

MFNET REUSABLE JCL

Purpose of this document

This is a repository of widely used JCL.

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REUSABLE

<https://www.ibm.com/docs/en/zos-basic-skills?topic=sample-reusable-jcl-deleting-some-vsam-clusters>

[FileAid](#)

<https://docs.bmc.com/docs/bcfamvs/2101/sample-jcl-statements-1014793496.html>

<https://www.techagilist.com/mainframe/jcl/fileaid-in-batch-mode-with-examples/>

SDSF Commands over batch:

<https://www.ibm.com/docs/en/zos/2.1.0?topic=reference-jcl-command-statement>

<https://www.ibm.com/docs/en/zos/2.3.0?topic=d-syntax-7>

<https://www.ibm.com/docs/en/zos/2.3.0?topic=d-examples-command-statement>

<https://www.ibm.com/docs/en/zos/2.3.0?topic=batch-invoking-sdsf-in>

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Parameters

DCB:

<https://www.ibm.com/docs/en/zos/2.1.0?topic=parameter-examples-dcb>

<https://www.ibm.com/docs/en/zos/2.2.0?topic=dp-syntax-2>

<https://www.ibm.com/docs/en/zvm/7.2?topic=reference-device-characteristics>

<https://ibmmainframes.com/references/disk.html>

<https://www.ibm.com/docs/en/zos/2.2.0?topic=requirements-step-1-number-tracks-required>

//DD1 DD DSNAME=ALP,DISP=(,KEEP),VOLUME=SER=44321, // UNIT=3400-6,DCB=
(RECFM=FB,LRECL=240,BLKSIZE=960, // DEN=1,TRTCH=C)

1 Cyl = 15 Tracks 1 Track = 25 Blocks

1 Cylinder = 55,996 * 15 = 839,940 bytes. so 1000 cylinders = 839,940 * 1000

1 Megabyte = 1,048,576 (2 to the 20th power) bytes. 1000 cylinders = (839,940 * 1000) / 1,048,576 = 801.029

MB 1 terabyte = 2 to the 40th power or approximately a thousand billion bytes (that is, a thousand gigabytes).

1000 cylinders = (839,940 * 1000) / (1,048,576 * 1,048,576) = .000763 Terabytes

SET statement

<https://www.ibm.com/docs/en/zos/2.1.0?topic=description-examples-set-statement>

TYPRUN

<https://www.ibm.com/docs/en/zos/2.2.0?topic=parameter-example-typrun>

<https://www.ibm.com/docs/en/zos/2.2.0?topic=statement-typrun-parameter> S PROC,TYP=EXEC

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FileAid

<https://docs.bmc.com/docs/bcfamvs/2101/sample-jcl-statements-1014793496.html>

<https://www.techagilist.com/mainframe/jcl/fileaid-in-batch-mode-with-examples/>

SDSF

<https://www.ibm.com/docs/en/zos/2.1.0?topic=reference-jcl-command-statement>

<https://www.ibm.com/docs/en/zos/2.3.0?topic=d-syntax-7> <https://www.ibm.com/docs/en/zos/2.3.0?topic=d-examples-command-statement> <https://www.ibm.com/docs/en/zos/2.3.0?topic=batch-invoking-sdsf-in>

BPXBATCH:

<https://www.ibm.com/docs/en/zos/2.1.0?topic=utility-invoking-bpxbatch-in-batch-job>
<https://www.ibm.com/docs/en/zos/2.1.0?topic=command-entering-long-shell>
<https://www.ibm.com/docs/en/zos/2.1.0?topic=job-example-running-shell-command-in-batch>
<https://www.ibm.com/docs/en/zos/2.1.0?topic=bpxbatch-ways-define-stdparm>
<https://www.ibm.com/docs/en/zos/2.1.0?topic=utility-passing-parameter-data-bpxbatch#batstdparm>

REXX

<https://ibmmainframes.com/about51007.html> <https://www.ibm.com/docs/en/zos/2.1.0?topic=ir-using-irxjcl-run-rexx-exec-in-mvs-batch> <https://www.ibm.com/docs/en/zos/2.1.0?topic=routine-exec-block-execblk>

VSAM:

Use IDCAMS.

