Bit Bucket x'39'

Ed Jaffe, edjaffe@phoenixsoftware.com
Tom Conley, pinncons@rochester.rr.com
Aron Eisenpress, aron.eisenpress@cuny.edu
Mary Anne Matyaz, maryanne4psu@gmail.com
Sam Knutson, Samuel.Knutson@compuware.com

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LOOK WHAT WE FOUND
IN THE BIT BUCKET

BOB SHANNON
AETNA LIFE AND CASUALTY COMPANY
AETNA INFORMATION TECHNOLOGY
151 FARMINGTON AVENUE   C14F
HARTFORD, CT 06156
(203)273-6891

CARL YOUNGREN
STATE OF CALIFORNIA
HEALTH AND WELFARE DATA CENTER
TECHNOLOGY DIVISION
1651 ALHAMBRA BLVD
SACRAMENTO, CA 95816
(916)739-7660

CSRCESRV

DATA COMPRESSION/EXPANSION SERVICE

INTRODUCED BY SPE UY90354 IN SP 3.1.0e

UTILIZES "RUN LENGTH ENCODING" (RLE) ALGORITHM - MOST EFFECTIVE FOR REPEAT CHARACTERS

INVOKED BY CSRCESRV MACRO

ESA: MODULES IN PLPA

XA: SUPPORTS QUERY AND EXPAND SERVICES ONLY

USE ESA VERSIONS OF MACLIB AND MIGLIB

LOAD MODULE CSRCEXA

USE VECTOR OPERAND FOR EPA

CSRCESRV *DOES NOT* PROVIDE A RECOVERY ROUTINE

Coffee Has Gotten Expensive

(Ed Jaffe)

Coffee Has Gotten Expensive

- In 2016, it was reported that Oracle was looking for ways to spin their ownership of Java® into more revenue for the company.
- In June 2018, they announced that beginning in January 2019,they would no longer provide free security updates to Java 8, and that you may incur a licensing cost if you are using Java in a commercial environment.
- If you downloaded your Java SE binary from Oracle.com (under Java's Binary Code License, BCL) and are using it in any of your products, devices, or platforms for commercial purposes or within your business, then you are affected by this change in policy.
- Their price list shows commercial licenses for Java SE Advanced and Java SE Suite are $5000/core and $15000/core respectively.
- At work our Intel NUC PCs have four hyperthreaded cores EACH!
- Do the math!

What About IBM Products and Middleware?

- "... customers who use the IBM SDK or JRE bundled with their IBM product (for example, WebSphere, Netcool, MQ), including Java SDKs/JREs for Windows, macOS, and Solaris, are not affected by Oracle's announcement, provided that the IBM Java SDK/JRE is used solely in the context of operating the product. Customers who use the IBM Java SDK/JRE on their Power, LinuxOne, IBM i, and z/OS platforms are also not affected by Oracle's changes."

- "For those who need enterprise-grade support for some or all of their Java deployments, IBM offers IBM Runtimes for Business (at a low cost), allowing you to raise tickets and get help in resolving issues discovered in or with the Java runtime. IBM Runtimes for Business also provides industry-leading monitoring capabilities for Java running in your server environments."

Alternatives?

- The AdoptOpenJDK community makes available Java binaries that are free to use in both personal and commercial environments, and receive free security updates through a collaborative effort by the community at OpenJDK.

- OpenJDK with Eclipse OpenJ9 uses the cloud-, server-, and workstation-optimized JVM from IBM and is available for Linux® on x86-64 and other architectures like IBM Power® and System/390®, Windows™, and macOS®.

- This IBM blog published in January called "OpenJDK with Eclipse OpenJ9: No worries, just improvements" is worth a read.
  - https://developer.ibm.com/blogs/openjdk-with-eclipse-openj9-no-worries-just-improvements/

- For Eclipse-based Java development on PC intended for deployment on z/OS (via Open Liberty & Tomcat), we are now standardized on the OpenJDK freely available for download from IBM's developer site.

# AREADing is Fundamental

(Ed Jaffe)

AREAD/AINSERT

- **A recent disagreement on ASSEMBLER-LIST about the usefulness of AREAD/AINSERT prompted me to make what turned out to be a surprisingly controversial statement: "AREAD/AINSERT is arguably the most powerful single mechanism in all of HLASM. We use it *everywhere* to build tables and we've even created a sort of "compiler" that allows us to do wondrous things. I highly recommend its use!"**

- **I'll give one quick AREAD example.**

AREAD instruction

The AREAD instruction assigns an arbitrary character string value to a SETC symbol.

The AREAD instruction has two formats. The first format lets you assign to a SETC symbol the character string value of a statement that is placed immediately after a macro instruction.
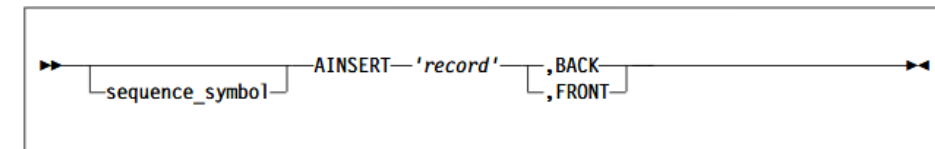
The AREAD instruction can only be used inside macro definitions.

```
Assign character string value

►►─SETC_symbol─AREAD──────────────────────►◄
                      ├─NOPRINT─┤
                      └─NOSTMT──┘
```
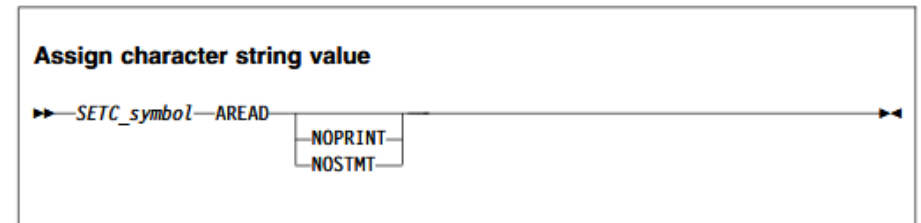
AINSERT instruction

The AINSERT instruction inserts records into the input stream. If it is used in a macro, the records are queued in an internal buffer until the macro generator has completed expanding the current outermost macro instruction. At that point the internal buffer queue is inserted into the input stream, so that it provides the next record or records. If AINSERT is used in open code, the buffer queue only contains one record, which is inserted immediately after the AINSERT instruction. An operand controls the sequence of the records within the internal buffer queue.

Note: You can place inserted records at either end of the buffer queue, the records are removed only from the front of the buffer queue.

```
►►──────────────────AINSERT──'record'──┬──────┬──►◄
    └─sequence_symbol─┘                 ├,BACK─┤
                                        └,FRONT┘
```

AREAD/AINSERT

- Ordinarily, to build a static table in HLASM, you hand-code DC statements or you create a macro with a bunch of positional or keyword parameters to code them for you. Both ugly options.

```
ECPDSECT DSECT  ,                    Command Processing Table
ECPCMD   DS    CL8                   Command text
ECPCMDLN DS    AL1                   Length byte for command test
ECPSAFAC DS    AL1                   Required SAF access level
ECPPRTYP DS    AL1                   Processing type
ECPFLGS1 DS    XL1                   Flag Byte
ECP10        EQU  0                  ..Placeholder
ECP1JLVL   EQU   X'80'               ..Job Level Request
ECP1GLVL   EQU   X'40'               ..Group Level Request
ECP1NUMN   EQU   X'20'               ..Expand numeric suffix
ECPRTYPE DS    AL1                   Request type
ECPROPT2 DS    AL1                   Options bits
ECPROPT3 DS    AL1                   Options bits
ECPACHAR DS    CL3                   Action characters
ECPDESCR DS    CL24                  Line command description
ECPLENTH EQU   *-ECPDSECT            Length of Command Table Entry
```

- You can instead write a macro that uses AREAD to read in a blank-delimited table, parse the terms, and generate the DC statements dynamically from that.

```
DC CL8'/',AL1(1,EJ$SAF0,0,ECP10+ECP10,EMRQT0,0,0),XL3'0',CL24' '
DC CL8'A',AL1(1,EJ$SAFUP,28,ECP10+ECP10,EMRQTALT,0,0),XL3'0',CL24'Alter'
DC CL8'BB',AL1(2,EJ$SAF0,4,ECP10+ECP10,EMRQTBRO,EMRFTGRP,0),X'00',CL2'B',CL24'ISPFBrowse'
DC CL8'BV',AL1(2,EJ$SAF0,4,ECP10+ECP10,EMRQTBRO,EMRFTGRP,0),X'00',CL2'V',CL24'ISPFView'
DC CL8'B',AL1(0,EJ$SAF0,4,ECP10+ECP1NUMN,EMRQTBRO,EMRFTGRP,0),XL3'0',CL24'Browse'
...
```

