

LIST: Display Current RLOG Generations

Note:

Adabas version 6 RLOGs cannot be listed; only version 7 and above RLOGs are supported.

The ADARAI LIST function is used to view the RLOG contents in table form:

- generations are listed in numerical order;
- RLOG block ranges are listed for each generation; and
- the stop/start dates and times covered by each generation are listed.

The following information is provided for each entry on the RLOG including utility executions and nucleus session start and session stop entries:

- name of the event for which the RLOG entry was written;
- date and time the information was written to the RLOG;
- PLOG number associated with the event (if any);
- PLOG block containing an associated checkpoint (if any);
- parameters specified for the logged event to the DD/CARD and DD/KARTE statements; and
- details of any files written or read during the logged event.

In a nucleus cluster environment, the PLOG data sets are also listed on nucleus session start entries. The cluster nucleus ID (NUCID) is also listed.

Example:

```
*** 2001-08-21 11:37:08 NUCLEUS PLOG NUMBER=4
*** START NUCLEUS SESSION NUCID 40002

SYNC PLOG BLOCK NUMBER = 1
ACTIVE PLOG DATA SET NAMES: EXAMPLE.DBdddd.PLOGR21
                             EXAMPLE.DBdddd.PLOGR22
```

This chapter covers the following topics:

- Additional LIST Information on BS2000
 - Syntax
 - Optional Parameters
 - Examples
-

Additional LIST Information on BS2000

On BS2000 systems, LIST also provides the following information:

- file or file generation group (FGG) characteristics and physical location (tape, disk, etc.);
- existence and condition of each data set (written and erased; overwritten; written as a temporary file) needed by the ADARAI RECOVER function; and
- error or warning message for incompatible coded file ID (CFID) comparison.

Since non-matching coded file IDs (CFIDs) are a reliable indication of overwritten data sets in BS2000, LIST compares CFIDs to determine whether any data sets have been overwritten. For lost or overwritten data sets, LIST provides an error or warning indication for the following conditions:

- An "ERROR" is indicated when the data set was written to:
 - - disk, and was then erased;
 - disk, and then was overwritten (CFIDs do not match). Both the original and the catalog entry are reported;
 - a temporary disk data set.
 - A "WARNING" is indicated when the data set was written to
 - - tape, and the catalog entry has been erased;
 - tape, and then was overwritten (CFIDs do not match). Both the original and the catalog entry are reported;
 - a temporary tape data set.

The section Output Examples provides examples of the operating-system-dependent results provided by the LIST function.

Syntax

```
ADARAI LIST [GENS = { NO | YES } ]  
            [RELGEN = { gen-number | gen-number - gen-number } ]  
            [RLOGDEV = device ]
```

Optional Parameters

GENS: Generation Print Control

GENS determines whether generation information is listed. GENS=NO lists only the RLOG control information. GENS=YES (the default) lists generation information also.

RELGEN: Relative Recovery Generation Number

RELGEN specifies the *relative* generation number (or range of generation numbers) to be listed. The current generation is always coupled with relative generation "0" (zero). The last completed generation is coupled with relative generation "1"; *two generations ago*, the generation before the last completed generation, is specified as relative generation "2".

Example:

To list the generations ranging from three generations ago to the last complete generation (inclusive), specify RELGEN=3-1.

If the first generation number specified is lower than the second generation number, ADARAI reduces the second generation number to match the first.

Example:

If you specify RELGEN=2-3, ADARAI changes it to RELGEN=2-2.

If RELGEN is not specified, all generations are printed.

The specified generation must currently be in the RLOG. Note, however, that instead of a relative number, each listed generation has an ascending order number, beginning with 1 (the first generation following the start of RLOG operation).

Example:

RELGEN=0 is equivalent to generation number 690; RELGEN=3-2 is equivalent to the generation numbers 687 and 688.

