



# MVS/QuickRef: Beyond The Basics of QW

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Date of Presentation: August 6, 2012 Session Number: 11583



## MVS/QuickRef Requesting Users With Experience



I would like you to contact me if you have experience using MVS/QuickRef in either of the two following areas:

- Using MVS/QuickRef in a Disaster Recovery.
- Using MVS/QuickRef's DASD Free Space Report to monitor and / or manage your DASD Farm.

Please contact me via e-mail at <a href="mailto:cdavis@quickref.com">cdavis@quickref.com</a> if you are willing to share your experiences with me.



## MVS/QuickRef Presentation Topics – 1 of 2



- 1. Using Cursor-driven invocation from within SDSF LOG function
- 2. Using Q/R from within EDIT to lookup JCL syntax
- **3**. Using DASD Free Space report
- 4. Using Cursor-driven invocation from within EDIT on COBOL source
- 5. Using Cut & paste from the TOOLBOX
- 6. Using Dataset List report



Complete your sessions evaluation online at SHARE.org/AnaheimEval

## MVS/QuickRef Presentation Topics – 2 of 2



- 7. Using QWIKREXX function to capture Q/R output
- 8. Using recursive invocation of Q/R
- 9. Using automated message lookup for ABENDs embedded in a message
- 10. Using FC (Findcode) function
- 11. Using Textmarks
- 12. Handling the license key file



## MVS/QuickRef Ways to Find z/OS Reference Information



- Ask someone
- Search for the information on the internet
- Visit IBM's z/OS library
- Use MVS/QuickRef

To use MVS/QuickRef, issue QW on the ISPF command line, and you will see the following....



\* MVS/QuickRef 7.6 - Main Menu \*

Command ==

Please enter one of the options listed below:

- C Request Reference Information by Category
- R Request Reference Information by Name
- L List Vendors, Products, and Releases
- S Request DASD Free Space Information
- ? What's New with MVS/QuickRef?
- X Exit MVS/QuickRef

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Type HELP on the command line to access MVS/QuickRef help information.

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## MVS/QuickRef Best Ways to Invoke MVS/Quick-Ref



Novice Users access QuickRef via the menus.

Power Users recommend:

- Using Fastpath
- Using Cursor-driven invocation

Here's an example of a Fastpath command issued on the ISPF EDIT command line ....









## MVS/QuickRef Best Ways to Invoke MVS/Quick-Ref



Novice Users use the menus.

Power Users recommend:

- Using Fastpath
- Using Cursor-driven invocation

Here's an example of Cursor-driven invocation:

Type QW on the command line and put your cursor on the item to be looked up. Then, press ENTER ....



File	<u>E</u> dit E	E <u>d</u> it_Se	ettings	<u>M</u> enu	<u>U</u> tilities	<u>C</u> ompilers	<u>T</u> est	<u>H</u> elp	
EDIT Commanc	QWU9   ===	SER.DEN	10.JCL(C	EMO2)	- 01.15		CH	ARS 'COND' found Scroll ===> <u>CSR</u>	SHARE Technology - Connections - Results
000031	//*								
000032	//PS20	EXEC	PGM=IEE	COPY,F	EGION=1024K	,COND=			
000033	//SYSPRI	INT DD	SYSOUT=	*					
000034	//I	DD	DSN=CSL	.QWI07	20.F2,				
000035	11		DISP=(C	ILD, PAS	iS),				
000036	11		UNIT=&T	UNIT,					
000037	11		VOL=REF	=*.PS1	0.I,				
000038	11		LABEL=(	3,SL,E	XPDT=98000)				
000039	//0	DD	DSN=&ME	SSAG,					
000040	11		DISP=(N	IEW, CAT	LG,DELETE),				
000041	11		UNIT=&D	UNIT,					
000042	11		VOL=SEF	=&DVOL	7				
000043	11		SPACE=(	TRK, (2	,2,2),RLSE)				
000044	//*								
000045	//PS30	EXEC	PGM=IEE	ICOPY, F	EGION=1024K				
000046	//SYSPRI	INT DD	SYSOUT=	*					
000047	//I	DD	DSN=CSL	.QWI07	20.F3,				
000048	11		DISP=(C	ILD, PAS	iS),				
000049	11		UNIT=&T	UNIT,					
000050	11		VOL=REF	=*.PS1	0.I,				



.....

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## MVS/QuickRef Setting the PF Keys



**TIP**: Use the ISPF command KEYS to set a PF Key (we recommend PF23 or Shift PF 11) to the QW command.

You will have to use the KEYS command for each ISPF application (for example, BROWSE/EDIT will be a different application from SDSF).



	——— Keulist Utilitu ——			
<u>F</u> ile	Regilist Stiffing			
PRIVATE Command ===>	ISR Keylist ISRSPEC Change	Rou Scr	u 13 to 24 of 24 oll ===> <u>CSR</u> _	SHA Technology - Connect
Make changes and then s	elect File action bar.			
Keylist Help Panel Name	e <u>ISRSPECH</u>			
KeyDefinitionF13.F14.F14.F15.F15.F16.F17.RETURNF17.F18.F19.UPF20.F21.SWAPF22.F23.QWF24.CRETRIEV		Format SHORT LONG SHORT SHORT SHORT LONG LONG LONG SHORT SHORT SHORT	Label Help Split End Return Rfind Rchange Up Down Swap Left QW Cretriev	







Pop Quiz I

Question:

How many items are there in the MVS/QuickRef database (as distributed in Release 7.6)?

Answer:

Total number of items in data base: 4,428,037





Scenario 1 - Using Cursor-driven invocation from within SDSF LOG function

Job abends with 80A RC=10



 <u>D</u> isplay <u>F</u> ilter	<u>V</u> iew <u>P</u> rint <u>O</u> ptions <u>S</u> earch <u>H</u> elp	
SDSF OUTPUT DISPLA COMMAND INPUT ===> *****	Y QWUSER01 JOB01310 DSID 2 LINE 0 COLUMNS 02- 81 SCROLL ===> CSR ************************************	ARE · Cannections - Results
	JES2 JOB LOG SYSTEM SYS1 NODE	
12.28.36 JOB01310 - 12.28.36 JOB01310 12.28.36 JOB01310 12.28.36 JOB01310 12.28.36 JOB01310 12.28.36 JOB01310 12.28.37 JOB01310 12.28.37 JOB01310 12.28.37 JOB01310 12.28.37 JOB01310 113 113	TUESDAY, 17 JUL 2012 IRR010I USERID RSC004 IS ASSIGNED TO THIS JOB. IEF677I WARNING MESSAGE(S) FOR JOB QWUSER01 ISSUED ICH70001I RSC004 LAST ACCESS AT 12:28:13 ON TUESDAY, JULY 1 \$HASP373 QWUSER01 STARTED - INIT 1 - CLASS A - SYS SYS1 IEF403I QWUSER01 - STARTED - TIME=12.28.36 IEA705I ERROR DURING GETMAIN SYS CODE = 80A-10 QWUSER01 G JS1 IEA705I 00F97500 008FF3A0 008FF3A0 00001200 00493E00 IEA995I SYMPTOM DUMP OUTPUT 113 SYSTEM COMPLETION CODE=80A REASON CODE=00000010 TIME=12.28.37 SEQ=00381 CPU=0081 ASID=0026	
113 113 113	PSW AT TIME OF ERROR 070C1000 8149BE10 ILC 2 INTC 0D NO ACTIVE MODULE FOUND NAME=UNKNOWN	
113 113	DATA AT PSW 0149BE0A - 00181610 0A0D18CE 18FB180C GR 0: 84000000 1: 8480A000	





Scenario 1 - Using Cursor-driven invocation from within SDSF LOG function

- Job abends with 80A RC=10
- Put cursor on 80A and press PF 23
- MVS/QuickRef searches for all occurrences of 80A



