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(E)JES Update

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Compatibility Matrix

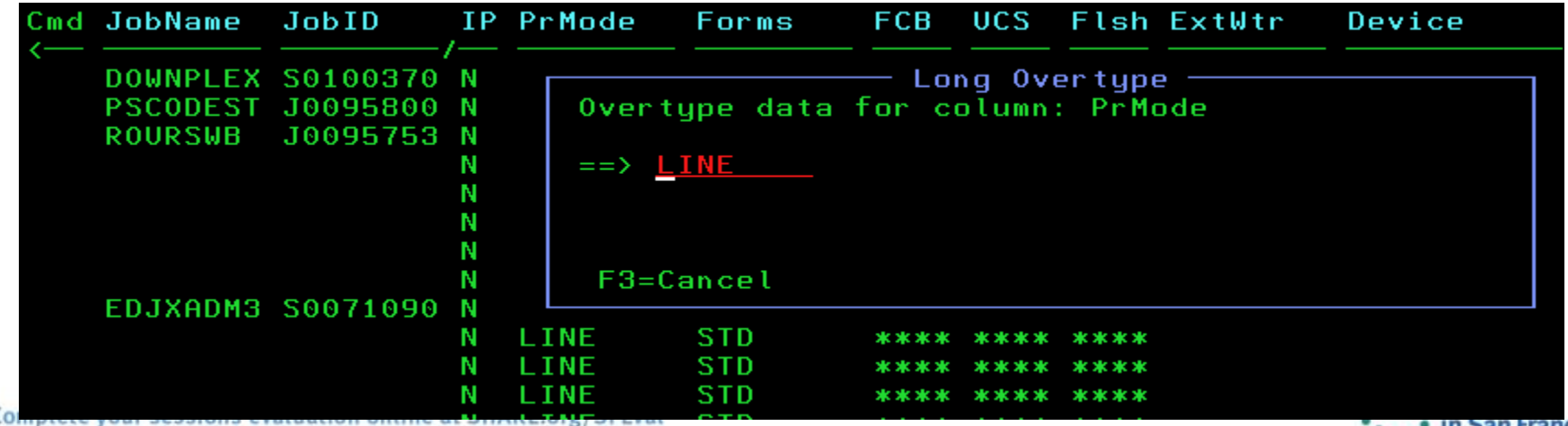
Operating System	V5R3 09/13*	V5R2 09/12	V5R1 09/11	V4R8 09/10
z/OS 2.1	JES2/JES3	JES3*		
z/OS 1.13	JES2/JES3	JES2/JES3	JES2/JES3	JES3
z/OS 1.12	JES2/JES3	JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.11	JES2/JES3	JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.10	JES2/JES3	JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.9	JES2/JES3	JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.8	JES2/JES3	JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.7		JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.6			JES2/JES3	JES2/JES3
z/OS 1.5				JES2/JES3

- V5R3 GA is *expected* in September 2013.
- z/OS 2.1 JES3 support for (E)JES V5R2 still not fully validated.
  - Watch this space.
- V4R8 is the only active release to still support ESA/390 architecture.
- V4R8 will be stabilized after March 2013.

V5R1 Highlights

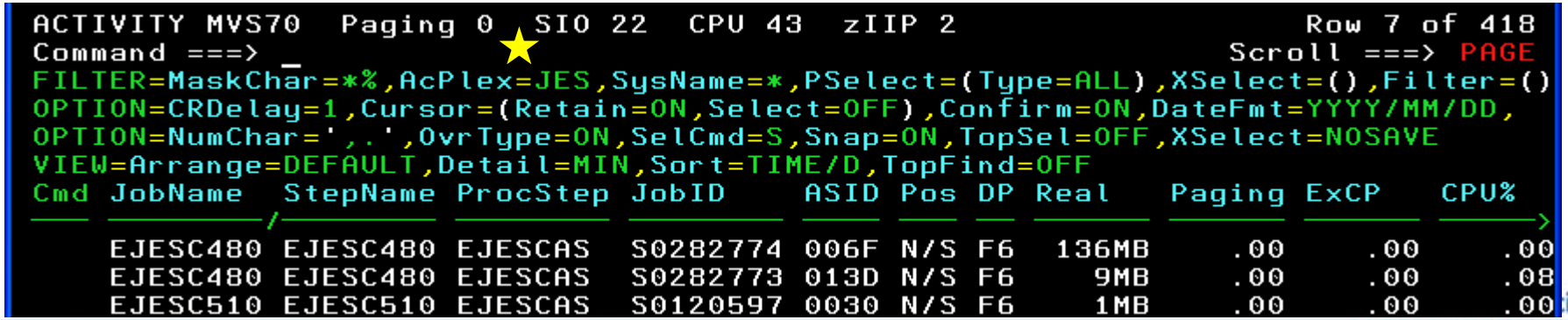
Pop-up Input Window

- Previously, an overtypeable column had to be defined and displayable as wide as any input to be placed into it.
- The new pop-up input window provides space for up to 126 characters to be input into any overtypeable field.
- To activate the pop-up input window, place your cursor on the column to be overtyped and press the Prompt key (usually F4).



Sysplex-wide Activity Display Scope

- Previously, ACTIVITY was always JESplex-wide. That is now the default value specified with ACPLEX JES.
- JESplex-wide information can be obtained using RMF, CMF or native (E)JES facilities.
- The new ACPLEX SYS value indicates a sysplex-wide scope. This scope depends entirely on RMF Sysplex Data Gathering Services, even for the current system's data. Sysplex-wide data cannot be obtained using CMF or native (E)JES facilities.



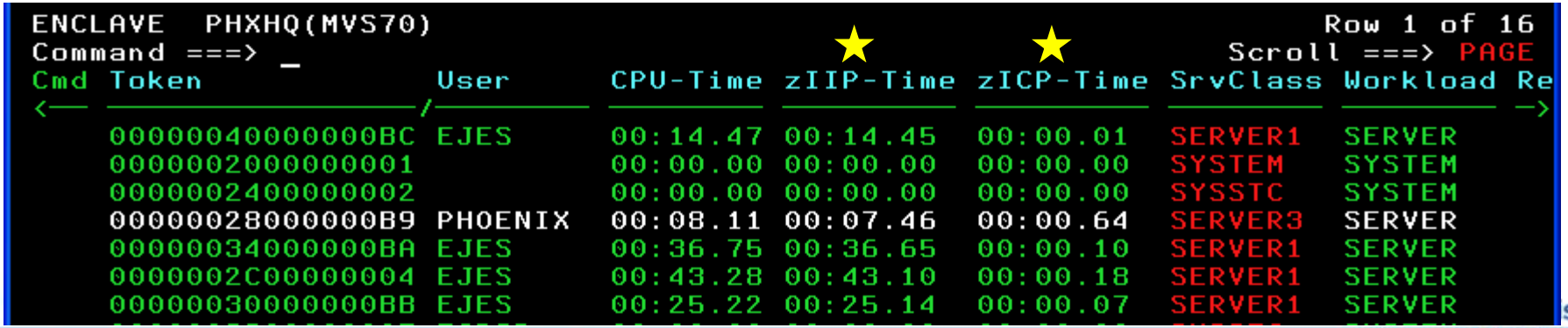
Enhancements to Enclaves Display

- The following columns were added:

Default Title	Description	Overtype
Prom	Promoted address space indicator.	No
zAAP-Time	CPU time consumed on zAAP processors	No
zACP-Time	GCP time consumed by zAAP-eligible work	No
zIIP-Time	CPU time consumed on zIIP processors	No
zICP-Time	GCP time consumed by zIIP-eligible work	Yes

- The following line command was added:

Command	Function
W	Recursively invoke **Enclaves** display for work-dependent enclave.



Enhancements to Health Checker Display

- The following columns were added:

Default Title	Description	Overtype
RexxIn	REXX input data set name	No
RexxOut	REXX output data set name	No
LogStream	Name of the logstream used to record checks.	No

- The following line commands were added:

Command	Function
En	Extract health check messages to any extract target.
L	Invoke long Health Check History for selected check.
P#	Extract health check messages to Print 1 or Print 2.
S	Invoke short Health Check History for selected check.

New Health Check History Display

- Run history of a selected check.
- Either short history (up to 10 rows) or the complete long history (from the log stream).
- Browse and extract messages from any check iteration.

```
HCHKHIST MVS60 ASM_LOCAL_SLOT_USAGE/IBMASM                      Row 1 of 10
Command ===> _                                                Scroll ===> PAGE
Cmd Run   Status              Result Diag1    Diag2    RunDate   RunTime
___ ____/_________________    ______ ________ ________ ________  ________
      64 SUCCESSFUL                0 00000000 00000000 2012/02/20 17:22:08
      63 SUCCESSFUL                0 00000000 00000000 2012/02/20 16:52:08
      62 SUCCESSFUL                0 00000000 00000000 2012/02/20 16:22:08
      61 SUCCESSFUL                0 00000000 00000000 2012/02/20 15:52:08
      60 SUCCESSFUL                0 00000000 00000000 2012/02/20 15:22:08
      59 SUCCESSFUL                0 00000000 00000000 2012/02/20 14:52:08
      58 SUCCESSFUL                0 00000000 00000000 2012/02/20 14:22:08
      57 SUCCESSFUL                0 00000000 00000000 2012/02/20 13:52:08
      56 SUCCESSFUL                0 00000000 00000000 2012/02/20 13:22:08
      55 SUCCESSFUL                0 00000000 00000000 2012/02/20 12:52:08
******************************** Bottom of Data ********************************
```

Action Messages on JES2 Syslog Browser

- Previously this support existed for JES3 only.

```
SYSLOG  MVSA0/SA0 S0118897(SYSLOG06) 2012/02/19 10:02    Line 126496 of 126534
Command ===>                                             Scroll ===> PAGE
Current Find Text:                                       Dataset 58 of 60
<--3----+----4----+----5----+----6----+----7----+----8----+----9----+---10----+>
10:02:28.99 INTERNAL 00000280  IXC307I STOP PATHOUT REQUEST FOR DEVICE 5022 COM
                347 00000280  SUCCESSFULLY: SYSPLEX PARTITIONING OF LOCAL SYST
10:02:29.04 INTERNAL 00000280  IXC307I STOP PATHIN REQUEST FOR DEVICE 4011 COMP
                351 00000280  SUCCESSFULLY: SYSPLEX PARTITIONING OF LOCAL SYST
10:05:08.01 SYSLOG   00000000  IEE042I SYSTEM LOG DATA SET INITIALIZED
00:01:01.54 SYSLOG   00000000  IEE042I SYSTEM LOG DATA SET INITIALIZED
17:48:04.81 INTERNAL 00000290  D C,HC,L=Z
17:48:04.83 INTERNAL 00000090  CNZ4100I 17.48.04 CONSOLE DISPLAY 801
                801 00000090  CONSOLES MATCHING COMMAND: D C,HC
                801 00000090  MSG:CURR=0    LIM=5000 RPLY:CURR=3    LIM=20
                801 00000090  HARDCOPY  LOG=(SYSLOG,OPERLOG)  CMDLEVEL=CMDS
                801 00000090         ROUT=(1-10,12-13,15-128)
                801 00000090  LOG BUFFERS IN USE: 0       LOG BUFFER LIMIT: 15
10.04.44          *1242 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
09.52.18          *1233 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
09.37.17          *1224 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
07.05.09 DFHSM70  *ICH409I 878-000 ABEND DURING RACHECK PROCESSING
07.05.09 DFHSM70  *ICH409I 878-000 ABEND DURING RACHECK PROCESSING
04.51.04          *IOS003A 1501,INTERVENTION REQUIRED, READY THE LOADER
09.57.01 IOSHMCTL *IOSHM0803E HyperSwap Disabled
09.53.33 JES3     *IAT1005 SPOOL PARTITION PARTB    IS FULL AND OVERFLOWED INTO
17.52.10          *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
             732 IXCH0242E One or more couple data sets have a single point o
17.37.08          *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
 F1=Help    F3=Exit    F5=Rfind   F6=Book    F7=Up      F8=Down    F9=Swap
F10=Left   F11=Right  F12=Cancel
```

Programmable API Enhancements

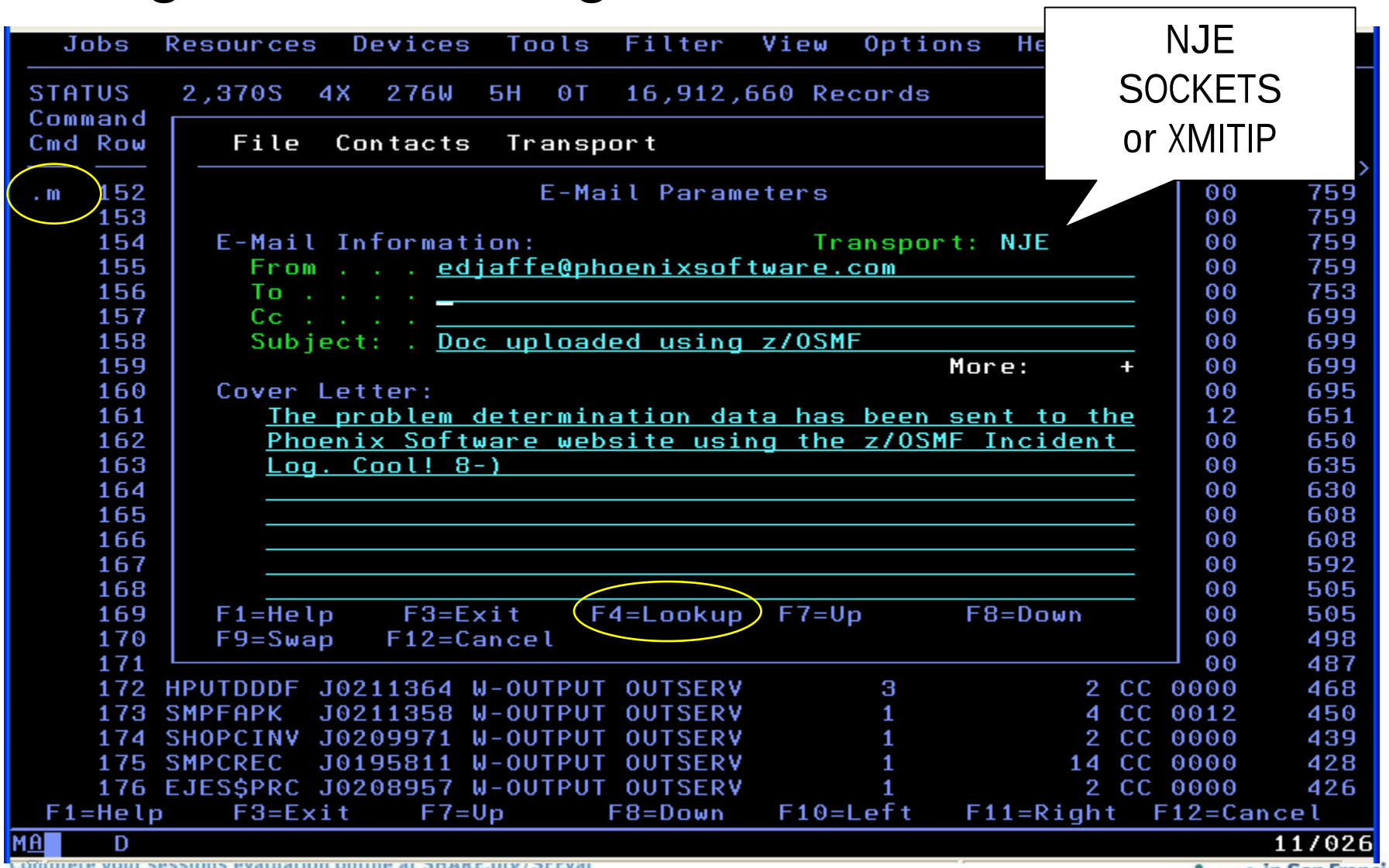
- The new SDSALLOC and SDSFREE commands will allocate and free the data sets shown on Syslog browser.
  - Previously, the only way to get SDSB allocation for Syslog data sets was to access SYSLOG as an ordinary job.
- RECFM and LRECL for SDSB data sets are now surfaced to procedural language, REXX and Java APIs.

```
VIEW       SYS2.E510.SEJEMAC(EJESAPIA) - 01.00          Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
000338 EJESApiSdsbEnt    DSECT ,              SDSB table entry
000339 EJESApiSdsbDD     DS    CL8            DD name
000340 EJESApiSdsbLRECL  DS    H      Ver01   Logical record length from JFCB
000341 EJESApiSdsbDSNLn  DS    H              Length of data set name
000342 EJESApiSdsbDSN    DS    CL44           Data set name (blank padded)
000343 EJESApiSdsbEntLn0 EQU   *-EJESApiSdsbEnt Length of version 0 tbl entry
000344 EJESApiSdsbRfLn   DS    H      Ver01   Length of record format string
000345 EJESApiSdsbRfStr  DS    CL5    Ver01   Record format string (nul term'ed)
000346 EJESApiSdsbRECFM  DS    BL1    Ver01   Encoded record format from JFCB
000347 EJESApiSdsbRecfmU EQU    B'11000000'  .RECFM=U
000348 EJESApiSdsbRecfmF EQU    B'10000000'  .RECFM=F
000349 EJESApiSdsbRecfmV EQU    B'01000000'  .RECFM=V
000350 EJESApiSdsbRecfmB EQU    B'00010000'  .RECFM=?B
000351 EJESApiSdsbRecfmS EQU    B'00001000'  .RECFM=?S
000352 EJESApiSdsbRecfmA EQU    B'00000100'  .RECFM=?A
000353 EJESApiSdsbRecfmM EQU    B'00000010'  .RECFM=?M
```