I	GEN-	I	BLOCK	I	DATE /TIME	I	
I	NUMBER	I	FROM	TO I	FROM	TO	I
I	-----I	I	-----I	I	-----I	I	-----I
I	690	I	715	715	I 2001-08-20 02:07:13	2001-08-20 08:51:19	I
I	689	I	714	714	I 2001-08-17 18:24:49	2001-08-20 02:03:21	I
I	688	I	713	713	I 2001-08-16 18:24:26	2001-08-17 16:48:16	I
I	687	I	712	712	I 2001-08-15 18:29:09	2001-08-16 12:54:28	I
I	686	I	711	711	I 2001-08-14 18:24:30	2001-08-15 17:45:44	I
I	685	I	710	710	I 2001-08-13 18:32:07	2001-08-14 15:46:25	I
I	684	I	709	709	I 2001-08-13 02:07:15	2001-08-13 18:00:18	I
I	683	I	708	708	I 2001-08-10 18:25:59	2001-08-13 02:03:23	I
I	682	I	707	707	I 2001-08-09 18:36:39	2001-08-10 10:24:14	I

RLOGDEV: RLOG Alternate Device

RLOGDEV specifies the device type containing the RLOG file. If the RLOG file is located on the device type specified by the ADARUN DEVICE parameter (the default device type), you do not need to specify RLOGDEV.

Examples

Input Examples

```
ADARAI LIST
```

This example lists all generations in the RLOG.

```
ADARAI LIST RELGEN=15-1
```

LIST displays the last 15 generations (if they are available in the RLOG), not including the current generation (0).

Output Examples

BS2000

The following example shows LIST output for a single BS2000 disk data set:

```
LINK=DDSAVE1 PATHNAME=:A:$GEB.RAI.vv.SAVE.012
SIZE=6387 SEC-ALLO=96 LPP=6336
FCBTYPE=SAM RECFORM=V BLKSIZE=(STD,16) RECSIZE=32748 BLKCNTRL=PAMKEY
VSN/DEV PUBA00/D3480 /AC PUBA01/D3480 /AC
VSN/DEV PUBA02/D3480 /AC
```

The following example shows LIST output for a BS2000 file-generation group (FGG):

```
FGG INDEX BASE=10 CURRENT=10 FIRST=1 MAX=255 DISP=DEL
LINK=DDSAVE1 PATHNAME=:A:$GEB.RAI.vv.SAVE.TAPE.01(*0010)
TAPE DEVICE=TAPE=C1 (B5) FSEQ=1 BLKCOUNT=4000
FCBTYPE=SAM RECFORM=V BLKSIZE=32760 RECSIZE=32756 BLKCNTRL=NO
VOLUMES GEBR11 GEBR12 GEBR13 GEBR17 GEBR19
```

The following examples are of ADARAI LIST error/warning output. The first is for a lost disk data set, and the second for an overwritten tape data set:

```
LINK=DDSAVE1 DISC DATASET NOT PRESENT - E R R O R
ORIGINAL CATALOG ENTRY:
LINK=DDSAVE1 PATHNAME=:A:$GEB.RAI.vv.SAVE.012
SIZE=6387 SEC-ALLO=96 LPP=6336
FCBTYPE=SAM RECFORM=V BLKSIZE=(STD,16) RECSIZE=32748 BLKCNTRL=PAMKEY
VSN/DEV PUBA00/D3480 /AC PUBA01/D3480 /AC
VSN/DEV PUBA02/D3480 /AC
```

```
LINK=DDSAVE1 CFID MISMATCH - W A R N I N G
ORIGINAL 379949EE NOW: 379972F0
ORIGINAL CATALOG ENTRY:
LINK=DDSAVE1 PATHNAME=:A:$GEB.RAI.vv.SAVE.012
TAPE DEVICE=TAPE=C1 (B5) FSEQ=1 BLKCOUNT=4000
FCBTYPE=SAM RECFORM=V BLKSIZE=32760 RECSIZE=32756 BLKCNTRL=NO
CREATION DATE yyyy-mm-dd 11:44:35
VOLUMES GEBR11 GEBR12 GEBR13 GEBR17 GEBR19
ACTUAL CATALOG ENTRY:
```

```
LINK=DDSAVE1 PATHNAME=:A:$GEB.RAI.vv.SAVE.012
TAPE DEVICE=TAPE=C1 (B5) FSEQ=1 BLKCOUNT=3900
FCBTYPE=SAM RECFORM=V BLKSIZE=32760 RECSIZE=32756 BLKCNTRL=NO
CREATION DATE yyyy-mm-dd 12:34:56
VOLUMES GEBR23 GEBR65 GEBR66 GEBR67 GEBR68
```

z/OS

```
A D A R A I   Vv.v  SMv   DBID = 00203  STARTED           yyyy-mm-dd  hh:mm:ss
```