Item ==> Command ==>	- · · · · · · · · · · · · · · · · · · ·		Col 1 Line 1 of 10 Scroll ==> CSR	SHARE Technology - Connections - Results
	V=*	P=* R=* I=80A		
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Licensed for bene	fit of Referential Sy	stems	
Item	Vendor	Product	Release	
_ 80A	CA TECHNOLOGIES	VISION:BUILDER MSGS	R15	
80A	CA TECHNOLOGIES	VISION:TWO MSGS	R15	
80A	IBM	DFSORT MSGS & CODES	V1R14	
80A	IBM	Z/OS SYSTEM CODES	V1R13	
80A	IBM	Z/VM SYSTEM MSGS	V4R4	
80A	IBM	Z/VM SYSTEM MSGS	V5R1	
80A	IBM	Z/VM SYSTEM MSGS	V5R2	
80A	IBM	Z/VM SYSTEM MSGS	V5R3	
80A	IBM	Z/VM SYSTEM MSGS	V5R4	
80A	IBM	Z/VM SYSTEM MSGS	V6R1	
****	k*****	TOM OF LIST *******	*****	



#### 80A

Explanation: An error occurred when the system tried to process an R form of the GETMAIN or FREEMAIN macro. A reason code in the SDWACRC field of the system diagnostic work area (SDWA) explains the error:

- Code Explanation
- 04 There is not enough virtual system queue area (SQA) storage available to satisfy the request.
- 08 There is not enough virtual common service area (CSA) storage available to satisfy the request.
- OC There is not enough virtual local system queue area (LSQA) storage available to satisfy the request.

 Item ==> Command == 113	<pre>* MVS/QuickRef 7.6 * Col 1 Line 18 of 327 Scroll ==&gt; CSR SYSTEM COMPLETION CODE=80A REASON CODE=00000010 V=IBM P=Z/OS SYSTEM CODES R=V1R13 I=80A</pre>	SHARE Technology - Connections - Results
10	There is not enough virtual private area storage available to satisfy the request.	
	Note: This error can occur if an installation exit is requesting virtual storage from a V=R region before the system completely initializes the region.	
1C	During request processing, the system tried to get LSQA virtual storage for VSM's cell pool. There was not enough LSQA virtual storage available.	
20	There is not enough virtual storage in LSQA to build a new address queue anchor table (AQAT) stack.	
System Ac	tion: The system issues message IEA705I. The system abnormally	

Application Programmer Response: A complete dump is necessary to diagnose





Scenario 2 - Using Q/R from within EDIT to lookup JCL syntax

- You want to add a COND parameter to an EXEC statement
- You don't remember the way the logic works execute step if COND evaluates to TRUE or vice versa
- MVS/QuickRef gives you the information at your fingertips



<u> </u>	<u>E</u> dit E	<u>d</u> it_S∉	ettings	<u>M</u> enu	<u>U</u> tili <sup>.</sup>	ties	<u>C</u> omp	iler	S	<u>T</u> est	<u>H</u> elp		
EDIT Command	QWUS ===>	ER.DEN	10.JCL(D	EMO2)	- 01.15	5				Colu	imns Ol Scroll	0001 00072 ===> <u>CSR</u>	SHARE Technology - Connections - Results
 000006	 //QWLOAD	PROC	TUNIT='	 3490',					5	Line(s	s) not	Displayed	
000017 000018	 // QDB=' //*	 SYS2.0	UICKREF	.R720.	databas	 6E'		- 1	10	Line(s	s) not	Displayed	
000019 000020 000021	//PS10 //SYSPRI //I	EXEC NT DD DD	PGM=IEB SYSOUT= DSN=CSL	COPY,R * .QWI07	EGION=0 20.F1.	3K							
000022 000023 000023			DISP=(0 UNIT=&T VOL=(.R	LD,PAS UNIT, FTAIN.	SFR=&T	VNIA).							
000025 000026 000026	// //o	DD	LABEL=( DSN=&PA	2,SL,E NELS,	XPDT=98	3000)							
000028			UNIT=&D VOL=SER	UNIT, =&DVOL	, , 5 2 45		- )						
000032	//PS20	EXEC	PGM=IEB	COPY,R	EGION=.	1024K,	- )  COND	-	1	Line(s	s) not	Displayed	







The COND parameter is used to specify the return code tests that MVS will perform to see if a job step will be executed or not. Before a job step containing a COND= parameter is executed, MVS performs the COND parameter test(s) specified against the return codes from all prior job steps or the steps named on the COND= parameter. If none of these tests is satisfied, the system executes the job step; if any test is satisfied, the system skips the job step on which the COND= parameter is coded.

Tests are made against return code values for the current execution of the job. A step skipped because of an EXEC statement COND parameter will not produce a return code, because it will not be executed.

Note that skipping a step because of a return code test is not the



Scenario 3 - Using DASD Free Space Report

- You are tailoring the JCL to install MVS/QuickRef and need 28,946 tracks.
- Shop standards call for you to use a TSOxxx volume serial number for large datasets.
- MVS/QuickRef gives you the information at your fingertips

Yes, I know we've seen this example before.









Vol ==>	>		*MVS/QuickRef	7.6 – Fre	e Space*		Line 1 of	56	-
Command	d ==> SO	5 D				Scr	oll ==> (	CSR	
You may	y scroll	the inf	formation belo	w UP, DOWN	, LEFT, ar	nd/or RIGHT	as needeo	ł	SHARE
									Technology - Connections - Results
56 volumes matched TSO*									
		(cursor	select any vo	lume below	for datas	set display)			
Volume	Mount	Device	Free	Free	Free	Lrg Free	LgFree	DAS	
Serial	Attr	Туре	Exts	Tracks	Cyls	#Tracks	#Cyls	Nmb	
(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09	
TSOEV1	STORAGE	3390	4	3702301	246820	2891700	192780	0A94	
TSOEV2	STORAGE	3390	3	3895805	259720	2913120	194208	030D	
TSOEV3	STORAGE	3390	3	3924785	261652	2942100	196140	030E	
TSOEV4	STORAGE	3390	3	3924785	261652	2942100	196140	030F	
TSOTB1	STORAGE	3390	3	17729975	1181998	16747290	1116486	0a8D	
TS0001	STORAGE	3390	4	9339	621	6608	440	0A98	
TS0002	STORAGE	3390	18	7496	488	5416	360	0A99	
TS0003	STORAGE	3390	7	47031	3132	29112	1940	0A9A	
TS0004	STORAGE	3390	13	15337	1016	8335	555	0A9B	
TS0005	STORAGE	3390	17	11495	752	3854	256	0A9C	
TS0006	STORAGE	3390	9	24212	1609	22491	1498	0A9D	
TS0007	STORAGE	3390	5	8068	535	6755	450	0A9E	
TS0008	STORAGE	3390	15	20213	1339	13725	915	0A9F	



Vol ==:	>		*MVS/QuickRe	ef 7.6 - Fre	e Space*		Line 1 of	f 56	-
Command	∃ ==>					Scr	oll ==> (	CSR	
You mai	, scroll	the in-	formation he		L LEFT ar	d/or RIGHT	as needer	-	
rou may	9 301 011	CHC III		LOW OF J DOMIN					SHARE
Technology - Gonnections									
56 \	volumes r	natched	150* - *	% ⊦ree: 95.	U - Free	Iracks: 35,5	101,323		
		(cursor	select any v	∕olume below	) for datas	set display)			
Volume	Mount	Device	Free	Free	Free	Lra Free	LaFree	DAS	
Serial	Attr	Tuno	Fyte	Tracke	Cule	#Tracke	#Cule	Nmb	
	(02)	(op)					+		
(UI)	(82)	(83)	(124)	(05)	(46)	(07)	(88)	(09	
TSOTB1	STORAGE	3390	3	17729975	1181998	16747290	1116486	0A8D	
TSNEV4	STORAGE	3390	3	3924785	261652	2942100	196140	<b>A3AE</b>	
TCUEVS	STODACE	2200	0 A	302/785	261652	20/2100	1961/10	DSDF	
TOULYJ	STORAGE	2200	0 C	JJ2470J	201032	2042100	100140	0000	
ISUEV2	STURHUE	3390	3	3892802	259720	2913120	194208	030L	
TSOEV1	STORAGE	3390	4	3702301	246820	2891700	192780	0A94	
TS0911	STORAGE	3390	2	143691	9579	143690	9579	ØAD7	
тяпараз	STORAGE	3390	7	131135	8740	130771	8718	DACS	
TCOOOS	STORACE	2200	1	120000	00110	120205	0551		
100000	STURNUE	0000	4	123000	0044	120203	0001	0004	
120903	STURAGE	3380	1	122538	8169	122538	8169	UAD2	
TS0900	STORAGE	3390	10	104071	6930	60079	4005	ØACØ	
TS0902	STORAGE	3390	7	88967	5930	88950	5930	ØAC2	
TSN907	STORAGE	3390	7	84927	5660	82500	5500	DAC7	
TCOOOA	STORIOL	2200	24	04027	5000	10000	2200		
150904	STURHUE	2220	34	81003	5385	49006	3267	UHL4	





