

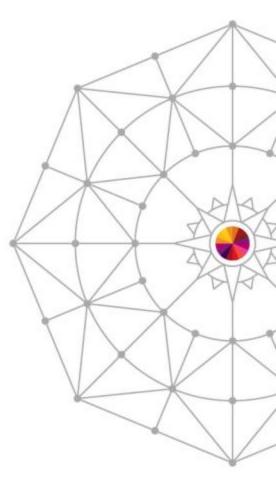


# (E)JES Update

Ed Jaffe Phoenix Software International

11 March 2014 Session Number 15382







#### New Release Support Policy Better Aligns with z/OS Release Strategy



- Prior to April 2014:
  - Release stabilized 3-6 months after becoming N-2
  - Diagnostic technical support (i.e., dump analysis) ends two years after Release Stabilization.
- Regular, annual releases meant these events occurred 2 ½ and 4 ½ years after GA respectively.
- Beginning April 2014:
  - Release stabilized three years after GA.
  - Diagnostic technical support (i.e. dump analysis) end four years after GA.





#### **Compatibility Matrix**

Operating	V5R3	V5R2	V5R1	V4R8
System	09/13	09/12	09/11*	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 was released September 2013.
  - New release required to support z/OS 2.1 JES2
  - z/OS 2.1 JES3 support rolled back to V5R2.
- Based on the new policy, V5R3 will not be stabilized until September 2016. <sup>3</sup>
- \* V5R1 will be stabilized at the end of March 2014 (new policy doesn't take effect until April).

#### Highlights from the (E)JES V5R3 Press Release

- z/OS 2.1 Support
- EJESMAIL utility
- DASD Extract Cataloged Data Set List
- Filtering using system symbols
- InfoCenter Integration
- CA Chorus Software Manager Install/Service
- (E)JES Web Technology Preview

"The timing of the availability and the functionality included in this release should provide a smooth migration path for customers interested in becoming early adopters of the first new version of IBM's flagship operating system for System z in over twelve years." – Ed Jaffe, Chief Technology Officer



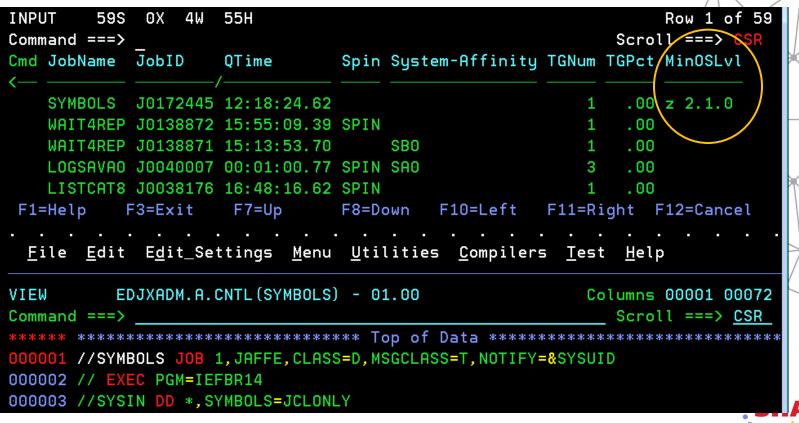


## z/OS 2.1 Support



In Anabeim

- MinOSLvl column and W-OSLVL delay reason
- JES2 eight-character job classes and job class groups
- JES3 support for in-stream data in JCL procedures



Complete your session evaluations online at www.SHARE.org/Anaheim-Eval

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#### **EJESMAIL Utility**

- EJESMAIL is a new REXX exec written to help customers send textual job output via email. It is not part of the Customer Application Infrastructure (CAI), but it does rely on some of the CAI utilities.
- EJESMAIL can be invoked as a TSO/E foreground command, from the z/OS UNIX OMVS command prompt, as a batch job step, or under System REXX.
- EJESMAIL supports the same three mail transport agents supported by the CAI email plug-in and utilities: NJE, direct sockets, and XMITIP (from Lionel Dyck).
- EJESMAIL can be a convenient way for a batch job to email some or all of its own output.



#### **EJESMAIL Usage Examples**

The LISTVTOC output you requested is attached. We hope it provides you with the enlightenment you seek.

Thanks,

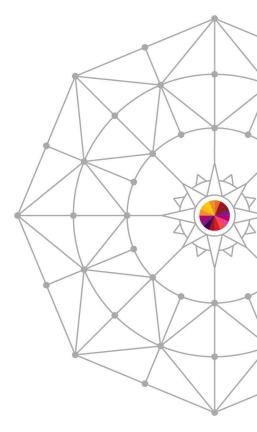
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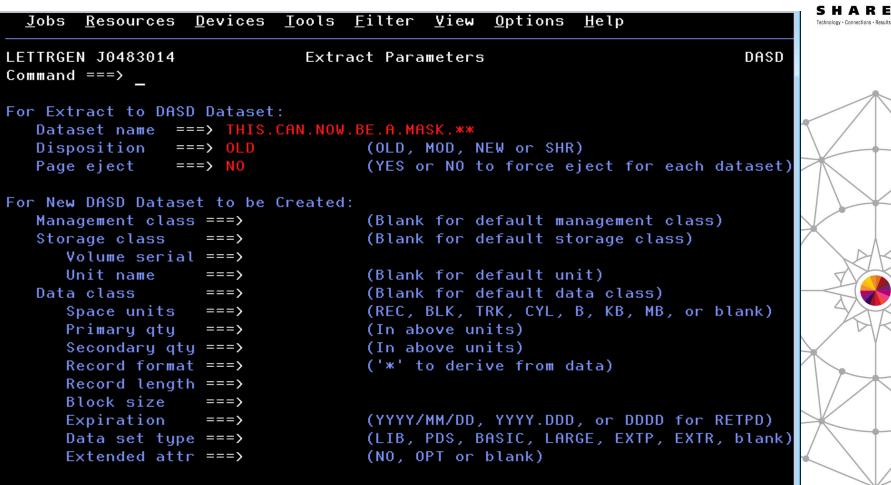
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#### **DASD Extract Cataloged Data Set List**



