

ArchivingDigitalData

An Introduction to Archiving Digital Data for the Home and Small Business

Rev0

WhitePaper

Down East Engineering

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Table of Contents

<i>Introduction</i> _____	<i>1</i>
Risk Assessment _____	1
Organizing Digital Data: Making it Easy to Manage _____	1
Make it Easy to Find and Manipulate the Data _____	1
Organize it Logically _____	1
<i>The Basic Backup Media Program</i> _____	<i>2</i>
The Basic Backup Schedule _____	2
A Simpler Archiving Method _____	2
<i>Acronyms and Abbreviations</i> _____	<i>3</i>

Introduction

Have you ever lost valuable information that was stored on a computer? Do you know someone who has?

Taking the time to create an archive or backup of important personal or business data is usually the lowest priority of the home or small business computer user—until an event such as a hard drive crash, a virus or a fire makes the only copy in existence suddenly unavailable, and possibly forever lost.

There are many white papers available on the internet addressing a host of archiving products and schemes. This paper addresses a few very simple methods of archiving data for those with small amounts—up to a few GB—of data to archive.

Risk Assessment

The decisions to archive and which media to use are predicated upon the risk associated with data loss and the level at which the user is willing to embrace technology. Each home or small business must estimate its own risk based upon how fast information on its systems changes, the amount of changing data and the impact of the loss of data. This directly relates to data recovery costs or the consequential cost of the loss of data, such as the loss of tax information.

Organizing Digital Data: Making it Easy to Manage

One of the issues facing organizations of any size is how to store and organize information. Companies that are large enough to have their own Information Technology (IT) staff may be able to avail themselves of IT knowledge in this area, but smaller businesses and home users are frequently left to determine for themselves how to store and manage digital data. There are two fundamental guidelines to apply.

Make it Easy to Find and Manipulate the Data

Use the same approach that one would use if storing physical records. One would be inclined to store such records in a filing cabinet rather than scatter about an office, and the folders in the file system would be organized in a logical fashion that supported the business practice.

Similarly, it makes sense to create folders on a single computer or file server that aid in the retrieval of data. Not only will the data be easy to retrieve during the course of business, it will then be easier to archive.

Organize it Logically

Rather than let applications such as word processors, spreadsheets and financial programs store data in some default location, design a file storage system that reflects the way business is conducted. For example:

My business

Letters

Client folders, alphabetically

Finances

Images

Corporate

Product

Remember, the way that data is organized is driven by the way you conduct business; the important concept is that the organization of the data should be as simple as possible and that the data should not be scattered all over the hard drive.

The Basic Backup Media Program

Important Note! 

Choose a media that fits your business needs and fits your budget. **Recovering from a loss of data is usually far more expensive than archiving the data routinely**, so don't be tempted to scrim on hardware and media.

The Basic Backup Schedule

The media may be diskettes, tapes, writable CDs or other media of choice.

The following example uses 100 MB ZIP disks. For the purposes of this example, assume that the total data storage space required for the business is less than 100 MB. The hard drive that stores the programs, such as word processors and financial programs, may well be in the GB range, but only the data must be routinely archived.

This program requires 10 disks that are labeled as follows.

- Mon, Tue, Wed, Thu
- Fri 1, Fri 2, Fri 3
- Month 1, Month 2, Month 3

This program is based upon a 5-day workweek, Monday through Friday, but may be easily modified to meet different needs.

First week: Monday through Thursday - use the disk on the appropriateday.
Friday - use the Fri 1 disk.

Second week: Monday through Thursday - use the disk on the appropriateday.
Friday - use the Fri 2 disk.

Third week: Monday through Thursday - use the disk on the appropriateday.
Friday - use the Fri 3 disk.

Fourth week: Monday through Thursday - use the disk on the appropriateday.
Friday - use the Month 1 disk.

Repeat this pattern each following 4-week period, using disks Month 2 and Month 3 on the Fridays of the 8th and 12th weeks respectively.

Please note that the Monday through Thursday archives are designed to be incremental (to minimize backup time) and the Weekly/Monthly backups are designed to be total data backups.

Notice, too, that when this program is followed, the calendar months do not relate to the use of the disks labeled Month 1 through Month 3. All that is necessary is for the person scheduling backups to keep track of the media cycle.

A Simpler Archiving Method

Where the media can be selected to store all of the required data, there is a simple alternative to the rotating media schedule described above. In the example, the total data storage space required for the business is less than 100 MB, the size of the ZIP disks. In this case, purchase 10 disks, label them 1 through 10, and simply use them in succession, reusing Disk 1 after Disk 10. This simple method may be used when all of the required data fits on the media of choice, and there is ample time to do a complete backup of all data on a regular (such as daily) basis.

Acronyms and Abbreviations

GB	Gigabyte—1,000,000,000 bytes, or 1,000 MB
MB	Megabyte—1,000,000 bytes

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