All About "Zipping and Stuffing"
Compressing Files and Creating Zip Files

What is File Compression?

- A way to eliminate or minimize redundancy in a file, making file smaller without loss of information

Example: set of characters "AAAADDDDDDDD" could be reduced to "4A7D" (64% smaller)

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What is an Archive?

- An archive is the container that holds compressed files.

- An archive can contain a single file or many files

- Each archive is a single document like word processing document, graphics file or database

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Different Types of Compression

- Different computers, different operating systems use different types of compression

- Macintosh uses ".sit" format

- Windows uses ".zip" format

- Unix-based uses ".Z" or ".gz" formats Plus, there are numerous other formats

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Windows and Zip

- In Win XP "unzip" is included; but a utility required to create a zipped file

- Pre-Win XP, a utility was required to "unzip" or open a zipped file

- Pre-Win XP, a utility was required to create a zip file

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What about Encoding?

- Encoding transforms files for transporting across the Internet

- Windows-based files are 8-bit files

- Nearly all gateways only supported 7-bit files. An 8-bit file thru a 7-bit gateway damaged file contents. File encoding converted 8-bit files into 7-bit files for transferring intact

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Common Encoding Methods

- *UUencoding* takes only the 8-bit data fork and converts it into a 7-bit file

- *Mime* – really a map
  - Maps a particular method of encoding to the application to decode the file
  - Netscape or IE helper applications require you specify the MIME-type

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Common Encoding Methods cont.

- *Base 64 encoding* takes an 8-bit file an converts it to a 7-bit file
  - Fairly new and produces the smallest file of these encoding methods
- *BinHex encoding* takes the 8-bit resource and data forks of Mac files and converts them into a single 7-bit file with a ".hqx" extension

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Why Compress Files?

- To simplify exchanging files

- To streamline the exchange of files – *reduced object size*

- To reduce errors when exchanging files – *validate accuracy*

- To secure the data – *encryption*

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StuffIt Wizards

- New Archive — creates a new archive

- Compress & FTP — compress and upload via FTP

- Compress & Email — compress and send files via email

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StuffIt Tools

- Schedule Backups — backup now or later

- StuffIt Express P.E. — automate everyday tasks

- DiskIndex — search and browse CD's offline

- Sea Builder — create custom self-extracting archives

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What Can StuffIt Do?

- Create a Scheduled Backup
  - Create a back task then use Scheduler to automatically run that task
- Create an Encrypted Archive
  1. Select the files/folders to compress
  2. Right click the files, choose "Encrypt" from menu
  3. Prompted for password to use to encrypt

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StuffIt Can…

- **DiskIndex – search and browse CD's offline**
  - Create an index of CD's or DVD's
  - Allows you to browse or search contents offline, without inserting it into your computer

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StuffIt Can…

- **Create <u>S</u>elf-<u>E</u>xtracting <u>A</u>rchives**
- **SEA Builder**
  - A utility to convert a Zip file to a self-extracting archive ".exe" that expand to full size without any additional tools or utilities.

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Thank you!

1. I appreciate your attention
2. Let's look at StuffIt
3. Let's see how it works
4. Let's examine file sizes for compression
5. Thanks again!

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The End!

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