

(E)JES Update

Edward E. Jaffe Phoenix Software International

> August 8, 2012 Session 12103



#SHAREorg



Compatibility Matrix

Operating	V5R2	V5R1	V4R8	V4R7
System	09/12*	09/11	09/10	09/09
z/OS 1.13	JES2/JES3	JES2/JES3	JES3	JES3
z/OS 1.12	JES2/JES3	JES2/JES3	JES2/JES3	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	JES2/JES3
z/OS 1.6		JES2/JES3	JES2/JES3	JES2/JES3
z/OS 1.5			JES2/JES3	JES2/JES3
z/OS 1.4				JES2/JES3

- Only V5 releases support z/OS 1.13 JES2.
- All releases shown support z/OS 1.13 JES3.
- V5R2 GA is *expected* in September 2012.
- V4 releases still support ESA/390 architecture.
- V4R7 became stabilized at the end of March 2012.





V4R8 Highlights



Complete your sessions evaluation online at SHARE.org/AnaheimEval



RowNum Administrative Column

- V4R8 introduced the new RowNum column, an administrative column that optionally follows the Cmd column located at the extreme left side of a tabular display.
- This new column simply displays the number of the row. Big deal. Right? Reserve judgment until you see how it can be used with the SELECT command enhancements.
- ROWNUM ON|OFF enables/disables this feature.
- You don't directly control the width of the RowNum column. It is automatically sized to three, six, or eleven characters, depending on the total number of rows in the display.





Select Command Enhancements

- The SELECT command was enhanced in two ways:
 - In addition to the existing support for mask comparisons, you may now specify a row number or range of row numbers against which the line command will be issued.
 - You may now use the SELECT command to establish the default line command to be used when not specified on the SELECT command. Previously, that value could be set only by the CURSOR SELECT command or via the Set cursor retention and selection... dialog, accessed from the Options pull-down under ISPF.
- When specifying a row number or range of row numbers, the SELECT command itself is optional.





Select Command Enhancements

<u>J</u> obs	<u>R</u> esources	s <u>D</u>	evice	s <u>T</u> ools	s <u>F</u> i
STATUS	2,727S	ΘX	120W	302H	ΘT
Command	===> 13 k				
Cmd Row	JobName	Job	ID	Status	
1	EJES\$APP	J01	19408	QUEVED	
2	EJES\$LDL	J01	19405	QUEUED	
3	EJES\$LDL	J01	19404	QUEUED	
4	EDJX2	T01	19401	QUEUED	
5	EDJXADM	T01	18707	QUEUED	
6	EDJXADM	T01	17763	QUEUED	
7	EJES\$PDL	J01	17761	QUEUED	
8	EJES\$PDL	J01	17760	QUEUED	
9	EDJXADM	T01	17755	QUEUED	
10	EDJXADM	T01	16639	QUEUED	
11	MACREN	J01	16638	QUEUED	
12	MACDEL	J01	16637	QUEUED	
13	MACCOPY	J01	16636	QUEUED	
14	SMPOREC	J01	16634	QUEUED	
15	EDJXADM	T01	16633	QUEUED	
16	BUILDMCS	J01	14930	QUEUED	
17	EDJXADM	T01	14929	QUEUED	
18	EDJX1	T01	14928	QUEUED	
19	EDJXADM	T01	14927	QUEUED	
20	BUILDMCS	J01	14926	QUEUED	
21	ANRACCEP	J01	14924	QUEUED	
22	ANRACCCK	J01	14923	QUEUED	
23	ANRACCCK	J01	14922	QUEUED	
24	ANRACCCK	J01	14921	QUEUED	
F1=Hel	p F3=E×	it	F4:	=Prompt	F5=
F9=Swa	p F10=Le	eft	F11:	=Right	F12=

Complete your sessions evaluation online at SHARE.org/AnaheimEval

<u>J</u> obs	<u>R</u> esource	s <u>D</u>	evices	s <u>T</u> ool:	s <u>F</u> i
STATUS	2,7275	өx	120W	302H	ΘТ
Command	===> 1-1(э с_			
Cmd Row	JobName	Job	ID	Status	
1	EJES\$APP	J01	19408	QUEUED	
2	EJES\$LDL	J01	19405	QUEUED	
3	EJESŚLDL	J01	19404	QUEUED	
4	EDJX2	T01	19401	OUEUED	
5	EDJXADM	T01	18707	OUEUED	
6	EDJXADM	T01	17763	OUEUED	
7	EJESSPDL	J01	17761	OUEUED	
8	EJESSPDL	J01	17760	OUEUED	
9	EDJXADM	T01	17755	OUEUED	
10	EDJXADM	T01	16639	QUEUED	
11	MACREN	J01	16638	QUEUED	
12	MACDEL	J01	16637	QUEUED	
13	MACCOPY	J01	16636	QUEUED	
14	SMPOREC	J01	16634	QUEUED	
15	EDJXADM	T01	16633	QUEUED	
16	BUILDMCS	J01	14930	QUEUED	
17	EDJXADM	T01	14929	QUEUED	
18	EDJX1	T01	14928	QUEUED	
19	EDJXADM	T01	14927	QUEUED	
20	BUILDMCS	J01	14926	QUEUED	
21	ANRACCEP	J01	14924	QUEUED	
22	ANRACCCK	J01	14923	QUEUED	
23	ANRACCCK	J01	14922	QUEUED	
24	ANRACCCK	J01	14921	QUEUED	
F1=Hel	p F3=Ex	xit	F4=	=Prompt	F5=
F9=Swa	p F10=L0	∍ft	F11=	Right	F12=
				; SHA	KE
				•••• ir	n Anaheim



Exception Columns

- The color and highlighting of several tabular columns is modified depending on the value being formatted. The intent is to make these columns stand out to the user if they indicate errors.
- By default, the modified appearance is yellow and highintensity. However, this may be customized by the user.
- The columns eligible for this treatment and the values considered to be exceptions are shown in the table below:

Column	Applicable Display(s)	Exception Value					
MaxComp	Job and group oriented displays	Anything other than blank or CC 0000					
Result	Health Checker	Any value greater than zero					
Status	Health Checker	Any Result greater than zero.					





