Fully Wired Hot Topics: Wicked Questions, Cool Answers, and a Free Software Update!

Session 2861

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Trademarks

Session 2861 Abstract

Dozens of tough questions and great answers appear daily on the IBM-MAIN mail list, but some seem to keep returning. Attend this session to learn the answers to both the common and especially interesting questions, which have been asked and answered on IBM-MAIN and other popular s390 mailing lists. In the past such questions have included:

- How do I move a link list library without an IPL?
- How do I determine the contents of a tape?
- How to I modify my system to allow me to LOGON to multiple systems with the same userid?
- Why am I getting message IEA602I and running out of ASIDs?

A tutorial on reading and optionally participating in the IBM-MAIN forum will be provided. The speaker will also cover what's new and exciting in MVS freeware and MVS web resources. MVS freeware CBT tapes (3480 cartridges) and CD-ROMs will be handed out to attendees which include the latest CBT Tape V432 and also copies of MVS 3.8J, VM/370 R6, MVT, Hercules 370/390 emulator and LOTS more!

Agenda
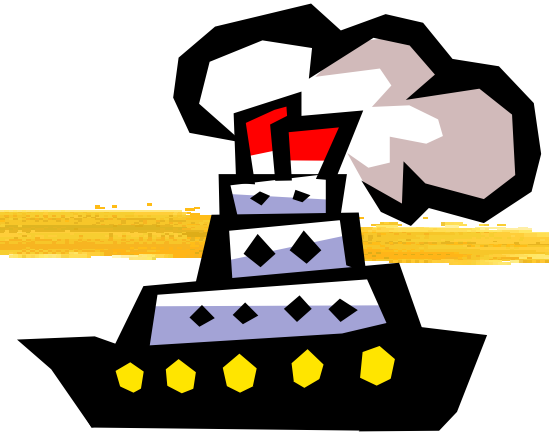
- Introduction
- A few Issues & Answers
- Free Software Update
- Mailing List Tutorial, Tips, and Common Lists
- Handout Tapes & CD-ROM(s)
- Q&A

Dynamic Link List Rebuild

If a link list library (non-PDSE) takes a new extent you will begin to get failures fetching modules from that extent. You can active a different lnklst set that has the same data sets as the first to recover from this. You cannot active the same lnklst set.

So:
SETPROG LNKLST DEFINE NAME(NEWONE)
COPYFROM(CURRENT)
SETPROG LNKLST ACTIVATE NAME(NEWONE)
SETPROG LNKLST UPDATE JOB(*)

Do keep in mind that LNKLST UPDATE JOB(*) might cause problems. This is documented.

Session Boston 2855 Long Beach 2826 "Stop Those Unnecessary IPLs - The Dynamic OS/390 Functions" by Steve Schunk provides tutorial level coverage on this and other Dynamic Functions

Remove a link list library

It is now possible to remove a link list library from use to move it if you need to. Using more steps you can move a link list library to a new volume using either it's current data set name or a new name.

```
stop LLA i.e. P LLA
SETPROG LNKLST DEFINE NAME(NEW) COPYFROM(CURRENT)
SETPROG LNKLST DELETE NAME(NEW) DSN(xxx.OLD)
SETPROG LNKLST ACTIVATE NAME(NEW)
SETPROG LNKLST UPDATE JOB(*)
```

Do keep in mind that LNKLST UPDATE JOB(*) might cause problems. This is documented

restart LLA i.e. S LLA,SUB=MSTR,LLA=00

Caveat: This won't allow you to vary a volume off-line if the link list library was included at IPL time. The volume is marked permanently resident in the UCB.

LOGON TSO more than 1 system

How to I modify my system to allow me to LOGON to multiple systems with the same userid?

IKJ56425I LOGON rejected, UserId CSSJK already logged on to system PROD
IKJ56400A ENTER LOGON OR LOGOFF-

• GRS or CA-MIM/MII enqueue handling of SYSIKJUA/userid

For GRS check GRSRNL00 you may have a statement like this causing you to propogate SYSIKJUA sysplex wide.
RNLDEF RNL(INCL) TYPE(GENERIC)
QNAME(SYSIKJUA)

LOGON TSO more than 1 system

• JES2 MAS considerations HASPCNVT simple USERMOD or Exit 44 required if you wish to do this in a MAS

• JES3 complex considerations USERMOD to IATGRJS required

• ISPF data sets PROFILE, ISPF LIST, LOG, ISPCTL,   and ISPWK.

PROFILE can be allocated differently on each system. How you do it depends on your needs. Other ISPF data sets can be addressed in ISPF Exits.

IBM Item RTA000089663 documents and provides sample code

Mark Zelden provides nice samples in his CBT Tape file 434 which is included on the CD in the /adhoc directory

ASID Exhaustion & IEA602I

**IEA602I ADDRESS SPACE CREATE
FAILED. MAXUSERS WOULD HAVE BEEN EXCEEDED**

An ASID is nothing more than control blocks. MVS sometimes marks ASID as unuseable to preserve integrity. APAR II08563 explains this in great detail.

IEF352I ADDRESS SPACE UNAVAILABLE
is normal and unavoidable in limited quantities

IEASYSxx has some parameters that control how many slots are allocated and placed in reserve for ASID(s).

ASID Exhaustion & IEA602I

ASVT control block influenced by these IEASYSxx parameters

• RSVNONR slots reserved to replace slots marked non-reusable.
Default is 5 way to low 512 or 1000 is more reasonable.
• RSVSTRT slots reserved for address spaces created in
response to a START command.
• MAXUSERS in conjunction with RSVNONR and RSVSTRT limits the
maximum concurrently active tasks.

Don't set these too high it consumes real storage and may cause
overhead or storage issues with IBM or OEM software.

The sum of all three cannot exceed 32767
The documentation in MVS Initialization and Tuning Reference
covers all this very well.

Tools to help diagnose ASID loss

• SHOWMVS   R627 of SHOWMVS will display summary information and also cross memory connections which will help you understand these relationships.

• REXX   Bob Lamerand IBM-MAIN posting number 93236 provided a simple REXX exec to display current summary information

• MXI   The next release of MXI will include full screen report of the lost slots and associated jobs with MDQ command.

• IPCS   On OS/390 R3 and above you can
Get SVC dump of PCAUTH address space (asid 2)
In IPCS issue the command:
runc addr(cvt+364%+138?) link(x'88') exec((l x+48?+1c len(8) asid(2) char)) nodisplay
This should give a list of jobnames you may want to investigate

How to locate a module

• ISRDDN Member command, lnklst command. ISRDDN now included on all supported OS/390 releases

• TASID is a Super-Set of ISRDDN

• ISRFIND ISPF has a nice little 'feature / Level2 Diagnostic Aid' try : TSO ISRFIND   ISRFIND is located in ISP.SISPEXEC if you want to look at it.

Note: You can use a module in TSO or an exec without knowing where it is. CALL *(SORT)

Is the mainframe dead?

