Adabas Parallel Services

Adabas Parallel Services Reference

Version 7.5.1

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This document applies to Adabas Parallel Services Version 7.5.1 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Adabas Parallel Services Reference

This documentation provides reference information for Adabas initialization parameters, cluster operator commands as well as the Adabas Online System screens pertinent to Adabas Parallel Services.

This document is organized as follows:

Initialization Parameters	Describes the initialization parameters needed for an Adabas Parallel Services environment.
Cluster Operator Commands	Describes operator commands for ADACOM and for an Adabas Parallel Services cluster nucleus.
Adabas Online System Cluster Environment Screens	Describes the Adabas Online System version 7.4 screens that apply to the Adabas Parallel Services cluster environment.

2 Initialization Parameters

This chapter describes the initialization parameters needed for an Adabas Parallel Services environment. It covers the following topics:

ADARUN Initialization Parameters

ADARUN parameters are used to customize the Adabas environment. For information about ADARUN parameters and the format of ADARUN control statements, read your *Adabas Operations Manual*.

For Adabas Parallel Services environments, two types of initialization parameters must be set based on the ADARUN parameter `PROGRAM`.

PROGRAM - Execute an ADARUN Program

Parameter	Specify...	Possible Values	Default
`PROGRAM`	the ADARUN program	ADANUC | ADACOM	none

The `PROGRAM` parameter specifies the name of the program being run, and must always be specified. There is no default.

- To run an Adabas nucleus, the name must be "ADANUC".
- To set up an ADACOM task, the name must be "ADACOM" (no other ADARUN parameters are recognized for the ADACOM program run).

For example, the following example starts an Adabas Parallel Services nucleus:

```
ADARUN PROG=ADANUC,CLUSTER=LOCAL,NUCID=3, ...
```

ADACOM Initialization Parameters

An unlimited number of Adabas Parallel Services nucleus clusters, each with up to 31 members sharing a common database, can be defined for an operating system image.

The ADACOM initialization task (`ADARUN PROGRAM=ADACOM`) must be run in order to set up the environment, and it must be maintained in order to monitor and control the nuclei of one or more Adabas Parallel Services clusters.

ADACOM initialization parameters specify the Router ID / DBID combinations (sets) that the ADACOM is to manage.

- The Router ID identifies the SVC number on OS/390, z/OS, or VSE, or the IDTNAME on BS2000/OSD. The Router ID value must be the same within a cluster; however, the same Router ID may be used for different clusters.
- The DBID identifies the external physical database shared by a particular cluster of nuclei and known to the application.

Other ADACOM parameters are discussed in the following sections.

Although a single ADACOM job can run all Router ID / DBID sets in an Adabas Parallel Services environment, it is possible to run multiple ADACOM tasks simultaneously with the same, mixed, or completely different Router ID / DBID sets. An ADACOM subtask is attached to each Router ID / DBID set for each ADACOM task in which it occurs.

ADACOM prints global messages that apply to all Router ID / DBID sets to the data set or file with DD name/link name COMPRINT. Furthermore, ADACOM prints messages for each individual Router ID / DBID set to an output data set or file with the DD name/link name `Pssddddd`, where `ss` is the last two digits of the SVC number and `ddddd` is the DBID. (On BS2000, the `ss` number is derived for each separate IDTNAME as the first available, counting backward from 255.) On OS/390 and z/OS, ADACOM automatically allocates this data set in the spool with SYSOUT=*, if it is not explicitly specified.

For a sample job to run ADACOM, read the OS/390 or z/OS section *Create a Startup Procedure for ADACOM* in the *Adabas Parallel Services Installation Guide*.

DBID - Database Identification

Parameter	Specify...	Minimum	Maximum	Default
DBID	the database to be used.	1	65000	none

The `DBID` parameter designates the ID of an Adabas Parallel Services cluster's external physical database; that is, the database number that the user programs address to send commands to the single physical database of an Adabas Parallel Services nucleus cluster.

This number must be unique among all Adabas database IDs, NUCIDs, Natural buffer pool IDs, etc.

FORCE - Force Restart after Abnormal Termination

Parameter	Specify...	Possible Values	Default
FORCE	whether ADACOM forces a restart after an abnormal termination.	YES | NO	NO

If Adabas Parallel Services believes there are still active nuclei, ADACOMs, or users on an image after a termination, a NU parameter value that is different from the NU value already in effect will not be recognized on restart. If you are certain that Adabas Parallel Services is wrong in its belief, you can use FORCE=YES to force a clean restart.

Note, however, that if a cluster nucleus or an ADACOM with the same SVC number or IDTNAME is active on the image where FORCE=YES is used, it will crash.

Notes:

1. FORCE=YES works only when the NU parameter value is being changed and has the effect of resetting the environment.
2. The nucleus ADARUN parameter FORCE is neither seen nor used by the SVCCLU. The ADACOM parameter FORCE may only be used to change the NU that is valid for the cluster.
3. If you use the ADACOM FORCE parameter, remember to remove it from ADACOM after you have reset the environment.

IDTNAME - Define ID Table Name (BS2000 Only)

Parameter	Specify...	Possible Values	Default
IDTNAME	the IDT common memory pool name to be used for the Adabas Parallel Services cluster session.	ADAiiiii	ADABAS5B

The IDTNAME defines the name of the common memory pool used to find communication details for this nucleus. This common memory pool will be defined as Global.

Value is "ADA*iiiii*", maximum of eight characters.

For example, IDTNAME=ADAPROD1

NU - Number of User Table Elements on the OS Image

Parameter	Specify...	Minimum	Maximum	Default
NU	the number of users that can be active in parallel on cluster nuclei in the image.	20	16 777 215	200

In the extended CSA (ECSA), the SVCCLU maintains a user table with entries (UTEs) containing information about every active user in the cluster nuclei on the operating system image. A UTE is assigned when a user issues an OP command or (if the user did not issue an OP command) at the first Adabas command. The UTE is released when the user issues a CL command or when a timeout occurs.

The ADACOM NU parameter specifies the number of concurrent users (UTEs) allowed for all the nuclei of a cluster. The first ADACOM started governs the value for NU: different values set for subsequent nuclei or ADACOMs are ignored.

To manually change the NU value, you must stop all cluster nuclei and ADACOM tasks in the image, modify the NU value for all the nucleus and ADACOM jobs, and then restart.

When the NU parameter is set to zero, any space allocated for the user table is freed, the Adabas Parallel Services control block is freed, and the ADACOM task terminates. However, if ADACOM believes that there are active nuclei, ADACOMs, or users, and FORCE=YES is not used, no action is taken.

For example, the following parameter would run the Adabas Parallel Services cluster nuclei with 500 elements in the user table:

```
NU=500
```

SVC - Interregion Communication Number

Parameter	Specify...	Possible Values	Default
SVC	the supervisor call number to be used for the Adabas Parallel Services nucleus cluster session.	OS/390 or z/OS: 200-255 VSE: see text	OS/390 or z/OS: 249 VSE: 45

The SVC is used to perform various Adabas internal functions; the number is used to communicate between the users and the database.

The SVC number is specified as an integer and must correspond to the number used for the version 7.4 Adabas SVC (ADASVC).

- For OS/390, valid SVC values are 200-255.
- For VSE/ESA, 45 is the recommended value but any free SVC value can be used. Read the *Adabas Installation Guide* for information about finding free VSE Adabas SVC values.

For example, the following parameter will execute an Adabas Parallel Services nucleus cluster session on an OS/390 image using ADASVC 202.

```
SVC=202
```

Setting ADARUN Parameters for Cluster Nuclei

Software AG recommends that you use the default settings (or your existing values) of the Adabas ADARUN parameters for each Adabas nucleus in an Adabas Parallel Services cluster, and then tune the values after analyzing the performance of the node or cluster. Read *Performance and Tuning* in the *Adabas Parallel Services Operations Manual* for information about expected differences.

Session statistics can be used to determine the best settings for each parameter. The statistics are printed automatically at the end of a session, but can also be displayed using nucleus or ADACOM operator commands during the session.

This section describes the ADARUN parameters used to invoke a cluster nucleus (ADARUN `PROGRAM=ADANUC`).