Exception Columns

<u>J</u> obs	<u>R</u> esources	s <u>D</u> evice:	s <u>T</u> ools	s <u>F</u> i	lter <u>\</u>	/iew _	<u>0</u> pt	tio	ns <u>l</u>	<u>l</u> elp			
STATUS Command	2,727S ===>_	0X 120W	302H	ΘT	33,311	Recor	ds			S	F crol	λ <mark>οω 1</mark> ιι ===	of 422 => <mark>PAGE</mark>
Cmd Row	JobName	JobID	Status		Queue	AMbr	С	\mathbf{JP}	Pos	WPos	Max	<comp< th=""><th>Records</th></comp<>	Records
			/										>
1	EJESSAPP	J0119408	QUEUED		PRINT		A	1	2 T		AB	S913	277,946
2	EJESŞLDL	J0119405	QUEUED		PRINT		A	1	21		CC	0000	990
3	EJESŞLDL	J0119404	QUEUED		PRINT		Ĥ	1	2 T		CC	0020	373
4	EDJX2	T0119401	QUEUED		PRINT			1	2 T		AB	S622	3,095
5	EDJXADM	T0118707	QUEUED		PRINT			1	2 T		CC	0000	25
6	EDJXADM	T0117763	QUEUED		PRINT			1	2 T		CC	0000	22
7	EJES\$PDL	J0117761	QUEUED		PRINT		A	1	2 T		CC	0000	184
8	EJES\$PDL	J0117760	QUEUED		PRINT		A	1	2 T		CC	0002	141
9	EDJXADM	T0117755	QUEUED		PRINT			1	2 T		CC	0000	32
10	EDJXADM	T0116639	QUEUED		PRINT			1	2 T		AB	S622	342
11	MACREN	J0116638	QUEUED		PRINT		R	1	2 T		CC	0000	326
12	MACDEL	J0116637	QUEUED		PRINT		R	1	2 T		CC	0000	326
13	MACCOPY	J0116636	QUEUED		PRINT		R	1	2 T		CC	0004	264
14	SMPOREC	J0116634	QUEUED		PRINT		Α	1	2 T		CC	0000	50,753
15	EDJXADM	T0116633	QUEUED		PRINT			1	2 T		CC	0000	30
16	BUILDMCS	J0114930	QUEUED		PRINT		Α	1	821		CC	0000	326
17	EDJXADM	T0114929	QUEUED		PRINT			1	822		CC	0000	24
18	EDJX1	T0114928	QUEUED		PRINT			1	823		CC	0000	27
19	EDJXADM	T0114927	QUEUED		PRINT			1	820		CC	0000	22
20	BUILDMCS	J0114926	QUEUED		PRINT		Α	1	818		CC	0000	323
21	ANRACCEP	J0114924	QUEUED		PRINT		Α	1	817		CC	0000	1,147
22	ANRACCCK	J0114923	QUEUED		PRINT		Α	1	816		CC	0000	801
23	ANRACCCK	J0114922	QUEUED		PRINT		Α	1	815		CC	0012	820
24	ANRACCCK	J0114921	QUEUED		PRINT		Α	1	814		CC	0012	820
F1=Help	o F3=Ex	xit F4	=Prompt	F5=	Rfind	F6=B	ook	¢ (F7:	=Up		F8=Do	วพท
F9=Swap	o F10=Le	eft F11:	=Right	F12=	Cancel								

SHARE

Complete your sessions evaluation online at SHARE.org/AnaheimEval

2012



JES3 Output Descriptor Modify

Use A line command on OUTDESC display to access.
 Make changes as needed and press <Enter>.

<u>J</u> obs <u>R</u> esou	urces <u>D</u> evices	<u>T</u> ools	<u>F</u> ilter	<u>V</u> iew	<u>O</u> ptions	<u>H</u> elp	
OUTDESCM LIST Command ===> Cmd Field	C J0282877 Value	MODIFY	Y DD=S	YSPRIN	Т	Row 1 Scroll ==	of 171 => PAGE
ADDRESS ADDRESS ADDRESS ADDRESS AFPPARMS AFPSTATS	831 Parkview D El Segundo, CA	rive Nor 90245	rth				
BUILDING BURST CKPTLINE CKPTPAGE CKPTSEC COLORMAP COMPACT	Headquarters						
COMSETUP COPYCNT DEPT DEST FORMDEF FORMLEN FSSDATA INTRAY	Research & Dev	elopmen	t				
MAILBCC	edjaffe@phoeni	xsoftwar	re.com				

2012



Operlog Message Attributes

 Formats messages using original 3270 attributes. Toggle this setting using the LOGATTR command, the Options panel, or the Set log options... pull-down under ISPF.

OPERLOG PHXHQ Command ===>		2012/02/20 Scroll ===> PAGE
Current Find Text:		
<3+4+	5+-	6+7+8+9+10+>
09:15:36.84 DFS	00000090	IOEX18217I Sharename FRED2 on device /dev/ufs105
09:15:36.89 DFS	00000090	IOEX18217I Sharename PHX_KEY101 on device /dev/u
517	00000090	successfully.
09:15:37.14 DFS	00000090	IOEP01100I DFS daemon EXPORT has stopped.
09:15:37.17 C1CONDOR	00000090	IGA030I: OPEN FAILURE, DDNAME=GAVLOG, FILE DISAB
09:15:37.37 CICSA	00000090	+DFHAP1211I CICA1 Language Environment initializ
09:15:37.80 C1CONDOR	00000090	IGA052I: THE SPECIFIED APPLID IS CURRENTLY BEING
09:15:37.80 C1CONDOR	00000090	*1254 IGA053I: PHXT1 WAS REJECTED, ENTER ANOTH
09:15:38.14 CICSA	00000090	+DFHWB1007 CICA1 Initializing CICS Web environme
09:15:38.92 CICSA	00000090	+DFHWB1008 CICA1 CICS Web environment initializa
09:15:39.24 CICSA	00000090	+DFHEC1006I CICA1 Event processing status is STA
09:15:39.50 INTERNAL	00000290	F VTAM,USERVAR,ID=CICA,VALUE=CICA1
09:15:39.54 INTERNAL	00000090	IST0971 MODIFY ACCEPTED
09:15:39.56 INTERNAL	00000090	IST12831 MODIFY USERVAR COMMAND COMPLETE 610
610	00000090	IST8131 USERVAR CICA CHANGED FROM CICA1 TO CICA1
610	00000090	ISI3141 END
09:15:39.59 CICSA	00000090	+DFHSJ01021 CICA1 SJ domain initialization has e
09:15:39.60 CICSA	00000090	+DFHEJ0102 CICA1 Enterprise Java domain initiali
09:15:39.62 CICSA	00000090	+DFHS11517 CICA1 Control is being given to CICS.
09:15:39.62 CICSA	00000090	+DFHDH01011 CICA1 Document domain initialization
09:15:46.01 C4CONDOR		IGH0091: PHUENIX (RELEASE 20.1) IS WAITING FOR W
complete your sessions crutation onth	ine at ShirthElois/	•••• In Ananeir



z/OS UNIX File Extract

 Extract any scrollable data to a z/OS UNIX file. You may create new, overlay, or append to existing files.