No! This is a recurring question on IBM-MAIN

Craig Mullins made a relevant posts and provides a web page on this web site about this with a short article
http://www.craigsmullins.com/cnr_mf.htm

From a Gartner Group report titled "IBM Mainframe Scenario and Residual Value Forecast" "The S/390 will remain a significant platform within the enterprise data center" .. "It will remain the best general-purpose system as characterized by high-availability high-security, high-volume"

To see Craig's complete post subscribe to IBM-MAIN and then send this command to
LISTSERV@bama.ua.edu   GETPOST IBM-MAIN 113760

PDSE

- **IBM Redpiece** Partitioned Data Set Extended Usage Guide at http://www.redbooks.ibm.com/redpieces/pdfs/sg246106.pdf answers almost any question about PDSE

- PDSE not new first introduced in MVS/DFP 3.2 but were SMS only
- Non-SMS PDSE(s) are new and APAR II1221 provides the latest information
- APAR OW41815 provides new commands for diagnosis

- IEC143I rc 213-70 check PARMLIB IGDSMSxx's PDSESHARING (NORMAL/EXTENDED)
- Considerations for GRS and CA-MIM/MII SYSZIGW0 and SYSZIGW1 enqueues must be sysplex wide. This is done automagically on OS/390 and z/OS by GRS.

PDS Search & Replace with IPOUPDTE and CPPUPDTE

- Not part of OS/390 or DFSMS

- Included with IPO and ServerPac

- Utilities and documentation
      come from IBM

- USER modifications available to eliminate annoyances

You can find documentation on-line for the CPPUPDTE (IPOUPDTE) program here
http://www.s390.ibm.com/os390/installation/cppupdte.html

PDS Search & Replace with IPOUPDTE and CPPUPDTE

IPO012 DATASET NOT APPLICABLE TO IPOUPDTE

IPOUPDTE and CPPUPDTE have a requirement that an IBM Copyright Statement member $$$COIBM exists in the PDS you want to use them on. A small modification to remove this requirement is show below. Modification thanks to Sam Golob, J Janco, and Thierry FALISSARD.

```
*
  NAME   CPPUPDTE
  VER   055A 0A12        SVC  18        BLDL OR FIND
  VER   055C 12FF        LTR  15,15      CHECK RETURN
  VER   055E 4780,C56E   BZ              ...... PROCESS
  REP   055E 47F0,C56E   B              FORCE PROCESS......
*
* SPZAP TO REMOVE REQUIREMENT THAT A '$$$COIBM' MEMBER
* BE THE FIRST ONE IN THE PDS TO BE SCANNED.
*    J JANCO    13 MARCH 1986
*
  NAME   IPOUPDTE
  VER   0548 0A12        SVC  18        BLDL OR FIND
  VER   054A 12FF        LTR  15,15      CHECK RETURN
  VER   054C 4780,C55C   BZ              ...... PROCESS
  REP   054C 47F0,C55C   B              FORCE PROCESS......
```

$$$COIBM

See the same at Thierry's IPOUPDTE page at http://os390-mvs.hypermart.net/ipoupdte.htm

RC 00 is good... Right?

```
//jobcard
//* EXECUTE FTP IN BATCH
//FTP    EXEC PGM=FTP,PARM='198.17.57.67 (EXIT'
//SYSPRINT DD SYSOUT=*
//* testcase.boulder.ibm.com = 198.17.57.67
//* also known as testcase.software.ibm.com
//SYSIN DD *
anonymous sknutson@landmark.com
cd /mvs/toibm
binary
PUT 'CSSJK.DUMP1.PACKED' pmr32162.dump1.packed
PUT 'CSSJK.DUMP2.PACKED' pmr32162.dump2.packed
quit
/*
```

How to get real FTP RC

IBM FTP will set a job step return code of 00 regardless of what happens.

If you code this on your EXEC statement, you will be able to detect if the transmission is no good:

 EXEC PGM=FTP,PARM='(EXIT=0016'

Documented in "`OS/390 eNetwork Communications Server IP User's Guide`"

Compress dumps before FTP

- If you send dumps to IBM using FTP be sure and get the compression utility TRSMAIN from ftp://service.boulder.ibm.com/s390/mvs/tools/packlib which will allows you to send PACKed dumps that transmit faster and use less space on IBM's FTP directory.

- TRSMAIN is easy to install following the directions and easy to execute. It uses a lot of CPU to PACK a dump but the resulting file is much smaller and will transfer quicker and use less space in the IBM FTP directory.

Compress dumps before FTP

```
//********************************************
//*                                          *
//*        TRSMAIN WITH PACK OPTION           *
//*                                          *
//********************************************
//JOBLIB   DD    DISP=SHR,DSN=CSSJK.TERSE409.LOADLIB
//STEP       EXEC PGM=TRSMAIN,PARM=PACK,TIME=1439
//SYSPRINT DD    SYSOUT=*
//INFILE    DD    DISP=SHR,DSN=CSSJK.PROD.CONSOLE.DUMP2
//OUTFILE   DD
   DISP=(NEW,CATLG),UNIT=SYSDA,VOL=SER=DMPAC1,
//         DSN=CSSJK.DUMP2.PACKED,
//         SPACE=(CYL,(1000,150),RLSE)
```

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."

Bring home the Tools!

Take home at least one tool and solve a problem. If you do this someone may actually believe you worked at SHARE. Probably not since everyone at your shop KNOWS that they only reason you come to SHARE is because "THEY HAVE AN 8 HOUR OPEN BAR AT SCIDS EVERY NIGHT!"

REVIEW

Now supports HFS files!

UPDATE!

- REVIEW is a Quick Viewer for almost any type of data on OS/390

- REVIEW provides optionally formatted displays for SMF, LOGREC, VTOC, and more

- REVIEW is a TSO command processor and does not need 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

System Information Tools

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

SHOWMVS
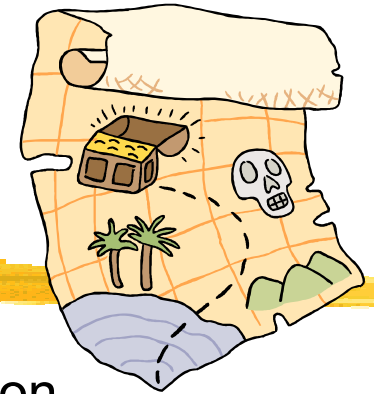
- One Stop shopping for system configuration information.
The format allows you to quickly review everything on-line or
    in Batch.

- CBT Tape file 183 or GSF Web Site
    http://members.home.net/gsf/

- The Source code for SHOWMVS can teach you a lot! STRING
macro is EXCELLENT formatting tool for assembler programs.

- Sample output on Gilbert's Web Site

- SHOWMVS public release of development version 6.27 by
Roland Schiradin on CBT Tape file 492

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
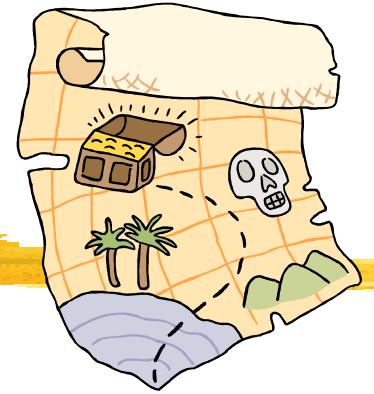
SHOWMVS displays two different types of data:

- 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

MXI

- 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
- MXI is very easy to install   OCO

Where to get it?