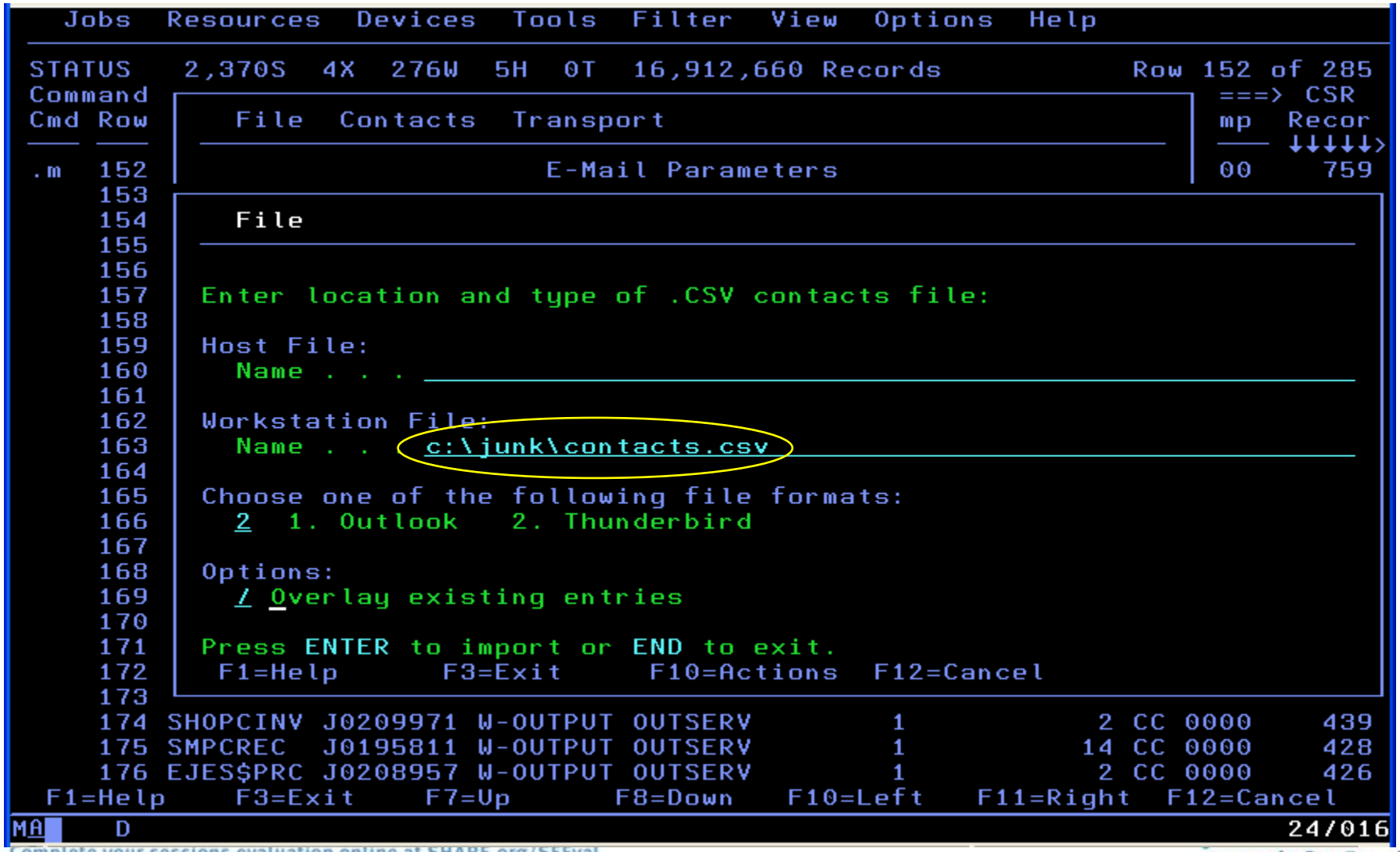
Email CAI Plug-in Enhancements

- Improved Transport Choices:
  - Previously, email could be delivered only via z/OS SMTP (or CSSMTP in z/OS 1.12 and higher).
  - Email can now also be delivered via direct sockets or a popular freeware utility called XMITIP.
  - You choose the email delivery mechanism via the **Transport** action bar item.
- Improved Address Book:
  - Pressing the Prompt key (F4) with the cursor positioned to an email address field on the dialog now invokes the address book.
  - Contacts can be manually added to or deleted from the address book.
  - If you activate the ISPF Workstation Agent (WSA), you can import a contact list from Microsoft Outlook, Mozilla Thunderbird or other popular email programs that run on your workstation.

