# BenQ treVolo Device Firmware Update over USB

## **REVISION HISTORY**

Version	Modification	Reviser	Date
0.1	Initial Release		2014/8/19
0.2	Revise the way to enter DFU mode		2014/10/20
0.3	Revise and add Trouble shooting chapter		2014/10/28
0.4	Update product name to BenQ treVolo		2014/11/07

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#### 1. Driver Installation

The firmware update mechanism is realized by DFU over USB, i.e. Device Firmware Upgrade over USB. This function can be run on Microsoft Windows XP, Window Vista and Windows 7, both 32-bit and 64-bit operating system is supported.

The following step-by-step procedures take Microsoft Windows7 as an example to install DFU driver.

- 1. Hold 'Mode', 'Play' and 'Power' key simultaneously at least three seconds, an audio tone will be played and purple LED will be turned on around two seconds.
- 2. When the LED turned off, connect BenQ treVolo to Windows7 PC with USB cable, This will make BenQ treVolo device boot into DFU mode
- 3. Microsoft Windows7 will detect and prompt to install driver. If it doesn't, start device manager manually:
  - I. Go to Start/Run...
  - II. Enter devmgmt.msc
  - III. Press OK.
- 4. There will appear three unknown devices:

Ả 裝置管理員	- 🗆 🗙
檔案(E) 執行(A) 檢視(V) 說明(H)	
▶ spservernb	
⊿ 数 Bluetooth 無線電	
Generic Bluetooth Adapter	
▷ - Ca IDE ATA/ATAPI 控制器	
⊳ ₁∎ SM Driver	
▶ • • • • • • • • • • • • • • • • • • •	
▶ - ⑧ 生物識別裝置	
▲ ··· (2) 兵吧坂直	
▶● 通用序列匯流排控制器	
▶ 🖞 滑鼠及其他指標裝置	
▷-邊 電池	
▶▶ 監視器	
▶ 1 💼 鐵緩機	

5. expand "Universal Serial Bus controllers", and find out "USB composite Device" device with "VID\_0A12&PID\_FFFF"



6. click "driver' tab to 'update device driver'

USB Composite Device - 內容			
一般 驅動程式 詳細資料			
USB Composite Device			
驅動程式提供者: Microsoft			
驅動程式日期: 2006/6/21			
驅動程式版本: 6.1.7601.22526			
數位簽署者: Microsoft Windows			
驅動程式詳細資料① 檢視關於驅動程式檔案的詳細資料。			
更新驅動程式 (2) 更新這個裝置的驅動程式軟體。			
回復驅動程式(R) 如果裝置在更新驅動程式後失敗,回復到之前安裝的驅動程式。			
停用(D) 停用所選裝置。			
解除安裝(U) 解除驅動程式安裝 (進階)。			
確定 取消			

7. Select "Browse my computer for driver software"



8. Select "Let me pick from a list of device drivers on my computer" and then click "Next"

④ 更新驅動程式軟體 - USB Composite Device	
在您的電腦上瀏覽驅動程式軟體	
在此位置搜尋驅動程式軟體: ▼ 瀏覽(R)	
☑ 包含子資料夾①	
→ 讓我從電腦上的裝置驅動程式清單中挑選(L) 此清單會顯示已安裝並且與裝置相容的驅動程式軟體,以及與裝置屬於同類別的所 動程式軟體。	有驅
四步一不	D 取消

9. Click "Have Disk"

		×
$\bigcirc$	〗 更新驅動程式軟體 - USB Composite Device	
	選取您要為這個硬體安裝的裝置驅動程式	
	請選擇您的硬體裝置製造商和機型,然後按 [下一步]。如果您想從磁片安裝其他驅	
	☑ 顕示相交通触(○)	i
	<ul> <li>● 展/MBPU度度(C)</li> <li>1後型</li> </ul>	
	SB Composite Device	
	── 驅動程式已數位簽章。	
	告訴我為什麼驅動程式簽章很重要	
	下一步(N)	取消

10. Chick the "**Browse...**" button. For 32-bit OS, select the file CSRBlueCoreUSB.inf under win32 directory; for 64-bit OS, select the file under win64 directory. This driver will be provided together with DFU tool.



