

# JCL/JCS Requirements and Examples

This section describes the job control information required to run ADALOD with BS2000, OS/390 or z/OS, VM/ESA or z/VM, and VSE/ESA systems and shows examples of each of the job streams.

## Note:

When running with the optional Recovery Aid (RLOG), all temporary datasets must also be cataloged in the job control.

This chapter covers the following topics:

- Collation with User Exit
- BS2000
- OS/390 or z/OS
- VM/ESA or z/VM
- VSE/ESA

## Collation with User Exit

If a collation user exit is to be used during ADALOD execution, the ADARUN CDXnn parameter must be specified for the utility run.

Used in conjunction with the universal encoding support (UES), the format of the collation descriptor user exit parameter is

```
ADARUN CDXnn= exit-name
```

where

nn	is the number of the collation descriptor exit, a two-digit decimal integer in the range 01-08 inclusive.
exit-name	is the name of the user routine that gets control at the collation descriptor exit; the name can be up to 8 characters long.

Only one program may be specified for each collation descriptor exit. Up to 8 collation descriptor exits may be specified (in any order). See the *Adabas DBA Reference* documentation for more information.

## BS2000

Dataset	Link Name	Storage	More Information
Associator	DDASSORn	disk	
Data Storage	DDDATARn	disk	
Work	DDWORKR1 DDWORKR4	disk	
Temp area	DDTEMPR1	disk	
Temp overflow (optional)	DDFILEA	disk/ tape	Stores descriptor values if the temp dataset is too small
Sort area	DDSORTR1	disk	With large files, split the sort area across two volumes <sup>1</sup>
Sort area	DDSORTR2	disk	
Recovery log (RLOG)	DDRLOGR1	disk	Required when using the recovery log option
Compressed data	DDEBAND	disk/ tape	Output of ADACMP or ADAULD utility
ISNs to be deleted	DDISN	disk/ tape	ISNs to be deleted <sup>2</sup>
Deleted records	DDOLD	disk/ tape	Deleted records, if any <sup>3</sup>
ADARUN parameters	SYSDTA/ DDCARD		<i>Operations</i>
ADALOD parameters	SYSDTA/ DDKARTE		
ADARUN messages	SYSOUT/ DDPRINT		ADALOD report, see also <i>Messages and Codes</i>
ADALOD messages	SYSLST/ DDDRUCK		<i>Messages and Codes</i>

**Notes:**

1. Performance can be improved when sorting large files if the sort dataset either occupies two volumes, or if two sort datasets are specified. Both datasets must be on the same device type (SORTDEV parameter), and each must be exactly half the size specified by the SORTSIZE parameter.
2. Four bytes per ISN, REC-FORM=VB, BUFF-LEN as in sequential file description, REC-SIZE maximum equals BUFF-LEN - 4. (In ISP format, REC-FORM is RECFM; BUFF-LEN is BLKSIZE; and REC-SIZE is LRECL.)
3. REC-FORM=VB, BUFF-LEN as in sequential file description, REC-SIZE maximum equals BUFF-LEN - 4. (In ISP format, REC-FORM is RECFM; BUFF-LEN is BLKSIZE; and REC-SIZE is LRECL.)

## ADALOD JCL Example (BS2000)

### Load File

#### In SDF Format:

```

/.ADALOD LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A L O D LOAD FILE
/REMARK *
/ASS-SYSLST L.LOD.LOAD
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDDATAR1,ADAYyyyy.DATA,SHARE-UPD=YES
/SET-FILE-LINK DDWORKR1,ADAYyyyy.WORK,SHARE-UPD=YES
/SET-FILE-LINK DDTEMPR1,ADAYyyyy.TEMP
/SET-FILE-LINK DDSORTR1,ADAYyyyy.SORT
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADALOD,DB=yyyyy,IDTNAME=ADABAS5B
ADALOD LOAD FILE=1
ADALOD NAME= TESTFILE-1
ADALOD MAXISN=10000,DSSIZE=10
ADALOD TEMPSIZE=100,ORTSIZE=50
/LOGOFF SYS-OUTPUT=DEL

