

IBM Education Assistance for z/OS V2R1

Item: ENF 70 Events

Element/Component: JES3



Agenda

- Trademarks
- Presentation Objectives
- Overview
- Usage & Invocation
- Migration & Coexistence Considerations
- Appendix



Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.



Presentation Objectives

- To understand what ENF 70 events are and how to listen for them



Overview

Problem Statement / Need Addressed

- JES3 exits are needed to monitor job level phase changes
 - Affects vendor and customer products

▪ Solution

- A new ENF 70 event for JES3 has been added for tracking job status

▪ Benefit / Value

- Reduces the requirement for JES3 exits to track job flow, simplifying migration to new releases
- Also allows programs to monitor job status changes without issuing repetitive SSI 80 calls
- Allows programs to monitor job status changes in a JES-independent way



Usage & Invocation

- Multi-system ENF 70 events are issued when jobs change state
 - ENF70_SELECT indicates job was selected by a processing phase
 - conversion, execution, job transmitter, etc.
 - ENF70_DESELECT indicates job was deselected by a processing phase
 - ENF70_CHANGE indicates job was queued for a new phase
 - old and new phases are identified
 - this event also includes being requeued to a new class or service class queue prior to execution
 - ENF70_PURGE indicates job was purged
- See next slide for job fields returned, for each type of ENF 70 event mentioned above



Usage & Invocation

- Mapped by IAZENF70 - Includes information to identify the job and its current status:

ENF70_ID	DS	CL6	Eye catcher 'ENF70 '
ENF70_VERSION	DS	X	Version of mapping
ENF70_LENGTH	DS	F	Total length of ENF70 data
ENF70_FIXED_LENGTH	DS	H	Length of fixed section
ENF70_QUALIFIER	DS	XL1	Qualifier code - defined below
ENF70_SELECT	EQU	1	Job was selected
ENF70_DESELECT	EQU	2	Job was processed
ENF70_CHANGE	EQU	3	Job queued to new phase
ENF70_PURGE	EQU	4	Job was purged
ENF70_JES_NAME	DS	CL8	JES2 Member/JES3 MAIN where signal originated
ENF70_JESPLEX_ID	DS	XL8	Unique JESPLEX identifier
ENF70_JOBNAME	DS	CL8	Job name
ENF70_JOBID	DS	CL8	Job ID
ENF70_ORG_JOBID	DS	CL8	Original Job ID
ENF70_ORG_NODE	DS	CL8	Original Node
ENF70_JOBCLASS	DS	CL8	Job Class
ENF70_SRVCLASS	DS	CL8	Service class
ENF70_RDR_DATE	DS	F	Reader on date
ENF70_RDR_TIME	DS	F	Reader on time
ENF70_MAXCC	DS	XL4	Job completion code
ENF70_QUEUE	DS	XL1	Current phase job is queued for
ENF70_JESDATA	DS	CL16	JES-specific data for job



Usage & Invocation

▪ More fields mapped by IAZENF70:

ENF70_VEXT	DSECT		ENF70 variable data extension
ENF70_VEXT_EYE	DC	CL6 'ENF70X'	Eyecatcher
ENF70_VEXT_LENGTH	DS	H	Length of variable extension
ENF70_REQDATA	DS	0D	Beginning of variable data
ENF70_VEXT_SIZE0	EQU	*-ENF70_VEXT	

* REQUEST=Q_SELECT or Q_DESELECT

ENF70_DEVICE	DS	CL10	Device name
ENF70_DEVICE_TYPE	DS	XL1	Device class
ENF70_DTYPE_DEV	EQU	1	Standard device
ENF70_DTYPE_JINIT	EQU	2	JES Initiator
ENF70_DTYPE_WINIT	EQU	3	WLM Initiator
ENF70_DTYPE_PHASE	EQU	4	Select for current phase
ENF70_DESEL_FLG1	DS	XL1	Reserved
ENF70_DESEL_REQUE	EQU	B'10000000'	Job to be requeued for execution
ENF70_DEV_DATA	DS	XL4	JES-specific device data

* REQUEST=Q_CHANGE

ENF70_OLD_QUEUE	DS	XL1	Phase job moved from
ENF70_OLD_JCLASS	DS	CL8	Previous job class
ENF70_OLD_SCLASS	DS	CL8	Previous service class



Usage & Invocation

- Use ENFREQ macro to listen for ENF 70 events, for example:

<code>ENFREQ ACTION=LISTEN,</code>	Initiate the ENF70 listener
<code>CODE=ENFPC070,</code>	Listen for ENF 70 events
<code>EXIT=(R0) ,</code>	R0 contains address of listener rtn
<code>XSYS=YES,</code>	
<code>etc.</code>	

- When an ENF 70 event is signalled, a parameter list mapped by IAZENF70 is passed to the listener
- See (SA23-1373) MVS Programming: Authorized Assembler Services Reference, Volume 2 (EDT-IXG) for more information on ENFREQ



Usage & Invocation

- By default, JES3 signals ENF 70 events across all systems in a SYSPLEX
- Use the OPTIONS JES3 initialization statement to control the signalling scope of ENF 70 events:
 - ...JOBTRACK=SYSPLEX,... is also the default
 - ...JOBTRACK=JGLOBAL,... ENF 70 events will be signaled only to listeners residing on the JES3 Global
 - ...JOBTRACK=OFF,... ENF 70 event signalling is disabled
- Use
 - *MODIFY,JOBTRACK=SYSPLEX | JGLOBAL | OFF, or
 - *MODIFY,CONFIGto change signalling scope of ENF 70 events, after JES3 has started
- Use *INQUIRY,OPTIONS to display the value of the JOBTRACK parameter setting currently in effect



Migration & Coexistence Considerations

- Migration: None.
- ENF 70 listeners can exist on back-level mains, but the JES3 Global main must be at V2R1, otherwise the ENF 70 events will not be signalled.



Appendix

- See MVS Programming: Authorized Assembler Services Reference, Volume 2 (EDT-IXG) – SA23-1373, for more information on ENFREQ on how to listen for ENF 70 events