Command ===> _	Extract Parameters	Z/OS UNIX
For Extract to z/OS UNIX File Path name ===> /u/edjx	System: 2	
Path option ===> NEW File data ===> TEXT Page eject ===> NO Record format ===> Record length ===> Owner perms ===> RW	(NEW, REPLACE, APPEND) (TEXT, BINARY, or blank) (YES or NO to force ejec ('*' to derive from data (R, RW, or blank)	t for each dataset) a)
PATHSEL /u/edjx1 Command ===> Cmd Type Permission Owner	Group FileName	Row 1 of 17 Scroll ===> PAGE



Other Extract Enhancements

- DASD space units are now in tracks, cylinders, records, blocks, bytes, kilobytes or megabytes.
- DASD data set type is now LIB (a PDSE), PDS, BASIC, LARGE, EXTP (extended preferred), EXTR (extended required), or blank (unspecified).
- DASD extended attributes now allow extract data sets to be made eligible for EAV residency. (EATTR=OPT)

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 ===>	(NO, OPT or blank)



Java Application Programming Interface

- Provide unauthorized-program access from the Java Language to the programming facilities available through the (E)JES API.
- Complements existing APIs for REXX and procedural languages (HLASM, C/C++, COBOL, PL/I, etc.).
- Provided Javadoc documents all available classes and their members.
- Authored in Java with C++ JNI routines leveraging EJESAPI and EJESAPI4 for procedural languages.
- Eligible for zAAP or zIIP redirection when the Java code is running and for zIIP redirection when the core (E)JES code is running.



Java to Create CSV File Showing Top 20 Spool Consumers



000001 import java.util.*; 000002 import com.phoenixsoftware.ejes.*; 000003 import static com.phoen<u>ixsoftwa</u>re.ejes.<u>EjesApi.Column</u>; 0000004 public class sample01 static final int MAX_TOP = 20;
public static vold main(String[] args) 000005 000006 Map(String,Column) cm = new HashMap(String,Column)(); 000007 000008 Map<String,Long> map = new HashMap<String,Long>(); String key = null; Long value = null; 000009 000010 /* Request enumeration of STATUS display */
EjesApi api = new EjesApi("sres;st", 100); 000011 000012 if (api.returnCode <= 4) {
 String [] columnList = { "OWNER", "RECORDS" };</pre> 000013 000014 while (api.returnCode <= 4) {</pre> 000015 Column[][] tabular = api.enumerateColumns(columnList); 000016 /* Calculate sum of all records per user */ 000017 000018 if (tabular != null) { for (Column[] row : tabular) { 000019 for (Column col : row)
 cm.put(col.columnName, col); 000020 000021 key = cm.get("OWNER").columnText; 000022 value = cm.get("RECORDS").columnValue; Long r = map.get(key); map.put(key, r == null ? value : r + value); 000023 000024 000025 } 000026 000027 /* Get next enumeration set */ 000028 000029 if (api.returnCode != 0) 000030 break; api.runCommand(""); 000031 000032 000033 /* Create sortable string List */ List<String> list = new ArrayList<String>(map.size()); 000034 Iterator (Map.Entry(String,Long)) m = map.entrySet().iterator
while (m.hasNext()) { 000035 000036 Map.Entry(String,Long) entry = m.next();
Formatter f = new Formatter();
f.format("%,25d %-10,10s", entry.getValue(), entry.getK 000037 000038 000039 000040 list.add(f.toString()); 000041 Collections.sort(list, Collections.reverseOrder()); 000042 000043 /* Output top spool users */ ListIterator(String) i = list.listIterator(); System.out.printf("%-10.10s %25.25s\n", "Owner", "Records" for (int n = 0 ; n < MAX_TOP && i.hasNext() ; n++) { 000044 000045 000046 String s = i.next();
System.out.printf("%-10.10s ", s.substring(26).trim())
System.out.printf("%25.25s\n", s.substring(0, 25).tri 000047 000048 000049 000050 000051 api.free(); m 000052 000053

Result After Opening CSV File With OpenOffice.org and Inserting a Chart





2012

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



eim



Other V4R8 Enhancements of Note

- Parameters column on HCHECK now overtypeable.
- Support for work-dependent enclaves on ENCLAVE.
- Full EAV support for SPOOL access as well new EAV column and displaying LoCylTrk and HiCylTrk on SPVOL in EAV format.
- Interface to provide Queue and Status columns from Thruput Manager® for customers that use this product.
- **MbrAff** column on JES2 CLASS display.
- TP Monitor password phrase support.
- Performance enhancements with new hardware-assisted sort and other significant path length reductions.





V5R1 Highlights



Complete your sessions evaluation online at SHARE.org/AnaheimEval



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).

Cmd	JobName	JobID	,IP	PrMode	Forms	FCB	UCS	Flsh ExtWtr	Device
<u> </u>	DOWNPLEX	S0100370	N			Lo	ng Ov	ertype	
	PSCODEST ROURSWB	J0095800 J0095753	N N	Overty	ype data	tor c	olumn	: PrMode	
			N N	==> <u>L</u>	INE				
			N						
		50071000	N	F3=Ca	ancel				
	EDJVHDUJ	20011030	N	LINE	STD	****	****	****	
			N		STD STD	****	****	**** ****	
	,								•••• In Ananeir

2012



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.

ACTIVITY MVS	70 Pagin	g 0 <mark>,</mark> SIO 2	22 CPU 43	3 zI	[P 2				Row 7 a	of 418
Command ===> Scroll ===> PAGE										
FILTER=MaskC	FILTER=MaskChar=*%,AcPlex=JES,SysName=*,PSelect=(Type=ALL),XSelect=(),Filter=()									
OPTION=CRDel	ay=1,Curs	or=(Retain	n=ON,Seled	ct=0FF	F),Co	onf:	irm=ON,[)ateFmt=	YYYY/M	1/DD, 🔰
OPTION=NumCh	ar=',.',0	vrType=0N,	,SelCmd=S	,Snap=	=0N,	Гор	Sel=OFF,	,XSelect	t=NOSAVE	Ξ
VIEW=Arrange	=DEFAULT,	Detail=MIN	V,Sort=TIN	MEZD,	[opF:	ind=	=OFF			
Cmd JobName	StepName	ProcStep	JobID	ASID	Pos	DP	Real	Paging	ExCP	CPU%
	/									>
EJESC480	EJESC480	EJESCAS	S0282774	006F	N/S	F6	136MB	. 00	.00	.00
EJESC480	EJESC480	EJESCAS	S0282773	013D	N/S	F6	9MB	. 00	.00	.08
EJESC510	EJESC510	FJESCAS	S0120597	0030	NZS	F6	1 M B	. 00	. 00	. 00 🔟
	C0C0C010	20200110								



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.

