

# JCL/JCS Requirements and Examples

This section describes the job control information required to run ADARES with BS2000, z/OS, and z/VSE systems and shows examples of each of the job streams.

## Notes:

1. The DD/SIAUS1/2 device type used to copy the protection log may not support the BACKOUT function if it is an IDRC (hardware compression) device. For more information, see the description of the PLCOPY function earlier in this document.
2. When running with the optional Recovery Aid (ADARAI), all temporary data sets must also be cataloged in the job control.

This chapter covers the following topics:

- BS2000
  - z/OS
  - z/VSE
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## BS2000

Data Set	Link Name	Storage	More Information
Sequential protection log or ADASAV DDSAVEn output	DDSIIN	tape/ disk	Input log for COPY, REGENERATE, and REPAIR functions.
Multiple protection log	DDPLOGRn	disk	Input logs for PLCOPY function, and BACKOUT DPLOG.
Multiple command log	DDCLOGRn	disk	Input logs for CLCOPY function.
Sequential protection log	DDBACK	tape	Input log for BACKOUT function (not BACKOUT DPLOG).
Copied log	DDSIAUS1	tape/ disk	Output of COPY, CLCOPY, PLCOPY functions.
Extra copied log	DDSIAUS2	tape/ disk	Required only if two copies are to be produced by a copy function (with TWOCOPIES).
Data Storage	DDDATARn	disk	Required only for REGENERATE if FROMCP=SYN1 or SYN4.
Associator	DDASSORn	disk	
Recovery log (RLOG)	DDRLOGR1	disk	Required when using ADARAI.
ADARUN parameters	SYSDTA/ DDCARD		<i>Operations</i>
ADARES parameters	SYSDTA/ DDKARTE		
ADARUN messages	SYSOUT/ DDPRINT		<i>Messages and Codes</i>
ADARES messages	SYSLST DDRUCK		<i>Messages and Codes</i>

## ADARES JCL Examples (BS2000)

### Copy Dual/Multiple Command Log

#### In SDF Format:

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY DUAL/MULTIPLE COMMAND LOG
/REMARK *
/DELETE-FILE ADAyyyyyy.AUS1

```

```

/SET-JOB-STEP
/CREATE-FILE ADAyyyyy.AUS1 ,PUB( SPACE=( 960 , 480 ) )
/SET-JOB-STEP
/ASS-SYSLST L.RES.CLCO
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDCLOGR1,ADAYyyyy.CLOGR1,SHARE-UPD=YES
/SET-FILE-LINK DDCLOGR2,ADAYyyyy.CLOGR2,SHARE-UPD=YES
/SET-FILE-LINK DDSIAUS1,ADAYyyyy.AUS1
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES CLCOPY
/LOGOFF SYS-OUTPUT=DEL

```

### In ISP Format:

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY DUAL/MULTIPLE COMMAND LOG
/REMARK *
/SYSFILE SYSLST=L.RES.CLCO
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAYyyyy.ASSO,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAYyyyy.CLOGR1,LINK=DDCLOGR1,SHARUPD=YES
/FILE ADAYyyyy.CLOGR2,LINK=DDCLOGR2,SHARUPD=YES
/FILE ADAYyyyy.AUS1,LINK=DDSIAUS1,SPACE=( 960 , 480 )
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES CLCOPY
/LOGOFF NOSPOOL

```

### Copy Sequential Protection Log

#### In SDF Format:

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY SEQUENTIAL PLOG
/REMARK *
/DELETE-FILE ADAYyyyy.SIBA.COP1
/SET-JOB-STEP
/CREATE-FILE ADAYyyyy.SIBA.COP1,PUB( SPACE=( 960 , 480 ) )
/SET-JOB-STEP
/ASS-SYSLST L.RES.COPY
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDSIIN,ADAYyyyy.SIBA
/SET-FILE-LINK DDSIAUS1,ADAYyyyy.SIBA.COP1
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES COPY PLOGNUM=ppp
/LOGOFF SYS-OUTPUT=DEL

```

**In ISP Format:**

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY SEQUENTIAL PLOG
/REMARK *
/SYSFILE SYSLST=L.RES.COPY
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAyyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAyyyyy.SIBA ,LINK=DDSIIN
/FILE ADAyyyyy.SIBA.COP1,LINK=DDSIAUS1,SPACE=(960,480)
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES COPY PLOGNUM=ppp
/LOGOFF NOSPOOL