Scenario 4 - Using Cursor-driven invocation from within EDIT on COBOL source

- You are modifying a COBOL program that just isn't working.
- The PERFORM verb has incorrect syntax.
- MVS/QuickRef gets you the answer you need instantly.



Item ==>	*	MVS/QuickRef 7.6 *	Col 1 Line 1 of 12	-
Command ==≻			Scroll ==> CSR	
.007000.	PERFORM P0-MAINLI	NE THRU P0-CLOSE.		
	V=	* P=* R=* I=PERENRM		Technology · Connections · Results
	XXXX I to an or other	Levent of Decemental C		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	//// Licensed for	penefit of Referential Sy	STEMS <<<<<<	
Item	Vendor	Product	Release	
PERFORM	IBM	COBOL MVS&VM SYNTAX	V1R2	
PERFORM	IBM	COBOL OS/390 SYNTAX	V2R1	
PERFORM	IBM	COBOL OS/390 SYNTAX	V2R2	
PERFORM	IBM	COBOL Z/OS SYNTAX	V3R1	
PERFORM	IBM	COBOL Z/OS SYNTAX	V3R2	
PERFORM	IBM	COBOL Z/OS SYNTAX	V3R3	
PERFORM	IBM	COBOL Z/OS SYNTAX	V3R4	
PERFORM	IBM	COBOL Z/OS SYNTAX	V4R1	
PERFORM	IBM	COBOL Z/OS SYNTAX	V4R2	
PERFORM	IBM	COBOL370/VSCOBOL II	V1R1/V4 & PRIOR	
PERFORM	IBM	JCL SYNTAX EXEC	Z/OS & PRIOR	
_ PERFORM	IBM	JCL SYNTAX JOB	Z/OS & PRIOR	
****	*****	BOTTOM OF LIST *******	*****	





if either is a procedure-name in a declarative procedure, both must be procedure-names in the same declarative procedure.

If procedure-name-1 is specified, imperative-statement-1 and the





Scenario 5 - Using Cut & paste from the TOOLBOX

- Your partitioned data set is in need of a COMPRESS.
- Your COMPRESS JCL has been clobbered and must be replaced.
- MVS/QuickRef gives you this information with ease.



<u>-</u> 1le	<u>E</u> d.	it E <u>d</u> it_Setting:	s <u>M</u> enu <u>U</u> tilities <u>L</u> o	ompilers <u>l</u> es	st <u>н</u> еเр	-
EDIT		QWUSER.DEMO.JCL	(COMPRESS) - 01.01	(	Columns 00001 00072	SHARE
Command	===	=> <u>QW</u>			Scroll ===> <u>CSR</u>	Technology · Connections · Results
*****	***	******	********** Top of Data	**********	*****	
000001	Ι	ALLEN SYSTM ASG	ASG-JOB/SCAN MSGS	V7R4	*	
000002	Ι	BMC	APPTUNE FOR DB2	V6R2	*	
000003	Ι	BMC	BMCDSN CMD PROCESSOR	V2R4	*	
000004	Ι	BMC	BMCSORT	V2R3	*	
000005	Ι	BMC	CATALOG MANAGER /DB2	V9R3	*	
000006	Ι	BMC	CHANGE MANAGER /DB2	V9R3	*	
000007	Ι	BMC	COPY PLUS FOR DB2	V9R2	*	
000008	Ι	BMC	CROSS-SYS IMAGE MGR	V1R3M02	*	
000009	Ι	BMC	DB ADMIN FOR DB2	V4R2	*	
000010	Ι	BMC	EXTENDED BFR MGR/DB2	V5R6	*	
000011	Ι	BMC	HIGH-SPEED APPLY ENG	V9R2	*	
000012	Ι	BMC	LOADPLUS FOR DB2	V9R3	*	
000013	Ι	BMC	RECOVER PLUS FOR DB2	V9R2	*	
000014	Ι	BMC	REORG PLUS FOR DB2	V9R3	*	
000015	Ι	BMC	SNAPSHOT UPGRADE/DB2	V5R6	*	
000016	Ι	BMC	SQL EXPLORER FOR DB2	V6R2	*	
000017	I	BMC	SQL PERFORMANCE DB2	V6R2	*	
000018	Ι	BMC	UNLOAD PLUS FOR DB2	V9R3	ж	
000019	Ι	CA TECHNOLOGIES	CA 1 MESSAGES	R11.5 SP5	*	

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\* MVS/QuickRef 7.6 - Main Menu \*

Command ==> C

Please enter one of the options listed below:

- C Request Reference Information by Category
- R Request Reference Information by Name
- L List Vendors, Products, and Releases
- S Request DASD Free Space Information
- ? What's New with MVS/QuickRef?
- X Exit MVS/QuickRef

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Command ==>	* MVS/QuickRef 7.6 * Col 1 Line 1 of 14	
Select desired	product category code to view associated product list	SHARE
	C=*	
<pre>&gt;</pre>	>> Licensed for benefit of Referential Systems <<<<<<<<<<	
Category	Description	
CODES	System Abend Codes	
GLOSSARY	Glossary of Terms & Acronyms	
HARDWARE	Hardware Specific Information	
JCL	JCL and JECL Syntax Descriptions	
MISCINFO	Miscellaneous MVS, OS/390, z/OS Reference Info.	
OPERINFO	System Operator Oriented Information	
PROGLANG	Programming Languages Syntax Descriptions	
QUICKREF	MVS/QuickRef Product Help & Information	
SYSPINFO	System Programmer Oriented Information	
S TOOLBOX	System Programmer's Toolbox	
TRANSSYS	Transaction Systems (CICS/DB2/IMS/SQL) Info.	
TSO	TSO/E Command & CLIST Syntax Descriptions	
_UNIX(R)	OS/390 UNIX(R) System Services Information	
UTILS	Utility Program JCL & usage information	
*****	**************************************	