REPRO to create another. Use LIKE to replicate. DELETE LISTCAT ALL ENTRIES(DATASET-NAME)

<https://www.ibm.com/docs/en/zos/2.4.0?topic=de-delete-key-sequenced-vsam-cluster-in-catalog-example-6>
<https://www.ibm.com/docs/en/zos/2.4.0?topic=de-delete-key-sequenced-vsam-cluster-in-catalog-example-6>
<https://www.ibm.com/docs/en/zos-basic-skills?topic=sample-reusable-jcl-deleting-some-vsam-clusters>

SMPE

HTTPS

```

<ORDERSERVER
  inventory="all"
  url="https://ws-prod.bmc.com/smpe"
  keyring="USERID/RINGNAME"
  certificate="BMC CERT">
</ORDERSERVER>
//SMPCLNT DD *
<CLIENT
  javahome="/usr/lpp/java/J8.0_64"
  classpath="/usr/lpp/smp/classes"
  downloadmethod="https"
  downloadkeyring="javatruststore">
</CLIENT>

```

RACF RING: keyring="USERID/RINGLABEL"

ACF2 RING: keyring="USERID/RINGLABEL"

USER.RING LABEL=RINGNAME keyring="USER/RINGNAME"

FTP

```
<CLIENT>
<FTPOPTIONS>
  -d -v -f "'FTPDATA DATASET'"
</FTPOPTIONS>
</CLIENT>
```

EXAMPLES

ACF2

CERTIFICATE INVENTORY ACF2

```
//STEP01 EXEC PGM=IKJEFT01
//SYSTSPRT DD DISP=SHR,DSN=yourdsn
//SYSTSIN DD *
ACF
T PROF(USER) DIV(CERTDATA)
L LIKE(-)
```

KEYRING INVENTORY ACF2

```
//STEP01 EXEC PGM=IKJEFT01
//SYSTSPRT DD DISP=SHR,DSN=yourdsn
//SYSTSIN DD *
ACF
T PROF(USER) DIV(KEYRING)
L LIKE(-)
```

USER INVENTORY ACF2

```
//STEP01 EXEC PGM=IKJEFT01
//SYSTSPRT DD DISP=SHR,DSN=yourdsn
//SYSTSIN DD *
ACF
L LIKE(-)
```

USER PASSWORD CHANGE ACF2

```
//STEP01 EXEC PGM=IKJEFT01
//SYSTSPRT DD DISP=SHR,DSN=yourdsn
//SYSTSIN DD *
ACF
CHANGE userid PASS(password)
```

CERTIFICATE INSERT

CERTIFICATE CONNECT

RDA RULE

IRR RULE

```
//STEP01 EXEC PGM=IKJEFT01
//SYSTSPRT DD DISP=SHR,DSN=yourdsn
//SYSTSIN DD *
ACF
```

ADRDSSU

```
//DUMP EXEC PGM=ADRDSSU
//SYSPRINT DD SYSOUT=*
//DDOUT DD DSN=SHRSYS.IODF.DMP1,DISP=(,CATLG),
// SPACE=(CYL,(100,100),RLSE),UNIT=3390
//SYSIN DD *
DUMP -
OUTDDNAME(DDOUT) -
DATASET(INCLUDE(IODF.CLUSTER)) -
TOL(ENQF)
/*
```

SDSF Commands:

```
//STEP01 EXEC PGM=SDSF,PARM='++30,256'
//ISFOUT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSTSPRT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//DATAOUT DD DSN=HLQ.QL,
// DISP=(SHR,KEEP,KEEP)
//ISFIN DD *
```

```
SET CONSOLE BATCH
SET DELAY 100
ULOG
/D IPLINFO
PRINTFILE DATAOUT
PRINT
PRINT CLOSE
END
```

