(E)JES®
More with Less for Less

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Session 10132

What is (E)JES?

- (E)JES is a system management tool that provides information to monitor, manage, and control a z/OS JESplex.

- (E)JES consists of panels that provide immediate and current information about jobs, devices, queues, and other resources.

- From this series of panels, you can control the processing of jobs and the operation of system resources, browse any data on SPOOL (even JES control blocks), and issue system commands.

- Easily access and modify all attributes for jobs, started tasks, TSO users, APPC/MVS transaction jobs, or z/OS UNIX processes running anywhere in your JESplex.

- (E)JES can be used interactively via 3270 terminal or Windows PC workstation client, or programmatically using many popular languages.

- What does the **(E)** stand for?

    - **(E)**azy? **(E)**xtended? **(E)**nhanced? **(E)**xceptional? **(E)**d Jaffe?

    - We report; you decide!

We Focus On Leveraging The Latest Hardware/Software Technology. Why?

- We care about performance.
  - The latest technology usually means "better performing".
- We care about reducing customer costs.
  - The latest technology usually helps reduce customer costs.
- We support the z/OS platform!
  - Leveraging the latest technology helps our platform compete against alternatives and remain viable.
- We are a small, "nimble" company.
  - We don't answer to shareholders w/quarterly profit demands.
  - We stay in touch with our code; we don't have "legacy" routines people are afraid to change.
- Technology is just plain cool! **8-)**

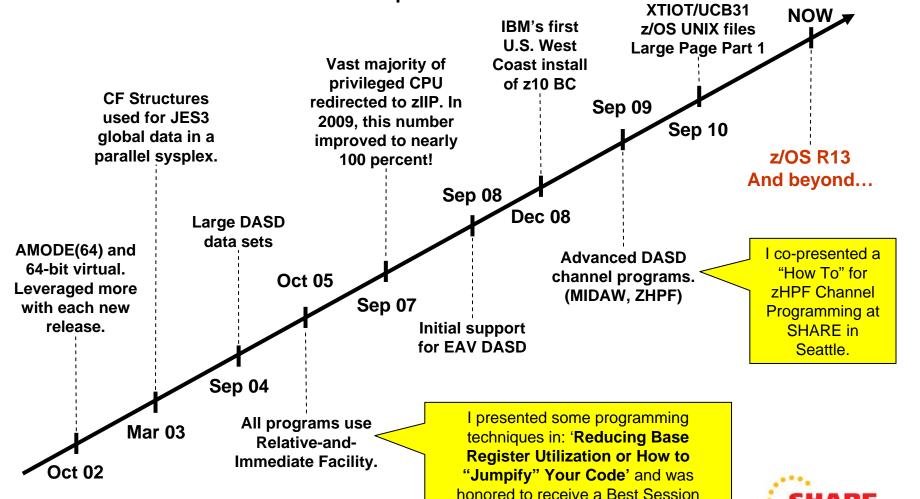# Cool Technology We Leveraged Over The Past Several Years…

- We've taken a leadership role!

Greg Price tells me we are "Bleeding Edge"—the only ones they found concatenating XTIOT thus far.

Java API
EAV Completion
XTIOT/UCB31
z/OS UNIX files
Large Page Part 1

NOW

IBM's first U.S. West Coast install of z10 BC

Vast majority of privileged CPU redirected to zIIP. In 2009, this number improved to nearly 100 percent!

CF Structures used for JES3 global data in a parallel sysplex.

Sep 09

Sep 10

z/OS R13
And beyond…

Sep 08

Dec 08

Large DASD data sets

AMODE(64) and 64-bit virtual. Leveraged more with each new release.

Oct 05

Sep 07

Advanced DASD channel programs. (MIDAW, ZHPF)

I co-presented a "How To" for zHPF Channel Programming at SHARE in Seattle.

Initial support for EAV DASD

Sep 04

Mar 03

All programs use Relative-and-Immediate Facility.

Oct 02

I presented some programming techniques in: '**Reducing Base Register Utilization or How to "Jumpify" Your Code'** and was honored to receive a Best Session award. **THANK YOU SHARE!**

SHARE
in Orlando
2011

We Focus On Providing The Best Possible Functionality And User Experience. Why?

- We derive great personal satisfaction from our customers using (E)JES every day to perform complex tasks that make them more productive.

- Lots of tiny details eventually add up to significant differences in the way users feel about product quality and functionality.

- A matter of "pride". We are involved in the mainframe community. Our customers are our friends. Anything less than excellence would be an embarrassment! **:-[**

The (E)JES "Solar System"

INTERACTIVE
- ISPF application.
- TSO cmd processor (TPUT).
- Thread-safe CICS transaction.
- Phoenix TP Monitor transaction
- Windows PC via (E)JES workstation component client/server.
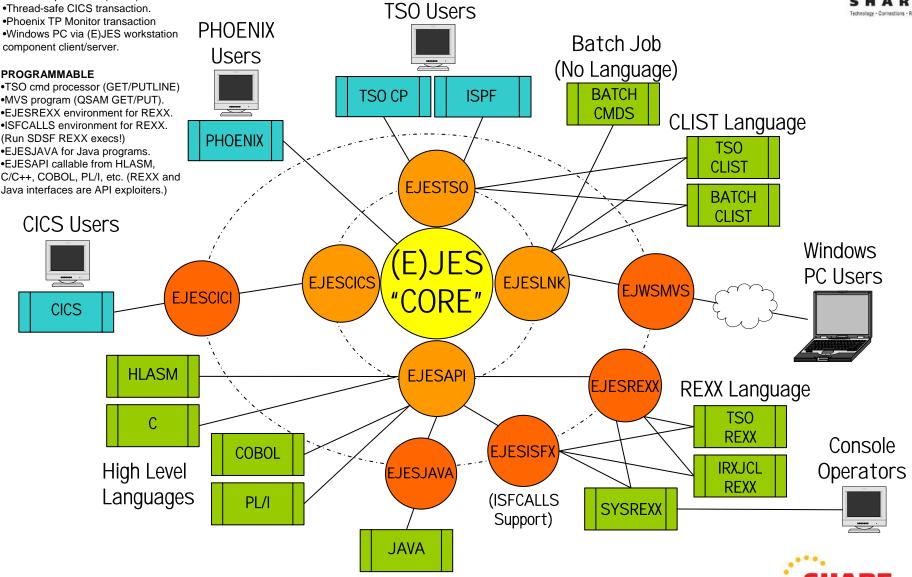
PROGRAMMABLE
- TSO cmd processor (GET/PUTLINE)
- MVS program (QSAM GET/PUT).
- EJESREXX environment for REXX.
- ISFCALLS environment for REXX. (Run SDSF REXX execs!)
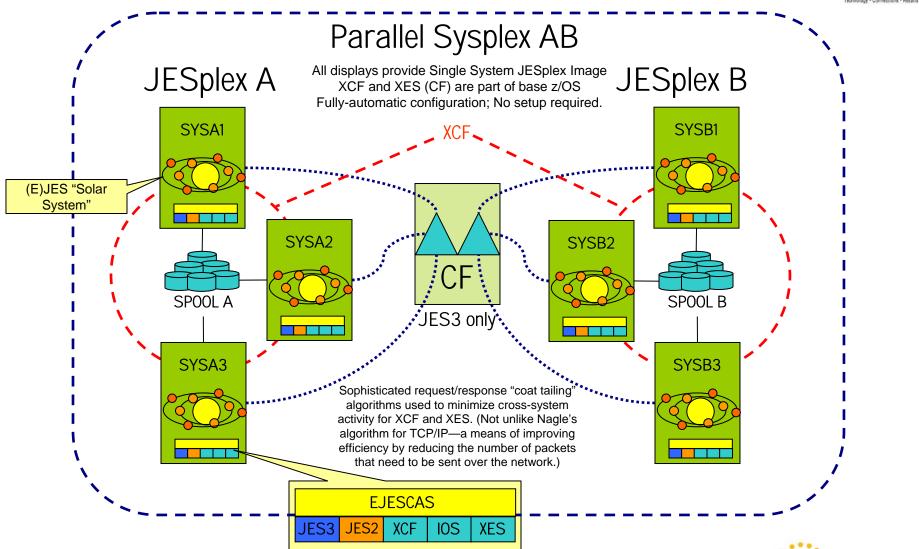- EJESJAVA for Java programs.
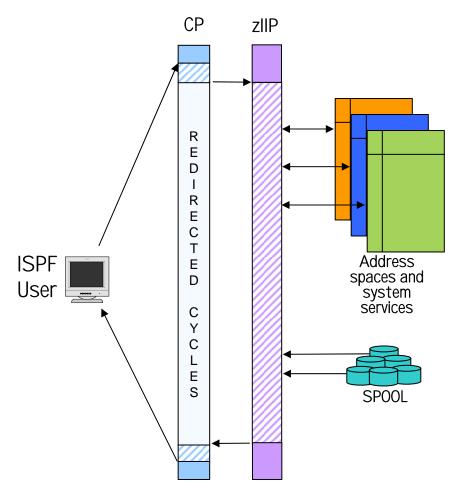- EJESAPI callable from HLASM, C/C++, COBOL, PL/I, etc. (REXX and Java interfaces are API exploiters.)

PHOENIX Users

TSO Users

Batch Job (No Language)

CLIST Language

CICS Users

TSO CP

ISPF

PHOENIX

BATCH CMDS

TSO CLIST

BATCH CLIST

EJESTSO

(E)JES "CORE"

EJESCICS

EJESLNK

EJWSMVS

Windows PC Users

EJESCICI

CICS

HLASM

C

EJESAPI

EJESREXX

REXX Language

TSO REXX

IRXJCL REXX

High Level Languages

COBOL

PL/I

EJESJAVA

EJESISFX

(ISFCALLS Support)

SYSREXX

Console Operators

JAVA

The (E)JES "Galaxy"

Parallel Sysplex AB

JESplex A

JESplex B

All displays provide Single System JESplex Image
XCF and XES (CF) are part of base z/OS
Fully-automatic configuration; No setup required.

SYSA1

SYSB1

XCF

(E)JES "Solar System"

SYSA2

CF

SYSB2

SPOOL A

JES3 only

SPOOL B

SYSA3

SYSB3

Sophisticated request/response "coat tailing" algorithms used to minimize cross-system activity for XCF and XES. (Not unlike Nagle's algorithm for TCP/IP—a means of improving efficiency by reducing the number of packets that need to be sent over the network.)

EJESCAS

JES3	JES2	XCF	IOS	XES

Benefits of zIIP Redirection
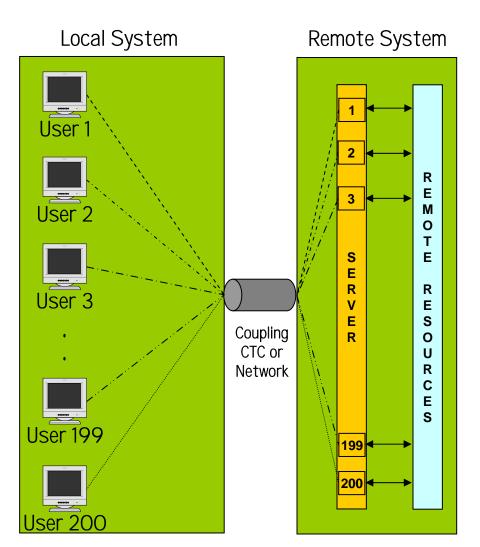
- Cycles consumed on zIIP don't count towards the capacity upon which software running in the LPAR is priced for IBM WLC and ISVs like Phoenix that provide sub-capacity pricing.