- **Start with a common inner macro that parses blank-delimited terms.**
- **This macro, called PhnxParsTerm removes the next word from a variable called &PhnxStmt and places it in variable &PhnxTerm.**

```
          MACRO ,
&LABEL    PhnxParsTerm ,
          GBLC  &PhnxStmt,&PhnxTerm
&PhnxTerm SETC  ''
.Search   ANOP  ,
          AIF   ('&PhnxStmt' LE ' ').NullStmt    .Branch if null
          AIF   ('&PhnxStmt'(1,1) GT ' ').Found  .Branch if found
&PhnxStmt SETC  '&PhnxStmt'(2,*)                 .Shift off blank
          AGO   .Search                          .Continue search
.Found    ANOP  ,
&PhnxTerm SETC  '&PhnxStmt'                       .Set term
&I1       SETA  INDEX('&PhnxStmt',' ')            .Search for blank
          AIF   (&I1 EQ 0).NullStmt               .Branch if no blank
&PhnxTerm SETC  '&PhnxStmt'(1,&I1-1)              .Set term substring
&PhnxStmt SETC  '&PhnxStmt'(&I1,*)                .Advance past term
          MEXIT ,                                 .Exit
.NullStmt ANOP  ,
&PhnxStmt SETC  ''                                .Set stmt = null
          MEND  ,                                 .Exit
```

AREAD/AINSERT

- **Armed with that primitive, you then author macros that generate your tables. For example:**

```
            MACRO ,
&LABEL      ECPGEN &TYPE
            GBLC  &PhnxStmt,&PhnxTerm
&LABEL      DC    0D
.ARead      ANOP  ,
&PhnxStmt   AREAD ,                          .Read a line of input
&I1         SETA  INDEX('&PhnxStmt','ECPGEN') .Search for END
            AIF   (&I1 GT 0).Finish          .Branch if no more
            PhnxParsTerm ,                    .Parse a term
            AIF   ('&PhnxTerm' EQ '').ARead    .Branch if null
            AIF   ('&PhnxTerm'(1,1) EQ '*').ARead .Branch if comment
&Cmd        SETC  '&PhnxTerm'                 .Set command
            PhnxParsTerm ,                    .Parse a term
&Saf        SETC  '&PhnxTerm'                 .Set SAF access
            PhnxParsTerm ,                    .Parse a term
&Proc       SETC  '&PhnxTerm'                 .Set process type
            PhnxParsTerm ,                    .Parse a term
&Lvl        SETC  '&PhnxTerm'                 .Set object level
            PhnxParsTerm ,                    .Parse a term
&Req        SETC  '&PhnxTerm'                 .Set request type
            PhnxParsTerm ,                    .Parse a term
&Opt2       SETC  '&PhnxTerm'                 .Set options bits
```

```
            PhnxParsTerm ,                    .Parse a term
&Opt3       SETC  '&PhnxTerm'                 .Set options bits
            PhnxParsTerm ,                    .Parse a term
&Achar      SETC  '&PhnxTerm'                 .Set action characters
            PhnxParsTerm ,                    .Parse a term
&Help       SETC  '&PhnxTerm'                 .Set help text
&Extra      SETC  '&PhnxStmt'                 .Set remaining text
... (macro processing of the terms if necessary)
            DC    CL8'&Cmd. '        Command text
            DC    AL1(&I1)           EXecuted compare length
            DC    AL1(EJ$SAF&Saf)    SAF access
            DC    AL1(&Proc)         Processing type
            DC    AL1(ECP1&Lvl+ECP1&C1) Object level
            DC    AL1(EMRQT&Req)     Request type
... (other processing)
            DC    CL24'&Help. '      Help text
            AGO   .ARead                       .Read next input line
.Finish     ANOP  ,
&LABEL.# EQU   (*-&LABEL)/ECPLENTH Number of table entries
            DC    XL4'FFFFFFFF'      Set end of table indicator
            MEXIT ,
            MEND  ,
```

AREAD/AINSERT

- **Then code your tables using free-format blank-delimited structure.**

```
CMDTBL ECPGEN START
*Cmd   Sf Pr Lvl   Req Opts2 Opts3 Actions       Help
  /     0  0  0     0   0     0     XL3'0'
  A    UP 28  0    ALT  0     0     XL3'0'        Alter
  BB    0  4  0    BRO FTGRP  0     X'00',CL2'B'  ISPFBrowse
  BV    0  4  0    BRO FTGRP  0     X'00',CL2'V'  ISPFView
  B#    0  4  0    BRO FTGRP  0     XL3'0'        Browse
 ...  (many more commands)
       ECPGEN END
```

AREAD/AINSERT

- ## The assembled code

```
+CMDTBL      DC    0D
-*Cmd  Sf  Pr  Lvl   Req Opts2 Opts3 Actions       Help
- /    0  0  0    0   0    0     XL3'0'
+CMDTBL_X61D DC CL8'/ '              Command text
+        DC    AL1(1)               EXecuted compare length
+        DC    AL1(EJ$SAF0)         SAF access
+        DC    AL1(0)               Processing type
+        DC    AL1(ECP10+ECP10)       Object level
+        DC    AL1(EMRQT0)          Request type
+        DC    AL1(0)               Options bits
+        DC    AL1(0)               Options bits
+        DC    XL3'0'               Action characters
+        DC    CL24' '              Help text
- A    UP 28 0    ALT 0    0     XL3'0'           Alter
+CMDTBL_A DC    CL8'A '              Command text
+        DC    AL1(1)               EXecuted compare length
+        DC    AL1(EJ$SAFUP)        SAF access
+        DC    AL1(28)              Processing type
+        DC    AL1(ECP10+ECP10)       Object level
+        DC    AL1(EMRQTALT)        Request type
+        DC    AL1(0)               Options bits
+        DC    AL1(0)               Options bits
+        DC    XL3'0'               Action characters
+        DC    CL24'Alter '         Help text
```

```
- BB   0  4  0     BRO FTGRP 0    X'00',CL2'B' ISPFBrowse
+CMDTBL_BB DC    CL8'BB '             Command text
+        DC    AL1(2)               EXecuted compare length
+        DC    AL1(EJ$SAF0)         SAF access
+        DC    AL1(4)               Processing type
+        DC    AL1(ECP10+ECP10)       Object level
+        DC    AL1(EMRQTBRO)        Request type
+        DC    AL1(EMRFTGRP)        Options bits
+        DC    AL1(0)               Options bits
+        DC    X'00',CL2'B'         Action characters
+        DC    CL24'ISPFBrowse '    Help text
- BV   0  4  0     BRO FTGRP 0    X'00',CL2'V' ISPFView
+CMDTBL_BV DC    CL8'BV '             Command text
+        DC    AL1(2)               EXecuted compare length
+        DC    AL1(EJ$SAF0)         SAF access
+        DC    AL1(4)               Processing type
+        DC    AL1(ECP10+ECP10)       Object level
+        DC    AL1(EMRQTBRO)        Request type
+        DC    AL1(EMRFTGRP)        Options bits
+        DC    AL1(0)               Options bits
+        DC    X'00',CL2'V'         Action characters
+        DC    CL24'ISPFView '      Help text
... (many more commands)
-      ECPGEN END
+CMDTBL#  EQU    (*-CMDTBL)/ECPLENTH Number of table entries
+        DC    XL4'FFFFFFFF'        Set end of table indicator
```

ISPF Crazy With Some CUCI Usermods Like These

(Tom Conley)

ISPF is Dead....

- IBM's investment in ISPF has been steadily dwindling
- z/OS V2R1 had 5 pages of enhancements
- z/OS V2R2 had 3 pages of enhancements
- z/OS V2R3 had two line items
- z/OS V2R4 Preview?
  - ISPF Upper Case function for Japanese clients (available for V2R3)
  - Withdrawal of ISPF Workstation Agent (WSA) after V2R4
- ISPF is no longer strategic for IBM
- z/OSMF strategic platform going forward for sysprogs
- IBM Developer for z Systems Enterprise Edition strategic platform for developers
- Future enhancements to ISPF likely limited to infrastructure support (e.g. 8-character TSO id support)

LONG LIVE ISPF!!