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



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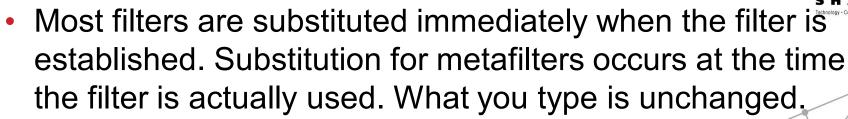
# Enhanced Symbolic Substitution in Filters (Primary, Additional, Metafilters, etc)



- V3R5 introduced Environment Variables—symbols derived from the current environment that can be used in filters
  - These have been renamed to (E)JES Environment Symbols
- Beginning in this release, z/OS system symbols can also be used. If an ampersand remains after substitution of (E)JES environment symbols, a z/OS symbol substitution service is invoked to process the string.
- Both static (e.g., &SYSNAME) and dynamic (e.g., &WDAY) symbols are supported

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# Substitution for Metafilters is Dynamic



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### InfoCenter Search Integration Under ISPF

- F6 is now assigned to the INFO command
  - Previously F6 was assigned to the BOOK command
  - BOOK command moved to F18 (Shift+F6)
- INFO command with no explicitly-specified search words and cursor not positioned results in display of InfoCenter Search pop-up
  - Search words can be entered and search launched
  - InfoCenter parameters pop-up is requested by pressing F6 on InfoCenter Search pop-up
- INFO command with explicitly-specified search words or cursor positioned to word within scrollable area initiates an InfoCenter search



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C To define InfoCenter parameters, press F6.	
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C Search for	
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EA0911 NUCLEUS 1 SELECTED	2
IEA370I MASTER CATALOG SELECTED IS CATALOG.MCATZ.PHXHQ	
IEA009I SYMBOLIC DEFINITIONS WILL BE READ FROM: 008 IEASYMOO	X
IEASYM18	
IEE252I MEMBER IEASYMOO FOUND IN SYS2.PARMLIB	
IEE252I MEMBER IEASYM18 FOUND IN SYS2.PARMLIB	
LEA008I SYSTEM PARMS FOLLOW FOR z/OS 02.01.00 HBB7790 011	
IEASYS18	
IEASYS02	
F1=Help F3=Exit F6=Info F7=Up F8=Down F10=Left	: F11=Right
F12=Cancel	
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### InfoCenter Setup Pop-up

- Accessed via F6 from InfoCenter Search pop-up
- Specify URL of InfoCenter server. If not specified, defaults as follows based upon the current z/OS release:
  - http://publib.boulder.ibm.com/infocenter/zos/v2r1
  - http://publib.boulder.ibm.com/infocenter/zos/v1r/13
  - http://publib.boulder.ibm.com/infocenter/zos/v1r12
  - http://publib.boulder.ibm.com/infocenter/zos/v1r11
- Scope defaults to All Topics
- Browser name and directory not required for Windows



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#### InfoCenter Search Behavior

- If ISPF Workstation Agent (WSA) connected, web browser is launched on local workstation to initiate the InfoCenter search
  - Connect WSA using WSCON command
  - Do not confuse WSA with ISPF C/S; GUI not required
- If WSA not connected, URL is displayed on 3270 screen
  - Most modern 3270 emulators provide "hot spot" support for URLs displayed within the 3270 presentation area
  - Clicking on the URL usually results in a launching of web browser to process the URL



#### InfoCenter Search URL

#### http://publib.boulder.ibm.com/infocenter/zos/v1r13/index.jsp?tab=search&scope=A ll+Topics&searchWord=IEA371I

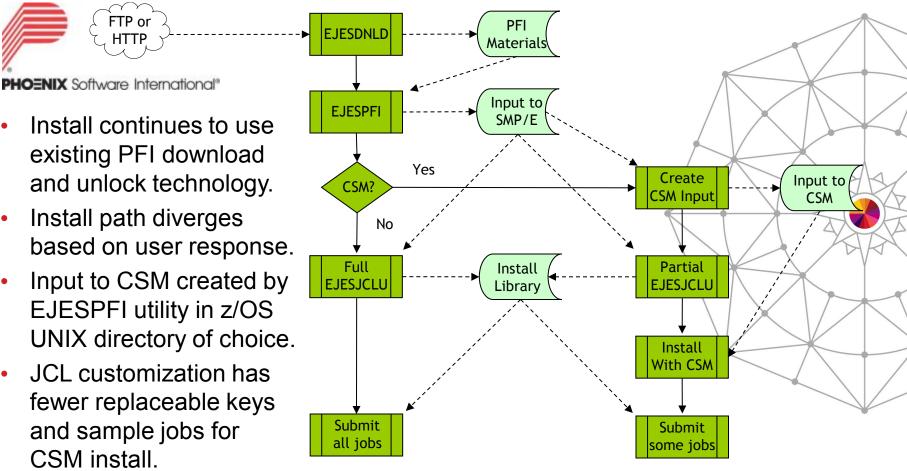
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<ul> <li>Wait State Codes</li> <li>IEA messages</li> </ul>		In the message text:		$ \rangle$
		<b>data-set</b> The data set containing the IPL parameters. The data set is one of the following: • SYS1.PARMLIB		
		• STSLPARMILLD • SYSA.IPLPARM		
		The device number where the IPL parameter data set was located.		
		<b>System action:</b> System initialization continues with the IPL parameters found in data set <i>data-set</i> .		
		Source: System initialization (IPL)		