ENCL Comm	AVE PHXHQ(MVS70) and ===>)		*	*	f Scrol	Row 1 of 16 l ===> PAGE	
Cmd	Token	User /	CPU-Time	zIIP-Time	zICP-Time	SrvClass	Workload Re	
	00000040000000BC	EJES	00:14.47	00:14.45	00:00.01	SERVER1	SERVER	
	0000002000000001		00:00.00	00:00.00	00:00.00	SYSTEM	SYSTEM	
	0000002400000002		00:00.00	00:00.00	00:00.00	SYSSTC	SYSTEM	
	0000002800000089	PHOENIX	00:08.11	00:07.46	00:00.64	SERVER3	SERVER	
	0000003400000BA	EJES	00:36.75	00:36.65	00:00.10	SERVER1	SERVER	
	0000002C00000004	EJES	00:43.28	00:43.10	00:00.18	SERVER1	SERVER	
	0000003000000BB	EJES	00:25.22	00:25.14	00:00.07	SERVER1	SERVER	



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 Command	Row 1 of 10 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	Θ	00000000	00000000	2012/02/20	15:52:08
60	SUCCESSFUL	Θ	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	000000000	2012/02/20	12:52:08
******	*****	*****	Bottom of	Data ***>	*****	*****





Action Messages on JES2 Syslog Browser

• Previously this support existed for JES3 only.

SYSLOG Command Current	MVSA0/SA0_S0: ===> Find Text:	118897(SYSL	_0G06)	2012/02	/19 10:02	Line	126496 Scroll Dataset	of 126534 ===> PAGE 58 of 60
(3+		5 +	-6	+7-	+8-	+	9+-	10+
10:02:28	.99 INTERNAL	00000280	IXC307	7I STOP I	PATHOUT RE	QUEST FO	R DEVIC	E 5022 CO
	347	00000280	SUCCES	SSFULLY:	SYSPLEX P	ARTITION	IING OF	LOCAL SYS
10:02:29	.04 INTERNAL	00000280	IXC307	7I STOP	PATHIN REQ	UEST FOR	DEVICE	4011 COM
	351	00000280	SUCCES	SFULLY:	SYSPLEX P	ARTITION	IING OF	LOCAL SYS
10:05:08	.01 SYSLOG	00000000	IEE042	21 SYSTE	M LOG DATA	SET INI	TIALIZE	D
00:01:01	.54 SYSLOG	00000000	IEE042	21 SYSTE	M LOG DATA	SET INI	TIALIZE	D
17:48:04	.81 INTERNAL	00000290	D C,HC	C,L=Z				
17:48:04	.83 INTERNAL	00000090	CNZ416	00I 17.4	B.04 CONSO	LE DISPL	AY 801	
	801	00000090	CONSOL	ES MATC	HING COMMA	ND: D C,	HC	
	801	00000090	MSG:CU	JRR=0	LIM=5000	RPLY: CUR	R=3	LIM=20
	801	00000090	HARDCO	DPY LOG	=(SYSLOG,0	PERLOG)	CMDLEV	'EL=CMDS
	801	00000090		ROUT = (1)	-10,12-13,	15-128)		
	801	00000090	LOG BU	JFFERS	N USE: 0	LÓG	BUFFER	LIMIT: 1
10.04.44	*12	242 ISTEXC2	200 - C	OYN COMM	ANDS MAY B	E ENTERE	D	
09.52.18	*12	233 ISTEXC2	200 - C	OYN COMM	ANDS MAY B	E ENTERE	D	
09.37.17	*12	224 ISTEXC2	200 - C	OYN COMM	ANDS MAY B	E ENTERE	D	
07.05.09	DFHSM70 *I	CH409I 878-	-000 AE	BEND DUR	ING RACHEC	K PROCES	SING	
07.05.09	DFHSM70 *I	CH409I 878-	-000 AE	BEND DUR	ING RACHEC	K PROCES	SING	
04.51.04	*10	DS003A 1501	I, INTER	VENTION	REQUIRED,	READY T	HE LOAD	ER
09.57.01	IOSHMCTL *I	DSHM0803E F	luperSu	Jap Disa	bled			
09.53.33	JES3 ×I	AT1005 SPOC)Ĺ PART	TITION P	ARTB IS	FULL AN	ID OVERF	LOWED INT
17.52.10	*H	ZSOOO3E CHE	ECK(IBM	1XCF,XCF	_CDS_SPOF)	:		
	732 IX	XCH0242E On	ne or m	nore cou	ple data s	ets have	e a sinc	le point
17.37.08	*H2	ZSOOO3E CHE	ECK(IBM	1XCF,XCF	_CDS_SPOF)	:		
F1=Help	F3=Exit	F5=Rfind	F6=	=Book	F7=Up	F8=Dow	in FS)=Swap
F10=Left	F11=Right	F12=Cance	e l					



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.SEJ	EMAC (E	EJESAPIA) - 0:	L.00 Columns 00001 00072
Comman	d ===>			Scroll ===> <u>CSR</u>
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	Н	Length of data set name
000342	EJESApiSdsbDSN	DS	CL44	Data set name (blank padded)
000343	EJESApiSdsbEntLn@	EQU	*-EJESApiSds	>Ent 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	EJESApiSdsbRecfml	EQU	B'11000000'	.RECFM=U
000348	EJESApiSdsbRecfmF	EQU	B'10000000'	.RECFM=F
000349	EJESApiSdsbRecfmV	EQU	B'01000000'	.RECFM=V
000350	EJESApiSdsbRecfmE	EQU	B'00010000'	.RECFM=?B
000351	EJESApiSdsbRecfmS	EQU	B'00001000'	.RECFM=?S
000352	EJESApiSdsbRecfmf	EQU	B'00000100'	.RECFM=?A
000353	EJESApiSdsbRecfm™	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

