

Macintosh Resource Forks on CD ROMs for both Macs and DOS Computers:

David Oshel

XOCHITLSODALITY (Macintosh developer/consultant)

A question that often comes up when archiving Macintosh image files to CD-ROMs so that they can be read by either DOS or Mac computers is "What happens to the Mac resource fork of the image file?"

PC Exchange, which is built into System 7.x, creates a hidden resource fork directory on PC disks that have Mac files on them, along with additional Finder info files which contain information about file type and creator, icons, position of icons in windows, etc. Although these additional files are marked as hidden, they can be read and presumably copied by Windows '95 directly.

However...

The normal method for sharing Mac files on Unix/DOS/Windows media is to compress and "binhex" them using Aladdin's Stuffit Lite (freeware). Large files can be split onto several disks using Stuffit Deluxe. On the Windows side, either WinZip or the Aladdin Stuffit utility for Windows can decompress and read the files. A Stuffit ".sit" file is completely flattened and does not have a meaningful resource fork, just an 8-bit data fork. "BinHex" translation creates a 7-bit data fork (and a larger file), which can survive file transfers over the Internet. A Stuffit ".sea" file does have a resource fork - the code used to decompress the archive contained in the data fork. (Sending this via Internet can strip off the self-extractor, causing Stuffit to complain that the file appears to be corrupt; however, usually the data fork is intact.)

There is typically no image information in the resource fork of a Mac file, provided one is transferring TIFF, GIFF, JPEG/JFIF, PNG or even Windows BMP files.

Good shareware utilities for manipulating images include Thorsten Lemke's GraphicConverter on the Mac, or Larry Reeve's PolyView on Win32 boxes.

CD-ROMs can be burned so the files can be read by either DOS or Mac by creating a Mac/ISO 9660 "hybrid" disk, using DOS style filenames (*.TIF, *.JPG, *.GIF, etc.) on the ISO partition, and ignoring the resource forks.

Put the normal Mac files on the Mac partition of the CD-ROM. This duplicates the data, but CD's are cheap compared to their shelf life. Astarte's Toast CD-ROM Pro software is probably the *de facto* standard for Mac, because so many worm drive manufacturers bundle it with their CD-ROM recorders. It is excellent.

Otherwise, just use a ISO 9660 disk. All Macs can read these as its part of the standard Apple CD-ROM driver. Again, use DOS-style file names with meaningful suffixes, and ignore the resource forks. There is no functional difference between downloading such files from the Internet, or "downloading" them from an ISO 9660 CD-ROM.

Ignoring the resource fork of a Mac image file generally means, at most, that any custom image icons and previews created by GraphicConverter or JPEGView will be stripped away. This sacrifice is recommended for archival purposes anyway.

Any text files used for additional file documentation should be stored in the Unix line ending style (LF), but not the Mac style (CR) or DOS style (CRLF). Bare Bones Software's Brief text editor can read/write/convert these "strange" line endings on the Mac, and PFE, the Programmer's File Editor, can read/write/convert them on the Windows side. Both are share/freeware. The Unix style is standard on more installed workstations than Windows and Mac combined, by a factor of at least five.

I'm not sure Winzip can read a ".sit" file, although it can read tar's or gzip'd Unix archives just fine. ■



ETP-USA SEM Chamber View System



For more information on the ETP Chamber View System or the Robinson Detector contact ETP-USA at 1-800-8-ETP-USA, E-mail info@etp-usa.com Internet www.etp-usa.com



- ETP infrared SEM Chamber Viewer allows continuous monitoring of SEM chamber interior.
- Ideal for viewing specimen orientation or locating a specimen in a multi-specimen group.
- Avoid damage to specimens, final lens, x-ray, SE, BSE detectors, and allow optimum positioning of all.
- No electronic rack space or external boxes required.
- Diffuse illumination avoids excessive brightness with flat specimens such as IC wafers.
- Outstanding depth of field.
- Includes monochrome monitor and necessary cables for simple installation.

