

IBM Education Assistant (IEA) for z/OS V2R3

JES2: JES3 to JES2 Migration
JES2: JCL Simplification

Agenda

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Trademarks

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

None

Session Objectives

- In this session, we will show the support added for JES3 JECL.
- A table showing the statements and keywords and how each is handled.
- Generic Tracker Updates.
- Miscellaneous JCL changes

Overview

- Problem Statement / Need Addressed
 - JES3 JECL support is intended to greatly reduce the JECL conversion needed to run jobs originally coded for the JES3 environment in a JES2 environment.
 - Easily identify the use of JES2 and JES3 JECL statements by jobname.
- Solution
 - JES3 JECL is parsed and (for the most part) the values are converted and used just as if the values were provided via JCL or via JES2 JECL.
 - Generic Tracking is used to record the usage of JES3 (and JES2) JECL.
- Benefit / Value
 - Less effort needed to convert job streams to operate correctly in a JES2 environment
 - Generic Tracking aids in locating jobs using JECL.

Usage & Invocation

- This activates the processing of JECL of the form `//*xxx`
 - `$T INPUTDEF, JES3JECL=PROCESS`
- This specifies whether individual JES3 JECL verbs are processed, given a warning message, given an error message or ignored
 - `$T JECLDEF, JES3= (MAIN=PROCESS, DATASET=PROCESS, ...)`

Usage & Invocation

//*DATASET	Tolerated, but not supported
//*ENDDATASET	Required if /*DATASET used
//*FORMAT	Partially supported (converted to OUTPUT JCL card)
//*MAIN	Partially supported (supported in z/OS 2.2)
//*NET	Partially supported (converted to JES2 job group)
//*NETACCT	Fully supported
//*OPERATOR	Supported, but message text ends in 71, not 80
/**PAUSE	Not supported, ignored if present
//*PROCESS	Tolerated, but not supported
//*ENDPROCESS	Tolerated, but not supported
//*ROUTE XEQ	Not supported, job stream flushed (not same as JES2 /*ROUTE XEQ)

Usage & Invocation - // *MAIN

- ACMAIN, IORATE, LREGION, MSS, RINGCHK, TRKGRPS, TYPE – **Obsolete**
- BYTES, CARDS, CLASS, HOLD, JOURNAL, LINES, ORG – **Supported**
- PAGES, PROC, SYSTEM, USER – **Supported**
- DEADLINE, EXPDTCHK, FAILURE, FETCH, SETUP, SPART – **Not supported**
- THWSSEP, UPDATE – **Not supported**
- **Obsolete** means that a warning diagnostic is written, but is otherwise ignored.
- **Not supported** means that an error message is generated and the job is given a JCL ERROR

Usage & Invocation - // *FORMAT

- PR/PU **positional** – ignored
- DDNAME, CARRIAGE/FCB, CHARS, COMPACT, COPIES, DEST –supported
- EXTWTR, FLASH, FORMS, MODIFY, PRTY, STACKER, TRAIN – supported
- CHNSIZE, INT, OVFL, THRESHLD – not supported
- **Not supported** means that an error message is generated and the job is given a JCL ERROR
- Each // *FORMAT statement results in a // OUTPUT statement which is forced to be after the JOB statement and before the first EXEC statement. The name given the OUTPUT statements will be of the form JES2nnnn where *nnnn* begins at 0000

Usage & Invocation - // *NETACCT

- All keywords supported in exactly the same way as JES3 supports them

Usage & Invocation - // *NET

- ID/NETID, ABCMP/AC, ABNORMAL, NORMAL, NETREL/NR – Supported
- NHOLD/HC, NRCMP/PC, OPHOLD/OH, RELEASE/RL – Supported
- DEVPOOL, DEVREUSE, RELSCHCT/RS - Obsolete
- **Obsolete** means that a warning diagnostic is written, but is otherwise ignored.

