

# ADAREP Utility

If a Delta Save logging (DLOG) area is defined in the database, the database report utility ADAREP additionally reports the Delta Save status. After the section about alternate RABNs, a Delta Save section is displayed with the following information:

- Delta Save status (disabled or enabled);
- percentage of the DLOG area used;
- number of full save operations since installation of the DLOG area;
- date and time of the last full save;
- number of Delta Save operations since the last full save;
- date and time of the last delta save;
- estimate of the number of database blocks that would be saved in a current Delta Save operation. The estimate may be higher or lower than the actual number of blocks.
- location, device type, block size, and number of unused blocks of the DLOG area.

If no DLOG area is defined, the Delta Save section is omitted.

This chapter covers the following topics:

- Delta Save Report Format
  - Delta Save Checkpoints
  - JCL/JCS Requirements and Examples
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## Delta Save Report Format

The following is an example of the Delta Save section in an ADAREP database report:

```

*****
* DELTA SAVE FACILITY *                yyyy-mm-dd  hh:mm:ss
*****

DELTA SAVE STATUS = ENABLED

DLOG AREA USAGE   = 2%

LAST FULL SAVE NUMBER      = 2
DATE/TIME OF LAST FULL SAVE = 1997-01-19 04:03:36
LAST DELTA SAVE NUMBER     = 5
DATE/TIME OF LAST DELTA SAVE = 1997-01-24 22:39:45

ESTIMATED NUMBER OF CHANGED BLOCKS = CA. 1,700 BLOCKS

D S F   L O G G I N G   A R E A

LIST I DEV  BLOCK I  SPACE ALLOC.  I  FROM      TO  I  UNUSED SPACE  I
TYPE I TYPE  LENGTH I  BLOCKS      CYL I  RABN      RABN I  BLOCKS      CYL I
      I      I      I      I      I      I      I      I      I
-----I-----I-----I-----I-----I-----I-----I-----I
      I      I      I      I      I      I      I      I      I
DSF I 3390  2004 I   100          0 I 1340      1439 I   74          0 I
      I      I      I      I      I      I      I      I      I
-----I-----I-----I-----I-----I-----I-----I-----I
    
```

## Delta Save Checkpoints

The following additional checkpoints can be written by the Adabas nucleus or utilities and included in the ADAREP output when running with the Delta Save Facility:

Checkpoint		Originated	Description
Type	Name	By	
0B	SYNP	ADASAV	End of SAVE DELTA operation
0C	SYNP	ADASAV	End of RESTORE DELTA operation
0D	SYNP	ADASAV	End of MERGE operation
0E	SYNV	ADASAV	VOLSER entry for SAVE DELTA operation
0F	SYNV	ADASAV	VOLSER entry for MERGE operation (output volumes)
6A	SYNS	SYSAOS	DSF logging (DLOG) area installed
6B	SYNS	SYSAOS	DLOG area changed
6C	SYNS	SYSAOS	DLOG area removed

## JCL/JCS Requirements and Examples

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

This section covers the following topics:

- BS2000/OSD
- z/OS
- z/VM
- VSE/ESA and z/VSE

### BS2000/OSD

Data Set	Link Name	Storage	More Information
Associator	DDASSORn	disk	
Data Storage	DDDATARn	disk	
ADAREP parameters	SYSDTA/DDKARTE		
ADARUN parameters	SYSDTA/DDCARD		<i>Adabas Operations</i>
ADAREP messages	SYSLST/DDDRUCK		<i>Adabas Messages and Codes</i>
ADARUN messages	SYSOUT/DDPRINT		<i>Adabas Messages and Codes</i>

### Example

```

/ .ADAREP LOGON

/OPTION MSG=FB,DUMP=YES

/REMARK *
```

```

/REMARK *   A D A R E P       ALL FUNCTIONS

/REMARK *

/SYSFILE SYSLST=L.REP

/FILE      ADA.MOD, LINK=DDLIB

/FILE      ADA99.ASSO  , LINK=DDASSOR1 , SHARUPD=YES

/FILE      ADA99.DATA  , LINK=DDDATAR1 , SHARUPD=YES

/EXEC ( ADARUN, ADA.MOD )

ADARUN  PROG=ADAREP, DB=99

ADAREP  CPLIST

/LOGOFF  NOSPOOL