Global ADARUN Parameters

ADARUN parameters that must be the same for all nuclei in the cluster are called "global".

Some global parameters are set at nucleus startup and cannot be changed during the ensuing session; other global parameters can be changed during a session.

Changing Parameter Values at Nucleus Startup

After the first nucleus in an Adabas Parallel Services cluster starts, message services are used to communicate the ADARUN parameter settings of the first nucleus to all subsequent cluster nuclei. Each following nucleus receives this information during initialization and determines whether its global nonchangeable parameters are equal to those of the first nucleus.

If they are not equal, the nucleus fails with a parameter error. The nonequal global changeable parameters are reset to the value retrieved from the message services and a corresponding message is printed.

Changing Parameter Values During a Session

On a running system, a cluster nucleus may want to modify one or more of the "changeable" global parameters. This nucleus acquires a "parameter change lock", makes the changes in its local parameter area, and communicates the changes to the other cluster nuclei using message services.

All other nuclei in the cluster receive the messages containing the global parameters that have changed, change the parameters in their local parameter area, and send the "acknowledge" message.

Parameter Types

A cluster nucleus requires

- *global* parameters. Adabas Parallel Services enforces the same value for all nuclei in a cluster. Some of these parameters are modifiable (*GM*) during a session using an operator command or AOS (`NISNHQ`, `NONDES`, and `AOSLOG` are only modifiable using AOS); others are fixed (*GF*) and cannot be modified.
- *local* parameters, which can be different for each nucleus. Some of these parameters are modifiable (*LM*) using an operator command or AOS; others are fixed (*LF*) and cannot be modified.

A few Adabas ADARUN parameters are not available or applicable to a cluster nucleus (*No*).

Parameter Directory

Note: All Adabas Caching Facility ADARUN parameters are supported as local, modifiable parameters.

Parameter	Usage	No*	LF	LM	GF	GM
AOSLOG	Log to DDPRINT commands issued by AOS or ADADBS OPERCOM that modify the active nucleus			Y		
AREXCLUDE	Exclude file(s) from autorestart		Y			
ARMNAME	Name used to activate ARM		Y			
ASSOCACHE	Controller caching control for the Associator component		Y			
ASYTVS	Asynchronous buffer flush based on vol-ser			Y		
CDXnn	Collation descriptor user exit(s)				Y	
CLOGDEV	Multiple command log device type		Y			
CLOGLAYOUT	Define command log format		Y			
CLOGMRG	Automatic command log merge control in a cluster environment					Y
CLOGSIZE	Multiple command log size (blocks)		Y			
CLUCACHENAME	Cluster cache structure name (Cluster Services only)				Y	
CLUCACHESIZE	Cluster cache area size (Parallel Services only)				Y	

Parameter	Usage	No*	LF	LM	GF	GM
CLUGROUPNAME	Cluster group name (Cluster Services only)				Y	
CLULOCKNAME	Cluster lock structure name (Cluster Services only)				Y	
CLULOCKSIZE	Cluster lock area size (Parallel Services only)				Y	
CLUCACHETYPE	Cluster cache data storage type (Parallel Services only)				Y	
CLUSTER	Adabas cluster session control				Y	
CT	Command time limit (seconds)					Y
DATACACHE	Controller caching control for the Data Storage component		Y			
DIRRATIO/ELEMENTRATIO	Ratio of directory entries to data elements in a cluster cache structure/area				Y	
DBID	Database ID (physical)				Y	
DEVICE	Device type of the first ASSO extent				Y	
DSF	Delta Save Facility control				Y	
DSFEX1	Delta Save Facility user exit				Y	
DTP	Distributed transaction processing control	Y			Y	
DUALCLD	Dual command log device		Y			
DUALCLS	Dual command log size (blocks)		Y			
DUALPLD	Dual protection log device		Y			
DUALPLS	Dual protection log size (blocks)		Y			
FASTPATH	Adabas Fastpath control				Y	
FMXIO	Limit parallel I/O operations by LFIOP flush processing			Y		
FORCE	Overwrite IDTE		Y			
HEXnn	Hyperdescriptor exit(s)				Y	
IDTNAME	BS2000 ID table name				Y	
IGNDIB	Ignore DIB entry		Y			
IGNDTP	Ignore distributed transaction processing area (Work part 4)	Y				
INTNAS	Interval between nucleus statistic checkpoints (SYNS 60)				Y	
LBP	Length of buffer pool		Y			
LCP	Length of security pool		Y			
LDEUQP	Length of unique (UQ) descriptor pool		Y			
LDTP	Length of distributed transaction processing area (Work part 4)	Y				
LFIOP	Length of asynchronous flush pool		Y			
LFP	Length of internal format buffer pool		Y			
LI	Length of ISN list table (TBI)		Y			

Parameter	Usage	No*	LF	LM	GF	GM
LOCAL	Nucleus (cluster) unknown to the network				Y	
LOGCB	Log control block			Y		
LOGCLEX	Log command log extension (CLEX)			Y		
LOGFB	Log format buffer			Y		
LOGGING	Logging of Adabas commands			Y		
LOGIB	Log ISN buffer			Y		
LOGIO	Log I/O activity			Y		
LOGRB	Log record buffer			Y		
LOGSB	Log search buffer			Y		
LOGSIZE	Maximum command log size		Y			
LOGUX	Log user exit B data			Y		
LOGVB	Log value buffer			Y		
LP	Length of data protection area (Work part 1)		Y			
LQ	Length of sequential command table		Y			
LRDP	Length of the deferred caching redo pool in cluster environments.		Y			
LS	Length of sort area		Y			
LU	Length of intermediate user buffer				Y	
LWKP2	Length of ISN list processing area (Work part 2)		Y			
LWP	Length of Adabas work pool		Y			
MODE	Mode of operation	Y				
MSGBUF	Size of the message buffer		Y			
MXMSG	Maximum message reply time between cluster nuclei in Cluster Services or Parallel Services		Y			
MXTNA	Maximum inactivity time limit override for a user				Y	
MXTSX	Maximum Sx execution time limit override for a user				Y	
MXTT	Maximum transaction time limit override for a user				Y	
NAB	Number of attached buffers		Y			
NC	Number of command queue elements		Y			
NCLOG	Number of command logs		Y			
NH	Number of hold queue elements		Y			
NISNHQ	Number of ISNs in hold queue for user					Y
NONDES	Non-descriptor searches					Y
NPLOG	Number of protection logs		Y			
NQCID	Number of active command IDs per user					Y
NSISN	Number of ISNs per ISN table element		Y			

Parameter	Usage	No*	LF	LM	GF	GM
NT	Number of threads		Y			
NU	Number of user queue elements		Y			
NUCID	Custer nucleus ID		Y			
OPENRQ	Open command required				Y	
PLOGDEV	Multiple protection log device type		Y			
PLOGRQ	Protection log required				Y	
PLOGSIZE	Multiple protection log size (blocks)		Y			
PREFETCH**	Prefetch/multifetch feature control (see note below)	Y				
PREFICMD**	Include command from prefetch/multifetch (see note below)	Y				
PREFIFIL**	Include file from prefetch/multifetch (see note below)	Y				
PREFNREC**	Multifetch record count (see note below)	Y				
PREFSBL**	Prefetch single buffer length (see note below)	Y				
PREFTBL**	Prefetch total buffer length (see note below)	Y				
PREFXCMD**	Exclude command from prefetch/multifetch (see note below)	Y				
PREFXFIL**	Exclude file from prefetch/multifetch (see note below)	Y				
QBLKSIZE	Sequential data set/file block size (optimized by ADAIOR)		Y			
READONLY	Read-only session control	Y				
REVIEW	Adabas Review control			Y		
SMGT	Error handling (PIN) facility control		Y			
SORTCACHE	Controller caching control for the Adabas sort area component		Y			
SPT	Adabas triggers and stored procedures control				Y	
SVC	SVC number		Y			
TCPIP	TCP/IP access control			Y		
TCPURL	TCP/IP universal resource locator (URL)			Y		
TEMPCACHE	Controller caching for the Adabas temp area component		Y			
TFLUSH	Synchronous buffer flush time	Y				
TLSCMD	Time limit for S1, S2, and S4 complex searches (seconds)				Y	
TNAA	Non-activity time limit (access-only users)					Y
TNAE	Non-activity time limit (ET logic users)					Y
TNAX	Non-activity time limit (exclusive update users)					Y
TT	Transaction time limit					Y
UEXn	User exits: 1, 3, 4, 5, 8		Y			

Parameter	Usage	No*	LF	LM	GF	GM
UEXn	User exits: 2, 12					
UEXn	User exits: 6, 9 (for utilities)	Y				
UTIONLY	Utilities-only session				Y	
VISTA	Adabas Vista control				Y	
WORKCACHE	Controller caching for the Adabas work area component		Y			

Notes:

1. * Adabas Parallel Services 7.5 does not support DTP=TM or DTP=RM. It does support DTP=ET, which is a parameter setting that must be the same for all cluster nuclei and cannot be changed (global, fixed).
2. ** The PREF*xxx* parameters are used with application programs (PROGRAM=USER) making Adabas calls. They have no effect when specified for an Adabas nucleus.