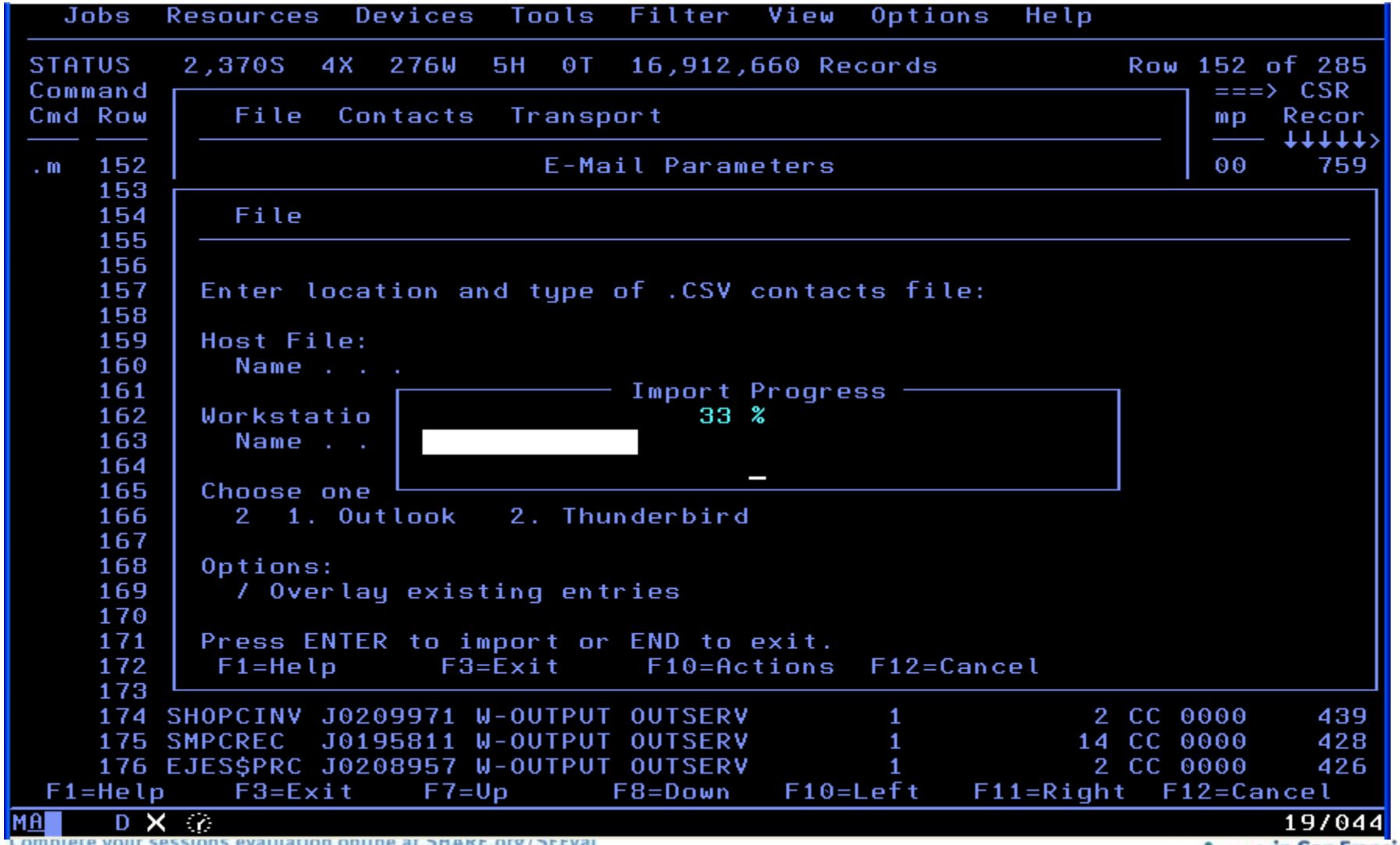
Using Email CAI Plug-in



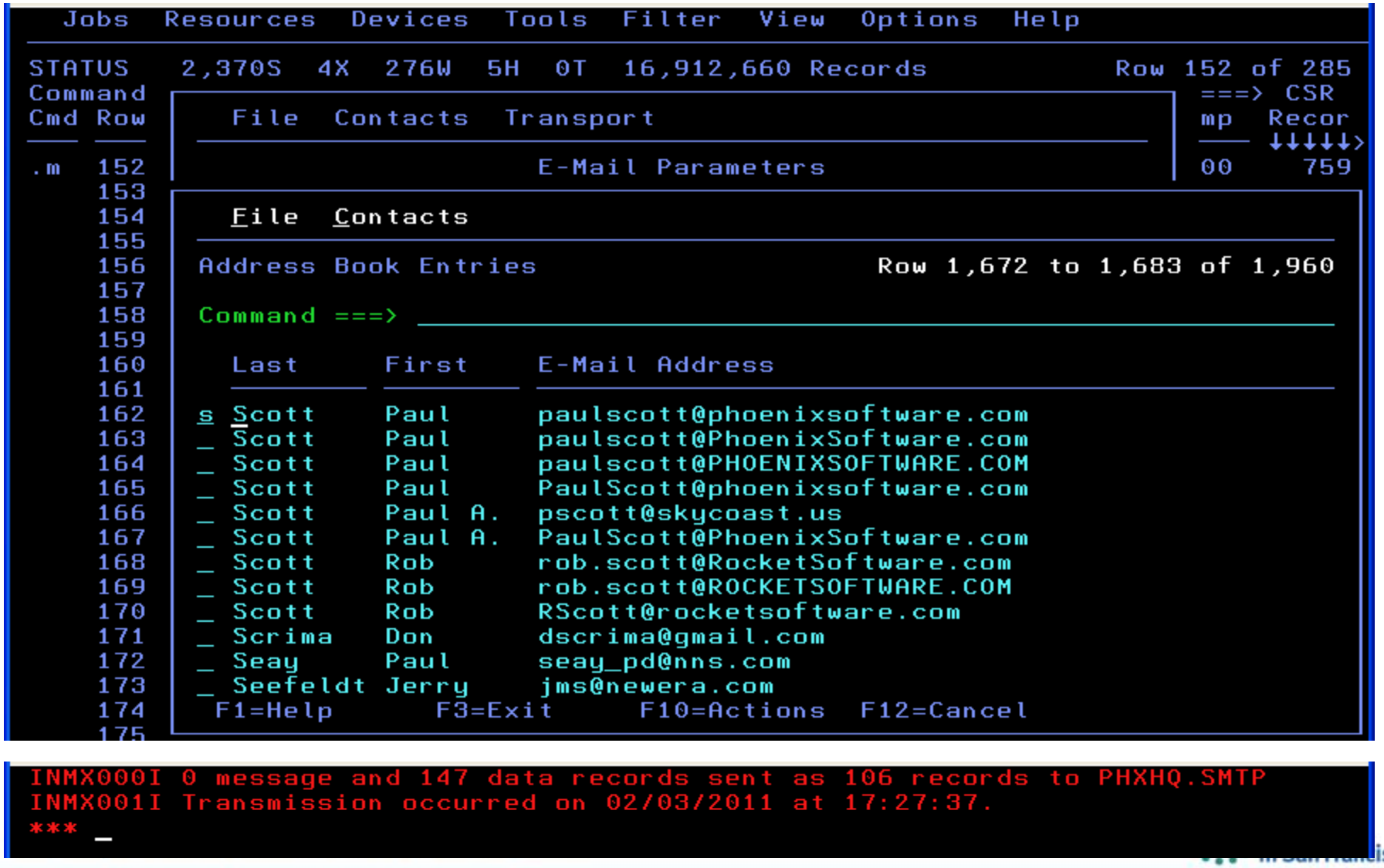
Using Email CAI Address Book Import



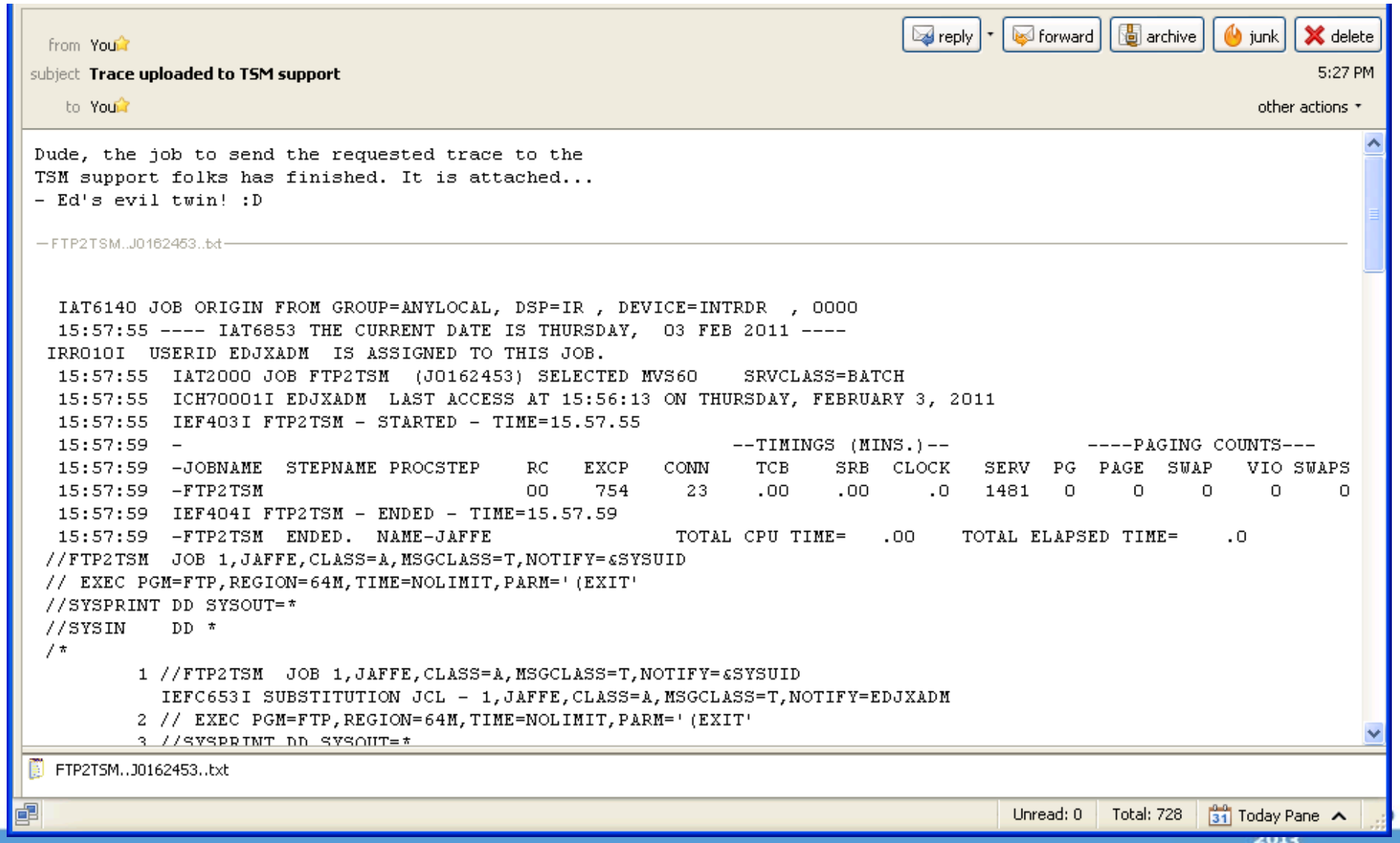
Using Email CAI Address Book Import



Using Email CAI Address Book Import



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



from You
subject **Trace uploaded to TSM support**
to You

reply | forward | archive | junk | delete

5:27 PM

other actions

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

Selective “Push” of Installation Defaults

- A new infrastructure was implemented to facilitate resetting all or part of end users' cross-session profile data. This allows administrators to "push" changes for selective profile fields out to users without requiring them to delete their profiles.
- New EJESPRS macro, used in EJESUX03, provides a standardized method of managing changes to profile data by using a serial number mechanism—numeric data “hardened” into the user's cross-session profile—to avoid unnecessary or disruptive updates.
- All existing popular modifications to EJESUX03, delivered in configuration member EJES$X03, were converted to use the new infrastructure.

Other V5R1 Enhancements of Note

- Require z/Architecture with the long-displacement facility.
- Support JES2 SPOOL Migration.
- Support JES3 Dynamic SPOOL Add.
- ISFCALLS enhancements from z/OS 1.10 through z/OS 1.13.
- More than 64 logical CPs,zIIPs and zAAPs per image.
- New ACTIVITY drill-down from job-oriented displays.
- JES2 restart after step completion, spin-ANY data set, and JOBRC.
- New Auto-Reply support on System Requests display.
- Enhanced LOG relative time navigation: (add minutes & seconds).
- Pattern Utility unconditional matching or “bracketing”.
- Major performance enhancement for accessing JES2 sysout from spin-off jobs (e.g., APPC/MVS or z/OS UNIX). Requires checkpoint mode Z11. (Similar to JES3 processing that existed since OS/390 1.3.)
- Auditing of SWB Modify requests: (new EJES112 message).
- Function key rework: (F4=Prompt, F17=RFINDP and others).
- Service download via HTTP: (requires cURL from z/OS UNIX).

V5R2 Highlights

Network Connections Display

- Supported for both JES2 and JES3.
- Shows information about networking connections to an adjacent node, including BSC NJE lines, NJE over SNA, and TCP/IP socket connections, as well as associated receivers and transmitters.
- To access, use the new **NETCONN** command or select **Network Connections** from the **Devices** pull-down menu under ISPF.

```
NETCONN  PHXHQ Network Connections Status                    Row 12 of 18
Command ===> _                                          Scroll ===> CSR
Cmd  Row  Device          Status    Type  ANode    JobName  JobID    JobType  Owner
     12   HQSOCK3         INACTIVE  TCP   VM80
     13   HQSOCK2         ACTIVE    TCP   PHXHQ2
     14   HQSOCK2.OR1     INACTIVE
     15   HQSOCK2.OT1     INACTIVE
     16   HQSOCK2.JR1     INACTIVE
     17   HQSOCK2.JT1     INACTIVE
```

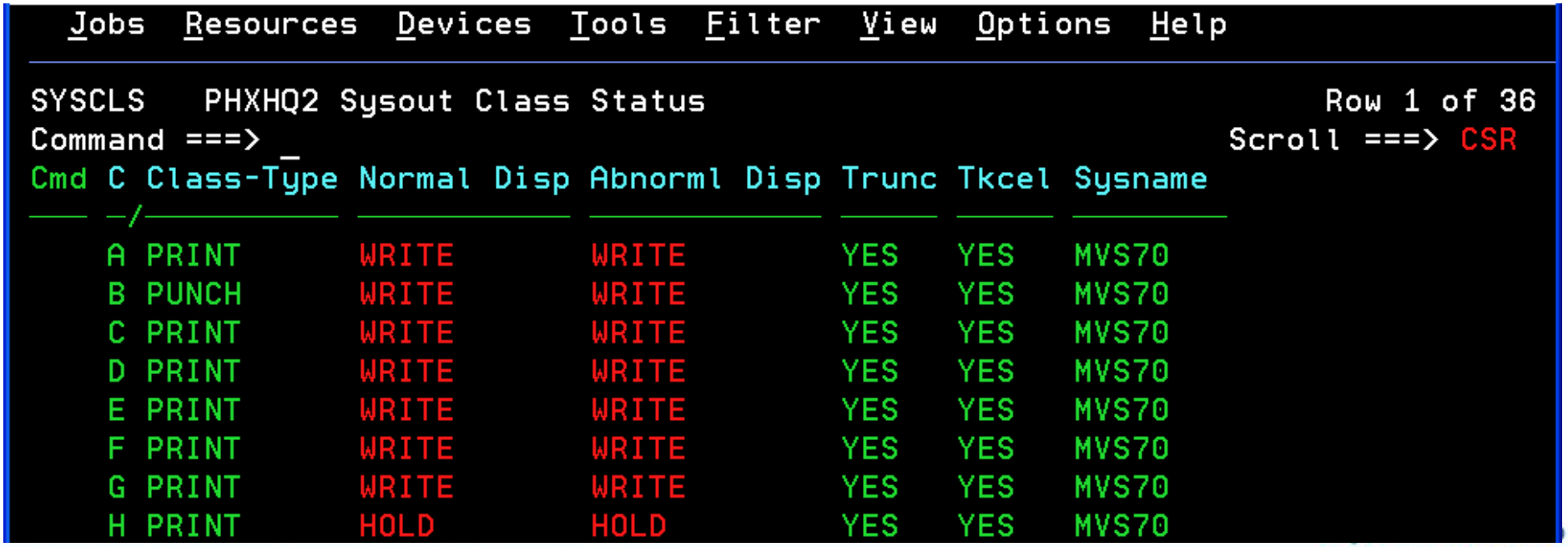
Network Servers Display

- Supported for both JES2 and JES3.
- Shows information about network servers, including NETSERV devices and BDT instances.
- To access, use the new **NETSERV** command or select **Network Servers** from the **Devices** pull-down menu under ISPF.

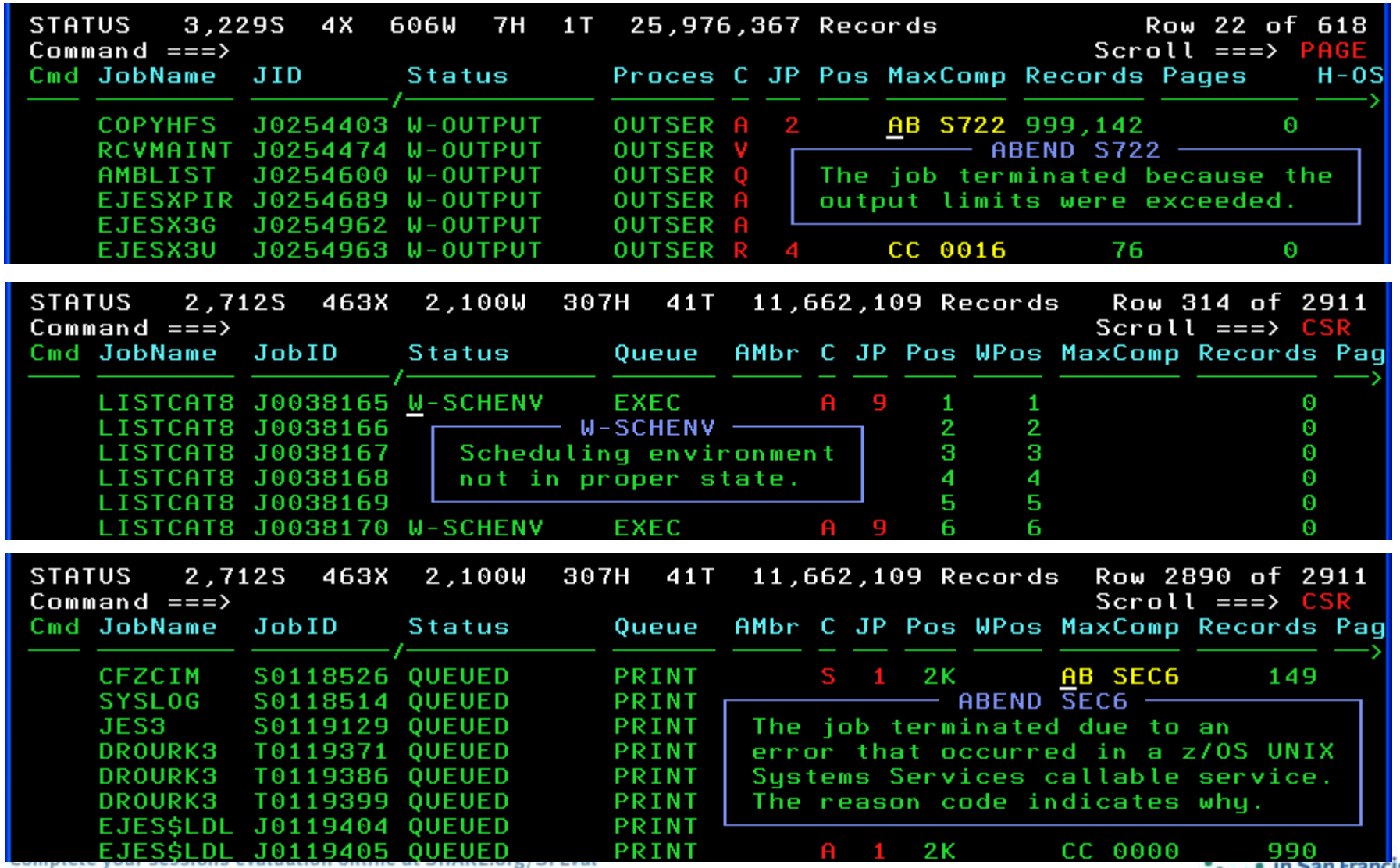
```
NETSERV  PHXHQ Network Servers Status                          Row 1 of 2
Command ===> _                                            Scroll ===> CSR
Cmd  Row Device      Status   DSPName  Stack    TrC TrJ TrV ASID  ServName   IP-
____ ___ ___________/________ ________ ________ ___ ___ ___ ____ __________ ___>
     1   NZSERV1     INACTIVE                  YES NO  NO                    192
     2   HQSRV1      ACTIVE   J0329933         NO  NO  NO  0050 J0329969
********************************* Bottom of Data ********************************
```

Sysout Classes Display for JES2

- This display is an analog to the already-existing JES3 display of the same name.
- Helps you manage sysout classes in the JESplex.
- To access, use the **SYSCLS** command or select **Sysout Classes** from the **Devices** pull-down menu under ISPF.



“Smart” Help Pop-ups for Status and MaxComp Columns



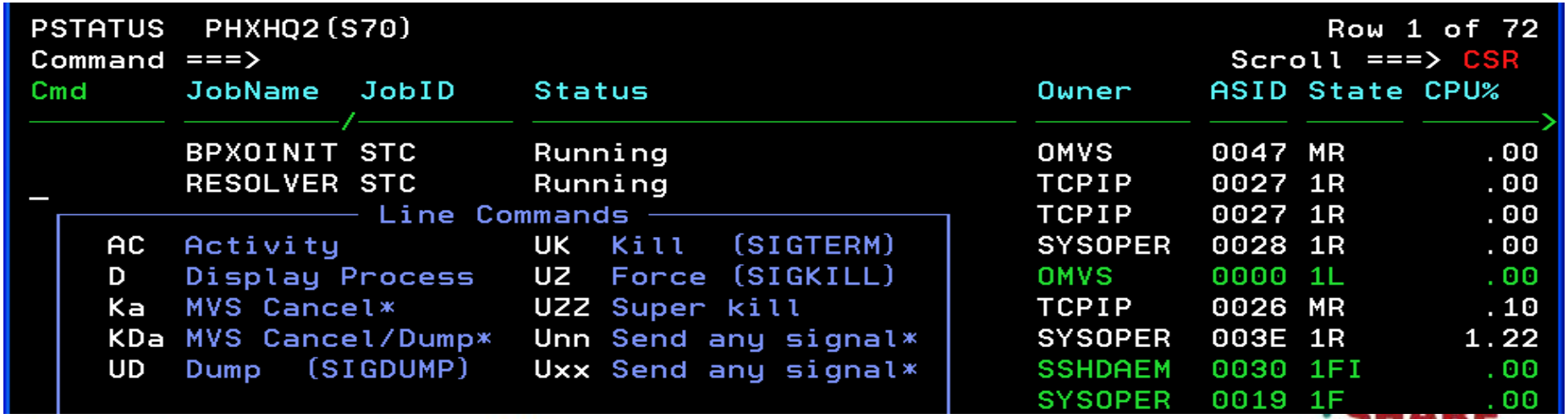
Mutual Drill-Down Between Activity and Process Status Displays

- The following line command was added to Activity:

Command	Function
PS	Invoke Process Status display for selected address space.

- The following line command was added to Process Status:

Command	Function
AC	Invoke Activity display for selected z/OS UNIX process.