- zIIPs are often underutilized so there is less contention and processor delay.

- zIIPs run full speed—faster than CPs on smaller, sub-capacity System z models.

Traditional Multisystem Client/Server Request/Response Model

Local System

Remote System

User 1
User 2
User 3
·
·
User 199
User 200

1
2
3

S E R V E R

199
200

R E M O T E   R E S O U R C E S

Coupling CTC or Network
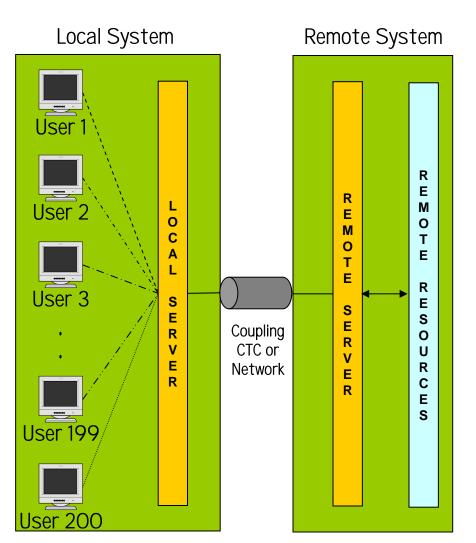
- Each request is independent.
- No matter how many similar requests occur at almost the same time, the resources required are N times those needed for a single request.
- Performance suffers due to:
  - Duplication of effort
  - High CPU utilization
  - Resource pool exhaustion
  - Contention

EJESCAS Multisystem Client/Server Request/Response Model

Local System

Remote System

User 1
User 2
User 3
.
.
User 199
User 200

LOCAL SERVER

Coupling CTC or Network

REMOTE SERVER

REMOTE RESOURCES

- Response data stored in local server's private area.
- Clients obtain directly from local server using AR mode without server involvement.
- Remote server exchange needed only if data is "old".
- Only changed bytes are sent.
- Similar requests occurring at nearly the same time drive a single exchange.
- Dramatic CPU savings with no observable delay.

The (E)JES Entry Panel

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help
 ──────────────────────────────────────────────────────────────────────────────
 2011/07/31 (2011.212)              (E)JES Entry Panel        MVSA0/SA0 V5R1.0 12:23
 Command ===>
 Default Command ===> ST

 Job Names/Nums  ===> /AUTO*    ===>            ===>            ===> _
                 ===>           ===>            ===>        ── Job Name Mask ──
 Owner IDs       ===>           ===>            ===>        Use wildcard characters
                 ===>           ===>            ===>        for imprecise matching.
 Origins         ===>           ===>            ===>        Use a "/" in position 1
 Destinations    ===>           ===>            ===>        to exclude.
 Job Classes     ===>
 Sysout Classes  ===>
 Level of Detail ===> MIN   (MIN or MAX)
 Default Sort    ===> TIME  (STD,NAME,NUM,PRTY,TIME)
 Default SortDir ===> D     (Ascending or Descending)
 Dynamic Update  ===> YES   (YES or NO)
 Display Jobs    ===> YES   (YES or NO)
 Display STCs    ===> YES   (YES or NO)
 Display TSUs    ===> YES   (YES or NO)
 Display ATXs    ===> YES   (YES or NO)




 F1=Help      F3=Exit      F10=Actions   F12=Cancel
 MA    D                                                              07/065
```

Tabular Displays

Common to Both JESes

- Activity
- Hold
- Input
- Output/Writer
- z/OS Unix Processes
- Job Status
- Enclaves
- Health Checker
- Health Check History
- WLM Resources
- Scheduling Environments
- System Requests
- JESPlex members
- Job Classes
- Nodes
- Printers and Punches
- Spool Volumes
- Data Set Status
- Hold Data Sets
- Output/Writer Data Sets
- Output Descriptors

Specific to JES2

- Resource Monitor
- Initiators
- Lines
- Spool Offloaders

Specific to JES3

- DJC Network Control
- DJC Job Status
- MDS
- NJE Output
- Job Zero Data Sets
- Functional Subsystems
- Job Class Groups (Initiators)
- Spool Partitions
- Sysout Classes

A Few Tabular Screen Shots…

```
   Jobs    Resources   Devices   Tools   Filter   View   Options   Help

ACTIVITY SA0    Paging 0    SIO 6    CPU 14/9    zIIP 0              Row 1 of 686
Command ===>    _                                             Scroll ===> PAGE
Cmd JobName    ProcStep  JobID      ASID Pos DP Real    Paging ExCP      CPU%    CPU-Util
<——————————/——————————                                               ↓↓↓↓↓↓↓↓>
    BBNS001    BBOPACR   J0212398  003E NS  FE  113MB 311.04   2,323   13.67   ****
    BBNS001S   BBOPASR   J0212442  0061 IN  FE  361MB 196.41   62.27    2.90   **
    RMFGAT     IEFPROC   S0100607  0117 NS  FE   44MB   .00      .00    2.76   **
    RMFGAT     IEFPROC   J0212345  00AA NS  FE   43MB   .00      .00    1.84   *
    RMF        IEFPROC   S0100375  001E NS  FE   26MB   .00     3.41    1.50   *
    OMVS       OMVS                000F NS  FF   26MB   .00      .00    1.37   *
    WLM        IEFPROC             000B NS  FF   36MB   .00      .00    1.35   *
    WLM        IEFPROC             000B NS  FF   36MB   .00      .00    1.01   *
    RMF        IEFPROC   J0212317  001E NS  FE   22MB   .00     6.83    1.01   *
    XCFAS      IEFPROC             0006 NS  FF   30MB   .00     2.17     .84   *
    JES2       IEFPROC             0031 NS  F0    9MB   .00     1.86     .55   *
    EDJX1                T0100841  0118 IN  F4    6MB   .00      .00     .53   *
    JES2MON    IEFPROC             0021 NS  F2    2MB   .00      .00     .42   *
    TCPIP      TCPIP               0025 NS  FE    9MB   .00      .00     .36   *
    TCPIP      TCPIP               0025 NS  FE   25MB   .00      .00     .31   *
    FSNAMON    IEFPROC             0020 NS  FF    2MB   .00      .00     .28   *
    JES2MON    IEFPROC             0021 NS  F0    2MB   .00      .00     .28   *
    VTAM       VTAM                0024 NS  FE   12MB   .00      .00     .26   *
    FSNA       IEFPROC             0037 NS  FE    7MB   .00     1.86     .23   *
    *MASTER*             S0100372  0001 NS  FF   13MB   .00      .00     .20   *
    TN3270     TN3270    S0100616  011E NS  F4    8MB   .00      .00     .20   *
    *MASTER*             J0212315  0001 NS  FF   10MB   .00      .00     .19   *
    ZFS        ZFZGO               003A NS  FE   98MB   .31     6.20     .18   *
    XCFAS      IEFPROC             0006 NS  FF   29MB   .00     1.24     .15   *
    TN3270     TN3270    J0212354  012C NS  F4    3MB   .00      .00     .14   *
  F1=Help       F3=Exit      F7=Up        F8=Down    F10=Left    F11=Right   F12=Cancel
MA   D                                                                          04/015
```

A Few Tabular Screen Shots…

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help

HOLD     1,111S   17J    0T   42,913 Records (0 Sched)              Row 1 of 39
Command ===>  _                                                Scroll ===>  PAGE
Cmd  JobName   JobID      Status    MaxComp   C Pri Dest             ODisp  Records
-----------------------/---------------------------------------------------------->
     DOWNPLEX  S0100370  QUEUED    AB S222   S 144 LOCAL            HOLD        12
     CICSA     S0100315  QUEUED    AB S222   S 144 LOCAL            HOLD        64
     CICSA     S0099562  QUEUED    AB S222   S 144 LOCAL            HOLD        64
     CICSA     S0099554  QUEUED    AB S222   S 144 LOCAL            HOLD        64
     CICSA     S0099543  QUEUED    AB S222   S 128 LOCAL            HOLD     3,372
     DROURKE   T0099012  QUEUED    CC 0000   X 128 LOCAL            HOLD     4,922
     PSCOTT    T0095801  QUEUED    CC 0000   X 144 LOCAL            HOLD       123
     PSCODEST  J0095800  QUEUED    CC 0000   H 144 LOCAL.ARCHIVE    HOLD        12
                         QUEUED            H 144 LOCAL.ARCHIVE    HOLD        38
                         QUEUED            H 144 LOCAL.ARCHIVE2   HOLD        92
     PSCOTT    T0095798  QUEUED    CC 0000   X 144 LOCAL            HOLD       142
     PSCOTT    T0095797  QUEUED    CC 0000   X 144 LOCAL            HOLD       123
     PSCODEST  J0095783  QUEUED    CC 0000   H 144 RMT20A           HOLD        12
                         QUEUED            H 144 RMT20A           HOLD        37
                         QUEUED            H 144 RMT20A           HOLD        92
     PSCODEST  J0095780  QUEUED    CC 0000   H 144 R21             HOLD        92
                         QUEUED            H 144 LOCAL            HOLD        37
                         QUEUED            H 144 LOCAL            HOLD        12
     ROURSWB   J0095753  QUEUED    CC 0000   1 144 LOCAL.NJCJS      HOLD         4
                         QUEUED            1 144 LOCAL.NJBJS      HOLD         4
                         QUEUED            1 144 LOCAL.NYAJS      HOLD         4
                         QUEUED            A 144 LOCAL.NYAJS      HOLD        24
                         QUEUED            A 144 LOCAL.NJBJS      HOLD        28
                         QUEUED            A 144 LOCAL.NJCJS      HOLD        24
                         QUEUED            A 144 LOCAL.NYAJS      HOLD        28
  F1=Help     F3=Exit      F7=Up       F8=Down    F10=Left    F11=Right  F12=Cancel
MA    D                                                                  04/015
```