Specifying ADARUN Parameters for Cluster Nuclei

When specifying ADARUN session parameters for Adabas Parallel Services cluster nuclei:

- ensure that the correct program to be executed is specified (PROG=ADANUC); and
- determine which setting is applicable for the SVC parameter for the session.

The CLOGMRG, CLUSTER, CLUCACHESIZE, CLUCACHETYPE, CLULOCKSIZE, DIRRATIO / ELEMENTRATIO, LRDP, and NUCID parameters are used by the Adabas Parallel Services cluster nucleus and its environment.

If protection logs and/or command logs are used in a cluster environment, they must be dual or multiple logs and all nuclei must use them. All cluster nuclei must have the same PLOGRQ setting.

The remaining Adabas cluster nucleus parameters are the same as those of a standard Adabas nucleus. For more information, read *Adabas Operations Manual*.

3 Cluster Operator Commands

This chapter describes operator commands for ADACOM and for an Adabas Parallel Services cluster nucleus.

This chapter covers the following topics:

ADACOM Operator Commands

Special ADACOM operator commands exist to display and control the multiprocessing environment. These commands, which are similar to regular Adabas operator commands, are issued to the local ADACOM initialization job.

This section is organized in the following topics:

- OS/390 and z/OS Systems
- BS2000 Systems
- DIM - Display Image
- DN - Display Active Nuclei
- SN - Set Nucleus Status

OS/390 and z/OS Systems

This section describes the format for entering ADACOM operator commands on OS/390 and z/OS systems. It contains the following topics:

- Commands Issued during ADACOM Initialization
- Commands Issued after ADACOM Initialization

Commands Issued during ADACOM Initialization

When running the Adabas Parallel Services initialization routine ADACOM, operator commands can be specified as follows:

{ MODIFY | F } *jobname* **,** *command*

where

jobname	name of the ADACOM job or started task
command	one of the operator commands described in this section

Commands Issued after ADACOM Initialization

After initialization, any command issued is directed to the last SVC/DBID pair encountered in the input.

To change the pair, enter the command preceded by `SVC=svc,DBID=dbid` (the order of the SVC and DBID is interchangeable) optionally followed by a comma. For example:

{ MODIFY | F } *jobname* **,SVC=** *svc* **,DBID=** *dbid* **,** *command*

A command can be given only if the SVC/DBID pair is already active (has been specified before, and not terminated). Otherwise, specify the SVC/DBID pair without a command to activate the SVC/DBID, and then issue the command separately.

To dynamically add an IDTNAME/DBID combination, either one that was not specified in the startup JCL or one that was terminated, use the command format above and, optionally, an `NU` parameter setting or a nondefault `FORCE` parameter setting:

{ MODIFY | F } *jobname* **,SVC=** *svc* **,DBID=** *dbid* **[,NU=** *max-users* **][,FORCE=YES],** *command*

When you change or add an SVC/DBID set in this manner, the new set becomes the default for all commands issued until the set is changed.

To dynamically terminate an IDTNAME/DBID combination, enter the ADAEND command as follows:

{ MODIFY | F } *jobname* **,SVC=** *svc* **,DBID=** *dbid* **,ADAEND**

Caution: You *must* specify the SVC and DBID when terminating an SVC/DBID combination. Otherwise, the ADAEND command terminates the entire ADACOM job. The current set default does not apply when using ADAEND.

Every operator command is directed to the ADACOM job and is echoed with the message

```
PLI060 SVC=svc DBID=dbid OPERATOR COMMAND:xxx
```

Note: ADACOM writes global ADACOM messages into the output data set with the DD name COMPRINT. It writes messages pertinent to an individual SVC/DBID combination into the output data set with the DD name `Pssddddd`, where `ss` is the last two digits of the SVC number and `ddddd` is the database ID.

BS2000 Systems

This section describes the format for entering ADACOM operator commands on BS2000 systems.

Commands Issued during ADACOM Initialization

When running the Adabas Parallel Services initialization routine ADACOM, the operator commands described in this section can be specified as follows:

INTR (*jobnumber* **,)** *command*

where

jobnumber	Job Task Number, which is four alphanumeric bytes when given from the console

Commands Issued after ADACOM Initialization

After initialization, any command issued is directed to the last IDTNAME/DBID pair encountered in the input.

To change the pair, enter the command preceded by `IDTNAME=idtname,DBID=dbid' (the order of the IDTNAME and DBID is interchangeable) optionally followed by a comma. For example:

INTR (*jobnumber* **,)IDTNAME=** *idtname* **,DBID=** *dbid* **,** *command*

A command can be given only if the IDTNAME/DBID pair is already active (has been specified before, and not terminated). Otherwise, specify the IDTNAME/DBID pair without a command to activate the IDTNAME/DBID, and then issue the command separately.

To dynamically add an IDTNAME/DBID combination, either one that was not specified in the startup JCL or one that was terminated, use the command format above and, optionally, an NU parameter setting and/or a nondefault FORCE parameter setting:

INTR (*jobnumber* **,)IDTNAME=** *idtname* **,DBID=** *dbid* **[,NU=** *max-users* **][,FORCE=YES],** *command*

When you change or add an IDTNAME/DBID set in this manner, the new set becomes the default for all commands issued until the set is changed.

To dynamically terminate an IDTNAME/DBID combination, enter the ADAEND command as follows:

INTR (*jobnumber* **,)IDTNAME=** *idtname* **,DBID=** *dbid* **,ADAEND**

Caution: You must specify the IDTNAME and DBID when terminating an IDTNAME/DBID combination. Otherwise, the ADAEND command terminates the entire ADACOM job. The current set default does not apply when using ADAEND.

Every operator command is directed to the ADACOM job and is echoed with the message

```
PLI060 IDTNAME=idtname DBID=dbid OPERATOR COMMAND:xxx
```

Note: ADACOM writes global ADACOM messages into the output data set with the link name COMPRINT. It writes messages pertinent to an individual IDTNAME/DBID combination into the output data set with the DD name 'Pssddddd', where 'ss' is a unique number derived from the IDTNAME (counting backward from 55) and 'ddddd' is the database ID.

DIM - Display Image

DIM [*image-name*]

The DIM command displays information about each active cluster nucleus on the specified (or all) operating system image. Since with Adabas Parallel Services (in contrast to Adabas Cluster Services) all cluster nuclei run on the same system image, its output for DIM is equivalent to that for the DN command. See *DN - Display Nuclei* for sample output.

Specifying the image name is optional.

DN - Display Active Nuclei

Use DN to display the number of commands processed and the number of currently active users for each active nucleus.

