# FIRMWARE INSTALLATION GUIDE FOR PMSDR2.x

1. Install Microchip's MCHPFSUSB tool:



# ★ Installation Complete MCHPFSUSB v1.3 has been successfully installed. Please read the release notes for MCHPFSUSB. Shortcuts to the release notes and timware user's guide have been placed on your Start Menu. Programs → Microchip → MCHPFSUSB v1.3 <</td> <</td> <</td> <</td> <</td>

2. Connect the PMSDR-Board and install the Microchip USB Custom Driver. (see driver\_inst\_guide.pdf)

2a. Start the PDFSUSB (C:\MCHPFSUSB\Pc\Pdfsusb) utility:

(Note: At this point, the bootloader code must be already programmed on the PIC18F4550 MCU, else please use a programmer interface connected to SV1 to program the bootload first.)

🚳 PICDEM(TM) FS USB De	emo Tool - Version 1.00	
Bootload Mode Demo Mode		
Select PICDEM FS USB Board	1	
	~	
😂 Load HEX File	🔛 <u>S</u> ave To HEX File	
Erogram Device	∠ Execute	
🚔 <u>R</u> ead Device	⇔ <u>E</u> rase Device	PICDEM FS USB Bootload Mode Entry
	Operation	Hold down push button S2 then reset the board by pressing push button S1.
Clear Screen		
Ready		Copyright (C) Microchip Technology Inc., 2004

#### **3.** Connect the PMSDR2.x to the USB

### 4. Start the bootloader on the PMSDR2.x: Press S1 and S2



# 5. Now release only S1 (Reset)



# 6. Release also S2 (Boot)

## 7. Now the PMSDR is in bootloader mode



7. If the bootloader is started on the PMSDR, the ID "PICDEM FS USB 0 (Boot)" appear in the Listbox. If this so, we are ready to program the firmware.

S PICDEM(TM) FS USB I	Demo Tool - Version 1.00	
Bootload Mode Demo Mode	•	
Select PICDEM FS USB Board PICDEM FS USB Device Bead Device	ard SB 0 (Boot) SB 0 (Boot) Execute Execute Erase Device rt Operation	PICDEM FS USB Bootload Mode Entry Hold down push button S2 then reset the board by pressing push button S1.
Clear Screen		
Ready		Copyright (C) Microchip Technology Inc., 2004

8. Click on "Load HEX File" and choose the correct Firmware-Hexfile to upload.

OPICDEM(TM) FS USB Demo	Apri			? ×
Bootload Mode Demo Mode	Cerca in:	🔁 _output 🛛 👻	G 🗊 📂 🖽	]-
Select PICDEM FS USB Board	DMSDR.h	ex		
PICDEM FS USB 0				
Coad HEX File				
🛱 Brogram Device				
Bead Device				
	Nome file:	PMSDR.hex	~	Apri
Clear Screen	Tipo file:	Hex Files (*.HEX)	~	Annulla
USB Bootloader Firmware Version 1.0	)	Copyright (C) Microchip Tec	hnology Inc., 2004	

8a. Click on "Yes".



9. Now the Firmware is loaded in the buffer. Click on "Programm Device" to start the upload.

🚳 PICDEM(T	M) F	FS U	SB I	)em@	o To	ol - I	Vers	sion	1.0	0					
Bootload Mode	De	emo M	Mode												
Select PICDEM FS USB Board															
PICDEM FS USB 0 (Boot)															
Load HEX File									4	2	M	ICROCHIP			
📥 <u>P</u> rogr	Program Device     Execute														
🙀 <u>R</u> ead	Arase Device						PIC	DEM	FS U	ISB B	ootload Mode Entry				
	○ Abort Operation							Ho bo	old do oard b	own p oy pre	bush l Issing	button S2 then reset the push button S1.			
			_												
Clear Scr	een														
Addr. 00	01	02	03	04	05	06	07	08	09	ØA	ØB	ØC	ØD	ØE	0F
PROGRAM ME	EMOR	ł¥ :													
000000 BF	EF	3A	F 0	12	00	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
000010 XX 000020 XX	XX	XX XX	XX XX	XX XX	XX	XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX	XX XX	XX XX	XX XX
000030 XX	ΧХ	хх	ХΧ	хх	ХΧ	ΧХ	хх	ХΧ	хх	ΧХ	XX	ΧХ	хх	хх	XX
000040 XX 000050 XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX
USB Bootloader	Firm	ware	Versi	on 1.	D						Сору	right	(C) M	licroc	hip Technology Inc., 2004

