

# Fully Wired Hot Topics #14

## Reloaded: MVS Free Tools and Tips Update!



Session 2861

SHARE 104

Anaheim, CA

[www.share.org](http://www.share.org)

March 3, 2005

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*I'M A MAINFRAME, BABY* by Bob Franke

<http://www.bobfranke.com>

**IBM**

**MAINFRAMES**

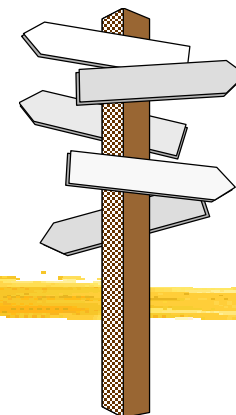
**We're back**

**&**

**We're PISSED!**



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# You should have 3 CD-ROMS and a handout



- Paper Copy of foils from this presentation which will also be available at the SHARE web site

**A**

**CBT CD-ROM #15 MVS freeware, tools, information of all kinds for mainframe craftsmen**

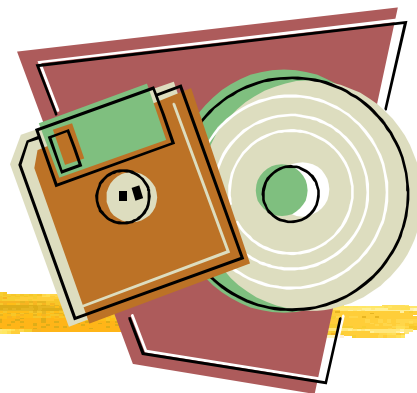
**D**

**Volker's MVS 3.8 Turnkey CD-ROM #3 for Hercules**

**3**

**TheOpenCD 2.0 Quality Open Source Software for Windows**

# Bonus Pocket Reference



Courtesy of  
DTS Software  
copies of  
Pocket Reference  
Hardcopy

Free download  
on the web at

[http://www.dtssoftware.com/download\\_home.htm](http://www.dtssoftware.com/download_home.htm)



STORAGE ADMINISTRATION

z/OS POCKET REFERENCE



COURTESY OF DTS SOFTWARE  
THE ORIGINAL STORAGE MANAGEMENT EXPERTS

Julian  
Calendar

DFSMShsm

DFSMSdss

Abend  
codes

APAR codes

Space calc

# OS/360 MVT CD(s)



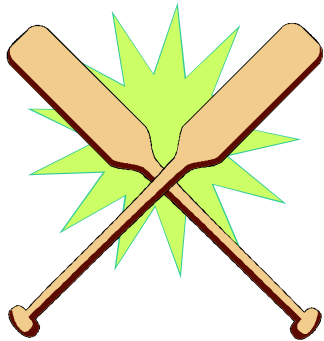
***OS/360 n. A small free operating system that took IBM to total dominance of the global computing market.***

**See Linux** From <http://www.isham-research.com/dd.html>

- OS/360 Distribution by Rich Fochtman

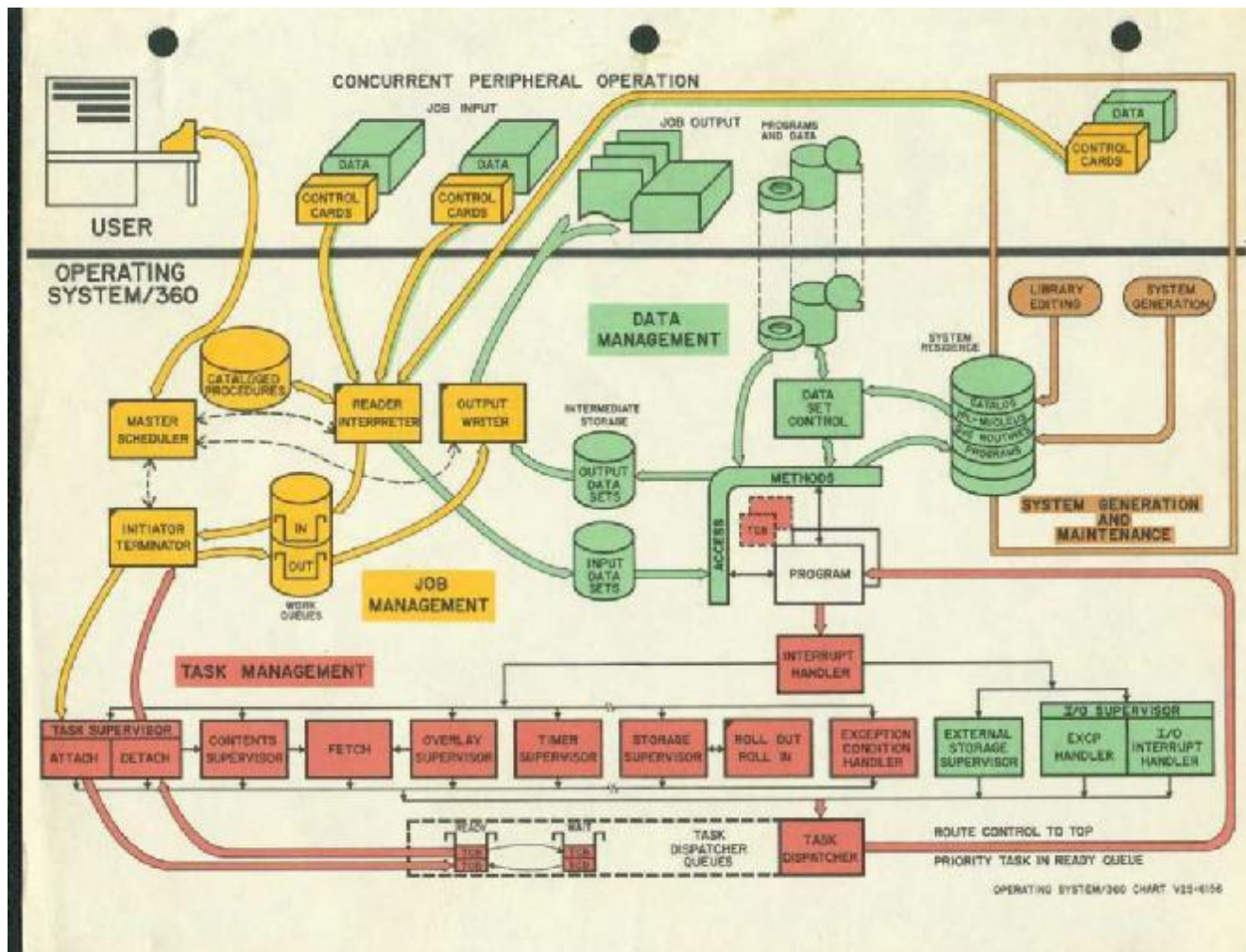
These Can be ordered from [cbttape.org](http://cbttape.org)  
CD Mailing program.

- Turnkey OS/360 MVT for Hercules by Jay Maynard



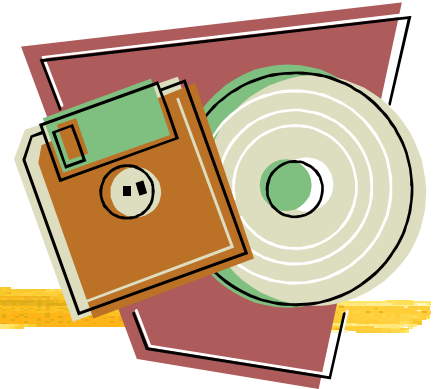


# OS/360 MVT CD(s)



# Getting started with CBT CD-ROM

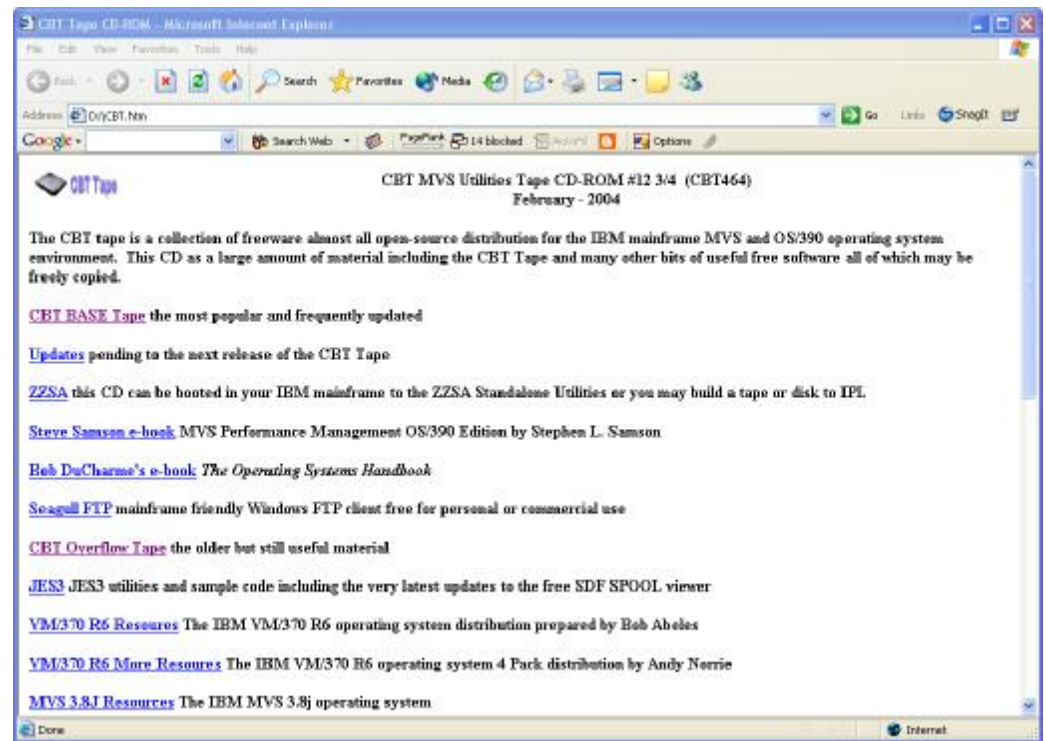
A



The CD should automatically open CBT.htm in your default web browser from the CD when inserted on most Windows computers. If this does not happen or you are using Linux, Macintosh, etc you can open it manually.

The CD should be useable on most modern OS it is not limited to Windows although some of the PC freeware is Windows specific.

You may give the CD away but don't assume because something is on the CD you have carte blanche to redistribute or resell. Respect copyrights and beyond legal necessities respect the author





# CBT CD-ROM #15 Contents

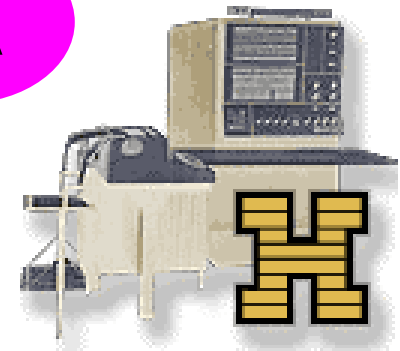
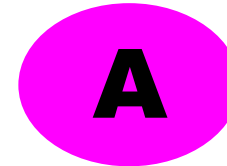


- CBT Tape V468 Feb - 14 - 2005
- CBT Overflow Tape V466 July - 25 - 2004
- Softcopy books from Bob Ducharme and Steve Samson
- PC Tools to work with XMIT files
- SeaGull Free FTP client free for personal or commercial use
- Historic OS(s) MVS 3.8 sources, VM/370 R6 distributions
- Hercules emulator and related resources
- Web sites from Lionel Dyck, David Alcock, others
- JES3 free tools and mods
- ZZSA Bootable mainframe rescue CD
- Explore for the CD for much more!

**A**

# Hercules - What is it?

- Hercules is a System/370, ESA/390 and z/Architecture emulator which can IPL and execute most of the instructions defined for these architectures. It can also emulate CKD and FBA DASD, printer, card reader, tape, channel-to-channel adapter, and local non-SNA 3270 devices.
- Currently runs under Linux, Windows, Mac OS X 10.2 or later, BSD, and experimental ports for other platforms are underway
- Capable of running nearly all software written for S/370, ESA/390 and z/Architecture
- Included on the CBT CD, Volker CD
- Hercules Home Page  
<http://www.conmicro.cx/hercules>



# Hercules – Find out more?



Active User Community on Yahoo Groups

<http://groups.yahoo.com/group/hercules-390>

- Post message: [hercules-390@yahoogroups.com](mailto:hercules-390@yahoogroups.com)
- Subscribe: [hercules-390-subscribe@yahoogroups.com](mailto:hercules-390-subscribe@yahoogroups.com)
- Unsubscribe: [hercules-390-unsubscribe@yahoogroups.com](mailto:hercules-390-unsubscribe@yahoogroups.com)
- List owner: [hercules-390-owner@yahoogroups.com](mailto:hercules-390-owner@yahoogroups.com)

Groups now include hercules-390, H390-MVS, turnkey-mvs, H390-VM, H390-DOSVS, H390-OSVS1, H390-music

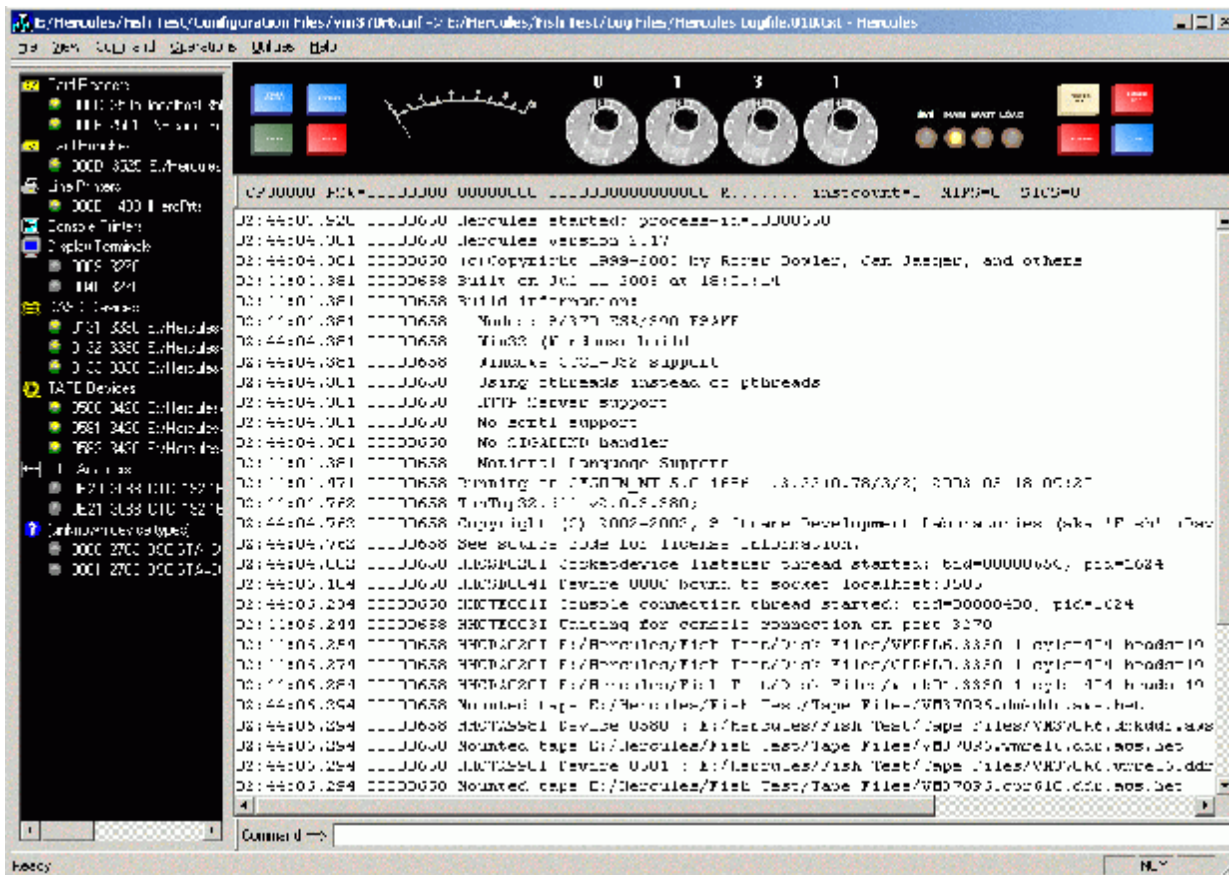
New Users Documentation Effort for Hercules

<http://www.kiyoinc.com/hercdoc.html>

Hercules Home Page

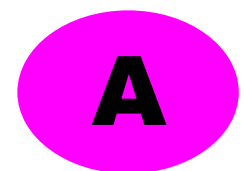
<http://www.conmicro.cx/hercules>

# Hercules – Windows GUI



GUI

'front panel'



<http://www.softdevlabs.com/Hercules/hercgui-index.html>

# Getting started with **Volker's** **MVS Turnkey CD #3**



The CD supports installation under Windows and Linux. Use the web browser of your choice to open the file `readme.html` and then review the New User Cookbook.

This revision of the CD does not autoplay in Windows so nothing will happen when you insert the CD till you want to start the installation and run the setup program.





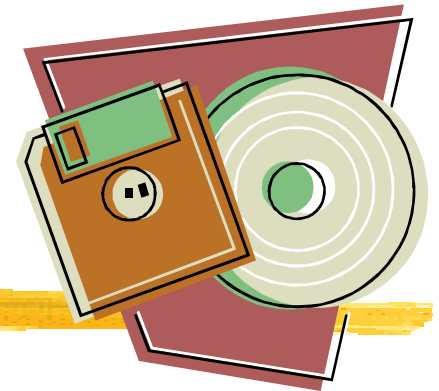
# Doing work with **Volker's MVS** **Turnkey CD #3**



“Mainframe on a PC, its as easy as pie.” Edwin Handschuh

My current client hired me in January of this year (I won't mention names). I was tasked to develop a multi-threaded application which automates/facelifts FTP. My only problem was that I didn't have a userid for the mainframe (imagine writing Assembler without logging on!). I ordered the CD (Hercules is on the CD along with MVS 3.8.j), installed it, and began developing, assembling, linking, and testing the code. I was writing assembler code from early March all the way through to the end of June. In early July (when I got my id... I won't go into the many reasons why they weren't able to provide me with an id), I copied the code to z/OS 1.2, assembled it (without errors) and haven't looked back since. I'm not going to lie to you and tell you that the MVS 3.8.j "F" assembler is the most up to date assembler (HA!), but it didn't limit my ability to write 99% of what I had to write. All in all, the MVS 3.8.j OS provided on the CD is a very useable system. I highly recommend it for someone who's trying to learn the ropes and doesn't have access to a mainframe.

# TheOpenCD 2.0



- Open Source for Windows
- Open Office 1.1.3
- Firefox 1.0
- Thunderbird 1.0
- AbiWord
- GIMP
- Filezilla FTP client
- VNC
- PuTTY
- Games
- 7-zip
- Links, Essays
- Revolution OS Movie Trailer

3



# e-Books, e-Magazines, and other e-publications



"Using the Internet today is like trying to use a library where all the books have been dumped on the floor and the lights turned out."  
A.J. Vendeland, in Review of The Software Publishers Association Europe Conference, Conference Analysis June 28, 1996

One starting place <http://www.cbttape.org/links.phtml>

**IMPORTANT**

# MVS Performance



MVS Performance Management OS/390 Edition with MVS/ESA SP Version 5 by Stephen L. Samson. Released as a free e-book

z/OS Version 1 Edition available now. Steve updated this for z/OS R4 in July and made the updated version available free to those who purchased the z/OS upgrade.

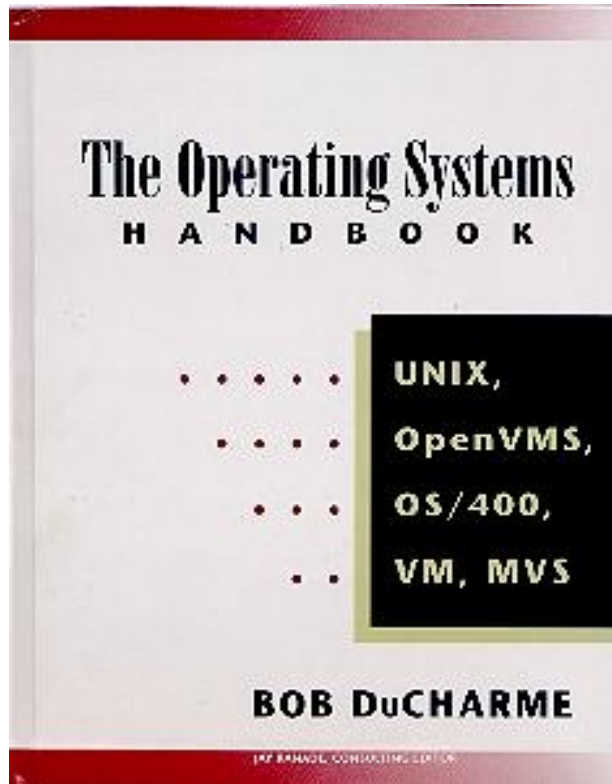
Free version Good Resource especially for WLM COMPAT mode while it lasts and

You can buy the PDF for download for \$50 or on a CD for a bit more at

<https://www.setsystems.com/cgi-bin/buy-mvs>

<http://www.cbttape.org/samson.htm>

# ***The Operating Systems Handbook***



The Operating Systems Handbook  
by Bob DuCharme

Released as a free e-book

"Working Knowledge of UNIX, VMS, OS/400,  
VM/CMS, and MVS."

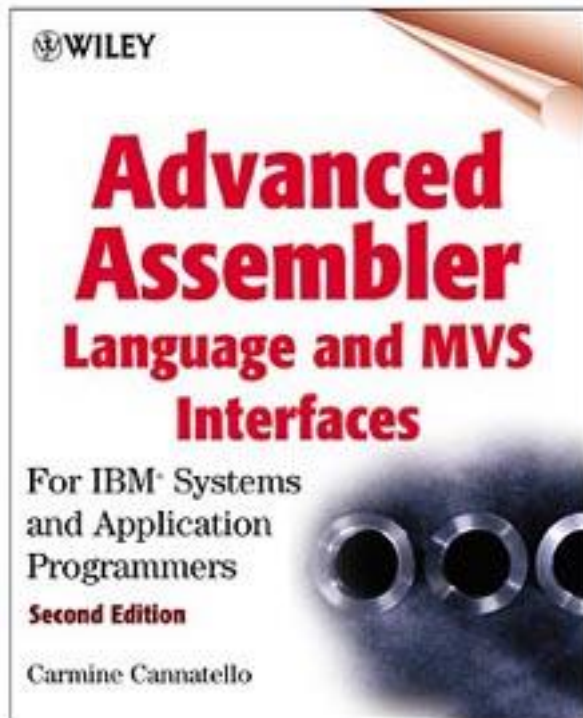
Wouldn't that look great on **your** resume?

I wanted to call it "Fake Your Way Through Minis  
and Mainframes," but McGraw-Hill wanted  
something that sounded more respectable...