Jobs f	Resources Devices Tools Filter View Options He		NJE	
STATUS	2,370S 4X 276W 5H 0T 16,912,660 Records	SC	OCKET:	S
Command Cmd Row	File Contacts Transport	or	XMITI	D
.m 152	E-Mail Parameters		00	759
153	E-Mail Information: Transport: NJE		00	759
155 156	From <u>edjaffe@phoenixsoftware.com</u> To		00	759
157 158	Cc Subject: . <u>Doc uploaded using z/OSMF</u>		00	699 699
159 160	More: Cover Letter:	+	00	699 695
161 162	<u>The problem determination data has been sent to Phoenix Software website using the z/OSMF Incide</u>	<u>o the</u> dent	12 00	651 650
163 164	Log. Cool! 8-) 		00	635 630
165 166			00	608 608
167 168			00 00	592 505
169 170	F1=Help F3=Exit F4=Lookup F7=Vp F8=Dou F9=Swap F12=Cancel	มท	00 00	505 498
171 172 H	IPUTDDDF J0211364 W-OUTPUT OUTSERV 3	2 CC	00 0000	487 468
173 9	SMPFAPK J0211358 W-OUTPUT OUTSERV 1 SHOPCINV J0209971 W-OUTPUT OUTSERV 1	4 CC 2 CC	0012 0000	450 439
175 S 176 E	SMPCREC J0195811 W-OUTPUT OUTSERV 1 EJES\$PRC J0208957 W-OUTPUT OUTSERV 1	14 CC 2 CC	0000	428 426
F1=Help	F3=Exit F7=Up F8=Down F10=Left F11=R:	ight f	-12=Car	11/026
Complete your s			*•••*	in Anaheim

2012



Using Email CAI 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	Filo
155	
156	
157	Enter location and tupe of .CSV contacts file:
158	
159	Host File:
160	Name
161	
162	Workstation File:
163	Name <u>c:\junk\contacts.csv</u>
164	
165	Choose one of the following file formats:
166	<u>2</u> 1. Outlook 2. Thunderbird
167	
168	Uptions:
169	<u>7</u> <u>Overlay existing entries</u>
170	Proce ENTER to import on END to ovit
171	FIERS ENTER TO IMPORT OF END TO EXIL.
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
1A D	24/016
Complete your	sessions evaluation online at SHARE.org/AnaneimEval
	2012



Using Email CAI Address Book Import

Jobs Resources Devices	Tools Filter	View Option	s Help	
STATUS 2,3705 4X 276W	5H OT 16,912,	660 Records		Row 152 of 285
Command				===>_CSR
Cmd Row File Contacts	Iransport			mp Recor
.m 152	E-Mail Param	eters		00 759
153 154 Eile				
155				
156				
157 Enter location a	nd tupe of .CSV	contacts file	:	
158				
159 Host File:				
160 Name				
161	Import	Progress ——		
162 Workstatio	33	%		
163 Name				
164		_		
165 Choose one				
166 2 1. Outlook	2. Ihunderbird			
168 Uptions:	ting ontring			
170 J	ling entries			
171 Press ENTER to i	mont or END to	evit		
172 F1=Heln F3	=Fxit F10=Ac	tions F12=Ca	ncel	
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 🗙 🅜				19/044
Complete your sessions evaluation online at SHAR	LUIS/AllallelliEval			•••• in Anaheir
				2012



Using Email CAI Address Book Import

Jobs	Resources De	evices T	ools Filter View Options Help	
STATUS	2,370S 4X	276W 5H	0T 16,912,660 Records Row	152 of 285
	File Cor	ntacts T	ransport	mp Recor
.m 152			E-Mail Parameters	00 759
154	<u> </u>	ntacts		
156 157	Address Boo	ok Entrie	s Row 1,672 to 1,683	3 of 1,960
158 159	Command ===	=>		
160	Last	First	E-Mail Address	
161	s Scott	Paul	naulscott@nhoenixsoftware.com	
163		Paul	naulscott@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=Ex	it 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 Youir	🔯 reply 🔹 🔯 forward 🔠 archive) 🍐 junk 🗶 delete
subject Trace uploaded to TSM support	5:27 PM
to Youir	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	
IAT6140 JOB ORIGIN FROM GROUP=ANYLOCAL, DSP=IR , DEVICE=INTRDR , 0000	
15:57:55 TAT6853 THE CURRENT DATE IS THURSDAY, US FEB 2011	
15.57.55 INT2000 JOB FTD2TCM (J0162453) SFIFCTED WUG60 SDUCLNSS=BNT	CH
15.57.55 ICH70001I FDJYDDM LAST ACCESS AT 15.56.13 ON THURSDAY FFEDDA	DV 3 2011
15.57.55 IFF4031 FTP2TSM - STARTED - TIME=15.57.55	KI 3, 2011
15:57:59	NS.)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=E	DJXADM
2 // EXEC PGM=FTP, REGION=64M, TIME=NOLIMIT, PARM='(EXIT'	~
3 //SYSPRINT DD SYSOUT=*	
E FTP2T5MJ0162453txt	

2012



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.



Complete your sessions evaluation online at SHARE.org/AnaheimEval



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 Preview



Complete your sessions evaluation online at SHARE.org/AnaheimEval



New Displays



Complete your sessions evaluation online at SHARE.org/AnaheimEval



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.

NET(Comm	CONN nand	PHXHQ Networ ===>	Q Network Connections Status					Row 12 of 18 Scroll ===> <mark>CSR</mark>	
Cmd	Row	Device	Status	Type	ANode	JobName	JobID	JobType	Owner
	12 13 14 15 16 17	HQSOCK3 HQSOCK2 HQSOCK2.OR1 HQSOCK2.OT1 HQSOCK2.JR1 HQSOCK2.JT1	INACTIVE ACTIVE INACTIVE INACTIVE INACTIVE INACTIVE	TCP TCP	VM80 PHXHQ2				>
								****	III Ananeim


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.







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.