```

**Copy Dual/Multiple Protection Log****In SDF Format:**

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY DUAL/MULTIPLE PROTECTION LOG
/REMARK *
/DELETE-FILE ADAyyyyy.AUS1
/SET-JOB-STEP
/CREATE-FILE ADAyyyyy.AUS1,PUB(SPACE=(960,480))
/SET-JOB-STEP
/DELETE-FILE ADAyyyyy.AUS2
/SET-JOB-STEP
/CREATE-FILE ADAyyyyy.AUS2,PUB(SPACE=(960,480))
/SET-JOB-STEP
/ASS-SYSLST L.RES.PLCO
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDPLOGR1,ADAYyyyy.PLOGR1,SHARE-UPD=YES
/SET-FILE-LINK DDPLOGR2,ADAYyyyy.PLOGR2,SHARE-UPD=YES
/SET-FILE-LINK DDSIAUS1,ADAYyyyy.AUS1
/SET-FILE-LINK DDSIAUS2,ADAYyyyy.AUS2
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES PLCOPY TWOCOPIES
/LOGOFF SYS-OUTPUT=DEL

```

**In ISP Format:**

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S COPY DUAL/MULTIPLE PROTECTION LOG
/REMARK *
/SYSFILE SYSLST=L.RES.PLCO
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAyyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAyyyyy.PLOGR1 ,LINK=DDPLOGR1,SHARUPD=YES
/FILE ADAyyyyy.PLOGR2 ,LINK=DDPLOGR2,SHARUPD=YES
/FILE ADAyyyyy.AUS1 ,LINK=DDSIAUS1,SPACE=(960,480)
/FILE ADAyyyyy.AUS2 ,LINK=DDSIAUS2,SPACE=(960,480)

```

```

/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES PLCOPY TWOCOPIES
/LOGOFF NOSPOOL

```

## Backout Using a Sequential Protection Log

### In SDF Format:

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S BACKOUT FROM SEQUENTIAL PLOG
/REMARK *
/ASS-SYSLST L.RES.BACK
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDBACK,ADAYyyyy.BACK
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES BACKOUT
/LOGOFF SYS-OUTPUT=DEL

```

### In ISP Format:

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S BACKOUT FROM SEQUENTIAL PLOG
/REMARK *
/SYSFILE SYSLST=L.RES.BACK
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAYyyyy.ASSO,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAYyyyy.BACK,LINK=DDBACK
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES BACKOUT
/LOGOFF NOSPOOL

```

## Backout Using a Dual/Multiple Protection Log

### In SDF Format:

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S BACKOUT FROM DUAL/MULTIPLE PLOG
/REMARK *
/ASS-SYSLST L.RES.BADP
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDPLOGR1,ADAYyyyy.PLOGR1,SHARE-UPD=YES
/SET-FILE-LINK DDPLOGR2,ADAYyyyy.PLOGR2,SHARE-UPD=YES
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES BACKOUT DPLOG
/LOGOFF SYS-OUTPUT=DEL

```

**In ISP Format:**

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S BACKOUT FROM DUAL/MULTIPLE PLOG
/REMARK *
/SYSFILE SYSLST=L.RES.BADP
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAyyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAyyyyy.PLOGR1 ,LINK=DDPLOGR1,SHARUPD=YES
/FILE ADAyyyyy.PLOGR2 ,LINK=DDPLOGR2,SHARUPD=YES
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES BACKOUT DPLOG
/LOGOFF NOSPOOL

```

**Regenerate Function****In SDF Format:**

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S REGENERATE
/REMARK *
/ASS-SYSLST L.RES.REGE
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDSIIN,ADAYyyyyy.SIBA
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES REGENERATE FILE=1,CONTINUE,PLOGNUM=ppp
/LOGOFF SYS-OUTPUT=DEL

```

**In ISP Format:**

```

/.ADARES LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A R E S REGENERATE
/REMARK *
/SYSFILE SYSLST=L.RES.REGE
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAyyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAyyyyy.SIBA ,LINK=DDSIIN
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES REGENERATE FILE=1,CONTINUE,PLOGNUM=ppp
/LOGOFF NOSPOOL

```

**Repair Data Storage****In SDF Format:**

```

/.ADARES LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A R E S REPAIR DATASTORAGE
/REMARK *

```

```

/ASS-SYSLST L.RES.REPA
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDSIIN,ADAYyyyy.SAVE
/SET-FILE-LINK DDSIIN01,ADAYyyyy.PLOG5
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES REPAIR DSRABN=3456 3490
/LOGOFF SYS-OUTPUT=DEL

```

### In ISP Format:

```

/.ADARES LOGON
/OPTION MSG=FH,DUMP=YES
/REMARK *
/REMARK * A D A R E S REPAIR DATASTORAGE
/REMARK *
/SYSFILE SYSLST=L.RES.REPA
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAYyyyy.ASSO,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAYyyyy.SAVE,LINK=DDSIIN
/FILE ADAYyyyy.PLOG5,LINK=DDSIIN01
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADARES,DB=yyyyyy,IDTNAME=ADABAS5B
ADARES REPAIR DSRABN=3456 3490
/LOGOFF NOSPOOL

```

## z/OS

Data Set	DD Name	Storage	More Information
Sequential protection log or ADASAV DDSAVEn output	DDSIIN	tape/ disk	Input log for COPY, REGENERATE, and REPAIR functions.
Multiple protection log	DDPLOGRn	disk	Input logs for PLCOPY function, and BACKOUT DPLOG/MPLOG .
Multiple command log	DDCLOGRn	disk	Input logs for CLCOPY function.
Sequential protection log	DDBACK	tape	Input log for BACKOUT function (not BACKOUT DPLOG).
Copied log	DDSIAUS1	tape/ disk	Output of COPY, CLCOPY, PLCOPY functions.
Extra copied log	DDSIAUS2	tape/ disk	Required only if two copies are to be produced by a copy function (with TWOCOPIES).
Recovery log (RLOG)	DDRLOGR1	disk	Required when using ADARAI.
Data Storage	DDDATARn	disk	Required only for REGENERATE if FROMCP=SYN1 or SYN4.
Associator	DDASSORn	disk	
ADARUN parameters	DDCARD	reader	<i>Operations</i>
ADARES parameters	DDKARTE	reader	
ADARUN messages	DDPRINT	printer	<i>Messages and Codes</i>
ADARES messages	DDDRUCK	printer	<i>Messages and Codes</i>

## ADARES JCL Examples (z/OS)

### Copy Sequential Protection Log

```
//ADARESCP JOB
//*
//* ADARES: COPY SEQUENTIAL PROTECTION LOG
//*
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrS.LOAD <=== ADABAS LOAD
//*
```



```
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDSIIN DD DSN=EXAMPLE.DByyyyy.SIBA, <=== PLOG
//
//          VOL=SER=vvvvvv,DISP=OLD,UNIT=TAPE
//DDSIAUS1 DD DSN=EXAMPLE.DByyyyy.PLOG(+1), <=== PLOG COPY
//          VOL=SER=vvvvvv,UNIT=TAPE,DISP=(NEW,CATLG)
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES COPY
/*
```

Refer to ADARESCP in the JOBS data set for this example.

## Copy Dual/Multiple Protection Log

```
//ADARESCD JOB
//*
//* ADARES: COPY DUAL/MULTIPLE PROTECTION LOG
//* TWO COPIES OF OUTPUT ARE TO BE CREATED
//*
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
//*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDPLOGR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.PLOGR1 <=== PLOG1
//DDPLOGR2 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.PLOGR2 <=== PLOG2
//DDSIAUS1 DD DSN=EXAMPLE.DByyyyy.PLOG1(+1), <=== PLOG COPY 1
//          VOL=SER=vvvvvv,UNIT=TAPE,DISP=(NEW,CATLG)
//DDSIAUS2 DD DSN=EXAMPLE.DByyyyy.PLOG2(+1), <=== PLOG COPY 2
//          VOL=SER=vvvvvv,UNIT=TAPE,DISP=(NEW,CATLG)
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X

//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES PLCOPY TWOCOPIES
/*
```

Refer to ADARESCD in the JOBS data set for this example.

## Automatically Copy/Merge Nucleus Cluster Protection Logs

### Note:

Note that when intermediate data sets are used for both CLCOPY and PLCOPY, the data set names must be unique so that they are not overwritten.

Following is sample JCL for allocating the required intermediate data sets MERGINT1 and MERGINT2:

```
//ALLOC JOB
//*
//* Example to allocate the MERGINT1 and the MERGINT2 data sets
//*
//ALLOC EXEC PGM=IEFBR14
//MERGINT1 DD DISP=(NEW,CATLG,DELETE),DSN=EXAMPLE.PINTERI,
//          SPACE=(CYL,(1,10,0)),UNIT=3390,VOL=SER=volser,
//          RECFM=VB,BLKSIZE=27998,LRECL=27994
//MERGINT2 DD DISP=(NEW,CATLG,DELETE),DSN=EXAMPLE.PINTERO,
//          SPACE=(CYL,(1,10,0)),UNIT=3390,VOL=SER=volser,
//          RECFM=VB,BLKSIZE=27998,LRECL=27994
```

Refer to ADARESMP in the JOBS data set for this example.

### Automatically Copy/Merge Nucleus Cluster Protection Logs Ignoring PPT

```
//ADARESIP JOB

//*
//* ADARES: COPY/MERGE DUAL/MULTIPLE PROTECTION LOGS FROM ALL
//* NUCLEI IN AN ADABAS CLUSTER
//* PPT IS TO BE IGNORED
//* THIS IS ONLY FOR EMERGENCY USE WHEN THE PPT HAS BEEN
//* OVER-WRITTEN - USE CAUTION WHEN SUBMITTING
//*

//RES EXEC PGM=ADARUN

//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAVrs.LOAD <=== ADABAS LOAD
//*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.DATAR1 <=== DATA
//DDPLOG01 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR1 <=== PLOG1 NUC1
//DDPLOG02 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR2 <=== PLOG2 NUC1
//DDPLOG03 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR1A <=== PLOG1 NUC2
//DDPLOG04 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR2A <=== PLOG2 NUC2
//DDPLOG05 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR1B <=== PLOG1 NUC3
//DDPLOG06 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.PLOGR2B <=== PLOG2 NUC3
//MERGINT2 DD DISP=SHR,DSN=EXAMPLE.INTERO <=== INTER
//MERGINT1 DD DISP=SHR,DSN=EXAMPLE.INTERI <=== INTER
//DDSIAUS1 DD DSN=EXAMPLE.DBYYYYY.PLOG1(+1), <=== PLOG COPY
//          VOL=SER=ADAXXX,UNIT=TAPE,DISP=(NEW,CATLG)
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=XXX,DEVICE=3390,DBID=YYYYY
//*
//DDKARTE DD *
ADARES PLCOPY NOPPT
//*
//
```

Refer to ADARESIP in the JOBS data set.

## Copy Dual/Multiple Command Log

```
//ADARESCC JOB
//*
//*      ADARES: COPY DUAL/MULTIPLE COMMAND LOG
//*
//RES      EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD          <=== ADABAS LOAD
//*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDCLOGR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.CLOGR1 <=== CLOG1
//DDCLOGR2 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.CLOGR2 <=== CLOG2
//DDSIAUS1 DD DSN=EXAMPLE.DByyyyy.CLOG,              <=== OUTPUT OF
//          VOL=SER=vvvvvvv,UNIT=TAPE,DISP=(NEW,CATLG)          CLCOPY

//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=ddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES CLCOPY
/*
```

Refer to ADARESCC in the JOBS data set for this example.

## Automatically Copy/Merge Nucleus Cluster Command Logs

### Note:

Note that when intermediate data sets are used for both CLCOPY and PLCOPY, the data set names must be unique so that they are not overwritten.

Following is sample JCL for allocating the required intermediate data sets MERGINT1 and MERGINT2:

```
//ALLOC JOB
//*
//* Example to allocate the MERGINT1 and the MERGINT2 data sets
//*
//ALLOC EXEC PGM=IEFBR14
//MERGINT1 DD DISP=(NEW,CATLG,DELETE),DSN=EXAMPLE.CINTERI,
//          SPACE=(CYL,(1,10,0)),UNIT=3390,VOL=SER=volser,
//          RECFM=VB,BLKSIZE=27998,LRECL=27994
//MERGINT2 DD DISP=(NEW,CATLG,DELETE),DSN=EXAMPLE.CINTERO,
//          SPACE=(CYL,(1,10,0)),UNIT=3390,VOL=SER=volser,
//          RECFM=VB,BLKSIZE=27998,LRECL=27994
```

Refer to ADARESMC in the JOBS data set for this example.

## Manually Merge Sequential Command Logs in a Nucleus Cluster Environment

```
//ADARESCM JOB
//*
//*      ADARES: MERGE SEQUENTIAL COMMAND LOGS
//*      FOR USE WITH AN ADABAS NUCLEUS CLUSTER
//*
//RES      EXEC PGM=ADARUN
```