A Few Tabular Screen Shots…

A Few Tabular Screen Shots…

```
 Jobs   Resources   Devices   Tools   Filter   View   Options   Help

HCHECK     242NX    19Low    14Med    4High    0Del              Row 1 of 279
Command ===>                                                 Scroll ===> PAGE
Cmd Check                                  Owner          State   Status
                                         /                                    >
    ASM_LOCAL_SLOT_USAGE                   IBMASM         ACT-ENA SUCCESSFUL
    ASM_NUMBER_LOCAL_DATASETS              IBMASM         ACT-ENA EXCEPTION-LOW
    ASM_PAGE_ADD                           IBMASM         ACT-ENA SUCCESSFUL
    ASM_PLPA_COMMON_SIZE                   IBMASM         ACT-ENA EXCEPTION-MEDIUM
    ASM_PLPA_COMMON_USAGE                  IBMASM         ACT-ENA SUCCESSFUL
    CATALOG_IMBED_REPLICATE                IBMCATALOG     ACT-ENA SUCCESSFUL
    CEE_USING_LE_PARMLIB                   IBMCEE         ACT-ENA SUCCESSFUL
    CNZ_AMRF_EVENTUAL_ACTION_MSGS          IBMCNZ         ACT-ENA SUCCESSFUL
    CNZ_CONSOLE_MASTERAUTH_CMDSYS          IBMCNZ         ACT-ENA SUCCESSFUL
    CNZ_CONSOLE_MSCOPE_AND_ROUTCODE        IBMCNZ         ACT-ENA SUCCESSFUL
    CNZ_CONSOLE_ROUTCODE_11                IBMCNZ         ACT-ENA SUCCESSFUL
  ┌───────────────────────── Line Commands ─────────────────────────┐ SSFUL
  │  A    Activate          En   Extract*      U    Remove categories│ L-MVS60
  │  Bv   Browse*           F    Refresh       Z    Delete           │ SSFUL
  │  D    Display summary   H    Deactivate    ZZ   Force            │ SSFUL
  │  DL   Display detail    L    Long history                       │ SSFUL
  │  DP   Display policies  P#   Print*                             │ SSFUL
  │  DPO  Display outdated  RUN  Run                                 │ SSFUL
  │  DS   Display status    S    Short history                      │ /A
  │                                                                  │ SSFUL
  │  * v = blank, B(rowse) or V(iew)                                 │ SSFUL
  │    n = blank, D(asd), U(nix), 1 or 2(prt)    # = blank, 1 or 2   │ SSFUL
  └──────────────────────────────────────────────────────────────────┘ SSFUL
 _  CSTCP_TCPMAXRCVBUFRSIZE_TCPIP           IBMCS          ACT-ENA SUCCESSFUL
    CSV_APF_EXISTS                          IBMCSV         ACT-ENA SUCCESSFUL
 F1=Help    F3=Exit     F7=Up        F8=Down    F10=Left    F11=Right  F12=Cancel
MA   D                                                              30/002
```

A Few Tabular Screen Shots…

```
  Jobs    Resources    Devices    Tools    Filter    View    Options    Help

 RESMON      PHXHQ2 Resource Usage Summary                          Row 1 of 34
 Command ===>                                                  Scroll ===> PAGE
 Cmd Resource JMbr  Status      Limit     Used     Free    Used%  Warn% LowUse    HighUse
            ────────/───────────────────────────────────────────────────────>
      BERT    S70               12,100    1,498   10,602  12.38    80   1,496     1,498
      BSCB    S70                2,000        0    2,000    .00     0       0         0
      BUFX    S70                  300        0      300    .00    70       0         0
      CKVR    S70                   50        0       50    .00    80       0         0
      CMBS    S70    HISTWARN      109        0      109    .00    80       0         0
      CMDS    S70                  100        0      100    .00    80       0         0
      ICES    S70                    9        0        9    .00    80       0         0
      JNUM    S70              323,001    1,110  321,891    .34    80   1,109     1,110
      JOES    S70               25,000    1,086   23,914   4.34    80   1,086     1,086
      JQES    S70                6,000    1,111    4,889  18.51    80   1,110     1,111
      LBUF    S70                  120        0      120    .00    70       0         0
      NHBS    S70                  203        0      203    .00    80       0         0
      SMFB    S70                    8        0        8    .00    80       0         0
      TBUF    S70                  104        0      104    .00     0       0         0
      TGS     S70              116,665    6,907  109,758   5.92    80   6,906     6,907
      TTAB    S70                    3        0        3    .00    80       0         0
 _    VTMB    S70                2,000        0    2,000    .00     0       0         0
    ┌─ Line Commands ──────┐      12,100    1,498   10,602  12.38    80   1,496     1,498
    │  D   Display         │       2,000        0    2,000    .00     0       0         0
    │  S   Show history    │         300        0      300    .00    70       0         0
    └──────────────────────┘          50        0       50    .00    80       0         1
      CMBS    SA0                  109        0      109    .00    80       0         0
      CMDS    SA0                  100        0      100    .00    80       0         0
      ICES    SA0                    9        0        9    .00    80       0         0
      JNUM    SA0              323,001    1,110  321,891    .34    80   1,109     1,110
  F1=Help      F3=Exit      F7=Up       F8=Down     F10=Left    F11=Right   F12=Cancel
 MA   D                                                                        23/002
```

A Few Tabular Screen Shots…

```
 Jobs  Resources  Devices  Tools  Filter  View  Options  Help

SYSREQ  3R  1I  8C  0E                                Row 1 of 19
Command ===>                                       Scroll ===> PAGE
Cmd     MsgID       SysName   JobName   Message-Text
        _____/_____>
        89120       MVS70     HZSPROC   HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
                                        IXCH0242E One or more couple data sets hav
        88119       MVSA0     HZSPROC   HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
                                        IXCH0242E One or more couple data sets hav
        143121      MVS60     HZSPROC   HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
                                        IXCH0242E One or more couple data sets hav
_       0217        MVS60     VTAM      ISTEXC200 - DYN COMMANDS MAY BE ENTERED
     ┌──── Line Commands ─────┐   STER* ILR005E PLPA PAGE DATA SET FULL, OVERFLOWI
     │  C     Cancel message  │   HMCTL IOSHM0803E HyperSwap Disabled
     │  D     Display message │   PROC  HZS0003E CHECK(IBMUSS,USS_PARMLIB_MOUNTS):
     │  R{text} Reply to message│        BPXH061E One or more file systems specifie
     └────────────────────────┘        members are not mounted.
        0207        MVS70     VTAM      ISTEXC200 - DYN COMMANDS MAY BE ENTERED
        2120        MVS70     *MASTER*  ILR005E PLPA PAGE DATA SET FULL, OVERFLOWI
        29119       MVSA0     HZSPROC   HZS0003E CHECK(IBMUSS,USS_PARMLIB_MOUNTS):
                                        BPXH061E One or more file systems specifie
                                        members are not mounted.
        0198        MVSA0     VTAM      ISTEXC200 - DYN COMMANDS MAY BE ENTERED
        2119        MVSA0     *MASTER*  ILR005E PLPA PAGE DATA SET FULL, OVERFLOWI
******************************** Bottom of Data ********************************




 F1=Help     F3=Exit     F7=Up      F8=Down    F10=Left    F11=Right   F12=Cancel
MA  D                                                              13/002
```

A Few Tabular Screen Shots…

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help
 ─────────────────────────────────────────────────────────────────────────────
 DJCJOBS  BBDJ1DEP   3S   0X   0W   3H   0 Records              Row 1 of 4
 Command ===>                                              Scroll ===> PAGE
 Cmd  JobName   JobID      JobStat   DJCStat   Successr* NHold Scht NCmp ACmp Nr Ab DR
 ──────────────/──────────────────────────────────────────────────────────────────>
      DJ1DEPB0  JOB28205  H-DJOPER  OH        DJ1DEPB1      0    0 HOLD NOKP  D  R  N
                                             DJ1DEPB2
      DJ1DEPB1  JOB28207  H-DJNET   H                       1    0 HOLD NOKP  D  R  N
 _    DJ1DEPB2  JOB28208  H-DJNET   H                       1    0 HOLD NOKP  D  R  N
 ┌──────────────────────────────── Line Commands ─────────────────────── ************
 │  AH    Alter Hld Q      Iv   Job Info*       P#   Reprint Job*
 │  AW    Alter Wtr Q      IXv  Job Info-ext*   Q    Output Desc
 │  Bv    Browse Job*      Jv   Browse JCL*     Rq   Release*
 │  C     Cncl Job         K    MVS Cancel      RS   Restart Setup
 │  CD    Cncl Exec/Dump   KD   MVS Cancel/Dump RSC  Restart Setup/CI
 │  CO    Cncl/P-Out       Mv   Msg Summary*    RUN  Force job to run
 │  CP    Cncl/P-Prt       NC   Cncl DJC        RX   Restart Exec
 │  Cq    Cncl Queue*      NCO  Cncl DJC/P-Out  S    Data Set Status
 │  CX    Cncl Exec        ND   Decrement NHOLD Tv   Browse Job/Patt*
 │  D     Display          NH   DJC Hold        Wc   Requeue Job{to c}
 │  DUv   Control Blks*    NI   Increment NHOLD Xn   Extract Job/Patt*
 │  En    Extract Job*     NR   DJC Release
 │  Hq    Hold*            Oc   Requeue {to c}
 │
 │  *  v = blank, B(rowse) or V(iew)
 │     n = blank, D(asd), U(nix), 1 or 2(prt)    # = blank, 1 or 2
 │     q = blank, B(dt), H(old), T(cp) or W(tr)
 └──────────────────────────────────────────────────────────────────────

  F1=Help     F3=Exit      F7=Up      F8=Down    F10=Left    F11=Right   F12=Cancel
 MA  D                                                                       10/002
```

Pop-Ups Minimize The Need To Memorize Commands Or Return To The Entry Panel

- Primary Selection Criteria pop-up:

- Additional Selection Criteria pop-ups differ by function:

Metafilters Perform Complex Filtering With Masking, Boolean AND/OR

- Metafilters support allows up to 16 filters to be established.

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help
                                 Metafilters
    Help

FILTER    STATUS (MIN)                                        Row 1 of 2
Command ===>                                         Scroll ===> PAGE
Cmd Column      Title                        Op Value                 Bool

    MAXCOMP   MaxComp                         =  AB*                    OR
_   MAXCOMP   MaxComp                         =  JCL*
****************************** Bottom of Data ******************************
```

- Example shows jobs that abended or failed w/JCL error.

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help

STATUS   2,352S  0X  17W  0H  0T   170,105 Records            Row 1 of 17
Command ===>  _                                       Scroll ===> PAGE
Cmd JobName  JobID    Status    Process   StepNum StepName JP MaxComp  Records
         ──────────────/───────────────────────────────────────────>
    HPUTDDDF J0211363 W-OUTPUT  OUTSERV       0            2  JCLERR      287
    EDJX2    T0210689 W-OUTPUT  OUTSERV       1           15  AB S622   8,221
    ASMENVT3 J0210678 W-OUTPUT  OUTSERV       9            2  AB S013  21,266
    ASMENVT3 J0210009 W-OUTPUT  OUTSERV       9            2  AB S013  20,981
    ASMENVT3 J0210008 W-OUTPUT  OUTSERV       9            2  AB S013  21,256
    ASMENVT3 J0210006 W-OUTPUT  OUTSERV       9            2  AB S013  21,256
    EDGITAP1 J0209015 W-OUTPUT  OUTSERV       1            9  AB S222      77
    EDGITAP1 J0209013 W-OUTPUT  OUTSERV       1            9  AB S222      91
    EDJXADM  T0208207 W-OUTPUT  OUTSERV       1           15  AB S622  14,333
```

Various Filter Modes Improve Heuristics by Allowing Filtered Data Viewed in Context

- TRUE mode displays only matches.
- FALSE mode display only non-matches.
- CTRUE (color TRUE) mode colorizes matches.
- CFALSE (color FALSE) mode colorizes non-matches.
- Example below is CTRUE mode for abends & JCL errors.

Point-And-Shoot Pop-Up Column Help Trains Users On z/OS, JES and (E)JES

- Position cursor to any column, press F1.