- In August 2017, I began to work on user-driven ISPF enhancements
- CBT Usermod Collection for ISPF (CUCI) was born
- Download File967 at http://www.cbttape.org
- All enhancements via usermod, no manual hacks allowed
- First release V1R0 delivered on 11/16/2017, small proof of concept
- Satisfied two RFE's
  - RFE 112749 - Update ISPCMDS table entries for Minimum TRUNC values (e.g. UDLIST should be 3)
  - RFE 112745 - Add DSL as a synonym for the DSLIST command
- Created ISPCMDS table member with abbreviated commands

Default ISPCMDS


```
   Menu  Utilities  Help
 ───────────────────────────────────────────────────────────────────────
                         Display ISPCMDS              Row 10 to 24 of 92
 Command ===> █                                       Scroll ===> CSR

 The command table is currently open, it cannot be modified. Use the view(V)
 row command to see an entire entry.


        Verb        T  Action
 _____ CRETRIEV    0  CRETRIEV
 _____ CUAATTR     0  SELECT PGM(ISPOPT) PARM(ISPOPT11) SCRNAME(SETTINGS)
 _____ CURSOR      0  CURSOR
 _____ DDLIST      0  SELECT PGM(ISRDDN) NEWAPPL(ISR) SUSPEND SCRNAME(DDLIST) PARM
 _____ DOWN        0  SETVERB
 _____ DSLIST      0  SELECT PGM(ISRDSLST) PARM(DSL &ZPARM) SUSPEND SCRNAME(DSLIST
 _____ DTEST       0  SELECT PGM(ISPYDTST) PARM(&ZPARM) NOFUNC SCRNAME(DTEST)
 _____ END         0  SETVERB
 _____ ENVIRON     0  SELECT PGM(ISPENV) PARM(&ZPARM) SCRNAME(SETTINGS)
 _____ EPDF        0  SELECT CMD(%ISREPDF &ZPARM) NEWAPPL(ISR) SUSPEND
 _____ EXHELP      0  SELECT PGM(ISPTUTOR) PARM(&ZPARM) NOFUNC SCRNAME(HELP)
 _____ EXIT        0  EXIT
 _____ EXPAND      0  SETVERB
 _____ FKA         0  SELECT PGM(ISPOPF) PARM(FKA,&ZPARM) NOFUNC SUSPEND
 _____ HELP        0  SELECT PGM(ISPTUTOR) PARM(&ZPARM) NOFUNC SCRNAME(HELP)
```

Updated ISPCMDS


```
   Menu   Utilities   Help
 ─────────────────────────────────────────────────────────────────────────
                            Display ISPCMDS              Row 10 to 24 of 92
 Command ===> _                                          Scroll ===> CSR

 The command table is currently open, it cannot be modified. Use the view(V)
 row command to see an entire entry.


        Verb       T   Action
 _____  CRETRIEV   4   CRETRIEV
 _____  CUAATTR    0   SELECT PGM(ISPOPT) PARM(ISPOPT11) SCRNAME(SETTINGS)
 _____  CURSOR     0   CURSOR
 _____  DDLIST     3   SELECT PGM(ISRDDN) NEWAPPL(ISR) SUSPEND SCRNAME(DDLIST) PARM
 _____  DOWN       0   SETVERB
 _____  DSLIST     3   SELECT PGM(ISRDSLST) PARM(DSL &ZPARM) SUSPEND SCRNAME(DSLIST
 _____  DTEST      0   SELECT PGM(ISPYDTST) PARM(&ZPARM) NOFUNC SCRNAME(DTEST)
 _____  END        0   SETVERB
 _____  ENVIRON    3   SELECT PGM(ISPENV) PARM(&ZPARM) SCRNAME(SETTINGS)
 _____  EPDF       0   SELECT CMD(%ISREPDF &ZPARM) NEWAPPL(ISR) SUSPEND
 _____  EXHELP     0   SELECT PGM(ISPTUTOR) PARM(&ZPARM) NOFUNC SCRNAME(HELP)
 _____  EXIT       0   EXIT
 _____  EXPAND     3   SETVERB
 _____  FKA        0   SELECT PGM(ISPOPF) PARM(FKA,&ZPARM) NOFUNC SUSPEND
 _____  HELP       0   SELECT PGM(ISPTUTOR) PARM(&ZPARM) NOFUNC SCRNAME(HELP)
```

ISPCMDS Usermod (No Hacks Allowed!)

```
//IBMUSERU JOB 'IBMUSER',CLASS=A,NOTIFY=&SYSUID,
//             MSGCLASS=X,REGION=0M,TIME=NOLIMIT,MSGLEVEL=(1,1)
//********************************************************************
//APPLYUM  EXEC PGM=GIMSMP
//SYSPRINT DD SYSOUT=*
//SMPCSI   DD DISP=SHR,DSN=yourhlq.GLOBAL.CSI  <=== YOUR ISPF CSI
//CBTFILE  DD DISP=SHR,DSN=yourhlq.CBT.FILE967 <=== CBT FILE
//SMPCNTL  DD *
 SET BDY(GLOBAL).
   RECEIVE S(UMISPCM) SYSMODS.
 SET BDY(target).    /* <=== YOUR TARGET ZONE */
   APPLY S(UMISPCM) CHECK.
   APPLY S(UMISPCM).
/*
//SMPPTFIN DD DATA,DLM=@@
++USERMOD(UMISPCM) REWORK(20173190).   /*<=== RESET REWORK IF NEEDED */
++VER (Z038) FMID(HIF7R02). /*<=== YOUR ISPF FMID (ADD PRE IF NEEDED)*/
++TBLENU(ISPCMDS) DISTLIB(AISPTENU) TXLIB(CBTFILE).
@@
```

CUCI Release V1R1

- During 2018, attempted two other ISPF enhancements (and 1 z/OS)
  - RFE 128561 - ISPF OPT 3.4 block delete commands should delete VSAM cluster, and bypass DATA and INDEX components without stopping
  - RFE 120120 - ISPF 3.17 Should Reset UID on Exit Back to User UID from SU
  - RFE 102407 - ISPF UDLIST - for reset to users default UID on exit (same as above RFE 120120)
  - Modified ISHELL to reset user's default UID on exit (z/OS usermod)
- Experienced multiple coding difficulties
- Finally delivered on 12/24/2018 (My 2018 Christmas gift to you)

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

```
   Menu   Options   View   Utilities   Compilers   Help

 DSLIST - Data Sets Matching PINNACLE.ISPF.DSN*              Row 1 of 198
 Command ===>                                               Scroll ===> CSR

 Command - Enter "/" to select action        Message              Volume
 -----------------------------------------------------------------------------
 //d        PINNACLE.ISPF.DSN00001                                *VSAM*
            PINNACLE.ISPF.DSN00001.DATA                           USER00
            PINNACLE.ISPF.DSN00001.INDEX                          USER00
            PINNACLE.ISPF.DSN00002                                *VSAM*
            PINNACLE.ISPF.DSN00002.DATA                           USER00
            PINNACLE.ISPF.DSN00002.INDEX                          USER00
            PINNACLE.ISPF.DSN00003                                *VSAM*
            PINNACLE.ISPF.DSN00003.DATA                           USER00
            PINNACLE.ISPF.DSN00003.INDEX                          USER00
            PINNACLE.ISPF.DSN00004                                *VSAM*
            PINNACLE.ISPF.DSN00004.DATA                           USER00
            PINNACLE.ISPF.DSN00004.INDEX                          USER00
            PINNACLE.ISPF.DSN00005                                *VSAM*
            PINNACLE.ISPF.DSN00005.DATA                           USER00
            PINNACLE.ISPF.DSN00005.INDEX                          USER00
            PINNACLE.ISPF.DSN00006                                *VSAM*
            PINNACLE.ISPF.DSN00006.DATA                           USER00
            PINNACLE.ISPF.DSN00006.INDEX                          USER00
            PINNACLE.ISPF.DSN00007                                USER11
            PINNACLE.ISPF.DSN00008                                USER07
            PINNACLE.ISPF.DSN00009                                USERE2
            PINNACLE.ISPF.DSN00010                                *VSAM*
            PINNACLE.ISPF.DSN00010.DATA                           USER00
            PINNACLE.ISPF.DSN00010.INDEX                          USER00
 //         PINNACLE.ISPF.DSN00011                                *VSAM*
```

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping


```
                            Confirm TSO Delete
Command ===> _____

Data Set Name . . : PINNACLE.ISPF.DSN00001
Volume  . . . . . : *VSAM*
Creation date . . :

CAUTION:
If TSO delete command was issued against an uncataloged data set, a
cataloged version on a volume other than the one listed here may be
deleted.


Command  . . . . : USRDEL34 'PINNACLE.ISPF.DSN00001'



Enter "/" to select option
/   Set data set delete confirmation off

Instructions:
  Press ENTER to confirm delete.
  (The data set will be deleted.)

  Press CANCEL or EXIT to cancel delete.
```

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

```
File  Edit  Font  Transfer  Macro  Options  Window  Help
```

```
   Menu   Options   View   Utilities   Compilers   Help
 ─────────────────────────────────────────────────────────────────────────────
 DSLIST - Data Sets Matching PINNACLE.ISPF.DSN*                 Row 1 of 198
 Command ===> _____    Scroll ===> CSR

 Command - Enter "/" to select action            Message           Volume
 ------------------------------------------------------------------------------
          PINNACLE.ISPF.DSN00001                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00001.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00001.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00002                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00002.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00002.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00003                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00003.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00003.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00004                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00004.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00004.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00005                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00005.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00005.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00006                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00006.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00006.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00007                 USRDEL34 RC=0     USER11
          PINNACLE.ISPF.DSN00008                 USRDEL34 RC=0     USER07
          PINNACLE.ISPF.DSN00009                 USRDEL34 RC=0     USERE2
          PINNACLE.ISPF.DSN00010                 USRDEL34 RC=0     *VSAM*
          PINNACLE.ISPF.DSN00010.DATA            USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00010.INDEX           USRDEL34 RC=4     USER00
          PINNACLE.ISPF.DSN00011                 USRDEL34 RC=0     *VSAM*
 █

 MA▣                              9.1                          a      32,2
```

