# **UPDATING THE FIRMWARE IN THE CS-BFD**

This document goes into painstaking details on how to update the firmware in the CS-BFD. For those of you who are familiar with computers, most of this will be an overkill. These instructions assume your radio is not bricked. We have another set of instructions that show how to do the same thing if your CS-BFD is completely bricked.

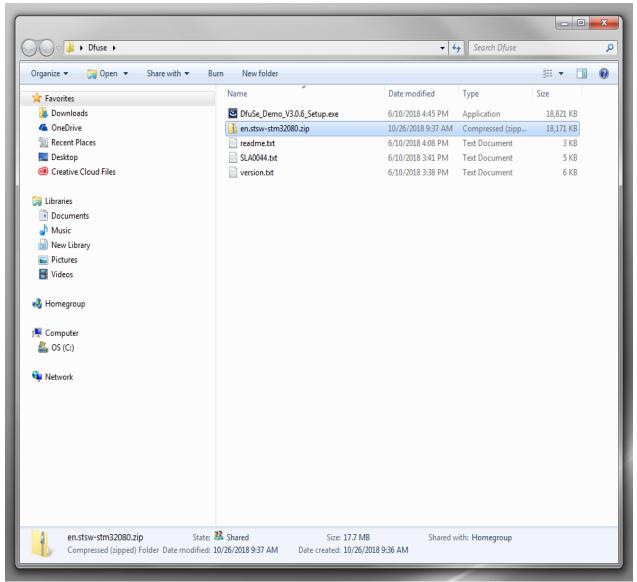
1. Make a directory on your computer called Dfuse. For those who are more advanced, the name is not important. You can share these programs with directories that already exist.



2. Load the program called en.stsw-stm32080.zip into that directory. That program can be found by doing a google search of "ST Dfuse" and getting the information directly from the source or by loading it from <u>www.connectsystems.com</u> website and finding it in the Software pulldown menu under the CS-BFD heading.

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#### 3. Unzip that directory



You now have the following programs:

- DfuSe\_Demo\_V3.0.6\_Setup.exe. This is the actual program you will use.
- Readme.txt. This is an explanation of this program
- SLA0044.txt. This is the license agreement for using this program
- Version.txt. This is an internal document that shows features that were added to the latest versions of software.

4. Download the latest firmware for the CS-BFD that should be located in the same area as the DfuSe\_Demo\_V3.0.6\_Setup.exe and put it in the same directory. You should get a directory that looks similar to the directory shown below.

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🔆 Favorites	Name	Date	Туре	Size	Tags	
\rm Downloads	CS-BFD_Version_1.00.01.dfu	10/23/2018 12:55 PM	DFU File	148 KB		
🝊 OneDrive	DfuSe_Demo_V3.0.6_Setup.exe	6/10/2018 4:45 PM	Application	18,821 KB		
📃 Recent Places	🔒 en.stsw-stm32080.zip	10/26/2018 9:36 AM	Compressed (zipp	18,171 KB		
📃 Desktop	📋 readme.txt	6/10/2018 4:08 PM	Text Document	3 KB		
🔞 Creative Cloud Files	SLA0044.txt	6/10/2018 3:41 PM	Text Document	5 KB		
	version.txt	6/10/2018 3:38 PM	Text Document	6 KB		
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5. Highlight the executable program as shown below and then double click it to run it.

						x
OOO Job Dfuse >		•	Search Dfuse			٩
Organize ▼ 💼 Open Share with ▼ E-mai	I Burn New folder			•		0
★ Favorites	Name	Date	Туре	Size	Tags	
🗼 Downloads	CS-BFD_Version_1.00.01.dfu	10/23/2018 12:55 PM	DFU File	148 KB		
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🧮 Desktop	readme.txt	6/10/2018 4:08 PM	Text Document	3 KB		
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	version.txt	6/10/2018 3:38 PM	Text Document	6 KB		
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		ize: 18.3 MB ed: 6/10/2018 4:49 PM	Shared with: Homegrou	qu		

6. You will get to the following screen as shown below. Press the "Next" key.



7. Fill in the User Name. That is your name. Then your organization. If you have nothing to put there use the name "Ham". Then press the next key.

Bulle v3.0.6 - InstallShield Wizard	×
Customer Information	
Please enter your information.	
User Name:	_
Jerry Wanger	
Organization:	
Connect Systems Inc	
InstallShield	
	Neut
< Back	Next > Cancel

8. You now get the following screen. You have a choice to press the Back key to modify what you just entered, the Cancel key to abort from this program, or the Next key to continue installing the program. Press the Next key to continue installing the program.