```
 Jobs   Resources  Devices  Tools  Filter  View  Options  Help
HOLD       1,112S  17J   0T  42,913 Records (0 Sched)                Row 1 of 39
Command ===>                                               Scroll ===> PAGE
Cmd JobName   JobID    Status    MaxComp  C Pri Dest                ODisp Records
                              /          —  —  ——————— Priority ——————————      >
    DOWNPLEX S0100370 QUEUED   AB S222   S    Priority (0-255) of the      12
    CICSA    S0100315 QUEUED   AB S222   S    output. Higher numbers       64
    CICSA    S0099562 QUEUED   AB S222   S    imply higher priority.       64
    CICSA    S0099554 QUEUED   AB S222   S                                 64
    CICSA    S0099543 QUEUED   AB S222   S 128 LOCAL            HOLD    3,372
    DROURKE  T0099012 QUEUED   CC 0000   X 128 LOCAL            HOLD    4,922
    PSCOTT   T0095801 QUEUED   CC 0000   X 144 LOCAL            HOLD      123
```

- Position cursor to any unprotected field, press F1.

```
 Jobs   Resources  Devices  Tools  Filter  View  Options  Help
HOLD       1,112S  17J   0T  42,913 Records (0 Sched)                Row 1 of 39
Command ===>                                               Scroll ===> PAGE
Cmd JobName   JobID    Status    MaxComp  C Pri Dest                ODisp Records
                              /          —                                      >
    DOWNPLEX S0100370 QUEUED   AB S222   S 144 LOCAL            HOLD       12
    CICSA    S0100315 QUEUED   AB S222   S ——————— Priority ——————— OLD    64
    CICSA    S0099562 QUEUED   AB S222   S  A number from 0        OLD      64
    CICSA    S0099554 QUEUED   AB S222   S  to 255.               OLD      64
    CICSA    S0099543 QUEUED   AB S222   S                        OLD    3,372
    DROURKE  T0099012 QUEUED   CC 0000   X 128 LOCAL            HOLD    4,922
    PSCOTT   T0095801 QUEUED   CC 0000   X 144 LOCAL            HOLD      123
    PSCODEST J0095800 QUEUED   CC 0000   H 144 LOCAL.ARCHIVE    HOLD       12
```

Point-And-Shoot Tri-Modal Sorting Is Both Intuitive and Easy to Use

- Double-click/point-and-shoot column header for ascending column sort.
  - Graphical arrows indicate sort direction.

ODisp	Records	Pages	GrpName
	↑↑↑↑↑↑↑↑↑↑		→
HOLD	1	0	EDJXADM
HOLD	1	0	EDJXADM
HOLD	1	0	EDJXADM
HOLD	1	0	EDJXADM
HOLD	1	0	EDJXADM
HOLD	1	0	EDJXADM
HOLD	4	0	10
HOLD	4	0	11

- Double-click/point-and-shoot a second time for descending column sort.
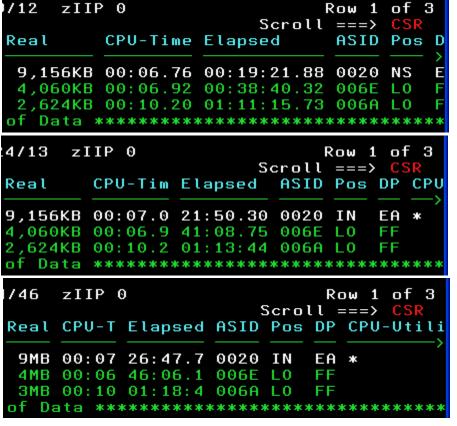
ODisp	Records	Pages	GrpName
	↑↓↓↓↓↓↓↓↓↓		→
HOLD	25,432	0	3
HOLD	5,004	0	1
HOLD	4,922	0	1
HOLD	3,372	0	2
HOLD	2,966	0	1
HOLD	142	0	1
HOLD	123	0	1
HOLD	123	0	1

- Double-click/point-and-shoot a third time to return to original sort order.

ODisp	Records	Pages	GrpName
			→
HOLD	12	0	2
HOLD	64	0	2
HOLD	64	0	2
HOLD	64	0	2
HOLD	3,372	0	2
HOLD	4,922	0	1
HOLD	123	0	1
HOLD	12	0	1

Intelligent Column Formatting Shifts The Most Important Information Into View

- What happens when you shrink output columns more and more? And, more??

Effect Changes via Direct Overtype or Press <Prompt> Key For a Pop-Up


```
HOLD      1,114S  24J  0T  42,913 F
Command ===>
Cmd JobName   JobID    IP PrMode
<——  ————————  ————————/—  ————————
    DOWNPLEX S0100370 N  _LINE
    PSCODEST J0095800 N  LINE
    ROURSWB  J0095753 N  LINE
                       N  LINE
                       N  LINE
                       N  LINE
```

```
IP PrMode      Forms      FCB  UCS  Flsh ExtWtr
N  ————————    ————————  ——————————————————
N                    ——————————— Long Overtype ——
N    Overtype data for column: PrMode
N
N    ==> _LINE
N
N
N
N    F3=Cancel
N
```

```
HOLD      1,114S  24J  0T  42,913
Command ===>
Cmd JobName   JobID    IP PrMode
<——  ————————  ————————/—  ————————
    DOWNPLEX S0100370 N  page_
    PSCODEST J0095800 N  LINE
    ROURSWB  J0095753 N  LINE
                       N  LINE
                       N  LINE
                       N  LINE
```

```
IP PrMode      Forms      FCB  UCS  Flsh ExtWtr
——  ————————    ————————  ——————————————————
N                    ——————————— Long Overtype ——
N    Overtype data for column: PrMode
N
N    ==> page_
N
N
N
N    F3=Cancel
N
```

```
HOLD      1,114S  24J  0T  42,913 F
Command ===>
Cmd JobName   JobID    IP PrMode
<——  ————————  ————————/—  ————————
_   DOWNPLEX S0100370 N  PAGE
    PSCODEST J0095800 N  LINE
    ROURSWB  J0095753 N  LINE
                       N  LINE
                       N  LINE
                       N  LINE
```
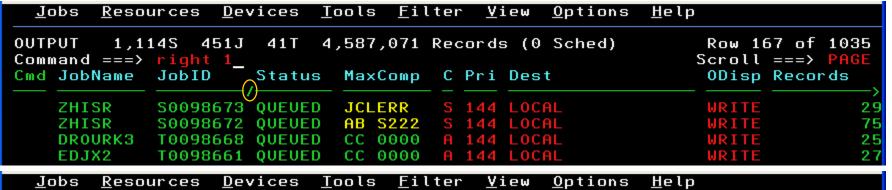
```
IP PrMode      Forms      FCB  UCS  Flsh ExtWtr
——  ————————    ————————  ——————————————————
N  PAGE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
N  LINE       STD      **** **** ****
```

Advanced Horizontal Scrolling Features

- Establish your own horizontal scroll point.
  - Denoted by slash in column underline.
  - Fields left of scroll point stay fixed.
- LCOLUMN command horizontally scrolls to any column.
- "SNAP" option ensures no column is ever "chopped" at the scroll point.

Column Arrangement and Column Hiding Give Users Ultimate Flexibility

- Any column can be first.

  - Especially useful for SELECT primary command, whose mask operates on the first column of the display.

- Columns can be hidden (set to zero width).

  - Set width to zero during column arrangement.

  - Use HIDE command to quickly hide multiple named columns.

  - Use SHOW command to quickly show multiple named columns and hide the others.

SELECT Command Works Like ISPF Member Selection Lists, Only Better!

- Mask applied to first column displayed on the screen, which can be customized, of course.

- A different default line command can be established for each tabular display.

- Optional line command default override on SELECT.

- Row number or range of row numbers may be specified instead of a mask. Row admin column is helpful here.

- SELECT command itself is optional if row number used.

- Examples:

```
S ABC*    (default action for objects starting with ABC)
S * C     (issue C line command against all displayed rows)
S 5-20 W (issue W line command against rows 5 through 20)
6         (default action for row 6)
```

SELECT Command Example With Row Number Specified (Default Action = B)

```
    Jobs   Resources  Devices  Tools  Filter  View  Options  Help

DSSTAT     EJES$PAP J0209734    2,125 Records                    Row 1 of 6
Command ===> 6_                                          Scroll ===> CSR
Cmd  Row  DDName     StepName  ProcName  Que* C Pri Cpy Hld Destination      Records
                            /                                                        >
     1   JESMSGLG                        HLD  A  2   1     ANYLOCAL              11
     2   JESJCL                          HLD  A  2   1     ANYLOCAL             152
     3   JESYSMSG                        HLD  A  2   1     ANYLOCAL             162
     4   SMPOUT     APPLY     SMP        HLD  A  2   1     ANYLOCAL              49
     5   SMPRPT     APPLY     SMP        HLD  A  2   1     ANYLOCAL              95
     6   SYSPRINT   APPLY     SMP        HLD  A  2   1     ANYLOCAL           1,656
****************************** Bottom of Data ***********************************
```

```
    Jobs   Resources  Devices  Tools  Filter  View  Options  Help

EJES$PAP J0209734         <SMP     .APPLY    .SYSPRINT>           Line 1 of 1656
Command ===> _                                          Scroll ===> CSR
Current Find Text:                                      Dataset 1 of 1
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+---->
1                                               IEBCOPY MESSAGES AND CONTROL STA
-IEB1135I IEBCOPY  FMID HDZ1C10  SERVICE LEVEL UA58514  DATED 20110221 DFSMS 01.
 IEB1035I EJES$PAP SMP        APPLY    16:26:02 THU 21 JUL 2011 PARM=''
- COPY OUTDD=SEJELPA,INDD=SEJELPA
0IEB1018I COMPRESSING  PDS  OUTDD=SEJELPA  VOL=MVSSY2 DSN=SYS2.E480.SEJELPA
 IEB152I EJESCICS COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESAL2  COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESAL3  COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESAPI  COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESAPI4 COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESAR   COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESCB2  COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESCB3  COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
 IEB152I EJESCM   COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
```

Support for ThruPut Manager

- Developed in cooperation with MVS solutions, inc.
- Toggle between standard JES2 Queue/Status values and those provided by ThruPut Manager.

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

INPUT      1,101S   463X   19W   306H                        Row 476 of 788
Command ===> tmqstat on_                                     Scroll ===> PAGE
Cmd JobName   JobID     Status    Queue   AMbr  C JP  Pos  WPos Mode SrvClass Owner
          _____/                                          \_____>
     LISTCAT8 J0038165 W-SCHENV EXEC          A  9    1     1 WLM  BATCH    EDJX2
     LISTCAT8 J0038166 W-SCHENV EXEC          A  9    2     2 WLM  BATCH    EDJX2
     LISTCAT2 J0060821 W-SYSAFF CNVT          A  9    3              EDJXADM
     LISTCAT2 J0094143 W-SYSAFF CNVT          A  9    4              EDJXADM
     LISTCAT2 J0094144 W-SYSAFF CNVT          A  9    5              EDJXADM
     LISTCAT2 J0060865 W-SYSAFF CNVT          A  9    1              EDJXADM
     LISTCAT2 J0061088 W-SYSAFF CNVT          A  9    2              EDJXADM
     HOLD4    J0077270 HELD     EXEC          A  9           WLM  BATCH    EDJX2
     HOLD3    J0077269 HELD     EXEC          A  9           WLM  BATCH    EDJX2
```