IEBCOPY - Copy MODULEs

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD  SYSOUT=*
//MEMIN    DD DSN=HLQ.QL(MEMBER),
//          DISP=SHR
//MEMOUT    DD DSN=HLQ.QL2(MEMBER),
//          DISP=SHR
//SYSIN    DD *
COPYOPER   COPY      OUTDD=MEMOUT
              INDD=MEMIN
              SELECT  MEMBER=((MEMBER,,R))
```

IDCAMS

IDCAMS - COPY to GDG

```
//STEP2    EXEC PGM=IDCAMS
//SYSPRINT DD  SYSOUT=*
//IN       DD DSN=HLQ.QL,
//          DISP=SHR
//OUT      DD DSN=HLQ.GDGBASE(+1),
//          DISP=(NEW,CATLG, ),
//          SPACE=(TRK,(15,10)),
//          DCB=(BLKSIZE=27920,LRECL=80,RECFM=FB)
//SYSIN    DD *
          REPRO IFILE(IN) OFILE(OUT) REPLACE
/*
```

IDCAMS - DELETE

```
//STEP2    EXEC PGM=IDCAMS
//SYSPRINT DD  SYSOUT=*
//SYSIN    DD *
```

```
DELETE dsname  
/*
```

IDCAMS - CREATE PAGE DATASET

```
//CREATE EXEC PGM=IDCAMS  
//SYSPRINT DD SYSOUT=*  
//SYSIN DD *  
  DEFINE PAGESPACE ( -  
    NAME(SYS1.NEW.PAGE) -  
    CYLINDERS(20) -  
    VOLUME(volume))
```

IDCAMS - GDG BATCH

```
//STEP1 EXEC PGM=IDCAMS  
//SYSPRINT DD SYSOUT=*  
//SYSIN DD *  
  DEFINE GDG(NAME(HLQ.GDGBASE) -  
    LIMIT(10) -  
    NOEMPTY -  
    SCRATCH)
```

IDCAMS - CREATE INDEXED VSAM FILES

```
//VSAM EXEC PGM=IDCAMS  
//SYSPRINT DD SYSOUT=*  
//SYSIN DD *  
  DEFINE CLUSTER( -  
    NAME(yourcluster) -  
    INDEXED -  
    NOIMBED -  
    REUSE -  
    NOREPLICATE -  
    FREESPACE(10 5) -  
    KEYS (27 0) -  
    RECORDSIZE(32 78) -  
    SHAREOPTIONS(2)) -  
    DATA -  
    (CONTROLINTERVALSIZE(4096) -  
    TRK(500) -  
    NAME(yourcluster.DATA))
```

IDCAMS - CREATE ZFS FILE

```
//FILECREA EXEC PGM=IDCAMS,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
    DEFINE CLUSTER( -
        NAME(yourzfs) -
        VOLUME(volume) -
        LINEAR -
        CYL(100 20) -
        SHAREOPTIONS(3))
/*
//FORMAT EXEC PGM=IOEAGFMT,REGION=0M,COND=(0,LT,FILECREA),
//          PARM='-aggregate yourzfs -compat'
//SYSPRINT DD SYSOUT=*
```

FTP BATCH

```
//FTP1A EXEC PGM=FTP,COND=(0,NE),REGION=0M,
/* Choose the remote host on PARM and port (after a space)
//          PARM='hostname (EXIT TIMEOUT 720'
/* You can use a NETRC to grab the credentials
/* If you are using NETRC you don't need to input user and password
//NETRC DD DISP=SHR,DSN=HLQ.QL(NETRC)
//SYSPRINT DD SYSOUT=*
/* You can use a different FTPDATA file for the transfer
//SYSFTPD DD DISP=SHR,DSN=HLQ.QL(FTPDATA)
//OUTPUT DD SYSOUT=*
//INPUT DD DUMMY
Ls
```

NETRC: machine iphostname login user password pass

FTPS BATCH (WITHOUT AT-TLS)