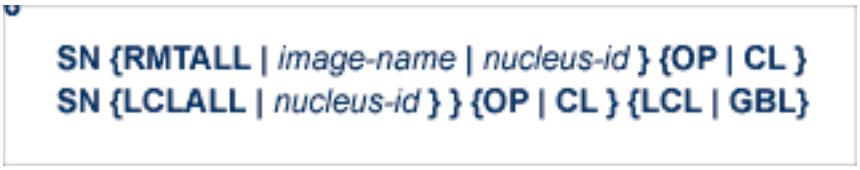
Sample Output

```
PLI060 SVC=svc DBID=dbid OPERATOR COMMAND:DN
PLI004 image-name NUCID UP LO RO -#USERS- -#CMNDS- LURA= RULA=
       jobname    00001 Y  Y  N  00000152 00000001
PLI004 image-name NUCID UP LO RO -#USERS- -#CMNDS- LURA= RULA=
       jobname    00002 Y  Y  N  00000089 00000000
```

The display uses the following indicators:

image-name	the name of the image
jobname	the job name of a cluster nucleus active on the local image
NUCID	unique cluster nucleus identifier between 1 and 65000
UP	whether (Y or N) the specified nucleus is available for normal processing
LO	whether the specified nucleus is open (Y); or closed (N) for new users
RO	not applicable to Parallel Services
#USERS	the number of users currently assigned to the specified nucleus
#CMNDS	the number of commands currently in progress in the specified nucleus
LURA=	not applicable to Parallel Services
RULA=	not applicable to Parallel Services

SN - Set Nucleus Status



where

RMTALL	is not applicable
OP	is OPEN
CL	is CLOSE
LCLALL	is LOCAL ALL: all nuclei on the local image
LCL	is LOCAL: local users
GBL	is GLOBAL: all Adabas Parallel Services cluster users

The possible options settings for the SN command are described as follows:

Option	Action
RMTALL {OP | CL}	not applicable
image-name {OP | CL}	not applicable
nucleus-id {OP | CL}	not applicable
LCLALL {OP | CL} LCL	open or close all nuclei on the *local* image to local users. Information is not broadcast to other images.
nucleus-id {OP | CL} LCL	open or close the specified *local* nucleus to local users. Information is not broadcast to other images.
LCLALL {OP | CL} GBL	open or close all nuclei on the *local* image to all Adabas Parallel Services cluster users.
nucleus-id {OP | CL} GBL	open or close the specified *local* nucleus to all Adabas Parallel Services cluster users.

By default, nuclei start open to users.

After the nuclei start, the SN operator commands may be used to exercise some control over the assignment of users to nuclei.

Adabas Cluster Nucleus Operator Commands

In addition to the console operator commands documented in the *Adabas Operations* documentation, which can be issued against any nucleus, you can issue the following command against a local Adabas cluster nucleus:

Command	To display...
DMEMTB	information about active Adabas Parallel Services cluster nuclei
DNFV	information about current file use
DPPT	information about all occupied PPT blocks
DXCACHE	the primary cache-related statistics
DXFILE	the cache-related statistics for 1 to 5 files
DXLOCK	the lock-related statistics
DXSTAT	all cache- and lock-related statistics

Note: Read *ADADBS OPERCOM Commands* in the *Adabas Parallel Services Operations Manual* for information about issuing Adabas utility ADADBS OPERCOM commands against a specified cluster nucleus or all cluster nuclei.

DMEMTB - Display Member State Table

Use DMEMTB to display information about active nuclei in an Adabas Parallel Services cluster.

This command produces internal information for use by Software AG technical support.

Sample Output

```
ADAI29 OPER CMD: DMEMTB
ADAX61 00006 2001-01-18 00:13:09 Member Status Table
ADAX61 00006 2001-01-18 00:13:09 Other members:       1
ADAX61 00006 2001-01-18 00:13:09   This system:       1
ADAX61 00006 2001-01-18 00:13:09
ADAX61 00006 2001-01-18 00:13:09         NUCID:     132
ADAX61 00006 2001-01-18 00:13:09       Flags 1: 11
ADAX61 00006 2001-01-18 00:13:09       Flags 2: 00
ADAX61 00006 2001-01-18 00:13:09        System: IMAGE1
ADAX61 00006 2001-01-18 00:13:09
ADAX61 00006 2001-01-18 00:13:09         NUCID:       3
ADAX61 00006 2001-01-18 00:13:09       Flags 1: 97
ADAX61 00006 2001-01-18 00:13:09       Flags 2: 00
ADAX61 00006 2001-01-18 00:13:09        System: IMAGE1
ADAN41 00006 2001-01-18 00:13:09 Function completed
```

DNFV - Display Nucleus File Variables

Use DNFV to display information about current nucleus file use.

This command provides information about the files in use at a particular point in time. It also indicates which other nucleus has exclusive file control if, for example, a user program receives a response 148, subcode 15.

Sample Output

```
ADAI29 OPER CMD: DNFV
FNR=00008  A=Y U=Y ID=      CA=00000   CU=00001
```

where

FNR=nnnnn	is the file number
A={Y | N}	(yes or no) indicates whether the file is used for access (read and/or search)
U={Y | N}	(yes or no) indicates whether the file is used for update. Use for update includes use for access.
ID=nucid	is the ID of the nucleus that owns the file lock, if the file is locked.
CA=nnnnn	is the number of users on this nucleus who are currently accessing this file.
CU=nnnnn	is the number of users on this nucleus who are currently updating this file.

DPPT - Display Parallel Participant Table (PPT)

Use DPPT to display all occupied PPT blocks.

This command produces internal information for use by Software AG technical support.

Sample Output

```
ADAI29 OPER CMD: DPPT
ADAN24 00006 2001-01-18 00:15:49 Display PPT RABNs 000005FB to 0000061A
ADAN24 00006 2001-01-18 00:15:49
ADAN24 00006 2001-01-18 00:15:49          PPT RABN: 000005FB
ADAN24 00006 2001-01-18 00:15:49 Number of entries: 03
ADAN24 00006 2001-01-18 00:15:49 Nucleus indicator: C0
ADAN24 00006 2001-01-18 00:15:49             NUCID: 0084
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0025
ADAN24 00006 2001-01-18 00:15:49          Entry ID: W
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/WORKR1/
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0026
ADAN24 00006 2001-01-18 00:15:49          Entry ID: 1
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/PLOGR11/
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0026
ADAN24 00006 2001-01-18 00:15:49          Entry ID: 2
```

```
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/PLOGR12/
ADAN24 00006 2001-01-18 00:15:49
```

```
ADAN24 00006 2001-01-18 00:15:49          PPT RABN:
000005FC
ADAN24 00006 2001-01-18 00:15:49 Number of entries: 03
ADAN24 00006 2001-01-18 00:15:49 Nucleus indicator: C0
ADAN24 00006 2001-01-18 00:15:49              UCID: 0003
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0025
ADAN24 00006 2001-01-18 00:15:49          Entry ID: W
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/WORKR2/
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0026
ADAN24 00006 2001-01-18 00:15:49          Entry ID: 1
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/PLOGR21/
ADAN24 00006 2001-01-18 00:15:49  PPT Entry length: 0026
ADAN24 00006 2001-01-18 00:15:49          Entry ID: 2
ADAN24 00006 2001-01-18 00:15:49 Dataset=/SAGUID/DB006/Vvr/PLOGR22/
ADAN41 00006 2001-01-18 00:15:49 Function completed
```

DXCACHE - Display Cache Statistics

Use DXCACHE to display the primary cache-related statistics.

The full set of statistics shown in this output is displayed only for users who have the selectable unit Adabas Online System (AOS) installed.

If you have installed only the demo version of AOS delivered with Adabas, only the statistics in the sections ***Totals***, ***Data Storage***, and ***Normal Index*** are displayed using this command.