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

INPUT      1,101S   463X   19W   306H                        Row 476 of 788
Command ===> _                                               Scroll ===> PAGE
Cmd JobName   JobID     Status    Queue   AMbr  C JP  Pos  WPos Mode SrvClass Owner
          _____/                                          \_____>
     LISTCAT8 J0038165 JLS Agen Xeq SL       A  9    1     1 WLM  BATCH    EDJX2
     LISTCAT8 J0038166 JLS Agen Xeq SL       A  9    2     2 WLM  BATCH    EDJX2
     LISTCAT2 J0060821 W-SYSAFF CNVT          A  9    3              EDJXADM
     LISTCAT2 J0094143 W-SYSAFF CNVT          A  9    4              EDJXADM
     LISTCAT2 J0094144 W-SYSAFF CNVT          A  9    5              EDJXADM
     LISTCAT2 J0060865 W-SYSAFF CNVT          A  9    1              EDJXADM
     LISTCAT2 J0061088 W-SYSAFF CNVT          A  9    2              EDJXADM
     HOLD4    J0077270 SLM Cap  Xeq SL       A  9           WLM  BATCH    EDJX2
     HOLD3    J0077269 SLM Cap  Xeq SL       A  9           WLM  BATCH    EDJX2
```

Fully Point-And-Shoot Enabled.

- Many 3270-based products claim this; <u>few *really* work</u>.

- Recommend couple with 3270 mouse function.

- Each tabular display has a "default" line command to be issued when <Enter> pressed with cursor in the Cmd column. Delivered default is that which made sense to us.

- Customize where cursor should be placed after various actions. Optimal behaviors differ between users that want point-and-shoot and those that don't.

- Of course, the ultimate point-and-shoot functionality is obtained using the workstation component.

Browsers

- For all users:
  - SPOOL Data
  - Job Message Summary
  - Job Information
  - Job JCL
  - User Log (MCS Extended Console)
- For operators & system programmers:
  - SYSLOG
  - OPERLOG
  - Health Check Messages

- For problem diagnosis:
  - SPOOL Control Block Dump
  - SPOOL Data Set Block-by-Block Dump
  - SPOOL Block Dump

Native Browsers Provide Unique Features

- Maintain understanding of data set boundaries and total size.
    - Navigate by DD name or absolute or relative data set number.
    - BOX mode viewing can limit scroll and find to "current" data set only.
- Find match highlighting even in BROWSE-like function.
- RFINDP—repeat find at page level instead of hit-by-hit.
- BOTTOM scroll mode always shows most recent data.

Toggle BOX Mode Viewing At Any Time

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 ALLOCZFS J0083110          <         .DEFINE   .SYSPRINT>         Line 112 of 129
 Command ===> box on_                                             Scroll ===> CSR
 Current Find Text: ALLOC                                         Dataset 6 of 7
 ---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+--->
 0IDC0512I NAME GENERATED-(D) HQOMVS.MVS60.Z112.ETC.ZFS.DATA
  IDC0181I STORAGECLASS USED IS SYSHFS
  IDC0181I MANAGEMENTCLASS USED IS NOMIG
  IDC0181I DATACLASS USED IS DEFAULT
 0IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 0
 0
 0IDC0002I IDCAMS PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0
  IOEZ00004I Formatting to 8K block number 4500 for primary extent of HQOMVS.MVS6
  IOEZ00005I Primary extent loaded successfully for HQOMVS.MVS60.Z112.ETC.ZFS.
  IOEZ00535I *** Using initialempty value of 1.
```

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 ALLOCZFS J0083110          <         .DEFINE   .SYSPRINT>         Line 8 of 14
 Command ===> _                                                  Scroll ===> CSR
 Current Find Text: ALLOC                                         Dataset 6 of 7
 ---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+--->
 0IDC0512I NAME GENERATED-(D) HQOMVS.MVS60.Z112.ETC.ZFS.DATA
  IDC0181I STORAGECLASS USED IS SYSHFS
  IDC0181I MANAGEMENTCLASS USED IS NOMIG
  IDC0181I DATACLASS USED IS DEFAULT
 0IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 0
 0
 0IDC0002I IDCAMS PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0
 **************************** Bottom of Dataset *****************************
```

RFINDP Reduces Keystrokes When There Are Many Duplicate Hits On A Page

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help
─────────────────────────────────────────────────────────────────────────────
ALLOCZFS J0083110           <           .JES2      .JESMSGLG>        Line 1 of 129
Command ===> rfindp (aka F17)                                Scroll ===> CSR
Current Find Text: J0083                                     Dataset 1 of 7
---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+---->
1                     J E S 2   J O B   L O G  --  S Y S T E M   S A 0    --  N O D
0
 09.36.36 J0083110 ---- THURSDAY,  23 DEC 2010 ----
 09.36.36 J0083110   IRR010I  USERID EDJXADM  IS ASSIGNED TO THIS JOB.
 09.36.36 J0083110   ICH70001I EDJXADM  LAST ACCESS AT 09:36:11 ON THURSDAY, DECE
 09.36.36 J0083110   $HASP373 ALLOCZFS STARTED - WLM INIT  - SRVCLASS BATCH     -
 09.36.42 J0083110   $HASP395 ALLOCZFS ENDED
0------ JES2 JOB STATISTICS ------
-  23 DEC 2010 JOB EXECUTION DATE
-         20 CARDS READ
-        129 SYSOUT PRINT RECORDS
```

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help
─────────────────────────────────────────────────────────────────────────────
ALLOCZFS J0083110           <           .JES2      .JESMSGLG>        Line 25 of 129
Command ===>                                                 Scroll ===> CSR
Current Find Text: J0083                                     Dataset 2 of 7
---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+---->
   870                 HQOMVS.MVS60.Z112.ETC.ZFS.
 09.36.38 J0083110   IOEZ00048I Detaching aggregate HQOMVS.MVS60.Z112.ETC.ZFS
 09.36.38 J0083110   IOEZ00048I Detaching aggregate HQOMVS.MVS60.Z112.ETC.ZFS
 09.36.41 J0083110   -ALLOCZFS CREATE            00    9589     498     .01     .0
 09.36.41 J0083110   IEF404I ALLOCZFS - ENDED - TIME=09.36.41
 09.36.41 J0083110   -ALLOCZFS ENDED.  NAME-Compatibility Mode    TOTAL CPU TIME=
       1 //ALLOCZFS JOB 1,'Compatibility Mode',
       //          CLASS=A,MSGCLASS=H,MSGLEVEL=(1,1),NOTIFY=&SYSUID
       /*JOBPARM S=SA0
       IEFC653I SUBSTITUTION JCL - 1,'Compatibility Mode',CLASS=A,MSGCLASS=H,
       2 //DEFINE   EXEC   PGM=IDCAMS,REGION=64M
```

OPERLOG Browser Provides Robust Message Filtering on Live Log Data


```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help
 _                      ─── Additional Selection ───
 O                                                                    2011/02/01
 C     System Name  . . .  _____  _____  _____  _____  Scroll ===> CSR
 C     Job Name . . . . .  _____  _____  _____  _____
<-     Job ID . . . . . .  _____  _____  _____  _____  9----+---10----+>
 1     Console  . . . . .  _____  _____  _____  _____  0, IN PROCESS 169
       Message ID   . . .  ich408i_  _____  _____  _____  PLETION CODE 0033
       Message Text . . .  _____
 1     Routing Codes  . .  ALL_____  ICA1 OPENED BY CI
 1     Descriptor Codes .  ALL_____   FOR APPLID CICA1
 1     Low Time-Date  . .  _____   CICA1
 1     High Time-Date . .  _____  ED.   JOBNAME=CICS
 1                                                                  n Dump Data set D
 1      F1=Help    F12=Cancel                                       N OF CICS IS COMP
 1                                                                  0, IN PROCESS 337
```

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 OPERLOG   PHXHQ                                                     2011/02/01
 Command ===>  _                                                Scroll ===>  CSR
 Current Find Text:
<--3----+----4----+----5----+----6----+----7----+----8----+----9----+---10----+>
 06:20:48.73 CICSA      00000281    ICH408I USER(IBMUSER ) GROUP(SYS1    ) NAME(....
             940 00000281         LOGON/JOB INITIATION - REVOKED USER ACCESS ATT
 06:20:48.76 CICSA      00000281    ICH408I USER(ADCD    ) GROUP(       ) NAME(....
             943 00000281         LOGON/JOB INITIATION - NOT AUTHORIZED TO CONSO
 10:54:41.74            00000281    ICH408I USER(DROURKE ) GROUP(DEV     ) NAME(ROUR
             300 00000281         LOGON/JOB INITIATION - INVALID PASSWORD ENTERE
 15:22:32.71 JES3       00000281    ICH408I JOB(JES3     ) STEP(JES3     ) MVS.VARY.HA
             633 00000281          INSUFFICIENT ACCESS AUTHORITY
             633 00000281          FROM MVS.** (G)
             633 00000281          ACCESS INTENT(CONTROL)  ACCESS ALLOWED(NONE
 06:00:26.36 CICSA      00000281    ICH408I USER(IBMUSER ) GROUP(SYS1    ) NAME(....
```

2011

OPERLOG Browser Can Display Using Original Console Presentation Attributes

Use the Pattern Utility to Filter Browser Content

- Masking, column limiting, case control.
- Pattern sets can be stored in and reloaded from a pattern library.
  - Not proprietary: PDS[E]. RECFM=U prevents ISPF editing.
  - User comment stored in the directory.

```
 Jobs   Resources   Devices   Tools   Filter   View   Options   Help

EJES$PAP  J0209734               Pattern Utility
Command ===> pload_

Pattern Utility commands:                Global matching options:
   PLOAD   - Load pattern set                Start column    ===>
   PSTORE  - Store pattern set               End column      ===>
   blank   - Apply patterns                  Case sensitive ===>          (Yes or No)

                                         Unconditional line matching:
                                             Lines at start ===>
                                             Lines at end   ===>

Pattern definitions:                             Specific matching options:
(Prefix with a '/' for an exclude pattern)       Startcol   Endcol    Case
   ===>                                          ==>        ==>        ==>
   ===>                                          ==>        ==>        ==>
   ===>                                          ==>        ==>        ==>
   ===>                                          ==>        ==>        ==>
   ===>                                          ==>        ==>        ==>
```

Store/Load Often-Used Pattern Sets

```
Jobs   Resources   Devices   Tools   Filter   View   Options   Help

   Help

 PATMLIST                                                    Row 1 of 5
 Command ===>                                          Scroll ===> CSR
 Cmd Member    CrDate       CrTime    User    Comment
 _____/_____
     ABC        2009/06/24 17:16:08 EDJX2   This sample looks for 'ABC'
     CC004      2006/06/10 13:02:52 EDJX2   MaxCC=0004
     JES3       2007/02/03 07:23:24 EDJX2   Looking for IAT messages
 _   SMPI       2009/07/02 22:44:41 EDJX1   SMP/E Informational Messages
     XXXX       2006/07/14 13:11:32 EDJX2   Just some junk for a demo
 **************************** Bottom of Data ****************************
```

```
Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 SMPOREC   J0527805        <RCVORDER.RMVS    .SMPOUT  >        Line 1 of 13
 Command ===> _                                          Scroll ===> CSR
 Current Find Text:                                      Dataset 1 of 1
 ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+---->
 GIM42401I    THE FOLLOWING PARAMETERS WERE SPECIFIED ON THE EXEC STATEMENT FOR
 GIM20501I    SET PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.
 GIM68700I    ORDER ORD00047 HAS BEEN SENT TO THE SERVER AT
 GIM69144I    ORDER ORD00047 IS READY FOR DOWNLOAD.
 GIM66400I    THE TRANSFER IS COMPLETE FOR FILE
 GIM66400I    THE TRANSFER IS COMPLETE FOR FILE
 GIM66400I    THE TRANSFER IS COMPLETE FOR FILE
 GIM66400I    THE TRANSFER IS COMPLETE FOR FILE
 GIM47600I    PACKAGE ORD00047-02July2009-09.45.38 WAS SUCCESSFULLY STAGED TO TH
 GIM22701I    RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD UK47345.
 GIM46100I    PACKAGE ORD00047-02July2009-09.45.38 HAS BEEN DELETED FROM THE
 GIM20501I    RECEIVE PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00.
 GIM20502I    SMP/E PROCESSING IS COMPLETE. THE HIGHEST RETURN CODE WAS 00. SMP/
 ************************** Bottom of Data ***************************
```

Message Summary Browser Simplifies Job Message and Return Code Analysis

- Like other browsers, updated by pressing <Enter>.