CBT Tape Files 409, 410 (Rob also has MORE utilities on file 411)   or

SEC web site at
http://www.secltd.co.uk

MXI Options screen 1 of 2

```
MXI - SYSA - MVS Extended Information Primary Option Menu --------- Row 1 of 39
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                PAGE  Page Dataset Information
CA1  CA-1 Configuration Information     PARM  Active PARMLIB Information
CDE  JPAQ and TCB loaded modules        PC    PC Routine Information
CF   Coupling Facility Information      PEEK  Show ISPF Screens
CHP  Online Channel Paths               PLEX  Display Sysplex Information
CPF  Command Prefix Table               PPT   Program Properties Information
CPU  CPU and LPAR Information           RS    Real Storage Usage Information
CS   Common Storage Usage              SCLS  SMS Storage Class Information
CSR  Common Storage Remaining           SGRP  SMS Storage Group Information
DA   Active Address Space Information   SMF   SMF General Information
DASD Online DASD Information            SMFD  SMF Dataset Information
DCLS SMS Data Class Information         SMS   SMS Configuration Information
DDNS Allocated Dataset Information      SMSM  SMS Module Map
DSP  Dataspace Information              SP    Common Storage Subpool Usage
DYNX Dynamic Exit Information           SPD   Subpool Definitions
EDT  Display EDT Information            SSI   Subsystem Information
```

MXI Options screen 2 of 2

```
MXI - SYSA - MVS Extended Information Primary Option Menu -------- Row 20 of 39
Command ===>                                                    Scroll ===> PAGE

ENQ  Display ENQ Information          SRVC WLM Service Class Information
ENQC Display ENQ Contention           STOR System Storage Information
EXC  System Exceptions                SVC  SVC Information
GRS  GRS Resource Name Lists          SYM  System Symbols
HSMQ HSM Request Queue Information     SYSX System Exit Information
INIT JES2 Initiators                  TAPE Online TAPE Information
IPL  IPL and Load Information          TCB  TCB and RB Information
LINK Linklist Dataset Information      UCB  UCB Information
LLS  Linklist Set Information          UIC  UIC Information
LLSU Linklist Set Usage Information    USP  User Subpool Information
LPA  LPA List Dataset Information      VMAP Display Virtual Storage Map
LPD  Link Pack Directory Entries      WLM  WLM Policy Information
MAKE Change Address Space             WTOR Outstanding Operator Replies
MCLS SMS Management Class Information  XCFM Display XCF Members
MDQ  Memory Delete Queue              XCFS Display XCF Structures
MEM  Display Memory                   XM   Cross Memory Connections


                                      MXI Version 3.1b
                                      (c) Scott Enterprise Consultancy Ltd
```

MXI Allocated Dataset Info

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


DD          Cat         Volume      EXCP Dataset
Name        Seq Unit    Serial      Count Name
STEPLIB     +00 1209    S3906R          0 SYS1.V2R5M0.SHASLINK
PROC00      +00 122A    S3906T        460 SYS4.PROD.PROCLIB
PROC00      +01 1209    S3906R         14 SYS1.PROCLIB
PROC00      +02 1209    S3906R          0 CPAC.PROCLIB
PROC00      +03 1209    S3906R          0 SYS1.IBM.PROCLIB
PROC02      +00 1C4B    CATPAK        288 SYS1.PRODPK.PROCLIB
PRT1        +00 050F                    0 SYS00062.T090946.RA000.JES2.R0116242
ALTPARM     +00 1209    S3906R          0 SYS1.PROD.PARMLIB.NEW
SYS00001    +00 122A    S3906T     192747 SYS1.PROD.HASPCKPT
$SPOOL1     +00 141A    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 -------------------------------- Row 1 of 69
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

SHOWMVS vs. MXI
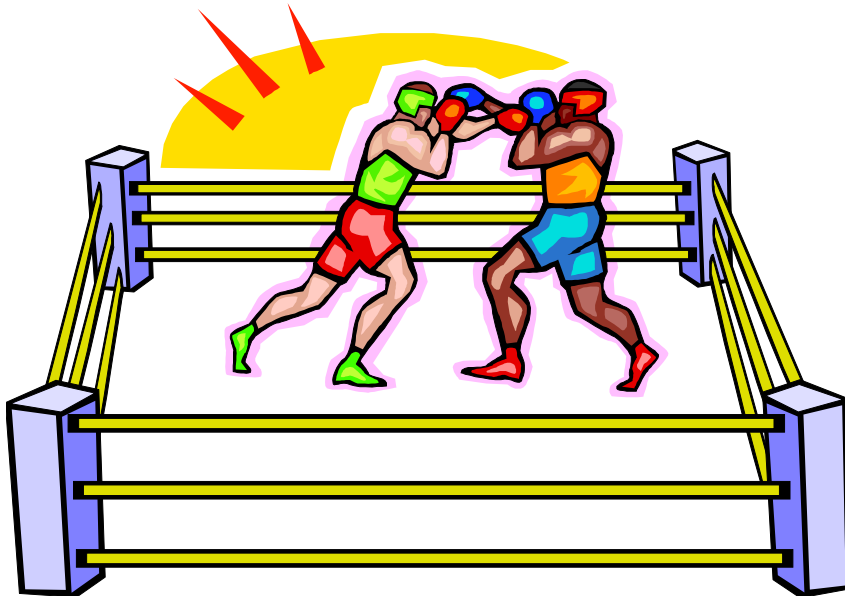
• Different but both have unique strengths. I use both!

• Both are updated frequently so stay current to have access to the latest features and information specific to the most recent OS/390 releases.

TASID System Information and more

TASID (pronounced tas-eye-dee) is a program that provides, among other things, information on system configuration, what is running on an OS/390 system (jobs, users, tasks, etc), ENQ contention information, current ENQs, Initiator information (JES2 only), DASD Space information, Allocated DD names, and storage displays. It is one of the most requested tools available on IBM's internal MVSTOOLS repository.
It is a free tool supplied by IBM in **OCO** format.

• ISRDDN now includes many featured first seen in TASID
• TASID is very easy to install and is never APF authorized

The most current copy of TASID and many other useful Tools and Toys from Doug Nadel are always available through the web at
http://www.mindspring.com/~somebody/

TASID

                        TASID option menu   Limited ENQ data
Option ===>

   Select one of the following options: Version 5.06c
       1 - Address space list   5 - Miscellaneous displays
       2 - System ENQ contention   6 - Current dataset allocations
       3 - Total system ENQ status   7 - Storage View Facility
       4 - Initiator Status List   8 - Snapshot

                                                           More: +

   +----------------------------------+------------------------------+
Current time 15:40 on 2000/03/07	TSO users 47
Last IPL time 19:23 on 2000/02/07	Started tasks 34
IPL Parameters 1C4B PT 1	Jobs 3
OS/390 02.06.00 JES version JES2	System addrs 25
SMF ID PROD JES level 2.5.0	Free initiators 9
User ID CSSJK RACF level 2.6.0	------------------------------
Node JES2MVS TSO version 2.6.0	Total 118
VTAM Adr TPXGR206 VTAM Level 4.5	------------------------------
Proc $SJKTEST DFSMS level 1.4.0	CPU utilization 27%
Region 255000K DSS Level 1.4.0	CPU 9672-R44 (2 CPUs)
RACF Grp TSOHOLD DSF level 1.16.	ENQ Contention None

TASID Current Dataset Allocations

- Compares to PDS LISTA screen but with less commands
- Detects common problem of mixed DSORG(s) under one ddname
- Provides a few basic commands to Browse, Edit, Compress, Free or perform some other simple functions with data sets already allocated to your session
- APF, LINK LIST, and LPA LIST libraries can can be added to this list by command
- Data sets can be searched for members and the search can be restricted to a ddname

```
                      Current Dataset Allocations    Line 6 of 115
 Command ===>                                        Scroll ===> CSR

Blksz Lrecl RCFM Org    Cmd DDname    Data set Name (Line commands: E,B,C,F,V,I,Q)
 23200    80 U     PO   >    ISPLLIB   CSSJK.LOAD
 23200    80 U     PO   >              LSC.TOOLS.ISPLLIB
  6144    ** U     PO   >              EOY.SEOYLPA
 32760    ** U     PO   >              SYS1.SCBDHENU
  6320    80 FB    PO   >    ISPMLIB   CSSJK.ISPF.PANELS
  8800    80 FB    PO   >              ISP.SISPMENU
```