```

## z/OS

Data Set	DD Name	Storage	More Information
Associator	DDASSORn	disk	
Data Storage	DDDATARn	disk	
ADAREP parameters	DDKARTE		
ADARUN parameters	DDCARD		<i>Adabas Operations</i>
ADAREP messages	DDDRUCK		<i>Adabas Messages and Codes</i>
ADARUN messages	DDPRINT		<i>Adabas Messages and Codes</i>

## Example

```

//REP      EXEC PGM=ADARUN

//STEPLIB DD   DISP=SHR, DSN=ADABAS.Vvrs.LOADLIB

// *

//DDASSOR1 DD   DISP=SHR, DSN=EXAMPLE.ADA99.ASSOR1

//DDDATAR1 DD   DISP=SHR, DSN=EXAMPLE.ADA99.DATAR1

//SYSUDUMP DD   SYSOUT=A

//DDDRUCK  DD   SYSOUT=A

//DDPRINT  DD   SYSOUT=A

//DDCARD   DD   *

ADARUN  PROG=ADAREP, SVC=249, DEVICE=3390, DB=99

```

```
//DDKARTE DD *
```

```
ADAREP CPLIST
```

## z/VM

Data Set	DD Name	Storage Type	More Information
Associator	DDASSORn	disk	
Data Storage	DDDATARn	disk	
ADAREP parameters	DDKARTE	disk/ terminal/ reader	
ADARUN parameters	DDCARD	disk/ terminal/ reader	<i>Adabas Operations</i>
ADAREP messages	DDDRUCK	disk/ terminal/ printer	<i>Adabas Messages and Codes</i>
ADARUN messages	DDPRINT	disk/ terminal/ printer	<i>Adabas Messages and Codes</i>

### Example

```
DATADEF DDASSOR1,DSN=ADABASVv.ASSO,VOL=ASSOV1
```

```
DATADEF DDDATAR1,DSN=ADABASVv.DATA,VOL=DATAV1
```

```
DATADEF DDPRINT,DSN=ADAREP.DDPRINT,MODE=A
```

```
DATADEF DUMP,DUMMY
```

```
DATADEF DDDRUCK,DSN=ADAREP.DDDRUCK,MODE=A
```

```
DATADEF DDCARD,DSN=RUNREP.CONTROL,MODE=A
```

```
DATADEF DDKARTE,DSN=ADAREP.CONTROL,MODE=A
```

```
ADARUN
```

Contents of RUNREP CONTROL A1:

```
ADARUN PROG=ADAREP,DEVICE=3390,DB=99
```

Contents of ADAREP CONTROL A1:

```
ADAREP CPLIST
```

## VSE/ESA and z/VSE

Data Set	Symbolic	Storage	Logical Unit	More Information
Associator	ASSORn	disk		
Data Storage	DATARn	disk		
ADAREP parameters		reader	SYSIPT	
ADARUN parameters	SYSRDR CARD CARD	reader tape disk	SYSRDR SYS000 *	<i>Adabas Operations</i>
ADAREP messages		printer	SYS009	<i>Adabas Messages and Codes</i>
ADARUN messages		printer	SYSLST	<i>Adabas Messages and Codes</i>

\* Any programmer logical unit can be used.

See the VSE/ESA-related job information in section Adabas Utility Functions for Delta Save.

### Example

```
// EXEC PROC=ADAVvFIL
// EXEC PROC=ADAVvLIB
// EXEC ADARUN,SIZE=ADARUN
ADARUN PROG=ADAREP,SVC=xxx,DEVICE=dddd,DB=yyyy
/*
ADAREP CPLIST
/*
```