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

- Rexx exec USRDEL34 invokes IDCAMS and suppresses messages
- Any errors from IDCAMS set RC=4 to bypass ISPF error handling
- Note RC=4 for DATA and INDEX components
- Panel ISRUDSL0 ignores errors, bypasses dataset, and continues
- RACF and I/O errors will also be bypassed
- After block delete, issue REFresh command to see updated list

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

- **Panel Rexx in ISRUDSL0)PROC injecting USRDEL34 command**

```
do i = 1 to #lines
    endpos   = i * 80
    startpos = endpos - 79
    parse var zdata begzdata =(startpos) scrnline =(endpos) rstzdata
    parse upper var scrnline 1 attr 2 command 6 13 rstline
    if command = '//D ' then
        zdata = begzdata      ||,
                attr          ||,
                '//USRDEL34 ' ||,
                rstline       ||,
                rstzdata
end
```

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

- Panel Rexx in ISRUDSL0)INIT to bypass errors on DELETE

```
do i = 1 to #lines
   <snip>
   parse var zdata begzdata =(startpos) scrnline =(endpos) rstzdata
   parse upper var scrnline 1 attr 2 command 11 rstline
   if command = 'USRDEL34 ' then
       do
           zdata = begzdata    ||,
                   attr        ||,
                   '         ' ||,
                   rstline     ||,
                   rstzdata
       usrdlbyp = 'BYPASS'
       leave i
   end
 end
```

Block DELETEs in ISPF 3.4 Deleting VSAM Without Stopping

- **If "bypass" flag is set, simulate enter to continue processing**

```
IF (&USRDLBYP = 'BYPASS')
   .MSG = ''
   .RESP=ENTER
```

ISPF 3.17 Reset UID to Default on Exit

```
/*******************************************************************/
/* The following code is added to ensure that the UID is reset to the */
/* user's default UID upon exit from 3.17.  This is  necessary if the  */
/* user entered SUPERUSER mode while in 3.17.                      */
/*******************************************************************/
IF (.RESP = 'END')
   *REXX(ZINIUID ZEUID)
    call syscalls('ON')
    address syscall 'seteuid' ziniuid
    address syscall 'getuid'
    zusruid = retval
    address syscall 'geteuid'
    zeuid = retval
   *ENDREXX
```

CUCI Release V1R2

- Release V1R2 delivered on 01/28/2019
  - RFE 122097 - ISPF EDIT highlighting for FORTRAN
  - RFE 117386 - ISPF EDIT highlighting for SQL
  - RFE 79228 - ISPF EDIT highlighting for SQL
  - RFE 57717 - ISPF EDIT highlighting for SQL
  - RFE 37007 - ISPF EDIT highlighting for SQL
  - RFE 107568 - ISPF EDIT highlighting for CARLa
  - RFE 83017 - ISPF EDIT highlighting for shell script
  - RFE 83016 - ISPF EDIT highlighting for Java
  - RFE 112741 - Simplify UNIX file access in ISPF by prepending current Unix directory to filename for COMPARE, COPY, CREATE, and REPLACE commands (BROWSE, EDIT, and VIEW require member names and continue to issue "Invalid member name" error message)

EDIT Highlighting for Java, SQL, etc!

- At SHARE in San Jose, my life changed
- Pedro Vera presented <u>Customizing the ISPF HILITE Command</u>
- Pedro showed how to manipulate EDIT data for highlighting
- Block DELETE code showed me how to manipulate panel dynamic area
- Armed with Pedro's ground-breaking work and block DELETE code, language highlighting was doable
- Discovered that reliable keyword highlighting requires blank delimiters
- All special characters converted to blanks (attributes, parens, etc.)

```
tempdata = zdata
tempdata = translate(tempdata,,
              '                          ',,
              '152A2B2F141B1C26010203040506070809 0A0B0C0D1316171D20'x)
tempdata = translate(tempdata,'                          ',,
              '{}[]()#+-*/=<>&^|:%,  ')
```

EDIT Highlighting for Java, SQL, etc!

- **Modified ISREDDE2 edit panel to support new HIGHLITE command**

To use extended language highlighting, issue HILITE OTHER command
then issue the HIGHLITE command with the following syntax:

HIGHLITE language | OFF

language = CARLA | FORTRAN | JAVA | PYTHON | RUBY | SHELL | SQL
OFF turns off extended language highlighting.
HIGHLITE BRACE toggles brace highlighting on and off.
HIGHLITE BRACKET toggles bracket highlighting on and off.
HIGHLITE DISPLAY | DISP shows current state of HIGHLITE options.
HIGHLITE HELP | ? displays this HELP text.

Note: NULLS ON ALL causes some keywords to remain unhighlighted.
        NULLS ON STD allows all keywords to be highlighted.
        Issue NULLS ON STD if not seeing all keywords highlighted.

HIGHLITE JAVA, BRACKET, and BRACE
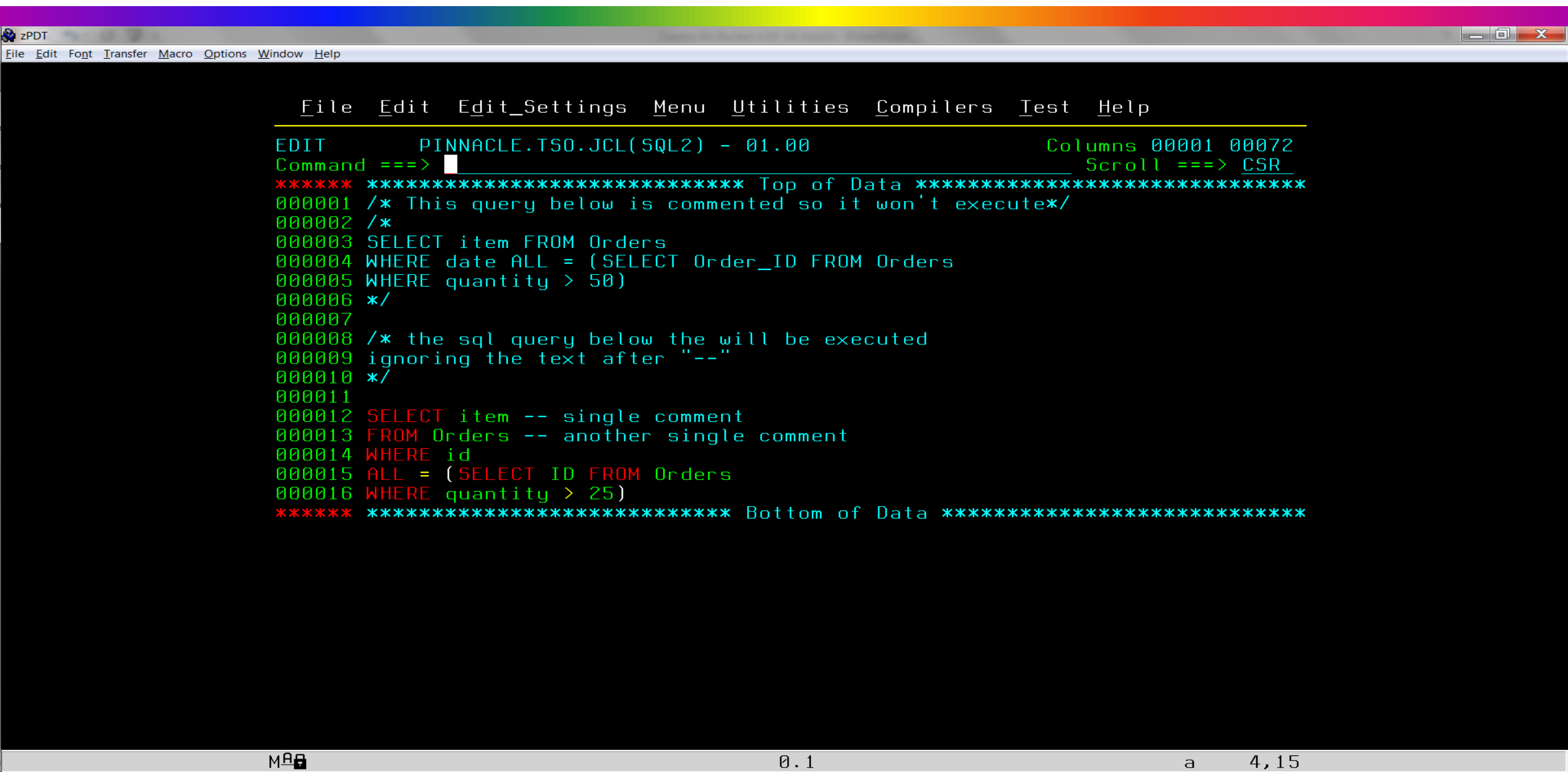
File Edit Font Transfer Macro Options Window Help

```
   File    Edit    Edit_Settings    Menu    Utilities    Compilers    Test    Help

EDIT         PINNACLE.TSO.JCL(JAVA1) - 01.12              Columns 00001 00072
Command ===>                                                 Scroll ===> CSR
****** *********************************** Top of Data **********************************
000001 /* import [[]] */
000002 import java.io.InputStreamReader;
000003 import java.net.URL;
000004 import java.net.URLConnection;
000005 import java.util.Scanner;
000006 public class URLExpSimple {        //test comment with public import
000007 [ [ [ [ [ ] ] ] ] ]
000008
000009     public static void main(String[] args) {
000010         try {
000011             URL mySite = new URL("http://www.cs.utexas.edu/~scottm");
000012             test = 'import public []'
000013             URLConnection yc = mySite.openConnection();
000014             Scanner in = new Scanner(new InputStreamReader(yc.getInputStrea
000015             int count = 0;
000016             while (in.hasNext()) {
000017                 System.out.println(in.next());
000018                 count++;
000019             }
000020             System.out.println("Number of tokens: " + count);
000021             in.close();
000022         } catch (Exception e) {
000023             e.printStackTrace();
000024         }
000025     }
000026 }
****** *********************************** Bottom of Data ********************************
```

M▯▯   0.1   a   4,15

HIGHLITE SQL

EDIT Highlighting for Other Languages

- EDIT highlighting for other languages is now easily possible
- USRHILIT exec is easy to modify to add languages
- In addition to RFE languages, Ruby and Python also added to V1R2
- Lua, Swift, JavaScript are in plan to be added shortly
- Perl has over 1000 keywords, so any volunteers?