TASID can be run in Batch

```
//TSO       EXEC PGM=IKJEFT01,DYNAMNBR=1600
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//ISPLIST   DD DUMMY
//ISPLOG    DD DUMMY
//ISPPLIB   DD DISP=SHR,DSN=ISP.SISPPENU
//ISPSLIB   DD DISP=SHR,DSN=ISP.SISPSENU
//ISPTLIB   DD DISP=SHR,DSN=ISP.SISPTENU
//ISPMLIB   DD DISP=SHR,DSN=ISP.SISPMENU
//ISPPROF   DD DSN=&&PROF,
//          DISP=(NEW,DELETE,DELETE),
//          UNIT=SYSALLDA,LRECL=80,RECFM=FB,DSORG=PO,
//          SPACE=(TRK,(5,1,5))
//SYSTSIN  DD *
 PROFILE NOPREFIX
 PROFILE MSGID

 ISPSTART PGM(TASID) PARM(8)
```

Tools for working with TAPE(s)

- Duplicate

- Examine Data

- Map Contents

- 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 by latest update.*

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)
```

TAPEMAP sample output

```
1VOL=OS360S                    CART ANALYSIS PROGRAM   (T A P E M A P)  V2.1            TUESDAY    NOV 03, 1998  (98.307)  14:14:03

---------------------------------------------------------------------------------------------------------------------
RELOAD    FILE                     PSWD                   INFO                    BLOCK  BLOCK              LNTH  TOTL  CREATOR
FORMAT    SEQ#  DATASET NAME        REQD   C-DATE  E-DATE  SOURCE  RECFM  LRECL    SIZE   COUNT  DEN   TRT  (FT)  LNTH  JOBNAME/STEPNAME
---------------------------------------------------------------------------------------------------------------------
0          1  O360S001                    98.012  00.000  LABELS  VB        94   32716    107   N/A                     SBGOLOB6/STEPYYY
  CBT973   2                                               SCAN    V              32716    107   N/A              8     8

           2  O360S002                    98.012  00.000  LABELS  VB        94   32716    107   N/A                     SBGOLOB6/STEPYYY
  CBT973   5                                               SCAN    V              32716    107   N/A              8    17

           3  O360S003                    98.012  00.000  LABELS  VB        94   32716     26   N/A                     SBGOLOB6/STEPYYY
  CBT973   8                                               SCAN    V              32714     26   N/A              2    19

EOV ***
0NOTE:  LENGTH(S) ARE COMPUTED, (BASED ON BLKSIZE, BLKCOUNT, AND DENSITY), AND ARE THEREFORE ONLY APPROXIMATE.
1VOL=OS360S                    CART ANALYSIS PROGRAM   (T A P E M A P)  V2.1            TUESDAY    NOV 03, 1998  (98.307)  14:14:03
---------------------------------------------------------------------------------------------------------------------
-O360S001        (FILE 0001) IS A CBT973 COMPRESSED FILE:    A-ADD    C-CHANGE    R-REPLACE    > = SUBORDINATE NAME
0              FOLLOWING MEMBERS UNLOADED:
0              A-IEMAA    A-IEMAB    A-IEMAC    A-IEMAD    A-IEMAE    A-IEMAG    A-IEMAH    A-IEMAI    A-IEMAJ    A-IEMAK
               A-IEMAL    A-IEMAM    A-IEMAN    A-IEMAP    A-IEMAS    A-IEMAT    A-IEMAV    A-IEMBC    A-IEMBE    A-IEMBF
               A-IEMBG    A-IEMBI    A-IEMBJ    A-IEMBM    A-IEMBN    A-IEMBO    A-IEMBP    A-IEMBR    A-IEMBS    A-IEMBT
               A-IEMBU    A-IEMBV    A-IEMBW    A-IEMBX    A-IEMCA    A-IEMCC    A-IEMCE    A-IEMCG    A-IEMCI    A-IEMCK
               A-IEMCL    A-IEMCM    A-IEMCN    A-IEMCO    A-IEMCP    A-IEMCR    A-IEMCS    A-IEMCT    A-IEMCV    A-IEMCW
               A-IEMED    A-IEMEF    A-IEMEG    A-IEMEH    A-IEMEI    A-IEMEJ    A-IEMEK    A-IEMEL    A-IEMEM
```
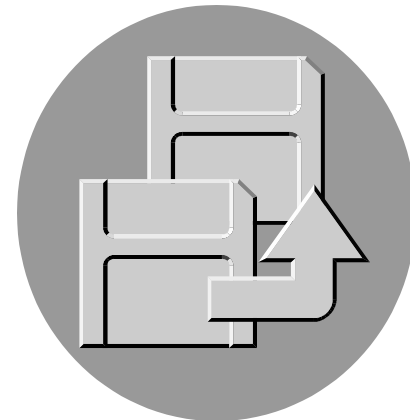
COPYMODS

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 FREEWARE 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
```

TAPESCAN Tape Analysis and Copying Program

TAPESCAN is found on CBT Tape File 102 with a load module on File 035.

Provides useful measure of "Total Bytes Read"

Map of contents

LIST parameter includes preview of each file in output
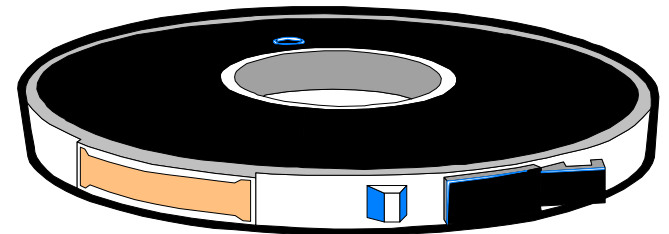
COPYFILE

```
//COPYSTEP 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=vvvvvv
//TAPELIN  DD DSN=OUTPUT.FILE,
//            UNIT=(&UN2,,DEFER),VOL=(,RETAIN,SER=vvvvvv),
//            DISP=(NEW,KEEP),LABEL=EXPDT=98000,DCB=TRTCH=COMP
```
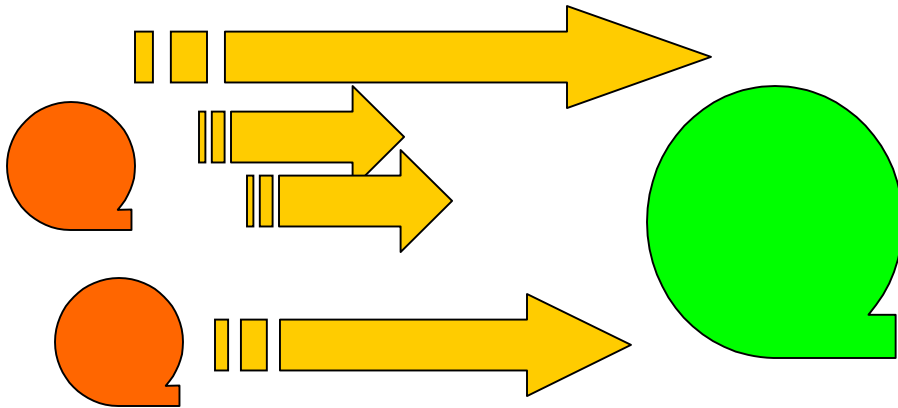
- Copy and reorder files

- 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

CBT Tapes

- CBT Tape on 3480 tape cartridge w/ IDRC

- Unload File 1 using IEBGENER for documentation on the contents and advice on getting started finding useful tools on the tape.