Sample Output

```
ADAX61 00006 2000-09-06 19:29:23 Global cache statistics:
ADAX61 00006 2000-09-06 19:29:23
```

Cast-out Directory

```
ADAX61 00006 2000-09-06 19:29:23 Cast-out dir   :                          35
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          35
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Unlock cast-out:                          35
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           1
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          34
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Directory reads:                           1
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           1
```

```
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Totals

```
ADAX61 00006 2000-09-06 19:29:23 Totals:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          1,681
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                             71
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1,610
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                            888
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                            793
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                         25,467
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         22,724
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          2,743
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                         25,467
ADAX61 00006 2000-09-06 19:29:23  Not written   :                              0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                         65,552
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                          1,727
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            265
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1,462
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                              0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                              0
ADAX61 00006 2000-09-06 19:29:23
```

Address Converter

```
ADAX61 00006 2000-09-06 19:29:23 AC:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                             11
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                             11
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                              6
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                              5
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                          2,644
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          2,608
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                             36
```

```
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                        2,644
ADAX61 00006 2000-09-06 19:29:23  Not written   :                            0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                        8,772
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                           38
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           38
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
```

Data Storage

```
ADAX61 00006 2000-09-06 19:29:23 DS:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                        1,609
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                        1,609
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          855
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          754
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                        2,645
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                        2,645
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                        2,645
ADAX61 00006 2000-09-06 19:29:23  Not written   :                            0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                        6,603
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                        1,461
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                        1,461
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
```

Data Storage Space Table

```
ADAX61 00006 2000-09-06 19:29:23 DSST:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          1
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          1
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          1
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                      2,644
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      2,622
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                         22
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                      2,644
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                      3,969
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                         34
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         33
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
ADAX61 00006 2000-09-06 19:29:23
```

File Control Block

```
ADAX61 00006 2000-09-06 19:29:23 FCB:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          2
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          2
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          2
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                      2,132
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      2,123
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          9
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                      2,132
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
```

```
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                     17,000
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                         33
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         33
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
ADAX61 00006 2000-09-06 19:29:23
```

Normal Index

```
ADAX61 00006 2000-09-06 19:29:23 NI:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                         50
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         49
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                         25
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                         25
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                      7,767
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      7,747
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                         20
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                      7,767
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                      7,273
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                        101
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        101
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
ADAX61 00006 2000-09-06 19:29:23
```

Upper Index

```
ADAX61 00006 2000-09-06 19:29:23 UI:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          8
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          8
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          2
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          6
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                      7,635
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      7,624
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                         11
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                      7,635
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                     21,935
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                         60
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         60
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
ADAX61 00006 2000-09-06 19:29:23
```

File Statistics

```
ADAX61 00006 2000-09-06 19:29:23 File statistics for files with over 25
ADAX61 00006 2000-09-06 19:29:23 percent of the total cache statistics:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 File     1:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                      1,672
ADAX61 00006 2000-09-06 19:29:23 Writes         :                     22,798
ADAX61 00006 2000-09-06 19:29:23 Validates      :                     61,531
ADAX61 00006 2000-09-06 19:29:23
```

DXFILE—Display Cache Statistics for Files

Use DXFILE to display cache-related statistics for 1 to 5 files.

The command is specified using the following format:

DXFILE= *fnr* **[,** *fnr1* **] ...**

Sample Output

```
ADAI29 OPER CMD: DXFILE=0,1,2,3,9
ADAX61 00006 2000-09-06 19:30:38
```

File 0

```
ADAX61 00006 2000-09-06 19:30:38 File     0:
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Reads          :                            1
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                            1
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  In cache      :                            0
ADAX61 00006 2000-09-06 19:30:38  Not in cache  :                            1
ADAX61 00006 2000-09-06 19:30:38  Area full     :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Writes         :                        2,644
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                        2,622
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                           22
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  Written       :                        2,644
ADAX61 00006 2000-09-06 19:30:38  Not written   :                            0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Validates      :                        3,969
ADAX61 00006 2000-09-06 19:30:38  Block invalid :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Cast-out reads :                           34
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                           33
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                            1
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Deletes        :                            0
ADAX61 00006 2000-09-06 19:30:38  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:30:38
```

File 1

```
ADAX61 00006 2000-09-06 19:30:38 File     1:
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Reads          :                        1,672
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                           64
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                        1,608
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  In cache      :                          888
ADAX61 00006 2000-09-06 19:30:38  Not in cache  :                          784
ADAX61 00006 2000-09-06 19:30:38  Area full     :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Writes         :                       22,798
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                       20,082
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                        2,716
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  Written       :                       22,798
ADAX61 00006 2000-09-06 19:30:38  Not written   :                            0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Validates      :                       61,531
ADAX61 00006 2000-09-06 19:30:38  Block invalid :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Cast-out reads :                        1,677
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                          221
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                        1,456
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Deletes        :                            0
ADAX61 00006 2000-09-06 19:30:38  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:30:38
```

File 2

```
ADAX61 00006 2000-09-06 19:30:38 File     2:
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Reads          :                            0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                            0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  In cache      :                            0
ADAX61 00006 2000-09-06 19:30:38  Not in cache  :                            0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Writes         :                            0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                            0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  Written       :                            0
ADAX61 00006 2000-09-06 19:30:38  Not written   :                            0
```

```
ADAX61 00006 2000-09-06 19:30:38  Area full     :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Validates      :                              0
ADAX61 00006 2000-09-06 19:30:38  Block invalid :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Cast-out reads :                              0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Deletes        :                              0
ADAX61 00006 2000-09-06 19:30:38  Timeouts      :                              0
ADAX61 00006 2000-09-06 19:30:38
```

File 3

```
ADAX61 00006 2000-09-06 19:30:38 File     3:
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Reads          :                              0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  In cache      :                              0
ADAX61 00006 2000-09-06 19:30:38  Not in cache  :                              0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Writes         :                              0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  Written       :                              0
ADAX61 00006 2000-09-06 19:30:38  Not written   :                              0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Validates      :                              0
ADAX61 00006 2000-09-06 19:30:38  Block invalid :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Cast-out reads :                              0
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Deletes        :                              0
ADAX61 00006 2000-09-06 19:30:38  Timeouts      :                              0
ADAX61 00006 2000-09-06 19:30:38
```

File 9

```
ADAX61 00006 2000-09-06 19:30:38 File     9:
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Reads          :                          8
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                          6
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                          2
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  In cache      :                          0
ADAX61 00006 2000-09-06 19:30:38  Not in cache  :                          8
ADAX61 00006 2000-09-06 19:30:38  Area full     :                          0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Writes         :                         25
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                         20
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                          5
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38  Written       :                         25
ADAX61 00006 2000-09-06 19:30:38  Not written   :                          0
ADAX61 00006 2000-09-06 19:30:38  Area full     :                          0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Validates      :                         52
ADAX61 00006 2000-09-06 19:30:38  Block invalid :                          0
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Cast-out reads :                         16
ADAX61 00006 2000-09-06 19:30:38  Synchronous   :                         11
ADAX61 00006 2000-09-06 19:30:38  Asynchronous  :                          5
ADAX61 00006 2000-09-06 19:30:38
ADAX61 00006 2000-09-06 19:30:38 Deletes        :                          0
ADAX61 00006 2000-09-06 19:30:38  Timeouts      :                          0
ADAN41 00006 2000-09-06 19:30:38 Function completed
```

DXLOCK - Display Lock Statistics

Use DXLOCK to display lock-related statistics.

Sample Output

```
ADAX61 00006 2000-09-06 19:29:23 Global lock statistics:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

General Control Block Lock

```
ADAX61 00006 2000-09-06 19:29:23 1. GCB lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Security Lock

```
ADAX61 00006 2000-09-06 19:29:23 2. Security lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

FST Lock

```
ADAX61 00006 2000-09-06 19:29:23 3. FST lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

File Lock Table Lock

```
ADAX61 00006 2000-09-06 19:29:23 4. File-lock-table lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Online Save Lock

```
ADAX61 00006 2000-09-06 19:29:23 5. Online save lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Buffer Flush Lock

```
ADAX61 00006 2000-09-06 19:29:23 6. Buffer flush lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :           38
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           38
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :           38
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           38
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Global ET Sync Lock

```
ADAX61 00006 2000-09-06 19:29:23 7. Global ET sync lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Recovery Lock

```
ADAX61 00006 2000-09-06 19:29:23 8. Recovery lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Hold ISN Locks

```
ADAX61 00006 2000-09-06 19:29:23 9. Hold ISN locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :         3100
ADAX61 00006 2000-09-06 19:29:23             Granted          :         3100
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :         3100
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :         3100
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :         3100
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Unique Descriptor Locks

```
ADAX61 00006 2000-09-06 19:29:23 10. Unique descriptor locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            1
ADAX61 00006 2000-09-06 19:29:23             Granted          :            1
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            1
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

ETID Locks

```
ADAX61 00006 2000-09-06 19:29:23 11. ETID locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            1
ADAX61 00006 2000-09-06 19:29:23             Granted          :            1
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

New Data RABN Locks