Type HELP on the command line to access MVS/QuickRef help information. --



Item ==>	* MVS/Quic	kRef 7.6 *	Col 1 Line 1 of 23	
Command ==>			Scroll ==> CSR	
Select desired item H	for display or ente	r desired item at	top left	SHAPE
	V=CHICAGO-SOFT P=T	OOLBOX R=V1R1 I=*		Technology - Connections - Results
>>>>>>>> Lice	ensed for benefit o	f Referential Syst	ems <<<<<<<	
******	************ ТОР OF	LIST *********	******	
INTRODUCTION S	.TBL-OF-CONTENTS	-SYSPROG-TOOLBOX	ADRDSSU-ALLDATA	
ADRDSSU-COPYDUMP	ADRDSSU-DELETE	ADRDSSU-DP-LIST	ADRDSSU-DUMP	
ADRDSSU-FV-REST	ADRDSSU-LOG-REST	ADRDSSU-RELEASE	ADRDSSU-TRAX-PRT	
ADRDSSU-VOL-DUMP	ADRDSSU-VSAM-CPY	ADRDSSU-VTOC-PRT	AMAPDUPL-SAMPLE	
AMASPZAP	AMATERSE-PACK	AMATERSE-SPACK	AMATERSE-UNPACK	
AMBLIST-LIST	AMDSAOSG-JCL	ASMA90	ASSEMBLE	
BATCH-SORT	BATCH-TSO	BPXBATCH-JCL	BPXBATSL-JCL	
C-COMPILE-GO	CHECKSUM _	COBOL-COMPILE	_ COMPRESS-ALL	
CONVERT-FROM-SMS	CONVERT-TO-SMS	DASD-FREE-SPACE	DELETE-ADRDSSU	
_ FTP	FTP-JCL _	HIGH-LEVEL-ASSEM	_ ICFDSF-BUILDIX-I	
_ ICFDSF-BUILDIX-O _	ICKDSF-ANALYZE	ICKDSF-INIT-OFF	_ ICKDSF-INIT-ON	
_ ICKDSF-INSPECT _	ICKDSF-REFORMAT	IDCAMS-ALIAS	_ IDCAMS-ALTER-REN	
IDCAMS-CACHE	IDCAMS-DEF-CLUST	IDCAMS-DEL-DEF	_ IDCAMS-DEL-VVR	
IDCAMS-DISCONECT	IDCAMS-GDG-NOSMS	IDCAMS-GDG-SMS	_ IDCAMS-LISTCAT	
IDCAMS-PAGESPACE	IDCAMS-PRINT	IDCAMS-REPRO	IEBCOPY-COMPRESS	
_ IEBCOPY-COPY-PDS _	IEBGENER	IEBGENER-JCL	IEBPDSE-SAMPLE	
IEBUPDTE	IEBUPDTE-JCL	IEFBR14-ALLO-PDS	_ IEFBR14-ALLOCATE	
Type HELP on the	command line to ac	cess MVS/QuickRef	help information	



************			
Item ==>	* MVS/QuickRef 7.6 *	Col 1 Line 94 of 141	-
Command ==>		Scroll ==> CSR	
You may scroll the information	on below UP, DOWN, LEFT,	and/or RIGHT as needed	SHARE
V=CHICAGO-SOFT	P=TOOLBOX R=V1R1 I=.TBL	-OF-CONTENTS	Technology - Connections - Results
IEBCOPY			
IEBCOPY data set compress		IEBCOPY-COMPRESS	
IEBCOPY partitioned data s	sets	IEBCOPY-COPY-PDS	
IEBGENER			
IEBGENER to copy data sets	5	IEBGENER-JCL	
IEBPDSE			
IEBPDSE to validate a PDSE	E data set	IEBPDSE-SAMPLE	
IEBUPDTE			
Invoke IEBUPDTE to modify	source data sets	IEBUPDTE-JCL	
IEFBR14			
IEFBR14 create a data set		IEFBR14-CREATE	
IEFBR14 job to delete a da	ata set	IEFBR14-DELETE	
IEFBR14 job to allocate a	partitioned data set	IEFBR14-ALLU-PDS	
Type HELP on the command	tine to access MV5/Quick	Ref nelp information	l i


```
Item ==>
                        * MVS/QuickRef 7.6 * Col 1 Line 2 of 20
Command ==> CUT ALL
                                                     Scroll ==> CSR
You may scroll the information below UP, DOWN, LEFT, and/or RIGHT as needed
    ----- V=CHICAGO-SOFT P=TOOLBOX R=V1R1 I=IEBCOPY-COMPRESS ------
This jobstream invokes program IEBCOPY to compress the data set
identified by the SYSUT1/SYSUT2 DD statements.
Note: If SYSUT2 defines a different data set, the data set will be
copied.
//JCL017 JOB Statement
//*
//*
           IEBCOPY Data Set Compress
//*
//COMPRESS EXEC PGM=IEBCOPY,REGION=0K,PARM=COMPRESS
//SYSUT1
        DD DSN=data.set.name,DISP=SHR
//SYSUT2 DD DSN=data.set.name,DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSIN
        DD DUMMY
11
   Type HELP on the command line to access MVS/QuickRef help information. ---
```



File	<u>E</u> d:	it E <u>d</u> it_Settings	s <u>M</u> enu <u>U</u> tilities <u>C</u> o	ompilers <u>T</u> e	est <u>H</u> elp	
EDIT Command	==:	QWUSER.DEMO.JCL( > !PASTE	(COMPRESS) - 01.01	M	IOVE/COPY is pendi Scroll ===> CS	SHARE R Technology - Connections - Results
A	***>	***	*********** Top of Data			****
D99999	Ι	ALLEN SYSTM ASG	ASG-JOB/SCAN MSGS	V7R4	*	
000002	Ι	BMC	APPTUNE FOR DB2	V6R2	*	
000003	Ι	BMC	BMCDSN CMD PROCESSOR	V2R4	*	
000004	Ι	BMC	BMCSORT	V2R3	*	
000005	Ι	BMC	CATALOG MANAGER /DB2	V9R3	*	
000006	Ι	BMC	Change Manager /DB2	V9R3	*	
000007	Ι	BMC	COPY PLUS FOR DB2	V9R2	*	
000008	Ι	BMC	CROSS-SYS IMAGE MGR	V1R3M02	*	
000009	Ι	BMC	DB ADMIN FOR DB2	V4R2	*	
000010	Ι	BMC	EXTENDED BFR MGR/DB2	V5R6	*	
000011	Ι	BMC	HIGH-SPEED APPLY ENG	V9R2	*	
000012	Ι	BMC	LOADPLUS FOR DB2	V9R3	*	
000013	Ι	BMC	RECOVER PLUS FOR DB2	V9R2	*	
000014	Ι	BMC	REORG PLUS FOR DB2	V9R3	*	
000015	Ι	BMC	SNAPSHOT UPGRADE/DB2	V5R6	*	
000016	Ι	BMC	SQL EXPLORER FOR DB2	V6R2	*	
000017	Ι	BMC	SQL PERFORMANCE DB2	V6R2	*	
000018	Ι	BMC	UNLOAD PLUS FOR DB2	V9R3	*	
000019	Ι	CA TECHNOLOGIES	CA 1 MESSAGES	R11.5 SP5	*	



<u>F</u> ile	<u>E</u> dit E <u>d</u> it_Settings <u>M</u> enu <u>U</u> tilities <u>C</u> ompilers <u>T</u> est <u>H</u> elp	
EDIT Commanc	QWUSER.DEMO.JCL(COMPRESS) - 01.02 Columns 00001 00072 Scroll ===> CSR	5 H A R E chnology - Connections - Results
*****	**************************************	
000001	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	
000002	***************** TEXT BELOW COPYRIGHT (C) 2012, CHICAGO-SOFT *********	
000003	IEBCOPY DATA SET COMPRESS	
000004		
000005	THIS JOBSTREAM INVOKES PROGRAM IEBCOPY TO COMPRESS THE DATA SET	
000006	IDENTIFIED BY THE SYSUT1/SYSUT2 DD STATEMENTS.	
000007		
000008	NOTE: IF SYSUT2 DEFINES A DIFFERENT DATA SET, THE DATA SET WILL BE	
000009	COPIED.	
000010		
000011	//JCL017 JOB STATEMENT	
000012	//*	
000013	//*************************************	
000014	//* IEBCOPY DATA SET COMPRESS	
000015	//*************************************	
0000 0000 0000	QWIKM019 – Cut data was successfully pasted at target location	
000019	//SYSUT2 DD DSN=DATA.SET.NAME,DISP=SHR	





Scenario 6 – Using the Dataset List report

- You're in a NON-SMS environment and have a 'NOT CATLG 2" message.
- This usually means that a previous job created a dataset but did not properly clean up after itself.
- You need to look at a VTOC list of the volumes in the range of TSO901-TSO911 to locate and remove the "rogue" dataset.
- MVS/QuickRef gives you the facts and just the facts...