<http://www.snee.com/bob/opsys.html>



# Advanced Assembler Source



Advanced Assembler Language and MVS Interfaces: For IBM Systems and Application Programmers, Second Edition

Carmine A. Cannatello

ISBN 0471361763

848 pages

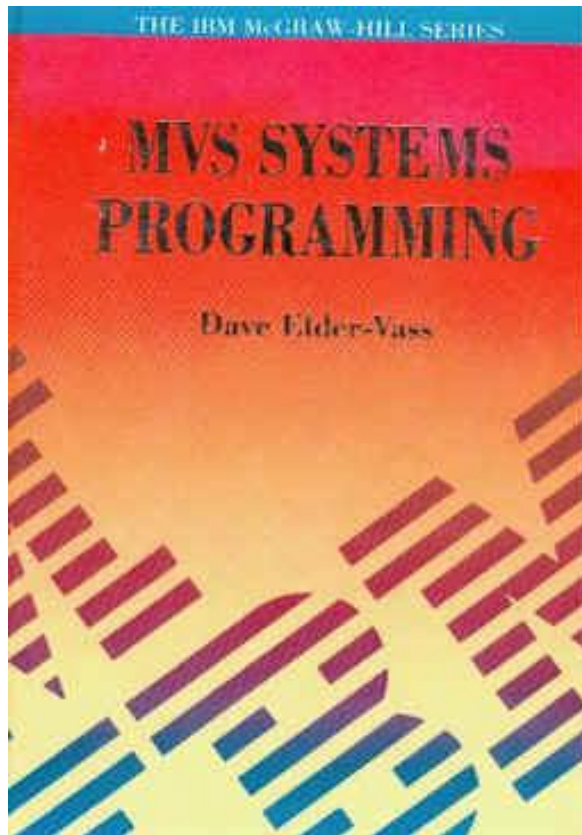
Where to buy the book?

<http://www.isbn.nu/0471361763>

Source Code on  
CBT Tape File 69

*I purchased the first edition and examples on diskette in 1991 for about \$50 each*

# ***MVS Systems Programming***



*MVS Systems Programming*

by David Elder-Vass

ISBN: 0-07-707767-9

Out of Print

Written in 1993 before OS/390

e-Book now available on the web  
at

<http://www.mvsbook.fsnet.co.uk/>

Reprint now available through  
Amazon.com or iuniverse.com

# IBM Hot Topics



Published twice a year

Articles by IBM developers and others

Produced by IBM Publications in Poughkeepsie

Available in hardcopy at user groups like SHARE and on the web

Current and back issues on z/Favorites biz card CD-ROM

[http://www.ibm.com/servers/s390/os390/bkserv/hot\\_topics.html](http://www.ibm.com/servers/s390/os390/bkserv/hot_topics.html)

# IBM Redbooks



IBM released a Redbook series entitled the "ABC's of Systems Programming" and is a

"five-volume set that is designed to introduce the structure of an OS/390 and S/390 operating environment. The set will help you install, tailor, and configure an OS/390 operating system, and is intended for system programmers who are new to an OS/390 environment."

Check out IBM Redbooks <http://www.redbooks.ibm.com/> and search on “**ABCs of System Programming**” or visit Lionel’s page <http://www.lbdsoftware.com/abcs.html>



Being updated for z/OS and expanded to a 11-volume set! Some of the new volumes available now.

# Conference Proceedings



<http://www.share.org>

- Proceedings in Adobe Acrobat .PDF
- Free userid/password required



<http://www.usenix.org/publications/library/proceedings>

Online proceedings of conferences from previous years are now freely available to everyone. The full papers of the past twelve months are available only to USENIX members.

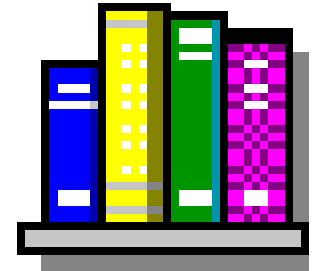


# IBM References



## IBM Internet Library

z/OS <http://www.ibm.com/servers/eserver/zseries/zos/bkserv/>



**LOOKAT** IBM tool to quickly lookup messages



<http://www.ibm.com/servers/s390/os390/bkserv/lookat/lookat.html>

## IBM Catalog and VSAM Knowledge Base

was <http://knowledge.storage.ibm.com>

is no longer easy to find use <http://tinyurl.com/2sclt>



# IBM References Cheaper



## IBM Library Kits on CD or DVD

IBM recently reduced the price to USD \$20 of both

- z/OS V1R6 and Software Products DVD Collection (SK3T-4271-13)
- z/OS V1R6 CD Collection (SK3T-4269-12)



Order here <http://tinyurl.com/fgzc> or

<http://www.elink.ibm.link.ibm.com/public/applications/publications/cgibin/pbi.cgi?CTY=US>

# Magazines



Archives 1996 - 2004

<http://www.naspa.com/tsyellow.htm>

<http://www.naspa.com/> is home site for  
NaSPA

**MAINFRAME**  
MONTH

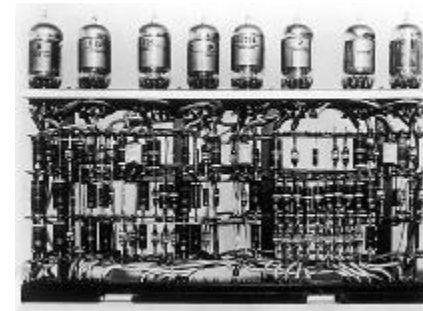
<http://www.xephon.com/mfm/>

Free Xephon monthly email  
newsletter focused on IBM  
mainframes

**TSO Times**

Sponsored by Chicago-Soft an old  
favorite has returned

<http://www.tsotimes.com>



PROCESSOR.COM

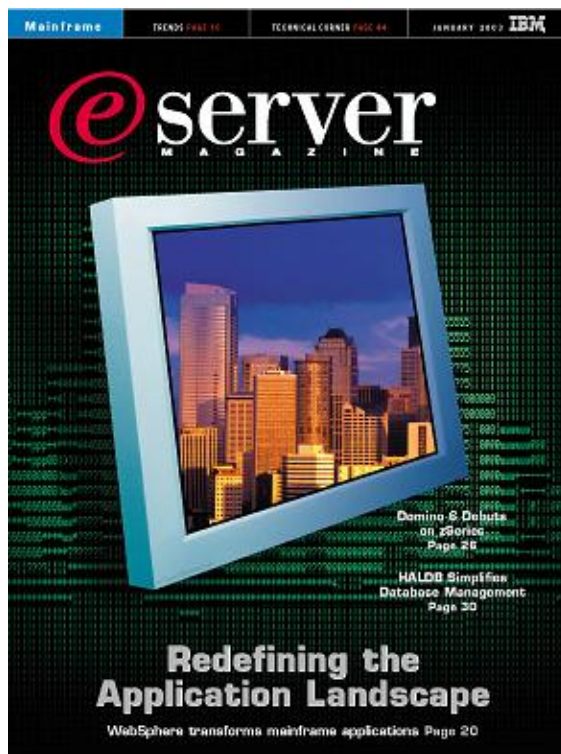
EETIMES.COM

# Free Magazines



<http://www.zjournal.com/>

Bob Thomas (Founder ESJ) is back.



eServer Magazine is published in three flavors — eServer Magazine, iSeries edition; eServer Magazine, Mainframe edition, and; eServer Magazine, IBM edition for UNIX

<http://www.eservercomputing.com/mainframe/>

# More out there



[http://dmoz.org/Computers/Software/Operating\\_Systems/Mainframe/IBM/z-OS/](http://dmoz.org/Computers/Software/Operating_Systems/Mainframe/IBM/z-OS/)



**dmoz Open Directory Project**  
is the largest, most  
comprehensive human-edited  
directory of the Web


<http://www.xephon.com>



Free backs issues of Xephon MVS, DB2, RACF, CICS, and other Update publications from prior to 1998. Now a weekly email newsletter is available which has been well received.

# On-Line Computer Dictionaries



-  Terminology

<http://www.ibm.com/ibm/terminology/>

-   
Free On-Line Dictionary Of Computing

<http://www.foldoc.org>

Free On-Line Dictionary  
of Computing

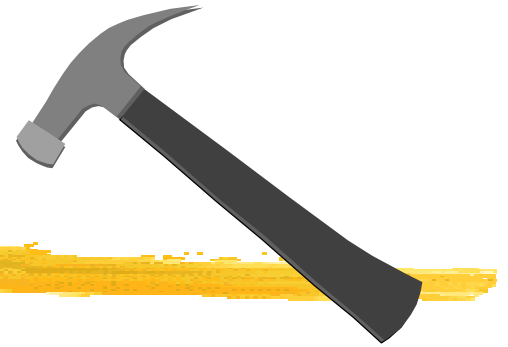
This standard  
one is handy and  
no pop-up ads!



<http://www.m-w.com>



# Why Tools?



The difference between an amateur and a professional is often mastery of the tools of the trade. If you take the time to prepare and grow comfortable with your tools when required you will be able to quickly and efficiently accomplish tasks that others consider impossible or too large to complete in the available time.

"Whatever tools you have, learn to use them. Over and over. Better and better. You'll surprise yourself if you are patient, stick to an organized schedule, and keep working at it." Sam Golob

# Free Software

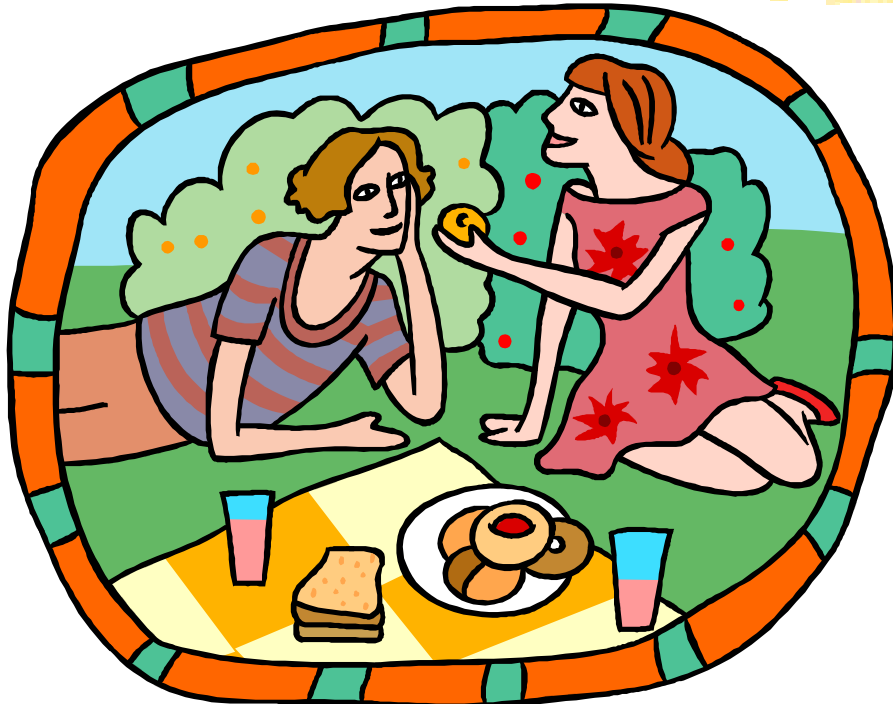


“Sharing of software was not limited to our particular community; it is as old as computers, just as sharing of recipes is as old as cooking. But we did it more than most.” Richard Stallman

**SHARE:** “It’s not an acronym. It’s **what we do.**”

New CMG phrase from Dallas agenda **take home and use**

# Bring home the Tools!



Take home at least one tool and solve a problem. Many conferences attended by managers and others are boondoggles so they are not prepared to believe what you put into a user group like NaSPA, SHARE, or CMG and what you can get out of it!

take home and use what you hear today

# Internet Formats



- ZIP
- ZIP is standard for compression in most of the non-unix world
- Commercial ZIP utilities on PC such as PKZIP <http://www.pkware.com> or WinZIP <http://www.winzip.com> or RAR <http://www.rarlabs.com>
- Info-ZIP is a freeware utility available at <http://www.cdrom.com/pub/infozip/Zip.html> for a large number of platforms including native OS/390 and OS/390 USS
- 7-zip is GPL freeware for Windows <http://www.7-zip.org>
- XMIT
- Using the TSO XMIT command is a convenient way to package data into standard FB records for safe transmission of the internet
- XMIT + ZIP
- XMIT packaged data sets which are then compressed with a ZIP utility such as PKZIP work especially well and are becoming a popular choice to distribute MVS software over the internet
- ASCII vs. EBCIDIC

# How to download and restore XMIT + ZIP



Frequently files are packaged on MVS for transfer using the TSO transmit (XMIT) command to transmit them into a data set. This is done to turn PDS(s) and other odd files into nice FB 80 files which will FTP nicely to PC and UNIX systems. These files are downloaded to a PC and then compressed with PKZIP to reduce the size since disk space is limited and most people have limited bandwidth to download. The convention of files suffixed .XMI packaged in XMIT format is becoming common.

Download *name.ZIP* file to PC as using your web browser or an FTP client.

# How to download and restore XMIT + ZIP



Extract name.XML or name.DAT file from name.ZIP file on PC . You will need a small utility program to do this.

Commercial Unzipping programs like PKZip from Pkware <http://www.pkware.com> and WinZip from NicoMac <http://www.winzip.com> and RAR from RAR Labs <http://www.rarlabs.com> are excellent tools.

Freeware Unzipping programs are almost as good and many can be found by searching PC Freeware web sites such as NoNags <http://www.nonags.com>

For Windows 7-zip is a good one you can download from <http://www.7-zip.org>



# How to download and restore XMIT + ZIP



Upload name.XMI files to MVS using a **binary** file transfer method (no CRLF or ASCII translation) and that the MVS dataset created is LRECL=80,RECFM=F,DSORG=PS Note that you can upload into a PDS if you want as long as it is FB80.

Receive the name.XMI file on MVS

Issue command: TSO **RECEIVE INDATASET(name.XMI)**

When prompted by message "INMR906A Enter restore parameters or 'DELETE' or 'END' +":

Enter: DA(*name.of.your.library*) UNIT(*unit*) VOLUME(*volume*)

Note: The UNIT() and VOLUME() operands are optional but shown in case your installation puts RECEIVE files on work packs by default like mine does

# Trouble Downloading



- If you are having trouble downloading try to find out if you are behind a firewall. If you are behind a firewall and you cannot get your network folks to configure it to allow you to download using a web browser try getting an FTP client like the free Seagull FTP or WS\_FTP that has a few firewall friendly options (PASV mode) that might help. Failing that download from home and email yourself the files or bring them in on a floppy as most are not that large.
- More hints at <http://www.cbttape.org/downloadtrouble.htm>

# Tape Tools

---



- Map contents
- Copy tapes
- Virtual Tape Images and utilities
- Examine data
- File Manipulation

# TAPEMAP



The tape mapping program called TAPEMAP supplied as source on file 299 of the CBT tape, is widely used. It includes special support for mapping the CBT Tape and other common file formats. *64k blocksize supported*

Does not require BLP but BLP allows you to analyze a volume without changes to JCL or any prior knowledge of that tape volume.

Leonard Woren's web page

<http://www.best.com/~ldw/mvs>

has his original version of TAPEMAP. **oco**

```
//TAPEMAP EXEC PGM=TAPEMAP,REGION=6M
//SYSUDUMP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSPRNT2 DD SYSOUT=*
//SYSUT1 DD DISP=OLD,
// DSN=MOUNT.TAPE,
// LABEL=(,BLP,EXPDT=98000),
// UNIT=3490,
// VOL=SER=(TAPEIN)
```



# COPYMODS

---

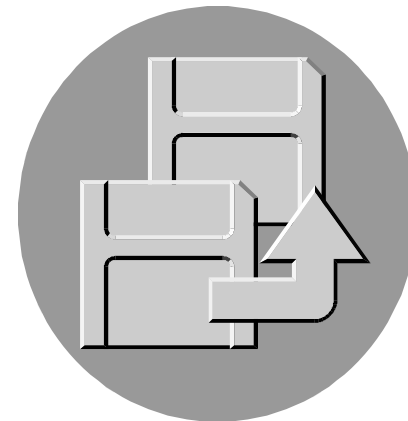


The tape copying program called "COPYMODS" on file 229 of the CBT tape, is useful for making byte-for-byte copies of the CBT tape, and other tapes. Up to 10 copies may be made at one time.

COPYMODS is very reliable and is the recommended program for making copies of the CBT Tape.

Normal use requires BLP privileges.

*Updated by Sam Golob for 64k blocks  
and serious tape label manipulation!*





# COPYMODS JCL



```
//* COPYMODS IS A FREWARE TAPE COPIER WHICH CAN CREATE
//* MULTIPLE COPIES OF A TAPE IN A SINGLE PASS. IT CAN USE
//* UNLIKE DRIVES FOR INPUT AND OUTPUT E.G. 3480 <<--> 3490
//*
//* WARNING!!!! THIS WILL OVERWRITE ANYTHING YOU PUT IN THE
//* OUTPUT DRIVE.
//*
//COPY EXEC PGM=COPYMODS,REGION=6M
//STEPLIB DD DISP=SHR,DSN=IBMUSER.LOAD
//SYSPRINT DD SYSOUT=*
//IN DD DSN=IBMUSER.INPUT.TAPE,DISP=OLD,LABEL=(,BLP),UNIT=3490,
// VOL=SER=INPUT
//OUT1 DD DSN=IBMUSER.WRITE.TAPE1,UNIT=3480,VOL=SER=OUTPU1,
// LABEL=(,BLP,EXPDT=98000),DCB=TRTCH=COMP
//OUT2 DD DSN=IBMUSER.WRITE.TAPE2,UNIT=3480,VOL=SER=OUTPU2,
// LABEL=(,BLP,EXPDT=98000),DCB=TRTCH=COMP
```

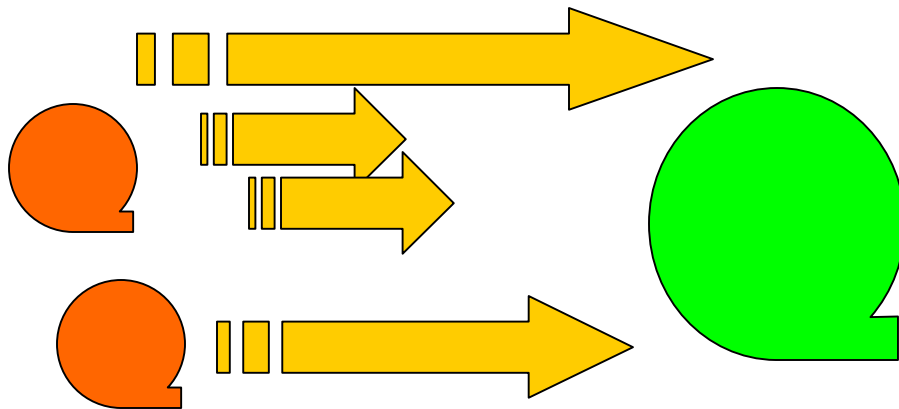
Tip: Use MOUNT command when running multiple jobs i.e.

```
M uuu,VOL=(NL,INPUT),USE=PRIVATE
```

# COPYFILE

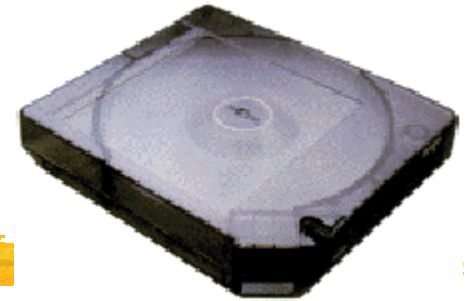


```
//COPYPSTP EXEC PGM=COPYFILE,REGION=4000K,PARM='TAPEL'  
//MSG DD SYSOUT=*  
//TAPELOUT DD SYSOUT=*  
//SYSUDUMP DD SYSOUT=*  
//IN DD DSN=INPUT.FILE,UNIT=TAPE,DISP=SHR,LABEL=EXPDT=98000,  
// VOL=SER=vvvvvvv  
//TAPELIN DD DSN=OUTPUT.FILE,  
// UNIT=( &UN2 , ,DEFER) ,VOL=( ,RETAIN ,SER=vvvvvvv) ,  
// DISP=(NEW,KEEP) ,LABEL=EXPDT=98000,DCB=TRTCH=COMP
```



- Copy and reorder files
- Previously used as part of the process to create a new CBT Tape
- Found on CBT Tape File 316 in source and a load module on CBT Tape File 35

# AWSTAPE



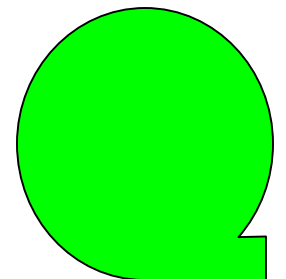
- AWSTAPE format defined by IBM can be used on platforms with emulated I/O such as P390, Multiprise, Hercules. Sequential file seen as a tape by OS but only when seen through the emulated I/O layer. No native access on MVS, VM, etc.
- CBT Tape and many historic volumes available in AWSTAPE format often no longer distributed as real tapes



## *CBT Tape AWS Virtual Tape Library*

<http://www.cbttape.org/awstapelibrary.htm>

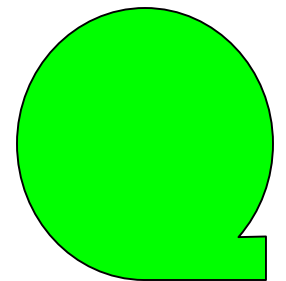
- Utilities available for MVS, VM, VSE to create AWSTAPE files
  - Used as part of the process to create a new CBT Tape



# AWSTAPE Utilities



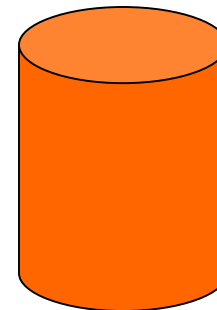
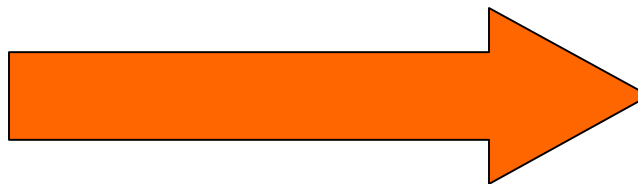
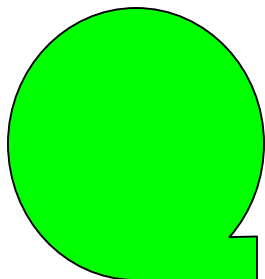
- AWSUTIL
  - found on CBT tape file 477, released under the GPL by Brandon Hill
  - read a tape and create a binary archive in AWSTAPE format output is formatted RECFM VB LRECL 4100
- VTT2\* tools found on CBT tape file 533 in source and prebuilt load modules on CBT Tape File 35, written by Sam Golob released for free personal or commercial use
  - VTT2DISK read a tape and create a binary archive in AWSTAPE format output is
  - VTT2TAPE read a AWSTAPE file and output a real tape on media of your choice so long as it is large enough
  - VTT2CNVU convert VB AWSUTIL to FB VTT2\* format
  - See Sam Golob December 2001 column in NaSPA technical SUPPORT magazine (CM0112DE CBT file 120)



# AWSTAPE VTT2DISK



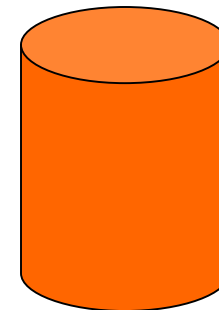
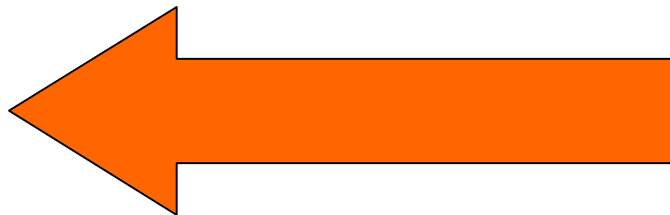
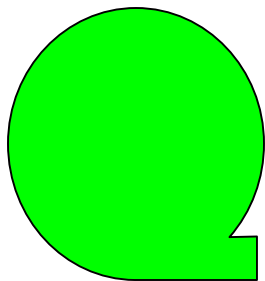
```
//AWSWRIT EXEC PGM=VTT2DISK
//STEPLIB DD DISP=SHR,DSN=IBMUSER.LOAD
//AWSOUT DD DISP=(NEW,CATLG),DSN=IBMUSER.C439MU,UNIT=SYSDA,
// VOL=SER=SCPV05,DCB=(RECFM=FB,LRECL=80,BLKSIZE=27920),
// SPACE=(CYL,(302,10),RLSE)
//TAPIN DD DISP=OLD,UNIT=582,VOL=SER=C439MU,
// LABEL=(1,BLP,EXPDT=98000)
//SYSPRINT DD SYSOUT=*
//SYSFILES DD SYSOUT=*
//SYSTRACE DD SYSOUT=*
//SYSMOVED DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
```



# AWSTAPE VTT2TAPE



```
//AWSREAD EXEC PGM=VTT2TAPE
//STEPLIB DD DISP=SHR,DSN=IBMUSER.LOAD
//AWSIN DD DISP=SHR,DSN=IBMUSER.TAPE
//TAPOUT DD DISP=OLD,UNIT=3420,VOL=SER=TTTTTT,
// LABEL=(1,BLP,EXPDT=98000)
//SYSPRINT DD SYSOUT=*
//SYSFILES DD SYSOUT=*
//SYSTRACE DD SYSOUT=*
//SYSMOVED DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
```





# System Doctor Tools



“What are the  
tools?”