PARAMETERS:

```
-----
```

```
ADARAI LIST RELGEN=0
RECOVERY LOG FILE FOR DATABASE 203
```

```
START RABN FOR LOG DATA AREA IS      21
HIGHEST LOG AREA RABN IS              633
CURRENT VALUE FOR ROTATING RABN IS    23
```

I GEN-	I I	BLOCK	I	DATE /TIME	I
I NUMBER	I S I	FROM	TO I	FROM	TO
I 3	I N I	23	23	I yyyy-01-13 16:06:28	yyyy-01-13 16:11:35
I 2	I N I	22	22	I yyyy-01-09 16:07:10	yyyy-01-13 16:04:13
I 1	I N I	21	21	I yyyy-01-09 16:04:41	yyyy-01-09 16:06:16
I 0	I R I	20	20	I yyyy-01-09 16:04:07	yyyy-01-09 16:04:30

```
*** yyyy-01-13 16:06:28
*** SAVE DATABASE OFFLINE
```

```
DELTA SAVE ID IS AS FOLLOWS:
FULL SAVE.....2
LOW DELTA SAVE NUMBER...0
HIGH DELTA SAVE NUMBER..0
DATE WRITTEN.....yyyy-01-13
TIME WRITTEN.....16:12:03
```

```
FILES = 1,2,3,19
```

```
ADARUN DBID=203,SVC=249,DEVICE=3390,PLOGRQ=YES
ADARUN NCLOG=2,CLOGDEV=3390,CLOGSIZE=150
ADARUN NPLOG=2,PLOGSIZE=1350
ADARUN PLOGDEV=3390
ADARUN DSF=YES
ADARUN UEX2=USEREX2M
ADARUN PROG=ADASAV
```

```
ADASAV SAVE
```

```
//DDSAVE1 DD DSN=EXAMPLE.ADASAV.FULL.G0058V00,
// UNIT=3390,SPACE=(TRK,(5,5)),DISP=NEW,
// DCB=(RECFM=VB,BLKSIZE=27998,LRECL=27994),
// VOL=SER=(SMS018)
```

```
DDSAVE1 VOLSER=SMS018 FROM BLOCK=1 (ASSO) TO BLOCK =1598 VOLUME IS
ASSOCIATED WITH PLOG NO. 6
```

```
DDSAVE1      VOLSER=SMS018      FROM BLOCK=1 (DATA)
              TO BLOCK   =750
              VOLUME IS ASSOCIATED WITH PLOG NO. 6
```

```
*** yyyy-01-13 16:07:09 NUCLEUS PLOG NUMBER=7
*** START NUCLEUS SESSION [NUCID=nnnnn]
```

```
SYNC PLOG BLOCK NUMBER = 5
[ACTIVE PLOG DATASET NAMES: EXAMPLE.DBdddd.PLOGR21
                           EXAMPLE.DBdddd.PLOGR22]
```

```
ADARUN DBID=203,SVC=249,DEVICE=3390,PLOGRQ=YES
ADARUN NCLOG=2,CLOGSIZE=150,CLOGDEV=3390
ADARUN NPLOG=2,PLOGSIZE=1350
ADARUN PLOGDEV=3390
ADARUN DSF=YES
ADARUN UEX2=USEREX2M
ADARUN PROG=ADANUC
ADARUN MODE=MULTI
ADARUN LOCAL=YES
ADARUN SPT=NO
ADARUN LWP=480000
ADARUN LP=200
ADARUN TT=1800
ADARUN TNAE=1800
ADARUN LBP=80000
ADARUN NH=500
ADARUN LFP=60000
ADARUN LU=65525
ADARUN NAB=45
ADARUN LQ=12000
ADARUN LI=20000
ADARUN NT=10