```
//FTP1A EXEC PGM=FTP,COND=(0,NE),REGION=0M,
/* Choose the remote host on PARM and port (after a space)
//          PARM='hostname (EXIT TIMEOUT 720'
/* You can use a NETRC to grab the credentials
/* If you are using NETRC you don't need to input user and password
//CCEEPTS DD *
ENVAR('GSK_PROTOCOL_TLSV1_2=1',
GSK_V3_CIPHER_SPECS=3D39383735)
//NETRC DD DISP=SHR,DSN=HLQ.QL(NETRC)
//SYSPRINT DD SYSOUT=*
/* You can use a different FTPDATA file for the transfer
//SYSFTPD DD DISP=SHR,DSN=HLQ.QL(FTPDATA)
//OUTPUT DD SYSOUT=*
```



```
//INPUT    DD DUMMY  
Ls
```

IKJEFT1B - EXECUTE REXX from external Library

```
//REPOFTP   EXEC PGM=IKJEFT1B,TIME=1439  
//SYSEXEC  DD DISP=SHR,DSN=HLQ.QL  
//SYSTSPRT DD SYSOUT=*  
//SYSTSIN  DD *  
    %REXXMEM  
/*
```

IKJEFT01 - TSO EXEC

```
//TSOEX     EXEC PGM=IKJEFT01  
//SYSEXEC  DD DSN=HLQ.QL,DISP=SHR  
//SYSTSPRT DD SYSOUT=*  
//SYSPRINT DD SYSOUT=*  
//SYSTSIN  DD *  
    EXEC 'HLQ.QL(REXXMEM)'  
//
```

IPCS BATCH

```
//SNIFFER   EXEC PGM=IKJEFT01,DYNAMNBR=50  
//STEPLIB  DD DISP=SHR,DSN=SYS1.MIGLIB  
//IPCSPARM DD DISP=SHR,DSN=SYS1.PARMLIB  
//          DD DISP=SHR,DSN=SYS1.IBM.PARMLIB  
//IPCSDDIR DD DISP=SHR,DSN=HLQ.IPCS  
//SYSPROC  DD DISP=SHR,DSN=SYS1.SBLCLI0  
//SYSTSPRT DD SYSOUT=*  
//IPCSTOC  DD SYSOUT=*  
//IPCSPRNT DD SYSOUT=*  
//SNIFFER  DD DSN=HLQ.SNIFFER,DISP=(NEW,CATLG),  
//          UNIT=3390,RETPD=30,SPACE=((CYL,(100,100)),  
//          DCB=(RECFM=VB,LRECL=27994,BLKSIZE=0)  
//*  
//SYSTSIN   DD *  
    IPCS  
    CTRACE DSN('HLQ.CTTRACE') -  
        COMP(SYSTCPDA) SUB(TCPIP)) FULL -  
        OPTIONS((PACKETTRACE SNIFFER(27956 ETHERNET) NOREASSEMBLY STATS))  
END
```

PING BATCH

```
//STEP01    EXEC  PGM=IKJEFT01
//SYSTSPRT  DD   DISP=SHR,DSN=output
//SYSTSIN   DD   *
PING 8.8.8.8
```

SFTP BATCH

```
//SFTPSTEP  EXEC  PGM=BPXBATCH
//SYSPRINT  DD   SYSOUT=*
//STDOUT    DD   SYSOUT=*
//STDERR    DD   SYSOUT=*
//STDPARM   DD   *
sh sftp -P port
-o "StrictHostKeyChecking no"
userid@server
```

SMTP

When sending Attachments, SYSUT1 needs to be in a dataset and it has to have the same LRECL as the file you are attaching