```

#### In ISP Format:

```

/.ADALOD LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A L O D LOAD FILE
/REMARK *
/SYSFILE SYSLST=L.LOD.LOAD
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAYyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAYyyyy.DATA ,LINK=DDATAR1,SHARUPD=YES
/FILE ADAYyyyy.WORK ,LINK=DDWORKR1,SHARUPD=YES
/FILE ADAYyyyy.TEMP ,LINK=DDTEMPR1
/FILE ADAYyyyy.SORT ,LINK=DDSORTR1
/FILE CMP.AUS,LINK=DDEBAND

/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADALOD,DB=yyyyy,IDTNAME=ADABAS5B
ADALOD LOAD FILE=1
ADALOD NAME= TESTFILE-1
ADALOD MAXISN=10000,DSSIZE=10
ADALOD TEMPSIZE=100,ORTSIZE=50
/LOGOFF NOSPOOL

```

### Update

#### In SDF Format:

```

/.ADALOD LOGON
/MODIFY-TEST-OPTIONS DUMP=YES
/REMARK *
/REMARK * A D A L O D LOAD FILE
/REMARK *
/DELETE-FILE LOD.ISN

```

```

/SET-JOB-STEP
/CREATE-FILE LOD.ISN,PUB( SPACE=( 48,48) )
/SET-JOB-STEP
/DELETE-FILE LOD.OLD
/SET-JOB-STEP
/CREATE-FILE LOD.OLD,PUB( SPACE=( 480,48) )
/SET-JOB-STEP
/ASS-SYSLST L.LOD.LOAD
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK DDLIB,ADAvrs.MOD
/SET-FILE-LINK DDASSOR1,ADAYyyyy.ASSO,SHARE-UPD=YES
/SET-FILE-LINK DDDATAR1,ADAYyyyy.DATA,SHARE-UPD=YES
/SET-FILE-LINK DDWORKR1,ADAYyyyy.WORK,SHARE-UPD=YES
/SET-FILE-LINK DDTEMPR1,ADAYyyyy.TEMP
/SET-FILE-LINK DDSORTR1,ADAYyyyy.SORT
/SET-FILE-LINK DDEBAND,CMP.AUS
/SET-FILE-LINK DDISN,LOD.ISN
/SET-FILE-LINK DDOLD,LOD.OLD
/START-PROGRAM *M(ADA.MOD,ADARUN),PR-MO=ANY
ADARUN PROG=ADALOD,DB=yyyyyy, IDTNAME=ADABAS5B
ADALOD UPDATE FILE=1,DDISN,SAVEDREC
ADALOD TEMPSIZE=100, SORTSIZE=50
ADALOD DELISN=100 199,230,301 399
/LOGOFF SYS-OUTPUT=DEL

```

### In ISP Format:

```

/.ADALOD LOGON
/OPTION MSG=FB,DUMP=YES
/REMARK *
/REMARK * A D A L O D MASS UPDATE
/REMARK *
/SYSFILE SYSLST=L.LOD.UPDA
/FILE ADA.MOD,LINK=DDLIB
/FILE ADAYyyyy.ASSO ,LINK=DDASSOR1,SHARUPD=YES
/FILE ADAYyyyy.DATA ,LINK=DDATAR1,SHARUPD=YES
/FILE ADAYyyyy.WORK ,LINK=DDWORKR1,SHARUPD=YES
/FILE ADAYyyyy.TEMP ,LINK=DDTEMPR1
/FILE ADAYyyyy.SORT ,LINK=DDSORTR1
/FILE CMP.AUS,LINK=DDEBAND
/FILE LOD.ISN,LINK=DDISN ,SPACE=( 48,48)
/FILE LOD.OLD,LINK=DDOLD ,SPACE=( 480,48)
/EXEC (ADARUN,ADA.MOD)
ADARUN PROG=ADALOD,DB=yyyyyy, IDTNAME=ADABAS5B
ADALOD UPDATE FILE=1,DDISN,SAVEDREC
ADALOD TEMPSIZE=100, SORTSIZE=50
ADALOD DELISN=100 199,230,301 399
/LOGOFF NOSPOOL

