# Mon Valley Unemployed Committee

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# Introduction

During this semester I have been working with Paul Lodico and Sandy Kolenda, both employees of the Mon Valley Unemployed Committee. The consulting process first involved assessing the organization, the staff, and the technologies used by the organization. I then worked with Paul and Sandy to identify the needs of the organization and the opportunities to address these needs. The needs were addressed in priority of what would help bring the organization's technological capacity to a more efficient operation. Finally, the evidence of increased capacity and sustainability from this consulting relationship has been documented, along with recommendations and resources for future action to further address the needs of the organization.

# Situation

- Organization: The Mon Valley Unemployed Committee is a not-for-profit organization committed to helping unemployed and low-wage people get the assistance they need from the government. They help individuals correctly file for unemployment and welfare benefits as well as lobby the local and federal governments for improved welfare and labor laws. They serve the Mon Valley region—which is still struggling to recover from the loss of its once thriving steel industry. The organization operates on a budget of roughly \$130,000. Donations collected through the United Way are the organization's major source of funds; other grants and donations are secondary sources of revenue.
  - Facilities: The organization is housed in a one-room office in The Bishop Boyle Center, a converted school building, on 120 East 9th Street in Homestead, PA. The building houses other non-profit organizations and small businesses. The office is an old classroom on the third floor of the building. The room is quite spacious and easily accommodates 4 separate work areas. Three of these work areas are the desks of the three occupants of the room (Paul, Sandy and Sheryl). The fourth work area is a table for common use. In addition to the work areas, one corner of the room is dedicated to storage (boxes/ file cabinets).
  - Program: The day to day operation in the office consists mostly of placing and answering phone calls. Incoming calls are generally from people calling to request the organization's services. Other incoming calls and most outgoing calls are made with other organizations in order to communicate information relevant to the projects underway. Part of the organization's program involves computer information storage. The computers in the office are used to store databases such as financial contributors, people who have been helped by the organization, volunteer lists and other related information. The computers are also used extensively to create word processing documents. General correspondence as well as organizational newsletters and flyers are created in this manner.

- Staff: The organization has four paid employees: Paul Lodico and Barney Oursler are the Co-Coordinators; Sandy Kolenda and Sheryl Sears are the Outreach Coordinators. Of these four, only three actually work in the office space: Barney works in a different building. Paul is my point of contact in the organization. He uses computers to write letters and newsletters in Microsoft Word. He also uses it to edit/use Dbase3 databases. Paul generally relies on Sandy to teach him new things regarding the computer. As a result of this and the general work distribution, Paul's computer usage is infrequent compared to Sandy. She uses the computer the most in the organization. She types up letters and other documents and extensively modifies various databases and prints labels. She is also responsible for monitoring the organizations yahoo email account. While Sandy uses the computer the most, she does not have any formal computer training which results in her having trouble figuring out how to do things with the computer. In addition she finds it very difficult to learn from reading computer manuals. Sheryl does not currently use a computer and has very little experience using computers. It is anticipated that Sheryl will have to use a computer for word processing tasks in the future when the office purchases a new computer. To remedy her inexperience, she is going to take a typing/computer course at Carlow College. As a result of Sheryl terminating her employment with the organization, I never meet her. She may be returning to work in the office after I leave.
- Technical Setting: Paul's work area has a computer, networked printer and scanner. Sandy's work area has an operational computer, an inoperational computer and an unused printer. The office has other technology such as a paper copier, fax machine and answering machine. The office itself has 4 phone lines. One is a toll-free number; one is a fax number; the other two are voice/data communication lines. The 2 operational computers in the office are networked. The networking and phone cables are neatly taped to the floor and run from workspace to workspace.