ADARUN NC=300
ADARUN NU=300
ADARUN LS=20000
ADARUN TNAX=1800
ADARUN CT=300
ADARUN OPENRQ=NO
ADARUN LOGGING=NO
ADARUN LOGCB=NO
ADARUN LOGSB=NO
ADARUN LOGFB=NO
```

```
ADARUN IGNDIB=NO
ADARUN FORCE=NO
```

```
*** yyyy-01-13 16:07:18 NUCLEUS PLOG NUMBER=7
*** END NUCLEUS SESSION
```

```
HIGHEST PLOG BLOCK WRITTEN = 7
```

```
*** yyyy-01-13 16:07:22
*** COPY MULTIPLE PROTECTION LOG DATASET FOR PLOG 7
```

```
ADARUN DBID=203,SVC=249,DEVICE=3390,PLOGRQ=YES
ADARUN NCLOG=2,CLOGSIZE=150,CLOGDEV=3390
ADARUN NPLOG=2,PLOGSIZE=1350
ADARUN PLOGDEV=3390
ADARUN DSF=YES
ADARUN UEX2=USEREX2M
```

```

ADARUN  PROG=ADARES,MODE=MULTI

ADARES  PLCOPY OPENOUT
ADARES  DSIMSIZE=5

//DDSIAUS1 DD DSN=EXAMPLE.PLOG.G0243V00,UNIT=3390,
//          SPACE=(TRK,(10,1)),DISP=NEW,DCB=(RECFM=VB,
//          BLKSIZE=27998,LRECL=27994),
//          VOL=SER=(SMS018)

DDSIAUS1  VOLSER=SMS018      FROM BLOCK=1
                                TO BLOCK  =7
                                FROM DATE  =yyyy-01-13  17:07:09
                                TO   DATE  =yyyy-01-13  17:07:18
                                VOLUME IS ASSOCIATED WITH PLOG NO. 7

*** yyyy-01-13  16:07:39  NUCLEUS PLOG NUMBER=8
*** START NUCLEUS SESSION [NUCID=nnnnn]

SYNC PLOG BLOCK NUMBER = 3
[ACTIVE PLOG DATASET NAMES: EXAMPLE.DBddddd.PLOGR21
                             EXAMPLE.DBddddd.PLOGR22]

ADARUN  DBID=203,SVC=249,DEVICE=3390,PLOGRQ=YES
ADARUN  NCLOG=2,CLOGSIZE=150,CLOGDEV=3390
ADARUN  NPLOG=2,PLOGSIZE=1350
ADARUN  PLOGDEV=3390
ADARUN  DSF=YES

ADARUN  UEX2=USEREX2M
ADARUN  PROG=ADANUC
ADARUN  MODE=MULTI
ADARUN  LOCAL=YES
ADARUN  SPT=NO
ADARUN  LWP=480000
ADARUN  LP=200
ADARUN  TT=1800
ADARUN  TNAE=1800
ADARUN  LBP=80000
ADARUN  NH=500
ADARUN  LFP=60000
ADARUN  LU=65525
ADARUN  NAB=45
ADARUN  LQ=12000
ADARUN  LI=20000
ADARUN  NT=10
ADARUN  NC=300
ADARUN  NU=300
ADARUN  LS=20000
ADARUN  TNAX=1800
ADARUN  CT=300
ADARUN  OPENRQ=NO
ADARUN  LOGGING=NO
ADARUN  LOGCB=NO
ADARUN  LOGSB=NO
ADARUN  LOGFB=NO
ADARUN  IGNDIB=NO
ADARUN  FORCE=NO

*** yyyy-01-13  16:09:16  NUCLEUS CHECKPOINT
ENCOUNTERED