```
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
/*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.WORKR1 <=== WORK
//DDCLOG01 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.CLOGR1A <=== CLOG1
//DDCLOG02 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.CLOGR1B <=== CLOG2
//DDCLOG03 DD DISP=SHR,DSN=EXAMPLE.DBYYYYY.CLOGR1C <=== CLOG3
//DDSIAUS1 DD DSN=EXAMPLE.DBYYYYY.CLOGM, <=== OUTPUT OF
// VOL=SER=ADAXXX,UNIT=TAPE,DISP=(NEW,CATLG) CLOG MERGE
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=XXX,DEVICE=3390,DBID=YYYYY
/*
//DDKARTE DD *
ADARES MERGE CLOG,NUMLOG=3
/*
//
```

Refer to ADARESCM in the JOBS data set for this example.

## Backout from a Sequential Protection Log

```
//ADARESSP JOB
/*
/** ADARES: BACKOUT FROM A SEQUENTIAL PLOG
/**
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
/*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDBACK DD DSN=EXAMPLE.DByyyyy.PLOG(-5), <=== PLOG TAPE
// UNIT=TAPE,DISP=OLD
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES BACKOUT PLOGNUM=nnn
/*
```

Refer to ADARESSP in the JOBS data set for this example.

## Backout from Dual/Multiple Protection Log

```
//ADARESB JOB
/*
/** ADARES: BACKOUT FROM DUAL/MULTIPLE PLOG
/**
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
/*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
```

```
//DDPLOGR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.PLOGR1 <=== PLOG1
//DDPLOGR2 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.PLOGR2 <=== PLOG2
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES BACKOUT DPLOG
/*
```

Refer to ADARESB in the JOBS data set for this example.

## Regenerate Function

```
//ADARESR JOB
/*
/* ADARES: REGENERATE
/*
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
/*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDSIIN DD DSN=EXAMPLE.DByyyyy.PLOG(-5), <=== PLOG TAPE
// UNIT=TAPE,DISP=OLD
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE DD *
ADARES REGENERATE FILE=1
/*
```

Refer to ADARESR in the JOBS data set for this example.

## Repair Data Storage

```
//ADARESRP JOB
/*
/* ADARES: REPAIR DATASTORAGE
/*
//RES EXEC PGM=ADARUN
//STEPLIB DD DISP=SHR,DSN=ADABAS.ADAvrs.LOAD <=== ADABAS LOAD
/*
//DDASSOR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDWORKR1 DD DISP=SHR,DSN=EXAMPLE.DByyyyy.WORKR1 <=== WORK
//DDSIIN DD DSN=EXAMPLE.DByyyyy.SAVE, <=== SAVE
OUTPUT
// DISP=OLD,UNIT=TAPE
// DD DSN=EXAMPLE.DByyyyy.PLOG(-5), <=== PLOG TAPE
// DISP=OLD,UNIT=TAPE
//DDDRUCK DD SYSOUT=X
//DDPRINT DD SYSOUT=X
//SYSUDUMP DD SYSOUT=X
//DDCARD DD *
```

```
ADARUN  PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy  
/*  
//DDKARTE DD *  
ADARES REPAIR DSRABN=3456-3490
```

Refer to ADARESRP in the JOBS data set for this example.

**z/VSE**

Data Set	Symbolic	Storage	Logical Unit	More Information
Sequential protection log or ADASAV SAVEn output	SIIN	tape disk	SYS020 See note	Input log for COPY, REGENERATE, and REPAIR.
Multiple protection log	PLOGRn	disk	See note	Input logs for PLCOPY and BACKOUT DPLOG.
Multiple command log	CLOGRn	disk	See note	Input logs for CLCOPY.
Sequential protection log	BACK	tape	SYS020	Input log for BACKOUT (not BACKOUT DPLOG).
Copied log	SIAUS1	tape disk	SYS021 See note	Output of COPY, CLCOPY, and PLCOPY.
Extra copied log	SIAUS2	tape disk	SYS022 See note	Required for TWOCOPIES.
Data Storage	DATARn	disk		Required for REGENERATE if FROMCP=SYN1 or SYN4.
Associator	ASSORn		See note	
Recovery log (RLOG)	RLOGR1	disk		Required when using ADARAI.
ADARUN parameters	- CARD CARD	reader tape disk	SYSRDR SYS000 See note	
ADARES parameters		reader	SYSIPT	
ADARUN messages		printer	SYSLST	
ADARES messages		printer	SYS009	

**Note:**

Any programmer logical unit can be used.

## ADARES JCS Examples (z/VSE)

See *Library and File Procedures for z/VSE Examples* for descriptions of the z/VSE procedures (PROCs).

Refer to the following members for these examples:

Example	Member
Copy sequential protection log	ADARESCP.X
Copy dual/multiple protection log	ADARESCD.X
Copy dual/multiple command log	ADARESCC.X
Regenerate	ADARESR.X
Backout from a sequential protection log	ADARESSP.X
Backout from a dual protection log	ADARESB.X
Repair Data Storage	ADARESRP.X

### Copy Sequential Protection Log