- Visit http://www.cbttape.org for updates and other goodies

- Updated frequently

CBT Tape Version 432 January - 25 - 2001

Getting started with a CBT Tape

JCL to unload File 1 (Documentation) or File 3 (Unload JCL)

```
//COPY      EXEC PGM=IEBGENER
//SYSPRINT DD   SYSOUT=*
//SYSUDUMP DD   SYSOUT=*
//SYSUT1    DD   DSN=FX,DISP=OLD,UNIT=uuuu,
//              DCB=(RECFM=FB,LRECL=80,BLKSIZE=32720),
//              VOL=SER=CBT432,LABEL=(n,NL,EXPDT=98000)
//SYSUT2    DD   DSN=userid.CBT432.FILEn,
//         DISP=(NEW,CATLG,DELETE),UNIT=SYSDA,VOL=SER=vvvvvv,
//              SPACE=(TRK,(5,5),RLSE),
//              DCB=(RECFM=FB,LRECL=80,BLKSIZE=6320)
//SYSIN     DD   DUMMY
```

- Explore File 1 possibly use CBTUPDTE program to break it up into a PDS of smaller members

Web Tour

http://www.sdsusa.com/techsupt/tsmag.htm

Free Archives with 13 years of NaSPA's Technical Support® Magazine

http://www.esj.com

Free access to current and back issues of Enterprise Systems Journal. Subscribe Free to the printed magazine on-line.

Web Tour

http://www.performancedoctor.com

Free Advice on Performance and Tuning problems

http://www.xephon.com

Free backs issues of Xephon MVS, DB2, RACF, CICS, and other Update publications from prior to 1998

Web Tour - IBM Redbooks

IBM has released a new 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** at http://ibm.com/redbooks or:

- Volume 1 http://www.redbooks.ibm.com/abstracts/sg245597.html
- Volume 2 http://www.redbooks.ibm.com/abstracts/sg245852.html
- Volume 3 http://www.redbooks.ibm.com/abstracts/sg245853.html
- Volume 4 http://www.redbooks.ibm.com/abstracts/sg245654.html
- Volume 5 http://www.redbooks.ibm.com/abstracts/sg245655.html

On-Line Computer Dictionaries

UPDATE!

- **IBM** Terminology

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

FOLDOC
Free On-Line Dictionary Of Computing

- Free On-Line Dictionary of Computing

http://www.foldoc.org

I find this one handy too ➡ **http://www.dictionary.com/**

Freeware Formats and Sources

- Many traditional distribution channels for the exchange for free software are no longer being maintained.

- Free software updates now must also be obtained from the Internet.

- Formats for software delivery on the Internet vary from those which long time users of S/390 free software may be familiar.

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
- 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
- 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 typical 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 typical XMIT + ZIP

Extract _name.XMI_ 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 are excellent tools.

Freeware Unzipping programs are almost as good and many can be found be searching PC Freeware web sites such as

NoNags http://www.nonags.com .

For Windows EnZip is a good one you can download from http://www.cpam.freeserve.co.uk

How to download and restore typical 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 Blue Zone 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/download%20trouble.htm

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

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

PDS Magician!

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

- Download it from http://www.atbsconsulting.com/magician.htm
- Written in Visual Basic
- First public release February 2000
- Future enhancements will follow

You may also be interested in David Alcock's "UnXMIT Information Page" at
http://www.planetmvs.com/UnXMIT/index.html

Hercules - What is it?

• Hercules is a System/370 and ESA/390 emulator which can IPL and execute S/370 and ESA/390 instructions. 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 or Windows

• Capable of running MVS/ESA, OS/390, VM/ESA, VSE/ESA and older Operating Systems such as MVT, MVS 3.8 and VM/370

• Refer to Session 2880 in the proceeding
    "370/390 Emulation Under Linux with the
    Hercules Emulator: MVT Lives!" presented here in Long Beach

• Included on the CBT CD or download from the Internet

Hercules Home Page
http://www.conmicro.cx/hercules

Hercules - Where to get it?

Active User Community recently moved to Yahoo

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

• Post message: hercules-390@yahoogroups.com
• Subscribe: hercules-390-subscribe@yahoogroups.com
• Unsubscribe: hercules-390-unsubscribe@yahoogroups.com
• List owner: hercules-390-owner@yahoogroups.com

New Users Documentation Effort for Hercules
http://www.kiyoinc.com/hercdoc.html

My Hercules links at:
http://www.cbttape.org/links.phtml#Hercules

Where to get FREE software?

CBT Tape Home Page http://www.cbttape.org

• Download CBT Tape, CBT Overflow Tape, Pending updates to the CBT tape and other freeware collections. The files are stored primarily as XMIT + ZIP and when restored properly preserve all the original MVS attributes. No special user id's or memberships are required to download or to upload contributions.

• Free email list you can sign up for to receive notifications about updates to the CBT Tape and other interesting MVS Freeware.

Where to get FREE software?

NaSPA - http://www.naspa.net

• Membership in NaSPA is required to access the download area. NaSPA members receive a CD-ROM annually which normally includes the current CBT Tape when the CD-ROM is prepared.

NaSPA
NETWORK AND SYSTEMS
PROFESSIONALS ASSOCIATION

NaSPA: World-wide not-for-profit
Network and Systems Professionals Association
for enterprise computing professionals; publishers
of Technical Support Magazine.

Freeware Potpourri

- This list is a subset of the on-line list of MVS Freeware links at: http://www.cbttape.org/links.phtm

- Gilbert Saint-Flour's Tools http://members.home.net/gsf/

- Dave's MVS page http://planetmvs.com

- IBM TASID http://somebody.home.mindspring.com

- Mike Cleary http://home.pacbell.net/mcleary/freeware.html

- Mark Zelden's MVS Utilities http://www.flash.net/~mzelden/mvsutil.html

- Info-ZIP Home Page http://www.cdrom.com/pub/infozip/Zip.html

- Leonard Woren http://www.best.com/~ldw/mvs/

IMPORTANT

Freeware Potpourri (cont)

- Lionel Dyck's OS/390 Freeware including tools to make using FTP, Email easier, and ISPF OEM product installation less painful http://www.geocities.com/lbdyck

- Doug Nadel's OS/390 Tools and Toys including the latest version of TASID, Query Enq REXX function, ISRDDN documentation, much, much, more... http://www.mindspring.com/~somebody/tasid.htm

- David McRitchie's REXX Macros Toolbox Over 160 Edit Macros for use with ISPF and SPF/PC http://www.geocities.com/davemcritchie/rexx/nclist.htm

- Michael A. Newell's PDS2PDS (PDS to PDS) is an IBM MVS ISPF utility that lets you display the members of two partitioned datasets side-by-side on the same screen. http://wb4huc.home.texas.net/pds2pds/

- Jan Jaeger's S-390 System Utilities (ZZSA standalone editor, DASD tools) and other useful tools http://home-5.worldonline.nl/~jjaeger/

S/390 Information Potpourri

- Sam Knutson's S/390 Home Page
  http://www.knutson.org/s390.htm

- Eric Loriaux   http://www.loriaux.com/s390

- IBM Home Page http://www.ibm.com

- Balbir Oberoi's http://www.geocities.com/~oberoi/mainfrme.html

- Washington System Center Flashes and documents
  http://www.ibm.com/support/techdocs/wsc

- Chuck Hopf http://www.chopf.com/geekland.shtml

S/390 Information Potpourri (cont)