William S. Mosteller

The Systems  
Programmers Problem  
Solver

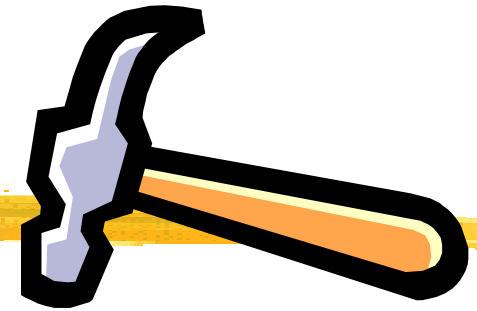
ISBN 0-89435-271-7

# CDSCB

```
EDIT E      CSSJK.IDCAMS.CNTL      Browse substituted
Command ===>                        Scroll ===>
CSR
  Name          Size      TTR      Alias-of AC  AM  RM  ----
Attributes ----
. DEFALIAB      00069F03 000021                24  24      NX
. DEFALIAS      00069F03 00000E                24  24      NX
. DEFNVSAM      00069F03 00001B                24  24      NX
. DEFUCAT       00069F03 000105                24  24      NX
. DELDEFNV      00069F03 000017                24  24      NX
. EXPORT        00069F03 000025                24  24      NX
. LISTBKUP      00069F03 000012                24  24      NX
. LISTC         00069F03 00000C                24  24      NX
. LISTDATA      00069F03 000103                24 ANY     NX
. MERGECAT      00069F03 000010                24  24      NX
. REPROSEQ      00069F03 000023                24  24      NX
. SETCAOFF      00069F03 000101                24  24      NX
. WTOENROL      00000090 000107                01  31 ANY     RN RU     TS
```

Someone has accidentally linked a load module into his JCL PDS... changing the attributes of the PDS itself.

# CDSCB



The CDSCB (change DSCB) command modifies a data set's Format-1 DSCB in a VTOC.

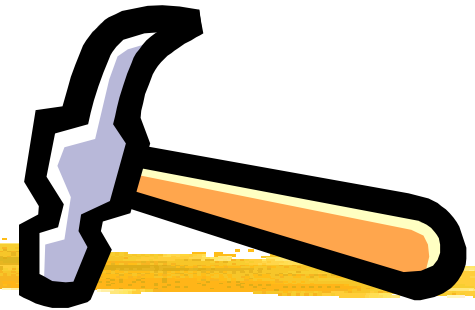
Since the Format-1 DSCB contains information crucial to a data sets' security and integrity, (and in fact to the whole system's security and integrity), this command Must be restricted to systems support personnel.

```
CDSCB 'DSNAME' EXPDT(DATE) SHR VOL(VOLUME) UNIT(UNIT)
      CREATE(DATE) REFDT(DATE)
      DSORG(XX) RECFM(XX) LRECL(XX) BLKSIZE(XX)
      ALLOC(TR/CYL/BL) SPACE(SECONDARY-AMOUNT)
      PWR/PWW/NOP/RACF/NORACF
      ZAP(OFFSET VERDATA REPDATA)
```

REQUIRED - 'DSNAME'

DEFAULTS - NOTHING WILL HAPPEN IF NO CHANGES ARE SPECIFIED

# CDSCB



```
CDSCB CSSJK.IDCAMS.CNTL RECFM(FB) LRECL(80)  
CHANGED
```

## Fixed!

- CDSCB can be used to quickly repair data set attributes which users have unintentionally altered.
- CDSCB is found on [CBT Tape](#) File 300. A version modified my Michael Cleary to use RACF instead of an internal userid table is on CBT Tape File 301 or his web page.

# Full Screen ZAP data sets

The ZAP command is used to examine, dump, and modify any type of sequential, partitioned, or direct access dataset. Any RECFM is accepted. This command is the TSO interactive equivalent of IBM's service aid 'IMASPZAP' or 'SUPERZAP'. ZAP is found on CBT Tape files 134 (source) and 135 (load).

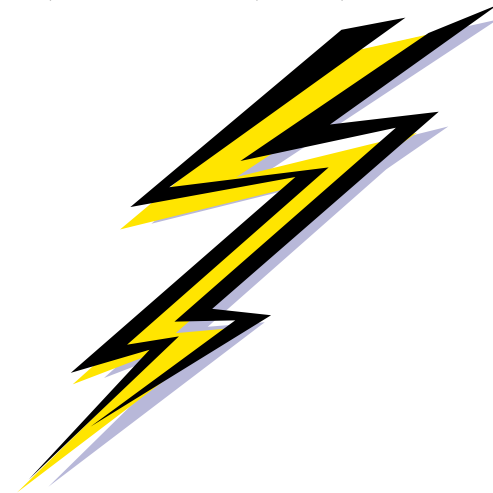
```
ZAP 'dsname' VOLUME('serial') CRT NOT3270  
  TERSE/VERBOSE BLKSIZE('blksize')  
  NOLOG/LOG  
  FULLVOL
```

REQUIRED: 'dsname'

DEFAULTS: TERSE, NOLOG

No volume implies a cataloged dataset.

NOTE: VOLUME keyword is required if dataset is not cataloged or if it is 'FORMAT4.DSCB'.



# Full Screen ZAP Volumes



The ZAP command ZAP 'FORMAT4.DSCB' VOLUME(DEVL51) FULLVOL allows me to inspect and modify any location on the volume DEVL51.

Z A P

ENTER VALID COMMAND ABOVE OR ? FOR HELP

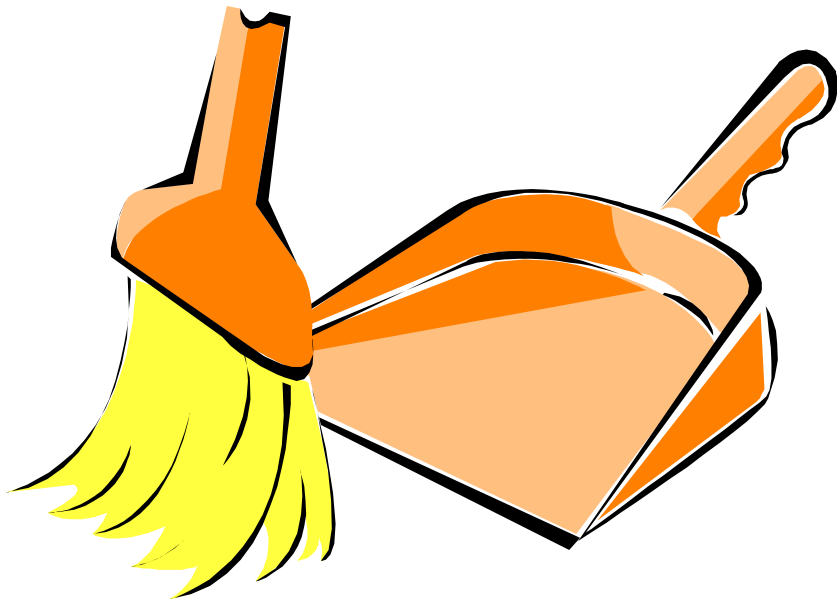
VERSION=3.2K 04JAN99

```
00000 >C9D7 D3F1 0008 0000 8000 015A 0600 4A98 |IPL1.....!...¢q|
00010 6000 0060 0800 4A98 0000 0000 |-...-...¢q.... |
```

```
OFF: 0000 ( 0) ADDR: 00000 ( 0) DSN: VOLUME DEVL51
LEN: 001C ( 28) BASE: 00000 ( 0) CCHHR: 0000000001 TTR: 000001
```

- ZAP can help you understand the formats of data sets by eliminating any formatting imposed by other viewers
- On-line help available by pressing “?” is enough to get you started
- Sam Golob’s columns on ZAP (CBT Tape file 120 or on-line) very helpful

# File Delete Tools & Tips

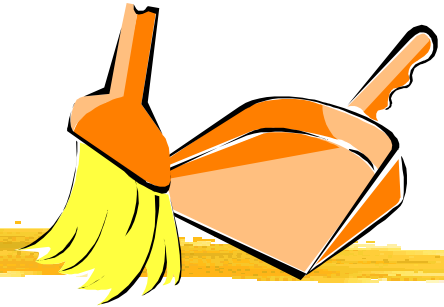


When it's time for spring cleaning deleting files one at a time by hand is not good enough.

You have to feel the delete. Be the delete.

-Jeremy Werner and Brian Hales

# DELETE w/ XDELETE



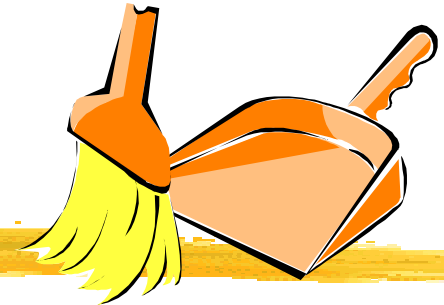
XDELETE - REXX exec uses Catalog Search Interface to invoke DELETE against data sets matching a pattern mask. Another great tool by Gilbert Saint-flour

- CBT file #183 <http://www.cbttape.org>
- <http://www.pobox.com/~gsf>
- XDELETE generic\_name EXECUTE
- Use without specifying EXECUTE for a preview
- generic\_name i.e. SYS1.PARMLIB , SYS1.\* , SYS1 or SYS1.\*\* , \*\*.LIST , AAA%\*.B\*%%%%B
- documented in source, install in SYSEXEC or SYSPROC concatenation for easy use, can be run in batch TSO





# DELETE w/ DFDSS



- DFSMSdss (IBM) is not free but is installed in the majority of installations.

```
//DELDSNS EXEC PGM=ADRDSSU,PARM='TYPRUN=NORUN' <<= Remove to do
//SYSPRINT DD SYSOUT=*                               live instead of simulate
//DUMMY DD DUMMY
//SYSIN DD *
DUMP DATASET (INCLUDE ( -
          SYSS.I28SYT.**.HFS -
          )) -
OUTDD (DUMMY) -
DELETE
/*
```

- Many other OEM products also provide this functionality
- See past thread “Delete libraries” on ISPF-L Search web archives at <http://listserv.nd.edu/cgi-bin/wa?S1=ispf-l> A nice REXX exec by Steve Neeland demonstrates simple Roll Your Own solution using REXX & ISPF services

# Super Sleuth Tools

---



Who deleted my data set?

Where is this data set cataloged?

How does this Control Block work?

# DAF Dataset Audit Facility

**UPDATE!**



- DAF is the Dataset Audit Facility an SMF post processor for data set activity
- Reads standard IBM and some ISV SMF records, and based upon user supplied selection criteria, generates detailed data set audit trail reports
- Found on CBT Tape File 094 or Mike Cleary's Web Page [http://www.geocities.com/michael\\_cleary/](http://www.geocities.com/michael_cleary/)
- Current version of DAF support PDS member level SMF data recorded at z/OS R4! Who deleted IEASYS00?

\* Information on DAF is taken from the DAF source code and "DAF, GRS, and LPALNK" Session 2895 SHARE Conference - Winter 1998 by Michael Cleary

# DAF Supported SMF Records:



- 014 - INPUT or RDBACK Data Set Activity
- 015 - OUTPUT UPDAT INOUT or OUTIN Data Set Activity
- 016 - DFSORT Statistics
- 017 - Scratch Data Set Status
- 018 - Rename Data Set Status
- 022 - Configuration
- 024 - JES2 Spool Offload
- 036 - Integrated Catalog Facility Catalog
- 042 - DFSMS Statistics and Configuration
- 059 - MVS/BDT File-to-File Transmission
- 060 - VSAM Volume Data Set Updated
- 061 - Integrated Catalog Facility Define Activity
- 062 - VSAM Component or Cluster Opened
- 063 - VSAM Catalog Entry Defined
- 064 - VSAM Component or Cluster Status
- 065 - Integrated Catalog Facility Delete Activity
- 066 - Integrated Catalog Facility Alter Activity
- 067 - VSAM Catalog Entry Deleted
- 068 - VSAM Catalog Entry Renamed
- 069 - VSAM Data Space Defined Extended or Deleted
- 073 - RMF Channel Path Activity
- 074 - RMF Device/XCF/OMVS/CF/Cache Activity
- 075 - RMF Page/Swap Data Set Activity
- 077 - RMF Enqueue Activity
- 080 - RACF Processing
- 081 - RACF Initialization
- 082 - ICSF/MVS Record
- 083 - RACF Audit Record for Data Sets
- 090 - System Status
- 092 - USS File System Activity
- 118 - TCPIP Statistics
- 170 - File-AID
- 201 - SRS
- 241 - DFHSM

Reporting from more than 34 different SMF record types!

# DAF control statements



- Catalog name
- Dataset name
- Date (YYYYDDDD)
- Data definition name
- Execute Channel Program
- Group Identification
- Job name
- Logical Record Length
- Major enqueue name
- Member name
- Minor enqueue name
- Record type
- System identification
- Time - HH.MM.SS.HH
- User identification
- Volume serial
- VSAM volume dataset name
- Wait Time Max

- Like control statements utilize OR logic

DSN EQ A with DSN EQ B

Would find all data sets that begin with A or B

- Unlike control statements utilize AND logic

DSN EQ A with JOB EQ B

Would find all data sets that begin with A and from JOB B

## Operators

- EQ, GE, GT, LE, LT, NE

# DAF Examples



- What happened to that darn payroll file ?

DSN EQ PROD.PAYROLL.CLUSTER

- What was locking up the system at lunch time ?

TIME EQ 12

- What data sets were accessed on volume USER05 ?

VOLUME EQ USER05

- What data sets are blocked poorly ?

BLKSIZ LT 4096

- Did the special job run on New Year's Day ?

JOB EQ SPECIAL

DATE EQ 2000001

# DAF Reports

Dataset Audit Facility (DAF) - Level 2.0.6(20000306)

Date	Time	SID	Job	User	RTY
CSSJK3	ISPF	ISPPROF			
2000066	01.41.29.96	PROD	CSSJK		014
VOLUME=LS0003 DD=ISP16383 OPE=01.41.29.83 CRDT=00066 XPDT=00000					
DISP=Shr BUFNO=1 DSORG=PS RECFM=FB BLKSIZE=256 LRECL=256 NVOL=1					
EXCP=46 CTRI=ABSTR NTU=00002D00 NEX=1 NTA=4					
2000066	01.41.34.48	PROD	CSSJK		017 VOLUME=LS0003 NVL=1



DAF Reports can quickly answer questions about data set activity. DAF also generates detail logs and statistics about it's processing and the SMF data analyzed.

# LOOK



- TSO command to display virtual storage
- Optionally run APF authorized and display storage in any address space!
- Optionally customize (through DSECT assemblies) to format any control block
- Supports indirect addressing
- LOOK source is on File 264 of the CBT Tape and a pre-assembled load module is on File 035.

The valid commands are:

Iexp	24 bit indirect		Jexp	31 bit indirect
>	Forward		<	Backward
=sym	Define current address as "sym"		,sym	Redisplay core at "sym"
M0/M1	Flip between top and center		Lname	Indirect thru control block field
Ocb	Format as "cb" control block		R	Refresh displayed storage
	"cb" may be NULL to show as hex			

where 'exp' is of the form:

```
<+/->hhhh<+/->hhhh<+/->hhhh...>>
```

and 'hhhh' is a 1 to 8 digit hex number.



# LOOK

LOOK COMMAND - DISPLAY VIRTUAL MEMORY      DISPLAY ASID= 0024  
ENTER CMD -  
LAST CMD - I006000

54C9E340	>D4C9E340	C8C1E2D7	D5E4C340	D6E240F2	*>MIT HASPNUC OS 2*
54C9E350	4BF54BF0	40404040	40404040	40404040	*.5.0 *
54C9E360	40404040	01D10050	F6200000	C8D1C5F6	*.J.&6...HJE6*
54C9E370	F6F0F540	F0F261F2	F761F9F8	F1F14BF0	*605 02/27/9811.0*
54C9E380	F80096E0	0000F418	0000F6C0	0000F6E0	*8....4...6...6.*
54C9E390	E2D740F5	4BF34BF0	40404040	40404040	*SP 5.3.0 *
54C9E3A0	F6000000	000E58D0	0B001FD8	0AC5AFE0	*6.....Q.E..*
54C9E3B0	0B001FA0	00B3E6E0	01800000	000081A2	*.....W.....*
54C9E3C0	01800000	0000C14E	01800000	0000C1B6	*.....A+.....A.*
54C9E3D0	00000000	00009250	000092D8	0000D680	*.....&...Q..O.*
54C9E3E0	0000D874	0000CD6A	000EBB18	000EBB18	*..Q.....*
54C9E3F0	000EBB5E	000EBBA4	0008F444	0000B482	*...;. ....4.....*

1= HELP      2=      3= END      4=      5= REPEAT      6=  
7= BACKWARD      8= FORWARD      9= HIST BWD      10= HIST FWD      11=      12=

# MXI as a storage browser

MXI - PROD - Control Block Mapping (00FD0BC0,CVT,R/W Nuc) -----  
Command ==> MEM @CVT MAP(CVT) Scroll ==> PAGE

Offset	Field	Hex	EBCDIC
Dec	Hex	Name Len Value	Value
0	0000	CVTTCPB 4 00000218	....
4	0004	CVT0EF00 4 00FDC560	..E-
8	0008	CVTLINK 4 00FD0B3C	....
12	000C	CVTAUSCB 4 00FD11A8	...y
16	0010	CVTBUF 4 00000000	....
20	0014	CVTXAPG 4 00FF8874	..hÈ
24	0018	CVT0VL00 4 00FF5156	..éî
28	001C	CVTPCNVT 4 00FE7378	..ÈÌ
32	0020	CVTPRLTV 4 00FE71AC	..ÉÐ
36	0024	CVTLLCB 4 01648DA0	.Àýµ
40	0028	CVTLLTRM 4 812A4900	a.ñ.
44	002C	CVTXTLER 4 00FEC398	..Cq
48	0030	CVTSYSAD 4 00F43858	.4.ì
52	0034	CVTBTERM 4 00FE65B0	..Á^
56	0038	CVTDATE 4 0100065F	...¬
60	003C	CVTMSLT 4 00FD11D0	...}
64	0040	CVTZDTAB 4 00F3A000	.3µ.
68	0044	CVTXITP 4 00FF9958	..rì
72	0048	CVT0EF01 4 00FDC788	..Gh

# A better file browser

---



ISPF Browse and  
Edit sometimes  
need a little help.

What we see depends on mainly what we look for.

-John Lubbock

# REVIEW

**Now supports HFS files!**



- REVIEW is a Quick Viewer for almost any type of data on OS/390 including PKZIP and even some graphic formats
- REVIEW provides optionally formatted displays for SMF, LOGREC, VTOC, and more
- REVIEW is a TSO command processor and does not need ISPF. REVEDIT easy to use full screen edit w/o ISPF
- REVIEW source code is in CBT Tape File 134 and a ready to use load module is in CBT Tape File 135. Greg Price regularly updates REVIEW and has a great collection of other useful tools as well which can be found in the same files.