- **USRHILIT modifications to add languages**
  - **Modify kw.0 variable for number of keywords**

```
when (usrhilng = 'CARLA') then
    do
        kw.0    = 46
```

  - **Add array blank-delimited keywords**

```
        kw.1    = ' ALLOCATE '
        kw.2    = ' BDAMQSAM '
```

  - **Add array for default attribute string (what HILITE OTHER gives you)**

```
        atr.1   = 'DDDDDDDD'
        atr.2   = 'DDDDDDDD'
```

  - **Add array for color attribute string (color for corresponding keyword)**

```
        clr.1   = 'RRRRRRRR'
        clr.2   = 'RRRRRRRR'
```

EDIT Highlighting for Other Languages - Modify USRHILIT

- **USRHILIT modifications to add languages (cont'd)**
  - **Add code to process any language-specific comments**
  - **This code processes '//' comments for Java**

```
compos = pos('//',linedata)
if compos > 0 then
    do
        compend = compos + 2
        parse var shaddata =(compos) comshad =(compend)
        if comshad <> 'QQ' & comshad <> 'CC' then
            zshadow = overlay(,
                        copies('C',zwidth - compos),,
                        zshadow,,
                        totchar+compos,zwidth - compos)
    end
```

Prepend USS path for COMPARE, COPY, CREATE, REPLACE

- **Modified ISREDDE2 edit panel to prepend path**
- **No longer necessary to type full USS pathname for above commands**

```
parse upper var zcmd zcmd1u zcmd2u
parse var zcmd zcmd1 zcmd2
if ((zcmd1u = 'COPY'     |,
     zcmd1u = 'COMPARE' |,
     zcmd1u = 'COMP'     |,
     zcmd1u = 'CREATE'  |,
     zcmd1u = 'CRE'      |,
     zcmd1u = 'REPLACE' |,
     zcmd1u = 'REPL')   &,
    (zpthnm <> ''         &,
     substr(zcmd2,1,1) <> '/')) then
  zcmd = zcmd1 zpthnm || '/' || zcmd2
```

Prepend USS path for COMPARE, COPY, CREATE, REPLACE


```
zPDT
File  Edit  Font  Transfer  Macro  Options  Window  Help

     File    Edit   Edit_Settings   Menu   Utilities   Compilers   Test   Help

EDIT       /S0W1/etc/inetd.conf                          Columns 00001 00072
Command ===> create inetd1.conf                          Scroll ===> CSR
****** ***************************** Top of Data *****************************
c99991 ###
000002 # Internet server configuration database
000003 #
000004 # (C) COPYRIGHT International Business Machines Corp. 1985, 2001
000005 # All Rights Reserved
000006 # Licensed Materials - Property of IBM
000007 #
000008 # US Government Users Restricted Rights - Use, duplication or
000009 # disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
000010 #
000011 # /etc/inetd.conf
000012 #
000013 #            Internet server configuration database
000014 #
000015 #   $01=PYQ0049,  HOT7705, 010130, PDJP: Correct paths and remove
000016 #          unsupported services (FIN APAR OW45915
000017 #
000018 # Services can be added and deleted by deleting or inserting a
000019 # comment character (ie. #) at the beginning of a line
000020 #
000021 #================================================================
000022 # service  | socket  | protocol | wait/  | user  | server  | server program
000023 # name     | type    |          | nowait |       | program | arguments
000024 #================================================================
000025 #
000026 otelnet   stream tcp nowait OMVSKERN /usr/sbin/otelnetd otelnetd
000027 #shell     stream tcp nowait OMVSKERN /usr/sbin/orshd orshd -LV

M A                                    0.2                          a      6,7
```

Prepend USS path for COMPARE, COPY, CREATE, REPLACE

Prepend USS path for COMPARE, COPY, CREATE, REPLACE

PDSEGEN

- Lionel Dyck's PDSEGEN another good example of user-driven code
- ISPF unlikely to duplicate function available in PDSEGEN
- If you want to use PDSE Member Generations, you need PDSEGEN
- PDSEGEN surfaced numerous PDSE Member Generation bugs
- You can download PDSEGEN [here](#)
- Other products that support PDSE Member Generations
  - IBM Dataset Commander
  - CA-PDSMAN
  - MacKinney SimpList

A Manual for Manual Tape

(Aron Eisenpress)

Fun with a DFsms MTL (Manual Tape Library) … and JES3

- Technology refresh with a datacenter move… what could possibly go wrong?? Well, here's the tape drive part.
- No ATL in the new datacenter – the Powers That Be chose to save some $$ and put in rack-mount drives. We'll set them up as non-DFsms-managed, ok?
- EDG8121D ENTER VOLUME AND REPLY "RETRY" OR "CANCEL"
- DFrmm not happy. Me not happy either. But I don't want to delete the tapes from DFrmm and lose their history.
- So… we'll set them up as an MTL. It's actually similar to the ATL setup we had before, but you make up a LIBRARY-ID.
- It works partly, but JES3 has trouble allocating the drives.
- Duh! I have to define the MTL to JES3. Doc a bit hard to find.

Fun with a DFsms MTL (Manual Tape Library) … and JES3

- IAT3606 SETNAME LGD359N HAS NOT BEEN DEFINED AS AN MVS UNITNAME **ERROR**. Huh??
- LGD359N is the correct esoteric for our drives, but HCD doesn't generate these esoterics for MTL drives. It did for ATL drives!
- Modify IATINMD so IAT3606 isn't an error-level message. Proceed.
- No setup messages. I need setup messages!
- Modify IATMDSL so it doesn't set the "defer mount" flag for an MTL drive. Works.
- There is joy. Users happy. Operations happy. Me happy.
  But I wonder… did anyone ever set up an MTL with JES3????

At Your Discretion

(Mary Anne Matyaz)

Once upon a time, Cheryl Watson said 'Don't use discretionary'

- Long ago and far away…*everyone* used Cheryl's quickstart WLM policy
- The Setting:
  - A small shop
  - Added a couple new address spaces, Zen monitoring. They were not wlm classified so they fell into STCLO.
  - That looked ok to me. Some would argue that a monitor should be the highest in the system, but that's not my issue here. They were STC's and they went into STCLO.
- The problem was:
  - STCLO is discretionary. I can't imagine an STC being discretionary. To me, only totally lowlife batch should be discretionary.
  - I am not a performance person

My WLM Policy probably dates to 1995

For further reading:

C. Watson, "WLM Classification," "A Quickstart Policy," and "WLM Measurements," Cheryl Watson's TUNING Letter, May/June 1995.

C. Watson, "How to Set Velocities," Cheryl Watson's TUNING Letter, 1996, #3.

IBM, "WLM Performance Studies," GG24-4352.

Workload	Service Class	Imp	Response Type	Goal
SYSTEM	SYSTEM	.	System goal	.
SYSTEM	SYSSTC	.	System goal	.
SYSTEM	SYSOTHER	.	Discretionary	.
ONLINE	ONLPRD	1	Velocity	50%
ONLINE	ONLTST	5	desc.	.
STC	STCMD	3	Velocity	30%
STC	STCLO	.	Discretionary	
TSO	TSOPRD - Period 1	2	Percentile response	80% < .5 sec
	- Period 2	3	Percentile response	80% < 2.0 sec
	- Period 3	5	Percentile response or Velocity	50% < 10.0 sec 35%
PRDBAT	PRDBATHI	2	Velocity	30%
PRDBAT	PRDBATLO	.	Discretionary	.
ONLINE	ONLPRDHI	1	Percentile response	80% < .5 sec
ONLINE	ONLPRDMD	2	Percentile response	80% < 3 sec
ONLINE	ONLPRDLO	3	Percentile response	50% < 10 sec
TSTBAT	TSTBATHI	3	Percentile response	90% < 10 min
TSTBAT	TSTBATMD	4	Percentile response	80% < 30 min

Cheryl reports on an apar related to discretionary

-
- https://watsonwalker.com/cheryls-list-17-december-10-1998/
-
- "My report from SHARE includes a description of the OS/390 R6 change in WLM that will prevent discretionary work from being shut out while other work is overachieving its goals;"

The problem

- STCLO address spaces not running
- We saw that STCLO was discretionary
- Changed one to STCMED and it took off
- Opened a PMR with WLM
- Luckily we got Laura! She rocks!