Paul's Computer:

- CompUSA America PC Pentium w/ MMX
- Windows 98 4.10.1998
- 32 MB RAM
- 4GB Internal IDE HD —600 MB Free
- 24x CD ROM
- Floppy Drive
- Internal Jazz Drive (have three cartridges)
- 4MB Video RAM
- SCSI Card (used for scanner)
- UMAX Astra 610S Flatbed Scanner
- USB Card (unused)
- Ethernet (doesn't use twisted pair connection)
- 15" Monitor in High Color @ 640x480 resolution (capable of higher)
- HP LaserJet 6P Printer (has its own parallel port card.)
- SCSI II Card (unused)
- Has NO Modem

Sandy's Computer:

- Dell Dimension P100t Pentium Processor
- Windows 98 4.10.1998
- 16 MB RAM
- 1.99 GB Internal IDE HD 1.21 GB Free
- CD ROM

	<ul> <li>Floppy Drive</li> <li>2MB Video RAM</li> <li>Parallel Port hooked up to unused HP printer</li> <li>Ethernet (doesn't use twisted pair connection)</li> <li>12.5 Monitor in 8 bit @ 640x480 resolution (capable of higher)</li> <li>Prints to Paul's HP LaserJet through network</li> <li>Has 28.8 internal modem</li> </ul>
	Non-working Computer: • Unknown x386
Tech. Management:	There are three people available to contact for help when a computer problem is encountered. The first is a gentleman named Rob Toy who serves on the Board of Directors for the organization. Rob helps when he can, but he usually doesn't have a lot of time to help. Rob is the primary contact point for technical management. He set the computers up as they are configured now including setting up the peer-to- peer network. The second person is Joe Carr, the building supervisor; he has helped the organization with small problems in the past. Lastly, there is a retired computer professional from Westinghouse who currently hired to help the organization convert from DBase databases to Microsoft Access databases. In general, if either Sandy or Paul encounter a technical problem they cannot solve, they have to wait until Rob has time to come to the office and try to fix it.

# **Problems and Opportunities:**

- **Topic**: *A new computer to replace Sandy's current computer*
- **Background:** There is an opportunity to replace Sandy's current computer. Sandy does most of her work on the computer. Her current machine is extremely slow for her purposes. It is a 100 MHz Pentium machine with only 16 MB of RAM running Windows 98. Windows98 itself takes up most of the 16 MB of RAM and the operating system was not intended to run smoothly on a 100 MHz machine with that little RAM. The modem is only 28.8 kbps which makes checking email and doing any online research difficult due to the time it takes for everything to load. Lastly, the monitor has a 12.5 inch viewable area; this does not provide enough screen pace for Sandy to be able to navigate through her desktop windows and word processing windows. A faster computer would make Sandy's work easier and let her get things done more quickly. She would be able to spend her time doing productive work instead of waiting for the computer to complete her last command.
- **Proposal:** It was proposed that the organization purchase a new computer to replace Sandy's machine. The board of directors has already approved an allocation of an unspecified amount for the purchase of such a computer.

- **Impact**: A faster computer should significantly speed up Sandy's work. It will also provide the organization with faster access to their email and it provides the possibility of modem pooling (see next section). This would bring the office's computing power up to modern standards. They will be able to run new programs like Microsoft Access without running into any sped or memory limitation problems. A new computer would also be able to run any new operating system upgraded that might be released in the future. A new computer for Sandy would also free the current computer up so that Sheryl would have a computer to use if she needed to use one.
- **Feasibility**: Selecting a machine with the approval of Rob Toy would be feasibly with the aid of the catalogues for various computer retailers. Ordering the machine would not present a problem considering that the money has already been allocated. Once the machine arrives, the computer would need to be setup. Setup and configuration will probably take at least two visits. However, since the new machine could probably be made generally operational in one, interruption to Sandy's work would be minimal. The new machine would not present any new or additional technological management issues. The office has always has two computers running Windows98—this will not change.
- **Topic**: Internet Access for Paul's Machine
- **Background**: Paul's computer does not currently have a modem and therefore it has no Internet access. Because of this, Paul cannot check email or do research using the world wide web. Currently, Sandy has to print each email message out and give it to Paul. She also has to generate any responses and original correspondences. It would help Paul if he could deal with his own email as this would give him a better understanding of the correspondences that the organization receives. In addition he needs access to online government information to help him with projects he is involved with.
- **Proposal:** It is proposed that Sandy's new computer be setup to share its modem over the local network so that Paul's machine could use it.
- **Impact**: The set up of a network modem on Sandy's new machine would allow both she and Paul to sign onto AOL and check the mail. This will not impact Sandy as she already has this capability. This will impact Paul in that he will have a new activity to perform at work. Paul should be equipped to handle his correspondences with others via email. Internet access will enable Paul to retrieve legislation information from the web.
- **Feasibility**: Once the new modem-equipped computer is setup and operational, the task would be to install the modem sharing software on both machines. The software in question is Mortonbay's "Winpool"--which, when used for only 2 PC's is free. After initial configuration, the software would not need any additional maintenance unless the computer configuration was changed at a later date. Difficulties with network and modem problems would be beyond the technical capabilities of both Paul and Sandy and as a result, Rob Toy would have to troubleshoot problems with this new setup.