Ready to Install the I	rogram			
The wizard is ready to	begin installation.			C
If you want to review exit the wizard.	or change any of y	our installation	settings, click Back.	Click Cancel to
Current Settings:				
Setup Type:				
Typical				
Destination Folder:				
C:\Program Files (	(86) \STMicroelect	ronics\Software	:\	
User Information:				
Name: Jerry Wan	jer			
Company: Connec	t Systems Inc			
l tallShield				
	r	< Back	🖗 Install	Cancel

9. You will then start with the following screen.

闄 DfuSe vi	3.0.6 - InstallShield Wizard
	g DfuSe v3.0.6 gram features you selected are being installed.
1P	Please wait while the InstallShield Wizard installs DfuSe v3.0.6. This may take several minutes.
	Status:
InstallShield	
	< Back Next > Cancel

10. If you get the following screen or something similar, press the Yes key as there is nothing wrong with this program.

😵 User Account Control	×
	to allow the following program from an olisher to make changes to this computer?
Program name:	C:\Users\Jerry\AppData\Local\Downloaded Installations\{20FC2A17-23DD-4B5C-A8C4-4\DfuSe v3.0.6.msi
Publisher: File origin:	Unknown Hard drive on this computer
Show details	Yes No
PAATIMEN'S	Change when these notifications appear

11. You will get the following screen when everything is finished. Press the Finish key.

4	InstallShield Wizard Completed
	The InstallShield Wizard has successfully installed DfuSe v3.0.6. Click Finish to exit the wizard.
	☑ Launch the program

12. You now have the following screen as shown below. If the program has been installed before, find the shortcut and double click on it. You will get the same screen.

Available DFU Dev Supports Uplo Supports Dow Can Detach Enter DFU mode/ Actions	ad 🗌 Manifesta nload 🗌 Accelera	▼ ation tolerant ted Upload (ST) e DFU mode	Application Mode: Vendor ID: Procuct ID: Version:	DFU Mode: Vendor ID: Procuct ID: Version:
Upload Action File: Choose Transferred data	size	Upgrade or Ve File: Vendor ID: Procuct ID: Version:	rify Action Targets in	n file:
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- 13. Plug one end of the special USB cable that came with the unit into the USB2 port of the CS-BFD and the other end into your USB port of your computer. The difference between a standard USB cable and the special USB cable is the power connection in the special USB cable is not there. Only three of the wires are used.
- 14. Attach the CAT5 cable from the display port of the radio to the Primary port of the CS-BFD. Turn on the radio by pressing the power key for a few seconds. Release the key and the display should still be on.
- 15. Remove the CAT 5 cable and the display should now be turned off.
- 16. Press the P1 and P4 at the same time as you plug the CAT 5 cable back in the Primary port of the CS-BFD.

# **17.** The computer screen should now look like the following:

STM Device in DF Supports Uploa Supports Dowr Can Detach Enter DFU mode/ Actions	ad Manifesta	▼ ation tolerant ted Upload (ST) DFU mode	Application Mode: Vendor ID: Procuct ID: Version:	DFU Mode: Vendor ID: 0483 Procuct ID: DF11 Version: 2200
Select Target(s):	Target Id     Name       00     Internal FI       01     Option By       02     OTP Mem       03     Device Fe	tes iory	Available Sect 12 sectors 1 sectors 2 sectors 1 sectors	ors (Double Click for more)
Upload Action File: Transferred data = 0 KB(0 Bytes) of ( Operation duration 0	size D KB(0 Bytes)		er download	nove some FFs)

- 18. Check the "verify after download" check box.
- 19. Press the Choose key under the "Optimize Upgrade duration (Remove some FFs)" check box. You should get the following screen:

Dpen	- D					X
⊖⊖  <b< th=""><th>&gt; Documents &gt;</th><th></th><th></th><th></th><th>✓ 4y Search Documents</th><th>٩</th></b<>	> Documents >				✓ 4y Search Documents	٩
Organize 🔻 New fold	ler				8== •	· 🗌 🕡
☆ Favorites ↓ Downloads	Documents library Includes: 2 locations				Arrange by: Folder 🔻	
ConeDrive	Name	Date modified	Туре	Size	A	
📒 Recent Places 💻 Desktop	🌗 Outlook Files	8/30/2018 9:45 AM	File folder			
Creative Cloud Fi	퉬 Bluetooth Exchange Folder	8/23/2018 11:17 AM	File folder			
	퉬 IAR Embedded Workbench	4/6/2018 10:47 AM	File folder			
📕 Libraries	🐌 HRDLLC	11/9/2017 7:23 AM	File folder		-	
Documents	퉬 Icom	8/15/2017 1:17 PM	File folder		-	Select a file to preview.
Music	퉬 Fax	4/11/2017 4:42 PM	File folder			Prenem
New Library	퉬 Scanned Documents	4/11/2017 4:39 PM	File folder			
Pictures	\mu BFDX	9/12/2016 8:39 AM	File folder			
Videos	퉬 CS7000 PROTOTYPE	4/8/2016 3:27 PM	File folder			
	🌗 Downloaded Installations	4/8/2016 11:27 AM	File folder			
🔞 Homegroup	퉬 Nuhertz	3/10/2016 11:08 AM	File folder			
	퉬 CS7000 DESIGN	1/25/2016 1:26 PM	File folder			
🔍 Computer	퉬 WebsiteMatrix	1/18/2016 4:51 PM	File folder		•	
	name: *.dfu				✓ Dfu Files (*.dfu)	•
					Open	Cancel