New Tabular Columns for Sysout Displays

- CrDate, CrTime, Age, and Bytes columns added wherever possible on job-, group- and data set-oriented displays.
- Step and Program columns added to data set-oriented displays.

```
DSHOLD   ACCMAINT J0313686   9,379 Records                          Row 1 of 32
Command ===> _                                                Scroll ===> CSR
Cmd DDName   Step Program  Bytes   CrDate     CrTime       Age              C Dest
<-- ---------/---- -------- ------- ---------- ------------ ---------------- - ---->
    JESMSGLG            85,764 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    JESJCL               4,084 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    JESYSMSG           171,528 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    SMPOUT       1 GIMSMP  4,084 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    SMPRPT       1 GIMSMP  4,084 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    SMPOUT       2 GIMSMP  4,084 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
    SMPRPT       2 GIMSMP  4,084 2012/05/12 22:21:42.52 59-11:25:48.03 T ANYL
```

L Command Replaces FAIL on Device Displays

- FSS display
- Printer/Punch display
- Network servers and connections displays

```
  Jobs  Resources  Devices  Tools  Filter  View  Options  Help
FSS      PHXHQ Functional Subsystem Status                    Row 1 of 7
Command ===>                                                Scroll ===> CSR
Cmd  FSS      Type Status   JobID    SysName  ASID Strt Term ProcName NewProc
     CIFSS1   CI   ACTIVE   S0333823 MVS60    004E YES  YES  JES3CI
     CIFSS2   CI   ACTIVE   S0333831 MVS70    0132 YES  YES  JES3CI
     WTRFSS1  WTR  INACTIVE          MVS60                 YES  APSWFSS1
_                                    MVS60                 YES  APSWFSS2
   Line Commands                     MVS60                 YES  APSWFSS3
    AC   Activity                    MVS70                 YES  APSWFSS4
    D    Display                     MVS60                 YES  NPFFSS1
    K    MVS Cancel                  ***** Bottom of Data ********************
    L    Fail
    PR   Printer/Punch
```

Enclaves Display

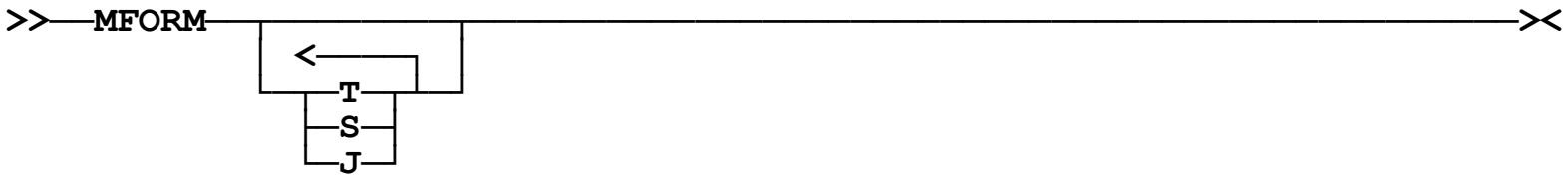
- Accumulated enclave zAAP and zIIP time is now normalized.
- This change impacts customers with sub-capacity System z models.
- Normalized values show the amount of CPU that would have been accumulated if the same work had run on a standard CP.
- This allows you to make valid (“apples to apples”) comparisons of accumulated time on CP, zAAP, and zIIP.

```
ENCLAVE  PHXHQ(MVS70)                                          Row 1 of 17
Command ===>                                                Scroll ===> CSR
Cmd Token             CPU-Time zIIP-Time zICP-Time SrvClass Workload ResGroup SP
<-- ----------------/↓↓↓↓↓↓↓↓ ---------- ---------- -------- -------- -------- ->
    0000002C00000004 07:52.29 07:48.77  00:03.52  SERVER1  SERVER              1
    0000004400000031D 00:09.15 00:09.08  00:00.07  SERVER1  SERVER              1
    0000003000000031E 00:08.52 00:08.40  00:00.12  SERVER1  SERVER              1
    0000002800000031B 00:06.77 00:06.69  00:00.08  SERVER1  SERVER              1
    0000003400000CF3 00:00.31 00:00.31  00:00.00  SERVER1  SERVER              1
```

User Log (ULOG) Browser Console Message Format

- EMCS message format was previously not customizable.
- In V5R2, message format can be specified in two ways:
  - **MFORM** command sets the message format in advance of implicit or explicit console activation
  - **MFORM** operand on the **CONSOLE ACTIVATE** command specifies the message format during console activation
- **MFORM** allows the user to add time, system, or job ID to the console messages by specifying values similar to those specified on the **K S,MFORM=** MCS console command.
- The message format setting is saved in the cross-session profile.

MFORM Command



T	Add time to the console's Message Form settings
S	Add system name to the console's Message Form settings
J	Add job ID to the console's Message Form settings

The T, S and J parameters may be separated by blanks, commas or not separated at all and may appear in any order. **MFORM S** is the default:

```
IEE112I 13.37.57 PENDING REQUESTS 179
RM=3     IM=0      CEM=0      EM=0      RU=0     IR=0     AMRF
ID:R/K      T SYSNAME  MESSAGE TEXT
       3806 R MVS60    *3806 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
       3797 R MVS70    *3797 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
       3788 R MVSA0    *3788 ISTEXC200 - DYN COMMANDS MAY BE ENTERED
```

User Log (ULOG) Browser Migration ID Removal

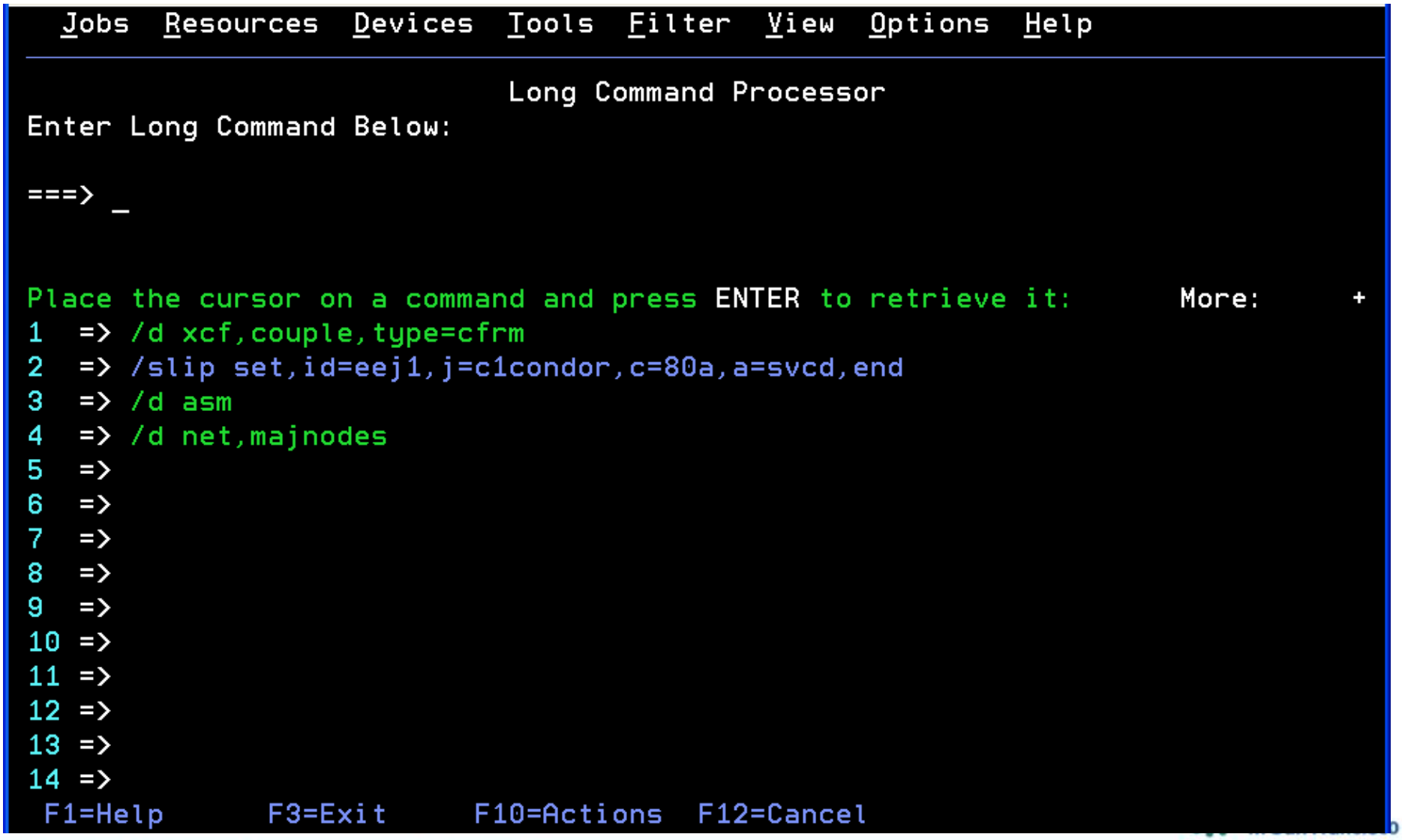
- **MIG|NOMIG** operand was removed from the **CONSOLE ACTIVATE** command.
- Migration ID value was removed from the ULOG Browser title line
- The **MCSXMIG** installation option was removed.

```
  Jobs  Resources  Devices  Tools  Filter  View  Options  Help
 ULOG     Console(EDJX2   )                                    Line 1 of 6
 Command ===>                                               Scroll ===> CSR
 Current Find Text:
<4----+----5----+----6----+----7----+----8----+----9----+---10----+---11----+-->
 EJES500 Console EDJX2    was successfully activated
-$CT(128760),P
 $HASP890 JOB(DROURK3)
 $HASP890 JOB(DROURK3)   STATUS=(AWAITING PURGE),CLASS=TSU,
 $HASP890                PRIORITY=1,SYSAFF=(ANY),HOLD=(NONE),
 $HASP890                PURGE=YES,CANCEL=YES
****************************** Bottom of Data ******************************
```

Long Command Processor Enhancements

- Dynamic Sizing
  - The number of commands shown is now variable, depending upon the depth of the 3270 device. (Was previously eight per scroll.)
  - All 32 stored commands visible on modern, larger displays.
- Row Numbering (independent of **RowNum** setting)
- Row Locking via **SELECT** command.
  - Locked row not removed when new command added to a full list.
  - Unlocked rows appear as normal protected data (usually blue); Locked rows appear as colorized protected data (usually green).
- Row Clearing via **SELECT** and **CLEAR** commands.

Long Command Processor Enhancements



Forms ID On Print Extract Parameters

- Previous releases allowed only a 1-4 character **Forms ID** value due to the restriction that MVS JCL and Dynamic Allocation allow only a 1-4 character SYSOUT forms value. Now, up to 8 chars are accepted.
- If you specify a value >4 chars long, (E)JES automatically requests creation of a Dynamic Output Statement—as if an asterisk (*) was placed into the **Output ref.** field. Your **Forms ID** value is automatically propagated to the **FORMS** input field on the panel where Dynamic Output parameters are specified.
- This **FORMS** value does not *permanently* overlay an existing value.
- At allocation time, a long value is supplied via Dynamic Output only. No value is presented to Dynamic Allocation as SYSOUT forms.
- A long **Forms ID** value is not allowed when **Output ref.** specifies a JCL or Dynamic Output descriptor name since (E)JES can propagate only to output descriptors it actually creates.

Parameterized Installation Options

- This allows you to specify options via parmlib member rather than **EJESOPT** macro and SMP/E USERMOD.
  - The **SVC** and **XWASIZE** options must still be specified through the **EJESOPT** macro. All other options may be specified via the parmlib member.
  - These two options are merged from the macro-based specifications. All other parameterized options completely replace their macro counterparts.
- WHEN clauses allow one member to specify options for different environments.
- System symbol substitution is performed.
- Parameterized installation options are activated using the **EJESPOPT** authorized TSO command.

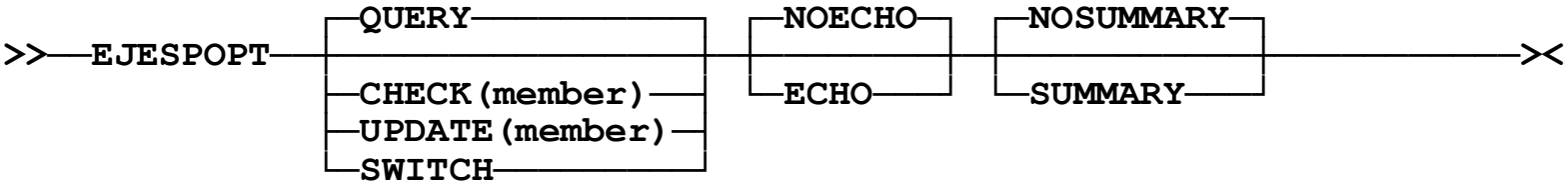
Parameterized Installation Options

```
/*************************************************************/
/*                                                           */
/*                      (E)JES OPTIONS                       */
/*                                                           */
/*************************************************************/
/**/
 OPTIONS
 /* */
 /* Locale formatting:                                       */
      DATEFMT(YYYYMMDD)        /* Default is: YYYYDDD         */
 /*   DATESEP(SLASH DOT)       /* Default is: SLASH DOT       */
 /*   LANG(ENU)                /* Default is: ENU             */
 /*   NUMCHAR(',' '.')         /* Default is: ',' '.'         */
 /* */
 /* Security:                                                */
 /*   SAFTYPE(RACF/ACF2/TOPS)  /* Default is: no SAF support  */
      SAFRCLS(                 /*                             */
              SDSF             /* Default is: EJES JESSPOOL   */
              JESSPOOL         /*   WRITER OPERCMDS JESSPOOL  */
              WRITER           /*   XFACILIT. Specify '-' to  */
              OPERCMDS         /*   suppress the use of a class.*/
              JESSPOOL         /*   .                         */
              XFACILIT         /*   .                         */
              )                /*   .                         */
 /* NOSAFTRACE                /* Default is: NOSAFTRACE      */
 /*   SAFNODE                 /* Default is: SAFNODE         */
 /*   SAFJBID(JOB)            /* Default is: JOB             */
 /* NODDDSNAM                 /* Default is: NODDDSNAM       */
 /* NOSAFPUBC                 /* Default is: NOSAFPUBC       */
 /* NOSAFPVTC                 /* Default is: NOSAFPVTC       */
 /*   SUBUACC(ALTER)          /* Default is: ALTER           */
 /* NOSUBXTND                 /* Default is: NOSUBXTND       */
```

Parameterized Installation Options

```
/*   SAFVLIM(                 /*                                  */
/*           JOBS             /* Default is: no SAF-based         */
/*           DATASETS         /*   view limiting occurs.          */
/*           DJCS             /*    .                             */
/*           PRPUNS           /*    .                             */
/*           NODES            /*    .                             */
/*           SPOOL            /*    .                             */
/*           FSS              /*    .                             */
/*           ENCLAVES         /*    .                             */
/*           )                /*    .                             */
/* */
/* Performance:                                                    */
/*   DYNMRET(JOBS)            /* Default is: JOBS                 */
/*   ISALSIZ(256)             /* Default is: 256                  */
/*   JOBLMMU(100)             /* Default is: 100                  */
/*   JOBLMSU(1000)            /* Default is: 1000                 */
/*   SAFLMMU(100)             /* Default is: 100                  */
/*   SAFLMSU(1000)            /* Default is: 1000                 */
/*   POOLSIZ(4025)            /* Default is: 4025 (16MB)          */
     SPIOTHR(2048)            /* Default is: 256                  */
/*   TIMSORT(QUEUE)           /* Default is: QUEUE                */
/* */
/* DASD Allocations:                                               */
     DSNSIZE(10 30 CYL)       /* Default is: 1 15 TRK             */
/*   DSNUNIT(SYSALLDA)        /* Default is: SYSALLDA             */
/*   DSNVOL(volume)           /* Default is: not used             */
/*   DSNMGCL(mgmtclas)        /* Default is: not used             */
/*   DSNSTCL(storclas)        /* Default is: not used             */
/*   VIOUNIT(unitname)        /* Default is: VIO                  */
/* */
.
. (and more...)
.
```

Parameterized Installation Options



QUERY	Displays the current and previous policy status on the system.
CHECK	Requests syntax checking only of the named member.
UPDATE	Requests syntax checking of the named member and, if successful, an update of current live policy on the system. The success or failure of this request is logged on the system log.
SWITCH	(E)JES maintains two options policies in memory: the one being accessed by users, known as the current policy, and the one that was current prior to the last UPDATE, known as the previous policy. When you specify SWITCH, (E)JES switches the current and previous policy memory pointers. The current policy becomes previous and the previous policy becomes current. This can be used to “back out” an erroneous policy update.
[NO]ECHO	Indicates whether policy statements should be echoed to the output stream. This parameter applies only to the CHECK and UPDATE requests.
[NO]SUMMARY	Indicates whether an options summary should be echoed to the output stream. This parameter does not apply to SWITCH requests.