**Topic:**Improved Email Management

- **Background**: There is a general lack of email management for the organization. They need to save old important email for future reference and need to be able send informative emails to groups of people as part of their day to day business. The organization currently connects to the internet via AOL, but they use yahoo as their email provider. Yahoo only provides 3 MB of storage and doesn't allow the use arbitrary distribution lists. It would be beneficial to the organization if they could store an arbitrary amount of email messages and be able to have more flexibility in how they handle storing frequently used addresses and distribution lists.
- **Proposal:** It is proposed that the organization switch from using Yahoo mail to using AOL's mail services. This would be a trivial conversion considering that they already use AOL for their internet connection.
- Impact: Both Paul and Sandy would have to learn how to use AOL's mail services. They would be able to organize and save important messages and keep and generate dlists as needed. AOL stores saved messages on the hard drive, so there would be no limit to the amount of messages they could store. In addition, Sandy would be able to easily create dlists from addresses in incoming emails—something she cannot currently do with Yahoo.
- **Feasibility**: Since they already have and use an AOL account, this transition would be very smooth. AOL has an intuitive interface so the mail controls can be easily learned. In addition, the yahoo mail could be forwarded to the AOL account so that mail messages are not lost in the transition. Instruction on the use of AOL's mail system could be done over the course of one or two visits.
- **Topic**: Improving Scanning Capability
- **Background**: Neither Sandy nor Paul can use the flat bed scanner to scan in documents for storage and photos for newsletters. The office is overflowing with papers storing some of these documents on the computer would reduce clutter and keep the organization somewhat better organized. Scanning documents into the computer would be the first step towards a "paperless office." In addition, they would like to be able to put pictures in the newsletters they send out. They currently have to get someone else to scan photos for them; scanning the photos on their own would save time.
- **Proposal:** It is proposed that the scanning software be reviewed and then taught to Sandy and Paul. They would be taught how to scan documents into the DocuMagix document organizations software as well as how to scan images and save them as picture files on the hard drive.
- **Impact**: If the scanner is used to scan documents, it has the capability to reduce paper clutter in the office. It would also allow them to scan in pictures for use in their newsletters.
- **Feasibility**: Teaching Paul and Sandy how to use the software could be done in one visit. If aliases to the appropriate programs were consolidated in a folder on the desktop, then it would be easy to remember where to go to use the scanner and thus the scanner would be useable after I left. The reality of achieving a "paperless office" is questionable. However, using the scanner and DocuMagix software for awhile will give Paul and Sandy an idea if this is really a direction they want to further pursue.