Usage & Invocation – JECL Tracker

- Generic tracking added for JECL
 - Similar to what was done in JES3 in z/OS 2.2
- Will apply to both JES2 and JES3 JECL
 - If the JECL type is active on INPUTDEF

```
-----
INSTANCE:      1                      COUNT:      1
EVENTDESC:     '|00000000 0|00100000 0| INTRDR    JECLOUT1 IBMUSER'+
               '  JES2                      '
OWNER:         IBMJES2                SOURCE:      HASCINJR
EVENTDATA:     x000000000000000000    x000000000000000000
PROGRAM:       *UNKNOWN                PROGRAMOFFSET: x000000000000000000
HOMEJOB:       IBMUSER                HOMEASID:     x0022
EVENTJOB:      IBMUSER                EVENTASID:    x0022
AUTHORIZED:    YES                    FIRST TIME:   2016-09-20 09:50:51
```

Usage & Invocation – JECL Tracker

- Meaning of fields in EVENTDESC (by column)

Begin JES3 JECL

1 = Delimiter - '|'
2 = /*DATASET statement
3 = /*FORMAT statement
4 = /*MAIN statement
5 = /*NET statement
6 = /*NETACCT statement
7 = /*OPERATOR statement
8 = /*PAUSE statement
9 = /*PROCESS statement
10 = Blank character
11 = /*ROUTE statement

End JES3 JECL

12 = delimiter - '|'

Begin JES2 JECL

13 = /*JOBPARM statement
14 = /*MESSAGE statement
15 = /*OUTPUT statement
16 = /*ROUTE statement
17 = /*SETUP statement
18 = /*XEQ statement
19 = /*NETACCT statement
20 = /*NOTIFY statement
21 = Blank character
22 = /*XMIT statement
23 = delimiter - '|'

End JES2 JECL

Usage & Invocation – JECL Tracker

- Meaning of fields in EVENTDESC (by column)

24 = Blank character

25-34 = JES2 Device name for port of entry for the
job stream.

35 = Blank character

36-43 = Job name

44 = Blank character

45-52 = Submitting TSO userid when SOURCE=HASCINJR.

53 = Blank character

54-57 = JES2 subsystem name

Usage & Invocation – Miscellaneous JCL Changes

- New symbols in JCL
 - &SYSEMAIL – EMAIL= value from job card
 - &SYSJOBNM – Job name of current job
 - &SYSJOBID – Job id – *xnnnnnnnn* of the current job
 - x is one of J, S, T, or G
- Support longer value for DLM=
 - Up to 18 characters
 - Supported on DD, XMIT JCL, and XMIT JECL

Usage & Invocation – Miscellaneous Change

- New DESC= keyword on JOBCCLASS(xxx) statement
 - Can be set to any description customer wants (80 character string)
`$T JOBCCLASS(Q),DESC='Quick running jobs that do not need tapes'`
 - Available for display via SSI for SDSF like products
- New JOBCCLASS GDGBIAS keyword (for GDG bias line item)
`$T JOBCCLASS(x),GDGBIAS=STEP | JOB`
 - Default for all in that class.
 - GDG Bias details in “Allocation: Eliminate need for GDG Bias usermod” presentation.

Usage & Invocation – Miscellaneous Change

- Ability to “unpurge” a job that was \$PJ'ed
 - \$PJ xxxx purges active job's current and FUTURE output
 - SPIN data set will not be printed after command
 - New support to undo \$PJ command
 - \$TJ xxxx, PURGE=NO
 - Resets purge indicator and reprocesses output spun AFTER \$PJ
 - Spin output purged by the \$PJ is lost forever

Usage & Invocation – Other Presentations

- The JES3 to JES2 migration topic is also talked about in
 - Support for `//*NET JECL` in Job Execution Controls II
 - JES2 version of an Init Deck Checker in Resiliency
 - SMF 84 records for resource usage tracking in Resiliency

Interactions & Dependencies

- None

Migration & Coexistence Considerations

- None
 - Though this is intended to assist customers migrating from JES3 to JES2

Installation

- To activate the support you need to set:
 - `INPUTDEF JES3JECL=PROCESS`
- And the appropriate keywords on `JECLDEF JES3=(xxxx=PROCESS)`
 - `$T JECLDEF, JES3=(MAIN=PROCESS)`
 - `$T JECLDEF, JES3=(FORMAT=PROCESS)`
 - Etc.

Session Summary

- JES3 JECL is supported in a JES2 environment with the exception of some obsolete and/or unsupported situations.
- New JECL tracker helps identify users of JES2 and translated JES3 JECL in your installation.
- Some small tweaks adding new JCL symbols and updated DLM= support.

Appendix

- z/OS V2R3.0 JES2 Initialization and Tuning Reference – SA32-0992-03
- z/OS V2R3.0 JES2 Messages – SA32-0989-04
- z/OS V2R3.0 MVS JCL Reference - SA23-1385-04