# REVIEW a volumes VVDS



```
SYS1.VVDS.VUSER05 ON USER05 ----- LINE 1 COL 1 80
COMMAND ==>                               SCROLL ==> CS
1      10      20      30      40      50      60      70      80
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
.8..VVCR.....CATALOG.LSC.AUX.....
....Z.....SYS1.VVDS.VUSER05 .SYS1.VVDS.VUSER05 ..SYS1.VVDS.VUSER05 ... 0.....
.1.~Q.....NVPLV012.TDVRAZ.VNVGCNTL.INDEX..NVPLV012.TDVRAZ.VNVGCNTL..CATALOG.TSO
.$..Z.....SYS1.IODF84.WORK..SYS1.IODF84.WORK.CLUSTER..CATALOG.S39024.MASTER.SYS
.h..Q.....INFO.V3.DICT.INDEX..INFO.V3.DICT..CATALOG.VTSOPAK.INFO.V3.DICT.....
.j.÷Q.....INFO.V3.RPANELS.INDEX..INFO.V3.RPANELS..CATALOG.VTSOPAK.INFO.V3.RPANE
.?..Z.....SYS1.IODF82.WORK..SYS1.IODF82.WORK.CLUSTER..CATALOG.S39013.MASTER.SYS
....Z.....TMON.CICS322.DFHXRCTL.DATA..TMON.CICS322.DFHXRCTL..CATALOG.VTSOPAK.TM
....Z.....TMON.CICS322.DFHXRMSG.DATA..TMON.CICS322.DFHXRMSG..CATALOG.VTSOPAK.TM
```

Update IKJSTO00 to make REVIEW authorized and it can quickly examine a VVDS instead of running Batch IDCAMS PRINT

# REVIEW on-line SMF data



```
SYS1.PROD.MAN2 ON S3906R ----- LINE 475 COL 1 80
COMMAND ==>                                SCROLL ==> CS
1      10      20      30      40      50      60      70      80
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
75 14:45:01 00.063 PROD RMF 143E PAGE.VPAGE12.PROD.LOCA      1.1io/s      6.0xfr/s
78 14:45:01 00.063 PROD RMF      subtype      2
15 14:45:01 00.063 PROD CSSJW      CSSJW.PS9932G.INSTLIB      B=6320      1 LS0022
77 14:45:01 00.063 PROD RMF      subtype      1
72 14:45:01 00.063 PROD RMF pg 0      1167srv/sec
72 14:45:01 00.063 PROD RMF pg20      618srv/sec      129srv/sec      347srv/sec
30214:45:06 00.063 PROD RMF      STC04053 IEFPROC      CPU-00:00:02 I/O-----2
14 14:45:09 00.063 PROD CSSJW      CSSJW.PS9932G.INSTLIB      B=6320      3 LS0022
30214:45:10 00.063 PROD FARLG      TSU04109 $TSFACCS      CPU-00:00:05 I/O-----1027
80 14:45:12 00.063 PROD CSABS      CSABS      TSOHOLD      TPXGR244
62014:45:45 00.063 PROD CSSJK      SYS1.PROD.MAN1      S3906R
```

REVIEW formats useful SMF information for a quick review of recent past

# REVIEW Tips



Update your ISPF configuration table using the ISPCCONF dialog to allow ISPF to automatically invoke REVIEW for VSAM files.

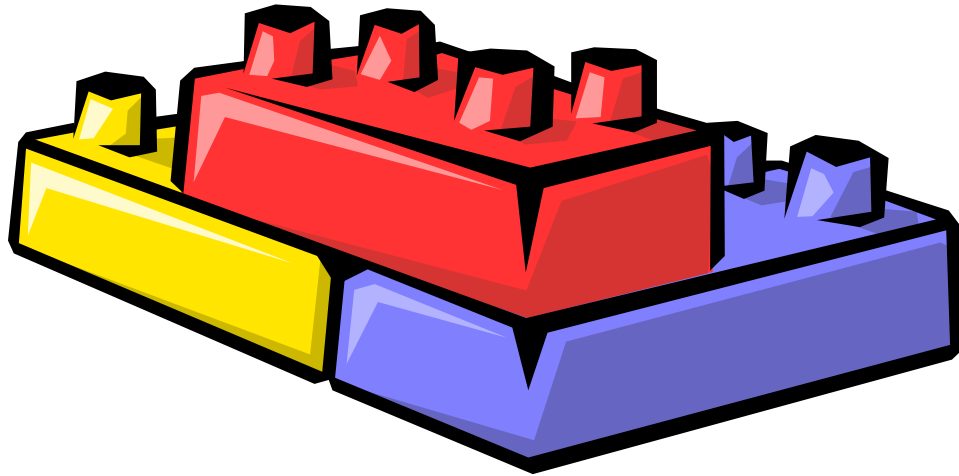
<code>VSAM_BROWSE_ENABLED</code>	=	<code>YES</code>	
<code>VSAM_BROWSE_COMMAND</code>	=	<code>REVIEW</code>	/

- REVIEW can be interrupted during a long browse down
- See REVNOTES member, the source code (now more than 30K line!), and Greg's web site for more information

**The CBT CD includes an offline copy of Greg's web site.**

**A**

# Tools for working with PDS(s)

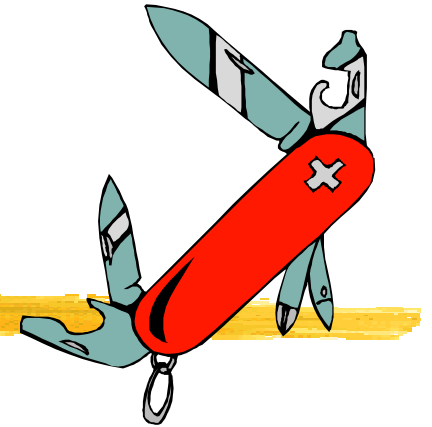


## Partitioned Data Set (PDS)

A data set in direct access storage that is divided into partitions, called members, each of which can contain a program, part of a program, or data.



# PDS 8.5 Update 25



PDS was originally written in 1972 at Fireman's Fund Insurance.

Bruce Leland, Steve Smith, and others built PDS into the utility “Battle Wagon” that it is today.

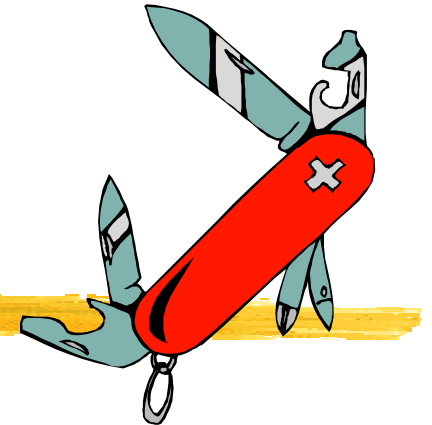
John Kalinich has worked to keep PDS alive and continues to enhance it. PDS 8.5 is the current version of this most popular, free PDS utility.

PDS incorporates functions from IBM ISPF Options 3.2, 3.4 3.14, Utility programs IEBCOPY, IDCAMS, and much, much, more! PDS has been extended to integrate many other free tools such as DSAT, VTOC, MXI, COMPARE, REVIEW, and more.

**PDS member UNDELETE enhancements**  
**available now on**  
**the CBT Tape web site**



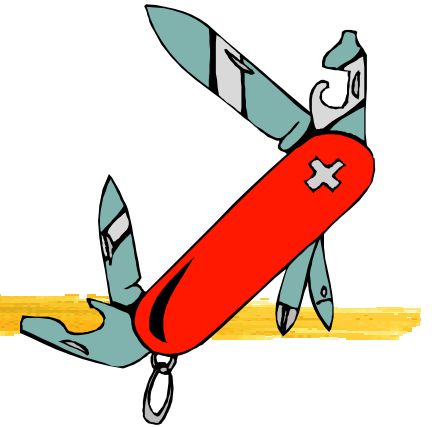
# PDS 8.5 MEMLIST



```
CMD ----- MEMLIST Source Member List 1 ----- Row 1 to 16 of 34
COMMAND ==> SCROLL ==> CSR
Enter an ISPF command, a PDS subcommand or a special control code:
  8 View log      1 Suspend ISPF      6 MEMLIST all      F Find      R Recall
LA Lista         4 Sublist =          7 Output table    L Locate    SO Sort
LV Listv         5 Check aliases      9 Swap panels     O Options    X Above/Below/All
- DSN=CSSJK.UTIL.CNTL,VOL=SER=LS0008 MEM=CBT/ -----
CMD  NAME      DATA      VER.MOD    CREATED    LAST MODIFIED  SIZE  INIT  ID
     CBT$ANY    01.42     95/07/25  00/02/28  10:13          278   208   CSSJK
     CBTAUDIT   01.00     00/02/28  00/02/28  10:46          445   445   CSSJK
     CBTBXMI    01.01     98/10/16  98/10/16  13:36           23    13    CSSJK
     CBTF1     01.09     00/02/28  00/02/28  13:38        38249 38249  CSSJK
```

PDS MEMLIST is where you will probably spend most of your time. PDS 8.5.22 the “V” command now invokes ISPF View rather than the VERIFY command. VE invokes VERIFY.

# PDS 8.5 LISTF Options



```
CMD ----- Build LISTFILE using VTOC command -----  
OPTION ==>
```

```
Enter volume list for VTOC  
VOLUMEs==> LSMS      ==>
```

```
Catalog search for each DSNAME ==> NO (Yes/No)
```

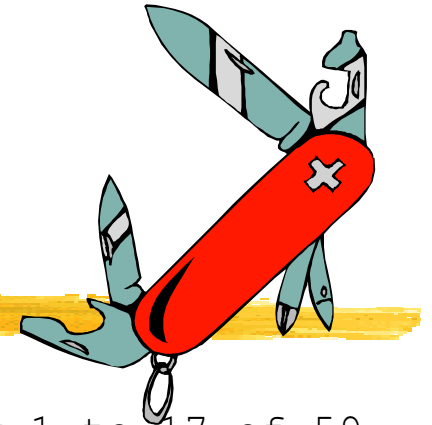
Optional filtering:

```
LEVELs      ==> OMVS      ==>  
More LEVELs==>           ==>           ==>  
Containing  ==>           ==>           ==>  
Ending      ==>           ==>           ==>
```

Strings for the above filtering must conform to dataset naming conventions. The userid will not be appended, do not use quotes.

**Carol Srna say's PDS 8.5 is "AWSOME!! I LOVE IT!!"**

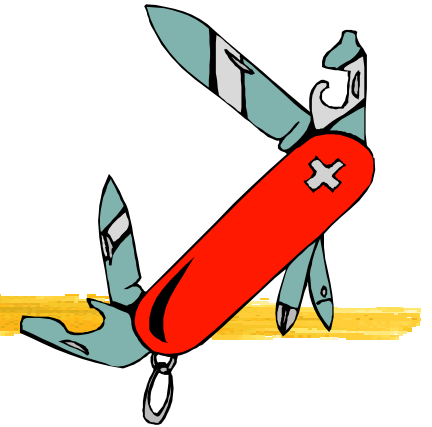
# PDS 8.5 LISTF



```
CMD ----- List files ----- Row 1 to 17 of 59
COMMAND ==>                                SCROLL ==> CSR
Enter an ISPF command or a special control code:
LV Listv      7 Output table    9 Swap panels    0 Options
ML Memlist    8 View log        F Find          X Above/Below/All
-----
CMD  C V DATA/MSG DO RECFM LRECL BLKSI VOLUME -----DATA SET NAME ---
- Y          HF U      0      0 LSMS02 OMVS.DEV.NFS
- Y          HF U      0      0 LSMS03 OMVS.DEV.UCD-SNMP.NFS
- Y          HF U      0      0 LSMS01 OMVS.S390R4.DCEASHFS.USR
- Y          HF U      0      0 LSMS01 OMVS.S390R4.DFSHFS.GLOBAL
- Y          HF U      0      0 LSMS01 OMVS.S390R4.DFSHFS.LOCAL
- Y          HF U      0      0 LSMS01 OMVS.S390R4.ECN.ECN
- Y          HF U      0      0 LSMS01 OMVS.S390R4.EPH.EPH
- Y          HF U      0      0 LSMS01 OMVS.S390R4.HFS.DCEBASE
```

**PDS 8.5 is one of the most frequently recommended free tools on IBM-MAIN**

# PDS 8.5 Old but still Hip!

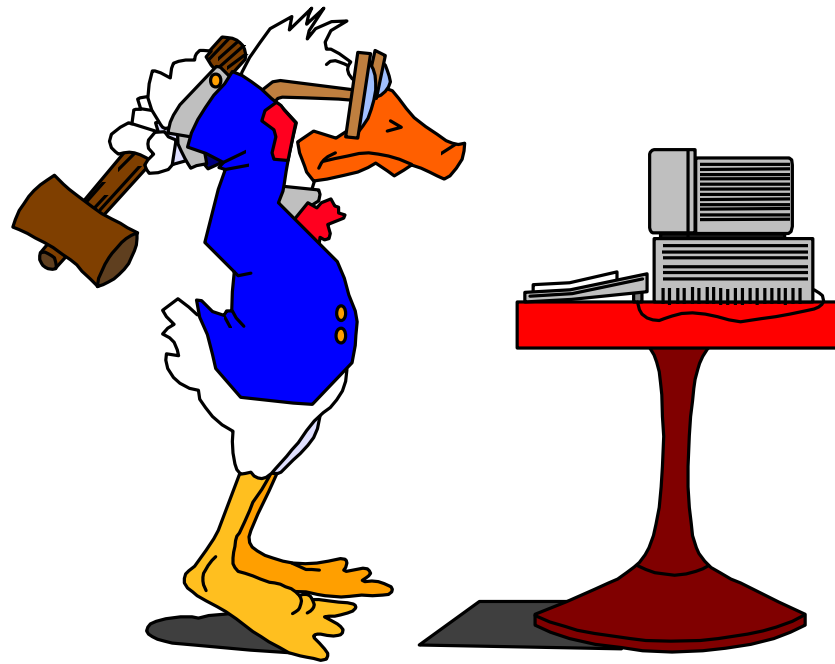


- PDS100I PDS -- VERSION 8.5.23
  - A “good” prompt/initialization message from a user interface perspective

UPDATE 23 included

- AMODE64 support in several areas
- bypass RESERVE for COPY to output LOAD LIBRARY PDSE
- ADDED NRETRIEV and REFLIST LOGIC in several areas
- CONTROL: MODS DISPLAYS THE MOST RECENT PDS MODIFICATIONS
- VIEW: Subcommand to invoke ISPF VIEW. The VIEW log command is now called SHOW. "V" is the short form of VIEW and "VE" is the short form of VERIFY. (#22)
- Added %PDSE Rexx exec to simulate a MEMLIST for a PDSE. Invoke PDS on your PDSE dataset. Suspend ISPF. Invoke Rexx exec "%PDSE DSN PATTERN". After returning to ISPF, enter \* or MEMLIST \* to display the members in the MEMLIST function. (#22)

# My mainframe is dead



The emergencies you train for almost never happen. It's the one you can't train for that kills you.  
- Ernest K. Gann, advice from the 'old pelican'

# My mainframe is dead



Unplanned outages will occur but you can plan on how to react!

- Conduct Postmortem a.k.a. Nameless Rankless Debrief a.k.a. Root Cause Analysis
- Do you have a post crash Standard Operating Procedure (SOP) ?
- Examples
  - WAIT state 03C AUX Storage Full
  - Corrupted ROOT HFS
  - Storage Overlay

# My mainframe is dead



18:38:13.48 \*IRA200E AUXILIARY STORAGE SHORTAGE

IRA204E 00% AUXILIARY STORAGE ALLOCATED TO DB2RDBM1  
IRA204E 54% AUXILIARY STORAGE ALLOCATED TO DSS37ZQ0  
IRA204E 04% AUXILIARY STORAGE ALLOCATED TO DB2PDBM1  
IRA204E 03% AUXILIARY STORAGE ALLOCATED TO OMVS

18:41:45.55 \*IRA201E CRITICAL AUXILIARY STORAGE SHORTAGE

IRA200E occurs at 70% utilization of page space.  
IRA201E occurs at 85% utilization of page space.  
These thresholds cannot be adjusted by customers.

**WAIT03C** results when MVS cannot continue



# My mainframe is dead



IRA204E 54% AUXILIARY STORAGE ALLOCATED TO DSS37ZQ0

DSNUTILB EXEC

PGM=DSNUTILB,PARM='DB2P,RPCBBPAD',REGION=0M

. . . The work data sets were defined similar to this

/\*

//DATAWK01 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//DATAWK02 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//DATAWK03 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//DATAWK04 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

/\*

//SORTWK01 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//SORTWK02 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//SORTWK03 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

//SORTWK04 DD SPACE=(CYL,(500,200),RLSE),UNIT=VIO

/\*

# My mainframe is dead



An example taken from System-Managed Storage Migration Planning Guide Document Number GG24-1606 of *implementing a VIO storage group*.

Storage Group Name . . VIOMAX

Storage Group Type . . VIO

Description ==> VIO DATA SETS ARE MANAGED IN MEMORY AND THE  
PAGING SYSTEM

==> LARGE DATA SETS WILL BE DISALLOWED FROM VIO BY  
MAXSIZE

VIO Maxsize . . 0005000 (8 to 2000000)

VIO Unit . . . 3390 (DEVICE TYPE)

Almost a full dozen action items followed root cause including updates to site SFM Policy, Standalone dump configuration and procedures.

# My mainframe is dead again



- Very poor I/O performance noticed during an IMS 8 upgrade event
- Escalated as it becomes clear all I/O on z990 is degraded
- IMS 8 upgrade canceled and systems IPLed
- IPL does not complete
- This reads like a hardware problem RMF, Monitors, operator display commands show nothing useful IBM check CEC and DASD remote indicates no trouble

# My mainframe is dead again



Unplanned Power On Reset performed at the direction of senior IT management which resolves the problem?

Why? Test z/VM crashed entered WAIT STATE much earlier not noticed due to low system activity.

WSC WP100447 (see Flash for complete advice)

- Know the state of your LPARs
- IBM has indicated accepted as defect to engineering for FICON microcode correction no MCL yet

[ibm.com/support/techdocs](http://ibm.com/support/techdocs)

IBM®

Flash



# My mainframe is dead yet again



Unplanned EPO when building engineer incorrectly sets “test” switch for UPS bypass test.

Entire raised floor including UNIX, MVS, DASD, CPUs, and all auxiliary equipment deprived of line power simultaneously

- IBM response outstanding! 5 CE(s) onsite within 45 minutes
- Root cause focused on reduced impact cause is obvious
- Participation in shared change control procedures
- Power-up procedures for every piece of equipment jointly developed with IBM
- Escalation procedures documentation enhanced
- Roles and responsibilities clearly defined customer powers up equipment covers on as opening covers and risking electrocution is job only for qualified IBM CE or Star Trek security personnel



JOIN THE

**RED SHIRT SOCIETY**

**TODAY**

# Plan. Brief. Execute. Debrief.WIN!

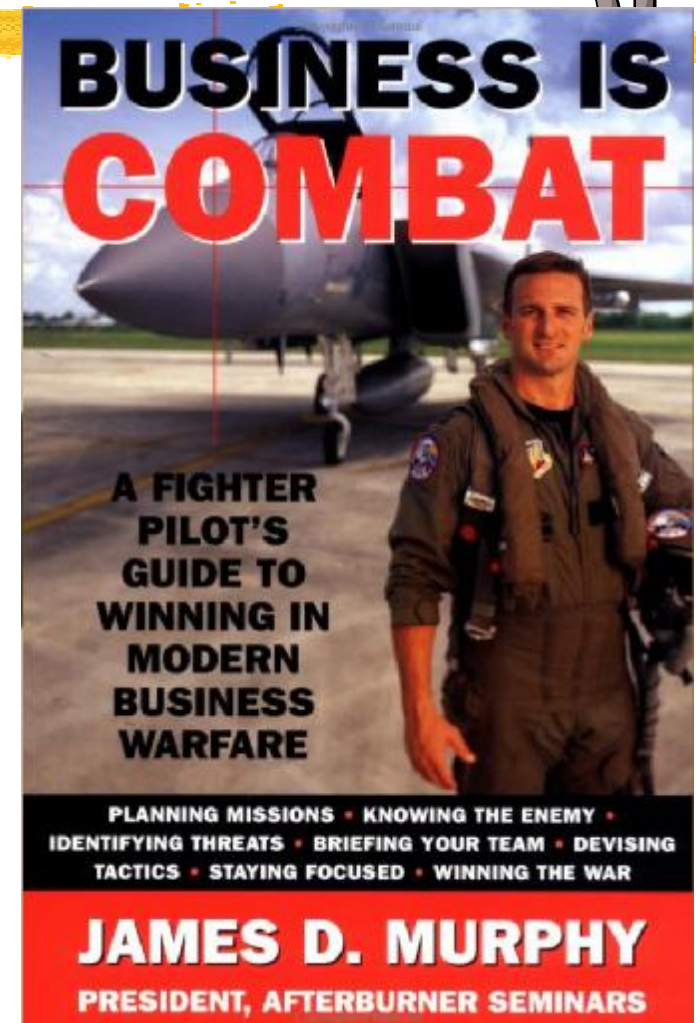


Business is Combat  
James D. Murphy  
ISBN: 0060988290

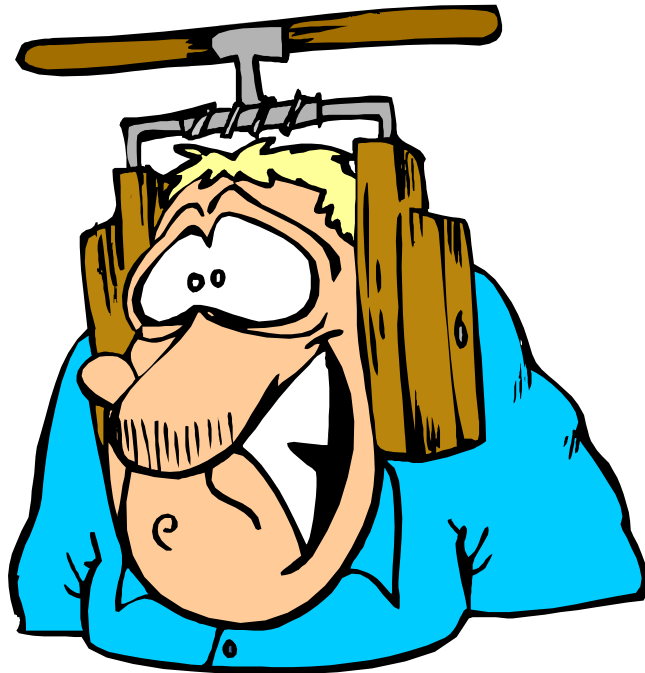
- Keynote at SHARE in Long Beach
- Really useful

Free DVD and more

<http://www.afterburnerseminars.com>



# Recovery Tools



IBM Hot-Topics Issue 7  
“Outage number five:  
No back-up system”

“In peace prepare for war, in war prepare for peace. The art of war is of vital importance to the state. It is a matter of life and death, a road to safety or to ruin. Hence under no circumstances can it be neglected. . . .” Sun Tzu

# ZZSA

## Standalone Utilities from Jan Jaeger



IPL from tape, disk, card reader,  
CD-ROM, or VM saved system

Free, Fast, **OCO**

<http://www.cbttape.org/~jjaeger>

***CBT CD-ROM boots to ZZSA  
in HMC using Load  
from CD-ROM***

- Sense and list all devices in the IOCDs or assigned to the logical partition IPL-ed with this program
- Browse MVS sequential dataset or PDS member
- Edit MVS sequential dataset or PDS member (inplace update only)
- List VTOC of a DASD volume
- List PDS directory
- Display DASD volume serial
- Dump any DASD record
- Alter any DASD record





# ZZSA How to IPL CD-ROM

HMC1: Hardware Management Console Workplace (Version 1.7.3)

**Single Object Operations Task Confirmation**

About to establish a session with a single CPC console.  
Do you want to continue with this task?