**Topic:***File Recovery* 

Background:	Sandy is missing some files that disappeared after her hard drive crashed several months back. Sandy needs these files for general reference and some of them for day to day use. The files were stored on Paul's machine after the data recovery took place.
Proposal:	It is proposed that the files be located and transferred back to Sandy's machine. In addition Sandy should be instructed how to locate files she can't find as well as access files over the network.
Impact:	This would allow Sandy to better organize her files. She would be able to use files on both her machine as well as Paul's machine without having two copies on both machines. In addition, she will be able to find files that she has misplaced and will consequently have better control over her files.
Feasibility:	Can be done in one visit assuming the files can be found.
Topic:	Implementing a Backup Strategy
Background:	The organization has no formal backup strategy. The organizations important information such as member and contact databases are stored on the computer. Losing this information would be detrimental to productivity and general function of the organization. This was made very clear recently when Sandy's hard drive crashed; luckily they were able to save most of the data from the drive. They won't always be that lucky in the future.
Proposal:	It is proposed that a backup plan be established and implemented that utilizes the existing Jazz drive on Paul's machine.
Impact:	A weekly backup would be a great benefit to the organization. If they had any additional hard drive crashes due to drive failure or electrical surge, they would have a recent backup of their membership databases and other information.

**Feasibility**: This is feasible considering that all that would be involved would be to identify the files that are eligible for backup and then copying them to a Jazz drive. Each time the backup was performed, the entire "My Documents" folder would be saved so there would be no need to hassle with selecting new and changed files to backup each week. This involves no new computer skills to accomplish.

# Work Plan:

Joshua Horan Work Plan															
Task	Who			Februar y				March				April			
		1	2	3	4	1	2	3	4	1	2	3	4		
Sandy's New Computer															
Get mail order catalogues	Sandy														
Research configurations	Josh														
Order computer	Rob Toy/Josh														

What follows is a general work plan that was followed over the course of the consultation.

	Setup new computer	Josh							Т
	Move old computer	Josh							Т
Modem for Paul									П
	Research possible software programs	Josh							П
	Download WinPool	Josh				Π	T		
	Install & Configure	Josh				Π	T		
Em	ail Management					Π	T		
	Learn current system	Josh				Π	T		
	Forward yahoo Mail	Josh				T	T		
	Teach Paul & sandy AOL	All							
Wre	estling the Scanner								
	Learn current software and hardware	Josh				Π	T		
	Clean up software and config	Josh					T		
	Teach Paul how to use software	All							
File management									
	Find missing files	Josh/Sandy		П		Ħ	T		
	Transfer them to Sandy's Machine	Josh/Sandy					T		
Backup Strategy				Π		Π	T		$\uparrow$
	Determine which files need to be backed up	All	Ţ		T	∏		Π	
	Determine easiest backup strategy	Josh				Π			
	Teach Paul & Sandy	All							

# **Outcomes and Recommendations:**

# **New Computer Purchase**

# Evidence of Increased Capacity

A new computer was needed to replace Sandy's old, outdated machine. After discussion with Paul and Rob Toy, it was decided that a Dell Dimension computer would be ordered via mail order. The computer was ordered and it arrived after spring break. The computer was just installed last Friday. The machine is running and is connected to both the network and the phone line. Sandy's important documents were transferred from the old computer to the new computer as was the DBase database program. As it stands, the new computer has all the necessary programs except Microsoft Access installed on it. Sandy was able to continue her work on this machine without any problems. The new machine allows her to have more than one application open at a time (such as AOL and Word). With the new speedy modem and processor she is able to check the organization's email several times faster than previously.

# Evidence of Sustainability

The computer is completely setup to run independently. Sandy and Paul both know how to perform general operations like starting up and shutting down so there are no problem with the general use of the machine. Any upgrades to the machine will have to proceed with the assistance of Rob Toy or some other outside help.

#### **Recommendations**

- 1. Keep the manuals and CDROMs that came with the computer together in a specific place that will not be forgotten. Keeping all the materials together and on hand will help when problems are encountered at a later time.
- 2. In two years time, it will be necessary to replace Paul's computer with a new system. This machine was purchased via mail order from Dell Computers. It is recommended that future machines also be ordered through mail-order. Mail order or online stores generally will have larger discounts than local retailers. In the future Dell might not be the best source for the machine. Before buying a machine it would be beneficial to assess various other mail order vendors. Such other vendors are Gateway, HP, Compaq and iMachines. Factors to consider when researching these vendors are price, customer service, warranty options and hardware reliability. Most of these items can be researched at the company's website, but others have to be learned by consulting friends and colleagues who have recently purchased computers. When ordering the machine over the phone be sure to explicitly ask, "Can you get me any special deals on this machine?" They will most likely have some sort of promotion running and you won't get any deals unless you ask for them!