  - New information added with each update, if needed.

- Installation-defined message set and behavior. (Default exit distributed with the product rarely changed.)

Spool Control Block Browsers Aid In Debugging JES, User Exits, Products

```
 Jobs   Resources   Devices   Tools   Filter   View   Options   Help
EJESCAS   S0063613           Spool Control Blocks            Line 1 of 272
Command ===> _                                             Scroll ===> CSR
Current Find Text:
---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
    ****************************************************************************
    *                             J C T                                        *
    ****************************************************************************

    SPOOL ADDRESS: 03.124F06

    FIXED SECTION:

    0000   0068   D1C3E340 C5D1C5E2 C3C1E240 0000F87D   *JCT EJESCAS ..8'*
    0010   0078   C46CC7D6 00000000 05780080 00000000   *D%GO.....Ì.0....*
    0020   0088   00000000 03124F06 00000000 03124F04   *......|......|.*
    0030   0098   00000000 03124F03 00000088 FFFFFFFF   *......|....h....*
```

```
 Jobs   Resources   Devices   Tools   Filter   View   Options   Help
EJESCAS   S0063613           Spool Control Blocks            Line 3 of 67
Command ===> _                                             Scroll ===> CSR
Current Find Text:
---+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
    ****************************************************************************
    *                       S P O O L   B L O C K                              *
    ****************************************************************************

    SPOOL ADDRESS: 03.124F0A

    0000   0000   C8C4C240 C5D1C5E2 C3C1E240 0000F87D   *HDB EJESCAS ..8'*
    0010   0010   C46CC7D6 00000004 03124F0B 00000000   *D%GO......|.....*
    0020   0020   060C0D03 0000124F 0411C011 4040E2E3   *.......|..{.   ST*
    0030   0030   D4E340D5 D64B40D4 C5E2E2C1 C7C553C0   *MT NO. MESSAGEë{*
    0040   0040   53404040 40404040 4040F240 C9C5C6C3   *ë        2 IEFC*
    0050   0050   F0F0F1C9 40D7D9D6 C3C5C4E4 D9C540C5   *001I PROCEDURE E*
    0060   0060   D1C5E2C3 C1E240E6 C1E240C5 E7D7C1D5   *JESCAS WAS EXPAN*
```

Substitute ISPF BROWSE Or ISPF VIEW Whenever Useful Or Convenient To Do So

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 EDGUX100 J0083082         <          .JES2      .JESMSGLG>        Line 1 of 5787
 Command ===> view_                                          Scroll ===> CSR
 Current Find Text: EDG                                      Dataset 1 of 9
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+---->
1                     J E S 2   J O B   L O G  --  S Y S T E M   S A 0   --  N O D
0
 08.32.25 J0083082 ---- THURSDAY,  23 DEC 2010 ----
 08.32.25 J0083082  IRR010I  USERID EDJXADM  IS ASSIGNED TO THIS JOB.
 08.32.25 J0083082  ICH70001I EDJXADM  LAST ACCESS AT 08:29:31 ON THURSDAY, DECE
 08.32.25 J0083082  $HASP373 EDGUX100 STARTED - WLM INIT  - SRVCLASS BATCH    -
 08.33.29 J0083082  $HASP395 EDGUX100 ENDED
0------ JES2 JOB STATISTICS ------
-  23 DEC 2010 JOB EXECUTION DATE
-         32 CARDS READ
-      5,776 SYSOUT PRINT RECORDS
```

```
 EDGUX100 J0083082 ------------------------------------- Columns 00001 00072
 Command ===> _                                              Scroll ===> CSR
****** *********************** Top of Data ***************************
 000001 1                     J E S 2   J O B   L O G  --  S Y S T E M   S A 0  -
 000002 0
 000003  08.32.25 J0083082 ---- THURSDAY,  23 DEC 2010 ----
 000004  08.32.25 J0083082  IRR010I  USERID EDJXADM  IS ASSIGNED TO THIS JOB.
 000005  08.32.25 J0083082  ICH70001I EDJXADM  LAST ACCESS AT 08:29:31 ON THURSD
 000006  08.32.25 J0083082  $HASP373 EDGUX100 STARTED - WLM INIT  - SRVCLASS BAT
 000007  08.33.29 J0083082  $HASP395 EDGUX100 ENDED
 000008 0------ JES2 JOB STATISTICS ------
 000009 -  23 DEC 2010 JOB EXECUTION DATE
 000010 -         32 CARDS READ
 000011 -      5,776 SYSOUT PRINT RECORDS
 000012 -          0 SYSOUT PUNCH RECORDS
 000013 -        631 SYSOUT SPOOL KBYTES
 000014 -       1.06 MINUTES EXECUTION TIME
```

Extract ANY Scrollable Information to Classic DASD, Sysout, or z/OS UNIX

- Extract tabular display contents as well as report objects.

- Optionally apply patterns (as shown before with Browser).

- Attributes (RECFM, LRECL, BLKSIZE) adjusted as necessary for target data set, including fully-reversible carriage control translation between ASA and machine.

- Create data sets or files if they don't exist.
  - Data set attributes can be derived from extracted object(s).
  - Fully supports LARGE and extended format data sets.
  - Fully supports Extended Address Volumes (EAV).

- Output descriptors can be created for extract to SYSOUT.

- Optional header pages can be inserted where appropriate.

- Optionally copy job name and job ID for JES header page.

Specification Panel for Classic Data Sets

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

RCVMAINT J0160773                  Extract Parameters                    DASD
Command ===>

For Extract to DASD Dataset:
   Dataset name   ===> rcvmaint.j0160773.list_
   Disposition    ===> OLD              (OLD, MOD, NEW or SHR)
   Page eject     ===> NO               (YES or NO to force eject for each dataset)

For New DASD Dataset to be Created:
   Management class ===>                (Blank for default management class)
   Storage class    ===>                (Blank for default storage class)
      Volume serial ===>
      Unit name     ===>                (Blank for default unit)
   Data class       ===>                (Blank for default data class)
      Space units   ===>                (REC, BLK, TRK, CYL, B, KB, MB, or blank)
      Primary qty   ===>                (In above units)
      Secondary qty ===>                (In above units)
      Record format ===> *             ('*' to derive from data)
      Record length ===>
      Block size    ===>
      Expiration    ===>                (YYYY/MM/DD, YYYY.DDD, or DDDD for RETPD)
      Data set type ===>                (LIB, PDS, BASIC, LARGE, EXTP, EXTR, blank)
      Extended attr ===> OPT            (NO, OPT or blank)

Use ENTER to perform extract; Use END command to cancel extract.




 F1=Help       F3=Exit       F10=Actions   F12=Cancel
MA█    D                                                                  07/046
```

Sysout Output Descriptor Specifications (Scrollable To Show Dozens of Fields)

Extract to z/OS UNIX File System

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help

RCVMAINT J0160773              Extract Parameters              Z/OS UNIX
Command ===> _


For Extract to z/OS UNIX File System:
   Path name       ===> /u/edjx2



   Path option     ===> NEW            (NEW, REPLACE, APPEND)
   File data       ===> TEXT           (TEXT, BINARY, or blank)
   Page eject      ===> NO             (YES or NO to force eject for each dataset)
   Record format   ===>                ('*' to derive from data)
   Record length   ===>
   Owner perms     ===> RW             (R, RW, or blank)
```

```
  Jobs   Resources   Devices   Tools   Filter   View   Options   Help

PATHSEL  /u/edjx2                                      Row 1 of 15
Command ===>                                           Scroll ===> CSR
Cmd Type Permission  Owner    Group    FileName
─────────/──────────────────────────────────────────────────────────────>
    Dir   drwx------ EDJX2    DEV      .
    Dir   dr-xr-xr-x SYSOPER  TTY      ..
    File  -rw------- EDJX2    DEV      .sh_history
    Dir   drwx------ EDJX2    DEV      .ssh
    File  -rw-r--r-- EDJX2    DEV      edjx2
 _  Dir   drwxrwxrwx EDJX2    DEV      ejesjava
    ┌──────────── Line Commands ────────────┐
    │ L    Select file or directory         │  v
    │ N    Prompt for new file or directory │  v_ejes
    │ S    Select file or directory         │  sk
    └───────────────────────────────────────┘  sk_ejes
```

Application Programming Interface

- Supports procedural languages:
  - HLASM
  - C/C++
  - PL/I, COBOL, etc.
  - Both 31-bit and 64-bit callers
- Supports REXX language:
  - Syntax similar to familiar EXECIO command.
  - Written in HLASM using the 31-bit procedural language API.
- Supports Java language:
  - Both 31-bit and 64-bit JVMs.
  - The JNI layers from the Java API to (E)JES were written in C++ using the 31-bit and 64-bit procedural language APIs.

Sample REXX to List Which of a User's Jobs Contain A Specified Search String

```
   File   Edit   Edit_Settings   Menu   Utilities   Compilers   Test   Help

VIEW            SYS2.E480.SEJEEXEC(SRCHJOBS) - 01.00           Columns 00001 00072
Command ===>                                                   Scroll ===> CSR
****** *************************** Top of Data ***************************
000100 /* REXX to search a user's jobs     */
000200 /*                                   */
000300 /* Input parms are userid and        */
000400 /* the string to search.             */
000500 SrchJobs:
000600   parse arg userid string
000700   if LENGTH(userid)<=1 then userid=USERID()
000800   if LENGTH(string)=0 then do;say "String not provided";exit 99;end
000900   jobix=0
001000   delstack
001100   queue "SRESET;OWNER" userid";ST OJOB"
001200   queue "SHOWCOLS JOBNAME JOBID;UPDATE"
001300   queue ""
001400   rc = ejesrexx("execapi")
001500   if rc>0 then do i=1 to EJES_Msg.0;say EJES_Msg.i;end
001600   else do
001700     say "Searching" EJES_Lines "jobs owned by" userid "..."
001800     address ejes "execapi 0 'SELECT * B' (ignerror"
001900     if rc>0 then do i=1 to EJES_Msg.0;say EJES_Msg.i;end
002000     else,
002100       do while EJES_Funtype = "BROWSER"
002200         queue "FIND" string
002300         queue ""
002400         address ejes "execapi"
002500         if rc>0 then delstack
002600         else do
002700           jobix = jobix + 1
002800           jobname.jobix = EJES_JobName
002900           jobid.jobix = EJES_JobId
003000         end
003100         address ejes "execapi 0 END (ignerror"
003200       end
003300   end
003400   rc = ejesrexx('termapi')
003500   if jobix=0 then say "String not found in jobs owned by" userid
003600   else do
003700     say "String found in" jobix "jobs owned by" userid":"
003800     say "Jobname  JobId"
003900     say "-------- --------"
004000     do i=1 to jobix
004100       say LEFT(jobname.i,8," ") LEFT(jobid.i,8," ")
004200     end
004300   end
```

TSO/E Result of Searching Jobs Owned by EDJXADM For String 'MCAT'