```

```

CHECKPOINT IS ON PLOG NUMBER 8 BLOCK NUMBER 4
SYNS-CHECKPOINT IS 'DELETE FILE'
FILES = 1

*** yyyy-01-13 16:09:16 NUCLEUS CHECKPOINT ENCOUNTERED

CHECKPOINT IS ON PLOG NUMBER 8 BLOCK NUMBER 5
SYNS-CHECKPOINT IS 'DELETE FILE'
FILES = 2

*** yyyy-01-13 16:10:27 NUCLEUS PLOG NUMBER=8
*** ADABAS UTILITY RUN

SYNP-CHECKPOINT ID IS 'ADALOD - LOAD'
SYNP-CHECKPOINT IS FOUND ON PLOG 8 IN BLOCK NO. 6
FILES = 1

ADARUN DBID=203,SVC=249,DEVICE=3390,PLOGRQ=YES
ADARUN NCLOG=2,CLOGSIZE=150,CLOGDEV=3390
ADARUN NPLOG=2,PLOGSIZE=1350
ADARUN PLOGDEV=3390
ADARUN DSF=YES
ADARUN UEX2=USEREX2M
ADARUN PROG=ADALOD,MODE=MULTI

ADALOD LOAD FILE=1
ADALOD NAME='EMPLOYEES'
ADALOD MAXISN=1500,DSSIZE=1
ADALOD TEMPSIZE=15,ORTSIZE=15

//DDEBAND DD
DSN=ADABAS.ADAvrs.EMPL,UNIT=3390,DISP=OLD,
// VOL=SER=(ADA001)

*** yyyy-01-13 16:11:21 NUCLEUS PLOG NUMBER=8
*** ADABAS UTILITY RUN

SYNP-CHECKPOINT ID IS 'ADALOD - LOAD'
SYNP-CHECKPOINT IS FOUND ON PLOG 8 IN BLOCK NO. 7
FILES = 2

ADARUN
PROG=ADALOD,MODE=SINGLE,SVC=249,DEVICE=3390,DBID=203

ADALOD LOAD FILE=2
ADALOD NAME='VEHICLES'
ADALOD MAXISN=1000,DSSIZE=1
ADALOD TEMPSIZE=15,ORTSIZE=15

//DDEBAND DD
DSN=ADABAS.ADAvrs.VEHI,UNIT=3390,DISP=OLD,
// VOL=SER=(ADA001)

*** yyyy-01-13 16:11:31 NUCLEUS PLOG NUMBER=8
*** END NUCLEUS SESSION

HIGHEST PLOG BLOCK WRITTEN = 9

*** yyyy-01-13 16:11:35
*** COPY MULTIPLE PROTECTION LOG DATASET FOR PLOG 8

```


ADARUN DBID=203 ,SVC=249 ,DEVICE=3390 ,PLOGRQ=YES
 ADARUN NCLOG=2 ,CLOGSIZE=150 ,CLOGDEV=3390
 ADARUN NPLOG=2 ,PLOGSIZE=1350
 ADARUN PLOGDEV=3390
 ADARUN DSF=YES
 ADARUN UEX2=USEREX2M
 ADARUN PROG=ADARES ,MODE=MULTI

ADARES PLCOPY OPENOUT
 ADARES DSIMSIZE=5

//DDSIAUS1 DD DSN=EXAMPLE.PLOG.G0244V00,UNIT=3390,
 // SPACE=(TRK,(10,1)),DISP=NEW,DCB=(RECFM=VB,
 // BLKSIZE=27998,LRECL=27994),
 // VOL=SER=(SMS018)

DDSIAUS1 VOLSER=SMS018 FROM BLOCK=1
 TO BLOCK =9
 FROM DATE =yyyy-01-13 17:07:39
 TO DATE =yyyy-01-13 17:11:30
 VOLUME IS ASSOCIATED WITH PLOG NO. 8

A D A R A I TERMINATED NORMALLY yyyy-01-13 16:12:03

z/VSE

A D A R A I Vv.v SMv DBID = 00059 STARTED yyyy-mm-dd hh:mm:ss

PARAMETERS:

ADARAI LIST

18:45:04 ADAI64 FILE RLOGR1 HAS BEEN OPENED IN ECKD MODE
 18:45:04 ADAI64 FILE RLOGM1 HAS BEEN OPENED IN ECKD MODE

RECOVERY LOG FILE FOR DATABASE 59

START RABN FOR LOG DATA AREA IS 26
 HIGHEST LOG AREA RABN IS 633
 CURRENT VALUE FOR ROTATING RABN IS 26

I GEN-	I I	BLOCK	I	DATE /TIME	I
I NUMBER	I S I	FROM	TO I	FROM	TO
I-----I--I-----I-----I-----I-----I-----I-----I-----I					
I 1 I N I		26	26 I	yyyy-08-30 17:06:51	yyyy-08-30 18:44:35 I
I 0 I R I		25	25 I	yyyy-08-30 17:01:02	yyyy-08-30 17:05:05 I
I-----I--I-----I-----I-----I-----I-----I-----I-----I					

*** yyyy-08-30 17:06:51
 *** SAVE DATABASE OFFLINE NON INCREMENTAL

SAVE DATASET PLOG NUMBER = 1966
 ADASAV SAVE
 // TLBL SAVE1,'PMIG.ADAvrs.SAVE1',0,ADES01

DDSAVE1 VOLSER=XXXXXX FROM BLOCK=1
 TO BLOCK =6192
 VOLUME IS ASSOCIATED TO PLOG NO. 1966
 FILE=001,002,003,004,005,006,008,009,010,011,012,013,014,015

FILE=016,017,019,021,022,023,025,027

DDSAVE1 VOLSER=XXXXXX FROM BLOCK=1
 TO BLOCK =31961
 VOLUME IS ASSOCIATED TO PLOG NO. 1966
 FILE=001,002,003,004,005,006,008,009,010,011,012,013,014,015
 FILE=016,017,019,021,022,023,025,027

*** yyyy-08-30 17:08:12 NUCLEUS PLOG NUMBER=1967
 *** START NUCLEUS SESSION

*** yyyy-08-30 17:10:15 NUCLEUS PLOG NUMBER=1967
 *** ADABAS UTILITY RUNSYNP-CHECKPOINT ID IS 35 (UNLOAD FILE)
 SYNP-CHECKPOINT IS FOUND ON PLOG 1967 IN BLOCK NO. 5
 FILE=001
 ADAULD FILE=1 NUMRECS=100
 // DLBL OUT1,'VSESP.SAPLB.ULD2',7,SD
 // EXTENT SYS034,SYSWK1,1,0,16365,30

*** yyyy-08-30 17:14:28 NUCLEUS PLOG NUMBER=1967
 *** ADABAS UTILITY RUN

SYNP-CHECKPOINT ID IS 35 (UNLOAD FILE)
 SYNP-CHECKPOINT IS FOUND ON PLOG 1967 IN BLOCK NO. 8
 FILE=001
 ADAULD FILE=1 NUMRECS=100
 // DLBL OUT1,'VSESP.SAPLB.ULD2',7,SD
 // EXTENT SYS034,SYSWK1,1,0,16365,30

*** yyyy-08-30 18:44:35 NUCLEUS PLOG NUMBER=1967
 *** ADABAS UTILITY RUN

SYNP-CHECKPOINT ID IS 30 (LOAD FILE)
 SYNP-CHECKPOINT IS FOUND ON PLOG 1967 IN BLOCK NO. 12
 FILE=004
 ADALOD LOAD FILE=4,ISNREUSE=YES,ORTSIZE=5,TEMPsize=5,DSSIZE=50B
 ADALOD
 MAXISN=10,NAME='TESTFILE',DSREUSE=YES,LWP=1000000,LIP=500
 ADALOD NUMREC=5,NISIZE=5B,UISIZE=5B
 // DLBL EBAND,'VSESP.SAPLB.ULD2',7,SD
 // EXTENT SYS011,SYSWK1,1,0,16365,30

ADAI03 RLOGR1	3 READS	0 WRITES
ADAI03 RLOGM1	1 READS	0 WRITES

A D A R A I TERMINATED NORMALLY

yyyy-08-30 18:45:03