Release 3.7

DCD III

JCL PROC Analysis Reports

Facility

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DCD III

JCL PROC Analysis Reports Facility

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Use of This Section

This section is provided to make the user aware of reports which are available for JCL analysis.

Explanation of JCL PROC Analysis Reports

The JCL PROC Analysis Reports Facility produces JCL analysis reports on either JCLPROC libraries or JCL JOB libraries. See, “Sample Reports”, under this heading for a sample of these reports.

The DCDJCL PROC explained in this section contains two steps. The first step isolates the wanted JCL members from a partitioned data set. This first step is the same program that is executed by the MBRFETCH PROC described in another section of this manual. The second step executes the program to print the JCL PROC Analysis Reports for either a PROC library or a JOB library.

A PROC library is defined as a library with existing PROCs or other JCLs which contain EXEC PGM= and DD statements.

A JOB library is defined as a library with JOB cards and EXEC proc-member-name statements.

User Options Available

There are two basic JCL Analysis Reports:

The first report is the JOBLIB report showing only two fields – JOB name and PROC name. The report when run will be listed in two sequences – 1) by JOB name and 2) by PROC name. To run, specify RPTYPE=JOBLIB on the EXEC line. Do not specify other report or J-options when running this report. LNCNT and SORTREG symbolics may be used here.

A sample EXEC line for the JOBLIB report is shown below:

```
//STEP1          EXEC     DCDJCL,RPTYPE=JOBLIB,LNCNT=60
```

The second report is the PROC or basic JCL report which shows a breakdown of user JCL for DDNAME, DSN & DISPOSITION along with related program name, proc name, step name and step number. There are three sequences to this report and several other related options.

The three sequences are:

1. DDNAME sequence
2. DSNAME sequence
3. Unsorted sequence

To produce any of these sequences, enter one of the following symbolics on the EXEC DCDJCL statement:

1. RPTYPE=DDN
2. RPTYPE=DSN
3. RPTYPE=JNOSORT
4. RPTYPE=JCL (for all three reports)

To produce any two of the reports, specify two reports options in the RPTYPE symbolic within single apostrophes as shown in this example:

RPTYPE='DDN,JNOSORT'

Other Options

JDSNONLY — When the DSNAME is missing from a DD and replaced with the use of DATA, DUMMY, SYSOUT=, DDNAME= or *, these fields will be shown as the related DSN. To exclude these DD statements, use the JDSNONLY option within the RPTYPE= symbolic within single apostrophes along with the report options selected. (Note options may be abbreviated to the first three characters).

JAPROC — Without the use of this option or the JBPROGRAM option, the three different reports will have no primary sort ahead of DDNAME, DSNAME or DDNAMES in their unsorted order within each EXEC. Using this option will sort the JCL report with PROC name as the primary (first) sort field.

JBPROGRAM — See the JAPROC option. When this option is used, the report will be sorted on program name ahead of DDNAME, DSNAME or DDNAMES in their unsorted order within each EXEC. If JAPROC is also used with this option, the PROC name for the JAPROC option will be sorted first. The program name for this JBPROGRAM option will be second, followed by DDNAME, or the unsorted DDNAME order.

JEXEC — PROC name and PROGRAM will not be shown normally if there are no DDNAMES that follow a PROC or PROGRAM name. Using this JEXEC option will force out the PROC name and/or PROGRAM name even if no DDNAMES are present. Using this option with the DSN or DDN option will cause PROGRAM/PROC records with blank DDNAME and blank DSNAME to appear at the front of the report or scattered throughout the report depending on the use of the JAPROC and JBPROGRAM option.

Example using additional options

```
//STEP1   EXEC    DCDJCL,RPTYPE='DDNAME,DSNAME,JDSN,JAP,JEX'
```

Other options for either report type

The other options that are available are number of lines per page (LNCNT=) and SORT region size (SORTREG=). The default for these are LNCNT=60 and SORTREG=600000.

Use of Control Statements for Selection of PROCs

The first step in producing a JCL PROC Analysis Report is the selection of JCL members. This is accomplished through the use of a member fetcher PROC which isolates and selects members off of a partitioned data set.