```
ADAX61 00006 2000-09-06 19:29:23 12. New-Data-RABN locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Checkpoint Lock

```
ADAX61 00006 2000-09-06 19:29:23 13. Checkpoint lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            6
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            6
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            6
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            6
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

ET Data Lock

```
ADAX61 00006 2000-09-06 19:29:23 14. ET data lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Global Update Command Sync Lock

```
ADAX61 00006 2000-09-06 19:29:23 15. Global update command sync lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :           33
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           33
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :           33
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           33
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

Parameter Lock

```
ADAX61 00006 2000-09-06 19:29:23 16. Parameter lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAN41 00006 2000-09-06 19:29:23 Function completed
```

DXSTAT - Display Cache and Lock Statistics

Use DXSTAT to display all cache- and lock-related statistics.

The full set of global cache statistics shown in this output is displayed only for users who have the selectable unit Adabas Online System (AOS) installed.

If you have installed only the demo version of AOS delivered with Adabas, only the global cache statistics in the sections *Totals*, ***Data Storage***, and ***Normal Index*** are displayed using this command. All file cache statistics for files and all global lock statistics are displayed.

Sample Output

```
ADAI29 OPER CMD: DXSTAT
```

Global Cache Statistics

```
ADAX61 00006 2000-09-06 19:29:23 Global cache statistics:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out dir   :                          35
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          35
ADAX61 00006 2000-09-06 19:29:23



ADAX61 00006 2000-09-06 19:29:23 Unlock cast-out:                          35
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           1
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          34
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Directory reads:                           1
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           0
```

```
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Totals:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                      1,681
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         71
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                      1,610
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                        888
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                        793
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                     25,467
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                     22,724
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                      2,743
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                     25,467
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                     65,552
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                      1,727
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        265
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                      1,462
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 AC:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                         11
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         11
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          6
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          5
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                      2,644
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      2,608
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                         36
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                      2,644
ADAX61 00006 2000-09-06 19:29:23  Not written   :                          0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                          0
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23 Validates      :                          8,772
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                             38
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                             38
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                              0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 DS:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          1,609
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1,609
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                            855
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                            754
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                          2,645
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          2,645
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                          2,645
ADAX61 00006 2000-09-06 19:29:23  Not written   :                              0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                          6,603
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                          1,461
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                              0
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          1,461
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                              0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 DSST:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                              1
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                              1
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                              0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                              0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                              1
ADAX61 00006 2000-09-06 19:29:23  Area full     :                              0
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23 Writes         :                        2,644
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        2,622
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           22
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                        2,644
ADAX61 00006 2000-09-06 19:29:23  Not written   :                            0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                        3,969
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                           34
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           33
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 FCB:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                            2
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            2
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                            0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                            2
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                        2,132
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        2,123
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            9
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                        2,132
ADAX61 00006 2000-09-06 19:29:23  Not written   :                            0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                       17,000
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                           33
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           33
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 NI:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23 Reads          :                          50
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          49
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                          25
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                          25
ADAX61 00006 2000-09-06 19:29:23  Area full     :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                       7,767
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                       7,747
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          20
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                       7,767
ADAX61 00006 2000-09-06 19:29:23  Not written   :                           0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                       7,273
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                         101
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                         101
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                           0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 UI:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                           8
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           8
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                           2
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                           6
ADAX61 00006 2000-09-06 19:29:23  Area full     :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                       7,635
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                       7,624
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          11
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                       7,635
ADAX61 00006 2000-09-06 19:29:23  Not written   :                           0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                      21,935
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                           0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                          60
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                          60
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           0
```

```
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 File statistics for files with over 25
ADAX61 00006 2000-09-06 19:29:23 percent of the total cache statistics:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 File     1:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                        1,672
ADAX61 00006 2000-09-06 19:29:23 Writes         :                       22,798
ADAX61 00006 2000-09-06 19:29:23 Validates      :                       61,531
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

File Cache Statistics for Files

```
ADAX61 00006 2000-09-06 19:29:23 File     0:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                            1
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                            1
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                            0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                            1
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                        2,644
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        2,622
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                           22
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                        2,644
ADAX61 00006 2000-09-06 19:29:23  Not written   :                            0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                        3,969
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                           34
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                           33
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                            1
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                            0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 File     1:
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                    1,672
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                       64
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                    1,608
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                      888
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                      784
ADAX61 00006 2000-09-06 19:29:23  Area full     :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                   22,798
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                   20,082
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                    2,716
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                   22,798
ADAX61 00006 2000-09-06 19:29:23  Not written   :                        0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                   61,531
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                    1,677
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                      221
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                    1,456
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                        0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 File     9:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Reads          :                        8
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                        6
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                        2
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  In cache      :                        0
ADAX61 00006 2000-09-06 19:29:23  Not in cache  :                        8
ADAX61 00006 2000-09-06 19:29:23  Area full     :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Writes         :                       25
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                       20
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                        5
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23  Written       :                       25
ADAX61 00006 2000-09-06 19:29:23  Not written   :                        0
ADAX61 00006 2000-09-06 19:29:23  Area full     :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Validates      :                       52
ADAX61 00006 2000-09-06 19:29:23  Block invalid :                        0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Cast-out reads :                       16
ADAX61 00006 2000-09-06 19:29:23  Synchronous   :                       11
```

```
ADAX61 00006 2000-09-06 19:29:23  Asynchronous  :                          5
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Deletes        :                          0
ADAX61 00006 2000-09-06 19:29:23  Timeouts      :                          0
```

Global Lock Statistics

```
ADAX61 00006 2000-09-06 19:29:23 Global lock statistics:
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 1. GCB lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 2. Security lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 3. FST lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23 4. File-lock-table lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 5. Online save lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 6. Buffer flush lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :           38
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           38
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :           38
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :           38
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 7. Global ET sync lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :            0
ADAX61 00006 2000-09-06 19:29:23             Granted          :            0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :            0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :            0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            0
```

```
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 8. Recovery lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 9. Hold ISN locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :          3100
ADAX61 00006 2000-09-06 19:29:23             Granted          :          3100
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :          3100
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :          3100
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :          3100
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 10. Unique descriptor locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             1
ADAX61 00006 2000-09-06 19:29:23             Granted          :             1
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             1
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 11. ETID locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             1
ADAX61 00006 2000-09-06 19:29:23             Granted          :             1
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
```

```
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             1
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 12. New-Data-RABN locks
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 13. Checkpoint lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             6
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             6
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             6
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             6
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 14. ET data lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 15. Global update command sync loc
ADAX61 00006 2000-09-06 19:29:23
```

```
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :            33
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            33
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :            33
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :            33
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 16. Parameter lock
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Obtains - Conditional        :             0
ADAX61 00006 2000-09-06 19:29:23             Granted          :             0
ADAX61 00006 2000-09-06 19:29:23             Rejected         :             0
ADAX61 00006 2000-09-06 19:29:23           Unconditional      :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23 Releases - Issued            :             0
ADAX61 00006 2000-09-06 19:29:23           Synchronous        :             0
ADAX61 00006 2000-09-06 19:29:23           Asynchronous       :             0
ADAX61 00006 2000-09-06 19:29:23
ADAX61 00006 2000-09-06 19:29:23
ADAN41 00006 2000-09-06 19:29:23 Function completed
```

4 Adabas Online System Cluster Environment Screens

This chapter describes the Adabas Online System screens that apply to a cluster environment.

Display Cluster Members

From the Session Monitoring menu, a new function *Display cluster members* (option A) produces the following screen:

```
16:21:45           *****  A D A B A S   BASIC  SERVICES  *****        2002-07-19
DBID 105                  -  Display Cluster Members  -               PACA002


Total number of nuclei in the cluster: 4
I Sel I Nuc ID I System ID I Jobname  I Status   I  Available Services       I
-------------------------------------------------------------------------------
I  _  I  1     I DAEMVS    I ADANUC01 I Active   I  All                      I
I  _  I  2     I DAEMVS    I ADANUC02 I Inactive I  Lock                     I
I  _  I  3     I DDZMVS    I ADANUC03 I Active   I  All                      I
I  _  I  4     I DDZMVS    I ADANUC04 I Active   I  All                      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          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          I          I                           I
I     I        I           I          I          I                           I


PF1----- PF2------ PF3------ PF4------ PF6----- PF7----- PF8----- PF12-----
Help               Exit      Refresh                           Menu
```

The screen includes a list of nuclei participating in the cluster and information about the current status of each nucleus.