<u>D</u> isplay <u>F</u> ilter <u>V</u> iew <u>P</u> rint <u>O</u> ptions <u>S</u> earch <u>H</u> elp	-
SDSF OUTPUT DISPLAY QWUSER05 JOB01315 DSID2 LINE 0COLUMNS 02- 81COMMAND INPUT ===>SCROLL ===> CSR	I A R E
**************************************	
JES2 JOB LOG SYSTEM SYS1 NODE	
16.10.46 JOB01315 TUESDAY, 17 JUL 2012	
16.10.46 JOB01315 IRR010I USERID RSC004 IS ASSIGNED TO THIS JOB.	
16.10.47 JOB01315 ICH70001I RSC004 LAST ACCESS AT 16:10:30 ON TUESDAY, JULY 1	
16.10.47 JOB01315 \$HASP373 QWUSER05 STARTED - INIT 1 - CLASS A - SYS SYS1	
16.10.47 JOB01315 IEF403I QWUSER05 - STARTED - TIME=16.10.47	
16.10.47 JOB01315 IEF377I QWUSER05 STEP01 194	
194 QWUSER.QWTEST.DATA NOT CATLGD 2	
16.10.47 JOB01315 IEF404I QWUSER05 - ENDED - TIME=16.10.47	
16.10.47 JOB01315 QWI107I JOB ENDED: QWUSER05 ME	
16.10.47 JOB01315 \$HASP395 QWUSER05 ENDED	
JES2 JOB STATISTICS	
17 JUL 2012 JOB EXECUTION DATE	
5 CARDS READ	
75 SYSOUT PRINT RECORDS	
Ø SYSOUT PUNCH RECORDS	
4 SYSOUT SPOOL KBYTES	
0.00 MINUTES EXECUTION TIME	



<u></u>		and the second second							and the second second
Vol ==:	>		*MVS/QuickR	ef 7.6 – Fre	e Space*		Line 1 of	F 12	
Command	d ==> Pl	LACE YO	UR CURSOR ON	THE VOLSER	AND HIT EN	TER Scr	∙oll ==> [	CSR -	
You may	y scroll	the in	formation be	low UP, DOWN	, LEFT, and	d∕or RIGHT	as needeo	s	HAF
								Techn	rology - Connection
12 \	/olumes r	matched	TS09* - :	% Free: 63.	0 – Free Ti	racks: 1,13	36,146		
		(cursor	select any '	∨olume below	for datas	et display)			
Volume	Mount	Device	Free	Free	Free	Lrg Free	LgFree	DAS	
Serial	Attr	Туре	Exts	Tracks	Cyls	#Tracks	#Cyls	Nmb	
(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09	
TS0900	STORAGE	3390	10	104071	6930	60079	4005	0AC0	
TS0901	STORAGE	3390	9	66790	4448	66510	4434	0AC1	
TS0902	STORAGE	3390	7	88967	5930	88950	5930	0AC2	
TS0903	STORAGE	3390	7	131135	8740	130771	8718	0AC3	
TS0904	STORAGE	3390	34	81003	5385	49006	3267	0AC4	
TS0905	STORAGE	3390	12	64975	4328	40351	2690	0AC5	
TS0906	STORAGE	3390	30	66095	4396	50967	3397	ØAC6	
TS0907	STORAGE	3390	7	84927	5660	82500	5500	ØAC7	
TS0908	STORAGE	3390	4	129688	8644	128265	8551	0AD4	
TS0909	STORAGE	3390	1	122538	8169	122538	8169	ØAD5	
TS0910	STORAGE	3390	4	52266	3484	52245	3483	ØAD6	
TS0911	STORAGE	3390	2	143691	9579	143690	9579	ØAD7	
*****	******	*****	******** 80	TTOM OF LIST	******	******	******	кжжж	
Typ	oe HELP (	on the	command line	to access M	VS/QuickRe	f help info	prmation.		





***************************************						
Vol ==> *MVS/QuickRef /.6 - DSN	List*			Line	21 of 104	-
Command ==>			1	Scroll	==> CSR	
You may scroll the information below UP, DC	JWN, LEF	T, and	or Ri	IGHT as i	needed	SHARE
						Technology - Connections - Results
LIST OF DATASETS ON VOLUME TSO904						
Columns ==> 1 2 3 4 5 6 7 8	9 10 1	11 12 13	3 14 .	19 20 21	22	
& Order (To RESET, c	lear co	olumns a	and pr	ess ENTI	ER.)	
	ALLOC	FREE		1ST EX	SECOND A	
DATASET NAME	TRACKS	TRACKS	EXT	ALLOCN	ALLOCN U	
01	02	03	04	05	06	
SYS2.R720.UPDATE01.DATA	2	1	1	2	1 TB	
SYS2.R720.UPDATE12.DATA	2	1	1	2	1 TR	
SYS2.R740.UPDATE06.DATABASE.ASG.TCPIP	6	0	1	48	1220 BL	
SYS2.R760.UPDATE07.DATABASE.CAIDMS.R171R18	27	0	1	216	1220 BL	
SYS2.TSO.ISV.DATA	51000	UNAVBL	1	3400	50 CY	
SYS3.CAI.CAW1C02.F1	15	UNAVBL	1	1	30 CY	
SYS3.CAI.CAW1C02.F2	15	12	1	1	30 CY	
SYS3.CAI.CAW1C02.F3	15	5	1	1	30 CY	
SYS3.CAI.DATACOM.AD11.ADRLIB.BKP	3	1	1	3	0 TF	
SYS3.CAI.DATACOM.AD11.ADRPNL.BKP	20	3	1	20	0 TF	
Tupe HELP on the command line to access	s MVS/Qu	JickRef	help	informa <sup>.</sup>	tion	
5						•





## MVS/QuickRef DSN List Fields Displayed – 1 OF 2

- DSN List Fields with Headers
  - dataset name (DATASET NAME)
  - allocated tracks (ALLOC TRACKS)
  - free tracks (FREE TRACKS)
  - number of extents (EXT)
  - allocation amount of first extent (**1ST EX ALLOCN**)
  - allocation amount of successive extents (SECOND ALLOCN)
  - allocation units (ALC UNT)
  - dataset organization (DSORG)
  - indicator if Hierarchical File Sytem (HFS) or Partitioned Data Set Extended (POE)





# MVS/QuickRef DSN List Fields Displayed – 2 of 2

#### DSN List Fields with Headers

- dataset record format (RECFM or RFM)
- dataset logical record length (LRECL)
- dataset block size (BLKSIZE or BLKSI)
- dataset creation date (CR. DATE)
- dataset Last Referenced Date (LAST REF)
- For EAV-only, EAV Attributes (EATTR)
- For EAV-only, jobname of last updating job (**JOBNAME**)
- For EAV-only, stepname of last updating step (**STEPNAME**)
- For EAV-only, creation time (CR. TIME)

For more information, see Q/R item **DSN-LIST-PANEL** 





Scenario 7 – Using QWIKREXX function to capture Q/R output

- MVS/QuickRef is an ISPF application. It reads/displays panels.
- Two other modes of operation:
  - Batch Mode (using QWBATCH JCL)
  - On-Line using QWIKREXF and QWIKREXX







<u>F</u> ile <u>E</u> dit E <u>d</u> it_Settings <u>M</u> enu <u>U</u> tilities <u>C</u> ompilers <u>T</u> est <u>H</u> elp	
EDIT QWUSER.DEMO.JCL(QWIKREXF) - 01.00 Columns 00001 00072 Command ===> Scroll ===> CSR	SHARE Technology - Connections - Results
000001 / TREATOR 000001 / TREATOR 000037 After qwikrexx is called, the REXX variable qwikref# contains the 000038 release number of MVS/QuickRef in use, in the form 'n.n' (e.g., 7.2). 000039	
000040 Sample code below invokes the qwikrexx function to get DASD free space 000041 information for all DASD in the generic group SYSDA. 000042	
<pre>000045 x = QWIKREXX('S=SYSDA') /* Get DASD free space info in REXX variables */  1 Line(s) not Displayed</pre>	
000048 Do i = 1 To qwilines.0-1 By 1	
000049 Say qwilines.i /* Show result, one DASD volume per line */ 000050 End	
000051 Else /* Request failed for some reason */ 000052 Do	
000053 Say 'QWIKREXX function error – return code ='qwiwcode 000054 Say 'MVS/QuickRef release in use – 'qwikref# 000055 End	