<u>J</u> obs	<u>R</u> esources	s <u>D</u> evices	<u>T</u> ools <u>F</u>	ilter	<u>V</u> iew	<u>O</u> pti	ons <u>H</u> elp)
SYSCLS Comman	Row 1 of 36 Scroll ===> <mark>CSR</mark>							
Cmd C	Class-Type	Normal Disp	Abnorml	Disp	Trunc	Tkcel	Sysname	
	PRINT	WRITE	WRITE		YES	YES	MVS70	
В	PUNCH	WRITE	WRITE		YES	YES	MVS70	
С	PRINT	WRITE	WRITE		YES	YES	MVS70	
D	PRINT	WRITE	WRITE		YES	YES	MVS70	
E	PRINT	WRITE	WRITE		YES	YES	MVS70	
F	PRINT	WRITE	WRITE		YES	YES	MVS70	
G	PRINT	WRITE	WRITE		YES	YES	MVS70	
Н	PRINT	HOLD	HOLD		YES	YES	MVS70	



Enhancements To Existing Displays



"Smart" Help Pop-ups for Status and MaxComp Columns



STAT	TUS 3,22	29S 4X (506W 7H 1	LT 25,976	5,367	Recor	ds	Ro	w 22 of 618
Cmd	JobName	JID	Status /	Proces	C JP	Pos M	axComp	Records P	ages H-OS
	COPYHFS RCVMAINT AMBLIST EJESXPIR EJESX3G EJESX3U	J0254403 J0254474 J0254600 J0254689 J0254962 J0254963	W-OUTPUT W-OUTPUT W-OUTPUT W-OUTPUT W-OUTPUT W-OUTPUT	OUTSER OUTSER OUTSER OUTSER OUTSER OUTSER	A 2 V Q A R 4	<u>A</u> The j outpu C	B S722 Al ob tern t limi C 0016	999,142 BEND S722 minated be ts were ex 76	0 cause the ceeded. 0
STA	TUS 2,71	12S 463X	2,100W 3	307H 41T	11,6	562,10	9 Reco	rds Row	314 of 2911
Com	mand ===>							Scrol	l ===> CSR
Cmd	JobName	JobID	Status	Queue	AMbr	C JP	Pos WP	os MaxComp) Records Pag
	LISTCAT8 LISTCAT8 LISTCAT8 LISTCAT8 LISTCAT8	J0038165 J0038166 J0038167 J0038167 J0038168	U-SCHENV Schedul not in	EXEC W-SCHENV ling envir proper st	ronmer tate.	A 9	1 2 3 4	1 2 3 4	·> 0 0 0 0
	LISTCAT8	J0038169					5	5	0
	LISTCAT8	J0038170	W-SCHENV	EXEC		A 9	6	6	0
STA Com Cmd	TUS 2,7: mand ===> JobName	125 463X JobID	2,100W 3 Status	307H 41T	11,6 AMbr	62,10 C JP	9 Reco Pos WP	rds Row 2 Scrol os MaxComp	890 of 2911 l ===> <mark>CSR</mark> Records Pag
	CFZCIM SYSLOG JES3 DROURK3 DROURK3 DROURK3 EJES\$LDL EJES\$LDL	S0118526 S0118514 S0119129 T0119371 T0119386 T0119399 J0119404 J0119405	QUEUED QUEUED QUEUED QUEUED QUEUED QUEUED QUEUED QUEUED	PRINT PRINT PRINT PRINT PRINT PRINT PRINT PRINT	The erro Syst The	S 1 job t or tha tems S reaso A 1	2K ABE ermina t occu ervice n code 2K	AB SEC6 ND SEC6 ted due to rred in a s callable indicates CC 0000	
									2012

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.

PSTATUS Command	PHXHQ2(\$ ===>	S70)					Scro	Row :	1 of 72 => <mark>CSR</mark>
Cmd	JobName	JobID	Stat	tus		Owner	ASID	State	CPU%
	BPXOINIT	STC	Runr	ning		OMVS	0047	MR	. 00
	RESOLVER	STC	Runr	ning		TCPIP	0027	1R	. 00
		- Line Co	mmand	ds ——		TCPIP	0027	1R	. 00
AC	Activity		UK	Kill	(SIGTERM)	SYSOPER	0028	1R	. 00
D	Display A	Process	UZ	Force	(SIGKILL)	OMVS	0000	1L	. 00
Ka	MVS Cance	el*	UZZ	Super I	kill	TCPIP	0026	MR	. 10
KDa	MVS Cance	el/Dump*	Unn	Send a	ny signal*	SYSOPER	003E	1R	1.22
UD	Dump (SI	IGDUMP)	Uxx	Send a	ny signal*	SSHDAEM	0030	1FI	. 00
						SYSOPER	0019	1F	. 00
Complete vo	our sessions evalua	ation online at SH	ARE.org/	/AnaheimEval				. 20	ARC
									іп Апапеіт



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

HOL[Comm) 3,37 1and ===>	74S 551J	OT 27,	,958,505 Red	cords (O Scho	ed) Ro Scrol	ow 1 of 568 l ===> <mark>CSR</mark>
Cmd	JobName	JobID	Bytes	CrDate	CrTime	Age	PrMode IF
< —		,	/				>
	EDJX2	J0128778	3,467K	2012/07/09	12:32:43.48	01-21:08:50.64	N
	TSMRMM	J0313611	61,260	2012/05/12	15:00:00.60	59-18:41:33.52	LINE N
	ACCMAINT	J0313686	775,960	2012/05/12	22:18:48.25	59-11:22:45.87	LINE N
	SMPPAPP	J0313695	69,428	2012/05/12	23:10:37.28	59-10:30:56.84	LINE N
	APPMAINT	J0313696	1,082K	2012/05/12	23:11:10.83	59-10:30:23.29	LINE N



Hold Data Sets Display

• The following columns were added:

Default Title	Description	Overtype
Step	Job step number	No
Program	Job step program name	No
Bytes	Number of output bytes	No
Age	Time since output was created	No

DSHOLD ACCMAIN Command ===>		MAINT	J0313686	9,379	Records		Row 1 Scroll ===>		
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	

Complete your sessions evaluation online at SHARE.org/AnaheimEval

Anaheim



Output/Writer 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

WRITER 3,375S 9J OT 179,480 Records (O Sched) Row 1 of Communed and Sched									
Command ===> Scroll ==									
Cmd	JobName	JobID	Bytes	CrDate	CrTime	Age	IP W-OSE		
< —		,	/				— —		
	LOGSAVAO	J0B92807	0	2010/07/17	08:34:26.42	0725-01:20:20.80	N 1		
	LOGSAVAO	J0B92810	0	2010/07/17	08:34:26.42	0725-01:20:20.80	N 1		
	LOGSAVAO	J0B92811	0	2010/07/17	08:34:37.95	0725-01:20:09.26	N 2		
	BDTQUEUE	J0247583	4,084	2011/12/04	14:44:08.00	0219-18:10:39.22	N 1		
	BDTQUEUE	J0249084	4,084	2011/12/04	14:44:08.00	0219-18:10:39.22	N 1		