```

## OS/390 or z/OS

Dataset	DD Name	Storage	More Information
Associator	DDASSORn	disk	
Data Storage	DDDATARn	disk	
Work	DDWORKR1 DDWORKR4	disk	Required only if Adabas nucleus is not active
Temp area	DDTEMPR1	disk	
Temp overflow (optional)	DDFILEA	disk/ tape	Stores descriptor values if the temp dataset is too small
Sort area	DDSORTR1	disk	
Sort area	DDSORTR2	disk	When using large files, split the sort area across two volumes <sup>1</sup>
Recovery log (RLOG)	DDRLOGR1	disk	Required for the recovery log option
Compressed data	DDEBAND	disk/ tape	Output of ADACMP or ADAULD utility
ISNs to be deleted	DDISN	disk/ tape	ISNs to be deleted <sup>2</sup>
Deleted records	DDOLD	disk/ tape	Deleted records, if any <sup>3</sup>
ADARUN parameters	DDCARD	reader	<i>Operations</i>
ADALOD parameters	DDKARTE	reader	
ADARUN messages	DDPRINT	printer	ADALOD report, see also <i>Messages and Codes</i>
ADALOD messages	DDDRUCK	printer	<i>Messages and Codes</i>

**Notes:**

1. Performance can be improved when sorting large files if the sort dataset either occupies two volumes, or if two sort datasets are specified. When using two volumes, each volume must be exactly half the size specified by the SORTSIZE parameter. If two datasets are used, both must be on the same device type (SORTDEV parameter).
2. Four bytes per ISN, RECFM=VB, BLKSIZE as in sequential file description, LRECL maximum equals BLKSIZE - 4.
3. RECFM=VB, BLKSIZE as in sequential file description, LRECL maximum equals BLKSIZE - 4.

## ADALOD JCL Examples (OS/390 or z/OS)

Refer also to ADALODE, ADALODA, ADALODM, and ADALODV in the MVSJOBS dataset for additional ADALOD examples on loading an ADAM file or the Adabas demo files.

### Load File

Refer to ADALOD in the MVSJOBS dataset for this example.

```
//ADALOD    JOB
//*
//*      ADALOD:  LOAD FILE
//*
//LOD      EXEC PGM=ADARUN
//STEPLIB DD   DISP=SHR,DSN=ADABAS.Vvrs.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
//DDTEMPR1 DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.TEMPR1 <=== TEMP
//DDSORTR1 DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.SORTR1 <=== SORT
//DDEBAND  DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.DDEBAND <=== INPUT
//DDDRUCK  DD  SYSOUT=X
//DDPRINT  DD  SYSOUT=X
//SYSUDUMP DD  SYSOUT=X
//DDCARD   DD  *
ADARUN PROG=ADALOD,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
//DDKARTE  DD  *
ADALOD LOAD FILE=1
ADALOD NAME='TESTFILE-1'
ADALOD MAXISN=10000,DSSIZE=10
ADALOD TEMPSIZE=100,SORTSIZE=100
/*
```

### Update

Refer to ADALODMU in the MVSJOBS dataset for this example.

```
//ADALODMU  JOB
//*
//*      ADALOD:  MASS UPDATE
//*
//LOD      EXEC PGM=ADARUN
//STEPLIB DD   DISP=SHR,DSN=ADABAS.Vvrs.LOAD      <=== ADABAS LOAD
//*
//DDASSOR1 DD  DISP=SHR,DSN=EXAMPLE.DByyyyy.ASSOR1 <=== ASSO
//DDDATAR1 DD  DISP=SHR,DSN=EXAMPLE.DByyyyy.DATAR1 <=== DATA
//DDTEMPR1 DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.TEMPR1 <=== TEMP
//DDSORTR1 DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.SORTR1 <=== SORT
//DDEBAND  DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.DDEBAND <=== INPUT
//DDISN    DD  DISP=OLD,DSN=EXAMPLE.DByyyyy.DDISN  <=== ISNS TO DEL
//DDOLD    DD  DISP=(NEW,CATLG),DSN=EXAMPLE.DByyyyy.DDOLD, <=== DEL REC
//          SPACE=(TRK,(100,20),RLSE),UNIT=DISK,VOL=SER=VOLvvv
//DDDRUCK  DD  SYSOUT=X
//DDPRINT  DD  SYSOUT=X
//SYSUDUMP DD  SYSOUT=X
//DDCARD   DD  *
ADARUN PROG=ADALOD,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
```

```
//DDKARTE DD *
ADALOD UPDATE FILE=1,LWP=400K,SAVEDREC
ADALOD TEMPSIZE=100,SORTSIZE=100
ADALOD DELISN=100-199,230,301-399
/*
```