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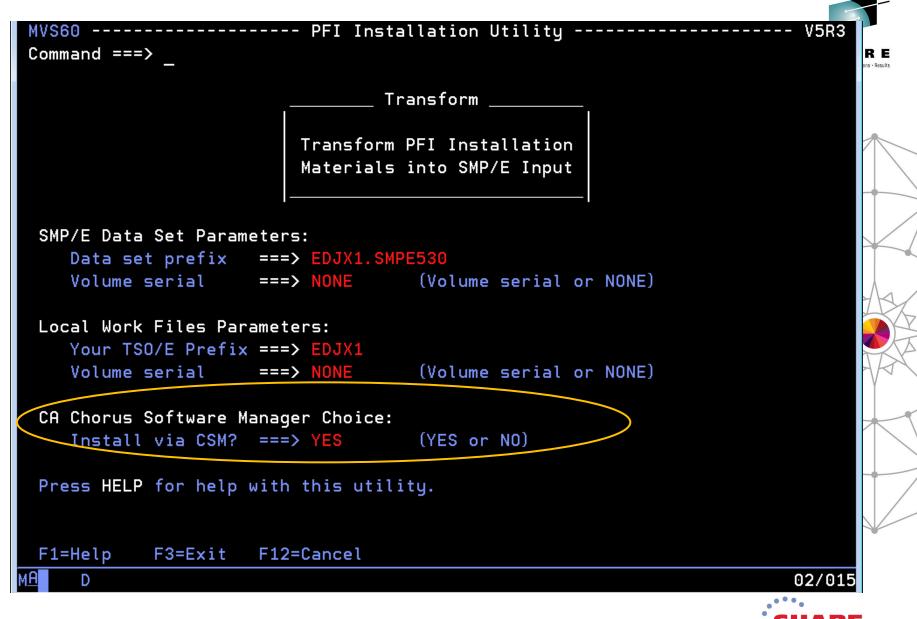
#### Installation via Chorus Software Manager from CA Technologies