To select a nucleus for additional processing

- Type "S" in the Sel column opposite that nucleus.

To display additional information about a nucleus

- Type "D" in the Sel column opposite that nucleus.

For an Adabas cluster nucleus that has a nonzero nucleus ID, its entry in the parallel participant table (PPT) is displayed in a screen similar to the following:

```
16:21:45          *****  A D A B A S   BASIC  SERVICES  *****        2002-07-19
 DBID 105                    -  Display PPT Entry   -                  PACA002

 Nuc ID. . .   3 Active Nucleus

 Name             Status                          DataSet Name
 ------   --------------------------   ----------------------------------------
 WORK1                                  SAG.ADABAS.DB105.WORKR1
 PLOGR1   Ready to be copied/merged     SAG.ADABAS.DB105.PLOGR1
 PLOGR2   Being written by nucleus      SAG.ADABAS.DB105.PLOGR2









 PF1----- PF2------ PF3------ PF4------ PF6----- PF7----- PF8----- PF12-----
 Help               Exit      Refresh                             Menu
```

Nucleus File Status

From the Resource Utilization menu, the *Nucleus file status* (option N) has been added and is the equivalent of the DNFV operator command.

```
16:03:17          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                 - Nucleus File Status -                  PACUN02
NucID 1021

            Locking
      File   NucID  Access count   Update count   State
      -----  -----  -------------  -------------  ----------------------
      24                        0              0  Access
      25                        0              0  Access, Update
```

```
 Last page
PF1----- PF2----- PF3----- PF4----- PF7----- PF8----- PF9-------  PF12-----
Help     Repos    Exit     Refresh   -        +                  Menu
```

In an Adabas cluster environment, the file may be locked for exclusive use by another cluster nucleus. If this is the case and the file is in the nucleus file status table, the Locking NucID column for the file shows the ID of the nucleus that has exclusive control.

The Access count / Update count fields display the number of access or update users, respectively, that refer to the specified file in their user queue elements (UQEs). These users either have specified the file in an OP command with R-option or are using the file in an as yet incomplete transaction.

A State field indicates when the file is used for access only or for access and update. The State field indicates to what extent a nucleus can use a file on its own. If the requested use exceeds the given state, the nucleus must first communicate with the other nuclei in the cluster in order to upgrade the state.

Nucleus Status Flags

From the Resource Utilization menu, a second screen has been added to the *System status* (option S), which displays I/O counts for the ASSO, DATA, WORK, and PLOG data sets; remote and local call distribution; and other current session status information.

```
18:50:16          ***** A D A B A S  BASIC  SERVICES *****          2002-05-30
DBID 1955                      -  System Status  -                  PACUS02
NucID: 1022
                   Physical
             Reads          Writes               Call Distribution
           -------------------------   ----------------------------------------
 ASSO             370             67   Remote Logical .............          0
 DATA               3             18   Remote Physical ............          0
 WORK               2            104   Local  Logical .............        860
 PLOG                             67   Local  Physical ............          0

 Logical Reads ........           349   Logical Reads (binary) .....   0000015D
 Buffer Efficiency ....           0.9   No. of HQEs active .........          0
                                        No. of UQEs in User Queue ..          2
 Format Translations ..            51   No. of CQEs waiting in CQ ..          0
 Format Overwrites ....             0
                                        Total intern. Autorestarts .          0
 Throw Backs for ISN ..             0   No. of PLOG switches .......          0
 Throw Backs for Space.             0   No. of Bufferflushes .......         18
                                                          page 1 of 2
```

```
PF1----- PF2------ PF3------ PF4------ PF6----- PF7----- PF8----- PF12-----
Help               Exit      Refresh                      +       Menu
```

Press PF8 to display an additional screen that indicates if one or more of the following are in progress:

- Online database save running;
- ADAEND in progress;
- Online file save running;
- READONLY/UTIONLY transition;
- READONLY status;
- Update processing suspended;
- ET-sync in progress;
- UTIONLY status; and
- Exclusive-DB-control utility running.

Otherwise, "Adabas operation normal" is displayed.

```
16:47:41          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID 1955                      -  System Status  -                  PACUS02
NucID: 1021

                            Nucleus Status Flags
                       -----------------------------------
                       Adabas operation normal

                                                                  page 2 of 2

PF1----- PF2------ PF3------ PF4------ PF6----- PF7----- PF8----- PF12-----
Help               Exit      Refresh                       +      Menu
```

Cluster Usage

From the Resource Utilization menu, *Cluster usage* (option X) displays nucleus cluster statistics that are equivalent of those displayed using the DXCACHE, DXLOCK, and DXFILE operator commands.

The equivalent direct command is

```
DISPLAY CLUSTERSTATUS
```

```
16:10:31          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
                              -  Cluster Usage -                   PACUX02

                       Code    Service
                       ----    ----------------
                        C      Cache statistics
                        F      File statistics
                        L      Lock statistics
                        ?      Help
                        .      Exit
                       ----    ----------------
          Code ......... _
          File Number .. 0
          Database ID .. 1955   (WIS1955)            NucID .. 1021




Command ==>
PF1----- PF2----- PF3------ PF4------ PF6----- PF10---- PF11----- PF12-----
Help             Exit                         Fuse     Flist     Menu
```

This section covers the following topics:

- Cache Statistics
- File Statistics

- Lock Statistics

Cache Statistics

Choosing *cache statistics* (option C) from the Cluster Usage menu displays the following menu:

```
16:14:23          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
                            - Cache Statistics -                   PACUX12

                  Code   Service
                  ----   ----------------------
                    K    Cast-out / Directory
                    P    Publishing requests
                    X    Individual cache blocks
                    .    Exit
                    ?    Help
                  ----   ----------------------

     Code .........
     Database ID .. 1955   (WIS1955)            NucID .. 1021









PF1----- PF2----- PF3----- PF4------ PF6----- PF7----- PF8-----  PF12-----
Help              Exit     Refresh                               Menu
```

The rest of this section describes each of the options on this screen.

- Cast-out / Directory
- Publishing Requests
- All Cache Blocks

Cast-out / Directory

Choosing *cast-out / directory* (option K) from the Cache Statistics menu display the following:

```
16:14:23          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                 - Cast-out / Directory -                 PACUX12
NucID 1021

        Cast-out Directory Reads          Directory Reads
        --------------------------        --------------------------
        Total .......          28         Total .......           5
           Sync .....           1            Sync .....           1
           Async ....          27            Async ....           4

        Unlock Cast-out Calls
        --------------------------
        Total .......          28
           Sync .....           1
           Async ....          27









PF1----- PF2----- PF3----- PF4----- PF7----- PF8----- PF9-------  PF12-----
Help             Exit     Refresh                    Detail      Menu
```

Counters have a multiplier column with the following values:

Value	The total shown is in . . .
blank	(factor of 1)
K	kilo (factor of 1,000)
M	mega (factor of 1,000,000)
G	giga (factor of 1,000,000,000)

If a number has a multiplier shown, it has been divided by the multiplier, showing the significant digits to 9 places with no decimal point.

Press PF9 to see the entire value. This value is the exact count up to 20 digits in length.