Output/Writer Data Sets Display

• The following columns were added:

Default Title	t Title Description				
Step	Job step number	No			
Program	Job step program name	No			
Bytes	Number of output bytes	No			
Age	Time since output was created	No			

DSHOLD Command		EJES20 ===>	EJES20 J03: ===> _		, 422, 983	Records		Row 4 of 187 Scroll ===> CSR		
Cmd	d Row DDName		Step	Program	Bytes	CrDate	CrTime	Age	С	
< —		·/	/						->	
	4	SYSPRINT	1	SSIVLF	4,084	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	5	SYSPRINT	2	CAMDEFN	555,424	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	6	SYSPRINT	3	IEWBLINK	8,168	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	7	SYSPRINT	4	CAMDEFN	637,104	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	8	SYSPRINT	5	IEWBLINK	8,168	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	9	SYSPRINT	6	CAMDEFN	130,688	2012/07/09	15:42:27.32	03-17:43:37.25	Е	
	10	SYSPRINT	7	IEWBLINK	8,168	2012/07/09	15:42:27.32	03-17:43:37.25	Е	



Job Status Display

• The following column was added for JES3:

Default Title	Description	Overtype
Bytes	Number of output bytes	No

STATUS Command		3,300S ===>	0X 268W 9H 0T 20,244,707 Records							Row 1 of 277 Scroll ===> CSR		
Cmd	Row	JobName	JobID	Lines		Pages	Bytes	Pos	H-OSE	W-OSE	B-OSE	T-0SE
<				/								>
	1	LETTRGEN	J0333446		215	0	65,344		5	0	0	0
	2	EDJX2	T0332928	З,	360	0	14,155K		1	0	0	0
	3	MIGRATE	J0332548		155	0	65,344		5	0	0	0
	4	EJESTS01	J0332545	20,	511	Θ	2,132K		7	0	0	0
	5	EJESTS01	J0332544	20,	121	Θ	2,111K		6	0	0	0
	6	GARMGR	J0332543	2,	126	Θ	228,704		2	0	0	0
	7	COPYEJES	J0332472	6,	100	0	396,148		11	0	0	0
	8	EJES40	J0332462	78,	948	0	5,734K		27	0	0	0
	9	EJES50	J0332463	З,	379	0	240,956		11	0	0	0
	10	EJES20	J0332457	1,418,	384	0	162M		187	0	0	0
	11	EJES21	J0332458	1,047,	048	0	115M		190	0	0	0

Complete your sessions evaluation online at SHARE.org/AnaheimEval

2012

aheim



Data Set Status Display

• The following columns were added:

Default Title	Description	Overtype
Step	Job step number	No
Program	Job step program name	No
Bytes	Number of output bytes	No
Age	Time since output was created	No

DSS ⁻ Comr	TAT LIS [.] mand ===>	TCAT	J0128804	59,413	3 Records	Row 1 of Scroll ===> <mark>CS</mark>				
Cmd	DDName	Step	Program	Bytes	CrDate	CrTime	Age	C Dest		
	JESMSGLG	/		574	2012/07/10	11:36:12.95	02-21:58:56.24	T LOCA		
	JESJCL			934	2012/07/10	11:36:12.95	02-21:58:56.24	T LOCA		
	JESYSMSG			155	2012/07/10	11:36:12.95	02-21:58:56.24	T LOCA		
	SYSPRINT	1	IDCAMS	599,866	2012/07/10	11:36:15.05	02-21:58:54.14	T LOCA		
	SYSPRINT	2	IDCAMS	1,713	2012/07/10	11:36:19.25	02-21:58:49.95	T LOCA		
	SYSPRINT	3	IDCAMS	2,703K	2012/07/10	11:36:19.25	02-21:58:49.95	T LOCA		





Job Zero Data Sets Display

The following columns were added:

Default Title	Description					
CrDate	CrDate Date output was added to queue					
CrTime	Time output was added to queue	No				
Age	Time since output was created	No				







FSS Display

• The following line command was added:

Command	Function
L	Fail the device. This single character line command replaces FAIL to facilitate additional options consistent with the Network Servers display. FAIL is still available as an alias.

Jo	bs <u>R</u> esou	urces	<u>D</u> evices	<u>T</u> ools <u>F</u> :	ilter <u>V</u> i	ew <u>O</u>	otion	s <u>H</u> e	lp		
SS Comm	S PHXHQ Functional Subsystem Status Row 1 of 7 mmand ===> Scroll ===> CSR										
Cmd	FSS	Туре	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	INACTIV	E	MVS60			YES	APSWFSS1		
-	- Line Co	ommand	s —	E	MVS60			YES	APSWFSS2		
	AC Acti	ivity		E	MVS60			YES	APSWFSS3		
	D Disp	olay ⁻		E	MVS70			YES	APSWFSS4		
	K MVS	Cance	ι	E	MVS60			YES	NPFFSS1		
	L Fail			**** Botto	om of Dat	a ***	****	****	******	*******	
	PR Prim	nter/P	unch								



Printer/Punch Display

• The following line command was added for JES3:

	Command Functio			ו					
L Fail the addition available				levice. T I options as an a	This single chais consistent v lias.	aracter line c vith the Netw	omma ork Se	nd replaces FAIL to facilitat rvers display. FAIL is still	te
PRTI Comi Cmd	PUN mand = Devi	6Av OA ===> Name De	IC OW	OS (Statu	OIntv OF us Tup Co	Pnd 160 pntrolli	ff <s< th=""><th>Setup> Sci ob Current-Prod</th><th>Row 1 of 22 roll ===> <mark>CSR</mark> cessing-DataSet</th></s<>	Setup> Sci ob Current-Prod	Row 1 of 22 roll ===> <mark>CSR</mark> cessing-DataSet
	PRO	//	T1403	OFFLI	N DYN				>
	AC B* C CG CJ CT D DL F*	FSS act Backspa Cancel Cancel Cancel Cancel Display Display Forward	ivity ce Grp Job + Term (long) space	K MOFF MON OFF ON RC RG RH	ine Comma MVS Cano Vary of Vary on Vary of Restart Restart Restart Restart	ands cel FSS f main main fline line at Ckpt Grp + Hold	RL RN RSC RT S ST X XC XR	Restart + Load Restart at Note Restart sched. Restart + Term Start Start + Term Call Call (NAV=C) Call (NAV=R) Force ESS wtr	



