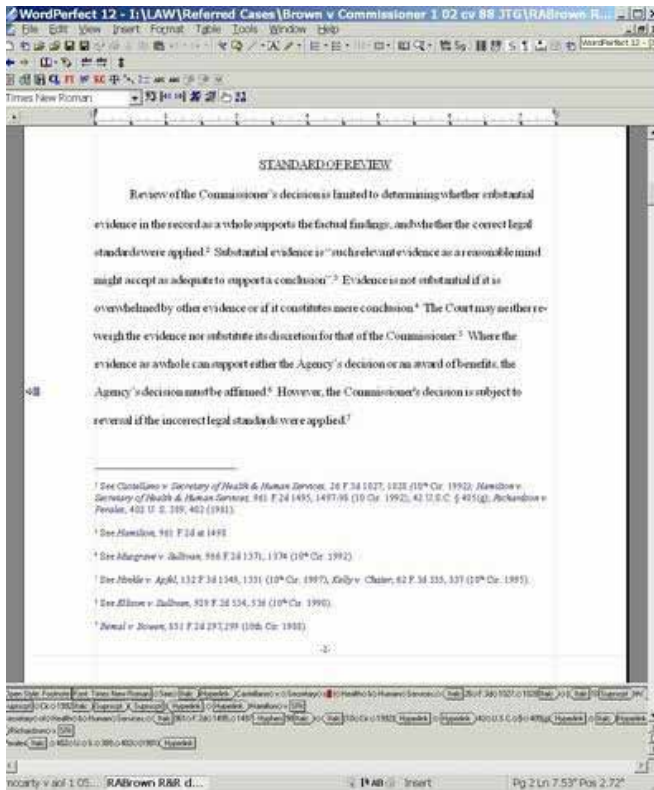


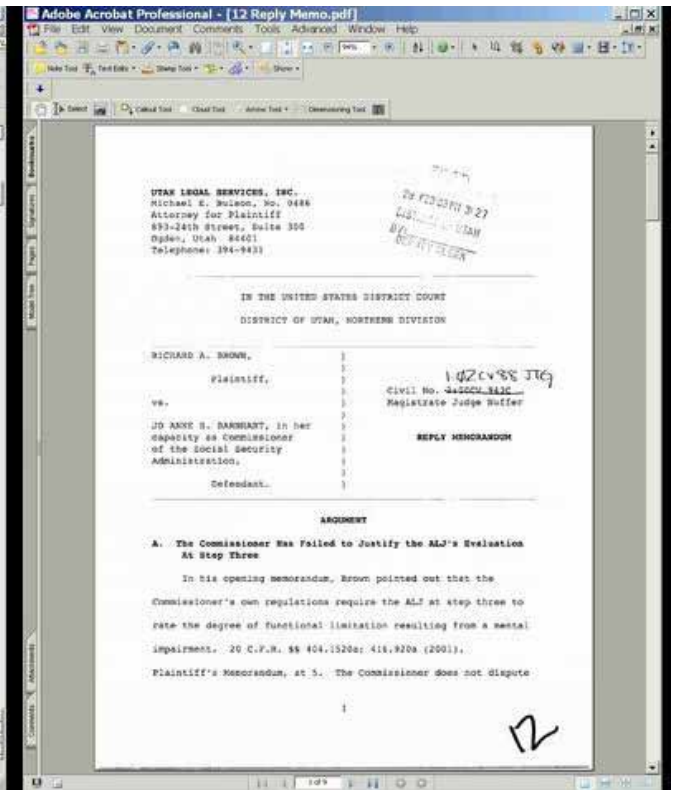
# Multiple Monitors or Large Monitors

Fundamental to the ability to work effectively in the electronic world is an *electronic desktop*. In the paper world, we work on a large desk to be able to work with many items at once. In the electronic world, a *large virtual desktop enables us to work simultaneously with many electronic sources* of information while we do our work, which may include electronic composition, analysis and communication.

Research has demonstrated that multiple and large monitors increase productivity and reduce errors significantly in all users, sophisticated or not. For those with less developed technical skills large monitors are more effective than multiple monitors. ([Gregg Keizer, Bigger is Better in Monitors To a Point, Computerworld March 10, 2008](#), reporting research by James A. Anderson, Ph.D., F.I.C.A., at the University of Utah in 2003 and 2007. Papers available by [email request from Magistrate Judge David Nuffer](#).)