Publishing Requests

Choosing *publishing requests* (option P) from the Cache Statistics menu display the following:

```
16:26:21          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                  - Publishing Requests -                  PACUX12
NucID 1021

                     Publishing Request Category
                     ---------------------------------
                     Update sync .......          34

                     BT or CL or ET ....         162

                     Redo threshold ....           2

                     Full bufferpool ...           0

                     All blocks ........          84

                     Specific RABN .....           0

                     File DS blocks ....           4



PF1----- PF2----- PF3----- PF4----- PF7----- PF8----- PF9-------  PF12-----
Help              Exit     Refresh                   Detail      Menu
```

All Cache Blocks

Choosing *all cache blocks* (option X) from the Cache Statistics menu display the following:

```
16:27:05          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                  - All Cache Blocks -                     PACUX12
NucID 1021
  Reads                                Writes
  ---------------------------------    ---------------------------------
  Total ............         167       Total ..............      38,176
     Sync ..........          24          Sync ............      15,148
     Async .........         143          Async ...........      23,028

     In cache ......          49          Written .........      38,176
     Not in cache ..         118          Not written .....           0
     Struc. full ...           0          Struc. full .....           0

  Cast-out Reads                       Other
  ---------------------------------    ---------------------------------
  Total ............         212       Validates ..........     187,677
     Sync ..........         212          Invalid .........          43
     Async .........           0       Deletes ............           0
```

```
                                        Timeouts ........           0
                                     Redo processes .....           0

PF1----- PF2----- PF3----- PF4----- PF7----- PF8----- PF9-------  PF12-----
Help     Repos    Exit     Refresh  PrevBlk  NxtBlk   Detail      Menu
```

Use PF7 and PF8 to scroll through the cache blocks; use PF2 to reposition.

Statistics are displayed for the following:

- All cache blocks
- Address converter (AC) cache blocks
- Data Storage (DS) cache blocks
- Data Storage space table (DSST) cache blocks
- File control block (FCB) cache blocks
- Normal index (NI) cache blocks
- Upper index (UI) cache blocks

Press PF9 from the above screen to display the following detail screen:

```
16:27:05          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                  - All Cache Blocks -                    PACUX12
NucID 1021
Reads                                Writes
------------------------------------ ----------------------------------------
Total ......                     167 Total .......                     38,176
  Sync .....                      24   Sync ......                     15,148
  Async ....                     143   Async .....                     23,028

  In cache..                      49   Written ...                     38,176
  Not in ...                     118   Not writ ..                          0
  Stru.full.                       0   Stru.full .                          0

Cast-out Reads                       Other
------------------------------------ ----------------------------------------
Total ......                     212 Validates ...                    187,677
  Sync .....                     212   Invalid ...                         43
  Async ....                       0 Deletes .....                        0
                                       Timeouts ..                        0
                                     Redo procs ..                        0


                                  Press Enter to continue
```

File Statistics

Choosing *file statistics* (option F) from the Cluster Usage menu for file 25 displays the following menu:

```
16:37:02          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                 - File 25 Statistics -                    PACUX22
NucID 1021
  Reads                                  Writes
  --------------------------------       ----------------------------------
  Total ............          67         Total ..............      20,157
     Sync ..........           0            Sync ............       7,583
     Async .........          67            Async ...........      12,574

     In cache ......           0            Written .........      20,157
     Not in cache ..          67            Not written .....           0
     Struc. full ...           0            Struc. full .....           0

  Cast-out Reads                         Other
  --------------------------------       ----------------------------------
  Total ............          78         Validates ..........      79,248
     Sync ..........          78            Invalid .........           0
     Async .........           0         Deletes ............           0
                                            Timeouts ........           0
                                         Redo processes .....           0

PF1-----  PF2-----  PF3-----  PF4-----  PF7-----  PF8-----  PF9-------  PF12-----
Help      Repos     Exit      Refresh                       Detail      Menu
```

Lock Statistics

Choosing *lock statistics* (option L) from the Cluster Usage menu displays the following menu:

```
16:38:16          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
                             - Lock Statistics -                     PACUX32

Code   Service                          Code   Service
----   ---------------------------      ----   --------------------------------
  A    Buffer flush lock                  I    Global update command sync lock
  B    Checkpoint lock                    J    Hold ISN lock
  C    DSF lock                           K    New-Data-RABN lock
  D    ETID lock                          L    Online save lock
  E    File-lock-table lock               M    Parameter lock
  F    FST lock                           N    Recovery lock
  G    GCB lock                           O    RLOG lock
  H    Global ET sync lock                P    Security lock
  .    Exit                               Q    Spats lock
  ?    Help                               R    Unique descriptor lock
----   ---------------------------      ----   --------------------------------
```

```
      Code ......... _
      Database ID .. 1955   (WIS1955)            NucID .. 1021


PF1----- PF2----- PF3------ PF4------ PF6----- PF7------ PF8----- PF12-----
Help             Exit      Refresh                             Menu
```

Each of the options on the Lock Statistics menu displays statistics for a particular lock. For each lock, the screen displays obtain and release information about the various types of that lock that are currently in use by a cluster nucleus:

- The system may obtain locks conditionally or unconditionally, synchronously or asynchronously. A conditional request for a lock may be granted or rejected.
- Releases may be performed synchronously or asynchronously.

Hold ISN Lock

Choosing *hold ISN lock* (option J) from the Lock Statistics menu displays the following:

```
16:38:16          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
DBID  1955                   - Hold ISN Lock -                      PACUX32
NucID 1021

     Obtains                              Releases
     -------------------------------      -----------------------------
     Conditional ....         16,017      Issued .......         16,017
        Granted .....         16,017         Sync ......         15,971
        Rejected ....              0         Async .....             46
     Unconditional ..              0

     Sync ...........            158
     Async ..........         15,859









PF1----- PF2----- PF3------ PF4------ PF6----- PF7------ PF8----- PF12-----
Help     Repos    Exit      Refresh             PrevLok   NxtLok   Menu
```

Use PF7 and PF8 to scroll through the locks; use PF2 to reposition.

Maintain the User Table

Note: This option is available in Adabas nucleus cluster environments only.

A new function has been added to the Session Opercoms menu to support the CLUFREEUSER command. When option V (maintain user table) is selected, the following screen is displayed:

```
16:59:29          ***** A D A B A S  BASIC  SERVICES *****          2002-05-29
                         - User Table Maintenance -                 PACIV02

                      Code    Service
                      ----    -------------------------
                       C      Begin CLUFREEUSER process
                       ?      Help
                       .      Exit
                      ----    -------------------------
         Code ......... _
         TNA .......... 0______
         UID .......... ____________________
         Force ........ _
         Global ....... _

         Database ID .. 1955  (WIS1955)             NucID .. 1022




Command ==>
PF1----- PF2------ PF3------ PF4------ PF6----- PF7----- PF8----- PF12-----
Help               Exit                                          Menu
```

The CLUFREEUSER command is only valid in cluster environments. It can be issued against the local nucleus only or, with the Global option, against all active and inactive nuclei in the cluster.

The command is used to delete leftover user table elements (UTEs) in common storage that are no longer associated with user queue elements (UQEs) in a nucleus where

TNA	is a decimal number specifying the timeout value in seconds. UTEs that are not used during the time specified may be deleted if other conditions are fulfilled. If TNA is not specified, UTEs may be deleted without regard to their recent use.	
UID	is a character string or hexadecimal byte string as follows:	
	cccccccc	where the argument is 1-8 letters, digits, or embedded '-' signs without surrounding apostrophes.

	'cccccccc'	where the argument is 1-8 characters with surrounding apostrophes.
	X'xxxxxxxxxxxxxxxx'	where the argument is an even number of 2-16 hexadecimal digits enclosed by X' '.
	A character string must be enclosed in apostrophes if it contains characters other than letter, digits, or embedded '-' signs. If a specified character string is less than 8 characters long, it is implicitly padded with blanks. If a specified hexadecimal string is shorter than 16 hexadecimal digits, it is implicitly padded with binary zeros. If the last 8 bytes of a user's 28-byte communication ID match a specific user ID or user ID prefix, that user's UTE may be deleted if other conditions are fulfilled. If UID not specified, UTEs may be deleted regardless of their user IDs.	
FORCE	Delete leftover UTEs even if the users are due a response code 9, subcode 20. If FORCE is not specified, such UTEs are not deleted. Before using the `FORCE` parameter, ensure that the users owning the UTEs to be deleted will not expect any of their transactions to remain open. Specify FORCE on this screen by marking the Force field with any character.	
GLOBAL	Delete leftover UTEs throughout the Adabas cluster if they are no longer associated with UQEs and are eligible according to the other specified parameters. Additionally and subject to the other rules, delete leftover UTEs if their assigned nuclei have terminated since their last use. If GLOBAL is not specified, only UTEs assigned to the local nucleus and used since the nucleus start are eligible for deletion. Specify GLOBAL on this screen by marking the Global field with any character.	

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