- Rock Painter's Links and Rexx Examples http://www.texasrock.com

- IBM Catalog and VSAM Knowledge Base
  http://knowledge.storage.ibm.com

- David Elder-Vass MVS Systems Programming is now back in print through and partially on-line at http://www.mvsbook.fsnet.co.uk

- IBM S/390 Library http://www.s390.ibm.com/library

VM & VSE Sites of interest

VM Home Page is located at http://www.vm.ibm.com

The VM Workshop Tools at http://ukcc.uky.edu/~tools

WAVE User Group at http://www.wavv.org

VMESA-L Archives
http://listserv.uark.edu/archives/vmesa-l.html

VSE-L Home
http://www.lehigh.edu/~wsm0/vse-l/vse-l_archives.shtml

Melinda Varian's Page http://pucc.princeton.edu/~melinda
(Paper VM and the VM Community: Past, Present, and Future, and more!)
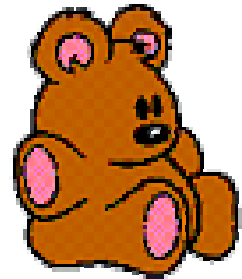
What is a mailing list and how do I find mailing lists?

- 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®
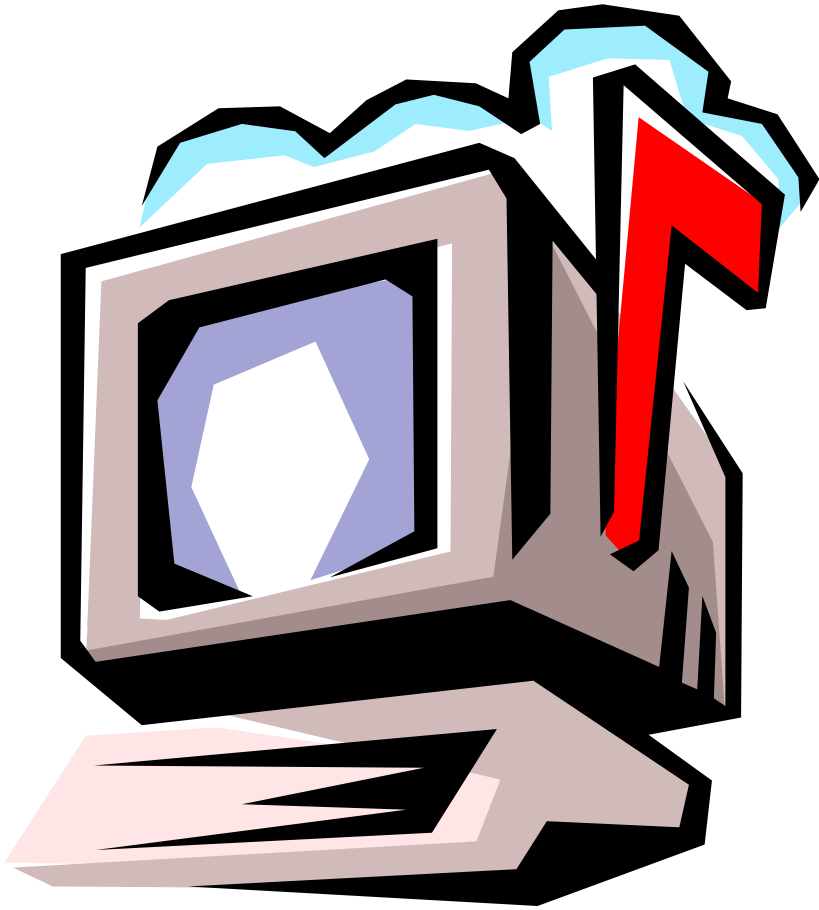
ISBN: 0-7645-0700-1.

- There are several catalogs of lists available on the web.
  - My list http://www.knutson.org/internet.htm
  - 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
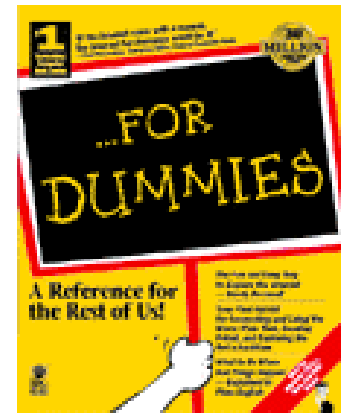
Mail Lists

"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.

What is a mailing list and how does it work?

- 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

Who runs a mailing list and Why?

- A real human being can run a mailing list by hand but computers run most and those are the ones I am going to talk about.

- A mailing list is normally created to facilitate discussion related to a particular topic.

Will you give me an example?

- YES!

- The mailing list I am going to use for my examples is the IBM-MAIN mailing list.

- IBM-MAIN is the IBM Mainframe Discussion List and is a very active mailing list frequently getting more than 150 messages a day.

How does it work?

• There are two email addresses associated with a list server. The list server has an address to which you send commands which normally takes the form LISTSERV@list i.e. LISTSERV@BAMA.UA.EDU

• The list has an address that you use when you want to send a message to everyone who is a list member which normally takes the form listname@list i.e. IBM-MAIN@BAMA.UA.EDU

How do I join 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"

How do I join a mailing list?

- So to join the IBM-MAIN mailing list I send a message like this one:

To: LISTSERV@bama.ua.edu

From: Sam Knutson <sknutson@cbttape.org>

Subject: listserv

subscribe ibm-main Sam Knutson

How do I join a mailing list?

- The listserv sends back a message to the email address which is being signed-up and asks for confirmation that you want to be subscribed. This is a simple control to prevent someone from signing you up for email you don't want

How do I join a mailing list? Command confirmation request

Date: Wed, 17 Feb 1999 17:09:29 -0600
    From: "L-Soft list server at U of A (1.8c)" <LISTSERV@BAMA.UA.EDU>
    Subject: Command confirmation request (477D8A)
    To: Sam Knutson <sknutson@CBTTAPE.ORG>

Your command:

SUBSCRIBE IBM-MAIN Sam Knutson

has been received. You must now reply to this message (as explained below) to complete your subscription. The purpose of this confirmation procedure is to check that the address LISTSERV is about to add to the list for your subscription is reachable. This is a typical procedure for high-volume lists and all new subscribers are subjected to it - you are not being singled out. Every effort has been made to make this verification as simple and painless as possible. Thanks in advance for your cooperation.

How do I join a mailing list? Command confirmation request

To confirm the execution of your command, simply reply to the present message and type "ok" (without the quotes) as the text of your message. Just the word "ok" - do not retype the command. This procedure will work with any mail program that fully conforms to the Internet standards for electronic mail. If you receive an error message, try sending a new message to LISTSERV@BAMA.UA.EDU (without using the "reply" function - this is very important) and type "ok 477D8A" as the text of your message. Finally, your command will be cancelled automatically if you do not confirm it within 48h. After that time, you must start over and resend the command to get a new confirmation code. If you change your mind and decide that you do NOT want to confirm the command, simply discard the present message and let the command expire on its own.

What next?

- The listserv will wait for you to reply before actually putting you on in the mailing list. I do want to subscribe so I send back the message it directed me to.

To: LISTSERV@bama.ua.edu
From: Sam Knutson <sknutson@cbttape.org>
Subject: Re: Command confirmation request (477D8A)

ok

Joined at last!