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in Anaheim



in Anaheim

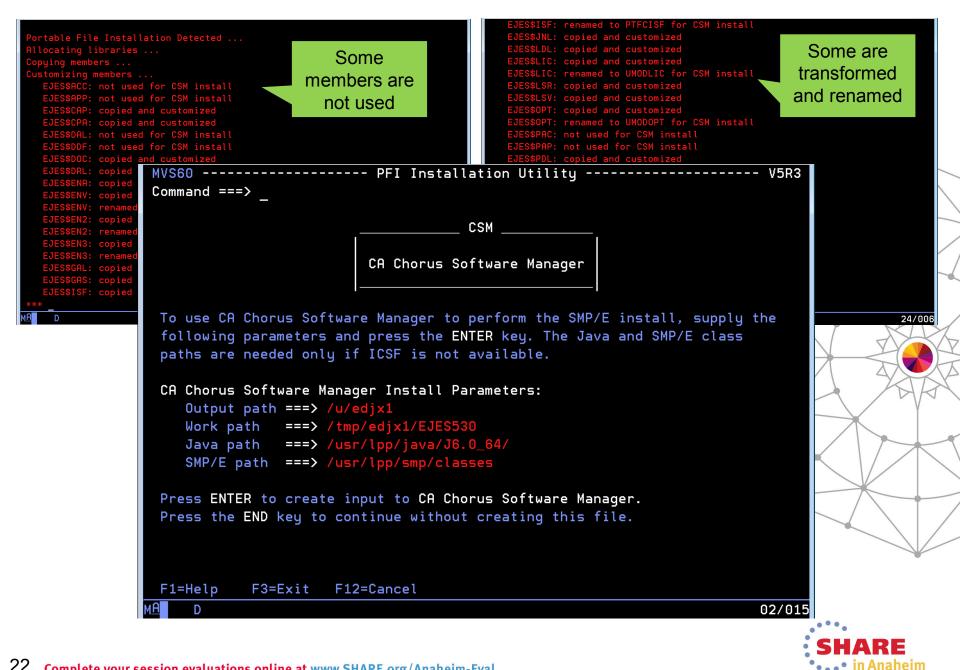




## **PTF and USERMOD Transformation**

- For traditional install, PTFs and USERMODs are delivered as batch JCL.
- When using CSM install, these members are transformed into pure SMP/E input and renamed.
  - PTFs renamed from EJES\$xxx to PTFCxxx
  - USERMODs renamed from EJES\$xxx to UMODxxx

```
//EJES$LIC JOB 1,'LICENSING',
... (JECL and comments)
//PROCLIB JCLLIB ORDER=EDJXADM.SMPE530.INSTAL
// EXEC PROC=EJES$SMP
//SMPCNTL DD *
 SET BDY (GLOBAL) OPTIONS (EJESGOPT)
RECEIVE SYSMODS LIST .
SET BDY (EJESTZN) OPTIONS (EJESGOPT)
APPLY S(EJESLIC) REDO C(ALL) .
//SMPPTFIN DD *
++USERMOD (EJESLIC) REWORK (2013069)
++VER(Z038) FMID(QEJ5300) .
++SRC(EJESLIC) .
* REL=V5R3 GRACE=2013-01-01
*---+---1----+----2----+--
EJESGLIC DATA=001307508CD994D2F181590816EF82FF
EJESGLIC DATA=C4C4E0
EJESGLIC CKSUM=0000021813
END ,
11
++USERMOD (EJESLIC) REWORK (2013069)
++VER(Z038) FMID(OEJ5300) .
++SRC(EJESLIC) .
* REL=V5R3 GRACE=2013-01-01
*---+----4----+----5
EJESGLIC DATA=001307508CD994D2F181590816EF82FF
EJESGLIC DATA=C4C4E0
EJESGLIC CKSUM=0000021813
END ,
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## (E)JES Web Technology Preview

- The (E)JES Web Technology Preview is a browser-based interface to (E)JES implemented in Java.
- The initial release, which we classify as a technology preview, allows many basic (E)JES functions to be performed.
- Our intent is to create a de-Facto interface to (E)JES for users that are uncomfortable navigating traditional 3270 interfaces.
- The REST API backing this technology will provide a framework for the creation of Eclipse plug-ins, mobile applications, and other web services clients.





## (E)JES Web Technology Preview

- (E)JES Web is built on top of the (E)JES Java API.
  - The (E)JES API (all flavors) keeps improving as a result of this effort.
- IBM has given z/OS Java highly-preferential treatment in System z hardware/software design and customer terms and conditions. This trend is expected to continue, making z/OS Java a solid language/platform choice with good investment protection for the foreseeable future.



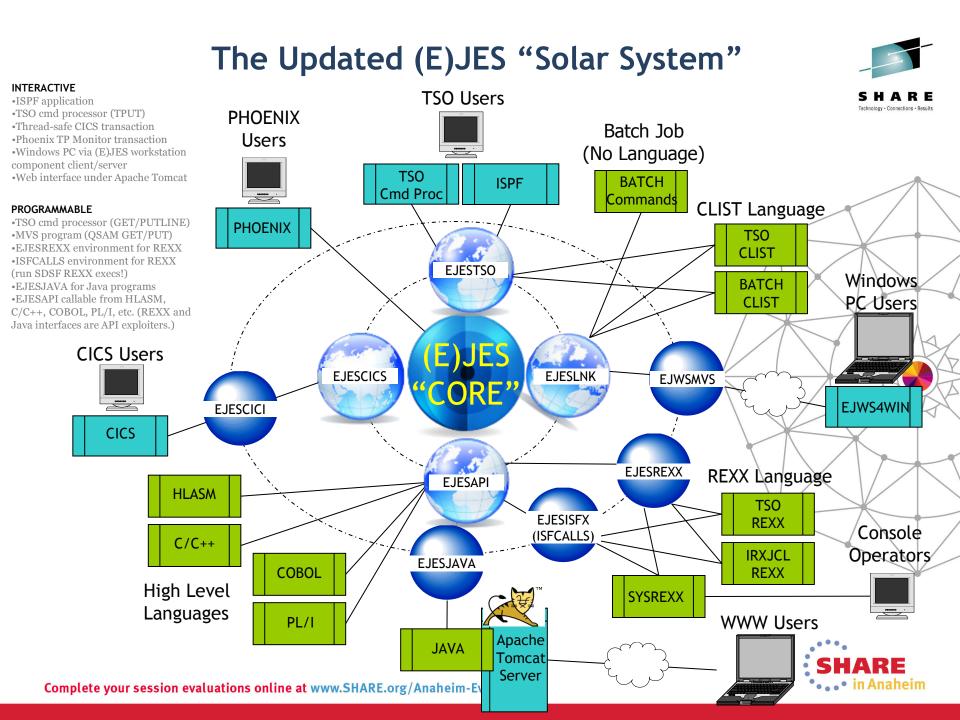
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MIGRATE	J0464782	W-OUTPUT	OUTSERV	Θ	3		7	CC 0000	130	130	
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V5200009	J0465024	W-OUTPUT	OUTSERV	Θ	7		4	CC 0000	318	317	
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MIGRATE	J0464782	W-OUTPUT	OUTS	DJC		>	Browse JCL			сс	0000	130	130	
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MIGRATE	J0464997	W-OUTPUT		Display		>	Browse Job In	fo Extended	7	сс	0000	130	130	
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V5200009	J0465024		OUTS	Out Des			Browse Patter	n	4	сс	0000	318	317	
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🛍 Jobs 🗡	Resources *	Devices	~ ~	Tools ¥	Logout						(E)J	ES®
COPYEJES 3	]0464702											
IAT6140 J	OB ORIGIN FROM GRO	OUP=ANYLOO	CAL. DSF	P=IR . DE	EVICE=INTRDR	. 000	0					
	IAT6853 THE (											
		ASSIGNED										
11:01:07	IAT2000 JOB COPY	EJES (J046	64702) 5	SELECTED	MVS60 SR\	/CLASS=	BATCH_LO					
11:01:08	ICH70001I EDJX2	LAST AC	CESS AT	07:53:1	17 ON WEDNES	DAY, SE	PTEMBER 4	, 2013				
11:01:08	IEF403I COPYEJES	- STARTED	) – TIME	E=11.01.0	8							
11:01:28	-				TIMINGS	(MINS.)					PAGING	COL
11:01:28	-STEPNAME PROCST	EP RC	EXCP	CONN	TCB	SRB	CLOCK	SERV	WORKLOAD	PAGE	SWAP	V]
11:01:28	-COPYMOD1	00	7240	389	.17	.00	.3	29660	BATCH	Θ	Θ	
11:01:28	-COPYMOD2	00	55	4	.00	.00	.0	393	BATCH	Θ	Θ	