```
READY
srchjobs edjxadm mcat
 Searching 304 jobs owned by edjxadm ...
 String found in 47 jobs owned by edjxadm:
 Jobname   JobId
 -------   -------
 SMPPAPP   J0136530
 SMPPAPP   J0140306
 CATCONN1  J0141625
 DELOCAT   J0141626
 DELOCAT   J0141627
 DELOCAT   J0141628
 DELOCAT   J0141629
 CATDIAG1  J0141630
 VVDDIAG1  J0141631
 LISTCAT1  J0141632
 CATDEFI1  J0141634
 CATCOPY1  J0141635
 CATCOPY2  J0141638
 CATCONN2  J0141646
 CATCONN2  J0141647
 CATCOPY3  J0141648
 COMPCATS  J0141649
 COMPCATS  J0141656
 DEFALIAS  J0141657
 DEFALIAS  J0141658
 COMPCATS  J0141660
 DEFNVSAM  J0141992
 DEFNVSAM  J0141993
 CATCONN5  J0142253
 *** _
MA    D                                              32/006
```

SYSREXX Result of Searching Jobs Owned by EDJXADM For String 'MCAT'

```
   Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 OPERLOG   PHXHQ                                                2011/02/02
 Command ===> _                                      Scroll ===> CSR
 Current Find Text:
<--3----+----4----+----5----+----6----+----7----+----8----+----9----+---10----+>
 10:16:28.30 EDJXADM   00000090   AXR0500I AXREXX OUTPUT DISPLAY 305
                 305 00000090   EXECNAME=SRCHJOBS REQTOKEN=0000400000000000C7460
                 305 00000090   Searching 304 jobs owned by EDJXADM ...
                 305 00000090   String found in 47 jobs owned by EDJXADM:
                 305 00000090   Jobname   JobId
                 305 00000090   --------  --------
                 305 00000090   SMPPAPP   J0136530
                 305 00000090   SMPPAPP   J0140306
                 305 00000090   CATCONN1  J0141625
                 305 00000090   DELOCAT   J0141626
                 305 00000090   DELOCAT   J0141627
                 305 00000090   DELOCAT   J0141628
                 305 00000090   DELOCAT   J0141629
                 305 00000090   CATDIAG1  J0141630
                 305 00000090   VVDDIAG1  J0141631
                 305 00000090   LISTCAT1  J0141632
                 305 00000090   CATDEFI1  J0141634
                 305 00000090   CATCOPY1  J0141635
                 305 00000090   CATCOPY2  J0141638
                 305 00000090   CATCONN2  J0141646
                 305 00000090   CATCONN2  J0141647
                 305 00000090   CATCOPY3  J0141648
                 305 00000090   COMPCATS  J0141649
                 305 00000090   COMPCATS  J0141656
                 305 00000090   DEFALIAS  J0141657
  F1=Help      F3=Exit     F7=Up       F8=Down    F10=Left    F11=Right   F12=Cancel
 MA   D                                                            04/015
```
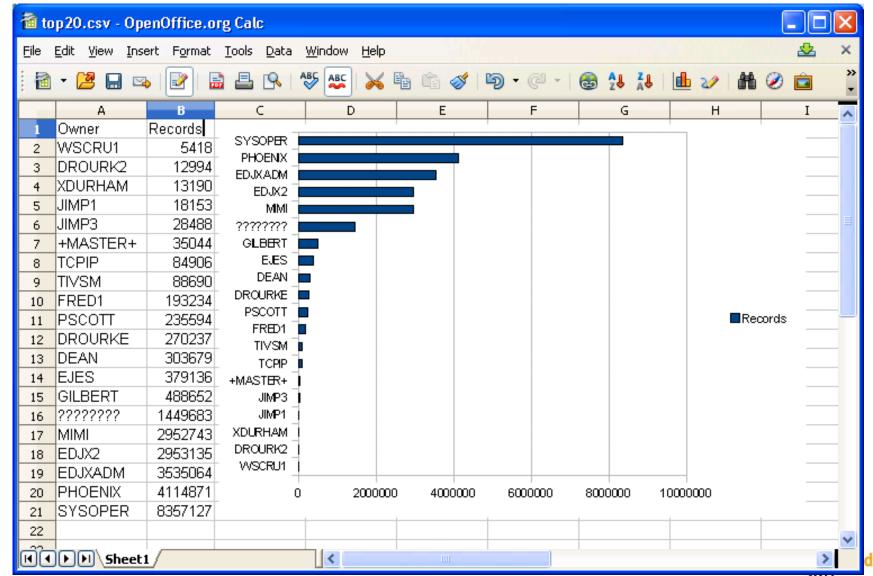
Java to Create CSV File for Spreadsheet Import Showing Top Spool Consumers

```java
000001  import java.util.*;
000002  import com.phoenixsoftware.ejes.*;
000003  import static com.phoenixsoftware.ejes.EjesApi.Column;
000004  public class sample01 {
000005      static final int MAX_TOP = 20;
000006      public static void main( String[] args ) {
000007          Map<String,Column> cm = new HashMap<String,Column>();
000008          Map<String,Long> map = new HashMap<String,Long>();
000009          String key = null;
000010          Long value = null;
000011          /* Request enumeration of STATUS display */
000012          EjesApi api = new EjesApi( "sres;st", 100 );
000013          if ( api.returnCode <= 4 ) {
000014              String [] columnList = { "OWNER", "RECORDS" };
000015              while ( api.returnCode <= 4 ) {
000016                  Column[][] tabular = api.enumerateColumns( columnList );
000017                  /* Calculate sum of all records per user */
000018                  if ( tabular != null ) {
000019                      for ( Column[] row : tabular ) {
000020                          for ( Column col : row )
000021                              cm.put( col.columnName, col );
000022                          key = cm.get("OWNER").columnText;
000023                          value = cm.get("RECORDS").columnValue;
000024                          Long r = map.get( key );
000025                          map.put( key, r == null ? value : r + value );
000026                      }
000027                  }
000028                  /* Get next enumeration set */
000029                  if ( api.returnCode != 0 )
000030                      break;
000031                  api.runCommand( "" );
000032              }
000033              /* Create sortable string List */
000034              List<String> list = new ArrayList<String>(map.size());
000035              Iterator<Map.Entry<String,Long>> m = map.entrySet().iterator
000036              while ( m.hasNext() ) {
000037                  Map.Entry<String,Long> entry = m.next();
000038                  Formatter f = new Formatter();
000039                  f.format( "%,25d %-10.10s", entry.getValue(), entry.getK
000040                  list.add( f.toString() );
000041              }
000042              Collections.sort( list, Collections.reverseOrder() );
000043              /* Output top spool users */
000044              ListIterator<String> i = list.listIterator();
000045              System.out.printf( "%-10.10s %25.25s\n", "Owner", "Records"
000046              for ( int n = 0 ; n < MAX_TOP && i.hasNext() ; n++ ) {
000047                  String s = i.next();
000048                  System.out.printf( "%-10.10s ", s.substring(26).trim() )
000049                  System.out.printf( "%25.25s\n", s.substring( 0, 25 ).tri
000050              }
000051          }
000052          api.free();
000053  }
```
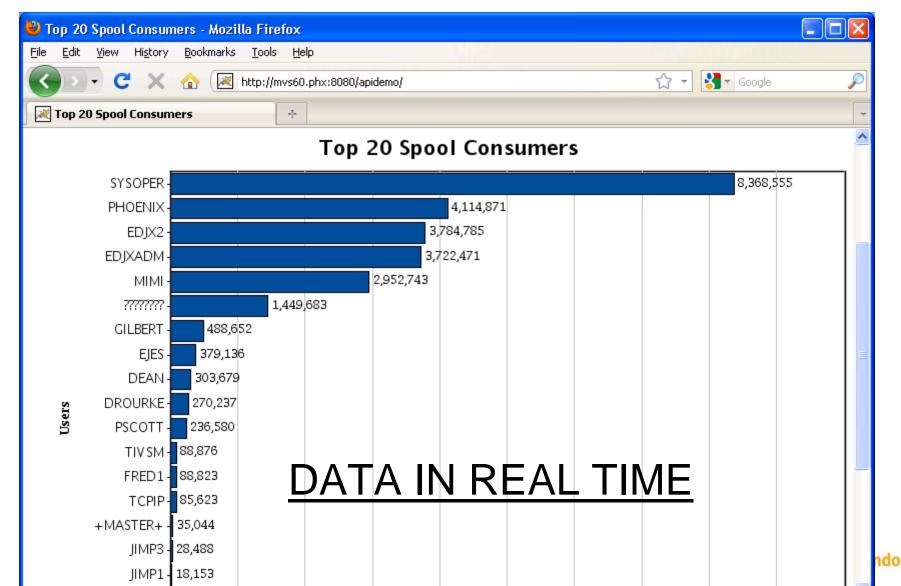
Result After Opening CSV File With OpenOffice.org and Inserting a Chart

Java Sample Modified to Use Krysalis jCharts Under z/OS Apache Tomcat

DATA IN REAL TIME

Customer Application Infrastructure

- The Customer Application Infrastructure (CAI) is an integrated framework for TSO/ISPF that allows REXX-based customer and end user plug-in applications to be authored to customize and/or extend the capabilities of (E)JES for local environments.