# MVS/QuickRef Use QWIKREXF to capture output



- Put the following modules into the Link List:
  - QWIKREF1 the Q/R load module
  - QWIKREXX the program called by QWIKREXF
- Edit member QWIKREXF located in the JCL distribution dataset and find the following line:

x = QWIKREXX(**'S=\*'**)

- Modify the parameter to issue a QuickRef subcommand.
- Issue

TSOEXEC QWIKREXF



SUEXEC EXEC QWL	JSER.CLIS	(QWIKRE)	(F.)					
101 volumes	s matched	SYSDA	- % F	ree: 90.	.7 – Free	Tracks: 3	5,819,482	
								SH
								Technology - 0
Volume Mount	Device	Free	Ē	ree	Free	Lra Free	LaFree	DAS
D VTOC SMS Den	Storage	Volume	DSCB	VIRS	Culs	SMSVol		
Serial Attr	Tune	Fxts	Tr	acks	Culs	#Tracks	#Culs	Nmb
r Ind Ind Ind	Group	Free 2	Free %	Free %		Status	10910	
	(03)	(04)	1100 10	R5)	(06)	(07)	(08)	(00
(01) $(02)$	(13)	(1/1)	(15)	(16)	(17)	(18)	(00)	(00
) (10) (11) (12)		(14)	(13)	(10)		(10)		
NONEAV PRIVATE	3390	1		50068	3337	50068	3337	ØAD
3 YES YES TPL	DB	99.9	99.6	83.3	3339	ENABLE		
PAGE01 PRIVATE	3390	1		3	0	3	0	DAD
A YES NO SGL	Carl and a second	A.A	99.3	88.1	1113			
PAGE02 PRIVATE	3390	1		3	A 110	a	R	RAC
B VES NO SOL	0000	A A	99 3	88 1	1112	0	U	one
	2200	0.0	00.0	0.1	1113	0	0	DOD
PHOEOS PRIVHIE	3338	1	00 0		2222	3	U	UHD
UYES NU IPL	2222	0.0	99.3	83.3	3339			
PAGE04 PRIVATE	3390	1		3	0	3	0	ØAD
1 YES NO TPL		0.0	99.3	83.3	3339			
***								





Scenario 8 – Using recursive invocation of Q/R

- MVS/QuickRef is an ISPF application that "pops up" over your existing work.
- When you exit, QuickRef goes away
- QuickRef can also be recursively invoked over itself.
- When you exit the recursive copy, you are still in QuickRef.



Vol ==> tso9 Command ==> You may scro	09     *MVS	6/QuickRef ation below	7.6 – Free S UP, DOWN, L	pace* EFT, and/c	l Scro or RIGHT as	ine 1 of 1 ll ==> PAGE needed	SHARE Technology - Connections - Results
1 volumes Volume Moun	matched TSO90 (cursor sele t De∨ice	00 – % Fri ect any voli Free	ee: 69.2 – ume below fo Free Tracks	Free Track Ir dataset Free Lr	s: 104,07: display) g Free	LgFree DAS	
(01) (02)	(03)	(04)	(05)	(06)	(07)	(08) (09	
TS0900 STORA *****	GE 3390 ******	10 **** BOTTO	104071 M OF LIST **	6930 ******	60079 ********	4005 0AC( *****	3
Type HEL	P on the comma	and line to	access MVS/	QuickRef h	elp inform	mation	











Vol ==> Command You mau	)   ==> AF1   scroll	*M TER PRESSI the infor	WS/QuickRef NG PF3 mation belo	f 7.6 - Free	e Space* , LEFT, an	Scro d/or RIGHT a	Line 1 c oll ==> P as needec	of 1 PAGE
1 vc	) lumes ma	atched TSO cursor se	900 – % F lect anu vo	Free: 69.2 Diume below	– Free Tra for datas	acks: 104,07 et displau)	71	Technology - Cannections - Result
Volume Serial (01)	Mount Attr (02)	De∨ice Type (03)	Free Exts (04)	Free Tracks (05)	Free Cyls (06)	Lrg Free #Tracks (07)	LgFree #Cyls (08)	DAS Nmb (09
 TSO900 ******	STORAGE	3390 <*****	10 ***** BOTT	104071 FOM OF LIST	 6930 *******	 60079 **********	4005 ******	0AC0 <***
Typ	e HELP o	on the com	mand line t	to access M	/S/QuickRe	f help infor	mation.	







Scenario 9 – Using automated message lookup / inclusion for ABENDs embedded in a message

- Often z/OS ABEND descriptions reference other Messages.
- This can lead to chasing a Message chain.
- MVS/QuickRef keeps you from chasing the wrong leads



<u>D</u> isplay <u>F</u> ilter	<u>V</u> iew <u>P</u> rint <u>O</u> ptions <u>S</u> earch <u>H</u> elp	
SDSF OUTPUT DISPLF COMMAND INPUT ===>	AY QWUSER37 JOB01324 DSID 2 LINE 0 COLUMNS 01- 80 SCROLL ===> PAGE	HARE
*****	******************* TOP OF DATA **********************************	
	JES2 JOB LOG SYSTEM SYS1 NOD	
17.45.44 JOB01324	TUESDAY, 17 JUL 2012	
17.45.44 JOB01324	IRR010I USERID QWUSER IS ASSIGNED TO THIS JOB.	
17.45.44 JOB01324	ICH70001I QWUSER LAST ACCESS AT 16:46:35 ON TUESDAY, JULY	
17.45.44 JOB01324	\$HASP373 QWUSER37 STARTED - INIT 1 - CLASS A - SYS SYS1	
17.45.44 JOB01324	IEF403I QWUSER37 - STARTED - TIME=17.45.44	
17.45.44 JOB01324	IEC031I D37-04, IFG0554P, QWUSER37, STEP1, SYSUT2, 0A98, TS0001, Qk	
17.45.44 JOB01324	IEA995I SYMPTOM DUMP OUTPUT 256	
256	SYSTEM COMPLETION CODE=D37 REASON CODE=00000004	
256	TIME=17.45.44 SEQ=00398 CPU=0000 ASID=0026	
256	PSW AT TIME OF ERROR 075C1000 80E01656 ILC 2 INTC 0D	
256	NO ACTIVE MODULE FOUND	
256	NAME=UNKNOWN	
256	DATA AT PSW 00E01650 - 41003038 0A0DB20A 00509808	
256	AR/GR 0: 008FF3A0/00E01864 1: 00000000/A4D37000	
256	2: 0000000/00010CD4	
256	4: 0000000/008C5450 5: 00000000/00E18000	
256	6: 0000000/008C56F4 7: 0000000/008C574C	





Item ==>	*	MVS/QuickRef 7.6 *	Col 1 Line 1 of	4
Command ==≻			Scroll ==> CSF	9
256	SYSTEM COMP	LETION CODE=D37 REAS	SON CODE=00000004	SHARE
		V=* P=* R=* I=D37		Technology - Connections - Results
$\rangle \rangle $	Licensed for	benefit of Referentia	al Systems <<<<<<<<<	<
Item	Vendor	Product	Release	
D37	CA TECHNOLO	GIES VISION:BUILDER N	MSGS R15	
D37	CA TECHNOLO	GIES VISION:TWO MSGS	R15	
D37	IBM	DFSORT MSGS & CI	ODES V1R14	
D37	IBM	Z/OS SYSTEM CODI	ES V1R13	
****	*****	BOTTOM OF LIST ****	******	кж