Parameterized Installation Options

```
 READY
ejespopt update(psiejopt) summary
 EJEST01I EJESREL(0520) HWNAME(STARBASE) LPARNAME(MVSA0) VMUSER()
 EJEST01I SYSPLEX(PHXHQ) SYSNAME(MVSA0)
 EJEST08I All specifications are valid
 EJEST40I Options summary:
 EJEST41I   Options specified via EJESOPT macro:
 EJEST41I     SVC number is 252 (Standard SVC used)                    SVC
 EJEST41I     User Exit Work Area is 002048 bytes long                 XWASIZE
 EJEST42I   Locale formatting:
 EJEST42I     Gregorian date format is DD/MM/YYYY                      DATEFMT
 EJEST42I     Julian date format is YYYY.DDD                           DATESEP
 EJEST42I     Numeric magnitude separator character is ','             NUMCHAR
 EJEST42I     Numeric decimal separator character is '.'               NUMCHAR
 EJEST43I   Security:
 EJEST43I     SAF security tailored for RACF                           SAFTYPE
 EJEST43I     SAF resource classes:
 EJEST43I       SDSF      (E)JES-architected resources                 SAFRCLS
 EJEST43I       JESSPOOL  IBM-architected job resources                SAFRCLS
 EJEST43I       WRITER    IBM-architected writer device resources      SAFRCLS
 EJEST43I       OPERCMDS  IBM-architected system command resources     SAFRCLS
 EJEST43I       JESSPOOL  IBM-architected job data set resources       SAFRCLS
 EJEST43I       XFACILIT  IBM-architected extended facility resources SAFRCLS
 EJEST43I       TSOAUTH   IBM-architected TSO authorization resources builtin
 EJEST43I     SAF checking activity will not be traced                 SAFTRAC
 EJEST43I     SAF resources for jobs/datasets will include node name   SAFNODE
 EJEST43I     SAF resources containing JES3 jobids will use JOB        SAFJBID
 .
 . (and more...)
```

Optional Disaster Recovery Mode Activation

- Once Disaster Recovery Mode begins, the installation is expected to request, download and install a new license with an embedded 7, 14 or 21-day grace period. This requirement was inconvenient for situations in which the DRM activation was accidental.
- The new **DRM** installation option specifies whether Disaster Recovery Mode is allowed to start if (E)JES is invoked in an unlicensed environment.
- With this option disabled, an invocation of (E)JES in an unlicensed environment will not trigger Disaster Recovery Mode. Rather, message EJES003 will be issued and the (E)JES session will immediately terminate.

Requesting a License Using z/OS Facilities – No Web Browser, No Email

- Under ISPF, invoke the new EJESDLIC REXX exec.
- Fill in the values as directed on the ISPF panel and press <Enter>. (The values are saved in your ISPF profile.)
- If the free-form response to your request appears correct, press <Enter> to submit job EJES$LDL.
- The EJESDLIC utility, executed by job EJES$LDL, looks for your license file every minute for up to one hour. After the file is downloaded, member EJES$LIC is automatically updated with the new license string. If the EJES$LDL job completes normally, you should simply be able to submit EJES$LIC to install the new license.
- EJESDLIC requires cURL—delivered by IBM at no additional charge as part of the z/OS UNIX Ported Tools Supplemental Toolkit.

Requesting a License Using z/OS Facilities – No Web Browser, No Email

```
---------------------- License Code Request Utility --------------------- V5R2
Command ===> _
                                                                More:     +

Phoenix Credentials:
   Userid          ===> edjaffe
   Password        ===> iscool
   CPU Serial      ===> 09632          (Serial and type of
   CPU Type        ===> 2098            a licensed machine)

Contact Information:
   Your CustNum    ===> 01234
   Your Name       ===> Ed Jaffe
   Your Company    ===> Phoenix Software International
   Your Phone      ===> 310-338-0400X318
   Your Email      ===> edjaffe@phoenixsoftware.com

License Request:
   Grace Period    ===> 7              (7, 14 or 21)
   Reason          ===> 1              (1=DR Test, 2=Real DR, 3=Machine Inoperable)

Parameters for Local Work Files:
   Your TSO/E Prefix ===> EDJX1
   Unit name         ===> SYSALLDA
 F1=Help    F3=Exit    F12=Cancel
```

Change to License Acceptability

- Prior (E)JES releases would accept a license generated by an older release.
- V5R2 (E)JES will accept a license generated by an equal or higher release, but not a lower release.
- This change affects customers that might be accustomed to carrying old licenses forward to new releases.
  - The new approach requires you to use the new license that is already being sent to you (along with the 34-digit PFI unlock code) as part of the new install. This should be a very minor procedural change.
- **GENREL=** reported by the **LICSTAT** command displays the (E)JES release for which the license was generated.

Integer Scaling Suffixes

- Previously, scaled integer values were formatted with a suffix of **T**, **M**, or **B** to indicate thousands (10^3), millions (10^6), or billions (10^9) respectively. These non-standard suffixes were USA-centric, which caused confusion, and made potential future scaling to higher values (e.g., 10^{12}, 10^{15},10^{18}) problematic.
- In V5R2, scaled values are formatted with a suffix of **K**, **M**, or **G** to indicate kilo-(10^3), mega-(10^6), or giga-(10^9) respectively.
- This change might create a migration action if you have procedures that ‘screen scrape’ or otherwise attempt to translate scaled values into binary integers. API exploiters should not be affected because the unscaled integer values have been available from the beginning.

Larger Elapsed Time Values

- In prior releases, the maximum value for an elapsed time was 99-23:59:59.99. Elapsed time values of 100 days or more were formatted as asterisks (an indication of overflow).
- In this release, the maximum width of the days portion of an elapsed time value has been increased to four digits.
- The intelligent formatting rules for elapsed times values have been updated to do the “right” thing when the number of days is <= 100, >=100, or >=1000. There is no need to widen any date display fields.
- API exploiters will see the new, full-size elapsed time field for all such dates.

Faster Pattern Utility Matching

- Matching for the Pattern Utility has been enhanced to use the SRST hardware instruction.
- Empirical measurements show this technique is *far* faster on modern System z processors than alternatives such as the TRT instruction or “brute force” matching techniques using CLI/CLC.
- **Note:** The SRST approach has been used by the **FIND** command for quite some time.

Help Load Library Removal

- The SEJEHENU, AEJEHENU, SEJEHENP and AEJEHENP load libraries have been removed from the product.
- Help in non-ISPF environments is now handled by dynamically allocating the ISPF panel library and translating the appropriate help panel(s) as required.
- The new **HELPDSN** installation option was introduced to specify the name of the ISPF panel library where the help members reside.

TP Monitor System Search For Executable Modules

- In releases prior to V5R1, the **SYSTEM_FILE(LOAD)** specification was used to specify the data set names of the libraries containing application modules to be loaded. A STEPLIB concatenation was also required for the TP Monitor's own system-level modules.
- In release V5R1, all libraries containing modules to be loaded were specified via the STEPLIB concatenation.
- In V5R2, the TP Monitor is now able to load (E)JES modules from LPA and LNKLST, as well as from STEPLIB. The TP Monitor load library continues to be listed on the STEPLIB concatenation.

V5R3 Preview

Support for z/OS 2.1 New Functions

- As this presentation is authored, it remains unknown how much new z/OS 2.1 function will be disclosed by IBM in its preview scheduled to coincide with SHARE in San Francisco.
  - Support for 4-billion spin data sets in JES2 (already in V5R2)
  - Support for JES3 dynamic spool removal.
  - Display 64-byte job correlator
  - 8-character job classes for JES2
- There are many other not-yet-disclosed z/OS 2.1 enhancements we are supporting in V5R3.

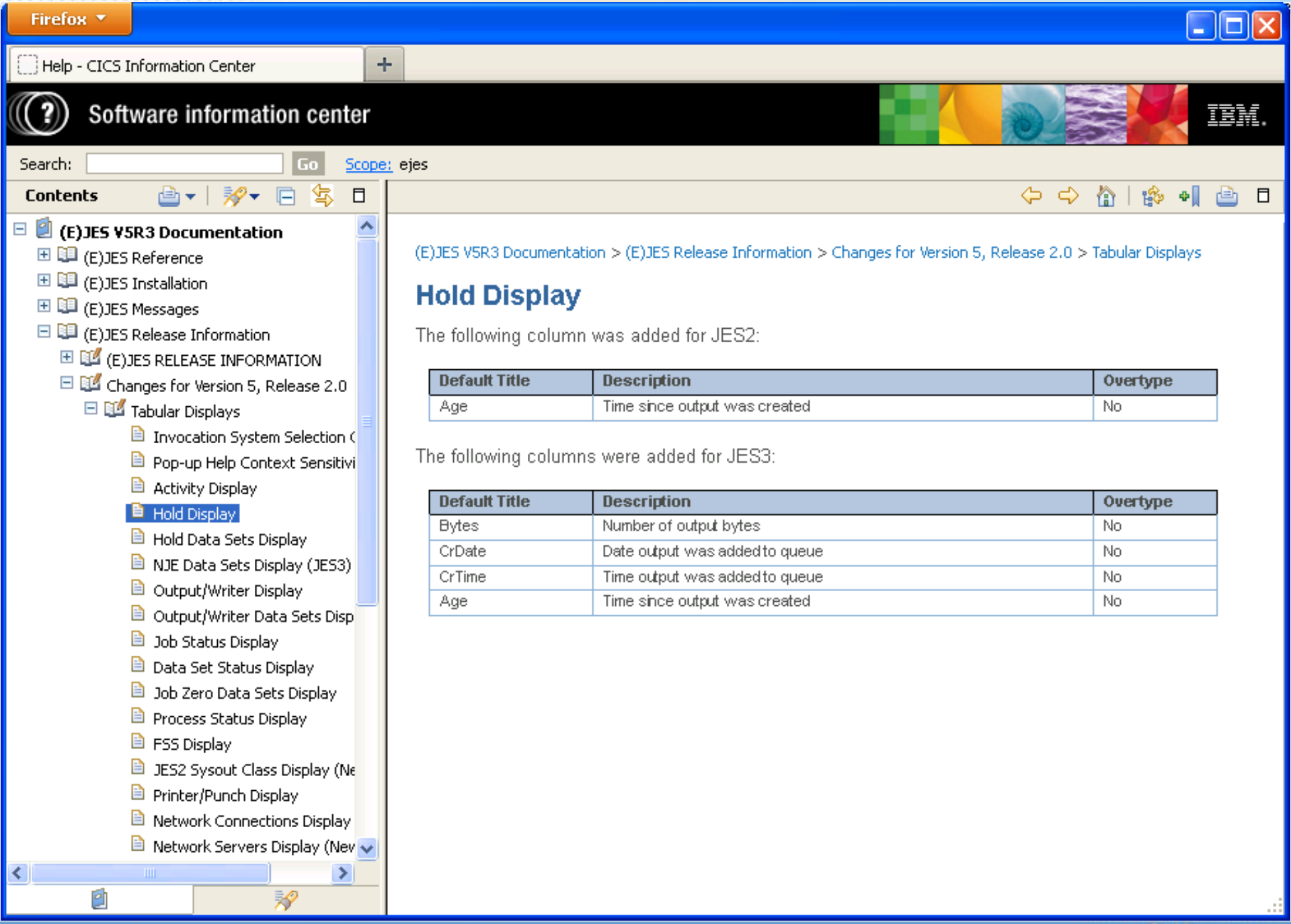
Previously Documentation Was Distributed in the Following Formats

- IBM BookManager books
  - Individual parts in SEJEPUBS and SEJEPSHF
- Adobe PDF documents
  - Individual parts in SEJEPDF
- HTML documents
  - A single part (zip file) in SEJEHTML
  - These HTML documents were built by exporting Microsoft Word documents. They were poorly formatted, intended for use only by seeing-impaired individuals who required HTML for their assistive technologies.

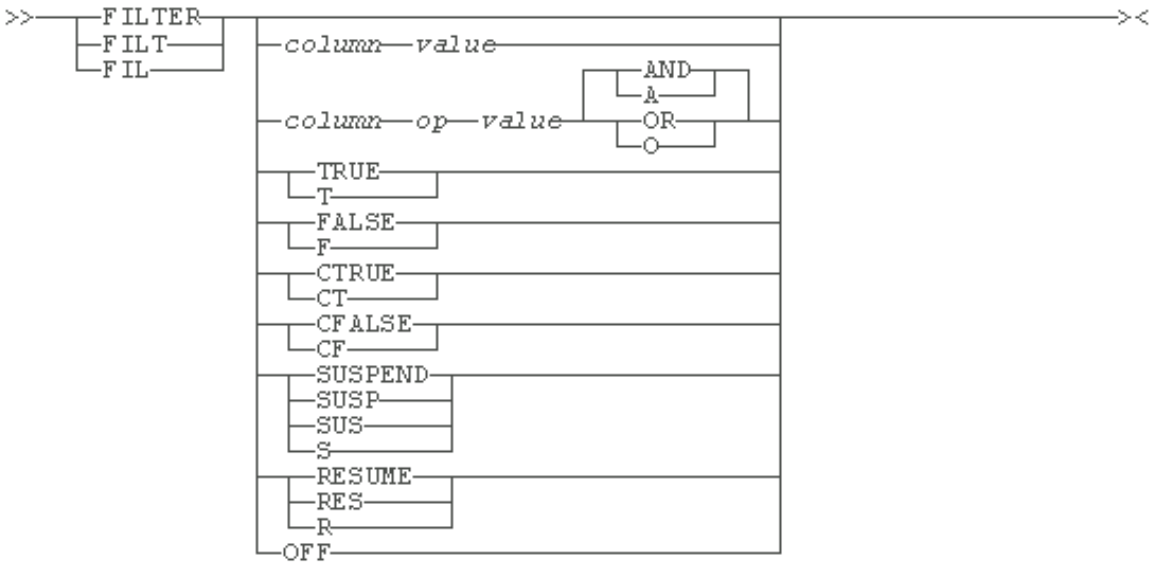
Documentation Distributed with V5R3

- Eclipse documentation plugins for use with IBM InfoCenter
- Adobe PDF documents
- HTML documents (generated from the Eclipse plugins)
- Each format is delivered as a single part in the new SEJEDOC target library
- New sample job EJES$DOC used to copy/unload the three parts to z/OS UNIX directories of your choosing.
  - **QUESTION:** Is this a better approach than installing ++JAR and ++HFS into z/OS UNIX directory created by ZEJ53U0?