11. Click "Next"

		×
$\bigcirc$	〗 更新驅動程式軟體 - USB Composite Device	
	選取您要為這個硬體安裝的裝置驅動程式	
	諸選擇您的硬體裝置製造商和機型,然後按 [下一步]。如果您想從磁片安裝其他驅 多個人的一個人的一個人的一個人的一個人的一個人的一個人的一個人的一個人的一個人的一	
	☑ 顯示相容硬體(C)	
	CSR BlueCore in DFU mode	
	□	
	告訴我為什麼驅動程式簽草很重要	
	下一步(N)	取消

12. Click "Close"



The device shall be now successfully driven and can be found under "Universal Serial Bus controllers"



#### 2. Firmware Update

The following step-by-step procedures instruct how to upgrade firmware.

- 1. Hold 'Mode', 'Play' and 'Power' key simultaneously at least three seconds, an audio tone will be played and purple LED will be turned on around two seconds.
- 2. When the LED turned off, connect BenQ treVolo to Windows7 PC with USB cable, this will make BenQ treVolo device boot into DFU mode.

The device should be successfully recognized. If not, please refer to chapter 1 to install corresponding driver.

3. Execute DFUWizard.exe, the GUI window shall appear. Click "Next"

BlueCore Device Firmwa	are Upgrade Wizard
	Upgrade the Firmware of your BlueCore Module
	Welcome to the Cambridge Silicon Radio BlueCore Device Firmware Upgrade Wizard. This Wizard will guide you through the steps necessary to upgrade the software of a BlueCore module.
	The wizard needs information about how your BlueCore module is conected to the computer, and the name of the firmware upgrade file to use.
	To begin the upgrade process, click Next.
	Version 2.5.8.667
	Copyright (C) 2000-2014, Cambridge Silicon Radio Ltd.
	<上一步(B) (下一步(M) > 取消 說明

#### DFUWizard.exe depends on

- 1. Microsoft Visual C++ 2005 Redistributable
- 2. Microsoft .NET Framework 2.0

Please install these two packages prior to run DFUWizard or it will fail to execute. You can find Microsoft Visual C++ 2005 Redistributable from http://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=26347 4. Select "Universal Serial Bus (USB)" and then click "Next"

BlueCore Device Firmwa	are Upgrade Wizard
	Connection Type
	Please select how the BlueCore module is connected to your computer:
	To continue, click Next.
	<上一步(B) 下一步(M)> 取消 說明

5. Select the first option and the click "Next"



I. The first option is to download a new version firmware and save a copy of the current

version to the backup path. The backup path can be changed by the "Change" button.

- II. The second option is to download a new version firmware without saving a copy.
- III. The third option is to restore to previous version if a problem has been encountered during DFU process.
- 6. Browse to select correct DFU file. Then click "Next"

BlueCore Device Firmwa	re Upgrade Wizard
	Upgrade File Please select the file containing the version of firmware to download: E:\dfu\image.dfu Browse To continue, click Next.
	<上一步(B) 下一步(B) 取消 說明

7. Click "Next"

BlueCore Device Firmware Upgrade Wizard		
	Ready to Upgrade         The wizard has now collected all of the information that it requires to perform the upgrade. Please check the options listed below, and then click Next to start the upgrade, or Back to make changes.         USB device:       CSR_HUB6_PORT5 (BD_ADDR = ??-??-??         Upload:       Existing firmware will be saved.         Download:       D:20140818_dfu_update\wizard\image.dfu         Image: Image	
	<上一步(B) 下一步(M) >> 取消 說明	

8. The upgrade starts. It will take about one minutes to complete.

#### IMPORTANT NOTICE in this stage:

- 1. When update is in progress, DO NOT remove USB cable and keep host PC alive or update will fail and device will not be able to boot up anymore. If this happens, the device has to be returned back to factory.
- DO not click "Abort" button when upgrade is in progress.
   If "Abort" button is pressed, the upgrade process will stop and device will in un-workable state. If this happens, keep USB cable connected and just select an appropriate DFU image to update again.



9. Upon complete successfully, click "Finish" to exit the upgrade process.

BlueCore Device Firmware Upgrade Wizard			
	Successful Upgrade         The firmware of your BlueCore module was successfully upgraded using D:\20140818_dfu_update\wizard\image.dfu, and the new version appears to be operating correctly.         If you encounter problems using the BlueCore module then run this wizard again and select the option to restore the previous version of the firmware.         Time taken:       Upload       00 minutes 05 seconds         Download       01 minutes 01 seconds         Total       01 minutes 12 seconds         The previous version of firmware is described as:         [4.1_27c_1405071132_ble_encr128 2014-05-07]       Change		
	<上一步(B) ( 完成 ) 取消 說明		

## 3. Trouble Shooting

1. If fails to execute DFUWizard



Please check if the following packages are well installed.

- Microsoft Visual C++ 2005 Redistributable
- Microsoft .NET Framework 2.0