Object names

P44021

Yes No Help

CPC Recovery

- Hardware Messages
- Operating System Messages
- Single Object Operations
- Start
- Stop
- Reset Normal
- PSW Restart
- Reset Clear

Use Single Object Operations from CPC Recovery for the processor that has the LPAR you want to IPL

# ZZSA How to IPL CD-ROM



Desktop On-Call - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address <http://172.22.9.42/cgi-bin/dtoc/dtocctrl?control> Go Links

Google console Load from CD-ROM Search Web Search Site PageRank Page Info Up Highlight Hardware Management Console Load

### Images Work Area

CFP1	EDUC (DEVL52:EDUC)	ESHP	PROD (DEVL52:PROD)
SYSA (DEVL52:SYSA)	SYSB (DEVL52:SYSB)	SYSC (DEVL52:SYSC)	
SYSD (DEVL52:SYSD)	VM (ZVMV4R10)		

- Stop all
- Reset Normal
- Reset Clear
- Load
- Power-on Reset
- Load from CD-ROM or Server
- Help

Display details by double-clicking, start a task by dragging. Use right-mouse button to show CPs or CHPIDs.

Ctrl Alt Ins

# ZZSA pwd is ZZSECRET



ZZSAPSWD

Stand Alone Utilities

Enter Password:

==> \_

Jan Jaeger - Version 12/07/98-12.15

# ZZSA Stand Alone Utilities



ZZSAPRIM

Stand Alone Utilities

Option ==> \_

0 ListDev - List all devices

1 Browse - Browse dataset or member

2 Edit - Edit dataset or member

3 ListVTOC - List Volume Table Of Contents

4 ListPDS - List PDS directory

5 DispVol - Display DASD volume label

6 Dump - Dump DASD record by CCHHR

7 Zap - Alter DASD record by CCHHR

X Exit - Terminate program

Console 0010/3278

IPL Device 000D/3505

IPL CPU 0000

CPU Version 00

CPU Serial 000611

CPU Model 3090

Date (TOD) 19/08/2002

Time (TOD) 21:38:46

Jan Jaeger - Version 12/07/98-12.15



# ZZSA sense all devices

```
ZZSABROW Device List
Command ==> _
Line 0000 Col 0001
***** Top of Data *****
SCH=0000 DEV=000D CHP=00 C/T=2821-01 D/T=3505-01
SCH=0001 DEV=030E CHP=03 C/T=2821-01 D/T=1403-01
SCH=0002 DEV=0010 CHP=00 C/T=3274-1D D/T=3278-02
SCH=0003 DEV=0131 CHP=01 C/T=2841
SCH=0004 DEV=0132 CHP=01 C/T=2841
SCH=0005 DEV=0133 CHP=01 C/T=2841
SCH=0006 DEV=0134 CHP=01 C/T=2841
SCH=0007 DEV=0135 CHP=01 C/T=2841
SCH=0008 DEV=0136 CHP=01 C/T=2841
SCH=0009 DEV=0140 CHP=01 C/T=3830-02 D/T=3350
SCH=000A DEV=0148 CHP=01 C/T=3830-02 D/T=3350
SCH=000B DEV=0152 CHP=01 C/T=3830-02 D/T=3330-01 VOL=HASPO0
SCH=000C DEV=0160 CHP=01 C/T=3830-02 D/T=3340
SCH=000D DEV=0161 CHP=01 C/T=3830-02 D/T=3340
SCH=000E DEV=0170 CHP=01 C/T=3880-03 D/T=3375-02 VOL=WORK01
SCH=000F DEV=0180 CHP=01 C/T=3880-03 D/T=3380-02 VOL=WORK02
SCH=0010 DEV=0190 CHP=01 C/T=3990-C2 D/T=3390-02 VOL=WORK03
SCH=0011 DEV=0191 CHP=01 C/T=3990-C2 D/T=3390-02 VOL=MVSCAT
SCH=0012 DEV=0240 CHP=02 C/T=3830-02 D/T=3350
SCH=0013 DEV=0248 CHP=02 C/T=3830-02 D/T=3350
F3=End F5=RFind F7=Up F8=Down F10=Left F11=Right
```

Once you have done this you can refer to volumes by VOLSER

# ZZSA Edit



Z: Copy selected text to clipboard SYS1.PARMLIB (IEASYS00)

Command ==> \_

Line 0000 Col 0001

\*\*\*\*\* Top of Data \*\*\*\*\*

```
HARDCPY= (SYSLOG, ALL, NOCMDS),           00003020
WTOBFRS=100,                               00003030
CVIO,                                       00003040
CSA=400,                                    00003050
MAXUSER=20,                                 00003060
PAGE= (SYS1. STARTER. PAGE. SPACE1, SYS1. STARTER. PAGE. SPACE2, *00003070
      SYS1. STARTER. PAGE. SPACE3)         00003080
```

\*\*\*\*\* Bottom of Data \*\*\*\*\*

F2=Save F3=End

F5=RFind

F7=Up F8=Down

F10=Left F11=Right

# Resurrection System



IBM recommends in Hot Topics Issue 7 that

For emergency recovery capabilities, it is recommended that every installation have a small isolated “Get-Well” system to help in situations of finger checks or corrupted shared system data sets.

***IBM does not tell you how to build one of these  
IBM does not supply by default a starter system  
although one can be ordered with ServerPac and other  
offerings***

# Resurrection System



Who tells you how? Other systems programmers!

- David Alcock Dave's MVS Tips at <http://www.planetmvs.com>  
JCL and instructions
- Thierry Falissard CBT Tape File 432 provides his JCL for a one pack "Rescue system", called MINISYST. Also on his web site <http://os390-mvs.hypermart.net/minisys.htm>
- Mark Zeldan <http://home.flash.net/~mzelden/mvsutil.html>  
ONEPAKZ3 and TWOPAKZ3 in CBT Tape File 434
- Kevin Mitts CBT Tape FILE 657: z/OS 1.4 RESCUE system build

**A**



# Standalone Restore



FDR and DFSMSDss provide stand-alone restore tools

Do you have a copy ready to run?

Have you practiced with it?

Does the current version you installed work?

- FDR install tape can be IPLed.
- multiple LOAD commands required to bypass SL
- FDRSARLR utility can prepare tape or disk to IPL SAR
- DFSMSDss BUILDSEA command builds IPL text for tape, disk, or card reader

# Other things to try



- TSSO to run SUB=MSTR with freeware PDS
- LOGON PROC with no datasets to reach TSO READY quickly when trouble strikes (\$RESCUE)
- LOGON PROC with only IBM vanilla ISPF (\$IBMISPF)
- TSO to LOGON under MSTR without JES using Ed Jaffe's CBT Tape File 377
- FTP
- RPF by Ron Prins CBT Tape File 415 & 417 RPF/E

*You need to be prepared with what David Elder-Vass called in his excellent book on systems programming 'belt and braces'.*

# Avoid the outage with Health Checker



30 minute project!

Free, Fast, IBM

IBM Health Checker for z/OS and Sysplex **V3.01 (October 2003)**

Download from IBM

Upload to MVS and RECEIVE

APF load library and allocate a single data set

Optionally customize and execute the Health Checker!

<http://www.ibm.com/servers/eserver/zseries/zos/downloads/>

# Belt and braces



Source: <http://c2.com/cgi/wiki?BeltAndBraces>

'Belt and Braces' is a Britishism.

In the USA Braces hold your teeth in place as you grow up and suspenders hold up your pants.

In the UK braces hold your trousers up - just like your belt does. (Pants are under your trousers, suspenders hold up ladies stockings.)

So 'belt and braces' is a British term for pessimistic planning. It describes a design or plan that has several ready made alternate parts and if any one of them works then the whole works as well.

# Passwords



- Strong nee obscure Passwords can be troublesome
- Too many passwords can be difficult for users to remember
- Forced frequent changes may Increase risk of unsafe behavior
- Password files include the MVS RACF database vulnerable to Password cracking tools

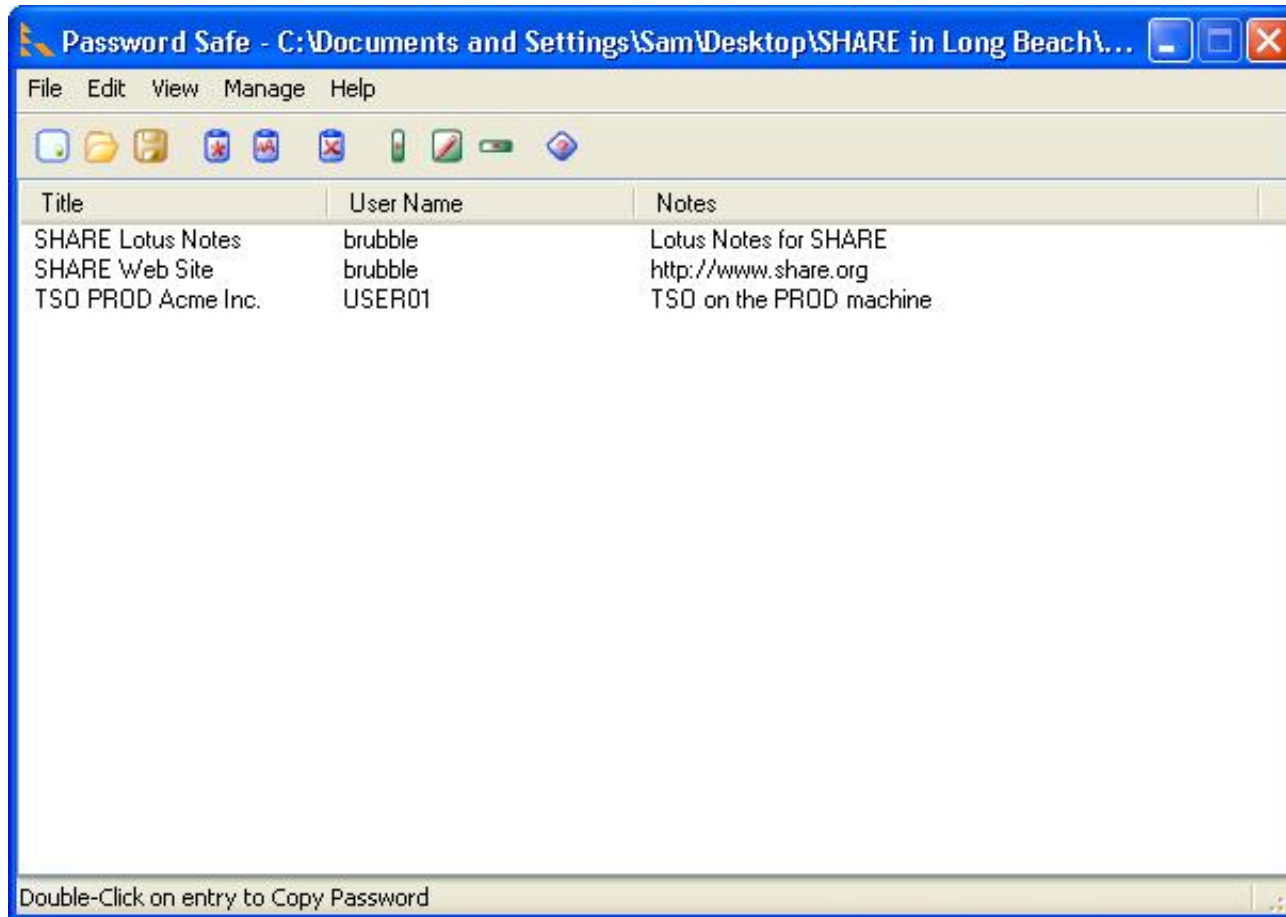
A survery commissioned by Rainbow Technologies found 2/3 of respondents admitted they had written down their passwords, and 8 percent said they always wrote them down “because they are too complicated to remember”.

*Subscribe to Information  
Security magazine  
[www.infosecuritymag.com](http://www.infosecuritymag.com)  
it doesn't stink....*

*UPDATED: Acquired by  
Tech Target hopefully the  
past quality will continue*

**Don't write your password on this!**

# Password Safe



- Free
- Open Source
- Blowfish Algorithm
- Windows, Pocket PC, more to follow
- New Release 2.0!
  - Export!
  - Tree View
  - Open URL in Notes
  - Looks Cool!
  - Improved Help

<http://passwordsafe.sourceforge.net/>

# Security



## CRYPTO-GRAM Newsletter by Bruce Schneier

- <http://www.counterpane.com/crypto-gram.html>
- Free, security and cryptography news and reviews LOTS of FUD busting!

Use Tools like the bad  
guys...



[metasploit.com](http://metasploit.com)

<http://blackhat.com>

- multimedia archives free of charge as a service to the world wide computer security community

# PC Tools for Dinosaurs



A personal computer is a necessary evil for most of us. A few good tools can help make it more useful.

If you say Java again I'm going to puke.

-Dave Winer



# V – The File Viewer



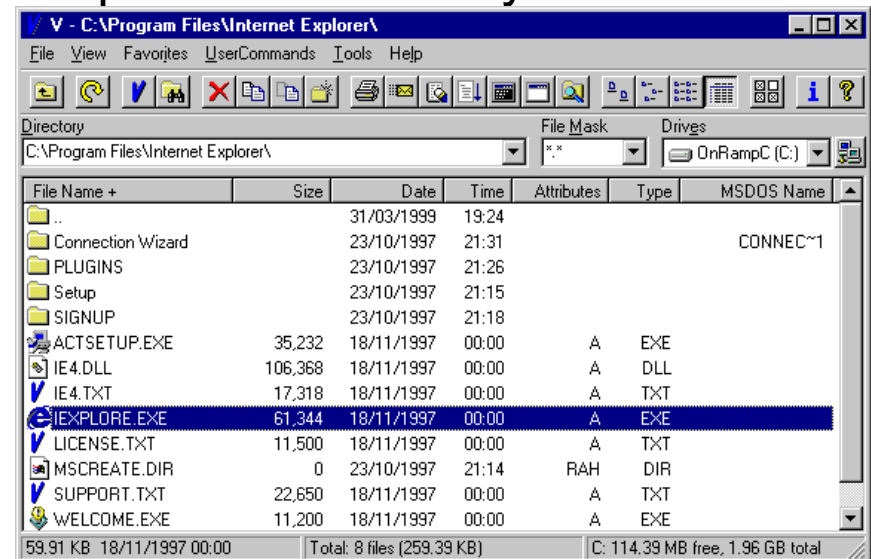
V is a combination File Viewer, Directory Browser, File Finder and File UnZipper for Windows 95/98/Me/XP and Windows NT/2000.

- Open from DOS “V Filename”, or Explorer
- similar in functionality to LIST - the classic DOS program
- Fast!
- Support for EBCDIC improved with the current Beta
- Inexpensive but not free \$20 with 5 year/7 year renewal upgrades included
- SHAREWARE allows free evaluation of full product for 60 days
- Author of V Charles Prineas

has been very responsive

- Ruler and Line numbers
- Handles large files I mean LARGE!
- Extract from archive files
- HEX support
- Read Only optionally do not lock file

<http://www.fileviewer.com>



# V – The File Viewer

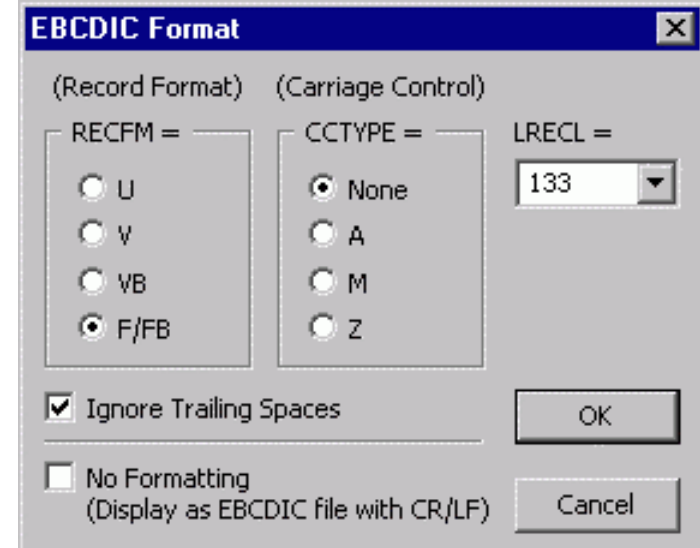
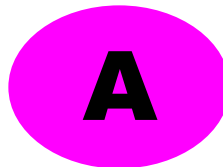


## EBCDIC Support

- V Version 7 tries to auto-detect whether a file is ASCII or EBCDIC
- V will try to determine the format of the EBCDIC file. It will usually get the format right for RECFM=V/VB files and some RECFM=F/FB files.
- Carriage Control is supported

## More Features

- Rulers
- Work with Columns
- Grid Lines
- Chase the files tail



Look in /V directory on CD for latest version



	0	10	20	30	40	50	60	70	80	90	100	110
	123456789	123456789	123456789	123456789	123456789	123456789	123456789	123456789	123456789	123456789	123456789	1234567

```

1: 1 J E S 2 J O B L O G -- S Y S T E M E S Y S -- N O D E F F A 1
2: 0
3: 19.08.27 JOB03321 ---- MONDAY, 14 JUL 2003 ----
4: 19.08.27 JOB03321 IRR010I USERID FFI IS ASSIGNED TO THIS JOB.
5: 19.08.30 JOB03321 ICH70J01I FFI LAST ACCESS AT 19:07:45 ON MONDAY, JULY 14, 2003
6: 19.08.30 JOB03321 $HASP373 PAPA0 STARTED - INIT 31 - CLASS 5 - SYS ASYS
7: 19.08.30 JOB03321 PAPA0 STARTED, TIME=19.08.30, DATE=2003.195 ASYS
8: 19.08.31 JOB03321 *** STEP001 ENCPARM *** RETURN CODE 0000 *** PGM=IEBGENER JOB=PAPA0
9: 19.08.32 JOB03321 *** STEP002 ESPRMDD *** RETURN CODE 0000 *** PGM=ESPPRMDD JOB=PAPA0
10: 19.08.35 JOB03321 *** STEP003 CYBENCOR *** RETURN CODE 0000 *** PGM=CYBRM210 JOB=PAPA0
11: 19.08.38 JOB03321 *** STEP004 PAPDO100 *** RETURN CODE 0004 *** PGM=UTYPSYM JOB=PAPA0
12: 19.08.39 JOB03321 *** STEP005 PAPDO105 *** RETURN CODE 0004 *** PGM=UTYPSYM JOB=PAPA0
13: 19.08.39 JOB03321 IEF233A M 0862,PRIVAT,SL,PAPA0,PAPDO110,PAPE.0110,A09G301
14: 19.08.40 JOB03321 IEC706I DENSITY IGNORED 0862,SYSUT2,SL,,COMP,PAPA0,PAPDO110,PAPBO1,PAPE.0110,A09G301
15: 19.08.41 JOB03321 IEC705I TAPE ON 0862,K49480,SL,NOCOMP,PAPA0,PAPDO110,PAPBO1,PAPE.0110,A09G301
16: 19.08.42 JOB03321 T00102I Unit 0862 volume K49480 job PAPA0 dsn PAPE.0110.A09G301
17: 19.08.42 JOB03321 T00107I Tape recording technique will be changed from IDRC to normal, unit 0862 volume K49480
18: 19.08.42 JOB03321 T00191E VOLUME K49480 record not written. Enque was stolen by PAPA0 on 07/14/2003 19:08:42
19: 19.08.42 JOB03321 T00229I Code path flags: FE1A0600 B0150000 60F010B400 special PTFs: NNNNNN
20: 19.08.45 JOB03321 $HASP375 PAPA0 ESTIMATED LINES EXCEEDED
21: 19.08.49 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 10,000 LINES
22: 19.08.52 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 20,000 LINES
23: 19.08.56 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 30,000 LINES
24: 19.08.59 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 40,000 LINES
25: 19.09.02 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 50,000 LINES
26: 19.09.05 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 60,000 LINES
27: 19.09.07 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 70,000 LINES
28: 19.09.11 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 80,000 LINES
29: 19.09.14 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 90,000 LINES
30: 19.09.17 JOB03321 $HASP375 PAPA0 ESTIMATE EXCEEDED BY 100,000 LINES
31: 19.09.18 JOB03321 IEA995I SYMPTOM DUMP OUTPUT
32: SYSTEM COMPLETION CODE=2FF REASON CODE=00000022
33: TIME=19.08.42 SEQ=08085 CPU=0000 ASID=005C
34: PSW AT TIME OF ERROR 070C1000 958961DC ILC 2 INTC 0D
35: NO ACTIVE MODULE FOUND
36: NAME=UNKNOWN
37: DATA AT PSW 158961D6 - 00181610 0A0DD52B 6002905C
38: GR 0: 04000000 1: 042FF000
39: 2: 00000022 3: 95899A78
40: 4: 106999D0 5: 0007EEC8
41: 6: 7F769920 7: 7F73F818
42: 8: 7F76A608 9: 009C45CC
43: A: 00C0CD10 B: 15898F90
44: C: 15895370 D: 009C5710
45: E: 80C33728 F: 00000022
46: END OF SYMPTOM DUMP

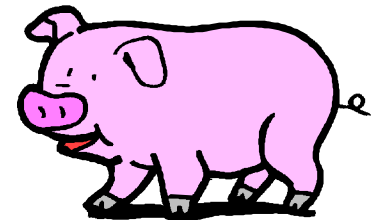
```

# IBM Softcopy Reader



- The recent releases (current 3.5) no longer require the Sun Java Runtime Environment (JRE). This release has been repackaged to link the Java Runtime functions with the Softcopy Reader code, building it into a Windows executable instead of a .jar file. This eliminates the Softcopy Reader prerequisite for the JRE on the client machine. ***If you have problems check your video card drivers!***

- Get the 40 MB Download here:  
<http://www.ibm.com/software/office/bkmgr/softcopyread.html>



- The new release shows a significant improvement in runtime performance. New! Improved! Faster! Less Warts!

**Don't Ignore Softcopy Reader's half brother Softcopy Librarian V4  
which also got a makeover**

**<http://publib.boulder.ibm.com/epubs/df/ebrsclwj.exe>**

# Seagull FTP



Seagull FTP is a mainframe friendly Windows FTP client from SEAGULL Software which is *free for personal or commercial use*.

You may bypass registration if you choose and it does not expire. You may register your email address to get a key to get rid of the registration splash screen.

You can purchase a SSL enabled version from SEAGULL

## MVS Features

- MVS list formats

## VM Features

- BFS support
- SFS support
- Minidisk support



# Seagull FTP



BlueZone FTP - T1

File Edit Session Transfer Commands View Help

MVS PROD

C:\TEMP

Name	Size	Date	Type
..			

'CSSJK.UTIL.CNTL'

Name	WV.MM	Date	Size	Init	Mod	Id
..						
\$\$\$\$1111	01.01	1995/07/02 17:06	601	606	0	U35T07
\$\$\$\$MSG	01.00	1994/01/11 12:47	111	111	0	U35T07
\$\$HLIST	01.46	1992/06/18 10:41	61	56	0	U35T07
\$APADD	01.00	1997/01/15 18:12	35	35	0	CSSJK
\$APINIT	01.01	1997/01/15 16:45	54	53	0	CSSJK
\$APUTIL	01.02	1999/07/27 09:10	14	13	0	CSSJK
\$AVRBKPR	01.02	1991/10/10 08:57	46	35	14	U35T07
\$AVRBKUP	01.00	1991/09/18 22:16	18	18	0	U35T07
\$AVRDBRP	01.00	1991/10/24 10:20	19	19	0	U35T07
\$AVREORG	01.05	1994/12/14 05:43	47	40	0	U35T07
\$AVRFLV	01.00	1991/10/07 01:00	770	770	0	U35T07

230 CSSJK is logged on. Working directory is "CSSJK."  
SYST  
215 MVS is the operating system of this server. FTP Server is the C-server running on OE.