Format	File Name
Eclipse	com.psi.ejes_doc.5.3.0.jar
Adobe	ejes_pdf.5.3.0.zip
HTML	ejes_html.5.3.0.zip


Firefox
Help - CICS Information Center
Software information center
IBM.
Search:
Go
Scope: ejes
Contents
(E)JES V5R3 Documentation
(E)JES Reference
(E)JES Installation
(E)JES Messages
(E)JES Release Information
(E)JES RELEASE INFORMATION
Changes for Version 5, Release 2.0
Tabular Displays
Invocation System Selection (
Pop-up Help Context Sensitivi
Activity Display
Hold Display
Hold Data Sets Display
NJE Data Sets Display (JES3)
Output/Writer Display
Output/Writer Data Sets Disp
Job Status Display
Data Set Status Display
Job Zero Data Sets Display
Process Status Display
FSS Display
JES2 Sysout Class Display (Ne
Printer/Punch Display
Network Connections Display
Network Servers Display (Nev
(E)JES V5R3 Documentation > (E)JES Release Information > Changes for Version 5, Release 2.0 > Tabular Displays
Hold Display
The following column was added for JES2:
Default Title
Description
Overtype
Age
Time since output was created
No
The following columns were added for JES3:
Default Title
Description
Overtype
Bytes
Number of output bytes
No
CrDate
Date output was added to queue
No
CrTime
Time output was added to queue
No
Age
Time since output was created
No
2013

Syntax



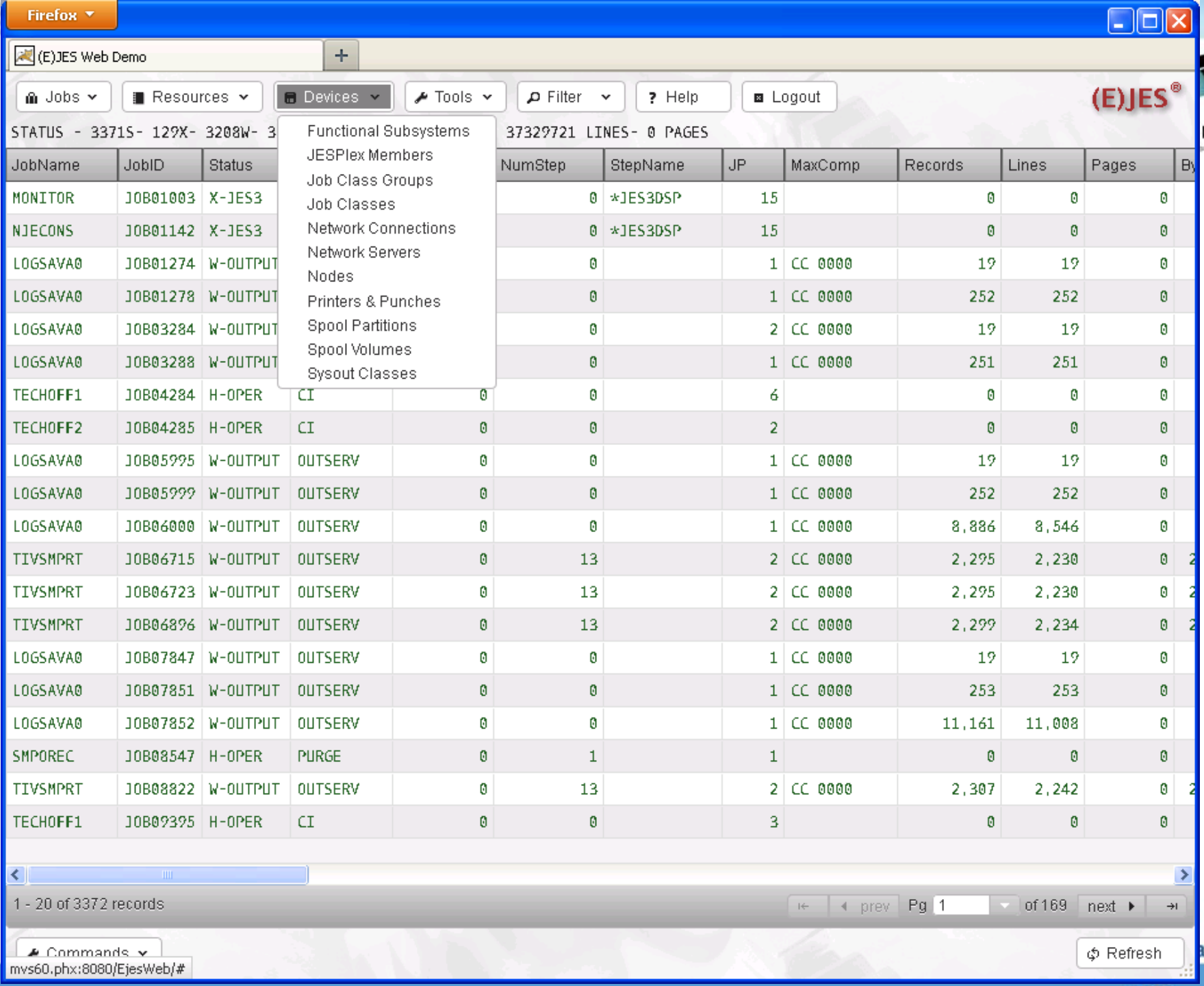
column	The name or title of a column on the display. Prefix the value with a plus symbol (+) to add a new metafilter. Otherwise, all metafilters will be replaced.
op	=, ¬=, <>, >, <, >=, <=, EQ, NE, GT, LT, GE or LE
value	Comparison value appropriate to the underlying data type.
AND	Boolean operator for ANDing with next metafilter.
OR	Boolean operator for ORing with next metafilter.
TRUE	Display only rows that match the metafilters.

(E)JES Web User Interface

- (E)JES V5R3 delivers a web-based user interface that exploits its Java API and runs under Apache Tomcat for z/OS.
  - Apache Tomcat is an open source software implementation of the Java Servlet and JavaServer Pages technologies and is a trademark of the Apache Software Foundation.
- This interface, which we currently call ***(E)JES Web***—subject to change, of course—will continue to be improved over time with the intent of eventually creating a de-facto interface choice for (E)JES users with little or no mainframe experience.

(E)JES Web Technology Stack

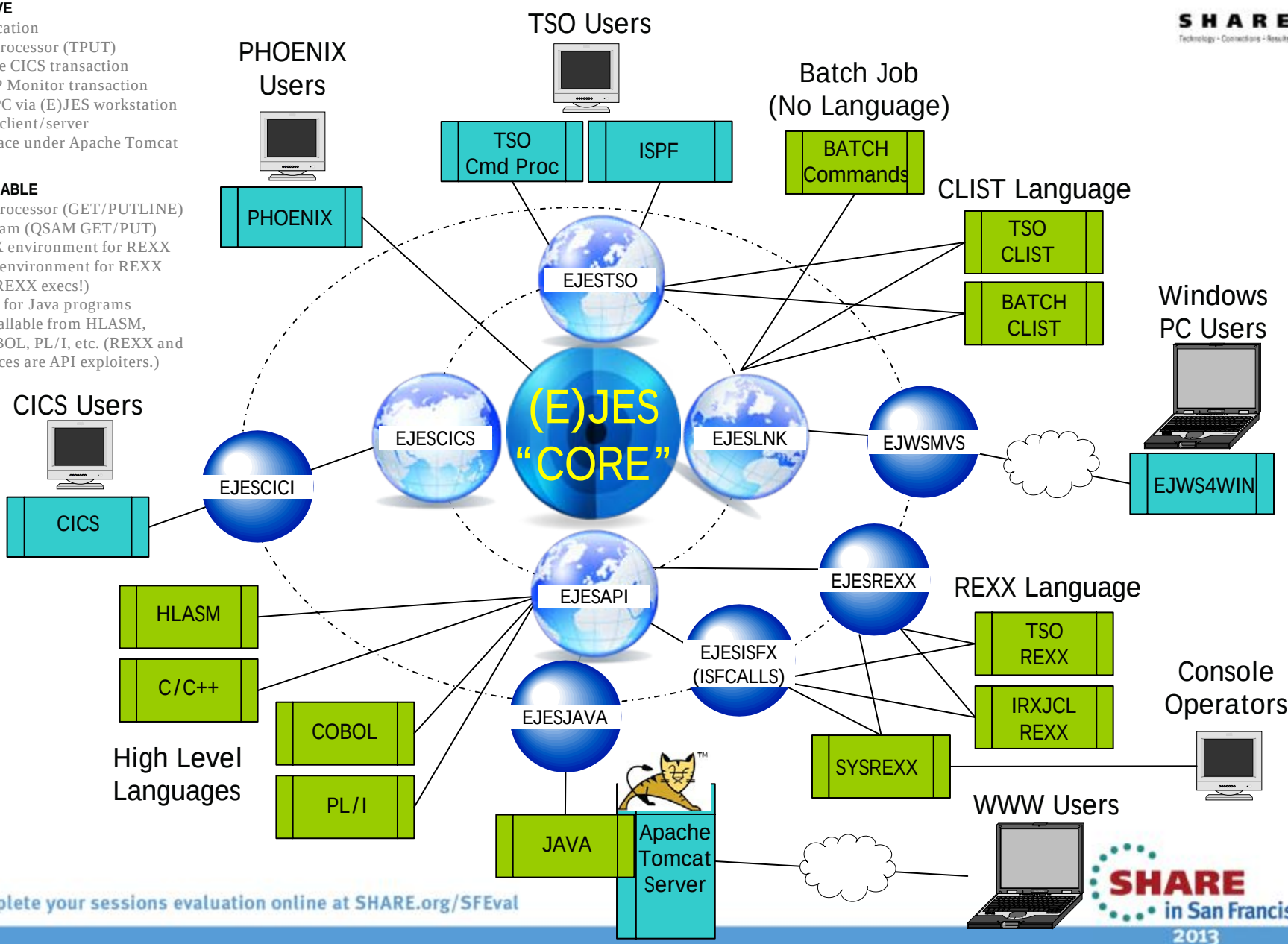
- In addition to the wealth of technologies already inherent in the (E)JES base product, (E)JES Web leverages the following core technologies:
  - Ajax
  - C++
  - CSS3
  - HTML5
  - Java
  - Javascript
  - JNI
  - Jquery
  - JqueryUI
  - JSON
  - JSP
  - REST
- Non-core technologies include Apache Tomcat, Ifragistics igGrid, HTTP and others.


Firefox
(E)JES Web Demo
Jobs
Resources
Devices
Tools
Filter
Help
Logout
(E)JES®
Functional Subsystems
JESPlex Members
Job Class Groups
Job Classes
Network Connections
Network Servers
Nodes
Printers & Punches
Spool Partitions
Spool Volumes
Sysout Classes
STATUS - 3371S- 129X- 3208W- 3
37329721 LINES- 0 PAGES
JobName JobID Status NumStep StepName JP MaxComp Records Lines Pages
MONITOR JOB01003 X-JES3 0 *JES3DSP 15 0 0 0
NJECONS JOB01142 X-JES3 0 *JES3DSP 15 0 0 0
LOGSAVA0 JOB01274 W-OUTPUT 0 1 CC 0000 19 19 0
LOGSAVA0 JOB01278 W-OUTPUT 0 1 CC 0000 252 252 0
LOGSAVA0 JOB03284 W-OUTPUT 0 2 CC 0000 19 19 0
LOGSAVA0 JOB03288 W-OUTPUT 0 1 CC 0000 251 251 0
TECHOFF1 JOB04284 H-OPER CI 0 0 6 0 0 0
TECHOFF2 JOB04285 H-OPER CI 0 0 2 0 0 0
LOGSAVA0 JOB05995 W-OUTPUT OUTSERV 0 0 1 CC 0000 19 19 0
LOGSAVA0 JOB05999 W-OUTPUT OUTSERV 0 0 1 CC 0000 252 252 0
LOGSAVA0 JOB06000 W-OUTPUT OUTSERV 0 0 1 CC 0000 8,886 8,546 0
TIVSMPRT JOB06715 W-OUTPUT OUTSERV 0 13 2 CC 0000 2,295 2,230 0
TIVSMPRT JOB06723 W-OUTPUT OUTSERV 0 13 2 CC 0000 2,295 2,230 0
TIVSMPRT JOB06896 W-OUTPUT OUTSERV 0 13 2 CC 0000 2,299 2,234 0
LOGSAVA0 JOB07847 W-OUTPUT OUTSERV 0 0 1 CC 0000 19 19 0
LOGSAVA0 JOB07851 W-OUTPUT OUTSERV 0 0 1 CC 0000 253 253 0
LOGSAVA0 JOB07852 W-OUTPUT OUTSERV 0 0 1 CC 0000 11,161 11,008 0
SMPOREC JOB08547 H-OPER PURGE 0 1 1 0 0 0
TIVSMPRT JOB08822 W-OUTPUT OUTSERV 0 13 2 CC 0000 2,307 2,242 0
TECHOFF1 JOB09395 H-OPER CI 0 0 3 0 0 0
1 - 20 of 3372 records
prev
Pg 1
of 169
next
Commands
Refresh
mvs60.phx:8080/EjesWeb/#

The Updated (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
- Web interface under Apache Tomcat

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.)



API Updates

- (E)JES Web is a major API exploiter.
- As requirements are recognized, they are implemented throughout the entire API stack:
  - EJESAPI and EJESAPI4 (HLASM, C/C++, etc.)
  - EJESREXX (REXX)
  - EJESJAVA (Java)
- This release adds (so far):
  - Tabular row attributes (active emphasis, metafilters colorization, etc.)
  - Line commands array
  - Additional security capabilities

Support CMF for ACPLEX=SYS

- Previously, we documented that ACPLEX=SYS worked for IBM's RMF but not for BMC's CMF.
- Our (erroneous) assumption was that the required support was missing from CMF. In fact, the problem was that CMF abended internally with a too-small initial work area size.
- APAR BCM0849 from BMC as well as a *somewhat* larger initial work area size from (E)JES allowed CMF to operate properly. ☺
  - PTFs available for CMF 5.7, 5.8, and 5.9 are BQM0852, BQM0853, and BQM0854, respectively.
- In addition, msgEJES412 was enhanced to display the service reason code. This should help diagnose further RMF/CMF issues without requiring SLIP dumps or traces.

Miscellaneous Updates

- New function key to clear all input on pop-up windows.
- New CRETAIN=NONE setting.
  - Forces cursor back to the command line in all cases, even when returning from a sub-function. (CRETAIN=NO keeps the cursor on the row when returning from a sub-function.)
- New KEEPOPEN option for non-directed batch extract (i.e., to the EJESEXT DD name) allows many jobs to be sent to the same output file without incurring the overhead of OPEN/CLOSE for each extract operation.
- New MARK option for extract operations inserts a unique, yet human-readable, identification record to help post-processors detect the boundary between the results of two different extracts to the same target location.