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 or Command ===> Scroll ===> (
Cmd	Token	CPU-Time	zIIP-Time	zICP-Time	SrvClass	Workload	ResGroup SP				
< —	/	$1 \uparrow \uparrow \uparrow \uparrow \downarrow \uparrow \uparrow \uparrow \uparrow \uparrow \uparrow \downarrow \uparrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow $					>				
	000000200000004	07:52.29	07:48.77	00:03.52	SERVER1	SERVER	1				
	000000440000031D	00:09.15	00:09.08	00:00.07	SERVER1	SERVER	1				
	000000300000031E	00:08.52	00:08.40	00:00.12	SERVER1	SERVER	1				
	000000280000031B	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				
							2012				

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



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	13.3	37.57	PENDI	NG REQ	UESTS 17	79					
RM=3	IM=)	CEM=0	E	M= 0	RU=	0	IR=0	AMRF		
ID:R/K		r sysi	NAME I	MESSAG	E TEXT						
38	306 1	R MVS	[،] 60	*3806	ISTEXC20	00 -	DYN	COMMANDS	MAY	BE	ENTERED
37	797 1	R MVS	י 70	*3797	ISTEXC20	00 -	DYN	COMMANDS	MAY	BE	ENTERED
37	788 1	R MVS	A0 '	*3788	ISTEXC20	00 -	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.

<u>J</u> obs	<u>R</u> esources	<u>D</u> evices	<u>I</u> ools	<u>F</u> ilter	<u>V</u> iew	<u>O</u> ptions	<u>H</u> elp
ULOG	Console(E	DJX2)					Line 1 of 6
Command	===>						Scroll ===> <mark>CSR</mark>
Current	Find Text:						
< 4 + - +	5+	6+-	7	-+8-	+	9+-	10+11+>
EJES500	Console ED	JX2 wa	s succe	ssfully	activa	ted	
-\$CT (128)	760),P						
\$HASP89	JOB (DROUR	K3)					
\$HASP89	JOB (DROUR	K3) STA	TUS= (AL	IAITING P	URGE),	CLASS=TSU	
\$HASP89	0	PRI	ORITY=1	,SYSAFF=	(ANY),	HOLD= (NON	Ε),
\$HASP89	0	PUR	GE=YES,	CANCEL=Y	'ES		
****	*****	*****	жжжж Во	ottom 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

<u>J</u> ob	s <u>R</u>	esources	<u>D</u> evices	<u>T</u> ools	<u>F</u> ilter	<u>V</u> iew	<u>O</u> ptions	<u>H</u> elp
Enter	Lon	g Command	Below:	Long Co	ommand P	rocess	or	
Place	the /d	cursor o	n a comma e tupe=cf	nd and rm	oress EN	TER to	retrieve	it: More: +
$2 \Rightarrow 3 \Rightarrow 4 \Rightarrow 1$	/d /sl /d	ip set,id asm	=eej1,j=c	1condor	,c=80a,a	=svcd,	end	
5 => 6 =>	7 u 1	net, maj no	ues					
7 => 8 =>								
9 => 10 => 11 =>								
12 => 13 =>								
F1=H	elp	F3=E	xit F	10=Actio	ons F12	=Cance	l	



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.





Administrative Enhancements





- 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.







/**;	* * * * * * * * * * * * * * * * * * * *	***	***********	**/				
/*				*/				
/*	(E) JI	ES (OPTIONS	*/				
/*	*							
/***	* * * * * * * * * * * * * * * * * * * *	***	*******	**/				
/**/	/							
OP	TIONS							
/*	*/							
/*	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	*/				





/*	SAFVLIM (/*	*/
/*	JOBS	<pre>/* Default is: no SAF-based</pre>	*/
/*	DATASETS	<pre>/* view limiting occurs.</pre>	*/
/*	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)	<pre>/* Default is: not used</pre>	*/
/*	DSNMGCL(mgmtclas)	<pre>/* Default is: not used</pre>	*/
/*	DSNSTCL(storclas)	<pre>/* Default is: not used</pre>	*/
/*	VIOUNIT(unitname)	/* Default is: VIO	*/
/*	*/		



Complete your sessions evaluation online at SHARE.org/AnaheimEval

(and more...)





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.





ejespopt ι	<pre>update(psiejopt) summary</pre>	
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 •

SHARE •..• in Anaheim 2012



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



2012

- Under ISPF, invoke the new EJESDLIC REXX exec.
- 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 Cod	e Request Utility	· V5	R2
Command ===> _				
		N	lore:	+
Phoenix Credenti	als:			
Userid	===> edjaffe			
Password	===> iscool			
CPU Serial	===> 09632	(Serial and type of		
CPU Tupe	===> 2098	a licensed machine)		
21				
Contact Informat	ion:			
Your CustNum	===> 01234			
Your Name	===> Ed Jaffe			
	===> Phoenix Soft	ware International		
Your Bhono	> Phoenix 3011	Volo		
	> 310-338-0400			
Your Email	===> edjatte@phoe	nixsoftware.com		
License Request:				
Grace Period	===> 7	[7, 14 or 21]		
Reason	===> 1	<pre>(1=DR Test, 2=Real DR, 3=Machine</pre>	Inoperab	le)
Parameters for L	ocal Work Files:			
Your TSO/E Pr	efix ===> EDJX1			
Unit name	===> SYSALLDA			
F1=Help F3=E	xit F12=Cancel			
	01		•••• III Anan	leim
Parameters for L Your TSO/E Pr Unit name F1=Help F3=E	ocal Work Files: efix ===> EDJX1 ===> SYSALLDA xit F12=Cancel		•••• III Andii 2012	leim



Miscellaneous Changes and Enhancements





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 (10³), millions (10⁶), or billions (10⁹) respectively. These non-standard suffixes were USA-centric, which caused confusion, and made potential future scaling to higher values (e.g., 10¹², 10¹⁵, 10¹⁸) problematic.
- In V5R2, scaled values are formatted with a suffix of K, M, or G to indicate kilo-(10³), mega-(10⁶), or giga-(10⁹) 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.





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 was no such thing as specialty engine offload. Writing well-performing code was the only way to save run-time "hard dollars" for customers.
 - There was/is also always 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. WLC-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 resourceintensive interface available: the JES-provided SSI 80.
- Our internal benchmark testing against the most readilyavailable 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





JES2 Held Output Display





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 readilyavailable 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, <u>none of the CPU resources are</u> <u>eligible for zIIP redirection</u>—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

<u>94%</u>

JOEUSER 00:01.01 00:16.92 00:15.77 00:00.97 00:00.00 DIFFERENCE





Questions?