The DD name for these control statements is CTLCDMBR.

Control statements must be used to indicate which members are to be selected. The format of these control statements is as follows:

Columns	1through 4	-	The constant (INDD)
Column	5	-	An equal sign (=)
Columns	6 through *a*	-	The name of a made-up DDNAME
Column	*a*+1	-	An equal sign (=) with no spaces before or after it
Columns	*b* through *c*	-	One of the following words: 1. ALL 2. MEMBER 3. PREFIX

The remaining two fields are required if PREFIX is used as the last operand. Otherwise, they may not be used.

Columns	c+1	-	An equal sign (=) with no spaces before it or after it
Columns	d - *e*	-	A 1 to 7 character prefix which will be used to limit selection

An illustration of the possible combinations follows:

1. INDD=ddname=ALL
2. INDD=ddname=MEMBER
3. INDD=ddname=PREFIX=prefix

An example showing the use of these control statements follows:

```
//STEP1       EXEC   DCDJCL
//MBR.CTLCDMBR      DD   *
INDD=USERDD=PREFIX=SP
//MBR.USERDD          DD   DSN=USER.JCL.LIBRARY,DISP=SHR
```

The above example will pull off all members from the library, specified by the DD name USERDD, which begins with the prefix SP and passes them out to a sequential data set.

It is left up to the user to ensure that all members beginning with the prefix used are definitely JCL members and not something else, (e.g., COBOL programs, COPY members, Assembler programs).

If members are wanted from more than one library, then multiple DDNAMEs may be used. An example follows:

```
//STEP2     EXEC   DCDJCL
//MBR.CTLCDMBR   DD    *
INDD=USERDD=ALL
INDD=OTHERDD=ALL
//MBR.USERDD       DD   DSN=USER.JCL.LIBRARY, DISP=SHR
//MBR.OTHERDD      DD   DSN=USER.JCL.LIBRARY2, DISP=SHR
```

The use of the following words for selection is described here:

1. **ALL**
2. **MEMBER**
3. **PREFIX**

1. **ALL** indicates that all members will be selected from the partitioned data set.

2. **MEMBER** indicates that the user wants to make further selection with member name control cards. These control statements immediately follow the control statement which contains the word MEMBER. An example follows:

```
/STEP3     EXEC    DCDJCL
//MBR.CTLCDMBR   DD   *
INDD=USERDD=MEMBER
MEMBER1
MEMBER2
MEMB03
MEMBER04
//MBR.USERDD       DD   DSN=USER.PDS,DISP=SHR
```

3. **PREFIX** indicates that selection is to be done strictly on the basis of a 1 to 7 character prefix that follows the **(=)** sign after the word PREFIX. An example follows:

```
//STEP4     EXEC    DCDJCL
//MBR.CTLCDMBR   DD   *
INDD=USERDD=PREFIX=TRR
//MBR.USERDD       DD   DSN=USER.JCL.PROC.LIBRARY,DISP=SHR
```

Further notes on the member fetcher:

1. Compressing the PDS before using the data set will eliminate the possibility of pulling in older unwanted members from the PDS.

2. Multiple control statements may be used for any of the above formats.

3. To prevent obtaining duplicate members, do not mix formats in the same run.

Use of Control Statements for Excluding DDNAMEs

When using the DCDJCL PROC to produce a report on a PROC or other JCL which contains DD statements, it is possible to exclude DDNAMEs from the report that do not necessarily add to the value of the report. In some cases, just add paper and distract from the value of the report, (e.g., DDNAMEs like SYSOUT, SYSPRINT and SORTLIB).