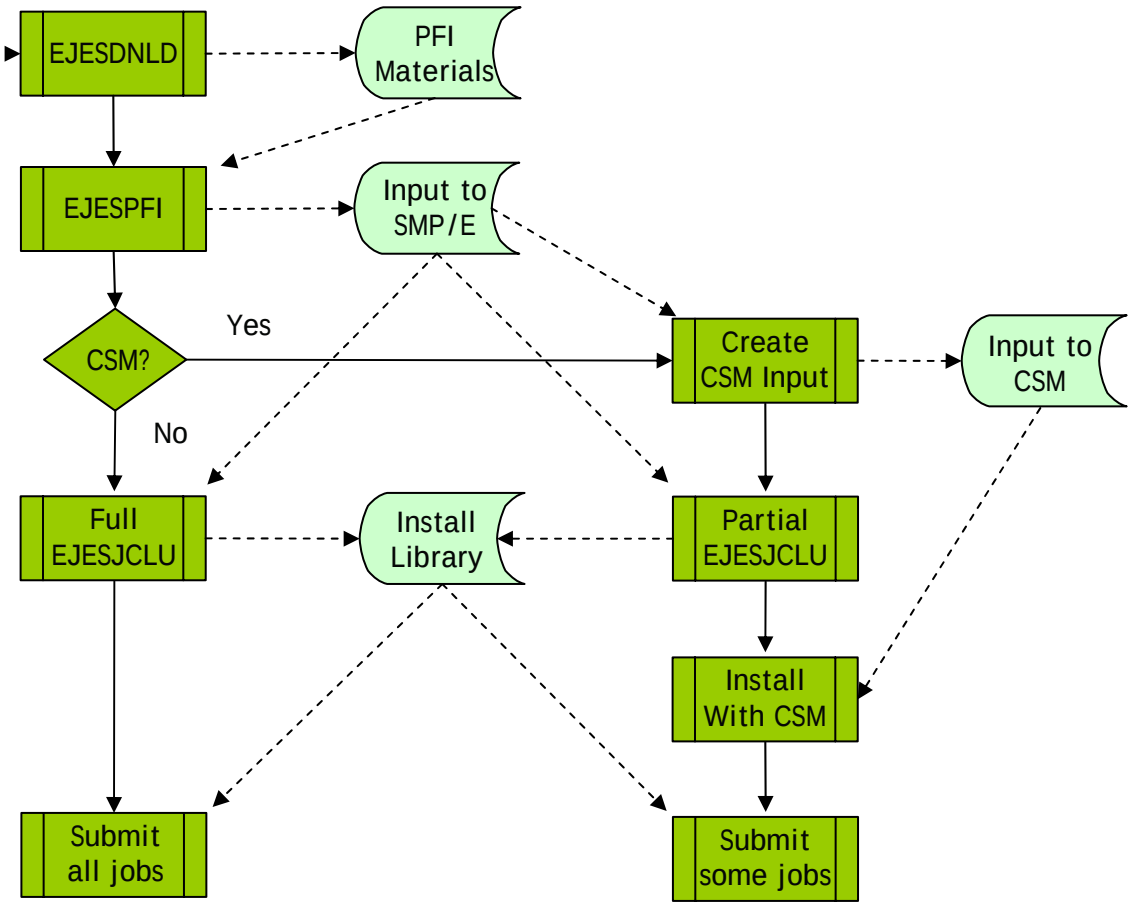
Miscellaneous Updates *(continued…)*

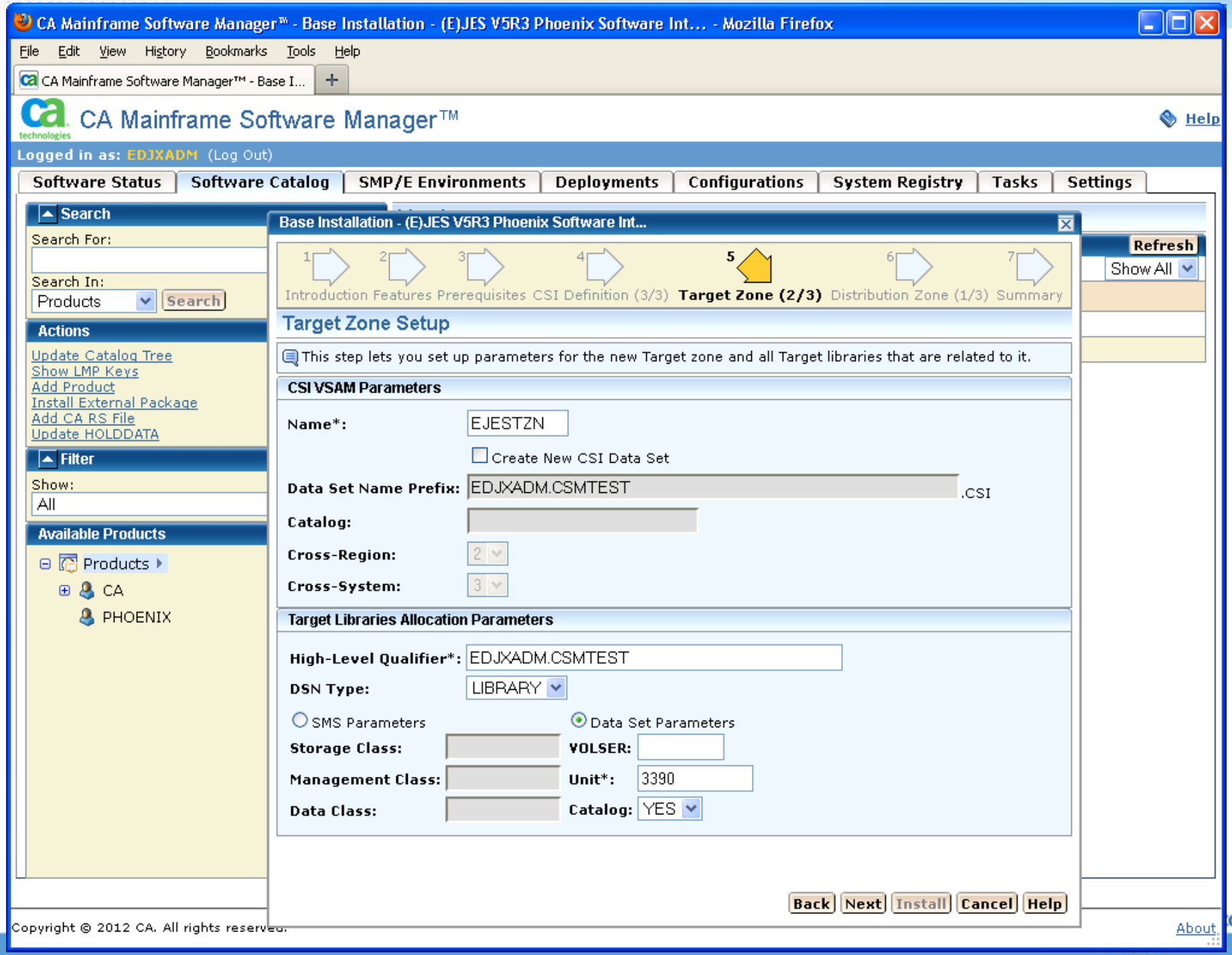
- Begin date on SMF record now uses SMF format
  - Previously, SMF format was used for the date in the SMF header but not for the begin date in the body of the record. The use of two different date formats was confusing.
  - Native (E)JES dates use yyyy to represent a four-digit year. SMF dates this century use 01yy and you're supposed to add 1900 to get yyyy.
  - **Note:** Recent MXG releases "automagically" handle (E)JES SMF records both before and after this change. So, no update from MXG is needed (unless you are back-level).

Currently Experimenting with Chorus Software Manager from CA Technologies

PHOENIX Software International®

- *As currently envisioned*, install continues to use existing PFI download and unlock technology.
- Install path diverges based on user response.
- Input to CSM created by EJESPFI utility in z/OS UNIX directory of choice.
- JCL customization has fewer replaceable keys and sample jobs for CSM install.




CA Mainframe Software Manager™ - Base Installation - (E)JES V5R3 Phoenix Software Int... - Mozilla Firefox
File Edit View History Bookmarks Tools Help
CA Mainframe Software Manager™ - Base I...
CA Mainframe Software Manager™
Help
Logged in as: EDJXADM (Log Out)
Software Status
Software Catalog
SMP/E Environments
Deployments
Configurations
System Registry
Tasks
Settings
Search
Search For:
Search In:
Products
Search
Actions
Update Catalog Tree
Show LMP Keys
Add Product
Install External Package
Add CA RS File
Update HOLDDATA
Filter
Show:
All
Available Products
Products
CA
PHOENIX
Base Installation - (E)JES V5R3 Phoenix Software Int...
1 Introduction
2 Features
3 Prerequisites
4 CSI Definition (3/3)
5 Target Zone (2/3)
6 Distribution Zone (1/3)
7 Summary
Target Zone Setup
This step lets you set up parameters for the new Target zone and all Target libraries that are related to it.
CSI VSAM Parameters
Name*: EJESTZN
Create New CSI Data Set
Data Set Name Prefix: EDJXADM.CSMTEST .CSI
Catalog:
Cross-Region: 2
Cross-System: 3
Target Libraries Allocation Parameters
High-Level Qualifier*: EDJXADM.CSMTEST
DSN Type: LIBRARY
SMS Parameters
Data Set Parameters
Storage Class:
VOLSER:
Management Class:
Unit*: 3390
Data Class:
Catalog: YES
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Next
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Cancel
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Refresh
Show All
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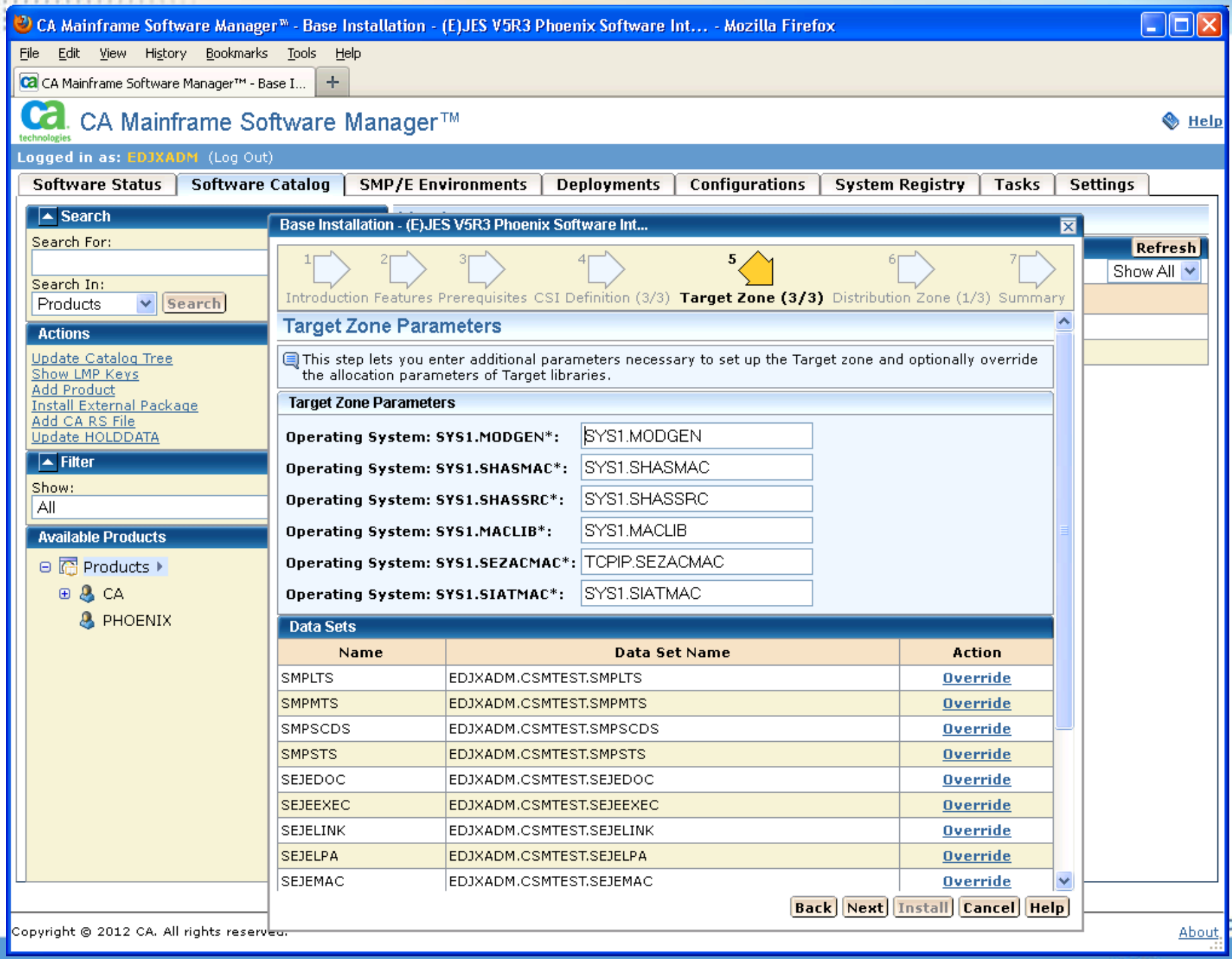
About


