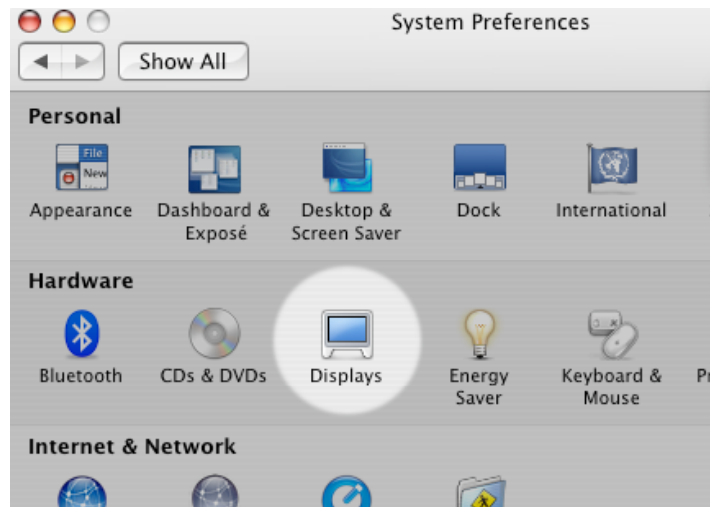
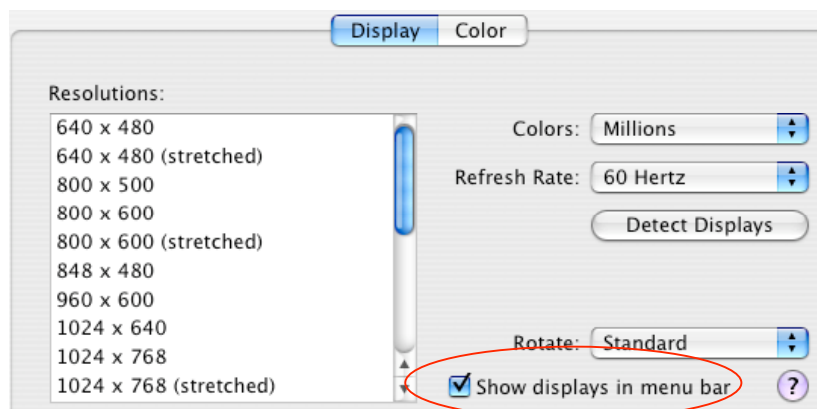


# Using a Projector with your MacBook

1. In most cases, your MacBook will be on and you will plug in a Projector.
2. In most cases its best to have your MacBook's Display icon, showing in the Menu Bar.
  - Enable this by choosing Displays from the System Preferences.



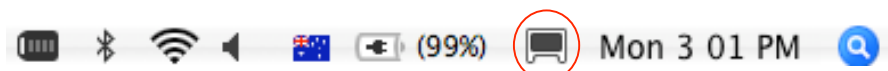
- Tick 'Show Displays in menu bar'.



- Your monitor display icon will appear in the Menu Bar. However, in many cases this will not be in an appropriate position.



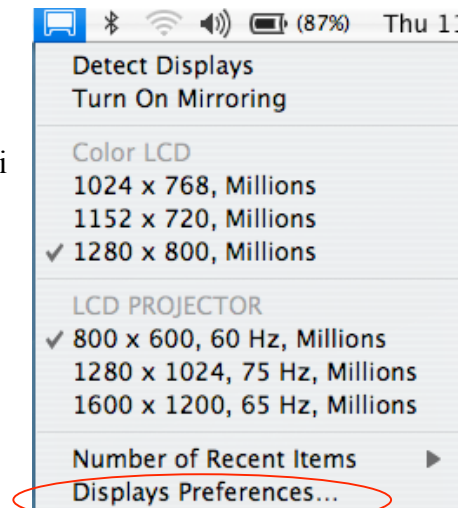
- Often a plugged-in projector forces the display to a 800×600 resolution, and you can't see the Monitors icon in the menu bar as it is too far to the left, and the Application menu (such as the Finder or Safari) hides the left most icons. To make this icon always available, hold the Command (Apple) key and drag the Monitor icon to the right as seen below.



3. Now insert the External Display Adapter (Dongle) into the Projector lead, then insert the other end of the Dongle into the MacBook.
  - If nothing happens, select 'Detect Displays' from the Displays icon in the Menu Bar.
  - The MacBook usually mirrors its screen to the projector at a low resolution such as 800×600.

- Sometimes you may see a blue desktop on the projector and your normal MacBook display on its screen. This means that monitor ‘mirroring’ is turned off — you are viewing one huge screen that subtends over both monitors. Use the Displays icon in the Menu Bar to turn it on.

- In programs like Keynote and Powerpoint, mirroring can be left off if you want to see the Presenters View (shows timing, subsequent slides and notes, etc). But remember, doing this and jumping to other applications such as Safari needs more planning (ie, switching the primary and secondary displays).

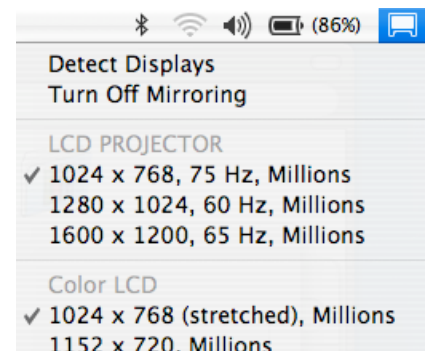


4. Your MacBook’s screen display shows 1280×800 pixels. Check to see if the projector can mirror this. If it is not available from the Display’s menu bar menu, choose ‘Displays Preferences...’ from that menu.

5. Now test for 1280×800, if that does not work (which is common for many projectors, your next best option is 1024×768 (this is known as XGA) and many projectors support this natively or otherwise.
  - If 1024×768 is not an option on the Menu bar Display, you will need to choose ‘Display Preferences...’ from the bottom of that menu.

- Also note that only three recent resolutions are being shown (or stored) as the default value.

- Now there will be two separate panes, one for each screen, the MacBook and the Projector. Pick the projector pane and initially set it to 1024×768 using the lowest frequency.



6. Of course the MacBook will have black bars down each side of the screen as it is a wide-screen display and 1024×768 is 4:3. You might prefer choosing 1024×768 Stretched for the MacBooks display.

7. Often we load applications ready for the presentation. We have web pages ready in Safari, and maybe a Keynote presentation launched and ready to go. Then plugging in the projector messes things up by altering the screen display possibilities.

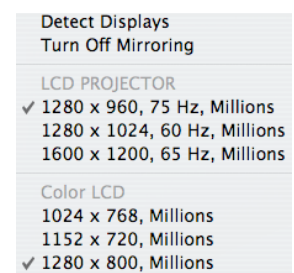
- Obviously if you prepare your applications and documents without the projector, you are in 1280×800 display mode. But if you then plug in and only achieve 1024×768 pixels, you will need to resize your application’s windows to suit.

- In most cases, clicking on the Green Window button will resize that Application’s screen to a to fit within the smaller resolution. (Normally this button zooms that window to its last size before it was changed.)



- In some cases you may need to intervene. In iTunes you would need to click the Green button twice, the first time gives you the mini-player. In Comic Life, you may need to horizontally drag the window (drag from the Comic Life button bar at the top of the screen) to the right, then click the green button.

8. What resolutions you can achieve on the projector will depend on the projector. Here is an example of a projector trying to mirror a display even though it is using different resolutions.



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