roduct Information Published by: Dr. Bott KG Ortsstrasse 37 D-07426 Unterhain Germany Phone: ++ 49 36738 44630 Fax: ++ 49 36738 43881 Email: <mmoniswitch info@macsiegerland.tfnet.org> Web: <http://www.drbottkg.com/moniswitch e.html> US & Canadian Retailer: The Macintosh Guy of Portland Tel: (503) 789-0977 Fax: (503) 892-2475 Email: <orders@themacintoshguy.com> Web: <http://www.themacintoshguy.com/sales/bott.shtml> Price: MoniSwitch2 (supports up to two Macs) \$110; MoniSwitch4 (supports up to four Macs) \$165

#### Playing the Game of Musical Peripherals

I have four Macintosh's in the space of one dorm room. I don't have space for four 21" monitors and four separate keyboards. More importantly two of the machines in my room are servers and don't need dedicated keyboards, mice or monitors. There are, however, times when it becomes convenient, and even necessary, to either see what is going on with these servers, or to control them with a keyboard and mouse.

#### Timbuktu

Up until very recently I was using Timbuktu <http://www.netopia.com/> from Netopia to control my server setup from my main G3 computer. While Timbuktu is a very slick application that

functions remarkably well, it is a less than ideal solution for controlling Macs in close proximity to one another. Timbuktu is most useful for controlling another machine that is truly remote. Furthermore, there are some complications to consider when using Timbuktu.

First of all, while it does work over 10Base-T Ethernet, a 100Base-T connection is recommended in order to attain less than "choppy" control over the remote Macintosh. Furthermore, because Timbuktu is running in a window on a host Macintosh, if the user tries to use Force Quit or engages a keyboard restart, the host Mac will take action rather than the Macintosh under Timbuktu's control. This is not really Netopia's fault (although they should really have incorporated the few lines of code required to disactivate the Force Quit command within Timbuktu) but it does make life difficult at times, particularly if a machine under Timbuktu's control freezes or crashes and the user needs to reboot the machine. Similarly, if the user needs to start up a remote machine with extensions shut off, Timbuktu will not load and thus there will be no method of controlling the machine remotely. So clearly, while in some cases it is the best or only choice, Timbuktu is not a panacea.

#### Switch-a-roo

The concept behind a switch box is fairly simple. There is an I/O port which interfaces with a source of some sort, in this case a monitor and an ADB chain. There then exist additional sets of ports which provide interfaces for the computers' ADB and video interfaces. This enables a multitude of computers (in this case two or four) to share the source, again in this case: one monitor and an ADB chain. One point of clarification: the user need not fill all the ports on the switch box, that is to say that if the switch box supports up to four sets of ports for computers, the user can use two or three leaving the remaining port(s) free for future expansion.

### Show Me the Moni

I have, for some time now, considered purchasing a keyboard and monitor switch box for my setup but there are few switch boxes designed with the Macintosh in mind. Most switch boxes use VGA video, which is not really a problem, but they also use PC keyboard and mouse interfaces, which does present a problem for Mac users.

Figure 1

Figure 2

The MoniSwitch is different, although from the front it looks the same as most any switch box I've ever seen (Figure 1). There are two models, the MoniSwitch2 and the MoniSwitch4. Both of these boxes have ADB and Apple RGB DB15 ports on the back, the MoniSwitch2 has three sets; the MoniSwitch4 has five (Figure 2). There are no power requirements for the MoniSwitch, it is just a physical hardware switch not an electrical device.

Setting up the MoniSwitch is fairly self explanatory. If you have a VGA monitor (as I do) you will need to use a female VGA->male RGB adapter to connect to the DB15 I/O port on the back of the MoniSwitch. You probably already have one of these adapters if you have a VGA monitor and use a standard Macintosh video card or your Mac's internal video. However if you have a video card with a VGA port on the back, you will also need to find either a female RGB->male VGA adapter (these are rare but they do exist, you can actually get one from The Macintosh Guy) or an RGB female->male VGA patch cable (these are easier to obtain) since the MoniSwitch's ports for interfacing with the computer are also RGB DB15.

Connecting the ADB chain is a snap, as one might expect. Be aware however that ADB is really a very finnicky bus. Most users greatly underestimate the chances of frying their ADB buses by fooling around with the ADB bus while the Mac is on. Just because it hasn't happened yet doesn't mean it won't. Frying the ADB bus is a nightmare because it entails replacing the entire motherboard, an expensive proposition.

I managed to set my MoniSwitch4 up in about five minutes. The hardest part was finding a good location for it since both machines' video and ADB cables had to reach the box, as did the monitor and keyboard's. My monitor is a Mitsubishi 91TXM 21" and it has a VGA cable rather than a DB15. As a result I used the VGA->RGB adapter Mitsubishi included with my screen at the time of purchase to connect it to the I/O port.