**10.** Wait until to finish the programming sequence.....

🚳 PICDEM (TM	I) FS US	B Demo 1	Tool - Ver	sion	1.00	)						
Bootload Mode	Demo M	ode										
Select PICDEM	FS USB I	Board										
PICE	DEM FS	USB 0 (B	oot)	~								
2 Load HEX File Save To HEX File								<b>Міскоснір</b>				
📥 Erogra	m Device		∠ Execute									
🚔 <u>R</u> ead [	Device	¢	) <u>E</u> rase Dev	/ice			PIC	рем	FS U	ISB B	lootload Mod	le Entry
	8 Abort Operation						Hold down push button S2 then reset the board by pressing push button S1.					
		)										
Clear Scre	en	)										
MESSAGE - E	rasın	g and P	rogramm	ing	FLA	SH	•••					<u>^</u>
Addr. 00 (	91 02	03 04 0	5 06 07	08	09	ØA	ØB	0C	ØD	ØE	ØF	
PROGRAM MEI	10RY :											
000000 BF B	EF 3A	F0 12 0	0 XX XX	XX	XX	XX	XX	XX	XX	XX	XX	
000020 XX X	X XX XX	^^ ^^ X XX XX X	^	XX	XX XX	XX	XX XX	XX	XX XX	XX XX	XX	
000030 XX X 000040 XX X	(X XX ) (X XX )	XX XX X XX XX X	X XX XX X XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	~
USB Bootloader F	irmware V	ersion 1.0					Сору	right	(C) M	licroc	hip Technolo	ogy Inc., 2004 _

#### 11. Now the Firmware is programmed in the PMSDR. Click on "Execute" to start the PMSDR firmware.

🕸 PICDEM(TM) FS USB Der	no Tool - Version 1.00	
Bootload Mode Demo Mode		
Select PICDEM FS USB Board		
PICDEM FS USB	0 (Boot) 🔽	
🖨 Load HEX File	📕 Save To HEX File	<b>Міскоснір</b>
nogram Device	▶ <u>E</u> xecute	
n Read Device	🙀 Erase Device	PICDEM FS USB Bootload Mode Entry
	peration	Hold down push button S2 then reset the board by pressing push button S1.
Clear Screen		
MESSAGE - Programmin	g FLASH Completed	<u>^</u>
MESSAGE - Erasing an	d Programming FLAS	SH
Addr. 00 01 02 03 0	4 05 06 07 08 09 0	DA OB OC OD OE OF
PROGRAM MEMORY:		
000000 BF EF 3A F0 1	2 00 XX XX XX XX X	x xx xx xx xx xx
000020 XX XX XX XX X	x xx xx xx xx xx xx x	
нинизй XX XX XX XX XX USP Rootloader Eirmuste Version	x xx xx xx xx XX X 10	Copyright (C) Microchip Technology Inc. 2004

12. Don't panic: ignore the message "Failed to RESET board". The PMSDR is running now......

S PICDEM(TM) FS USB	Demo Tool - Version 1.00						
Bootload Mode Demo Mode							
Select PICDEM FS USB Boa	ard						
	~						
🗃 Load HEX File	Save To HEX File	<b>Міскоснір</b>					
🐇 <u>P</u> rogram Device	∠ Execute						
<u>R</u> ead Device	₩ <u>E</u> rase Device	PICDEM FS USB Bootload Mode Entry					
	rt Operation	Hold down push button S2 then reset the board by pressing push button S1.					
Clear Screen							
MARNING - Failed t MESSAGE - Programm MESSAGE - Erasing	o RESET board ing FLASH Completed and Programming FLAS	\$H					
Addr. 00 01 02 03	04 05 06 07 08 09 0	JA OB OC OD OE OF					
PROGRAM MEMORY:							
000000 BF EF 3A F0 000010 XX XX XX XX 000020 XX XX XX XX	12 00 XX XX XX XX X XX XX XX XX XX XX X XX XX	(X XX XX XX XX XX (X XX XX XX XX XX (X XX XX XX XX XX XX XX 🛩					
Ready		Copyright (C) Microchip Technology Inc., 2004					

13. If the new firmware is started on the PMSDR, the ID "PICDEM FS USB 0 (Demo)" appear in the Listbox on the "Demo Mode"-Tab.

14. If this your first-time installation, maybe you must install the USB-Driver now, else no other are required.