Type HELP on the command line to access MVS/QuickRef help information. ----



Item ==>	* MVS/QuickRef 7.6 *	Col 1 Line 5 of 109	-
Command ==>		Scroll ==> CSR	
256	SYSTEM COMPLETION CODE=D37 REASON COL	DE=00000004	SHARE
	- V=IBM P=Z/OS SYSTEM CODES R=V1R13 I=D3	37	Technology - Connections - Results
access device was	s requested. This system completion code	e is accompanied by	
message IEC031I.			
Refer to the exp	lanation of message IELU3II for complete	e information about	
the task that was	s ended and for an explanation of the re	eturn code (rc in	
ine message iexi.	) IN register 15.		
Application Progr	ammer Response: Respond as indicated :	for message	
IEC031I.			
System Programmer	- Response: If the error recurs and the	e program is not in	
error, look at th	ne messages in the job log for more info	ormation. Search	
problem reporting	g data bases for a fix for the problem.	If no fix exists,	
contact the IBM S	Support Center. Provide the JCL and the	program listing	
for the job.			
Source: DFSMSdfp			
************* Addi	tional information for this item appears	s below: *************	
	V=IBM P=Z/US SYSTEM MSGS R=V1R13 I=IEC	311	
Type HELP on 1	the command line to access MV5/QuickRef	help information	



Item ==> \* MVS/QuickRef 7.6 \* Col 1 Line 56 of 109 Command ==> Scroll ==> CSR 256 SYSTEM COMPLETION CODE=D37 REASON CODE=00000004 ------ V=IBM P=Z/OS SYSTEM CODES R=V1R13 I=D37 ------Return Code Explanation

A data set opened for output used all the primary space, and no secondary space was requested. Change the JCL specifying a larger primary quantity or add a secondary quantity to the space parameter on the DD statement.

System Action: The task is ended unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Operator Response: Start a generalized trace facility (GTF) trace, and re-create the problem. Reply to message AHL100A with:

```
TRACE=SYS,USR,SLIP
```

On the DD statement for the data set in error, specify:

DCB=DIAGNS=TRACE - Type HELP on the command line to access MVS/QuickRef help inf<u>ormation. ---</u>





Pop Quiz II

Question:

What are the 3 largest items in the Q/R database?

Answer:

- 3. IDC3009I 10802 lines
- -RSN-CD-BY-VALUE UNIX(R) Reason Codes (Errnojrs) Listed by Value 10804 lines
- 1. IEC1611 10804 lines





Scenario 10 – Using the FC Function

- Often z/OS Messages have subcodes
- This can lead to searches for the correct information.
- MVS/QuickRef gives you the edge



<u>M</u> enu <u>U</u> tilities <u>C</u> ompilers <u>H</u> elp	
BROWSEQWUSER.DEMO.JCL(IEC141I) - 01.00Line 0000000 Col 001 080Command ===> ABEND CODE=013 RETURN CODE=18Scroll ===> PAGE	SHARE Technology - Connections - Results
**************************************	
IEC141I 013-18, IGG0191B,RSC004A,C,SYSIN,VIO,SYS00322, T165050 RA00 RSC004A TEMP HO1	
IEA995I SYSTEM DUMP OUTPUT	
**************************************	











Item ==> Command ==>

#### \* MVS/QuickRef 7.6 \*

Col 1 Line 88 of 520 Scroll ==> CSR



.IEC141I.013-18, IGG0191B,RSC004A,C,SYSIN,VIO,SYS00322, ------ V=IBM P=Z/OS SYSTEM MSGS R=V1R13 I=IEC141I ------

- 18 An OPEN macro instruction was issued for a partitioned data set. The DSNAME parameter specified a member that could not be found.
- 1C An OPEN macro instruction was issued for a partitioned data set, but an I/O error occurred during a search of the directory.
- An OPEN macro instruction was issued for a sequential data set using queued access. BLKSIZE is not a multiple of LRECL, or LRECL is 0 with RECFM=FB or RECFM=FBS, or BLKSIZE is not at least four bytes greater than LRECL with RECFM=V.
- An OPEN macro instruction was issued with INPUT, INOUT, RDBACK, or UPDATE specified, but the DCB did not specify a MACRF value of EXCP, GET, or READ.
- An OPEN macro instruction was issued with OUTPUT, OUTIN, OUTINX, or EXTEND specified, but the DCB did not specify a MACRF value of EXCP, PUT, or WRITE.
- -- Type HELP on the command line to access MVS/QuickRef help information. --





Scenario 11 – Using Textmarks

- Textmarks are bookmarks for MVS/QuickRef reference items
- After displaying information, use SETMARK
- To display a list of your Textmarks, use LISTMARK
- To access the Textmark, use GETMARK n
- MVS/QuickRef gives you the right tools for the job



	A & A & A & A & A & A & A & A & A & A &				
Item ==>	*	MVS/QuickRef 7.6 *		Col 1 Line 1	of 5
Command ==>				Scroll ==>	CSR
Select desired	item for display	or enter desired	item at top	left	SHARE
	V=*	P=* R=* I=DYNALLO	IC		Technology - Connections - Results
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>> Licensed for b	enefit of Referent	ial Systems	<<<<<<<	<<<<
Item	Vendor	Product	Rele	ase	
DYNALLOC	IBM	C/C++ LIBRARY	FNCTNS V3R2		
DYNALLOC	IBM	MVS REFERENCE	INFO. Z/OS	V1 & PRIOR	
DYNALLOC	IBM	Z/OS XL C/C++	FNCTNS V1R13		
DYNALLOC	SYNCSORT	MFX FOR Z/OS U	TIL V1R1		
DYNALLOC	SYNCSORT	MFX FOR Z/OS U	TIL V1R2		
******	*****	BOTTOM OF LIST ***	*****	*****	****

Type HELP on the command line to access MVS/QuickRef help information. ----







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\* MVS/QuickRef 7.6 - Main Menu \*

Command ==> gm 1

Please enter one of the options listed below:

- C Request Reference Information by Category
- R Request Reference Information by Name
- L List Vendors, Products, and Releases
- S Request DASD Free Space Information
- ? What's New with MVS/QuickRef?
- X Exit MVS/QuickRef

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Type HELP on the command line to access MVS/QuickRef help information.

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Scenario 11 – Using Advanced Textmarks

- To reference a Textmarks when using fastpath, use QW T=n
- You can set a Textmark on a selection list as well as an item.
  - Example: SM n while browsing a selection list
- QuickRef will return to the location being displayed when the SETMARK was issued.
  - Example: If SM 6 is done while browsing line 500 of a 1,000 line display, then GM 6 will start at line 500.



<u>Menu L</u> ist M <u>o</u> de <u>F</u> unctions <u>U</u> tilities <u>H</u> elp	
ISPF Command Shell Enter TSO or Workstation commands below:	SHARE Technology - Connections - Results
===> <u>QW T=3</u>	
Place cursor on choice and press enter to Retrie∨e command	
=> ALLOC F(QWLICKEY) DS('RSC001.R720.LICENSE.KEY.FILE') SHR REUS	
$\Rightarrow$	
$\Rightarrow$	
$\Rightarrow$	
$\Rightarrow$	
=>	