## VM/ESA or z/VM

Dataset	DD Name	Storage	More Information
Associator	DDASSORn	disk	
Data Storage	DDATARn	disk	
Work	DDWORKR1 DDWORKR4	disk	
Temp area	DDTEMPR1	disk	
Temp overflow (optional)	DDFILEA	disk/ tape	Stores descriptor values if temp dataset is too small.
Sort area	DDSORTR1	disk	With large files, split sort area across two volumes <sup>1</sup>
Sort area	DDSORTR2	disk	
Recovery log (RLOG)	DRLOGR1	disk	Required for the recovery log option
Compressed data	DDEBAND	disk/ tape	Output of ADACMP or ADAULD utility
ISNs to be deleted	DDISN	disk/ tape	ISNs to be deleted <sup>2</sup>
Deleted records	DDOLD	disk/ tape	Deleted records, if any <sup>3</sup>
ADARUN parameters	DDCARD	disk/ terminal/ reader	<i>Operations</i>
ADALOD parameters	DDKARTE	disk/ terminal/ reader	
ADARUN messages	DDPRINT	disk/ terminal/ printer	ADALOD report, see also <i>Messages and Codes</i>
ADALOD messages	DDDRUCK	disk/ terminal/ printer	<i>Messages and Codes</i>

### Notes:

1. Performance can be improved when sorting large files if the sort dataset either occupies two volumes, or if two sort datasets are specified. Both datasets must be on the same device type (SORTDEV parameter), and each must be exactly half the size specified by the SORTSIZE parameter.
2. Four bytes per ISN, RECFM=VB, BLKSIZE as in sequential file description, LRECL maximum equals BLKSIZE - 4.
3. RECFM=VB, BLKSIZE as in sequential file description, LRECL maximum equals BLKSIZE - 4.

## ADALOD JCL Examples (VM/ESA or z/VM)

### Load File

```

DATADEF DDASSOR1,DSN=ADABASVv.ASSO,VOL=ASSOV1
DATADEF DDDATAR1,DSN=ADABASVv.DATA,VOL=DATAV1
DATADEF DDWORKR1,DSN=ADABASVv.WORK,VOL=WORKV1
DATADEF DDTEMPR1,DSN=ADABASVv.TEMP,VOL=TEMPV1
DATADEF DDSORTR1,DSN=ADABASVv.SORT,VOL=SORTV1
DATADEF DDEBAND,DSN=FILE001.LODD001,MODE=A
DATADEF DDPRINT,DSN=ADALOD.DDPRINT,MODE=A
DATADEF DUMP,DUMMY
DATADEF DDDRUCK,DSN=ADALOD.DDDRUCK,MODE=A
DATADEF DDCARD,DSN=RUNLOD.CONTROL,MODE=A
DATADEF DDKARTE,DSN=FILE001.LODC001,MODE=A
ADARUN

```

### Contents of RUNLOD CONTROL A1:

```
ADARUN PROG=ADALOD,DEVICE=dddd,DB=yyyyy
```

### Contents of FILE015 LODC001 A1:

```

ADALOD LOAD FILE=1
ADALOD     NAME='TESTFILE-1'
ADALOD     MAXISN=50000,DSSIZE=10
ADALOD     TEMPSIZE=100,ORTSIZE=50

```

### Update

```

DATADEF DDASSOR1,DSN=ADABASVv.ASSO,VOL=ASSOV1
DATADEF DDDATAR1,DSN=ADABASVv.DATA,VOL=DATAV1
DATADEF DDWORKR1,DSN=ADABASVv.WORK,VOL=WORKV1
DATADEF DDTEMPR1,DSN=ADABASVv.TEMP,VOL=TEMPV1
DATADEF DDSORTR1,DSN=ADABASVv.SORT,VOL=SORTV1
DATADEF DDEBAND,DSN=ADALOD.LODD015,MODE=A
DATADEF DDISN,DSN=ADALOD.ISN,MODE=A
DATADEF DDOLD,DSN=ADABASVv.OLDISN,MODE=A
DATADEF DDPRINT,DSN=ADALOD.DDPRINT,MODE=A
DATADEF DUMP,DUMMY
DATADEF DDDRUCK,DSN=ADALOD.DDDRUCK,MODE=A
DATADEF DDCARD,DSN=RUNLOD.CONTROL,MODE=A
DATADEF DDKARTE,DSN=UPDATE.CONTROL,MODE=A
ADARUN