11:01:32	-LINK1 LKED	00	2777	204	.03	.00	.0	7928	BATCH	Θ	Θ	
11:01:44		00	2588	547	.10	.00	.1	16759	BATCH	Θ	Θ	
11:01:45	-LKEDMNU	00	473	2	.00	.00	.0	1287	BATCH	Θ	Θ	
11:01:52	-ASMAINT\$	00	1371	406	.05	.00	.1	8762	BATCH	Θ	Θ	
11:01:52	-LKEDINT\$	00	58	1	.00	.00	.0	302	BATCH	Θ	Θ	
11:02:33	-COPYISPF	00	7568	762	.26	.01	.6	43058	BATCH	Θ	Θ	
11:02:35	-COPYEXEC	00	513	59	.01	.00	.0	1988	BATCH	Θ	Θ	
11:02:39	-COPYSAMP	00	1153	135	.02	.00	.0	5040	BATCH	Θ	Θ	
11:02:39		00	Θ	Θ	.00	.00	.0	65	BATCH	Θ	Θ	
11:02:39	IEF404I COPYEJES	- ENDED -	• TIME=1	11.02.39								
	-COPYEJES ENDED.					3 CPU T	IME=	.69 TOTAL E	LAPSED TIM	E= 1	.5	
	JOB (EDJX),JAFFE	e	∙T,REGIO	DN=64M,T]	[ME=NOLIMIT							
	G=EDJX2,USER=EDJX2						XT00GEN	IR				
	ES SUBMITTED 09/04	4/2013 AT	11:01:0	07 BY ED:	JX2 /LT04							
	ASS=GENERATE											
//*												
	LOAD=PHOENIX.PROD	.LOADLIB										
	KLIB=SYS2.LINKLIB											
//*												-
•												•
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Firefox 🔻			and a			
SOPERLOG PHXHQ		× 🗞 Browse - COPYEJES J0464702			× +	
🛍 Jobs 👻	Res	sources ¥	Devices Y	✓ Tools	✓ ■ Log	out (E)JES®
OPERLOG PHXHQ						
N 0000000	MVS70	2013303	14:00:12.38	AUTOCPU	00000281	1EF4031 AUTOCPU - STARTED - TIME=14.00.12
N 0001000	MVS60	2013303	14:00:25.19	ISZSMGR	00000090	ISZ0049I LU A60TCP19 LOSTERM 20
N 0001000	MVS60	2013303	14:00:25.20	ISZSMGR	00000090	ISZ0031I LU A60TCP19 terminated
N 0001000	MVS60	2013303	14:00:25.21	ISZSMGR	00000090	ISZ0243I MARNOLD LU A60TCP19 disconnected
N 0001000	MVS60	2013303	14:00:32.57	ISZSMGR	00000090	ISZ0030I LU A60TCP20 active
N 0001000	MVS60	2013303	14:00:32.95	ISZSMGR	00000090	ISZ0284I LU A60TCP20 starting D4C32XX3 - REBIND = NO
N 000000	MVS60	2013303	14:00:35.40	JES3	00000290	IRR010I USERID DROURKE IS ASSIGNED TO THIS JOB.
N 0000000	MVS60	2013303	14:00:35.42	JES3	00000090	IAT6100 (J0483221) JOB EJESHC (J0483415), PRTY=06, ID=DR(
N 0000000	MVS60	2013303	14:00:35.57	EJESHC	00000281	IAT2000 JOB EJESHC (J0483415) SELECTED MVS60 SRVCLASS=
N 0020000	MVS60	2013303	14:00:35.58	EJESHC	00000281	ICH70001I DROURKE LAST ACCESS AT 13:40:30 ON WEDNESDAY, OC
N 0000000	MVS60	2013303	14:00:35.60	EJESHC	00000281	IEF403I EJESHC - STARTED - TIME=14.00.35
N 0001000	MVS60	2013303	14:00:37.91	ISZSMGR	00000090	ISZ4012I Signon complete for MARNOLD IP address 192.168.4.1
N 0001000	MVS60	2013303	14:00:37.92	ISZSMGR	00000090	ISZ0281I MARNOLD LU A60TCP20 reconnected
N 4100000	MVS70	2013303	14:00:43.78	MARNOLD	00000281	IKT100I USERID MARNOLD CANCELED DUE TO UNCONDITIONAL LOG(
N 4100000	MVS70	2013303	14:00:43.79	MARNOLD	00000090	IKT122I IPADDRPORT 192.168.10.14455101
N 0000000	MVS70	2013303	14:00:43.80		00000281	IEA989I SLIP TRAP ID=X622 MATCHED. JOBNAME=MARNOLD , ASID=
N 0000000	MVS70	2013303	14:00:43.80		00000281	IEA989I SLIP TRAP ID=X13E MATCHED. JOBNAME=MARNOLD , ASID=
N 0000000	MVS70	2013303	14:00:43.80		00000281	IEA989I SLIP TRAP ID=X13E MATCHED. JOBNAME/ASID NOT AVAIL/
N 0001000	MVS60	2013303	14:00:43.82	ISZSMGR	00000090	ISZ0262I MARNOLD LU A60TCP20 Session A70TCAS (101) ended
N 0000000	MVS70	2013303	14:00:43.83		00000281	IEA989I SLIP TRAP ID=X13E MATCHED. JOBNAME=MARNOLD , ASID=
N 0001000	MVS60	2013303	14:00:48.22	ISZSMGR	00000090	ISZ0261I MARNOLD LU A60TCP20 VTAM session A70TCAS (101) sta
NC0000000	MVS70	2013303	14:00:48.29	INSTREAM	00000290	LOGON
N 0060000	MVS70	2013303	14:00:48.86	MARNOLD	00000281	IEC999I IFG0TC0A,IFG0TC0B,MARNOLD ,\$IKJTEST,DEB ADDR=AB3048
N 0000000	MVS70	2013303	14:00:48.88		00000281	IEA989I SLIP TRAP ID=X47B MATCHED. JOBNAME=MARNOLD , ASID=
N 0000000	MVS70	2013303	14:00:49.14		00000281	IEA989I SLIP TRAP ID=X13E MATCHED. JOBNAME=MARNOLD , ASID=