```
Jobs   Resources   Devices   Tools   Filter   View   Options   Help
S  _____    of 885
C     File                                                              > PAGE
C                                  Customer Applications      Row 1 to 6 of 6   ords
-   Command ===> _                                          Scroll ===> PAGE    ------>
.                                                                                     73
    I - Insert new entry                 Overtype existing              422,228
    D - Delete existing entry            entries to update                  115
    S - Select existing entry            them.                              4,796
                                                                                 0
        Cmd-Key   Exec-Name      Comment                                        75
   __     F       EJES#RF        TCP/IP FTP PUT a Report Object                 75
   __     M       EJES#RM        TCP/IP SMTP (e-mail) a Report Object           72
   __     X       EJES#RX        TSO XMIT a Report Object                       72
   __     R       EJES#RR        TSO Receive a Spool Data Set                  115
   __     S       EJES#RS        Resubmit Job Without Editing               2,154
   __     DX      IPCMDUMP       Extract and process SYSMDUMP with IPCS         27
    ********************** Bottom of data *************************           440
    F1=Help        F3=Exit       F10=Actions   F12=Cancel                      27
                                                                                504
    DROURK3   T0099553 QUEUED      PRINT          1 278      CC 0000             33
    DROURK3   T0099550 QUEUED      PRINT          1 277      CC 0000             32
```

IPCS SYSMDUMP Plug-In Source Code

```
   File   Edit   Edit_Settings   Menu   Utilities   Compilers   Test   Help

EDIT        SYS2.REXXPROC(IPCMDUMP) - 01.01              Columns 00001 00072
Command ===> _____ Scroll ===> CSR
000013 IPCMDUMP:
000014
000015    call EJES#UPQ
000016    "ispexec vget (objtype dsn) shared"
000017
000018    if RIGHT(objtype,2) <> "DD" then do
000019      say "IPCMDUMP: This function supported only for data sets"
000020      return 8
000021    end
000022
000023    RC = OUTTRAP('outline.')
000024    "delete '"dsn"'"
000025    RC = OUTTRAP('off')
000026
000027    RC = EJES#VEX("RECFM(FBS) MSGSUPP" ,
000028                  "SPACEPRI(100) SPACESEC(100) SPACETYP(CYL)")
000029    if RC > 0 then exit RC
000030
000031    "%BLSCDDIR"
000032    delstack
000033    queue "ADDDUMP DATASET('"dsn"')"
000034    queue "END"
000035    queue ""
000036    "IPCS"
000037
000038 return 0
****** *********************** Bottom of Data ***************************
 F1=Help      F3=Exit      F5=Rfind      F6=Rchange   F12=Cancel
MA   D                                                            04/015
```
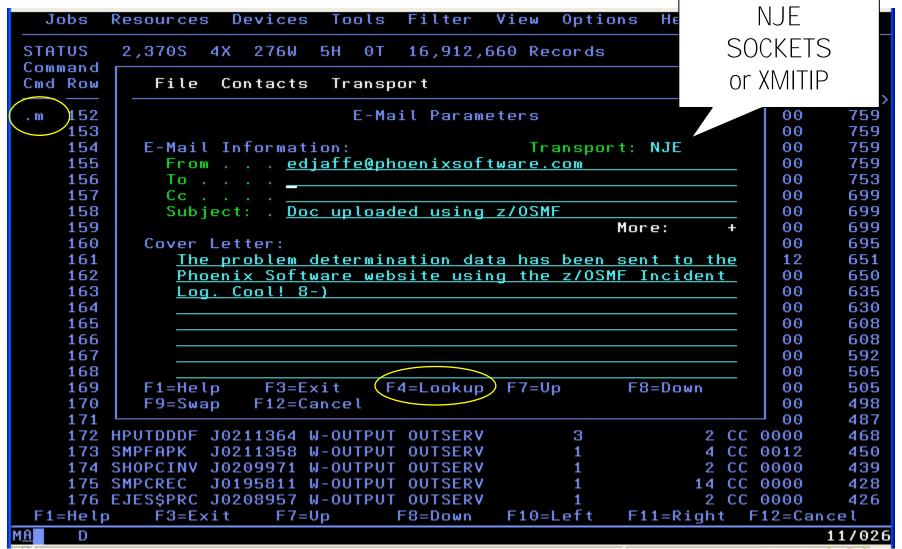
Invoking IPCS SYSMDUMP Plug-In

Results of IPCS SYSMDUMP Plug-In

```
BLS21001I IPCS for z/OS 01.12.00
BLS18124I TITLE=JOBNAME EDJX2     STEPNAME $IKJTEST$IKJTEST SYSTEM 0C1
DSNAME('EDJX1.EDJX2.T0094638.D0000101')added to inventory
*** _
```

```
IPCS INVENTORY - EDJX1.DDIR ------------------------------------------------
Command ===> _                                              SCROLL ===> CUR

AC Dump Source                                                      Status
__   DSNAME('EDJX1.EDJX2.T0094638.D0000101') . . . . . . . . . . . ADDED
     Title=JOBNAME EDJX2     STEPNAME $IKJTEST$IKJTEST SYSTEM 0C1
     Psym=AB/S00C1 VALU/HF8F0F6F9 REGS/0E006 REGS/101FC PRCS/00000001
```

```
IKJ56650I TIME-12:33:59 PM. CPU-00:00:32 SERVICE-68317 SESSION-00:26:36 AUGUST
1,2011
BLS18122I Initialization in progress for DSNAME('EDJX1.EDJX2.T0094638.D0000101'
)
BLS18124I TITLE=JOBNAME EDJX2     STEPNAME $IKJTEST$IKJTEST SYSTEM 0C1
BLS18223I Dump written by z/OS 01.10.00 SYSMDUMP - level same as IPCS level
BLS18222I z/Architecture mode system
BLS18129I BLOCK(13160) contains unsupported data. It will not be used by dump a
nalysis routines.
BLS18138I 1 block contain unsupported data
BLS18123I 13,162 blocks, 54,753,920 bytes, in DSNAME('EDJX1.EDJX2.T0094638.D000
0101')
IKJ56650I TIME-12:34:00 PM. CPU-00:00:33 SERVICE-71017 SESSION-00:26:36 AUGUST
1,2011
BLS18104I Symbol IARHVSHR not found
BLS18104I Symbol IARHVCOM not found
BLS18058I Warnings regarding STRUCTURE(Pvt) at ASID(X'0001') FFAA88:
BLS18059I Located via STRUCTURE(Cvt) at ASID(X'0001') FE0CB8
BLS18300I    Storage not in dump
BLS18224I Dump of z/OS 01.10.00 - level same as IPCS level
***
```

Using E-Mail Plug-In

Using E-Mail Address Book Import


```
    Jobs   Resources   Devices   Tools   Filter   View   Options   Help

STATUS     2,370S   4X   276W   5H   0T   16,912,660 Records        Row 152 of 285
Command    ┌──────────────────────────────────────────────────────┐  ===> CSR
Cmd  Row   │   File   Contacts   Transport                         │  mp   Recor
           │                                                       │  ─── ↓↓↓↓↓>
 .m  152   │                    E-Mail Parameters                  │  00    759
     153   ├───────────────────────────────────────────────────────┤
     154   │    File                                               │
     155   │  ─────────────────────────────────────────────────── │
     156   │                                                       │
     157   │  Enter location and type of .CSV contacts file:       │
     158   │                                                       │
     159   │  Host File:                                           │
     160   │    Name . . . _____│
     161   │                                                       │
     162   │  Workstation File:                                    │
     163   │    Name . .   c:\junk\contacts.csv                    │
     164   │                                                       │
     165   │  Choose one of the following file formats:            │
     166   │    2  1. Outlook   2. Thunderbird                     │
     167   │                                                       │
     168   │  Options:                                             │
     169   │    / Overlay existing entries                         │
     170   │                                                       │
     171   │  Press ENTER to import or END to exit.                │
     172   │   F1=Help      F3=Exit      F10=Actions   F12=Cancel  │
     173   └───────────────────────────────────────────────────────┘
     174 SHOPCINV J0209971 W-OUTPUT OUTSERV      1          2 CC 0000    439
     175 SMPCREC  J0195811 W-OUTPUT OUTSERV      1         14 CC 0000    428
     176 EJES$PRC J0208957 W-OUTPUT OUTSERV      1          2 CC 0000    426
 F1=Help    F3=Exit    F7=Up      F8=Down    F10=Left   F11=Right  F12=Cancel
MA▌   D                                                               24/016
```

Using E-Mail Address Book Import

Using E-Mail Address Book


```
    Jobs   Resources   Devices   Tools   Filter   View   Options   Help

 STATUS    2,370S   4X   276W   5H   0T   16,912,660 Records        Row 152 of 285
 Command                                                           ===>  CSR
 Cmd  Row       File   Contacts   Transport                        mp    Recor
                                                                         ↓↓↓↓↓>
 .m   152                    E-Mail Parameters                     00      759
      153
      154       File   Contacts
      155
      156    Address Book Entries               Row 1,672 to 1,683 of 1,960
      157
      158    Command ===> _____
      159
      160       Last       First       E-Mail Address
      161       ─────────────────────────────────────────────
      162    s  Scott      Paul        paulscott@phoenixsoftware.com
      163    _  Scott      Paul        paulscott@PhoenixSoftware.com
      164    _  Scott      Paul        paulscott@PHOENIXSOFTWARE.COM
      165    _  Scott      Paul        PaulScott@phoenixsoftware.com
      166    _  Scott      Paul A.     pscott@skycoast.us
      167    _  Scott      Paul A.     PaulScott@PhoenixSoftware.com
      168    _  Scott      Rob         rob.scott@RocketSoftware.com
      169    _  Scott      Rob         rob.scott@ROCKETSOFTWARE.COM
      170    _  Scott      Rob         RScott@rocketsoftware.com
      171    _  Scrima     Don         dscrima@gmail.com
      172    _  Seay       Paul        seay_pd@nns.com
      173    _  Seefeldt   Jerry       jms@newera.com
      174     F1=Help        F3=Exit       F10=Actions   F12=Cancel
      175
```

```
INMX000I 0 message and 147 data records sent as 106 records to PHXHQ.SMTP
INMX001I Transmission occurred on 02/03/2011 at 17:27:37.
*** _
```

E-Mail Message With Job Attachment Successfully Received By Mail Client

from You

subject **Trace uploaded to TSM support**

to You

5:27 PM

other actions ▾

reply | forward | archive | junk | delete

```
Dude, the job to send the requested trace to the
TSM support folks has finished. It is attached...
- Ed's evil twin! :D

—FTP2TSM..J0162453..txt


  IAT6140 JOB ORIGIN FROM GROUP=ANYLOCAL, DSP=IR , DEVICE=INTRDR  , 0000
  15:57:55 ---- IAT6853 THE CURRENT DATE IS THURSDAY,  03 FEB 2011 ----
 IRR010I  USERID EDJXADM  IS ASSIGNED TO THIS JOB.
  15:57:55  IAT2000 JOB FTP2TSM  (J0162453) SELECTED MVS60    SRVCLASS=BATCH
  15:57:55  ICH70001I EDJXADM  LAST ACCESS AT 15:56:13 ON THURSDAY, FEBRUARY 3, 2011
  15:57:55  IEF403I FTP2TSM - STARTED - TIME=15.57.55
  15:57:59  -                                    --TIMINGS (MINS.)--       ----PAGING COUNTS---
  15:57:59  -JOBNAME  STEPNAME PROCSTEP   RC   EXCP   CONN   TCB    SRB  CLOCK   SERV  PG  PAGE  SWAP   VIO SWAPS
  15:57:59  -FTP2TSM                      00   754    23   .00   .00    .0   1481   0    0     0     0     0
  15:57:59  IEF404I FTP2TSM - ENDED - TIME=15.57.59
  15:57:59  -FTP2TSM  ENDED.  NAME-JAFFE            TOTAL CPU TIME=   .00    TOTAL ELAPSED TIME=    .0
 //FTP2TSM  JOB 1,JAFFE,CLASS=A,MSGCLASS=T,NOTIFY=&SYSUID
 // EXEC PGM=FTP,REGION=64M,TIME=NOLIMIT,PARM='(EXIT'
 //SYSPRINT DD SYSOUT=*
 //SYSIN    DD *
 /*
         1 //FTP2TSM  JOB 1,JAFFE,CLASS=A,MSGCLASS=T,NOTIFY=&SYSUID
           IEFC653I SUBSTITUTION JCL - 1,JAFFE,CLASS=A,MSGCLASS=T,NOTIFY=EDJXADM
         2 // EXEC PGM=FTP,REGION=64M,TIME=NOLIMIT,PARM='(EXIT'
         3 //SYSPRINT DD SYSOUT=*
```

FTP2TSM..J0162453..txt

Unread: 0 | Total: 728 | Today Pane ▲

Workstation Component (Windows Only)