can NOT recover if power down

Upgrade Overview:

host	modules	Protocol/Way	Auto/Manual	Upgrade time	How to
Spark Application	App	USB	Manual	2 min	By Menu
		USB	Auto	2 min	Auto detect C:/spark
		SPARKONLINE	Auto	Depends on internet speed	Auto detect new version in spark online server
	Dbase	USB	Manual	1 min	By Menu
		SPARKONLINE	Manual	Depends on internet speed	By Menu
	App+Dba se	USB	Manual	2 min	By Menu
	system	USB	Manual	4 min	By hidden Menu

3.2 Upgrade Option [Dbase]

Upgrade [Dbase] Option only includes channel list, Tp list, Satellite List.

Do not include User Preference Data (STB IP, default language etc)

Upgrade Step:

3.3 Upgrade Option [App]

Upgrade [App] Option only includes Application code. Do not include Dbase or User preference data.

Upgrade Step:

3.4 Upgrade Option [App+Dbase]

Upgrade [App+Dbase] Option only includes Application code, Dbase and User preference data.

Upgrade Step:

3.5 Upgrade Option [System]

Upgrade [System] Option includes all spark system as well as uboot.

Upgrade Step:

1. Enter into Upgrade menu
2. Select Upgrade package
3. Press [EPG],[5], [2], [1], [0] to activate upgrade.
Capture place here

4 FAQ