M 400000	MVS70	2013303	14:00:49.18	MARNOLD	00000000	IEF450I MARNOLD \$IKJTEST \$IKJTEST - ABEND=S622 U0000 REASON
E				991	00000000	TIME=14.00.49
N 0000000	MVS70	2013303	14:00:49.86	DROURK2	00000290	EJES510 USER-DROURK2- HQ3AF,J=483399,C
NC0000000	MVS60	2013303	14:00:49.87	DROURK2	00000290	HQ3AF,J=483399,C
NDAAAAAAA	MVSco	1010000	14.00.40 00	NDAHDKA	00000000	TATERED TOD ETECUC (TRAPSPOR) CANCEL ACCEDTED (DDTNT-NO
			111			•

× Find: start





# (E)JES Web Deployment

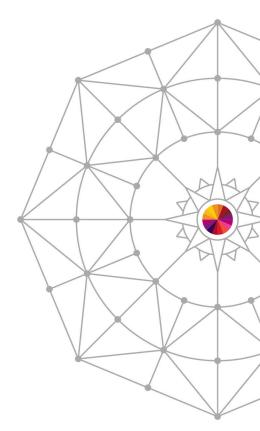
- Each running instance of (E)JES Web must be deployed.
- A sample JCL procedure is provided. The same procedure can be shared by multiple deployments.
- Batch JCL is provided to create a small, read/write zFS file system for running an instance.
- A z/OS UNIX OMVS shell script prompts for eight basic parameters—most of which default naturally.
- The script populates the target instance file system and creates a parmlib member unique to the instance.
- An (E)JES Web instance typically runs as a started task.
- An instance is stopped via the MVS STOP command.



# Other Nice Enhancements that Didn't Make the Press Release

- Automatic console name collision resolution
- Improved control over settings notices
- ISPF panel title line overlay protection
- Extract enhancements
- Recipient lists for CAI email plug-in
- SMF record enhancements
- Security extensions user exit
- Eclipse documentation plug-ins
  - IBM Information Center-ready







# Automatic Console Name Collision Resolution



- Default console name is chosen by EJESUX10
- Many customers implemented our distributed modification to append ISPF window id (1-9,A-W) to userid
  - Allowed unique consoles within an ISPF session, but not across the sysplex once multiple logon became allowed.
- New MCSXSUF installation option controls what happens if console name is already in use elsewhere in sysplex.
- If enabled, (E)JES will attempt to automatically resolve the name conflict when the console name has been assigned by (E)JES and not explicitly specified by the end user.
- It does this by varying the name in the last positions until it finds one that will activate.



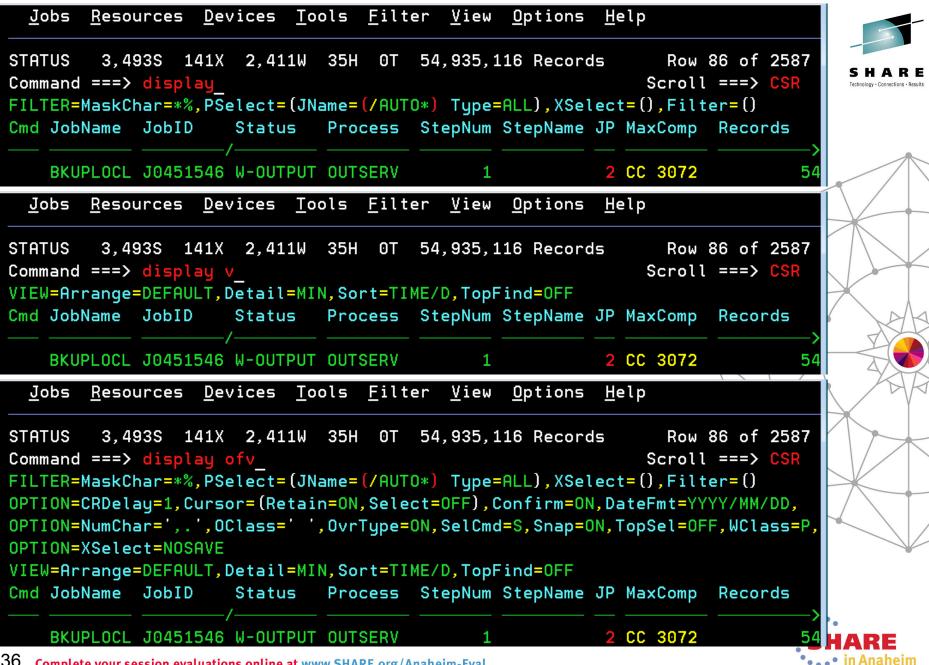


#### **Improved Control of Settings Notices**

- There are three settings notices that can appear on scrollable displays: Filter, Option and View. In prior releases, you could choose to display all of them (ON) or none of them (OFF).
- The DISPLAY command and Options panel have been updated to allow specification of a string consisting of the characters F, O and V (in any order) that indicates which settings notice(s) you would like to see displayed.
  - But you cannot choose the order in which lines are displayed.
- The value ON is the same as F, which displays the Filter notice only. This represents a change in behavior from prior releases where ON caused all three settings notices to be displayed.



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#### **ISPF** Panel Title Line Overlay Protection

- ISPF users can request that up to 17 bytes of sessionidentifying information be superimposed at the start of the title line for every panel displayed by ISPF. This information includes system name, userid, panel id and/or screen name. In the past, these identifiers could obscure important information being displayed by (E)JES.
- (E)JES will now shift its title line information to the right, as needed, to make room for these identifiers. Right-side truncation of the title line data might occur.