The listserv will now send back two email messages. Any time you send the listserv a command it sends you a summary about the execution of that command. This is what I call the geek message i.e.

```
> ok
Confirming:
> SUBSCRIBE IBM-MAIN Sam Knutson
You have been added to the IBM-MAIN list.
Summary of resource utilization
--------------------------------
CPU time: 0.020 sec
Overhead CPU: 0.010 sec
CPU model: Ultra-Enterprise (1024M)
```

Welcome to the list

- The welcome message is a lot more friendly and informative i.e.

```
Date: Wed, 17 Feb 1999 17:11:21 -0600
From: "L-Soft list server at U of A (1.8c)"
<LISTSERV@BAMA.UA.EDU>
Subject: You are now subscribed to the IBM-MAIN list
To: Sam Knutson <sknutson@CBTTAPE.ORG>
Reply-To: IBM-MAIN-request@BAMA.UA.EDU

Wed, 17 Feb 1999 17:11:21

Your subscription to the IBM-MAIN list (IBM Mainframe
Discussion List) has been accepted.


Please save this message for future reference
```

Digest

The IBM-MAIN list gets 100 - 200 messages each day. Digest delivers a days worth of messages concatenated in one large daily email.

To: LISTSERV@bama.ua.edu
From: Sam Knutson <sknutson@cbttape.org>
Subject: listserv

set ibm-main digest

$HASP000 OK

The listserv once again sends me back a message showing that it executed my command and the resources used i.e.

Date: Thu, 18 Feb 1999 06:43:38 -0600
       From: "L-Soft list server at U of A (1.8c)" <LISTSERV@BAMA.UA.EDU>
       Subject: Output of your job "sknutson"
       To: Sam Knutson <sknutson@CBTTAPE.ORG>

> set ibm-main digest
Your subscription options have been successfully updated. Here are the exact
settings now in use for your subscription. Please take a few moments to
check that this is indeed what you wanted.
Subscription options for Sam Knutson <sknutson@CBTTAPE.ORG>, list IBM-MAIN:
DIGEST You receive list digests, rather than individual postings
MIME You prefer to receive messages in MIME format
FULLHDR Full (normal) mail headers (formerly "FULLBSMTP")
NOREPRO You do not receive a copy of your own postings
NOACK No acknowledgement of successfully processed postings
Subscription date: 17 Feb 1999
Summary of resource utilization

CPU time: 0.010 sec
Overhead CPU: 0.010 sec
CPU model: Ultra-Enterprise (1024M)

Mail List Options

- I also followed up by sending another message to select the ACK and REPRO options since I like a "warm fuzzy" feeling that my posts went through. You can send multiple set commands in one email just put each on a new line.

- It is also a good idea to set the CONCEAL option for lists that support it.

IBM-MAIN

- You can also read and search on past messages on IBM-MAIN at the web archives without joining the list. 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.

http://bama.ua.edu/archives/ibm-main.html

Hold the mail I am taking a vacation

- If you want to temporarily halt email from IBM-MAIN you can use the SET NOMAIL command i.e.

To: LISTSERV@bama.ua.edu
From: yourname
Subject: listserv

set ibm-main nomail

Resume Delivery

• to reverse this you just send another message

To: LISTSERV@bama.ua.edu

From: yourname

Subject: listserv

set ibm-main mail

Posting

Just send an email to the list..

To: 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.
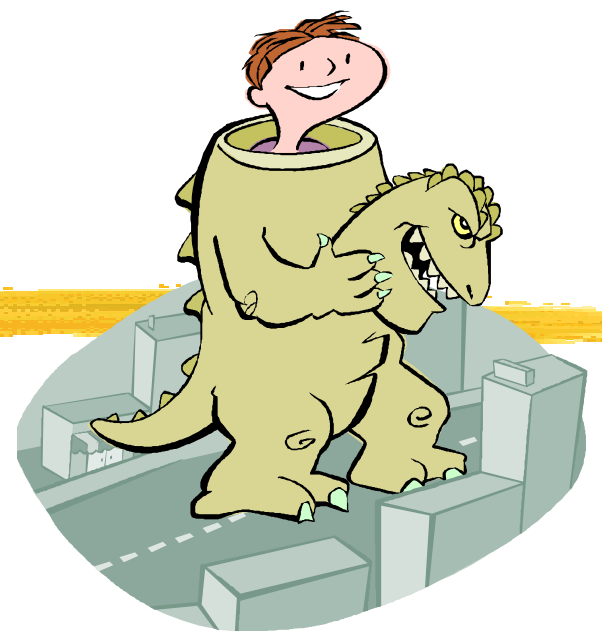
Searching Archives

Just send an email to the LISTSERV

To: LISTSERV@bama.ua.edu

From: yourname

Subject: CMD

search ibm-main IEA602I

The reply with include snips of the postings and a set of GETPOST commands you can use to retrieve the full text of all the postings. For advanced options see the INFO-CARD described in the welcome message. The archives can also be searched from the web.

Stop the "email" I want to get off!

- If you decide you want to unsubscribe it's easy to do. Send the following

To: LISTSERV@bama.ua.edu

From: yourname

Subject: listserv

signoff ibm-main

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.
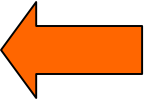
Ms. Manners on "Netiquette"

- 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.

Avoid HTML in e-mail

Smith<p>
Let me add to John's statement - it's difficult to "automagically"

convert from assembly language to anything, much less legible C.
<p>But, since part of your goal was to run the 390 program on NT,

perhaps you could use some of the execellent 390 emulators available

around today... that is, don't convert your program,

just "run it."

<p>   - John Smith-

<pre>--
smith@biz.com
           &
nbsp;   Work: (555) 123-1234
Get your widget at <A
HREF="http://www.biz.com">http://www.biz.com</A></pre>
 </html>

Avoid Out of Office Reply to List

Your email message RE: "Re: Storage not released at end of JOB ..." addressed to John Smith has been successfully delivered.
John Smith is currently out of the office and will SOON return on 01/16/2000

Message: I am currently on an assignment in CSC Frankfurt , please mail me at jsmith2@biz.com

A copy of your email has been delegated to: jsmith2@biz.com;

This communication is for informational purposes only. It is not intended as an offer or solicitation for the purchase or sale of any financial instrument or as an official confirmation of any transaction, unless specifically agreed otherwise. All market prices, data and other information are not warranted as to completeness or accuracy and are subject to change without notice. Any comments or statements made herein do not necessarily reflect those of Biz Incorporated, its subsidiaries and affiliates.

Turn off WINMAIL.DAT in Microsoft Exchange

A good way to annoy people is to repeatedly
fill their mailbox with the useless WINMAIL.DAT attachments that
Microsoft Exchange insists on including. Email sent from Exchange to a non-Exchange
mail reader may contain an Attachment called
WINMAIL.DAT. If you use Exchange, you won't see this file, and
the message will retain its formatting. However, it can be
confusing for those who don't use Exchange (the majority of the
Internet population), and have no use for this file. Here's how
to turn it off:

Step #1: Double-click on the Mail and Fax icon in Control Panel.
Click on the Services tab, and select Internet Mail from the
list. If Internet Mail is not listed, click Add to add this
service. Click Properties, and then Message Format. Turn off the
option that reads Use MIME when sending messages. Click OK and
then OK again.

# Turn off WINMAIL.DAT in Microsoft Exchange II

Step #2:

Double-click on the name of each recipient in your Address Book.
Turn off the option that reads Always send to this recipient in
Microsoft rich-text format. This option needs to be set for each
recipient of a message - if even one has this turned on, all
recipients will still get the attachment.