- Warning! The next section is a cliffhanger. I never answered a lot of my questions.

How much is too much?

(Mary Anne Matyaz)

Storage Shortages

- Raise your hand if you haven't been in a storage shortage

- The setting:
  -Day before a z14 upgrade weekend. (Cause that's when stuff happens)
- STCLO not running
- PMR open with Websphere on storage creep and WLM on discretionary
-         Did not pick up that the two were related

D ASM,SCM

- IEE200I 19.02.50 DISPLAY ASM 228 e
- TYPE FULL STAT DEV DATASET NAME
- PLPA 2% OK 1016 PAGE.OS08R1.PLPA
- COMMON 0% OK 1017 PAGE.OS08R1.COMMON
- LOCAL 0% OK 125D PAGE.OS08R1.LOCAL0
- LOCAL 0% OK 125F PAGE.OS08R1.LOCAL7
- LOCAL 0% OK 125E PAGE.OS08R1.LOCAL6
- **SCM 72%** OK N/A N/A
- PAGEDEL COMMAND IS NOT ACTIVE

From Laura at IBM WLM Support:

- **Internally, when the percent of aux slots in use is 65 or greater, MPLs for discretionary will be lowered and SRM won't consider raising MPLs for discretionary until the aux storage usage drops below 63%.**

- **Laura pointed us to the offending storage hog, which we cancelled, and the shortage was relieved.**

- **On to the post mortem**

From Init and Tuning Reference on page=

- https://www.ibm.com/support/knowledgecenter/en/SSLTBW_2.3.0/com.ibm.zos.v2r3.ieae200/pageparm.htm

- Page space shortage: Two warning messages appear when the system resources manager (SRM) detects a shortage of page space, the first when **70%** of the available local paging space including SCM, if any has been allocated, and the second when **85%** has been allocated. SRM reacts to the situation by preventing the creation of new address spaces. That is, new "start initiator" commands ($SInn), LOGONs, MOUNT commands, and START commands for system tasks that run in their own address spaces do not work. Upon receipt of these messages, you can add paging space

SYSLOG

- 2018304 05:54:01.64   00000090   IRA205I 50% AUXILIARY STORAGE ALLOCATED
- 2018304 07:54:01.81   00000090   IRA205I 53% AUXILIARY STORAGE ALLOCATED
- 2018304 09:53:59.96   00000090   IRA205I 55% AUXILIARY STORAGE ALLOCATED
- 2018304 11:54:00.10   00000090   IRA205I 56% AUXILIARY STORAGE ALLOCATED
- 2018304 13:54:00.24   00000090   IRA205I 57% AUXILIARY STORAGE ALLOCATED
- 2018305 07:54:01.89   00000090   IRA205I 60% AUXILIARY STORAGE ALLOCATED
- 2018305 13:54:00.30   00000090   IRA205I 63% AUXILIARY STORAGE ALLOCATED

- IRA205I nn% AUXILIARY STORAGE ALLOCATED
- Explanation
- The system has allocated more than 50% of all available slots in the auxiliary storage paging space (paging data sets and storage-class memory) If the system stays above the warning level, the message gets reissued all two hours.

IRA205i

- http://www-01.ibm.com/support/docview.wss?uid=isg1OA54554
- OA54554: IRA205I IS ISSUED WHEN ALLOCATION IS BELOW THE DOCUMENTED 50%
  - reissued every two hours until the percentage of auxiliary storage slots in use drops below 48%.
- 2/26/18

Other possible messages

- IRA265I 50% OF LOCAL PAGE DATA SET SPACE IS ALLOCATED
- Explanation: The system has allocated 50% of all available auxiliary storage slots in the local page data sets. This message is issued only when Storage Class Memory (SCM) is configured.

- IRA260E LOCAL PAGE DATA SET SHORTAGE
- Explanation: The system detected a shortage of available auxiliary storage slots in the local page data sets. This message is issued when at least 70% of all available auxiliary storage slots on the local page data sets are in use, and Storage Class Memory (SCM) is configured.

- IRA250I *nn*% OF STORAGE-CLASS MEMORY IS ALLOCATED
- The system detected high usage of the available slots in storage-class memory (SCM). This message is issued when at least 80% of all available SCM slots in the system are in use.

- **There is a health check. I cannot find in the syslog any where that it tripped.**

- `CHECK(IBMASM,ASM_LOCAL_SLOT_USAGE)`
- `SYSPLEX:     ABC          SYSTEM: ABC1`
- `START TIME: 11/06/2018 08:39:48.560590`
- `CHECK DATE: 20120120   CHECK SEVERITY: MEDIUM-DYNAMIC`
- `CHECK PARM: THRESHOLD(30%)`

- **ILRH0106I Slot usage on all local page data sets is below the usage**
- **warning threshold of 30%.**
-
- **END TIME: 11/06/2018 08:39:48.560666 STATUS: SUCCESSFUL**

What I thought I'd get…

- IRA200E
- AUXILIARY STORAGE SHORTAGE
- Explanation
- The system detected a shortage of available slots in the auxiliary storage paging space. This message is issued when at least 70% of all available auxiliary storage slots in paging data sets and storage-class memory in the system are in use.

- – IRA200E AUXILIARY STORAGE SHORTAGE
- IRA204E 19% AUXILIARY STORAGE ALLOCATED TO SSHD1
  IRA204E 19% AUXILIARY STORAGE ALLOCATED TO SSHD2
  IRA204E 02% AUXILIARY STORAGE ALLOCATED TO SMSPDSE

What's the moral of the story?

- Add more local page datasets?
- Add more SCM?
- Get rid of websphere? ☺

- 50, 63, 70, 85

- Doublecheck your discretionary.
- Doublecheck your message automation

- CBT 518 Sam Knutson's Aux Boost. Nope, only for shortage

XMI with my little eye

(Sam Knutson)

Xmit

- TSO TRANSMIT was originally used to send files from one system to another via NJE and still can but is more commonly used to create disk files which are then moved using other transports like FTP

- TSO TRANSMIT command create an archive in a FB 80 format which can contain PDS, PDSE, SEQ data sets

- The format of the TSO TRANSMIT produced data set often referred to as an XMIT or XMI is mostly documented in TSO/E Customization SA32-0976-30

- Another practical source of information is David Alcock's page UnXMIT information exchange though it has not seen recent updates http://planetmvs.com/unxmit/

- Today XMIT files are commonly used to share data, archive data off z/OS, transport data. They are particularly useful for distributing Tools & Toys or program products which are downloaded by means other than RECEIVE ORDER

- It is incredibly useful to have a means of inspecting the contents outside the mainframe while the file is on a PC running Windows, Linux, or MacOS

Xmit

- **Xmit is a new unXMIT tool from Denis Molony**
  - view the contents of xmit files
  - view xmit files stored as PDS members
  - view compressed xmit files
  - extract individual PDS members
  - selectable codepages
  - selectable fonts

- **Free**
- **Open source written in Java, hosted on GitHub, licensed GPL v3**
- **Supports Windows, Linux, MacOS**
- **Get it at https://github.com/dmolony/Xmit**

Xmit Installation

- **Download Java 11 and JavaFX 11, which are now separate downloads**
  - **https://jdk.java.net/11/ & https://gluonhq.com/products/javafx/**

Name	Date modified	Type	Size
openjdk-11.0.2_windows-x64_bin	3/13/2019 5:33 PM	File folder	
openjfx-11.0.2_windows-x64_bin-sdk	3/13/2019 5:30 PM	File folder	
openjdk-11.0.2_windows-x64_bin.zip	3/13/2019 5:36 PM	Compressed (zipped)...	182,992 KB
openjfx-11.0.2_windows-x64_bin-sdk.zip	3/13/2019 5:26 PM	Compressed (zipped)...	40,948 KB

- **Download XmitApp .jar**

Latest release

🏷 v1.0.19

⟡ efb1092

bug fixes

dmolony released this 5 days ago · 3 commits to master since this release

v1.0.19

odd lengths for BasicModule

▼ Assets 3

📦 XmitApp.jar   142 KB

📄 Source code (zip)

📄 Source code (tar.gz)

Xmit Installation

- **Create executable batch file to run XmitApp. I elected to create a deployment directory with a batch file I would not have to change while Java versions changed so deployed everything into C:\XmitApp with subdirectories for the openjdk and openjfx libraries**