20. Locate the file you downloaded earlier that represents the new firmware for the CS-BFD. The file name should be "CS-BFD\_Version\_1.00.01.dfu or something similar. Highlight the file and then double click on it. The screen should now look like the following:

vailable DFU Dev STM Device in DF			-	Appl	ication Mode:	DFU Mode:
<ul> <li>Supports Uplo</li> <li>Supports Down</li> <li>Can Detach</li> <li>Enter DFU mode/</li> <li>actions</li> </ul>	nload		on tolerant d Upload (ST) )FU mode	Proc	lor ID: uct ID: rrsion:	Vendor ID: 0483 Procuct ID: DF11 Version: 2200
Gelect Target(s):	Target Id	Name			A 111 C 1	rs (Double Click for more
Upload Action File: Choose Transferred data		Internal Flas Option Byte OTP Memo Device Fea	upgrade or V File: Vendor ID: Procuct ID:	CS-BF 0483	D_Version_1.00. Targets in	
0 KB(0 Bytes) of Operation duratio C			Verify aft	Upgrad	nload le duration (Remo Upgrade	
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# 21. Press the Upgrade button and you get the following screen:

Available DFU Devi			Application Mode	: DEU Mode:
STM Device in DF	U Mode	Vendor ID:	Vendor ID: 0483	
✓ Supports Uploa		ation tolerant		
✓ Supports Down ✓ Can Detach	nload 📃 Accelera	Procuct ID: Version:	Procuct ID: DF11	
Enter DFU mode/			Version: 2200	
Actions				
Select Terretion DfuSeDe	mo			Tore)
		last.	10.000	
	Continue however		nis file is correct fo	or this device.
Uploa File:			Yes	No
	Continue however	r ?		
File:	Continue however	r ? Version:	Yes	
File: Transferred data s 0 KB(0 Bytes) of 0	Continue however size ) KB(0 Bytes)	r ? Version: IV Verify afte	Yes 0000 er download	No
File: Transferred data s 0 KB(0 Bytes) of 0 Operation duration	Continue however size D KB(0 Bytes)	r ? Version: Verify afte Optimize	Yes 0000 er download Upgrade duration (F	No Remove some FFs)
File: Transferred data s 0 KB(0 Bytes) of 0 Operation duration	Continue however size ) KB(0 Bytes)	r ? Version: IV Verify afte	Yes 0000 er download Upgrade duration (F	No Remove some FFs)

#### 22. Press the Yes button and in a few seconds, you get the following:

wailable DFU Dev	vices						
STM Device in DFU Mode			•	<ul> <li>Application</li> </ul>		DFU Mode:	
<ul> <li>Supports Uplo</li> <li>Supports Dow</li> <li>Can Detach</li> <li>Enter DFU mode/</li> </ul>	nload	Accelerat	ation tolerant ed Upload (ST) DFU mode	Vendor I Procuct Versio	ID:	Vendor ID: 0483 Procuct ID: DF11 Version: 2200	
lictions							
Select Target(s):	Target Id	d Name		Available Sectors (Double Click for more)			
	00	Internal Flash		12 sectors			
	01	Option Bytes OTP Memory Device Feature		1 sectors			
	02				ectors ectors		
Upload Action File:			Upgrade or V File:	-	n Version_1.00	.01.dfu	
Choose Upload			Vendor ID:		3 Targets in file:		
		Procuct ID:	0000	00 S	Т		
Transferred data size			0000				
147 KB(151002 Bytes) of 147 KB(151002 Bytes)		Verify aft					
Operation duratio	n		Dptimize	Upgrade d	uration (Rem	ove some FFs)	
00:00:14			Choose		Upgrade	e Verify	
		Targe	t 00: Verify s	success	ful !		

Press the Quit key and you are now finished.

23. Remove the special USB cable and turn off the power supply attached to the radio for at least five seconds. Turn on the power attached to the radio and then press the power button on the CS-BFD until the screen turns on. You are now ready to use the radio and the CS-BFD.