#### Resources

1. The manuals that came with the computer—specifically the "Dell Handbook": and the Microsoft Windows98 User Guide"—can be referenced in the case of any hardware or operating system issues.

A good reference book for use with Windows98 is: <u>Windows98 for Dummies</u> by Andy Rathbone ISBN: 0764502611

The book gives easy to understand answers to many questions that might arise from using Windows98.

 What follows are links to various current online PC vendors: <u>www.dell.com</u> <u>www.gateway.com</u> <u>www.compaq.com</u> www.imachines.com

# **Internet Access for Paul's Computer**

Evidence of Increased Capacity

Paul's current machine does not have a modem and is therefore without Internet access. In order to give Paul's modem-less machine Internet access, it was planned that the WinPool software would be installed. This software would give Paul's machine access to use the modem on the new computer over the local network. After the software was downloaded, it was found that the computer that was to host the modem had to be running WindowsNT. Thus WinPool was no longer an appropriate solution for this situation. In the place of WinPool, Windows98's "Internet Connection Sharing" was installed on the new computer. This software enables Paul's machine to run internet applications while Sandy's machine is connected via AOL. This would enable Paul to use a web browser to check email (via AOL's web page) or view other web pages. The drawback is that Paul's machine has no control over AOL on Sandy's machine—AOL has to be launches and quit from Sandy's machine. There is evidence of increased technical capacity as this configuration is operational; there is, however, no evidence of increased user capacity since Paul has no yet tried to use this configuration.

# Evidence of Sustainability

Internet Connection Sharing is an auxiliary part of the Windows98 operating system. It can be installed and uninstalled via the "Add/remove Programs" control panel in the "control panels" folder. It only needs to be installed on the machine that has the modem (Sandy's machine) it will remain installed until the operating system is changed or reloaded. Since Internet Connections Sharing is not a standard part of the OS, it will have to be reloaded if the operating system is ever reloaded or upgraded. Paul's machine was configured to use the LAN for internet access. This was done by opening the "Internet Access" control panel and selecting the "Use LAN" button. This procedure does not have to be repeated unless until the OS is upgraded or reloaded.

# **Recommendations**

1. To get unlimited Internet Access for Paul's machine there are two options:

a) Buy an external modem for Paul's machine. This will allow him to use AOL directly. The drawback to this method is that he will not be able to be online at the same time that Sandy is online.

b) Switch to a local ISP for internet access and keep Internet Connection Sharing installed. In this situation, both Sandy and Paul's machines would have access to both mail and the web at the same time. Paul's machine would not need a modem since whenever he loaded an internet application it would cause Sandy's machine to automatically dial a connection. It should be noted that switching to a different ISP results in a new email address and the associated difficulty of establishing the new address. It should also be noted that this scenario DOES NOT work with the "free" ISP services out there such as AltaVista. These ISP's require a separate program to be run that displays advertisements on screen while you are online.

Option 'a' is an easier transition to accomplish, but option 'b' is a better strategy in the long term.

# Resources

- 1. Information to help configure Internet Connection Sharing can be found in Windows' online help system by choosing "Start Menu->Help" and then typing "Internet Connection Sharing" in the search box that comes up.
- 2. If the decision is made to switch to a local ISP, a list of local ISPs can be found in the yellow pages under "Internet Service Providers." Before choosing a provider, it would be informative to know whether they allow you space to put up a web page.