```
//SMTPTEST  EXEC  PGM=IEBGENER
//SYSPRINT  DD   SYSOUT=*
//SYSUT2    DD   SYSOUT=(B,SMTP)
//SYSIN     DD   DUMMY
//SYSUT1    DD   *
HELO sysname
MAIL FROM:MAINFRAME@youraccount.COM
RCPT TO:yourmail@youraccount.COM
RCPT TO:yourseniormail@youraccount.COM
DATA
FROM: MAINFRAME
TO:yourmail@youraccount.COM
TO:yourseniormail@youraccount.COM
SUBJECT: TEST
MIME-VERSION: 1.0
CONTENT-TYPE: TEXT/PLAIN
CONTENT-DISPOSITION: ATTACHMENT; FILENAME=TEST.TXT
//          DD   DISP=SHR,DSN=yourdataset
```

NOTE: make sure the Record Format and Record Length are the same between the PDS in which you have this member and "yourdataset" DCB parameters.

<https://www.ibm.com/support/pages/outbound-email-attachments-using-smtp-or-cssmtp-zos>

SMF Records ICETOOL

<https://www.ibm.com/docs/en/zos/2.1.0?topic=profile-smfinit-smfterm-statements>

Type 20

```
//STEP1 EXEC PGM=ICETOOL
//TOOLMSG DD SYSOUT=*
//DFSMSG DD SYSOUT=*
//RAWSMF DD DISP=SHR,DSN=SMFDATA

//SORTSMF DD DSN=SMFSORT,
// DISP=SHR,UNIT=SYSDA,
// SPACE=(CYL,(50,10),RLSE)
//PRINT DD SYSOUT=*
//VREPT DD SYSOUT=*
//* ST 21 - 275
//* ST 2 - 300
//* HEADER('BY') ON(150,4,BI) -
//* HEADER('BY') ON(154,8,BI) -
//* HEADER('BY') ON(162,8,BI)
//TOOLIN DD *
COPY FROM(RAWSMF) TO(SORTSMF) USING(VLSH)

DISPLAY FROM(SORTSMF) LIST(VREPT) -
TITLE('SMF TYPE-119 SUBTYPE 20') -
BETWEEN(0) -
HEADER('TIME') ON(7,4,TM1,E'99:99:99') - HEADER('') ON(30,1,CH)-
HEADER('DATE') ON(11,4,DT1,E'9999/99/99') -
HEADER('') ON(30,1,CH)-
HEADER('SYSID') ON(15,4,CH) -
HEADER('') ON(30,1,CH)-
HEADER('IP') ON(141,1,BI,E'999.') -
HEADER('') ON(142,1,BI,E'999.') -
HEADER('') ON(143,1,BI,E'999.') -
HEADER('') ON(144,1,BI,E'999') -
HEADER('') ON(30,1,CH)-
HEADER('LU NAME') ON(109,8,CH) -
HEADER('') ON(30,1,CH)-
HEADER('APPLICATION') ON(117,8,CH)
//VLSHCNTL DD *
OPTION COPY,VLSHRT
INCLUDE COND=(((6,1,BI,EQ,+119,AND,23,2,BI,EQ,+20), AND,45,4,BI,GT,0), AND,7,4,BI,GT,0),
AND,11,4,PD,GT,0) END
```

Type 21

```
DISPLAY FROM(SORTSMF) LIST(VREPT) -  
BETWEEN(0) -  
HEADER('TIME') ON(7,4,TM1,E'99:99:99') -  
HEADER('') ON(197,1,CH)-  
HEADER('DATE') ON(11,4,DT1,E'9999/99/99') - HEADER('') ON(197,1,CH)-  
HEADER('SYSID') ON(15,4,CH) -  
HEADER('') ON(197,1,CH)-  
HEADER('IP') ON(165,1,BI,E'999.') -  
HEADER('') ON(166,1,BI,E'999.') -  
HEADER('') ON(167,1,BI,E'999.') -  
HEADER('') ON(168,1,BI,E'999') -  
HEADER('') ON(197,1,CH)-  
HEADER('LU NAME') ON(133,8,CH) -  
HEADER('') ON(197,1,CH)-  
HEADER('APPLICATION') ON(141,8,CH) -  
HEADER('') ON(197,1,CH)-  
HEADER('HOSTNAME') ON(189,8,CH)  
//VLSHCNTL DD *  
OPTION COPY,VLSHRT  
INCLUDE COND=(((6,1,BI,EQ,+119,AND,23,2,BI,EQ,+21), AND,45,4,BI,GT,0),  
AND,7,4,BI,GT,0),  
AND,11,4,PD,GT,0)  
END
```