

Tutorials: Updating the PLT-1001v4 firmware

## What you need

- USB-TTL Serial cable
- PLT-1001v4 LED Matrix Display Driver
- Screamer bootloader program
- PLT-1001v4 firmware pack

## Instructions

- 1. Open the Screamer application.
- 2. Select your COM port, select "115200" for speed, and "64" for oscillator.

Setup Terminal			
Comm: 8		Open Download	
Speed: 115200 -		Open Download	Stop Waiting
Oscillator: 64 🗸		Open Download	
Open Terminal After Download	Buffer Empty		
	Status: Idle		
	Retries: 0		
	Idle		
	Nothing happening yet		
	No data loaded		

3. Click on "Open" to browse for the appropriate firmware (.hex) for the PLT-1001v4.

🔾 🗢 📕 « Embe	eddedAd.	> plt1001v4_firmware_pack_3v04 -	✓→ Search plt1001	v4_firmware_pa 🖇
Organize 🔻 New	folder		8	≡ <b>-</b> 🔟 🔞
🔆 Favorites 💻 Desktop		Documents library ht1001v4_firmware_pack_3v04	Arrange	e by: Folder 🔻
〕 Downloads	N	lame	Date modified	Туре
S Dropbox	= [	plt1001 v4 firmware ldp3208s 3v04.hex	9/14/2014 1:51 AM	HEX File
Kecent Places		plt1001 v4 firmware ldp3216s 3v04.hex	9/14/2014 1:53 AM	HEX File
Google Drive		plt1001_v4_firmware_ldp6416_6xH_3v04.h	9/14/2014 2:00 AM	HEX File
Cibraries		plt1001_v4_firmware_ldp6432_3xH_3v04.h	9/14/2014 2:04 AM	HEX File
CheDrive		plt1001_v4_firmware_ldp6432_3xV_3v04.hex	9/14/2014 2:05 AM	HEX File
Contraction (		plt1001_v4_firmware_ldp8008_9xH_3v04.h	9/14/2014 2:07 AM	HEX File
		plt1001_v4_firmware_ldp080507r_3v04.hex	9/14/2014 2:08 AM	HEX File
Music				
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	ile name	alt10014 famming lda6422 2	- Hay Files (* HEY	

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4. Connect your USB-TTL cable to the PLT-1001v4. The Tx wire from the cable should be attached to the RX pin on the PLT-1001 and the Rx wire from the cable to the TX pin on the PLT-1001.



- 5. Make sure the PLT-1001 has 5V power.
- 6. Press the "Download" button in Screamer.
- The red LED flashes as the bootloader starts, and will stay lit as the firmware is being downloaded to the PLT-1001.<sup>1</sup>



	v4 firmware Ido6432 3vH 3vIM bev	Onen	Download	
Comm: 8		Open	Download	Abort
Oscillator: 64		Open	Download	
	Retries: 0 Running Get next line from file At 784 of 1996			

- 8. Once completed, open the serial terminal in the Screamer application.<sup>2</sup>
- 9. Make sure the settings for serial communication are configured like in the image.

File About		
Setup Terminal		
		Enable Echo DTR
		115200 - 8
		1 • N
		Display:
		ASCII Hex Dec
		Se
		00 H
		Uear Clear

10. Verify that the update was successful by pressing the Reset button on the PLT-1001. The firmware should be printed as in the image.

💋 Screamer v4.00 - Bootloader	
File About	
Setup Terminal	
LDP-6432 3xH Driver 3.04 <02:04:25 Sep 14 2014> Supporting up to 3 displays Setting x offset to 128 and y offset to 0 to support 1 displays.	✓ Enable Echo DTR RTS   115200 ▼ 8 ▼   1 ▼ N ▼   Display: ● ASCII Hex Dec   Send Send Send Send
	00 Hex Open Clear

 $^1\,$  If the firmware update doesn't start immediately, try holding the Reset button down and releasing it once you've clicked "Download" in the Screamer application.

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 $^2$  If the "Open Terminal After Download" checkbox has been selected, the Screamer application will switch to the Terminal window right after the update.

If you have any problems, drop us a note at <a href="mailto:support@embeddedadventures.com">support@embeddedadventures.com</a>.