# **E-mail Management**

#### Evidence of Increased Capacity

The organization needed a better system for handling their incoming and outgoing electronic mail. To this end, I switched the organization from using Yahoo mail via the web, to using AOL's built in mail services. The Yahoo mail account was set to forward any incoming messages to the AOL account — this way the organization has not missed any messages sent to the old account. They now have access to 20 MB of online storage space and several GB of hard drive space to save messages; previously, they only had 3 MB of space on the Yahoo mail server. Sandy has already begun saving important messages to the AOL personal filing cabinet. She has created and knows how to create new folders wherein she can sort her saved messages. She and Paul have created four folders which they currently use to sort their mail. AOL mail has also given the organization the ability to flexibly manage dlists. Already Sandy has taken a list of addresses from an incoming message and created a dlist that she can and has used to distribute important mail. Lastly moving to the AOL account has allowed the organization to separate personal email from organizational email. Sandy has used AOL to create a new screen name where she now receives personal email messages.

# Evidence of Sustainability

Sandy received all of the AOL mail instruction and would thus be the one who would sustain this item. The AOL mail will be sustainable as long as Sandy remembers how to do everything that we went over. This information will most likely be retained since managing email is a daily event. In the event that she forgets how to do something, the AOL online help would provide hints and instruction to get her back on track. It would be a good idea to go over each element once more at the end of the visitations.

#### **Recommendations**

- 1. It is strongly recommend that incoming email is <u>actively</u> organized. This entails sorting and processing messages as they are read. In AOL, messages will only be saved for 7 days before they are automatically deleted. Therefore it is necessary to save important messages to the "Personal Filing Cabinet" immediately so they are not forgotten. To save an open message, select "Save to Personal Filing Cabinet" from the "File" menu.
- 2. Messages that are saved to the "Personal Filing Cabinet" should be further organized into subfolders. If a message does not fit into any of the currently existing subfolders, a new subfolder should be created in order to accommodate the new message and future related messages. If messages are not organized in this fashion, the "Personal Filing Cabinet" can become cluttered and it will be difficult to locate previously saved messages. To create a new folder in the "Personal Filing Cabinet," click the "New Folder" button in the "Personal Filing Cabinet" window. You may rename this folder whatever you wish.
- **3.** When sending email to a large number of people (when you use one of the dlists for example) it is beneficial to put the names of all the people the message is going out to in the "Bcc" field instead of the "To" field. BCC stands for "Blind Carbon Copy" and is similar to the regular "Carbon Copy" except that no one who receives the message can see what email addresses were in the Bcc field. Thus, when sending email to a large number of people, each person receiving the message will not see any of the other names that the mail was sent to. This is beneficial because it can make people feel like they are receiving a more direct mail from the organization and it also saves the receiver the trouble of having to scroll past screen after screen of email addresses before they can read the message.

#### Resources

- 1. Answers to many questions pertaining to AOL can be found in the AOL online help. The online help can be accessed by opening the AOL program and choosing "Help Topics" from the "Help" menu. This will bring up a help window where you can search for information related to keywords you provide.
- 2. In the future, upgrades to AOL may be released. New versions of AOL can be downloaded through AOL by typing "Upgrade" into the "Go To" field in the AOL toolbar. This will bring up a window with information on the upgrade process and information on how to download the upgrade.

# Working with the Scanner

#### Evidence of Increased Capacity

The goal was for Sandy and Paul to be able to use the scanner to archive paper documents and scan in pictures for use in their documents. The scanner has been reconfigured and the software re-organized on the computer. I have had one session where Paul and I went over what the software and hardware can do and we discussed the best way to organize the scanned documents. We also discussed the difference between scanning a document in for OCR and scanning a document as an image for inclusion in a separate document such as a newsletter. We reviewed the operation of the software, but did not settle on a final document organization scheme. I also had one session with Sandy, where I showed her how to scan in images using the scanner. I also showed her how to import pictures into Microsoft Word files. There is little evidence of increased capacity in this area since it was finalized so late in the consultation process.

# Evidence of Sustainability

The software and the hardware need no further attention (other than to be used). The software has been centralized in one folder on the desktop so that it can be easily found. In addition I wrote a short text file detailing instructions on how to scan a document into DocuMagix and how to scan a picture and save it on the desktop. This file should provide assistance if they forget the step-by-step of using the software.

