

Recycling
Or
Redeploying
An Obsolete Computer

Things to Remember Documents

- Have all documents been removed to usable backup media?
 - Mail
 - Tax data
 - Word
 - Spreadsheets
 - Databases
 - Pictures
 - Movies

Things to Check Peripherals

- Any peripherals that are not moving to the new system that are needed and lack support?
 - Zip drives
 - Diskette drives
 - Scanners
 - Internal modems (FAX)
 - Parallel port devices (printers, scanners)
 - PS2
 - Trackball
 - Keypad
 - Video capture devices (firewire, TV tuner, camera)

Things to Check Software

- Can the programs that access backed up data be run under the replacement system?
 - Tax programs
 - Mail
 - Video editors
 - Photo editors and display programs
 - Programs too costly to upgrade

Re-deployable System Minimums Windows

- XP with SP3
- 1.2 GHz Processor
- 512MB RAM
- 20GB Disk
- Ideally
 - DirectX 9.0c video compatible card or integrated graphics with S-Video or Component outputs
 - USB 2.0 ports

Re-deployable System Minimums Mac

- OS 10.4.8
- Any Intel processor
- 1GB RAM
- Ideally
 - Video graphics interface with S-Video or Component outputs
 - USB 2.0 ports

Re-deployable System Minimum Linux

- P4 Intel, (1.0 GHz, if using graphical user interfaces)
- 512MB RAM
- 4GB Disk
- Ideally
 - Video graphics interface with S-Video or Component outputs
 - USB 2.0 ports

E-disposal Is NOT Trash

- Why not to pitch in a landfill
 - Regulated by complex set of Federal, State, County and local rules and laws
 - If disposing in a landfill, check with landfill as to what is acceptable!
 - Broken CRT's (TV and Monitors) are considered to be Hazardous Waste (Lead dust)
 - Rechargeable batteries (motherboards and laptop) contain Mercury, Nickel, Lithium, Cadmium
 - Circuit boards and CRT's contain Lead, Copper
 - Recyclable materials include Gold, Chrome, Iron

Disk Erasing

- Erase ALL disks before leaving your ownership!!!
- Erase Options
 - Pay someone to do a certified erase, most computer shops have this service.
 - Do it yourself (Be very careful, with these options)
 - <http://eraser.heidi.ie> - Windows based, erases non-system drives and individual non-system directories and files.
 - <http://www.dban.org/download> - Load to a boot-able CD or diskette. Self contained OS. Erases to DOD specs.
 - Kill the drive by drilling MANY holes in platters

Disposal Information

- Check with disposal group for latest information
 - Websites are many times out of date
 - Tough business
 - Highly regulated – always changing regulations
 - Low margins
 - Volume issues with consumer waste
 - Rules, drop off times, and pricing changes

Disposal Options

- Computer Connection
 - Drop off
 - Laptops only – Free
- Dell / Staples
 - Drop off
 - \$10 fee (Not clear as to per system or per item)
- Blue Ridge Recycling – Ashville
 - Drop off
 - Takes everything, except removable media (diskettes, DVDs, CDs, tape)

More Disposal Options

- Goodwill (HP/Goodwill)
 - See website for more information
 - Drop off
 - Does not accept non-working gear, rules as to types of systems accepted
- Rabun County
 - Drop off
 - County residents only
- Towns/Union County
 - Past 2 years some charity event in the Fall

Sell It

- MCUG
 - Newsletter and Website ads
 - See website <http://www.mcug.org> for details
- www.gazelle.com
 - They pay for hardware
 - You box and send
- www.recyclebank.com
 - They pay credits towards buying stuff

Donate

- Donate a cleaned machine
 - Family Member
 - Some charities can accept

Donate Machine Time to Research

- Help research
 - Climate Prediction
 - Mathematics
 - Physics
 - Biology
 - Look for ET phoning home
- Projects list
 - http://www.boinc-wiki.info/Catalog_of_BOINC_Powered

Beverage Holder



Weather Station Server

- Weather Underground
 - Has the basic how-to's
 - <http://www.wunderground.com/weatherstation/index.asp>
 - Selection of compatible multi-vendor weather stations
 - <http://www.ambientweather.com/weunwestpa.html>
 - Share your information to the world
 - Igoogle uses this service for the weather gadget

Media Server Entertainment Center

- Pieces Needed
 - Compatible graphics interface including cabling
 - 1.0 Mb Internet link or better
- Decide options
 - Music – Local, On-line
 - On-line TV
 - Movies – Utube, Netflix
 - Slide show sources
 - Browser
 - Presentation Organizer – <http://www.cooliris.com>

DVR

- Similar to TIVO
- Requires similar hardware to Media Center
 - TV capture device
 - Video capture device and a set top box (STB)
- A large disk (USB 2.0 disk unit will do)
- A supported version of Linux (Ubuntu Server)
- Software (Freevo, Mythtv)
- If using a STB an IR interface unit (USBUIRT) may be needed

Alternate Home Entertainment Center



File/Print Server

- Back up data files on-line
- Home networked printers
- Home file sharing
- Linux / Samba recommended (Ubuntu Server)
 - Less horsepower required
 - Free
 - Upgrades generally easier
 - Safer from viruses

FAX Machine

- Software
 - Microsoft bundled FAX software into XP and beyond
 - Does not support distinctive ring tones
 - Hylafax server (Ubuntu Server)
 - Older versions of Microsoft OS's may contain FAX support
- Hardware requires a FAX capable modem with a phone line

Computer Numerical Control (CNC)

- Sew Machine Control

- Bernina

http://www.berninausa.com/product_detail-n2-i4-sUS.ht



Computer Numerical Control (CNC)

- 3D Router Controller

<http://www.rockler.com/product.cfm?page=19441>

<http://www.wood-carving-machine-tips.com/cnc-3d/carving>



Legacy Arcade Game System

- Cabinet

<http://www.dreamarcades.com/kits.shtml>

<http://chris.polymathic.net/cabinet/index.shtml>

- Machine Emulators

- MAME – Multiple Arcade Machine Emulator

- Commodore 64

- Ported versions

- Joysticks and Trackballs

<http://www.xgaming.com/store/category/arcade-joysticks-a>

Legacy Arcade Software

- Legally available games
 - Available from Atari, E-bay (look for out of print titles), PC-DOS games (not all work)
 - Asteroids, Centipede, Missile Command, Pong
Crystal Castles, Dragon's Lair, Joust
- Legal Issues
 - The emulators are legal
 - The physical ROM chips are legal if you own them, therefore the copy onto media is likewise legal
 - Software distributed by the legitimate cabinet makers is legal

Robotics & Control Systems

- Several kits and options available
 - Maker Shed is a good place to start
<http://www.makershed.com/>
 - Make Magazine especially Vol 21
<http://makezine.com/>
 - 3D Scanner
 - \$800 CNC Machine
 - 3D Printer (Additive Extrusion)
 - Plasma cutting table

Maker Shed Kits



Linux System

- Can run on very old systems
- Test Linux software
- Most software is free
- Less prone to viruses
- Nice alternative to windows