- **Note I'm not changing the default Java on the machine and I'm using a Windows example. Also created a shortcut in Start Menu to bat file**
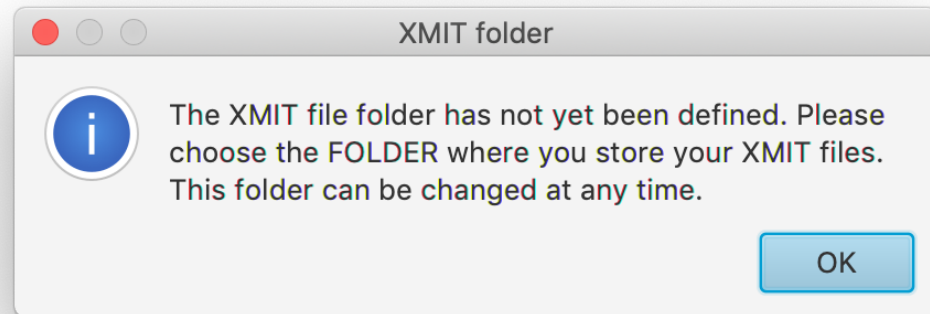
OS (C:) > XmitApp

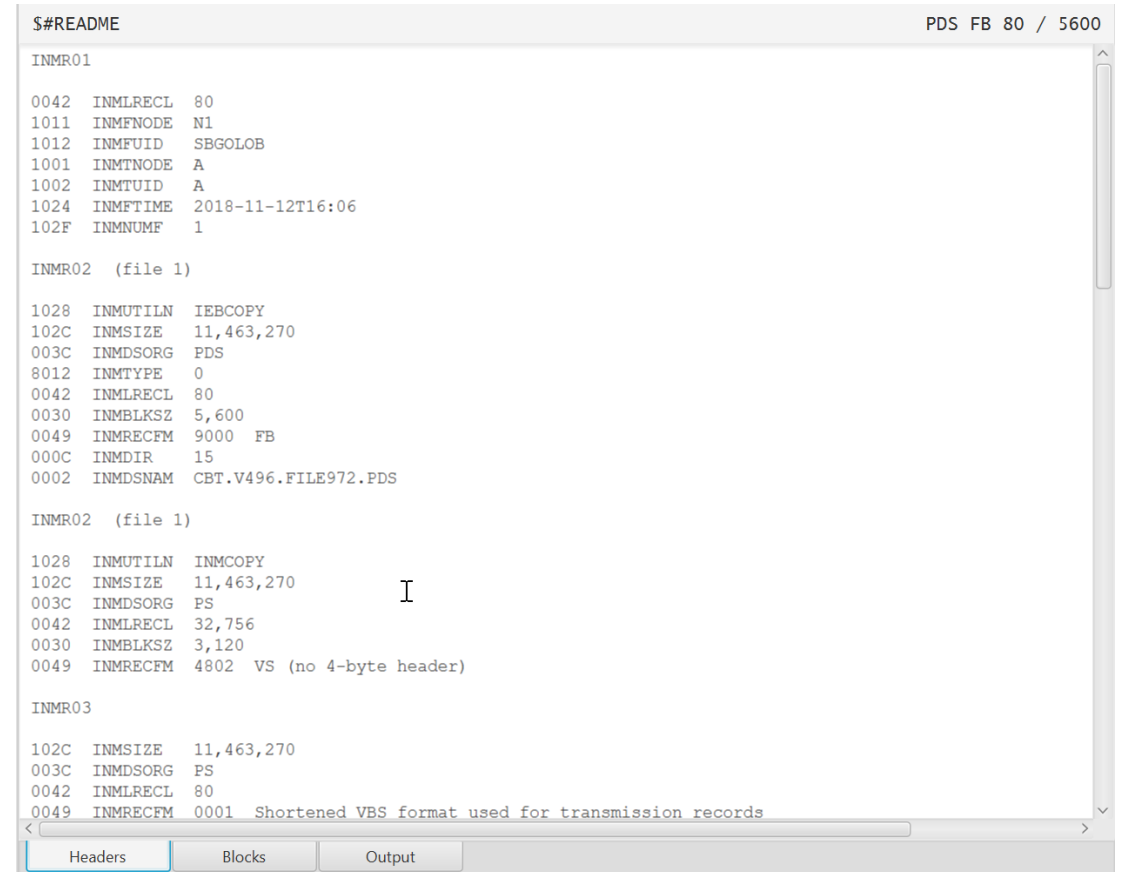| Name	Date modified	Type	Size
openjdk	3/14/2019 5:57 AM	File folder	
openjfx	3/14/2019 6:10 AM	File folder	
runxmit.bat	3/14/2019 5:57 AM	Windows Batch File	1 KB
XmitApp.jar	3/14/2019 6:17 AM	Executable Jar File	142 KB

```
runxmit.bat  ×

1  C:\XmitApp\openjdk\bin\java.exe --module-path C:\XmitApp\openjfx\lib  --add-modules=javafx.controls -
.  Dfile.encoding=UTF-8 -jar C:\XmitApp\XmitApp.jar"
```

Xmit

- **The first time you run it you are prompted for the directory where it will find your XMIT files**
- **You can change this anytime but it only looks at one directory at a time**

- **Bonus display details on XMIT file and contents**
- **Thanks Denis Molony!**

XMIT folder

The XMIT file folder has not yet been defined. Please choose the FOLDER where you store your XMIT files. This folder can be changed at any time.

OK

$#README   PDS FB 80 / 5600

INMR01

0042   INMLRECL   80
1011   INMFNODE   N1
1012   INMFUID   SBGOLOB
1001   INMTNODE   A
1002   INMTUID   A
1024   INMFTIME   2018-11-12T16:06
102F   INMNUMF   1

INMR02 (file 1)

1028   INMUTILN   IEBCOPY
102C   INMSIZE   11,463,270
003C   INMDSORG   PDS
8012   INMTYPE   0
0042   INMLRECL   80
0030   INMBLKSZ   5,600
0049   INMRECFM   9000   FB
000C   INMDIR   15
0002   INMDSNAM   CBT.V496.FILE972.PDS

INMR02 (file 1)

1028   INMUTILN   INMCOPY
102C   INMSIZE   11,463,270
003C   INMDSORG   PS
0042   INMLRECL   32,756
0030   INMBLKSZ   3,120
0049   INMRECFM   4802   VS (no 4-byte header)

INMR03

102C   INMSIZE   11,463,270
003C   INMDSORG   PS
0042   INMLRECL   80
0049   INMRECFM   0001   Shortened VBS format used for transmission records

Headers   Blocks   Output

- CBT972.zip
  - FILE972.XMI

Member	Bytes	Id	Size	Init	Cre
$$$#DATE	960	CBT-496	12	12	201
$#README	6,480	KTOMIAK	81	1	201
$DISCLAM	960	KTOMIAK	12	16	201
$INSTALL	103,040	KTOMIAK	1,288	1,233	201
$RESTORE	6,400	SBGOLOB	80	80	201
####LOAD	6,400	KTOMIAK	80	64	201
###SETUP	1,520	KTOMIAK	19	19	201
#1TASKS	5,760	KTOMIAK	72	72	201
#2VARS	2,720	KTOMIAK	34	40	201
#3EDIT	720	KTOMIAK	9	20	201
@FILE972	6,640	CBT-496	83	83	201
GENIE	192,640	KTOMIAK	2,408	2,143	201
GENIEBLD	35,840	KTOMIAK	448	215	201
MSICCOPY	12,400	KTOMIAK	155	96	201
MSICDEFN	12,960	KTOMIAK	162	117	201
MSICPCFM	1,760	KTOMIAK	22	16	201
MSICPHLP	1,600	KTOMIAK	20	22	201
MSICPTSK	2,080	KTOMIAK	26	23	201
MSICPVAR	1,840	KTOMIAK	23	26	201
MSICREDT	11,200	KTOMIAK	140	134	201
MSICRMBR	17,520	KTOMIAK	219	225	201
RECVASMC	9,360	KTOMIAK	117	117	201
RECVCRDG	9,360	KTOMIAK	117	117	201
RECVDASM	9,360	KTOMIAK	117	118	201
RECVDFPU	9,360	KTOMIAK	117	118	201

              Genuine Every Noteworthy Itemized Examplize

This FreeWare Tool is an ISPF Edit macro that mimi
command, while being robustly extensible in the num
GENIE can grant.

The author has a large list of manuals to be turne
topic IBMK for a list of manuals already selected
free to contact Kenneth Tomiak if you want to help
have your own collection you would like to be inclu

$$README:
==
This collection is best used by placing the two RE
in your //SYSEXEC concatenation.

GENIE can be made available to all types of develo
content may overwhelm all but the System Programme
that reason you might want to create tailored WISH
roles (SYSPROG, PGMR, SCHEDOPS). You would create
set if you are keen on limiting what the user has
statements in the GENIE code on how to use more th
by your logic.