<u>J</u> obs	<u>R</u> esour	ces <u>D</u> evi	ces <u>T</u> ool	s <u>F</u> ilter	<u>V</u> iew	<u>O</u> ptions	<u>H</u> elp	
MVS60 E Command		T0451279	<		.JESM	SGLG>		1 of 142 ===> <mark>CSR</mark>
		ext: IPL		- + <b>- 1</b>		5 +		et 1 of 3
		_	—			-	STC , 000	
		IAT6853 T ns online at ww			SATURD	AY, 20 0	JUL 2013	•••• in Anaheir



#### **Extract Enhancements**

- The path name input field on the z/OS Extract Parameters panel is no longer updated during traversal of the file system except when the L line command is issued. Other line commands and operations do not update the path name input field.
- 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 postprocessors detect the boundary between the results of two different extracts to the same target location





#### **Recipient Lists for CAI Email Plug-in**

- The CAI plug-in for email (EJES#RM) has been enhanced to support recipient lists for To: and Cc: addresses. Bcc: addresses have been added as well.
  - These new limits are considerably more flexible than the old limits of one, one, and zero respectively <sup>(2)</sup>
- Pressing F5 with the cursor positioned to the To:, Cc:, or Bcc: line invokes the recipient list dialog for the selected list
- On the main dialog, only the first email address from the list is shown. An ellipsis is displayed when a list is present.



VS60 S ommand	File Contacts Transport		f 2713 > CSR			
Cmd Job	MVS60 E-Mail Param	neters	ords			
BPX	E-Mail Information:	Transport: XMITIP				
BPX	From <u>edjaffe@phoenixsoft</u>	0				
EJE	To edjaffe@phoenixsoftware.com					
EDJ	Cc edjaffe@phoenixsoftware.com					
BPX	Bcc edjaffe@phoenixsoftware.com					
TSM	Subject: . This is a test of so	ome nice function	0			
.m MIG		More: +	130			
MIG	Cover Letter:		130			
EDJ	<u>The intent of this email is to</u>					
EDJ	<u>CAI email plug-in has been enh</u>	<u>hanced to support reci</u>	0			
EJE	pient lists. It also happens t		12,351			
EJE	<u>ep typing without worrying abo</u>	12,460				
GAZ	<u>e. Format=flowed is used.</u> 10,0					
GAZ			10,154			
BPX			0			
INT	F1=Help F3=Exit F4=Lookup	· •				
NET	F8=Down F9=Swap F10=Action	ns F11=Clear F12=Cancel	0			
F1=Hel			<sup>_</sup> ncel			
A D			20/016			

# Recipient Lists Dialog for CAI Email Plug-in



•••• in Anaheim

- The dialog supports I (insert) and D (delete) line commands.
- A recipient may be hand-typed or selected from the address book. F4 invokes the address book dialog and pop-up just as it does from the main email dialog.

Cmd	Job	MVS60	E-Mail Parameters	ords
	BPX BPX	E-Mail From	<u>F</u> ile <u>C</u> ontacts	
	EJE	To .	MVS60 Mail Recipient Lis Row 1 to 2 of 2	
	EDJ	Cc.	<u>TO:</u> (TO:, CC:, or BCC:)	0
	BPX	Bcc.	Command ===>	0
	TSM	Subj		
. m	MIG		edjaffe@phoenixsoftware.com	130
	MIG	Cover	daverourke@phoenixsoftware.com	130
	EDJ	The	**************************************	0
	EDJ	CAI		0



#### **SMF Record Enhancements**

- A new, self-describing format, that uses "triplets" to describe record segments, is used if you specify Format 1 on the SMFREC installation option. (Default is Format 0.)
- The advantage of the new format is that existing segments can be extended and new segments can be added in an upward-compatible way.
- There are two date fields in the (E)JES SMF record: ESMFDATE and ESMFDBGN. The first is part of the SMF record header; its format follows the standard set forth by SMF: 0cyydddF. The second has, until now, always been in (E)JES internal date format: 0yyyddd.
- Beginning with this release, both date fields will use the standard SMF date format.