T1 Connected MVS PROD 172.22.2.74 Binary

Download current release from SEAGULL Software

<http://www.seagullsw.com/> and it's on CBT CD!

**A**

# Filezilla FTP



FileZilla is a fast FTP client for Windows with a lot of features available as GPL (free distribution source and binary) software.

<http://filezilla.sourceforge.net/>

The latest release is 2.2.11 February 20<sup>th</sup>, 2005

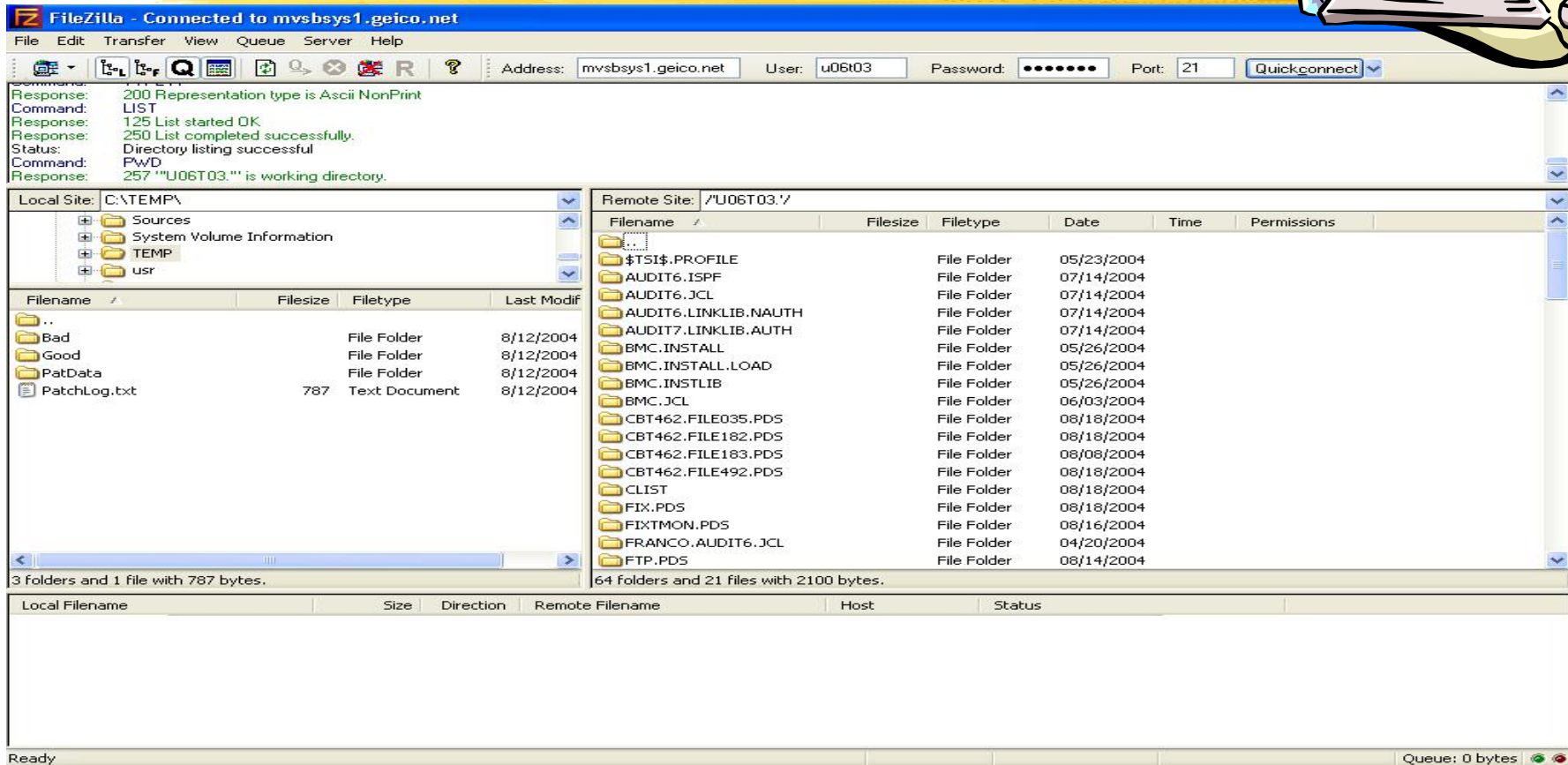
- Security Updates
- MVS Support works

You should download the latest release from the project page. The previous 2.2.x releases had several bugs with MVS support.

Watch this tool! It is FREE as in BEER and as in SOURCE == SPEECH



# Filezilla FTP



FileZilla is a fast FTP client for Windows with a lot of features available as GPL (free distribution source and binary) software.

<http://filezilla.sourceforge.net/> or on CD /FilezillaFTP

**A**



# Xmit Manager



## What is Xmit Manager?

Xmit Manager is a Free Windows based utility which decodes IBM Mainframe based Xmit files and allows for viewing or extraction of the content data.

Supports PDS, SEQ content, FTP to MVS or Internet, Zipped files. Written by Neal Johnston-Ward

It is on the CBT CD & Web Site too!

Xmit Manager Home Page (on hiatus)

<http://www.data-aid.co.uk>

**A**

# Xmit Manager



Xmit Manager v3  
File Edit Xmit Options View Help

Open Extract View JCL Ftp2les Options Help About

transfer info	message	Member	Alias?	Created	Modified	User ID	Version
xmit file	xmit content	\$\$\$\$\$\$\$		24/11/1997	24/11/1997 07:38	TRIDJK	1-0
		\$\$\$\$READ					
		\$\$\$#DATE		10/01/2003	10/01/2003 10:44	CBT-456	4-56

Size: 7.436 k  
Created: 31/01/2003  
Content files: 1  
File name: FILE182.XMI

\$\$\$MODS

File Edit

PDS VERSION 8.5 MODS

-----

NEW SUBCOMMANDS

NONE

CHANGES AND IMPROVEMENTS

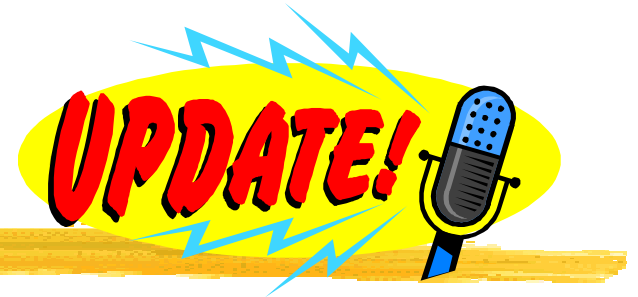
1. YEAR 2000 SUPPORT IN MEMLIST, IF, ATTRIB, HISTORY, LISTC, AND TIME SUBCOMMANDS.
2. ADDED MEMBER PDSJCLHL TO ASSEMBLE PDS WITH THE HIGH LEVEL ASSEMBLER.
3. INCORPORATED GREG PRICE'S MODS (FILE 134) TO #PDSTBL AND @PRINTO SO REVIEW : AND PRINTOFF : PROCESS THE WHOLE DATA SET ONCE, RATHER THAN EACH MEMBER INDIVIDUALLY.
4. ADDED PANEL P85@CUA AS AN ALTERNATIVE TO THE P85PN@P PRIMARY PDS PANEL. ADDED CUA CODE UTILIZING ISPF VERSION 4.X REFERENCE LISTS ON THE ACTION BAR. ADDED PANEL

Data read ok. Size: 49760 bytes

\$WORKBH	27/01/1998	27/01/1998 11:01	TRIDJK	1-3
#MDSECT	24/02/2001	17/12/2002 15:19	TRIDJK	1-35
#PDSGEN	10/01/1992	30/07/2002 08:08	TRIDJK	1-35
#PDSGENB	09/01/1992	13/12/2002 13:55	TRIDJK	1-54
#PDSGENH	19/08/2002	11/10/2002 09:25	TRIDJK	1-1
#PDSGENI	19/08/2002	11/10/2002 09:25	TRIDJK	1-1
#PDSGENU	21/08/2002	19/12/2002 14:28	TRIDJK	1-99
#PDSGENZ	21/08/2002	19/12/2002 14:28	TRIDJK	1-99
#PDSMODS	19/06/2000	29/01/2003 11:12	TRIDJK	1-99
#PDSTBL	27/12/1989	31/07/2002 11:56	TRIDJK	1-5
#PDSTBLA				

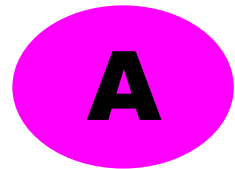
1 Selected. FILE182.XMI C:\DOCUME~2\Sam\LOCALS~1\Temp\Rar\$DI00.210

# PDS Magician!



Patrick Allmond's freeware utility allows you to examine the contents of a TSO/E XMIT file on your Windows PC.

- Source released to CBTTAPE.ORG very recently!
- Written in Visual Basic
- Executable on `cd /pdsmagician`
- Watch this space!
- Volunteers to develop further?



You may also be interested in David Alcock's "UnXMIT Information Page" at

<http://www.planetmvs.com/UnXMIT/index.html>



# Ftp2Jes



## What is Ftp2Jes?

- Ftp2Jes is a Free Windows based utility which provides a GUI interface to submit jobs and view the output using FTP.
- Currently uses level 1 interface so jobnames are limited to userid + 1 but Neal is planning on enhancing it to use the newer, more flexible interface

Written by Neal Johnston-Ward

It is on the CBT CD & Web Site too!

<http://www.data-aid.co.uk>



**A**

# Ftp2Jes

Ftp 2 Jes

File View Host Go Help

Main  
Views

JCL  
Local Output  
Remote Spool

JCL

Jobs on spool for CSSJK on MVSPROD

Job Number	Job Name	Status	Output Files
JOB02542	CSSJKA	COMPLETED	3

Last refreshed : 8/20/2002 6:50:09 AM

Auto refresh

Refresh now

Open

Download

Delete

Jes messages for JOB02542

```
1      J E S 2  J O B  L O G  --  S Y S T E M  P R O D  --  N O D E  J E S 2  M V S
0
09.49.27 JOB02542 ---- TUESDAY, 20 AUG 2002 ----
09.49.27 JOB02542 IRR010I USERID CSSJK IS ASSIGNED TO THIS JOB.
09.49.27 JOB02542 ICH70001I CSSJK LAST ACCESS AT 09:49:00 ON TUESDAY, AUGUST 20, 2002
09.49.27 JOB02542 $HASP373 CSSJKA STARTED - INIT 5 - CLASS A - SYS PROD
09.49.27 JOB02542 IEF403I CSSJKA - STARTED - TIME=09.49.27
09.49.27 JOB02542 -
09.49.27 JOB02542 -JOBNAME STEPNAME PROCSTEP RC EXCP CONN --TIMINGS (MINS.)--
09.49.27 JOB02542 -CSSJKA JS001 00 0 0 .00 .00 .0 177 1 0 0
09.49.27 JOB02542 IEF404I CSSJKA - ENDED - TIME=09.49.27
09.49.27 JOB02542 -CSSJKA ENDED. NAME=IEFBR14.SAM.KNUTSON TOTAL TCB CPU TIME= .00 TOTAL ELAPSED TIME=
09.49.28 JOB02542 $HASP395 CSSJKA ENDED
0----- JES2 JOB STATISTICS -----
- 20 AUG 2002 JOB EXECUTION DATE
- 7 CARDS READ
- 38 SYSOUT PRINT RECORDS
- 0 SYSOUT PUNCH RECORDS
- 2 SYSOUT SPOOL KBYTES
- 0.00 MINUTES EXECUTION TIME
```

# AWS File Browser



Rob Story wrote a nice Windows utility to browse the contents of an AWSTAPE file. This is handy freeware to manage your virtual tape library.

- Delphi Source Included
- Public Domain
- Download from <http://www.cbttape.org/awstape.htm>

**A**

A screenshot of the 'AWS File Browser' application window. The title bar reads 'AWS File Browser - C:\Knutson\AWS Browser\GSCTSU.AWS'. The menu bar contains 'Exit', 'Open', and 'Help/About'. The main window is divided into two panes. The left pane shows a list of records with columns for offset, record type, and size. The right pane shows the hex and ASCII content of the selected record.

Offset	Record Type	Size	Hex	ASCII
0	Full Record	Size=80	0000 E3C8C9E2 40C6C9D3 C540C8C1 E240C4C3	THIS FILE HAS DC
86	Full Record	Size=80	0010 C240C1E3 E3D9C9C2 E4E3C5E2 40D6C640	B ATTRIBUTES OF
172	Full Record	Size=80	0020 4DD9C5C3 C6D47EC6 6BD3D9C5 C3D37EF8	(RECFM=F.LRECL=8
258	Full Record	Size=80	0030 F06BC2D3 D2E2C9E9 C57EF8F0 5D404040	0.BLKSIZE=80)
344	Full Record	Size=80	0040 40404040 40404040 40404040 40404040	
430	Full Record	Size=80		
516	Full Record	Size=80		
602	Full Record	Size=80		
688	Full Record	Size=80		
774	Full Record	Size=80		
860	Full Record	Size=80		
946	Full Record	Size=80		
1032	Full Record	Size=80		
1118	Full Record	Size=80		

# AWS/HET File Browser

Updated AWS browser by “Fish” David Trout



- Download from <http://www.softdevlabs.com/Hercules/hercgui-index.html> and on CD \Volker\hercules\wingui
- Significantly faster than existing awsbrows.exe
- More functional and user-friendly user-interface (in my opinion anyway)
- Supports both .aws and .het files (including spanned block files)
- Supports both ZLIB and BZIP2 compressed het file formats (DLLs included)
- User configurable hex display (font and layout)
- Hex/text search capability (find whatever data you're looking for)
- Displays both EBCDIC or ASCII
- Ditto-like toolbar buttons for quick positioning to next/previous block/file
- Clipboard support for hex/text/binary data (hex data copied from AWSBrowse can be pasted into Visual Studio's binary file editor)
- Printing and Print Preview support (but only for single selected blocks)
- This is a must-have utility for anyone that deals with lots of .aws/.het files.
- Complete Visual C++ source code available upon request.

**A**



# Quick Picks PC Tools



## VNC - Virtual Network Computing

- Free remote control software
- <http://www.realvnc.com/> 4.1 released today!



## LDAP Browser/Editor

- User-friendly Windows Explorer-like interface to LDAP directories with tightly integrated browsing and editing capabilities. It is entirely written in Java
- Often recommend on MVS-OE list
- <http://www-unix.mcs.anl.gov/~gawor/ldap/>

## Where to find other Windows tools

- <http://www.tinyapps.org> “Small is beautiful”
- <http://www.nonags.com> “no disabled features, nags, time limits”



# Quick Picks PC Tools



**THE - The Hessling Editor**      <http://www.lightlink.com/hessling/>

- XEDIT like with more ISPF features being added
- Open Source, Freeware

**UltraEdit**    <http://www.ultraedit.com>

- shareware (you must register and pay \$35 after 45 day trial period)
- Best Windows editor I have found

**Other TN3270 clients (shareware , not Free)**

- Vista <http://www.tombrennansoftware.com>
- QWS3270 Plus <http://www.jollygiant.com/>
- TN3270 Plus SDI <http://sdisw.com.au/>

# Anything but Windows



## Why?

- Network Tools, Professional Growth, Power User CLI, just for fun

## UNIX Tools on Windows

- **Cygwin (GNU)** Easy way to get started <http://www.cygwin.com/>
- **Windows Services for UNIX 3.5** <http://www.microsoft.com/windows/sfu/>

## Linux

- IBM resources <http://www.ibm.com/linux>
- Information Centralized <http://www.linuxdoc.org/>
- I often buy mine here <http://www.cheapbytes.com>



## BSD

- OpenBSD <http://www.openbsd.org>
- It's UNIX-like very UNIX-like and secure too

↑  
SFU was  
\$99 NOW  
it is  
FREE!!

# REXX Everywhere!



## IBM has Open Sourced Object REXX!

- Open Object REXX (ooREXX) is an Open Source project managed by REXX Language Association (REXXLA) providing a free implementation of Object REXX.
- Available for Windows and other platforms
- Beta version available now development to solidify GA open source release ongoing

<http://www.oorexx.org/>

# Anything but Office



## Why?

3

- \$\$\$\$\$, Platform independence,

## OpenOffice.org 1.1.3 included on TheOpenCD

- Word Processing, Spreadsheet, HTML authoring, Presentations,

- <http://www.openoffice.org/>

- Free, open source, community enhanced and supported, 37+ million downloads, 1.1.4 currently available at openoffice.org

## Star Office

- Commercial product from Sun basis of OpenOffice.org

- Standard software support available

- <http://www.sun.com/software/star/staroffice/>

# Anything but Office



Thank You Letter - OpenOffice.org 1.0.2


File Edit View Insert Format Tools Window Help

File:///C:/Documents%20and%20Settings/Sam/My%20Dc

Default Arial 14 B i U [Text Alignment Icons] A A [Color Icons]

3 2 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

MVS/SCP Project (MVSE) Project  
MVS Program



Paragraph Styles

- Complimentary close
- Default
- First line indent
- Hanging indent
- Heading
- Heading 1
- Heading 10
- Heading 2
- Heading 3
- Heading 4
- Heading 5
- Heading 6
- Heading 7
- Heading 8
- Heading 9
- List Indent
- Marginalia
- Signature
- Text body
- Text body indent

Automatic

The MVS/SCP Project is concerned with the System Control Program (SCP) of the z/OS operating system. Included are services and functions around the SCP, such as:

- Installation and maintenance of z/OS (including deliverables like ServerPac)

Page 1 / 2 Default 100% INSRT STD HYP

# System Information Tools



Several tools provide so much information they let you quickly map out an OS/390 system.

# SHOWMVS



- One Stop shopping for system configuration information. The format allows you to quickly review everything on-line or in Batch. Output weather in batch or on-line is monolithic with all data produced all the time.
- Originally developed by Gilbert Saint-flour
- The Source code for SHOWMVS can teach you a lot! STRING macro is EXCELLENT formatting tool for assembler programs.
- SHOWMVS currently maintained by Roland Schiradin on CBT Tape file 492 and a very active development and beta test team
- Future development plans being explored include a TCP/IP client, SMF recording, and a menu to make the output more accessible in ISPF

**SHOWMVS 6.30 & 7.09 (current) are on the NaSPA CD**



# SHOWMVS (Short)



## Operating System:

OS/390 02.06.00                    CVTOSLVL: FF FF F0 00 00 00 00 00

DFSMS/MVS 1.4.0                    Dynamic Linklist is supported  
Dynamic LPA is available  
DFSMS Loader Fork Exit is present

JES2 Level: OS 2.5.0            NJE Node: JES2MVS            DSNID: 01

## Last IPL:

Date: Monday 2000-02-07 (25 days ago)    Time: 19.23    Julian:  
2000.038

From: S3906R/1209    NUC Id: 1    Type: Cold Start    CVTUSER: 00000000  
SYSPLEX name: DEVL52    SYSPLEX ID: OD    OpenMVS available: YES  
Timezone: W 05.00.00



# SHOWMVS



SHOWMVS displays two different types of data:

- Data related to the MVS operating system
  - Operating System Release and status, Subsystems, XCF, GRS, DAE, DASD, Linkage Index (LX) Table, more...
- Data related to the current address space
  - TCB Tree, TSO Information, REXX Environment, more..

SHOWMVS can be invoked as a program, as a TSO command, or as an edit macro and can run authorized or non-authorized. Some of the displays are only produced when SHOWMVS runs authorized.

# SHOWMVS many displays!



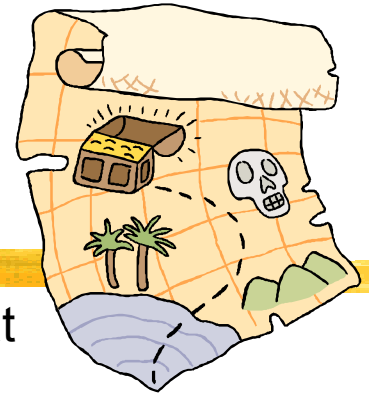
MVS LEVEL, DFP LEVEL, OSLVL FLAGS, JES2 LEVEL  
IPL DATE, TIME, VOLSER, NUC-ID, CLPA, CVTUSER  
Date and time of last CLPA (auth)  
Time Zone, Primary sub-system name and type  
Software Level: TSO/E, ISPF, DSS, HSM, RACF, VTAM, SORT,  
DSF, DB2, CICS, MQ Series  
Run-time Environments (CBL, PLI, FORTRAN, C/370, LE)  
SMF Information: SID, JWT, data sets, exits  
SMS Configuration: SCDS, system names, last update  
GRS Configuration  
XCF Configuration (auth)  
PATH data  
Coupling Facility Data  
External Time Reference (ETR)  
Hardware configuration  
    Central Processing Complex Node Description (CPC ND)  
    On-line CPUs and storage  
    Performance (SU/sec, estimated MIPS)  
    Service Processor data  
    I/O configuration Definition (IODF)  
    LPAR configuration  
VM host information (auth)  
VIRTUAL STORAGE MAP (CSA, SQA, LPA, etc)  
SRM data (IPS/ICS/OPT, APG, etc)  
WLM data (MODE, ETC)  
Resource Recovery Manager (RRS)  
Automatic Restart Manager (ARM)  
OPEN catalogs  
PAGE data sets in use  
Dump data sets status and dump options  
Dump data sets date, time and title (auth)  
Automatically-allocated dump data sets (auth)  
DAE Parameters (auth)  
GTF status and options  
Initialization Parameters (IPA)  
Master JCL (IEEMSJCL)  
Sub-system vector table with functions processed  
Primary Sub-system JCL (auth)  
TSO PARMLIB data (IKJTSOxx)  
TSO Exits and Tables  
TCAS parameters (auth)

RACF options, data sets and tables  
Address space usage:  
    Batch Jobs  
    TSO users  
    Started tasks  
JES2 Initiators and corresponding jobs  
Link-list data sets, with creation date  
LPA-list data sets, with creation date  
List of authorized libraries  
Dynamic Exit Facility  
Static system symbols  
LLA parameters and managed libraries (auth)  
ACTIVE LPA QUEUE  
SVC Table with name of the corresponding module  
T1, T2, T3 and T6 ESR tables  
Linkage Index (LX) Table (auth)  
Program Properties Table (PPT) (auth)  
I/O Appendage Table  
Resource Manager List (IEAVTRML)  
Device Classes and corresponding unit names  
On-line devices, with unit-name, VOLSER, owning j  
ob,use attribute, storage group  
System consoles, with status & Routcde list  
Message Processing Facility (MPF)  
Command Prefix Table (CPFT)  
Device Allocation Defaults (ALLOCxx)  
Addresses of selected global control blocks  
JCL information for current JOB/STEP  
RACF profile (from ACEE)  
TSO profile (from PSCB & UPT)  
REXX environments, host cmd tables and func pkg  
directories  
Allocated Data sets (from TIOT, SWA, TCT)  
TCB tree and PRB chain  
Attention Routines  
Enhanced view of the JPAQ and Load-lists  
Recovery exits and timers  
Addresses of selected local control blocks  
MORE!!!!