To invoke this feature, add a DDNAME with the name of EXCLUDE at the end of the JCL and add the DDNAMEs that are to be excluded as shown in the example below:

```
//STEP1      EXEC   DCDJCL,RPTYPE=JCL
//MBR.CTLCDMBR DD  *
INDD=JCLDD=ALL
//MBR.JCLDD            DD   DSN=USER.JCLPROC.LIBRARY,DISP=SHR
//JCLRPT.EXCLUDE       DD   *
SYSUDUMP
SYSOUT
SYSPRINT
SORTLIB
JOBCAT
STEPCAT
/ *
```

JCL Examples

The following example is provided for producing the JCL PROC Analysis Reports:

Example 1

```
//STEP1     EXEC     DCDJCL,RPTYPE=DDN
//MBR.CTLCDMBR  DD   *
INDD=USERDD=MEMBER
JCLPROC1
PROC2
JCLPROC3
PROC4
//MBR.USERDD       DD   DSN=USER.JCL.LIBRARY,DISP=SHR
/ *
```

The above example produces the JCL PROC Analysis Report in DDNAME sequence for the four PROCs listed above.

Example 2

```
//STEP2     EXEC     DCDJCL,RPTYPE=JCL
//MBR.CTLCDMBR  DD   *
INDD=ALPHA=PREFIX=TR
INDD=ALPHA=PREFIX=PR
//MBR.ALPHA         DD   DSN=USER.JCL2.LIBRARY,DISP=SHR
//JCLRPT.EXCLUDE DD    *
SYSOUT
SYSPRINT
/ *
```

The above example produces the JCL PROC Analysis Report in both DDNAME and DSNAME sequence for all PROCs that begin with the prefix TR or PR on the library USER.JCL2.LIBRARY. It will omit the DDNAMEs, SYSOUT and SYSPRINT from that report.

DCDJCL PROC

The following is a listing of the DCDJCL PROC:

```
//DCDJCL   PROC      BUF=5,                    ALLOW 5 BUFFERS FOR MVS
//                   LINECNT=60,               NBR OF LINES PER PAGE
//                   OTHER=,
//                   PRINT='*',
//                   REG=2048K,
//                   RPTYPE=JCL,               (JCL) GIVES THE REPORT IN THREE SEQUENCES
//                   SORTREG=600000,
//                   WORK=SYSDA
//*
//*      MARBLE COMPUTER, INC.                 DCDJCL PROC FOR PROC ANALYSIS REPORTS
//*                                                                          LM090109
 //MBR EXEC     PGM=MBRFETCH,REGION=512K
//*
//*      INSERT          STEPLIB IF NECESSARY
//*
//SYSPRINT      DD   SYSOUT=&PRINT
//WORKFILE      DD   UNIT=&WORK,SPACE=(TRK,(4,2))
//OUTSET        DD   DSN=&&PASSFILE,DISP=(,PASS),UNIT=&WORK,
//         SPACE=(CYL,(5,10))
//*
//JCLRPT    EXEC       PGM=DCDJCL,REGION=&REG,COND=(4,LT,MBR),
//         PARM=('LNC=&LINECNT','SOR=&SORTREG',&RPTYPE,,&OTHER)
//*
//*      INSERT STEPLIB IF NECESSARY
//*
//PRINT           DD   SYSOUT=&PRINT,DCB=BLKSIZE=133
//PRTMSG          DD   SYSOUT=&PRINT,DCB=BLKSIZE=133
//RPTFILE         DD   SYSOUT=&PRINT,DCB=BLKSIZE=133
//SYSOUT          DD   SYSOUT=&PRINT,DCB=BLKSIZE=121
//SYSUDUMP    DD   SYSOUT=&PRINT,DCB=BLKSIZE=133
//SORTMESS    DD   DUMMY,DCB=BLKSIZE=121
//SORTLIB         DD   DSN=SYS1.SORTLIB,DISP=SHR
//SORTWK01    DD   UNIT=&WORK,SPACE=(TRK,(400),,CONTIG)
//SORTWK02    DD   UNIT=&WORK,SPACE=(TRK,(400),,CONTIG)
//SORTWK03    DD   UNIT=&WORK,SPACE=(TRK,(400),,CONTIG)
//PROCFILE        DD   DSN=&&PASSFILE,DISP=(OLD,DELETE),DCB=BUFNO=&BUF
//WKFILE          DD   DISP=(,DELETE),UNIT=&WORK,SPACE=(3240,(200,120)),
//              DCB=(LRECL=108,BLKSIZE=3240,RECFM=FB,BUFNO=&BUF)
//SYSIN           DD   DDNAME=EXCLUDE
//*
//CONTROL         DD   DSN=USER.PDS(DCDCNTRL),DISP=SHR
```