#### **Recommendations**

- 1. If scanning paper documents and organizing them on the computer becomes a useful and important aspect to the running of the office, some upgrades might be considered. The scanning software DocuMagix is currently at version 98, which offers several improved organizational capabilities and an improved interface. Upgrading to the new version would have a lower cost than buying a new product and would be compatible with the existing file cabinets. Information about the new version can be found at DocuMagix's website.
- 2. The ideal of a paperless office is no often realized for reasons that are discussed here: <u>http://www.cs.mu.oz.au/~kwo/paperless.html</u>. In this light, it is recommended that the organization focus on using the software to scan only those documents that are newly arrived at the office and hold some special importance that singles them out as documents that will need to be referenced later. This should provide a solid stepping stone towards a somewhat "less-papered office."

#### Resources

1. Information about PaperMaster98 is available at: http://www.documagix.com

### **File Recovery**

#### Evidence of Increased Capacity

Sandy was missing older files that had been backed up after the hard drive crash. The files Sandy was missing were located on Paul's machine and transferred back to her machine over the network. The files are now in her "My Documents" folder and she has been referring back to them and using them as part of her normal work. During the course of this restoration, Sandy leaned how to use the Windows "Find" utility. She now knows that you can search the hard drive for files by name or content. Sandy also now has no trouble accessing and using files located on the other machine over the network. She can locate files on the other machine through the "Network Neighborhood," and she routinely edits files on the other machine in Microsoft Word.

#### Evidence of Sustainability

This item is self-sustaining. The recovered files will remain in the "My Documents" folder until Sandy moves them. The only thing that must be sustained is the knowledge that the Find utility is located through the Start menu. This might be forgotten if the find utility is not used for a long time.

#### **Recommendations**

**1.** It is recommended that all files created in any program be saved somewhere in the "My Documents" directory. This way it is easier to locate the files you need. In addition this makes backing up your data a much easier process.

#### Resources

1. In the event of a future hard drive crash and in the absence of a recent backup, files can be recovered from the crashed hard disk by sending the drive to Drive Savers. This company will recover any files it can from the disk and send the files back to you on the media of your choice. This service is expensive and is not an excuse for not performing regular data backups.

#### **DriveSavers Data Recovery**

US: 800.440.1904 International: 415.382.2000 Fax: 415.883.0780 email: recovery@drivesavers.com www.drivesavers.com

2. The Windows98 File and Folder find utility is located by going through "Start Menu->Find->Files & Folders."

# **Backup Management**

# Evidence of Increased Capacity

The organization is in need of a data backup plan to help minimize possible data loss. A backup plan was set as follows: every week Paul will backup 4 items to a Jaz diskette. The four items two be backed up are: the My Documents folder on Paul's machine, the My Documents folder on Sandy's machine, the DocuMagix folder on Paul's machine, and the DB3 (database) program on Sandy's machine. This encompasses all of the information that could not be loaded form a CD or original disk if there was a hard drive crash. There is a definite potential for increased capacity with this item; however, since this item was accomplished at the end of the visitations, I will be unable to determine whether they are actually performing the backups as planned.

# Evidence of Sustainability

Backing up to the Jaz drive is just simple file copying in Windows98—making it easy to maintain the skills necessary to perform the backup. In addition, I have written a short text file detailing which folders to backup and how to perform the actual file copying. This text file is on the computer as well as taped to the front on Paul's machine (just below the Jaz drive).

#### **Recommendations**

- **1.** A recent copy of the data backup should be kept at home—away from the office. This serves to protect the backup in case of a burglary, fire or other disaster at the office.
- **2.** The data should backed-up up to the jazz disk every Friday before leaving the office. This even should be marked on the calendar on Sandy's desk in order to help make this a routine procedure.

#### Resources

- 1. <u>http://www.onenw.org/toolkit/backup.html</u>. This web site provides information about the back-up procedure. It gives information on backup strategies and hardware and provides examples of what data is appropriate to backup.
- 2. The backup procedure can be done with one (or two if you have a separate copy to keep outside of the office) Jazz disks. In the event that additional disks are needed, they can be purchased over the telephone from PCWarehouse at 1-800-PCSTORE.