Note: Either of these methods should work for most users, but
sometimes nothing seems to work. If you plan to be sending lots of internet email, you
might consider using a mail program such as Eudora. Information on the free Eudora
Light and commercial Eudora Pro can be found at http://www.eudora.com

This information is based on a message from Wilson Smith which you can read at:
http://www.xnet2.com/patti/archives/9608/msg00962.html
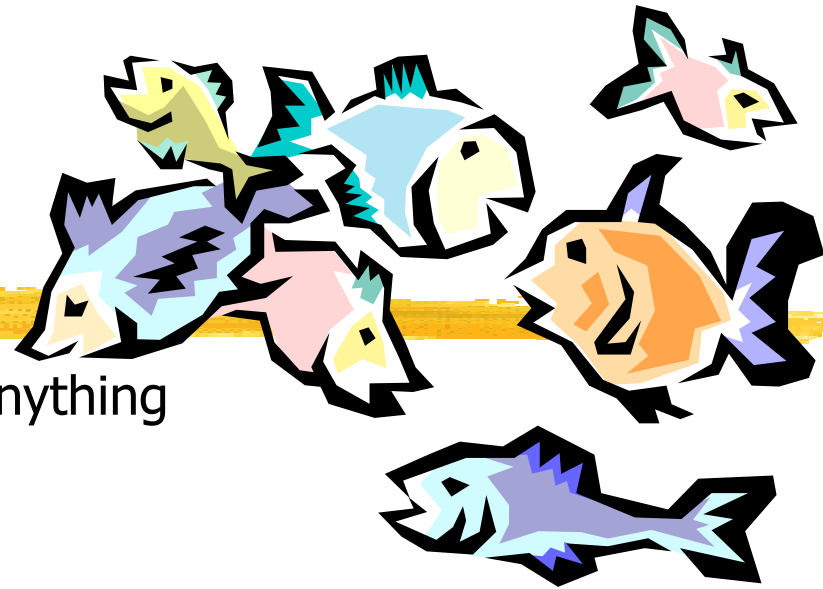
IBM-MAIN

- Topic: IBM S/390 Computing almost anything
  Name: IBM-MAIN
  Type: LISTSERV
  Listserv: LISTSERV@bama.ua.edu
  List: IBM-MAIN@bama.ua.edu
  Web: http://bama.ua.edu/archives/ibm-main.html
  News: 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 Bakery

"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

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

  List: 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
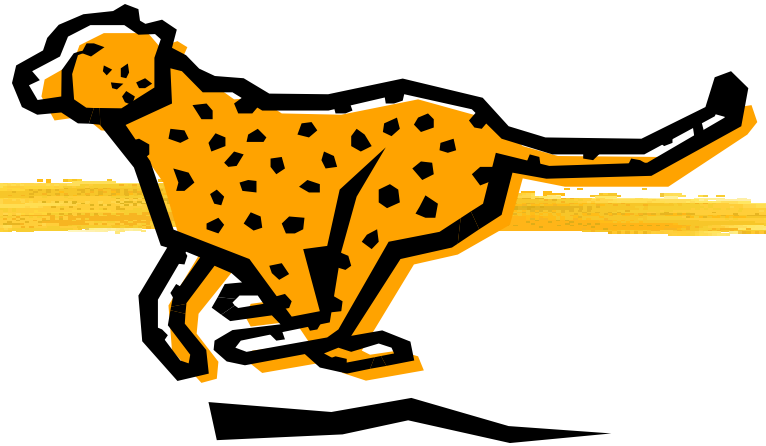
Topic: IBM DB/2 database

Name: DB2-L

Type: LISTSERV

Listserv: LISTSERV@RYCI.COM

List: DB2-L@RYCI.COM

Web: http://jupiter.ryci.com/archives/db2-l.html

News: bit.listserv.db2-l

Weekday Message Volume: 50 - 75

More information: http://www.ryci.com/db2-l (FAQ)

Notes: DB2 Freeware Archives for the list

            http://jupiter.ryci.com/archives/db2-l-documents.html

ASSEMBLER-L

```
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'
```

- Topic: Assembler programming on S/390
  Name: ASSEMBLER-L
  Type: LISTSERV
  Listserv: LISTSERV@LISTSERV.UGA.EDU
  List: 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:

CICS-L

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

http://www.yelavich.com/
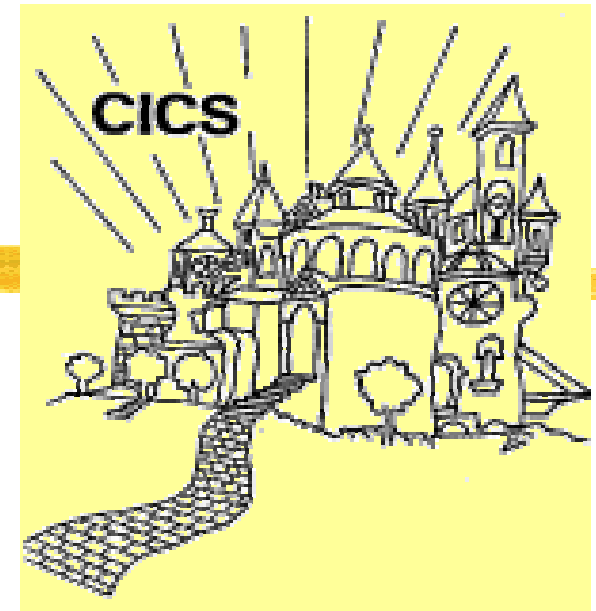
Great Site for CICS folks!

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.

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.

Deja™ and RemarQ™ Gone

Deja™ and RemarQ™ were web sites which also provided the capabilities now available through Google™ groups. Google™ acquired Deja™ and RemarQ™ closed down.

Deja™ had collected Usenet

Archives dating back to 1995 and

these will eventually be searchable at

Google™.

SHARE Members Only

Located at http://www.share.org/members

➡ • **Mail-List Repository with 6 month read-only, searchable archive of many lists including IBM-MAIN.**

➡ • **Proceedings Archive back to SHARE 92**
     San Francisco February 1999

• **A few sessions available as Web Casts**

• **Download Area (not current)**

• **Requirements (Work in Progress)**

• **Requires registration to use**

S H A R E

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

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. Send contributions only suited for the CD-ROM 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@attglobal.net

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

Other email newsletters

- IBM e-business and Software News Alert

http://www.ibm.com/software/news-alert/subscribe.html

- Cheryl's List (free Performance, Tuning, and Tidbits)

http://www.watsonwalker.com/feed.html

CBT Tape Newsletter

http://www.cbttape.org/maillist.htm

Errata and more information after SHARE

- The foils from this presentation as well as any additions or corrections will be posted at my web site following the SHARE conference and will be in the proceedings.

- http://www.knutson.org/share96.htm

- Feel free to call me at (703) 464-1615 or email me at sknutson@landmark.com or sknutson@cbttape.org Please send any additions or corrections I would be glad to include them.

Special Thanks

- Sam Golob
- Sylvia Gorman
- Greg Dyck
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- Gilbert Saint-Flour
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- Roger Bowler
- Jay Maynard
- Giliad Wilf
- Reza Heydarpour

- Gabe Goldberg
- Rob Scott
- Doug Nadel
- Bruce Leland
- Ric Smith
- Monique Conway
- Jim Marshall
- Rick Fochtman
- Patrick Allmond
- Pat Michaels
- Matt Bressler
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- IBM-MAIN
- Peter Relson
- Dean Montevago
- Edward(Ed) J. Finnell, III
- Darren Evans Young
- John Ells
- Brian Perryman
- Jim Keohane
- Mark Zelden
- Greg Price
- Rob Scott

The End

THANK YOU

Please fill out your session evaluations.