```
* $$ JOB JNM=ADARESCP,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESCP
*       COPY SEQUENTIAL PLOG(TAPE)
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS020,TAPE,D0
// PAUSE MOUNT INPUT TAPE ON TAPE cuu
// MTC REW,SYS020
// TLBL SIIN,'ADABAS.ADAvrs.SIBA'
// ASSGN SYS022,TAPE,D0
// PAUSE MOUNT SCRATCH TAPE ON TAPE cuu
// MTC REW,SYS022
// MTC WTM,SYS022,5
// MTC REW,SYS022
// TLBL SIAUS1,'ADABAS.ADAvrs.SIAUS1'
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=ddd,DBID=yyyyy
/*
ADARES COPY
/*
/&
* $$ EOJ
```

### Copy Dual/Multiple Protection Log

```
* $$ JOB JNM=ADARESCD,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESCD
*       CLCOPY WITH OPTION TWOCOPIES(TAPE)
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS021,TAPE,D0
// ASSGN SYS022,TAPE,D0
// PAUSE MOUNT SCRATCH TAPE ON TAPES cu1 AND cu2
// MTC REW,SYS022
```



```
// MTC WTM,SYS022,5
// MTC REW,SYS022
// MTC REW,SYS021
// MTC WTM,SYS021,5
// MTC REW,SYS021
// TLBL SIAUS1,'ADABAS.ADAvrs.PLOGC1'
// TLBL SIAUS2,'ADABAS.ADAvrs.PLOGC2'
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=ddd,DBID=yyyyy
/*
ADARES PLCOPY TWOCOPIES
/*
/&
* $$ EOJ
```

## Copy Dual/Multiple Command Log

```
* $$ JOB JNM=ADARESCC,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESCC
*       COPY DUAL/MULTIPLE COMMAND LOG
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS022,DISK,VOL=vvvvvv,SHR
// DLBL SIAUS1,'ADABAS.ADAvrs.CLOG',0,SD
// EXTENT SYS022,vvvvvv,1,0,sssss,nnnnn
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=ddd,DBID=yyyyy
/*
ADARES CLCOPY
/*
/&
* $$ EOJ
```

## Regenerate

```
* $$ JOB JNM=ADARESR,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESR
*       REGENERATE
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS020,DISK,VOL=vvvvvv,SHR
// DLBL SIIN,'EXAMPLE.DByyyyy.PLOG'
// EXTENT SYS020,vvvvvv
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=ddd,DBID=yyyyy
/*
ADARES REGENERATE FILE=1
/*
/&
* $$ EOJ
```

## Backout from a Sequential Protection Log

```
* $$ JOB JNM=ADARESSP,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESSP
*       BACKOUT FROM A SEQUENTIAL PLOG
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS020,TAPE
```

```
// PAUSE *** PLEASE MOUNT TAPE ***
// MTC REW,SYS020
// TLBL BACK,'DByyyyy.PLCOPY.TAPE'
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
ADARES BACKOUT PLOGNUM=ppp
/*
/&
* $$ EOJ
```

### Backout from a Dual Protection Log

```
* $$ JOB JNM=ADARESB,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESB
*          BACKOUT FROM DUAL PLOG
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
ADARES BACKOUT DPLOG
/*
/&
* $$ EOJ
```

### Repair Data Storage

```
* $$ JOB JNM=ADARESRP,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADARESRP
*          REPAIR DATASTORAGE
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS020,TAPE
// PAUSE MOUNT INPUT TAPE ON cuu
// MTC REW,SYS020
// TLBL SIIN,'EXAMPLE.ADAyyyyy.SAVE1'
// TLBL SIIN01,'ADABAS.ADAyyyyy.PLOG5'      (*)
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADARES,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
ADARES REPAIR DSRABN=3456-3490
/*
/&
* $$ EOJ
```

(\*) See *Sequential Input Files, z/VSE Concatenation*.