Sample Reports

DATA SET ANALYSIS ** 01/01/2001 ********** PAGE 1

DSNAME	PROGRAM*	PROC**	STEP-NBR	STEP-NAME	DDNAME**	DISPOSITION
	DCDJCL	DCDJCL	2	DCDRPT	WKFILE	NEW DELETE
&&COMPLIST	DCDMAIN	COMACL	1	DCD	INFILE	OLD PASS
	GIVEBACK	COMACL	2	RETCMPLR	INFILE	OLD DELETE
&&PASSFILE	DCDJCL	DCDJCL	2	JCLRPT	PROFILE	OLD DELETE
	MBRFETCH	DCDJCL	1	MBR	OUTSET	MOD PASS
&&TEMP	DCDMAIN	LIBACL	2	DCD	COBOLIN	OLD DELETE
		PANACL	2	DCD	COBOLIN	OLD DELETE
	LIBRARAN	LIBACL	1	LIB	OSJOB	NEW PASS
	PAN#1	PANACL	1	PAN	PAN002	NEW PASS
DDNAME	DCDJCL	DCDJCL	2	JCLRPT	SYSIN	
DUMMY	DCDJCL	DCDJCL	2	JCLRPT	SORTMESS	
LIBRARAN.SOURCE	LIBRARAN	LIBACL	1	LIB	MASTER	SHR
PANVALET.SOURCE	PAN#1	PANACL	1	PAN	PAN001	SHR
SYSOUT	DCDJCL	DCDJCL	2	JCLRPT	PRINT	
			2	JCLRPT	PRTMSG	
			2	JCLRPT	RPTFILE	
			2	JCLRPT	SYSOUT	
			2	JCLRPT	SYSUDUMP	
	DCDMAIN	COMACL	1	DCD	PRINT	
			1	DCD	PRTCMPLR	
			1	DCD	SORTMESS	
			1	DCD	SYSOUT	
			2	DCD	SYSOUT	
		DCDACL	1	DCD	PRINT	
			1	DCD	SORTMESS	
			1	DCD	SYSOUT	
		DCDCOBOL	1	DCD	SYSOUT	
		LIBACL	2	DCD	PRINT	
			2	DCD	SORTMESS	
			2	DCD	SYSOUT	
			2	DCD	SYSOUT	
		PANACL	2	DCD	PRINT	
			2	DCD	SORTMESS	
			2	DCD	SYSOUT	

JCL PROC Analysis Report - DSN Sequence

DATA SET ANALYSIS *** *01/01/2001********** *******PAGE 1

DDNAME*	PROGRAM	PROC ****	STEP-NBR	STEP-NAME	DSNAME**********	DISPOSITION
COBOLIN	DCDMAIN	LIBACL	2	DCD	&&TEMP	OLD DELETE
		PANACL	2	DCD	&&TEMP	OLD DELETE
CONTROL	DCDJCL	DCDJCL	2	JCLRPT	USER.PDS(DCDCNTRL)	SHR
		PANACL	2	JCLRPT	USER.PDS(DCDCNTRL)	SHR
	DCDMAIN	COMACL	1	DCD	USER.PDS(DCDCNTRL)	SHR
		DCDACL	1	DCD	USER.PDS(DCDCNTRL)	SHR
		LIBACL	2	DCD	USER.PDS(DCDCNTRL)	SHR
		PANACL	2	DCD	USER.PDS(DCDCNTRL)	SHR
	DCDSYSTM	DCDCOBOL	1	DCD	USER.PDS(DCDCNTRL)	SHR
INFILE	DCDMAIN	COMACL	1	DCD	&&COMPLIST	OLD PASS
	GIVEBACK	COMACL	2	RETCMPLR	&&COMPLIST	OLD DELETE
LIST	LIBRARAN	LIBACL	1	LIB	SYSOUT	
MASTER	LIBRARAN	LIBACL	1	LIB	LIBRARAN.SOURCE	SHR
OSJOB	LIBRARAN	LIBACL	1	LIB	&&TEMP	NEW PASS
OUTSET	MBRFETCH	DCDJCL	1	MBR	&&PASSFILE	MOD PASS
PAN001	PAN#1	PANACL	1	PAN	PANVALET.SOURCE	SHR
PAN002	PAN#1	PANACL	1	PAN	&&TEMP	NEW PASS
PRINT	DCDJCL	DCDJCL	2	JCLRPT	SYSOUT	
	DCDMAIN	COMACL	1	DCD	SYSOUT	
		DCDACL	1	DCD	SYSOUT	
		LIBACL	2	DCD	SYSOUT	
		PANACL	2	DCD	SYSOUT	
	DCDSYSTM	DCDCOBOL	1	DCD	SYSOUT	
PROFILE	DCDJCL	DCDJCL	2	JCLRPT	&&PASSFILE	OLD DELETE
PRTCMPLR	DCDMAIN	COMACL	1	DCD	SYSOUT	
PRTFILE	GIVEBACK	COMACL	2	RETCMPLR	SYSOUT	
PRTMSG	DCDJCL	DCDJCL	2	JCLRPT	SYSOUT	
REPORTS	DCDSYSTM	DCDCOBOL	1	DCD	SYSOUT	