The video setup on my G3 is a little interesting. I have a MacTell Vision 3D Pro Lite card and a MicroConversions GameWizard 12 MB card sitting in the neighboring PCI slot. The way the GameWizard functions, for those readers unfamiliar with voodoo cards, is by plugging into both the video source (my MacTell card) and the video output (my monitor). The MacTell card has a VGA output on the back, and the MicroConversions card has a VGA input and an RGB DB15 output. The MicroConversions card actually made my life easier because I was able to plug the MoniSwitch directly into the back of it using the enclosed DB15 patch cable. Otherwise I would have needed to get either the elusive male VGA->female RGB adapter I spoke of earlier, or a male VGA->female RGB cable to connect the MoniSwitch to my MacTell board.

# **Alphabet Soup**

Having set up my MoniSwitch4 I can report that I am one happy server administrator. First of all the MoniSwitch works perfectly. It switches immediately such that my Mitsubishi monitor doesn't go into energy saver mode, which it ordinarily does as soon as there is no video source. I have experienced no degradation in image quality. I attribute this to the fact that the cables included with the MoniSwitch were of very high quality. Similarly I have experienced none of the goofy behavior often attributed to fidgeting with the ADB bus.

My life has not been easier in a long time with regard to monitoring and maintaining my network. A simple flick of the switch from A to B and I can observe server status and make changes easily. Frankly I think it's better than having multiple monitors and keyboards as that would be a useless waste of space.

I have also been able to remove Timbuktu from the server which has several benefits. First of all it removes an extension from the System Folder, which is always a healthy thing for a server. Secondly there is no draw on the server itself when I am observing or playing with it as it is not sending data out over the network and no processor time is being taken to handle Timbuktu's overhead. On a similar note, I now run my server's video at 1280x1024 so I can fit all of the various status displays on the screen at once. Previously, under Timbuktu, I ran the server at 640x480 to keep Timbuktu responsive. Of course, removing Timbuktu also tightens security since there is no longer any way to remotely control the server. Clearly the MoniSwitch is a better option in every way.

# PC Compatibility

While I don't own any PCs and don't intend to ever, there is a trick you can use to get the MoniSwitch to work with PC keyboards. Since the PC industry uses VGA video ports which are HD15 (as opposed to DB15), all that is necessary to support PC video is a PC Fly adapter, which enables you to plug a VGA cable into the back of the MoniSwitch. However to use a keyboard or mouse you will need an iMate, which is a device designed to let iMac users use ADB devices over their USB bus. Cleverness will lead to using this device in reverse, so to speak, such that it can be connected to the MoniSwitch and then PCs with USB interfaces can be controlled via an ADB chain. It's great because I haven't found a PC mouse or keyboard yet I like, so I can imagine that using an Apple Extended Keyboard II and mouse would be very nice.

### Any Bad News?

Not really. The MoniSwitch is a no brainer. If you have a need to use one monitor and ADB chain with many Macs there really isn't any other choice. Timbuktu makes sense for certain applications, but if the Macs are all relatively close to one another physically, the MoniSwitch is more likely the better choice. It is worth pointing out however that Timbuktu does a lot more than merely enable the user to control a Mac remotely. It allows an administrator to monitor and/or control several Macs all at once on one screen from one Mac. It also uses a very fast file transfer protocol called Timbuktu Exchange which I highly recommend. It offers chatting and collaborative features as well. Obviously if two Macintoshs are on opposite sides of a building but are connected via Ethernet, Timbuktu is the best choice if one needs to control or observe the other. The MoniSwitch is not a replacement for all of Timbuktu's features and it's important to recognize that. However it is a solid, well-constructed, well-designed, well-thought-out, and reasonably priced piece of equipment that can, under many circumstances, be the best option, far better than Timbuktu.

# That Macintosh Guy

One final note is in order. Since my earliest days of computer use I have reaffirmed my belief in the statement "it takes all types." There a lot of characters in the computer world, some good and some not so good. There are a lot of pretentiously proficient folks out there and there are a lot of self-serving computer salesmen. However...Eric Prentice, a.k.a The Macintosh Guy, is a shining jewel in the Macintosh computing industry. Aside from the wealth of knowledge he possesses, he sincerely cares about the Macintosh, and it really shows. The time and care he put into my order was much appreciated and I heartily recommend that all our readers take a hop over to his Web site at

<http://www.themacintoshguy.com>. We should only be so lucky to have more folks around like Mr. Prentice. Keep up the good work Eric, and thanks for introducing me to the MoniSwitch!

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