GENIEBLD is meant solely for the administrator (Sy
that manages the WISHLIST data set. It must be run
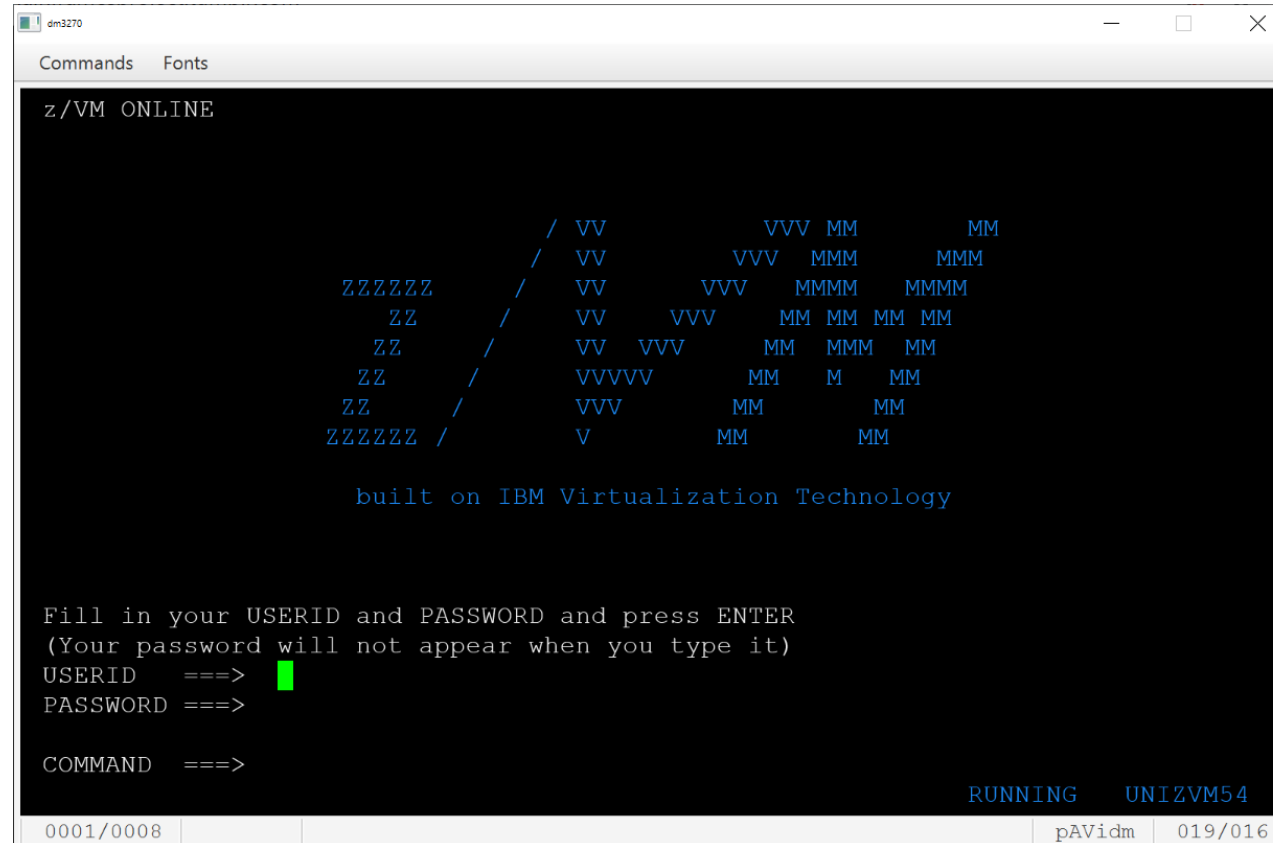that has been updated.

INSTALLATION
==
This FreeWare Tool is installed by executing the $
be shown a list of tasks, some optional, that are
The result will be one WISHLIST data set holding a
for inclusion. You can redrive the installation pro

Output

dm3270

- **A nice bonus Denis also write a simple free TN3270 emulator in Java**
- https://github.com/dmolony/dm3270
- **Public Internet faced mainframe courtesy of Internet Mainframes Project**
- **Beta**

Ken Tomiak one hell of a man
(Sam Knutson)

Kenneth E Tomiak

- **Long time SHARE volunteer and active member of the mainframe community**
- **Ken passed away late last year**
- **Ken's accumulated programming work from the time he devoted to the CBT Tape and other freeware projects has been preserved. Ken was especially productive in the last few years much of which has not been released in a structured collection**

"As a tribute to him, and I think this is the best tribute we can offer him, I am making available his very considerable amount of work, which he did in his last couple of years. The reason I'm making his raw files available, is because there is too much valuable material there for me to sort through and post on the CBT Tape, and I want all the people out there to have a good look at his results, methods, and organizational precision in general." Sam Golob

Ken Tomiak's Recent Work

- Download from ftp://cbttape.org/pub/collections
- Unzip ktomiak.zip which is a zipped XMIT wrapped DFDSS backup to disk
- Upload KTOMIAK2.XMI binary 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)

- This body of material consists of 59 datasets, backed up by DFDSS (PGM=ADRDSSU); the DFDSS backup was then put into TSO XMIT format so it could be easily transported (as an FB-80) file, and that file was zipped. JCL to restore this dataset (after it has been uploaded to the mainframe in BINARY) may be found in ktomiak.restore in this directory.
- ktomiak.into is an ASCII text file explaining the collection
- ktomiak.minidisk is a CKD disk volume usable on a zPDT from which the DFDSS backup was created which you may optionally explore if you have access to a zPDT

ktomiak.intro & ktomiak.restore

```
                    Ken Tomiak's Recent Work
                    --- -------- ------ ----

Ken Tomiak was a very precise programmer, with a very clear and
organized method of work.  I have known him, and have been
friends with him, for over 25 years.  In his last year of so, he
produced a lot of output, which, in my mind, should not be
wasted, as a tribute to him, and to his great effort and ability.

Therefore, I am making this work available in raw form, so
that people can learn from his methods and his results.

This body of material consists of 59 datasets, backed up by DFDSS
(PGM=ADRDSSU); the DFDSS backup was then put into TSO XMIT format
so it could be easily transported (as an FB-80) file, and that
file was zipped.  JCL to restore this dataset (after it has been
uploaded to the mainframe in BINARY) may be found in
ktomiak.restore in this directory.

Ken was very fluent in REXX, and preferred to work in REXX.
Therefore, you'll find his REXX datasets to be very robust.
But with him, you never know where you'll find a real gem.
So search through all of his stuff, as best you can, and see
what useful programs and code, that you can find, and glean.

I don't think there's anything proprietary in here.  If there
is, or happens to be, please write to me and I'll remove it,
or otherwise deal with it as best I can.

Again, in my opinion, this stuff is marvelous.  Please look
at it, use it, and keep Ken's precious memory alive.

All the best of everything to all of you.......

Sincerely,   Sam Golob    sbgolob@cbttape.org
```

ktomiak.restore ✕

```
29
30     What's next?
31
32     Unzip the file downloaded from the CBT website:
33
34   ftp://cbttape.org/pub/collections/ktomiak.zip
35
36     Upload in binary, the unzipped file, to the z/OS system
37
38     RECEIVE THE UNZIPPED XMIT FILE
39
40   TSO RECEIVE INDS(hlq.KTOMIAK2.XMI)
41
42     This gets you hlq.KTOMIAK.BACKUP
43
44
45   Restore JCL
46
47   //SBGOLOBD JOB (ACCT#),DFDSS4,
48   // NOTIFY=&SYSUID,
49   // CLASS=B,MSGCLASS=X
50   //*
51   //DFDSS EXEC PGM=ADRDSSU,REGION=4M PARM='TYPRUN=NORUN'
52   //SYSPRINT DD SYSOUT=*
53   //DASD  DD UNIT=SYSALLDA,VOL=SER=VPWRKD,DISP=SHR
54   //TAPE  DD DISP=SHR,DSN=hlq.KTOMIAK.BACKUP,    (change hlq)
55   //  UNIT=SYSALLDA,VOL=SER=VPWRKB
56   //SYSIN DD *
57    RESTORE DS (INCLUDE(**.**) )  -
58       IDD(TAPE) ODD(DASD)  -
59     REPLACE SHR TOL(ENQF)
60   /*
61   //
62
63     I hope this is enough to restore Ken's 59 datasets that were
64     backed up.
```

Other things Ken Tomiak left behind

- http://www.ktomiak.biz/
- Dozens of contributions to CBT Tape www.cbttape.org
- Good memories from his friends and colleagues

KTomiak Biz

Spring Valley **Senior** High School Class of 1973 classmates looking for our year book followed the wrong link from facebook. Try the year book link.

Do you have any BIZ-ness being here?

This site was started so when truly clueless business people do not like my free advice, they can pay me *big bucks* and then feel satisfied because they paid for the same words they could have had for free.

Then it came to provide me a place to put stuff.

What kind of stuff? Well,

1. BIZ is still going to be that place where I can direct someone who feels advice is only worth what they pay for it. I'll give them the BIZ-ness and they will be content.
2. COM is just one of the ways I could help COMmercial enterprises.
3. ORG is where I can showcase things I do for *family geneaology related causes*, *not-for-profit* or *charitable **ORG**anizations*. Like:
   - SHARE
   - FIND-A-GRAVE

Plug for my cousins

Visit Tint Me - Robert Greenberg for professional window tinting within a 100 mile radius of Monsey, New York 10952.

Visit Margo Hollands Photography - Margo Hollands for professional photography, located out of West Milford, New Jersey.

http://www.ktomiak.biz/

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- **Ed Webb, SAS**

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- **Phil Young "Soldier of Fortran"**

See You in Pittsburgh