IBM Education Assistance for z/OS V2R1

Item: In-Stream Data in JCL Procedures and Includes
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

- Discuss changes made in JES3 V2R1 to support In-Stream data within JCL Procedures and Includes

Overview

- **Problem Statement / Need Addressed**
  - No support to allow In-Stream data in JCL PROCs or INCLUDEs

- **Solution**
  - Support added to allow In-Stream data sets to be created when processing DD DATA or DD * JCL within PROCs or INCLUDEs

  - Support added for both cataloged and in-line procedures

- **Benefit / Value**
  - Data sets do not need to be separate from PROCs or INCLUDEs

Overview

- Support added to allow In-Stream data in JCL PROCs and INCLUDEs
  - Works like In-Stream data in normal JCL stream

- Support is based on where the job converts (z/OS 2.1)
  - Job can still run on down-level system

- New SYSIN data sets are included in extended status DSLIST function

- New SYSIN data sets are visible via SDSF after toggling the 'Options' value for 'Change include SYSIN to Off/On'. When set On, a '?' in front the job on the ST panel, the SYSIN data sets created to hold the In-Stream data will appear in the data set list.

- New SYSIN data sets are NOT included in SPOOL Data Set Browse of JCLIN
  - The data sets were not part of original JCL submitted

- Works for batch jobs as well as started tasks

Usage & Invocation

- Example of In-Stream data in the job stream:
    - This use of In-Stream data has always been allowed

```
//EXAMPLE1   JOB    MSGLEVEL=(1,1),MSGCLASS=A,CLASS=B
//STEP1      EXEC   PGM=IEBGENER
//SYSIN      DD     DUMMY
//SYSPRINT   DD     SYSOUT=*
//SYSUT2     DD     SYSOUT=*
//SYSUT1     DD     *
  TEST DATA RECORD 1          <=== Start of In-stream data
  TEST DATA RECORD 2
  TEST DATA RECORD 3          <=== End of In-stream data
/*
```

Usage & Invocation

- Example of In-Stream data in an In-Line Procedure:

```
//EXAMPLE2   JOB    MSGLEVEL=(1,1),MSGCLASS=A,CLASS=W
//PROC1      PROC
//STEP1      EXEC   PGM=IEBGENER
//SYSIN      DD     DUMMY
//SYSPRINT   DD     SYSOUT=*
//SYSUT2     DD     SYSOUT=*
//SYSUT1     DD     *
  IN-LINE PROC IN-STREAM RECORD1
  IN-LINE PROC IN-STREAM RECORD2
/*
//          PEND
//RUNPROC    EXEC PROC=PROC1
```

Usage & Invocation

- Example of In-Stream data in an Cataloged Procedure:

```
PROC1           PROC
//STEP1         EXEC   PGM=IEBGENER
//SYSIN         DD     DUMMY
//SYSPRINT      DD     SYSOUT=*
//SYSUT2        DD     SYSOUT=*
//SYSUT1        DD     DATA
   CATALOGED PROC IN-STREAM RECORD1
   CATALOGED PROC IN-STREAM RECORD2
/*
//              PEND
```

- Here is the Procedure's invocation. Note that the cataloged procedure is stored in a PROCLIB in a member named CATPROC1:

```
//EXAMPLE3    JOB    MSGLEVEL=(1,1),MSGCLASS=A,CLASS=B
//STEPA       EXEC PROC=CATPROC1
```

Usage & Invocation

- Example of In-Stream data in an Include:

```
//STEP1      EXEC   PGM=IEBGENER
//SYSIN      DD     DUMMY
//SYSPRINT   DD     SYSOUT=*
//SYSUT2     DD     SYSOUT=*
//SYSUT1     DD     DATA
   INCLUDE WITH IN-STREAM RECORD1
   INCLUDE WITH IN-STREAM RECORD2
/*
```

- Here is the Include's invocation. Note that the include is stored in a PROCLIB in a member named INCLUDE1

```
//EXAMPLE4   JOB    MSGLEVEL=(1,1),MSGCLASS=A,CLASS=B
//STEPA      EXEC PROC=INCLUDE1
```

Migration & Coexistence Considerations

- There are no migration considerations.

- A job with In-Stream data will be supported if it undergoes conversion on a member that is running z/OS 2.1.

- The converted job can run on a down level system.

- There are no plans to rollback the new support to previous JES3 levels.

Appendix

- JES3 documents updated:

  − z/OS V2R1.0 MVS JCL Reference (SA23-1385)