```

### Contents of RUNLOD CONTROL A1:

```
ADARUN PROG=ADALOD,DEVICE=dddd,DB=yyyyy
```

### Contents of UPDATE CONTROL A1:

```

ADALOD UPDATE FILE=1,DDISN,SAVEDREC

ADALOD     TEMPSIZE=100,ORTSIZE=50
ADALOD     DELISN=100-199,230,301-399

```



## VSE/ESA

Dataset	Symbolic	Storage	Logical Unit	More Information
Associator	ASSORn	disk		1
Data Storage	DATARn	disk		1
Work	WORKR1	disk	1	Required for inactive nucleus
Compressed data	EBAND	tape disk	SYS010 1	
Recovery log (RLOG)	RLOGR1	disk		Required for the recovery log option
Temp area	TEMPR1	disk	1	
Temp overflow (optional)	FILEA	tape disk	SYS012 1	Stores descriptor values if the temp dataset is too small.
Sort area	SORTR1	disk		With large files, split sort area across two volumes <sup>2</sup>
ISNs to be deleted	ISN	tape disk	SYS016 1	ISNs to be deleted
Deleted records	OLD	tape disk	SYS014 1	Deleted ISNs
ADALOD messages	--	printer	SYS009	ADALOD report, see also <i>Messages and Codes</i>
ADARUN messages	--	printer	SYSLST	<i>Messages and Codes</i>
ADARUN parameters	-- CARD CARD	reader tape disk	SYSRDR SYS000 1	
ADALOD parameters	-	reader	SYSIPT	

### Notes:

1. Any programmer logical unit may be used.
2. Performance can be improved when sorting large files if the sort dataset occupies two volumes. When using two volumes, each volume must be exactly half the size specified by the SORTSIZE parameter. If two datasets are used, both must be on the same device type (SORTDEV parameter).

## ADALOD JCS Examples (VSE/ESA)

See Procedures for VSE/ESA Examples for a description of the VSE/ESA procedures (PROCs).

### Load File

Refer to member ADALOD.X for this example.

```
* $$ JOB JNM=ADALOD,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADALOD
*       SAMPLE FILE LOAD
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYSTEM,TAPE
// PAUSE MOUNT LOAD INPUT FILE ON TAPE cuu
// TLBL EBAND,'DEMO.FILE'
// MTC REW,SYS010
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADALOD,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
ADALOD LOAD FILE=1
ADALOD NAME='TESTFILE-1'
ADALOD MAXISN=10000,DSSIZE=10
ADALOD TEMPSIZE=100,SORTSIZE=100
/*
/&
* $$ EOJ
```

### Update

Refer to member ADALODMU.X for this example.

```
* $$ JOB JNM=ADALODMU,CLASS=A,DISP=D
* $$ LST CLASS=A,DISP=D
// JOB ADALODMU
*       MASS UPDATE
// EXEC PROC=ADAVvLIB
// EXEC PROC=ADAVvFIL
// ASSGN SYS010,DISK,VOL=DISK01,SHR
// ASSGN SYS014,DISK,VOL=DISK02,SHR
// ASSGN SYS016,DISK,VOL=DISK03,SHR
// DLBL EBAND,'FILE.INPUT',,SD
// EXTENT SYS010,DISK01,1,0,sssss,nnnnn
// DLBL OLD,'FILE.OLD',,SD
// EXTENT SYS014,DISK02,1,0,sssss,nnnnn
// DLBL ISN,'FILE.ISN',,SD
// EXTENT SYS016,DISK03,1,0,sssss,nnnnn
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADALOD,MODE=MULTI,SVC=xxx,DEVICE=dddd,DBID=yyyyy
/*
ADALOD UPDATE FILE=1,LWP=400K,SAVEDREC
ADALOD TEMPSIZE=100,SORTSIZE=100
ADALOD DELISN=100-199,230,301-399
/*
/&
* $$ EOJ
```