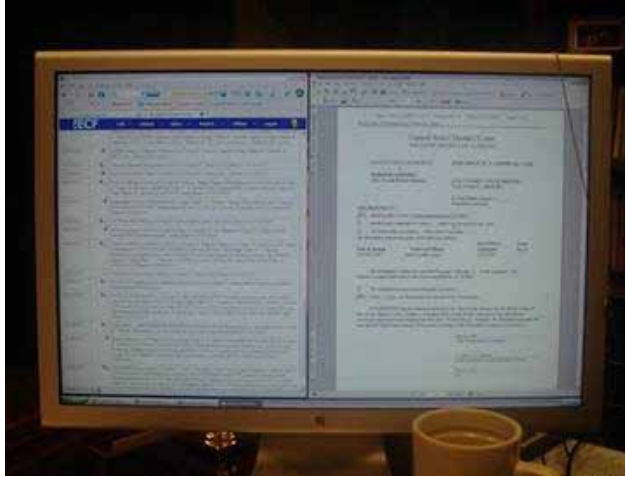


Word Perfect document

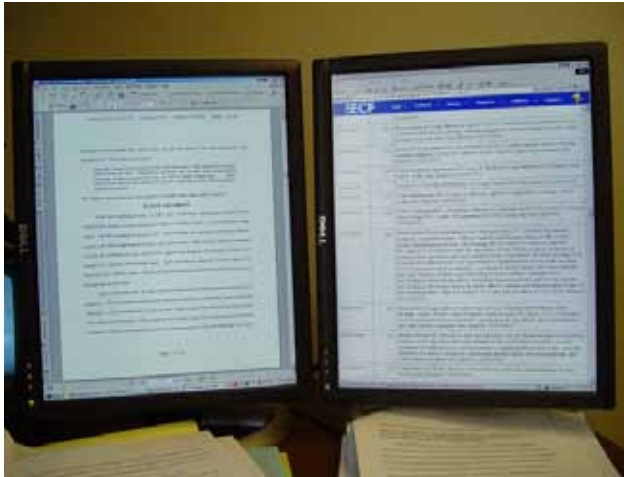


Adobe Acrobat document (from CM/ECF)

*Multiple monitors or large monitors* allow view of many source documents (Westlaw, Lexis, PACER, CM/ECF, PDF files) while composing other documents (Word or WordPerfect or CM/ECF). Multiple documents from the same application may be viewed side-by-side. Copying and pasting between screens or windows is possible because all monitors are connected to the same computer. (If using multiple monitors, it is best to use identical displays.)



A large display, showing two windows



Two LCD displays, rotated in portrait mode

Operating systems since Windows 98 permit creation of a large "virtual display" which spans several physical monitors, if the computer has a video display hardware which can drive two monitors.

The **capability to have two displays is built into most laptop computers** (control panel at right).

The dual display features are regulated in the Display Properties control panel, Settings Tab.

Microsoft help pages describe how to use multiple displays:

[How to Enable Multiple Display Support Using Windows 98](#)

[HOW TO: Set Up and Troubleshoot Multiple Monitors in Windows 2000](#) (This article includes information on installing multiple display adapters.)

[HOW TO: Configure and Use Multiple Monitors in Windows XP](#)

[Multiple monitors are not enabled on a computer that you upgrade from Windows XP to Windows Vista](#)



In many desktop computers, it is possible to use **two standard display adapters** to drive dual monitors to create a large integrated desktop.

[Hardware Requirements for Multiple Display Support in Windows 98](#)

[Hardware Requirements for Multiple Display Support in Windows XP](#)

Many manufacturers supply **single slot display adapters with two heads** (cable connections) which support two monitors on each card. More than one can be used in one computer to drive more than two displays.

[NVIDIA](#)

[ATI](#)

[Matrox](#)



Many display adapters are able to use **special software which permits [rotation of displays](#)**. A rotated flat panel allows the user to "page through" documents and see an entire page at a time on the virtual desktop. The user's experience with electronic documents then resembles use of paper on a physical desktop.

[NVIDIA software](#)

[ATI software](#)

[Matrox Software](#)

Most laptop video cards have the ability to rotate an external monitor connected to the laptop, and some allow the use of two monitors, if you have a docking station. Check your display properties, advanced settings, or a special control panel.

Get more ideas in the [gallery](http://multiplemonitors.org/) at <http://multiplemonitors.org/>

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