ETP-USA / Electron Detectors, Inc. • 1650 Holmes Street • Livermore, CA 94550 • Phone (510) 449-8534 • FAX (510) 449-8996

COMING EVENTS

- ✓ **Optimizing Light Microscopy** (1 day short course)
Nov 3 '97: New York City
Nov 5 '97: Springfield, MA
Nov 7 '97: Boston, MA
Barbara Foster (MME): (413)746-6931, mme@map.com
- ✓ Nov 14 '97: **Electron, X-Ray and Ion Probe Spectroscopies - A Primer** (ASM & Argonne National Lab) Argonne, IL Anita Brandes: (847)205-2525, eMail: G10809@email.mot.com
- ✓ Nov. 17/20 '97: **Eastern Analytical Symposium**. Somerset, NJ. (302)738-6218, Fax: (302)738-5275.
- ✓ Dec 1/5 '97: **MRS Fall Meeting** Boston, MA. MRS: (412)367-3004, Fax: (412)367-4373
- ✓ Dec 13/17 '97: **37th Annual Cell Biology Annual Meeting** Washington, DC: (301)530-7153, Fax: (301)530-7139
- ✓ Jan. 7/10 '98: **Emerging Electron Microscopy Technologies Workshop** (Ted Pella, Inc.) U.C. Berkeley. Kathy Strangenberg: (916)243-2200, Fax: (916)243-3761, tedpel@aol.com
- ✓ March 1/6 '98: **PITTCON '98** New Orleans, LA, (800)825-3221, (412)825-3220, <http://www.pittcon.org>
- ✓ April 19/24 '98: **7th Biennial Frontiers of Electron Microscopy in Materials Science (FEMMS98)** Irsee, Germany: <http://femms98.linl.gov>, email: weking@linl.gov
- ✓ May 9/12 '98: **SCANNING '98: (FAMS)** Baltimore, MD. Mary K. Sullivan:(201)818-0086, Fax: (201)818-0086, email: fams@holonet.net.Internet
- ✓ **Practical Aspects Series of Short Courses at Univ of Maryland**
May 18/22 '98 Scanning Electron Microscopy - Session I
May 19/22 '98 Image Analysis
May 25/29 '98 Scanning Electron Microscopy - Session II
May 26/29 '98 X-ray Microanalysis
Tim Mauge: (301)405-6898, eMail: maugel@zool.umd.edu
- ✓ June 19/29 '98: **3D Microscopy of Living Cells** (Univ. of British Columbia) Vancouver, BC, Canada. Prof. James Pawley: (608)265-5315, email: JBPawley@FACSTAFF.WISC.EDU
- ✓ June 30 - July 2 '98: **3D Image Processing** (Univ. of British Columbia) Vancouver, BC, Canada. Prof. James Pawley: (608)265-5315, email: JBPawley@FACSTAFF.WISC.EDU
- ✓ July 7/9 '98: **MICRO98** (Royal Microscopical Society) London, UK, +44 (0) 1865 248768, Fax: +44 (0) 1865 791237, info@rms.org.uk
- ✓ July 12/16 '98: **Microscopy & Microanalysis '98**. (Microscopy Society of America) Atlanta, Ga. <http://www.msa.microscopy.com>
- ✓ Aug 31 - Sept 4 '98: **ICEM XIV/International Congress on Electron Microscopy**. Cancun, Mexico. (525)553-4507, Fax: (525)553-4500, email: icem@icem.inin.mx

WANTED

Experienced SEM Repair Technician

For JEOL and ISI SEMs. Midwest activity. Relocation may not be required. Contact Doug Connors at (608)798-2005

TN ANALYZER SERVICE

7897 Highway 19
Dane, WI 53529

EDX Systems

Finally, the system you've been waiting for at a price you can afford!

- ◆ Premium resolution, ultra-thin window detector
- ◆ Complete Electronics - bias supply, 8th order triangular filter pulse processor, 4000 channel (0-20 keV at 5 eV per channel) MCA
- ◆ Quantitative analysis package with standardless, standards, and unique mixed-mode analysis
- ◆ Pentium® II Computer

**Less than
\$40,000 Complete**

Visit our web site:

www.ansxray.com

for complete details and
free demo software.



American Nuclear Systems, Inc.

1010 Commerce Park Dr., Suite G
Oak Ridge, TN 37830
(800) 980-9284 FAX (423) 482-6253
email: sales@ansxray.com
www.ansxray.com

Pentium is a registered trademark of Intel Corporation

Value Through Innovation