JCL PROC Analysis Report - DDNAME Sequence

```
JCL  DATA  SET  ANALYSIS          01/01/2001              INPUT    SEQUENCE    (NO  SORTING)        PAGE    1
DDNAME**   PROGRAM*  PROC****    STEP-NBR    STEP-NAME DSNAME************************************** DISPOSITION

CONTROL    DCDMAIN   DCDACL          1         DCD      USER.PDS(DCDCNTRL)                          SHR
PRINT                                1                  SYSOUT
SORTLIB                              1                  SYS1.SORTLIB                                SHR
SORTMESS                             1                  SYSOUT
SYSOUT                               1                  SYOUT

SYSPRINT   LIBRARAN  LIBACL          1         LIB      SYSOUT
LIST                                 1                  SYSOUT
MASTER                               1                  LIBRARAN.SOURCE                             SHR
OSJOB                                1                  &&TEMP                                      NEW PASS

COBOLIN    DCDMAIN                   2         DCD      && TEMP                                     OLD DELETE
CONTROL                              2                  USERPDS(DCDCNTRL)                           SHR
PRINT                                2                  SYSOUT
SORTLIB                              2                  SYS1.SORTLIB                                SHR
SORTMESS                             2                  SYSOUT
SYSOUT                               2                  SYSOUT

SYSPRINT   MBRFETCH  DCDJCL          1         MBR      SYSOUT
OUTSET                               1                  &&PASSFILE                                  MOD PASS

PRINT      DCDJCL                    2         JCLRPT   SYSOUT
PRTMSG                               2                  SYSOUT
RPTFILE                              2                  SYSOUT
SYSOUT                               2                  SYSOUT
SYSUDUMP                             2                  SYSOUT
SYSOUT                               2                  SYSOUT
SORTMESS                             2                  DUMMY
SORTLIB                              2                  SYS1.SORTLIB                                SHR
PROCFILE                             2                  &&PASSFILE                                  OLD DELETE
WKFILE                               2                                                              NEW DELETE
SYSIN                                2                  DDNAME=EXCLUDE
CONTROL                              2                  USER.PDS(DCDCNTRL)                          SHR
```

JCL PROC Analysis Report - Unsorted Sequence

JCL JOBLIB ANALYSIS 01/01/2001 IN JOB NAME SEQUENCE PAGE 1

JOBNAME	PROCNAME
DCD115D	>----------<
	COPYPROC
	DVN2PROC
	PROC003
DCD116D	>----------<
	DTNUPR2
DCD116NA	>----------<
	DTNPRC60
	DTNUPR2
DCD117D	>----------<
	DSN1PR1
	DSN2PR1
	DSN3PR6
	DSN4PR6
	PROC01
	PROC02
	TRAC03NA
DCD118L	>----------<
	TRUN02A
	TRUN03
	YTOKENS

Job Library Report - JOB NAME Sequence