**UPDATE!**



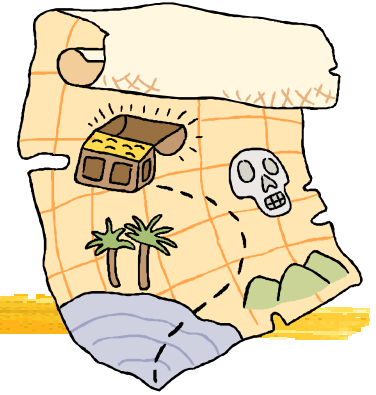
# **MXI** Version 4.3 still available free



- MXI (MVS eXtended Information) is an ISPF-based application that enables the MVS Systems Programmer to display important configuration information about the active MVS system.
- Although primarily used online, MXI can be run in batch and also has a REXX interface.
- Most of the displays can be filtered using ISPF-like masking characters and many display fields are 'point-and-shoot'.
- Some displays only available if MXI is authorized
- Internal or SAF based security
- MXI is very easy to install but does not include source **OCO**
- Some displays clearly tied closely to system internals
- Rob Scott's solid code and an active and persistent Beta test team continues to field stable releases but it is not perfect.
- **Current level is MXI 4.3 Genlevel 050126** still being updated still free
- MXI does more than just look if you run it authorized you need to secure it
- CBT Tape Files 409, 410 (Rob also has MORE utilities on file 411) or

**<http://www.mximvs.com>** (Rob's other stuff)

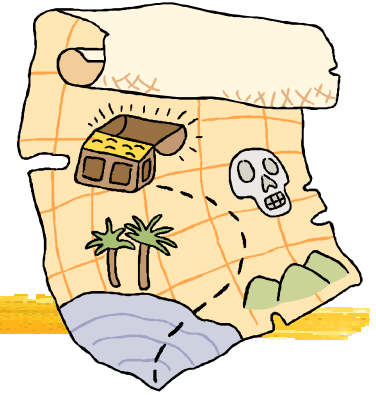
# MXI many displays!



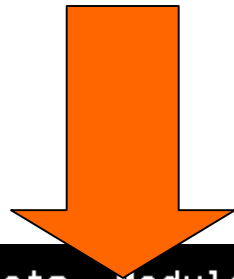
MXI - PROD - MVS Extended Information Primary Option Menu ----- Row 1 of 47  
Command ===> Scroll ===> PAGE

AGRP	SMS Aggregate Group Information	MPF	MPF Information
APF	APF List Dataset Information	NTOK	System Name/Token Information
ASID	Address Space Usage Information	NUC	Display System Nucleus Modules
CAT	Catalog Information	OMVS	OpenEdition Configuration
CA1	CA-1 Configuration Information	PAGE	Page Dataset Information
CDE	JPAQ and TCB loaded modules	PARM	Active PARMLIB Information
CF	Coupling Facility Information	PEEK	Show ISPF Screens
CHP	Online Channel Paths	PID	OpenEdition Processes
CPF	Command Prefix Table	PLEX	Display Sysplex Information
CPU	CPU and LPAR Information	PPT	Program Properties Information
CS	Common Storage Usage	RACF	RACF Information
CSR	Common Storage Remaining	RCLS	RACF Class Information
DA	Active Address Space Information	RL	RACF Profile Information
DAE	Dump Elimination Information	RS	Real Storage Usage Information
DASD	Online DASD Information	SCLS	SMS Storage Class Information
DCLS	SMS Data Class Information	SGRP	SMS Storage Group Information
DDNS	Allocated Dataset Information	SMF	SMF General Information
DEV	DASD Activity	SMFD	SMF Dataset Information
DS	Personal Dataset List	SMS	SMS Configuration Information

# MXI remote display



Logged onto PROD display from remote SYSA

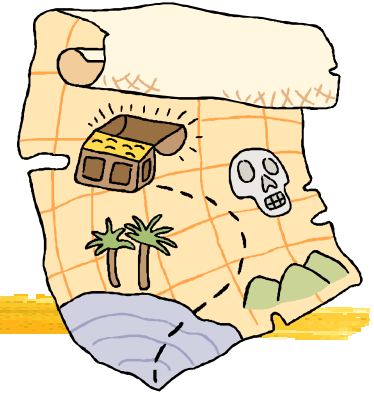


**NEW in v4.1**

```
File Datasets Modules Units System Sysplex SMS Storage Tools RACF
-----
MXI - PAGE - PROD - SYSA ----- CPU 35 UIC 2540 PAG 0 ----- Row 1 of 7
Command ==> _ Scroll ==> PAGE

Type      Slots      Used %Use Volser Dataset
PLPA      17999      14551 80 PAGE12 PAGE.VPAGE12.SYSA.PLPA
Common    71999       050  0 PAGE10 PAGE.VPAGE10.SYSA.COMMON
Local     53999       000  0 PAGE12 PAGE.VPAGE12.SYSA.LOCAL1
Local     53999       000  0 PAGE10 PAGE.VPAGE10.SYSA.LOCAL2
Local     161999      000  0 PAGE11 PAGE.VPAGE11.SYSA.LOCAL3
Local     161999      000  0 PAGE10 PAGE.VPAGE10.SYSA.LOCAL4
Local     599759      000  0 PAGEA1 PAGE.VPAGEA1.SYSA.LARGE
```

# MXI LLA command



LLA command uses LLA exit LLA EXIT CSVLLIX1 to get statistics. Useful, Interesting, no problems running on every system in my sysplex. **NEW in v4.1**

```
File Datasets Modules Units System Sysplex SMS Storage Tools RACF
MXI - LLA -- PROD SYSA ----- CPU 13 UIC 2540 PAG 0 ----- Row 1 of 751
Command ==> _ Scroll ==> PAGE
```

Module	Alias	Size	LF	LastDur	PGMF-Req	PGMF-Avg	LLAF-Req	LLAF-Avg
<u>CSQNL28E</u>	<u>CSQ3ECMX</u>	930	LLA	0.028			1593	0.027
<u>CSQ3ID00</u>		558	LLA	0.052	248	2.600	872	0.082
<u>IEFIB600</u>		B670	LLA	0.290	177	100.485	547	0.244
<u>CSQBSRV</u>		3760	LLA	0.104	11	5.646	507	0.114
<u>IKJEFD30</u>	<u>ALLOC</u>	D400	LLA	0.211	14	111.808	495	0.214
<u>CSQBCON</u>		2E30	LLA	0.096	101	4.403	416	0.156
<u>CEEPLPKA</u>		1C4680	LLA	9.063	12	3801.330	357	9.078
<u>CEEEV003</u>		3201F0	LLA	16.835	11	5880.649	353	16.938
<u>IEFNB903</u>		FB90	LLA	0.299	32	296.839	341	0.272
<u>IEANTRT</u>		48	LLA	0.040	10	8.132	331	0.039
<u>CEEBINIT</u>		ECB8	LLA	0.311	111	169.159	242	0.289

# MXI Allocated Dataset Info

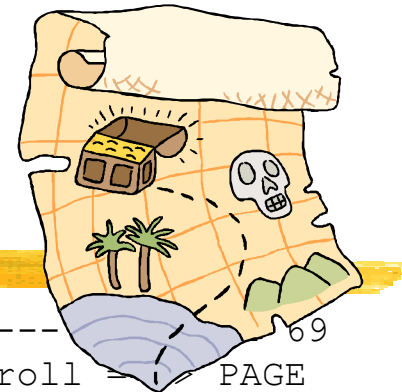


MXI - PROD - Allocated Dataset Information: JES2 ----- Row 1 of 13  
Command ==> Scroll ==> PAGE

DD Name	Cat	Seq	Unit	Volume Serial	EXCP Count	Dataset Name
STEPLIB	+00	1209	S3906R	S3906R	0	SYS1.V2R5M0.SHASLINK
PROC00	+00	122A	S3906T	S3906T	460	SYS4.PROD.PROCLIB
PROC00	+01	1209	S3906R	S3906R	14	SYS1.PROCLIB
PROC00	+02	1209	S3906R	S3906R	0	CPAC.PROCLIB
PROC00	+03	1209	S3906R	S3906R	0	SYS1.IBM.PROCLIB
PROC02	+00	1C4B	CATPAK	CATPAK	288	SYS1.PRODPK.PROCLIB
PRT1	+00	050F			0	SYS00062.T090946.RA000.JES2.R0116242
ALTPARM	+00	1209	S3906R	S3906R	0	SYS1.PROD.PARMLIB.NEW
SYS00001	+00	122A	S3906T	S3906T	192747	SYS1.PROD.HASPCCKPT
\$\$SPOOL1	+00	141A	SPOOL1	SPOOL1	0	SYS1.PROD.HASPACE

- Peek into other ASID(s) and look at I/O same as OEM MVS Monitors
- Displays the current allocated DDNAMEs and their associated data sets.
- Command Syntax DDNS dd-mask JOB(jobname) ASID(asid)

# MXI Common Storage Usage



MXI - PROD - Common Storage Usage -----  
 Command ==>

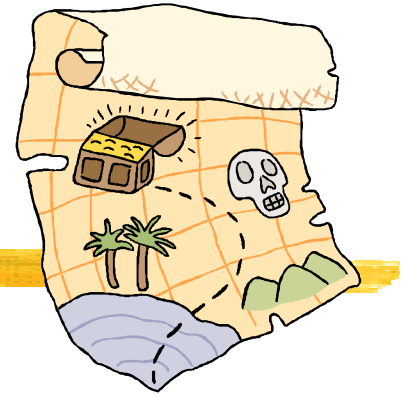
Scroll PAGE

Active	JES2	----Job Started----		-----Storage Allocated-----			
Jobname	JobID	Date	Time	CSA	E-CSA	SQA	E-SQA
*TOTAL*				326080	26169032	369752	7806880
*MASTER*		2000/02/07	19.25.27	94792	841704	55656	907208
*SYSTEM*				62520	10851000	259552	4662408
DSN6MSTR	STC09981	2000/02/07	19.25.57	32704	1534800	896	4848
RACF		2000/02/07	19.25.27	31912	51776	64	416
JES2				27992	3270120	64	1584
CPTCECSM	STC09970	2000/02/07	19.25.53	12952	132624	4072	768
CPTMVTAM	STC09972	2000/02/07	19.25.53	11144	175184	4616	384
NET	STC09945	2000/02/07	19.25.25	9976	3124488	0	352
CATALOG				8464	32144	2816	41904
TPX	STC03114	2000/02/12	18.05.47	7056	22840	9664	352

- Uses IBM Common Storage Tracking Data (PARMLIB DIAGxx)
- Same information as RMF III and OEM MVS Monitors



# MXI 4.3 New Features



- Version 4.3 is GA with significant new capabilities
  - Complete rewrite of the menu system allows menu customization
  - Add the ability to protect all MXI commands
  - Global settings to enable/disable authorized functions
  - A set of new DB2 displays
  - Point and Shoot sorting of columns
  - Further exploitation of IBM Common Storage Tracking Data. GQE command to display common storage Getmain Queue Elements

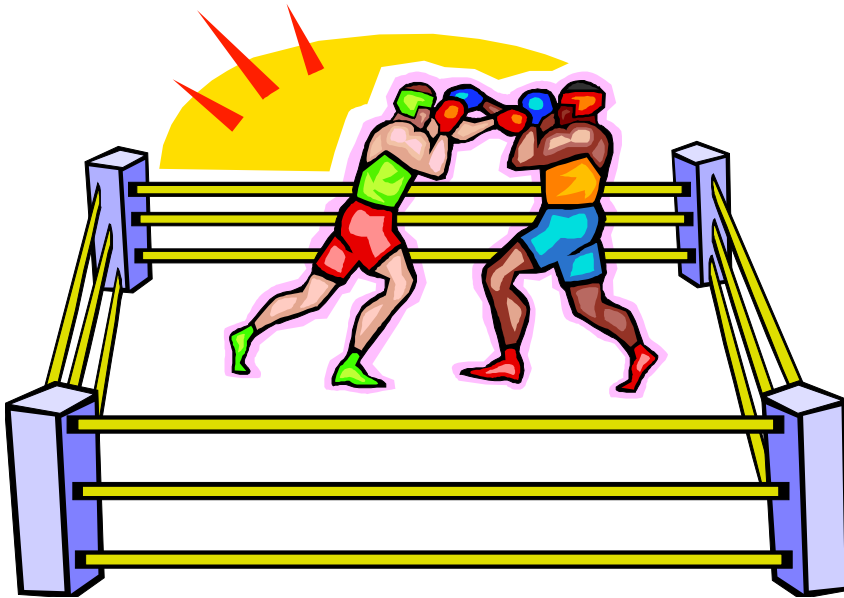
• **MXI 4.3 functionally stable but will continue to be available free!**

- MXI acquired by Rocket Software “Rocket to the Rescue!”

<http://www.rocketsoftware.com/portfolio/mxi/download.htm>



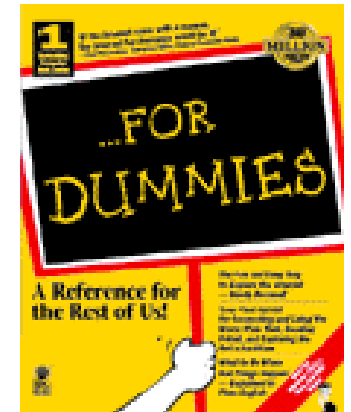
# SHOWMVS vs. MXI



- Different but both have unique strengths. I use both!
- Both are updated frequently so stay current to have access to the latest features and information specific to the most recent z/OS releases.

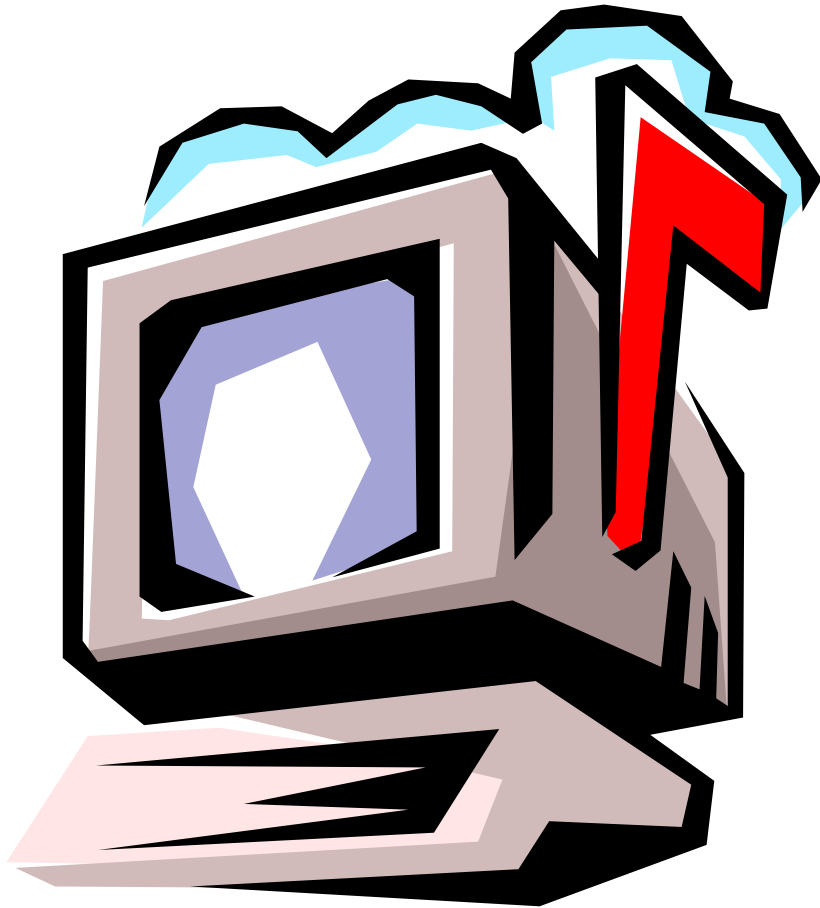
# What is a mailing list and how do I find mailing lists?

- A mailing list is a free service you subscribe to that allows you to exchange email with others on a topic of mutual interest. For more information check out popular resources like Internet For Dummies® ISBN: 0-7645-0700-1.



- There are several catalogs of lists available on the web.
  - My list <http://www.cbttape.org/internet.phtml>
  - Catalog of LISTSERV lists <http://www.lsoft.com/lists/listref.html>
  - Catalog of many lists including some other list servers i.e. majodomo, listproc, and listserv. <http://www.liszt.com>

# Mail Lists



“To sum it all up, SHARE is now 365 days a year rather than 4 times a year.” Melinda Varian in “VM and VM Community: Past, Present, and Future” speaking about VMSHARE. VMSHARE is gone but lives on in spirit in the discussion groups which stretch across the globe using the Internet.

# Mailing Lists



- Almost everyone knows how to send email so networking through email is a natural use for the Internet.
- A big part of networking is finding other people interested in the same things you are especially those who might be willing to help you. Mailing lists help people interested in the same thing exchange email.
- A mailing list works by allowing people to join the and then send a single email message that is relayed to all the list members. Responses to messages are also relayed to all list members.
- A list server program does the work of keeping track of list members and relaying the email messages. A real human being administers the list server and helps to resolve problems

# How do I join or leave a mailing list?



- To join a LISTSERV mailing list you start by sending the list server an email message asking to be subscribed with the text “subscribe listname Joe User”
- So to join the IBM-MAIN mailing list I send a message like this one:

To: [LISTSERV@bama.ua.edu](mailto:LISTSERV@bama.ua.edu)

From: Sam Knutson <[sknutson@cbttape.org](mailto:sknutson@cbttape.org)>

Subject: listserv

**subscribe ibm-main Sam Knutson**

To stop the mail from the list just send an email to [LISTSERV@bama.ua.edu](mailto:LISTSERV@bama.ua.edu) with the text **signoff ibm-main**

**IMPORTANT**

# Posting

Just send an email to the list..

To: [IBM-MAIN@bama.ua.edu](mailto:IBM-MAIN@bama.ua.edu)

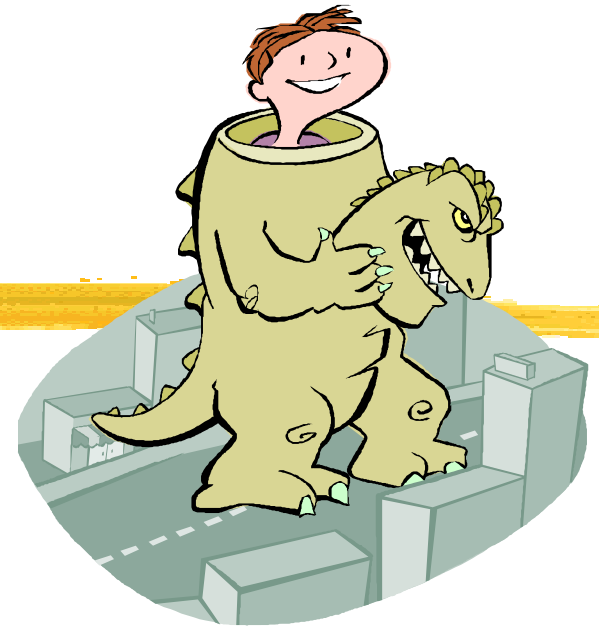
From: yourname

Subject: How do I enable SMS data set stripes?

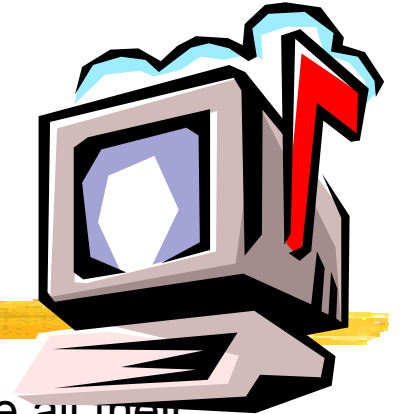
.....

Soon you may receive lots of helpful replies! A caveat is that once you stop lurking and decide to post you reveal your email address to everyone on the list and on UseNet (which is LOTS of people). You may receive unsolicited junk mail some of which may be offensive to you. This is often called SPAM. You can use services like HotMail or Juno to create throwaway accounts from which to post messages.

Note: Hormel Foods has opened the SPAM Fan Club [fanclub.spam.com](http://fanclub.spam.com) for lovers of the infamous processed meat product!



# Ms. Manners on “Netiquette”



- Mailing lists just like any other social organization have an etiquette all their own. You will pick it up pretty quickly but here are a few tips.
- A good web site dedicated to Net etiquette is <http://www.etiquette.net> which includes links to the complete on-line copy of book *Netiquette* by Virginia Shea ←
- DO read others posts for a week or two to get the flavor of the list before trying to post anything yourself. The list got along fine for years without your help it can get along for at least another week.
- DON'T ever send an attachment to the list.
- DON'T forward off-topic email like jokes or the latest hoax email chain letter to the list i.e. WARNING DO NOT OPEN ANY EMAIL WITH THE SUBJECT \_\_\_\_\_
- A good site for information on hoaxes is <http://www.vmyths.com> Also most of the major Anti-Virus sites provide some information on hoaxes.
- DON'T use automated out of office reply messages unless you take steps to make sure they don't go back out to mailing lists



# Ms. Manners on “Netiquette”



- DON'T send commands for the LISTSERV to the list. Be sure you send SET xxxx, SIGNOFF xxxx to LISTSERV@listaddress
- DON'T respond to inappropriate messages i.e. listserv commands and all the others things you know better than to send to the list. The only thing worse than reading a useless post is reading a useless post and 20 replies. The list manager will take care of this type of thing if it is really a problem. If you absolutely have to say something respond to the person's private email not to the list.
- DO send PLAIN text email to the list not Rich Text or HTML. Many people use email programs which don't display this type of content and it appears as useless attachments or garbage to them. Microsoft Outlook and Microsoft Exchange are two programs which frequently send Rich Text mail without the send being aware.