CA Mainframe Software Manager™ - Base Installation - (E)JES V5R3 Phoenix Software Int... - Mozilla Firefox
File Edit View History Bookmarks Tools Help
CA Mainframe Software Manager™ - Base I...
CA Mainframe Software Manager™
Help
Logged in as: EDJXADM (Log Out)
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Add CA RS File
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2 Features
3 Prerequisites
4 CSI Definition (3/3)
5 Target Zone (3/3)
6 Distribution Zone (1/3)
7 Summary
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Target Zone Parameters
This step lets you enter additional parameters necessary to set up the Target zone and optionally override the allocation parameters of Target libraries.
Target Zone Parameters
Operating System: SYS1.MODGEN*: SYS1.MODGEN
Operating System: SYS1.SHASMAC*: SYS1.SHASMAC
Operating System: SYS1.SHASSRC*: SYS1.SHASSRC
Operating System: SYS1.MACLIB*: SYS1.MACLIB
Operating System: SYS1.SEZACMAC*: TCPIP.SEZACMAC
Operating System: SYS1.SIATMAC*: SYS1.SIATMAC
Data Sets
Name | Data Set Name | Action
SMPLTS | EDJXADM.CSMTEST.SMPLTS | Override
SMPMTS | EDJXADM.CSMTEST.SMPMTS | Override
SMPSCDS | EDJXADM.CSMTEST.SMPSCDS | Override
SMPSTS | EDJXADM.CSMTEST.SMPSTS | Override
SEJEDOC | EDJXADM.CSMTEST.SEJEDOC | Override
SEJEEXEC | EDJXADM.CSMTEST.SEJEEXEC | Override
SEJELINK | EDJXADM.CSMTEST.SEJELINK | Override
SEJELPA | EDJXADM.CSMTEST.SEJELPA | Override
SEJEMAC | EDJXADM.CSMTEST.SEJEMAC | Override
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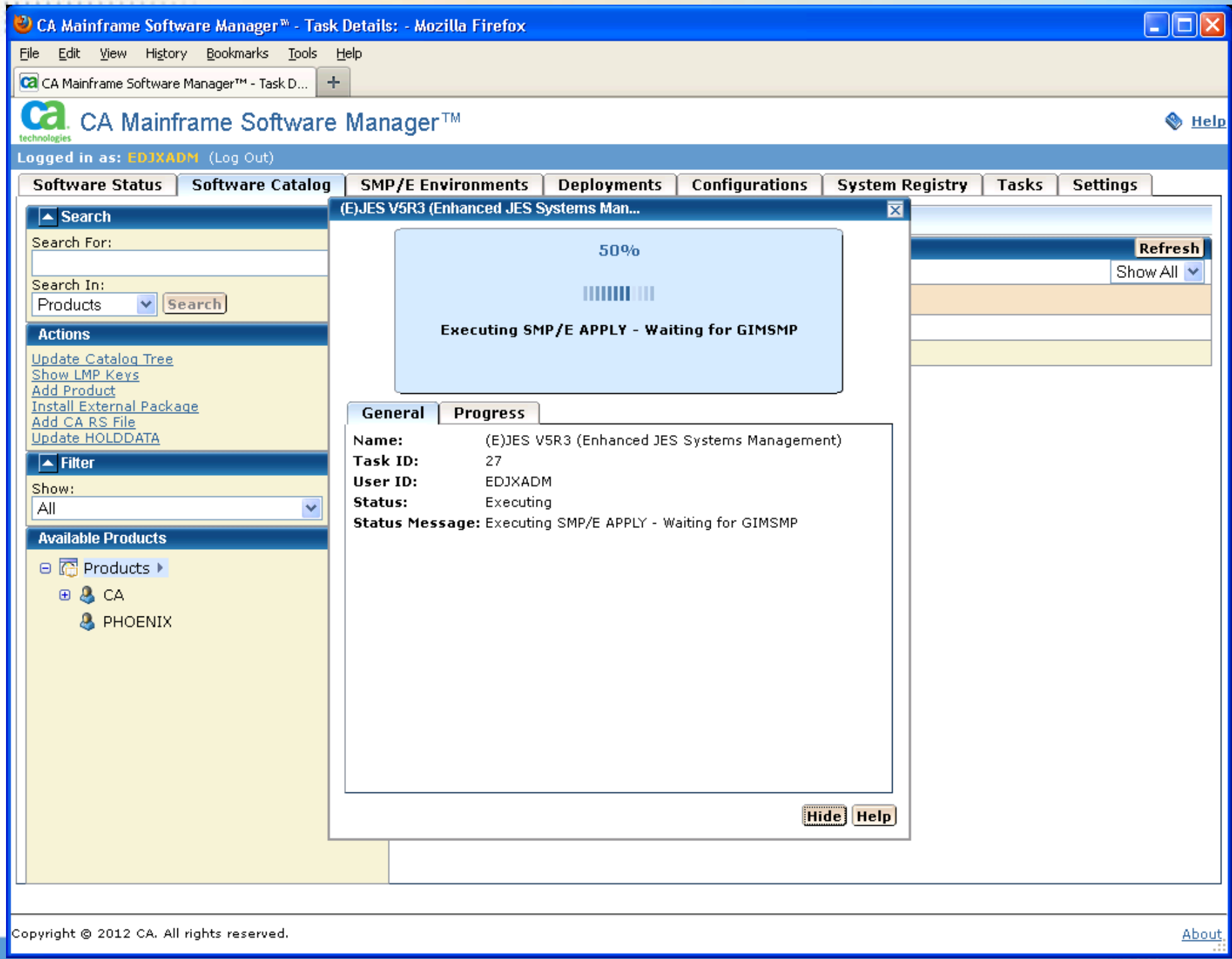
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Update HOLDDATA
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PHOENIX
(E)JES V5R3 (Enhanced JES Systems Man...
50%
Executing SMP/E APPLY - Waiting for GIMSMP
General
Progress
Name: (E)JES V5R3 (Enhanced JES Systems Management)
Task ID: 27
User ID: EDJXADM
Status: Executing
Status Message: Executing SMP/E APPLY - Waiting for GIMSMP
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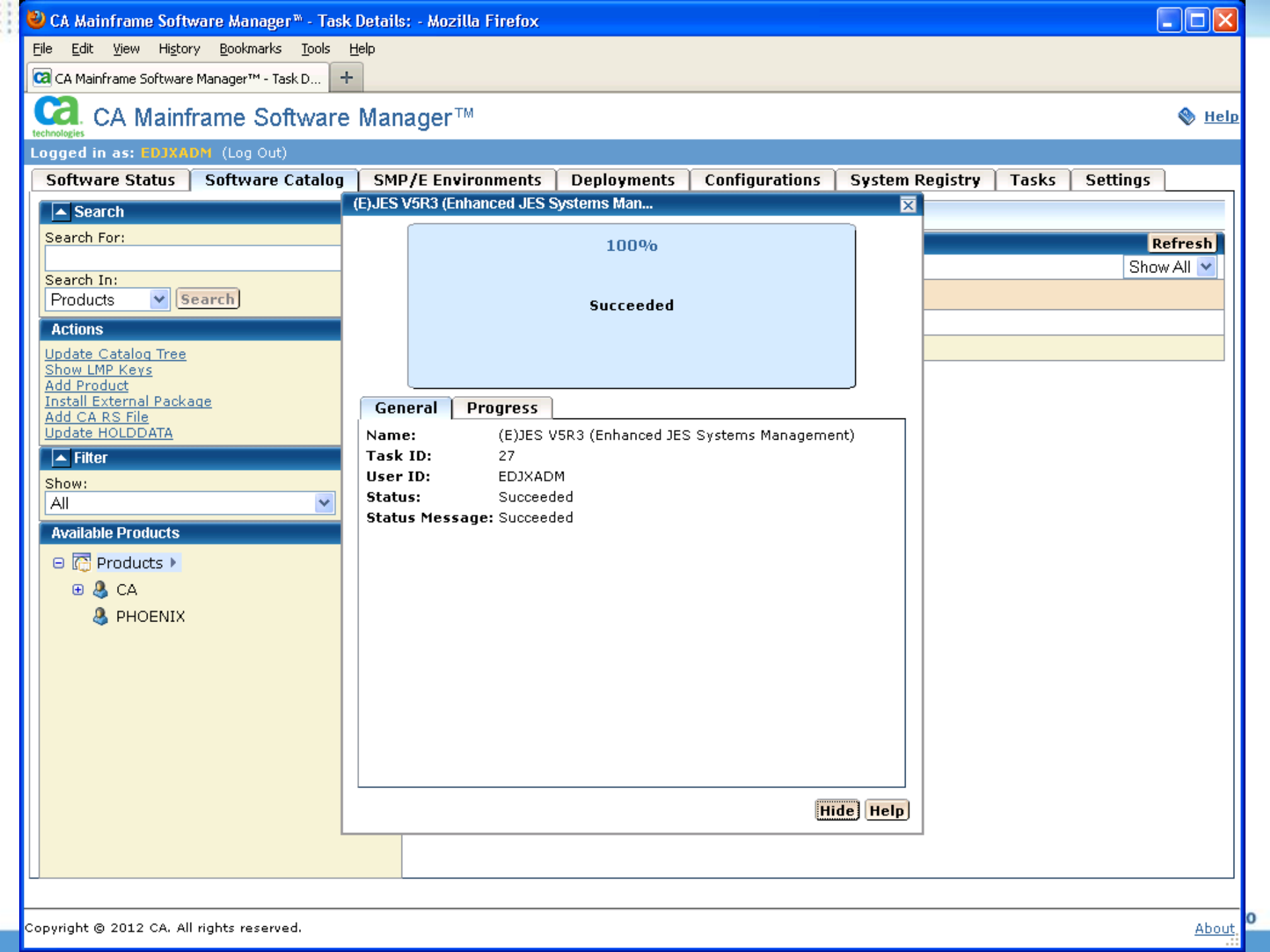
About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Add CA RS File
Update HOLDDATA
Filter
Show:
All
Available Products
Products
CA
PHOENIX
(E)JES V5R3 (Enhanced JES Systems Man...
100%
Succeeded
General
Progress
Name: (E)JES V5R3 (Enhanced JES Systems Management)
Task ID: 27
User ID: EDJXADM
Status: Succeeded
Status Message: Succeeded
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About

Performance Study

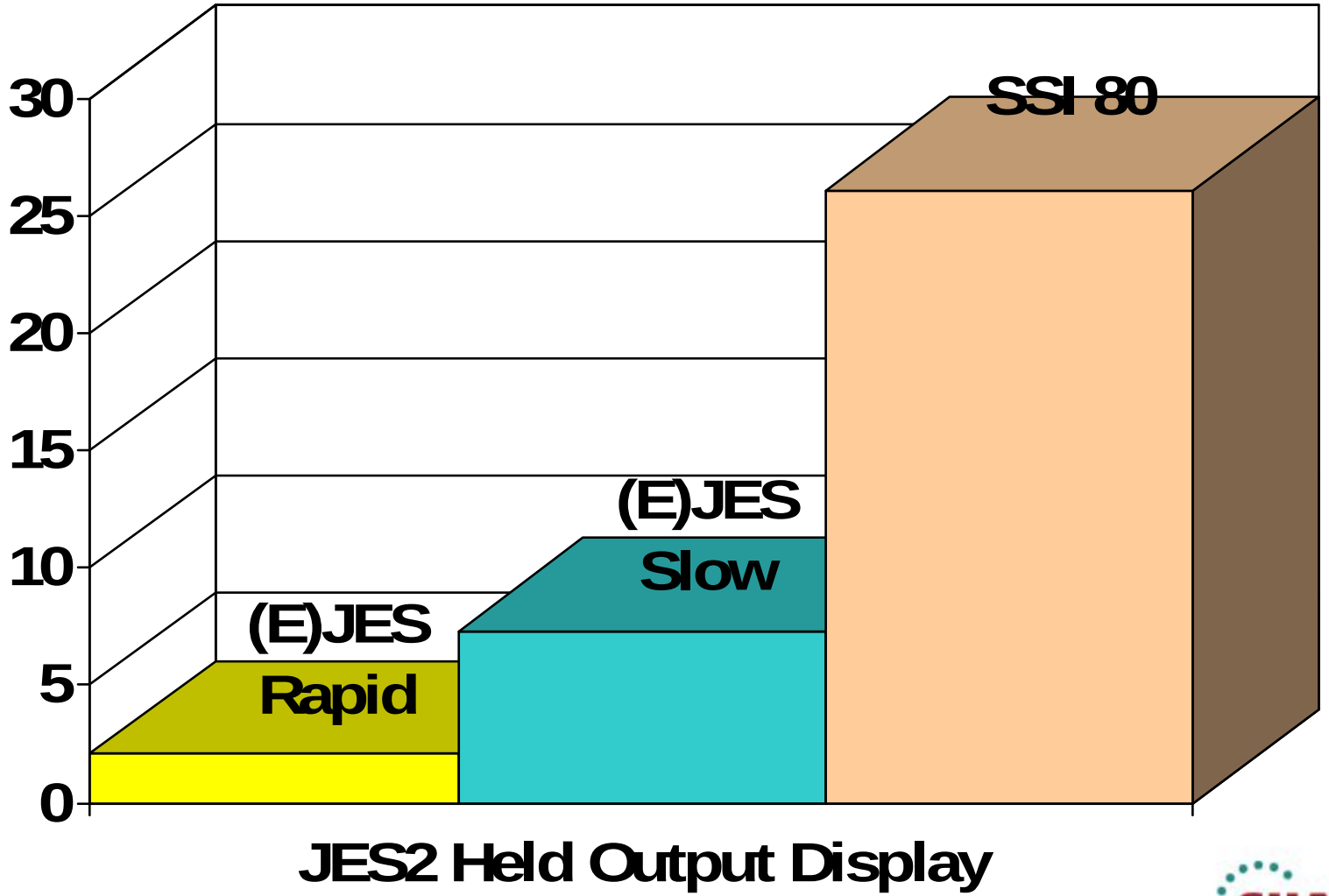
Importance of a Performance Value-Add

- One key goal of any good ISV software product is to try to provide a value-add in the area of performance. This has been one of our primary areas of focus since 1978.
- Back then, there were no specialty engines. Writing well-performing code was the only way to save run-time "hard dollars" for customers.
  - There was/is also the issue of increased user productivity through a rich feature set. Such gains, while substantial, are more difficult to quantify with benchmarks.
- CPU savings is our most important objective. VWLC-style pricing makes this even more important today, especially for products that might run during the afternoon peak.
- I/O performance savings is a close second.

JES2 CPU Performance Quantified

- Competing products tend to rely on the most resource-intensive interface available: the JES-provided SSI 80.
- Our internal benchmark testing against the most readily-available JES2 SSI 80 exploiter showed it needed 3.5x as much CPU as (E)JES to refresh the JES2 HOLD display pressing <Enter> slowly, once every five seconds.
- Pressing <Enter> as rapidly as possible yielded a 12.5x CPU requirement!
- The benchmark was run on an idle 2098-D04 running z/OS 1.13.

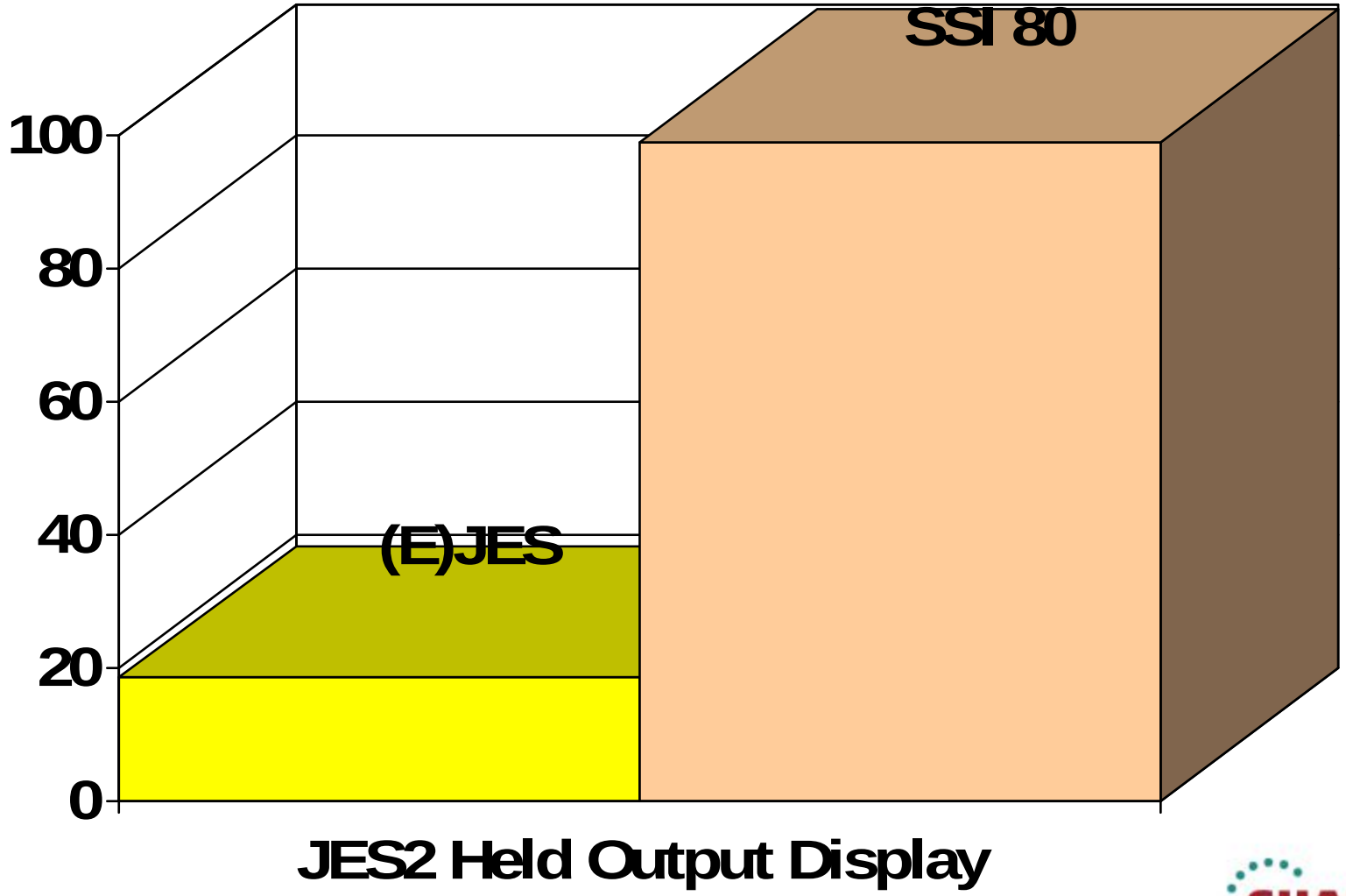
JES2 CPU Performance Quantified: Between 3.5x and 12.5x



JES3 CPU Performance Quantified

- JES3 benchmarking is slightly more difficult than JES2, because a *significant* amount of SSI 80 processing runs as high-priority work in the JES3 global address space.
- All JES3 activity must be quiesced (so that JES3 is waiting) and its CPU utilization carefully measured.
- Our internal benchmark testing against the most readily-available JES3 SSI 80 exploiter showed it needed 5.4x as much CPU as (E)JES to refresh the JES3 HOLD display.
- This includes both CPU consumed by the TSO user and CPU consumed by the high-priority JES3 address space.
- Rapidity of refreshes makes no difference for JES3.
- Like the previous test, the benchmark was run on an idle 2098-D04 running z/OS 1.13.

JES3 CPU Performance Quantified: 5.4x



Performance Differences in Perspective

- The benchmark savings occur using apples-to-apples measurements with TCB-mode only, GCP execution.
- Customers with zIIP processors will observe an entirely different situation.
- Not only does (E)JES use far less CPU than any SSI 80 exploiter, but nearly all of it is eligible for redirection to zIIP.
- In the case of SSI 80, none of the CPU resources are eligible for zIIP redirection—even for customers with zIIP processors available.

JobName	CPU-Time	ACPU-Time	zIIP-Time	GCP-Time	zICP-Time	
JOEUSER	00:06.15	00:12.20	00:05.94	00:05.94	00:00.00	BEFORE
JOEUSER	00:07.16	00:29.12	00:21.71	00:06.91	00:00.00	AFTER
JOEUSER	00:01.01	00:16.92	00:15.77	00:00.97	00:00.00	DIFFERENCE

94%

Questions?