<b>T</b>			
ltem ==>	<b>X</b>	* MV5/QuickRet 7.6 * Col 1 Line 503 of 1134	-
Command	==>	Scroll ==> CSR	
You may	scroll th	ne information below UP, DOWN, LEFT, and/or RIGHT as needed 💦 🚬	
	V=IBM	P=MVS REFERENCE INFO. R=Z/OS V1 & PRIOR I=DYNALLOC	ology · Connections · Results
1718	5912	LOCATE SVC error - X'18' was SVC return code - An I/O	
<b>.</b>		error processing cataloged data set Corresponding	
		Moscogo: IV I562311	
1720	E022	Messaye: INJJUZJII	
1726	2922	LUCHIE SVC ERFOR - X ZC Was SVC RETURN CODE - H	
		virtual storage shortage caused the error, probably	
		insufficient virtual storage was available.	
		Corresponding Message: IKJ56863I	
17BA	6074	LOCATE SVC error – X'BA' was SVC return code – The	
		catalog is locked for recovery. Corresponding Message:	
		IKJ56896I	
17FF	6143	LOCATE SVC error - SVC return code was unexpected.	
		Corresponding Message: IK.1562311	
27~~		Reserved	
27		Reserved	
J/XX			
47xx		DHDSM error occurred - xx is nex DHDSM return code;	
		see DFSMSdfp Advanced Services reference for an	
		explanation of DADSM error codes for LOCATE, CATALOG,	
		DADSM, and OBTAIN	
4704	18180	return code x'04' – A duplicate data set name was	
Tupe	HELP on	the command line to access MVS/QuickRef help information	


### MVS/QuickRef Scenario 12



Scenario 12 – Handling the license key file

- Not really a QuickRef user function, but is an important concept.
- Prior to R7.0, QuickRef used an expiration date zap.
- Since R7.0, QuickRef uses a text/binary license key.
- You obtain license key file (on the PC via e-mail) without human intervention.
- Upload to mainframe using **BINARY** transfer mode
- Pre-allocate license key file to provide correct DCB attributes.





## MVS/QuickRef License Key File – DCB Attributes

- DCB Attributes
  - DSORG PS
  - RECFM VB
  - LRECL **10440**
  - BLKSIZE 10444
- If this doesn't make sense to you, ignore it it will make sense to the installer.
- After uploading license key file, you must modify either ...
  - QW Clist or
  - QWIKOPTS



File	<u>Edit Edit_Settings Menu Utilities Compilers Test Help</u>	
EDIT	QWUSER.DEMO.JCL(QW) - 01.00 Columns 00001 00072	SHADE
Command	===> Scroll ===> <u>CSR</u>	Technology - Connections - Results
*****	*************************************	
000001	PROC Ø PRM()	
	– – – – – – – – – – – – – – – 5 Line(s) not Displayed	
000007	ISPEXEC LIBDEF +	
000008	ISPPLIB DATASET ID('SYS2.QUICKREF.R760.PANELS')	
000009	ISPEXEC LIBDEF +	
000010	ISPMLIB DATASET ID('SYS2.QUICKREF.R760.MESSAGES')	
000011	ISPEXEC LIBDEF +	
000012	ISPLLIB DATASET ID('SYS2.QUICKREF.R760.LINKLIB')	
000013	ISPEXEC LIBDEF +	
000014	ISPTLIB DATASET ID('SYS2.QUICKREF.R760.TABLES')	
000015	ALLOC F(QWREFDD) +	
000016	DA('QWUSER.QW.DATABASE') SHR REUS	
000017	ALLOC F(QWLICKEY) +	
000018	DA('QWUSER.QW.LICENSE.KEY.FILE') SHR REUS	
000019	/* ALLOC F(QWVIRTEX) /* Virtual Excludes */ +	
000020	<pre>/* DA('SYS2.QUICKREF.R760.JCL(QEXCLUDE)') +</pre>	
000021	/* SHR REUS	
000022	/* ALLOC F(QWPARMS) /* Override Parms */ +	
000023	<pre>/* DA('SYS2.QUICKREF.OVERRIDE.PARMS') +</pre>	





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<u>F</u> ile <u>E</u> dit	E <u>d</u> it_Settings <u>M</u> enu <u>U</u> 1	tilities <u>C</u> ompilers <u>T</u> est <u>H</u> e	lp 🛛
EDIT QWL	JSER.R760.SOURCE(QWIKOP	TS) - 01.00 Column	S 00001 00072
		501	OTT ===> <u>CSR</u>
000010 MMIKUAI	IS QWIKUPT TYPE=USEUT,		X
000011	QDB=QWUSER.QW.[	DATABASE,	X
000012	LICDSN=QWUSER.(	QW.LICENSE.KEY.FILE,	X
000013	VEXDSN=,	VRTUAL XCLDS DSN,NO QUOTE	S QE0905B 7.2X
000014	VEXMBR=QEXCLUDE	E, VRTUAL XCLDS MEMBER NAME	QE0905B 7.2X
000015	PARMDSN=,	OVERRIDE PARAMETER DSN, N	O QUOTES X
000016	OUTCLAS=A,	QPRINT OUTPUT SYSOUT CLAS	S X
000017	OUTDEST=LOCAL,	QPRINT OUTPUT DESTINATION	X
000018	OUTDISP=HOLD,	QPRINT OUTPUT HOLD/NOHOLD	SETTING X
000019	ROUTCDE=2,	WTO ROUTE CODE	X
000020	JES2CHR=\$,	JES2 COMMAND CHARACTER	×
000021	HELPDD=SYSHELP,	, DDNAME FOR HELP	QE9802E 5.2X
000022	PF3=END,	TREAT END AS END	QE9802F 5.2X
000023	CDIXLAT=',=*/(	)?;{}!', CURSOR DRIVEN XLATE	QE98010 5.2X
000024	MAINMNU=QWIKREF	FA, NAME OF Q/R MAIN MENU	X
000025	USERMNU=QWIKREF	FU, NAME OF Q/R USER MAIN MEN	U X
000026	DASDFRE=(1,2,3,	,4,5,6,7,8,9,10,11,12,13,14,	×
000027	15,16,17,18),		QE0710C 6.9X
000028	BATPDSRD=N,	BATPDSRD VALUE	QE0001D 5.7X
000029	ONLPDSRD=N,	BATPDSRD VALUE	QE0001D 5.7X





## MVS/QuickRef Useful Links



For the 7.2 release of MVS/QuickRef, I created five videos consisting of the first five scenarios in this presentation...

- 1. Lookup ABEND Code
- 2. Lookup JCL Syntax
- 3. Find DASD Free Space
- 4. COBOL PERFORM Verb
- 5. The TOOLBOX

#### View these videos at:

https://www.quickref.com/newQuickRef/helpdocs/video/video \_help



## MVS/QuickRef Announcements, Notes & Warnings



These last few slides contain announcements, notes and warnings that you may find useful.

- DASD Free Space Enhancements for R7.7
- Command Not Found?
- Invalid License Key?



# MVS/QuickRef DASD Free Space Enhancement for R7.7



The DASD key field is being enhanced as follows:

- a wildcard DASD volume serial number like P\*0% where "\*" indicates zero or more characters "%" indicates a single character
- a wildcard SMS storage group like SG:0% where ":" indicates zero or more characters "%" indicates a single character
- the exclude character is being changed from a forward slash ("/") to a backslash ("\") and expanded to support the special names (like NONSMS).



# MVS/QuickRef DASD Free Space Enhancement for R7.7



Examples

- \MVS\* show volumes that do not begin with "MVS".
- \P\*0% show volumes that do not match "P\*0%"

\E: - show storage groups that do not begin with "E".
\E:%%%L - show storgroups not matching "E:%%%L".
\PUBLIC - show PRIVATE and STORAGE volumes
\PRIVATE - show PUBLIC and STORAGE volumes
\SMSVOLS - show NONSMS volumes

Item DASD-WILDCARD gives more details and examples.



## MVS/QuickRef Command Not Found?



NOTE: If typing QW and pressing ENTER gives "command not found", then MVS/QuickRef is not installed correctly at your site ...specifically, the ISPF Command Table update is not correctly installed.



## MVS/QuickRef Invalid License Key?



WARNING: The QuickRef license key file is sent to installations via e-mail with an attachment.

The attachment contains both text and binary information.

For this reason, you should **never open the attachment on the PC** because NotePad has been reported to change x'00' to x'20' without warning.





### Session Number: 11583 MVS/QuickRef: Beyond The Basics of QW Quick Response (QR) Code





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