# Common abbreviations



- IIRC - If I remember correctly
- AFAIK - As Far As I Know
- YMMV - Your Mileage May Vary
- IMHO - In My Humble Opinion
- RTFM - Read the manual - you could have and should have looked it up yourself
- OTOH - On The Other Hand
- BTW - By The Way
- TIA - Thanks in advance
- FWIW - For What Its Worth
- ISTR - I Seem To Remember
- PFCCK - Pimple Faced Computer Science Kids or Pimple Faced Client Server Kids

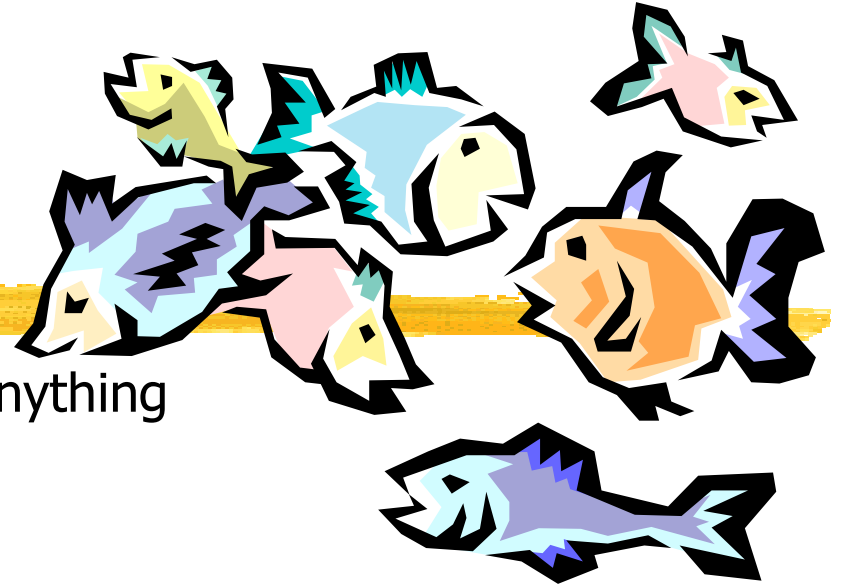
# IBM-MAIN Archives



- You can also read and search on past messages on IBM-MAIN. This is a fabulous research tool easily as valuable as IBMLink even for those who do not care to follow the list antics on a daily basis.
- LISTSERV web interface an University of Alabama  
<http://bama.ua.edu/archives/ibm-main.html>
- You can also read and search on past messages on IBM-MAIN using email and the SEARCH command i.e. Search IBM-MAIN "IGD0099E"
- Last and perhaps best you can use Google™ Groups to search the archives of bit.listserv.ibm-main (Hint this link is on the CBT links page)

[http://groups.google.com/groups?oi=djq&as\\_ugroup=bit.listserv.ibm-main](http://groups.google.com/groups?oi=djq&as_ugroup=bit.listserv.ibm-main)

# IBM-MAIN



- Topic: IBM S/390 Computing almost anything  
Name: IBM-MAIN  
Type: LISTSERV  
Listserv: [LISTSERV@bama.ua.edu](mailto:LISTSERV@bama.ua.edu)  
List: [IBM-MAIN@bama.ua.edu](mailto:IBM-MAIN@bama.ua.edu)  
Web: <http://bama.ua.edu/archives/ibm-main.html>  
News: [bit.listserv.ibm-main](http://bit.listserv.ibm-main)  
Weekday Message Volume: 100 - 200 (**High** consider setting DIGEST option)  
More information: David Alcock's excellent Unofficial IBM-MAIN FAQ  
<http://www.planetmvs.com/ibm-main/index.html>  
  
Sam Knutson's LISTSERV Page <http://www.cbttape.org/internet.phtml>  
and IBM-MAIN page <http://www.cbttape.org/ibm-main.htm>
- Notes: 20% - 40% off topic posts are not unusual i.e. high signal to noise ratio, however, the remaining content is great!

# IBM-MAIN



“Thanks to all for the great replies. Having such talent available and willing to help is the best thing since sliced bread!”

Fred Schmidt

Posted Wed, 6 Dec 2000 on IBM-MAIN



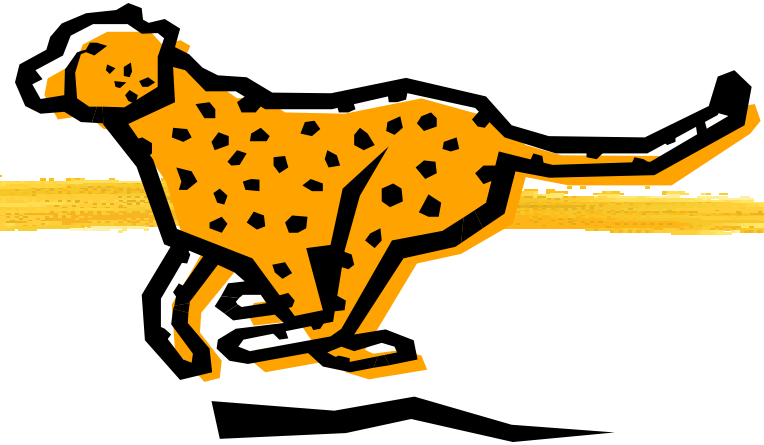
Jerrie Stewart (IBM) quoted posts to IBM-MAIN in SHARE session 2412 in Nashville z/OS Announcement Review to demonstrate customer experience. IBM-MAIN is not an official channel to IBM but clearly they do listen.

# MVS-OE

- Topic: IBM's UNIX on MVS a.k.a OpenEdition a.k.a USS a.k.a. OE a.k.a OS390 Unix System Services  
Porting to OS390, Utilities, Shell, C, Perl, Domino Go Webserver, Security, misc.  
Name: MVS-OE  
Type: LISTSERV  
Listserv: [listserv@vm.marist.edu](mailto:listserv@vm.marist.edu)  
  
List: [MVS-OE@VM.MARIST.EDU](mailto:MVS-OE@VM.MARIST.EDU)  
Web: <http://www.marist.edu/htbin/wlvindex?MVS-OE>  
News: n/a  
Weekday Message Volume: 20 - 50  
More information: n/a  
Notes:



# DB2-L



Topic: IBM DB/2 database

Name: DB2-L

Type: LISTSERV

Listserv: LISTSERV@WWW.IDUGDB2-L.ORG

List: DB2-L@WWW.IDUGDB2-L.ORG

Web: <http://www.idugdb2-l.org/archives/db2-l.html>

News: bit.listserv.db2-l

Weekday Message Volume: 50 - 75

More information: <http://www.idugdb2-l.org> (FAQ)

Notes: Moved to IDUG 11/2003



# ASSEMBLER-L

- Topic: Assembler programming on S/390

Name: ASSEMBLER-L

Type: LISTSERV

Listserv: [LISTSERV@LISTSERV.UGA.EDU](mailto:LISTSERV@LISTSERV.UGA.EDU)

List: [ASSEMBLER-L@LISTSERV.UGA.EDU](mailto:ASSEMBLER-L@LISTSERV.UGA.EDU)

Web: n/a

News: comp.lang.asm370 (same topic different messages)

Weekday Message Volume: 5 - 20

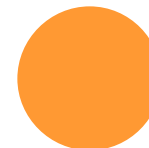
More information: [Dave's unofficial HLASM web page](#)

at <http://www.planetmvs.com/hlasm/index.html>

Notes:

```
LA    R0,WRKDSECT_LEN
STORAGE OBTAIN,
      LENGTH=(0),
      RELATED=RELEASE_WRKDSECT

LR    R13,R1
LR    R0,R1
LA    R1,WRKDSECT_LEN
SLR   R15,R15
MVCL  R0,R14
USING WRKDSECT,R13
MVC   WRKSAVEP,=C'F1SA'
```

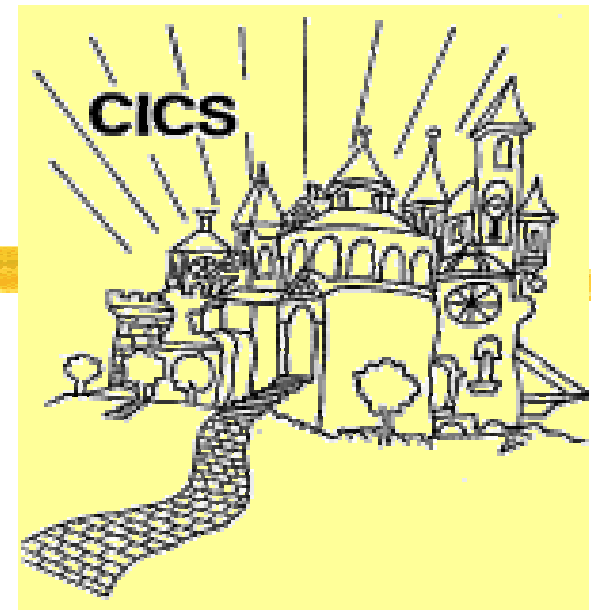




# CICS-L

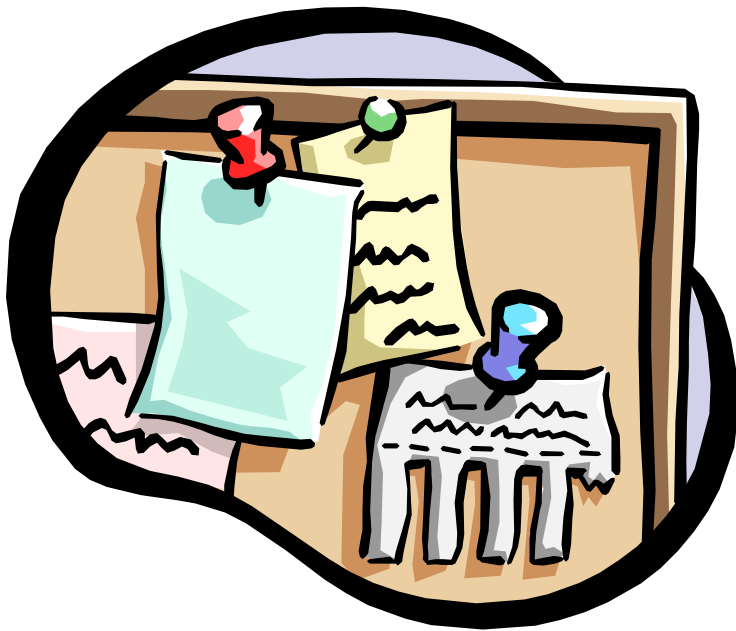
- Topic: IBM CICS  
Name: CICS-L  
Type: LISTSERV  
Listserv: [listserv@vm.marist.edu](mailto:listserv@vm.marist.edu)  
List: [CICS-L@VM.MARIST.EDU](mailto:CICS-L@VM.MARIST.EDU)  
Web: <http://www.marist.edu/htbin/wlvindex?CICS-L>  
News: [bit.listserv.cicsl-l](http://bit.listserv.cicsl-l)  
Weekday Message Volume: 15 - 45  
More information: n/a  
Notes:

<http://www.yelavich.com/>



Great Site for  
CICS folks!

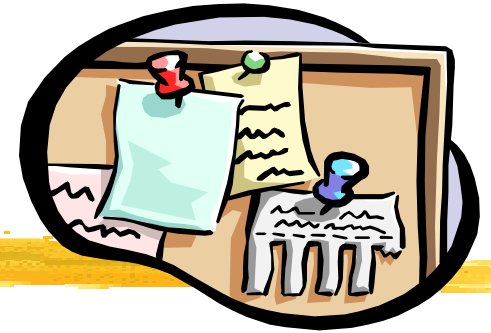
# MVS Posting Boards



Posting Boards provide a web friendly bulletin board experience. Several are available that cater to MVS folk.

Make sure you post your notice in the right spot (e.g., if you are selling your golf clubs, advertise at the local golf course).

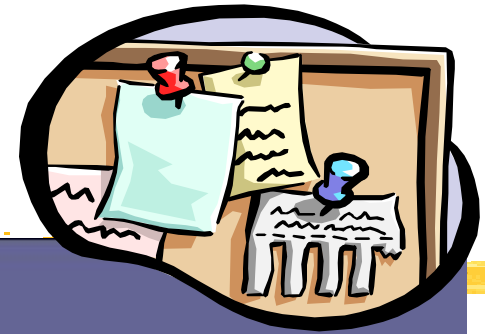
# MainFrameForum



Mainframeforum <http://www.mainframeforum.com>

- Launched May 29, 2001 it's free
- Mainframeforum currently has no ads but watch this space
- You will need to register. Information needed is minimal, mostly optional.
- The forum software offers many features including a powerful search engine.
- Many topics are covered with the Administrator dividing the board into many pre-defined topic areas
- Recently added USENET archives

# MainFrameForum



MainFrameForum [cforum.com](http://cforum.com)



[user cp](#) [chat](#) [register](#) [calendar](#) [members](#) [f.a.q.](#) [search](#) [home](#) [USENET](#) [log out](#)

hosted by SPAGIRIK

DEMO  
MODE

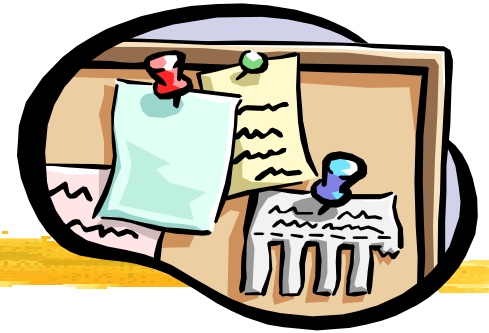
[MainFrameForum](#) > [OS - IBM; OS/390 and z/OS - Base and Components](#) > [TSO/E](#) > **Renaming a gdg base. Is it possible ?**

[◀ Last Thread](#) [Next Thread ▶](#)

Author	Thread	<a href="#">new thread</a> <a href="#">post reply</a>
<b>Koenig</b>  Junior Member  Registered: Jun 2001 Location: Canada Posts: 5	<b>? Renaming a gdg base. Is it possible ?</b>  I don't know where to put this so I chose the TSO subject.  Let's say I have a simple GDG base with no datasets yet associated. Is there a way to rename it easily or do I have to delete it and redefine it ?  The RENAME and ALTER don't seem to work.  Thanks.	
<a href="#">19th July 2001</a> 16:35	<a href="#">profile</a> <a href="#">pm</a> <a href="#">search</a> <a href="#">buddy</a>	<a href="#">edit</a> <a href="#">quote</a>
<b>Bob Richards</b>  Junior Member	<b>GDG BASE Name Change</b>  You have to delete and redefine it. Otherwise, all the GDG datasets underneath it	

[Report this post to a moderator](#) | IP: [Logged](#)

# MVSHHELP



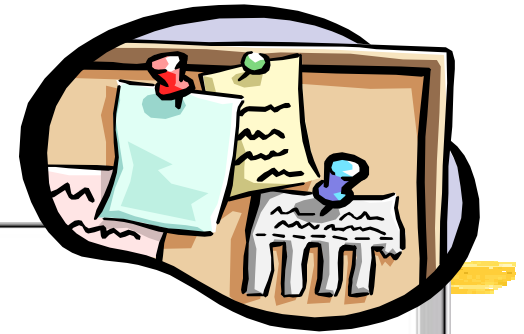
MVSHHELP <http://mvshelp.com/>

- Arrived early
- growing following including many from IBM-MAIN
- Free, does include ads
- Requires a simple registration to use
- Less finely defined topics, lots more activity
- Appears to be the pick of the litter in this type of facility

# MVSHHELP



- Mvshelp Help Boards
- └─ c) Sort, Utilities
- | └─ FREE=CLOSE on SORTOUT



[UBBFriend: Email This Page to Someone!](#)

[Post New Topic](#)

[Post Reply](#)

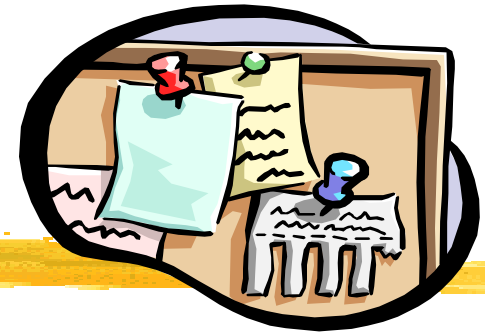
[profile](#) | [register](#) | [preferences](#) | [faq](#) | [search](#)

[next newest topic](#) | [next oldest topic](#)

Author	Topic: FREE=CLOSE on SORTOUT
<b>John Mindock</b> Sr. Member	<p>□ posted 07-25-2001 11:15 AM    </p> <p>From the DFSORT manual (July, 2000):</p> <p>When using DFSORT applications, FREE=CLOSE cannot be used on any DD statements except DFSPARM</p> <p>We have some JCL with this on it, on the SORTOUT dataset. The SORTOUT is actually going to SYSOUT.</p> <p>Is FREE=CLOSE simply being ignored? Any caveats to leaving it there?</p> <p>Thanks John</p> <p style="text-align: right;">IP: <a href="#">Logged</a></p>
<b>Frank Yaeger</b> Moderator	<p>□ posted 07-25-2001 11:52 AM    </p> <p>If I remember correctly, with FREE=CLOSE the ddname is deallocated when the data</p>



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**TODAY ON SEARCH390.COM**

**Microsoft releases Host Integration Server 2004**  
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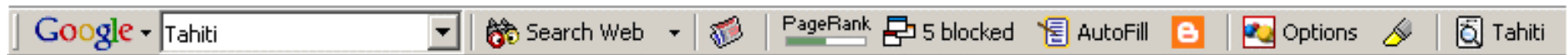
# Google™



Google™ groups is a web site which allows you to read newsgroups with a web browser instead of using special newsreader software and finding a news server. You can also search the web for text, images, news, and use a Yahoo™ style directory.

Google™ <http://www.google.com> fast, good, unbiased search engine  
Google™ Groups <http://groups.google.com>

In order to post messages to many of the lists through these sites you still need to subscribe to the mail list and set to “nomail” if you don’t want email.



Google™ toolbar is an enhancement for your MS Internet Explorer web browser and I find it a highly useful one. It does not currently support anything other than MSIE. Find it here <http://toolbar.google.com/>



# Personal Search Tools

- Google™ recently introduced a Desktop Search
  - Free, search Outlook, Files, more
  - <http://desktop.google.com>



- Microsoft's acquisition
  - Free, search Outlook, Files, IM, more
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# Who me? Contribute to the CBT Tape or CD-ROM? Why not!



Send contributions to the CBT Tape to Sam Golob and call or email him. You can send contributions only suited for the CD-ROM or web directly to Sam Knutson.

Most contributions are now made via email over the Internet. To contribute, it is preferred that you make a PDS on an MVS system, including documentation member(s), put the pds into TSO XMIT OUTDSN format, download it in binary to the PC (if you need to), and attach it to an email to Sam at: [sbgolob@cbttape.org](mailto:sbgolob@cbttape.org)

If the file is large, you can PKZIP it on the PC, before attaching it to the email. That's all there is to it!

If you want to send anything any other way, Sam Golob's address is:

Sam Golob, P.O. Box 906, Tallman, NY 10982-0906 USA

# CBT Tape FAQ - 1



**CBT** THE CONNECTICUT BANK & TRUST CO.  
TECHNICAL SUPPORT  
99 FOUNDERS PLAZA  
EAST HARTFORD, CONN. 06108  
(203) 244-5495

Q. What is the CBT tape?

A. The CBT tape is a collection of freeware almost all open-source distribution for the IBM mainframe MVS nee OS/390 nee z/OS operating system environment.

Q. What does CBT stand for?

A. This tape was established and previously edited for over 15 years, from Version 1 through Version 321 by Arnold Casinghino who worked at Connecticut Bank and Trust Company (CBT).

The CBT Tape is now being edited by Sam Golob. Our plan is to keep the initials "CBT" even though this tape is no longer supported at the Connecticut Bank and Trust Company, because those initials reflect how the tape should be properly and accurately referred to. For now, I'm calling it the "CBT" MVS Utilities Tape without the initials CBT meaning anything special. Various acronyms have been proposed including "Casinghino's Big Tape" but none yet accepted.

## CBT Tape FAQ - 2

ARNOLD CASINGHINO

VICE PRESIDENT  
O/S SUPPORT MANAGER

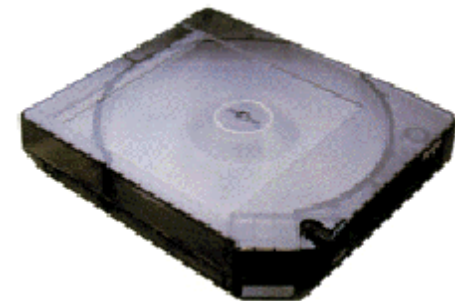
**CBT**

THE CONNECTICUT BANK & TRUST CO.  
TECHNICAL SUPPORT  
99 FOUNDERS PLAZA  
EAST HARTFORD, CONN. 06108  
(203) 244-5495

Q. What is a tape?

A. There are many kinds of magnetic media. IBM Mainframe magnetic data tapes have long been the home of the CBT Tape because this was the format used to store large amounts of information off-line and to move it from site to site. Today the CBT Tape is distributed in the real world on 3480 IDRC compressed cartridges as this is the current lowest common denominator we cater to. 3480(s) w/IDRC can be read on 3480 or 3490 drives and most shops have at least one of these. A 3480 tape looks like this

We don't ship many real tapes anymore.



## CBT Tape FAQ - 3

Q. Why do you still create tapes?

A. The CBT Tape is still distributed and released using a version system on tape for several reasons. Some shops still do not allow users to upload to the mainframe from the PC or to download from the internet. The "release" of a tape provides a consistent reference for everyone around the world. If you are told that utility xyz from file 555 will solve your problem and it was added at CBT tape V421 then you instantly know if you have it and where to get it. The tape/version distribution provides persistence that a simple on-line download area does not. The tape is copied (usually several thousand of any given version are circulated worldwide) and distributed widely so that it is unlikely it would ever be completely lost if something were to happen to the the people who are currently maintaining the tape and the web site. The tape format along with a system we use for making updates allows us to master a new tape at a friendly site using limited DASD. Lastly despite the growth of the internet not everyone has a big, fat pipe to internet and so the biggest bandwidth is still on the back of a Chevy Truck i.e. CTAM (we now also use the more up to date PTAM or Plane Transport Access Method).

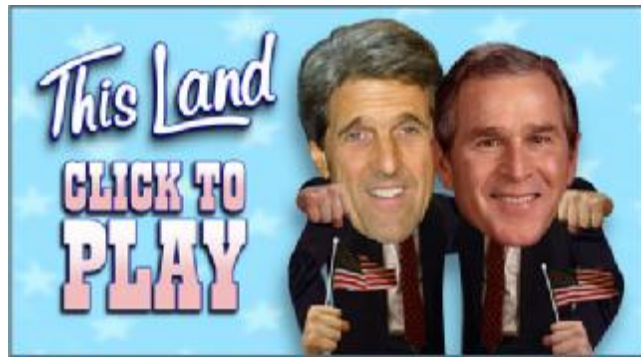
ARNOLD CASINGHINO

VICE PRESIDENT  
O/S SUPPORT MANAGER

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flashsaver Windows utility \$25 <http://www.flash-screen.com>

# Special Thanks

---

Paula Knutson

Sam Golob

Dale McCart

Steve Conway

Monique Conway

Bill Smith

Jay Maynard



# The End



*See you at SHARE in*

*Boston, MA*

*August 21-26, 2005*

## Have fun today!

Feel free to call me at  
(w) 301.986.3574 or email me at  
CBT [sknutson@cbttape.org](mailto:sknutson@cbttape.org) or  
(w) [sknutson@geico.com](mailto:sknutson@geico.com)  
Please send any additions or  
corrections.

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