#### **New Security Extensions User Exit**

- New user exit EJESUX14 is designed to provide various security extensions. Currently only one function is provided: <u>Data Set Browse Authority</u>.
- The exit gets control just before security checking is performed when browsing (or otherwise displaying the contents of) a SPOOL data set.
- Return codes can choose to always accept, always reject, or continue with normal security processing.

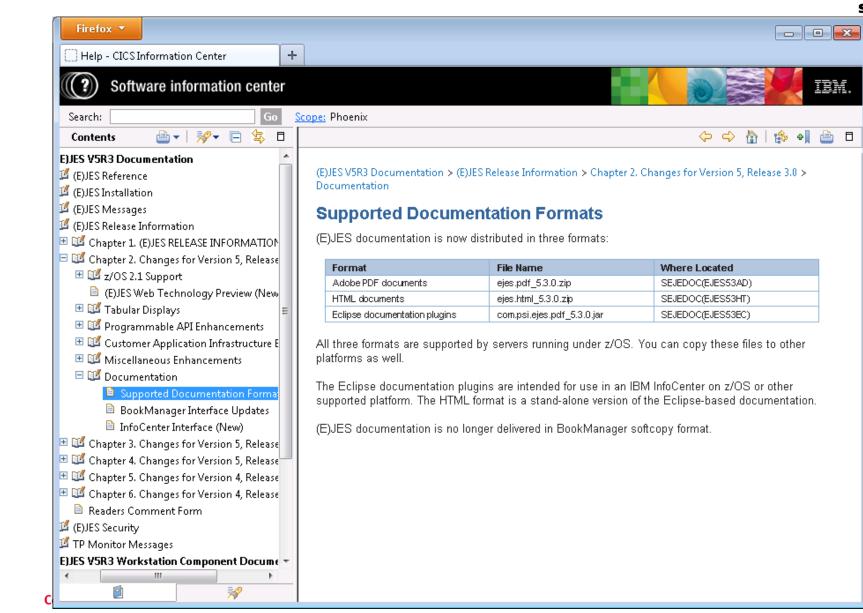


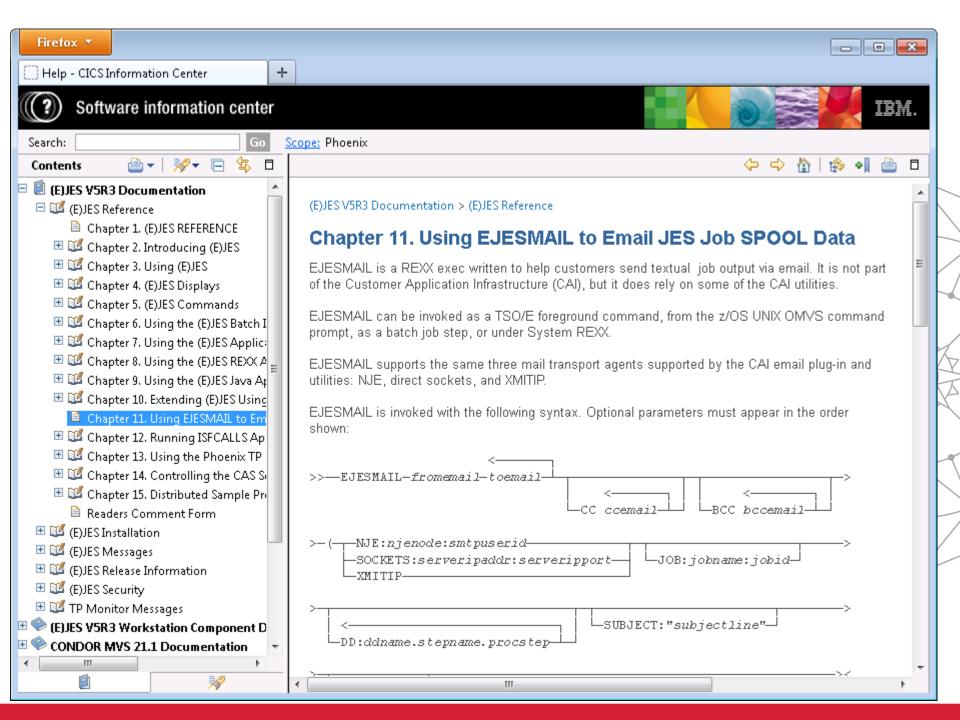
#### **Eclipse Documentation Plug-ins**



RE

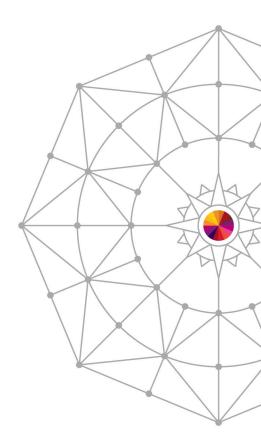
naheim







## Next Release Sneak Peek

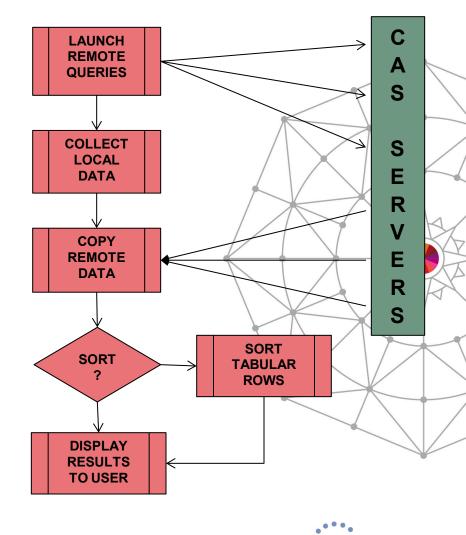




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### **Asynchronous Multisystem Displays**

- Remote queries are launched. CAS collects and readies the data.
- Local data is collected.
- Remote data is retrieved from CAS.
- Optional sorting of tabular rows occurs as normal
- Side effect: STD sort now always places current system first.





#### 64-bit Addressing Mode



- Most (E)JES programs will run in 64-bit addressing mode.
- (E)JES will be among a very select few HLASM-authored z/OS software products that can make this claim.
  - Perhaps the only one?
- Areas of known virtual storage constraint will be moved above the 2G bar. Others will move as needed.
- User exits will continue to be given control in 31-bit mode (via BASSM) and all data areas passed to them will still reside below the 2GB bar. <u>Return is now via BSM.</u>
  - A standard 144-byte F4SA save area is passed and the distributed user exit linkage has been updated to use it.
  - This allows user exits to use "grande" instructions and/or switch to 64-bit mode if they so choose. <u>Not required.</u>





#### Parallelism

- Much has been said about the physics of existing chip technology having reached the point where single core speeds will no longer increase as they have done historically.
- We have implemented some new highly-parallel, algorithms to the parts of our code that are the highest CPU consumers. The results so far are encouraging!
- For example, we observed that the clock time required for Expensive Task X was reduced by 64% by splitting the work across three dispatchable units (SRBs).
- Moore's Law be Damned!! ?





### (E)JES Web Performance

- Performance should now satisfy users accustomed to the response time characteristics of the (E)JES ISPF interface.
- Any operation that processes more than one screen worth of data e.g., sort, search, etc. are all now performed at the host using (E)JES API facilities.
- Vertical scroll processing is now fully virtualized.
- No more reliance on Infragistics igGrid UI.
  - Always intended as a temporary technology bridge.
  - No more tabular pages concept. Now everything is line/row oriented, just like other (E)JES interfaces.



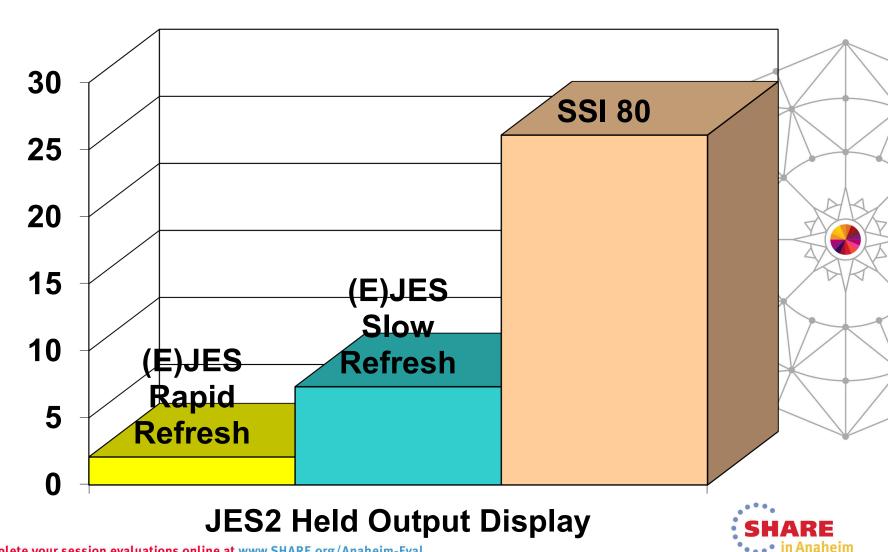


### CPU Performance Benchmark Results



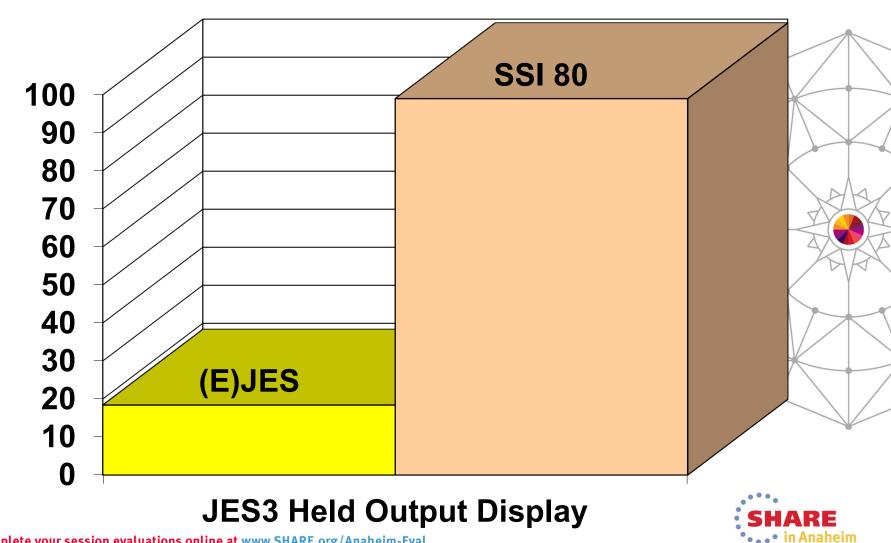
#### **JES2 CPU Performance Benchmark:** Between 3.5x and 12.5x







#### **JES3 CPU Performance Benchmark: 5.4x**





#### **Performance Differences in Perspective**

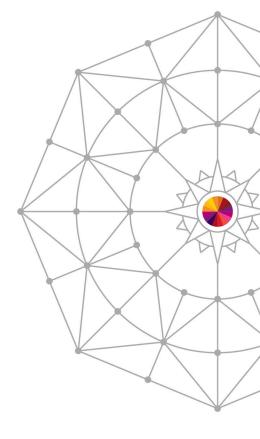
- The benchmark savings occur using apples-to-apples measurements with TCB-mode only, GCP execution.
- Customers with zIIP processor(s) will gain additional benefits.
- Not only does (E)JES use far less CPU than any SSI 80 exploiter, but nearly all of it is eligible for redirection to zIIP
- In the case 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

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





### Questions?



