

Adabas

DBA Reference Summary

Version 8.1.4

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

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Preface

This document summarizes the syntax and use of ADARUN parameters, operator commands, Adabas utilities, and other Adabas information useful to an Adabas DBA.

The following summarizes the topics covered by this documentation:

<i>ADARUN Parameters</i>	Provides the syntax of all ADARUN parameters.
<i>ADARUN Parameter Errors</i>	Describes the possible ADARUN errors that can occur when ADARUN parameters are incorrectly specified.
<i>Console Operator Commands</i>	Provides the syntax of all Adabas console operator commands.
<i>Adabas Utilities</i>	Provides the syntax of all Adabas utilities.
<i>Adabas Device Types and Block Sizes</i>	Lists the device types supported by Adabas in z/OS, z/VSE, z/VM, and BS2000 operating environments.
<i>Database Space Allocation Rules</i>	Describes the database space allocation rules in place for Adabas.
<i>Adabas Nucleus Response Codes</i>	Describes Adabas nucleus response codes.
<i>Adabas Checkpoints</i>	Describes the Adabas checkpoints.
<i>Adabas Command Log Layouts</i>	Describes where to find the latest Adabas command log layouts.

1 Conventions

- Syntax Conventions 2
- Adabas Utility Syntax 4

This document covers the following topics:

- [Syntax Conventions](#)
- [Adabas Utility Syntax](#)

Syntax Conventions

The following table describes the conventions used in syntax diagrams of Adabas statements, commands, and ADARUN parameters.

Convention	Description	Example
uppercase, bold	Syntax elements appearing in uppercase and bold font are Adabas keywords. When specified, these keywords must be entered exactly as shown.	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ADADBS CHANGE FILE = <i>file-number</i> </div> <p>The syntax elements ADADBS, CHANGE, and FILE are Adabas keywords.</p>
lowercase, italic, normal font	Syntax elements appearing in lowercase and italic font identify items that you must supply.	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ADADBS CHANGE FILE = <i>file-number</i> </div> <p>The syntax element <i>file-number</i> identifies and describes the kind of value you must supply. In this instance, you must supply the number of the file affected by the ADADBS CHANGE operation.</p>
mixed case, normal font	<p>Mixed case is used for two purposes:</p> <ol style="list-style-type: none"> 1. To identify the short form of a keyword. The short form is the part in uppercase; the lowercase parts of the statement, command, or parameter is not necessary. <p>Note: If a lowercase part appears in italics, it represents a value you must supply; in this case the syntax would not identify a short form.</p> <ol style="list-style-type: none"> 2. Some values of parameters are taken from values of other parameters. In these cases, the name of the parameter 	<ol style="list-style-type: none"> 1. <div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 5px 0;"> DEvice </div> <p>In the example above, the minimum form of the parameter is DE.</p> <p>However, in the following example, the <i>nn</i> identifies a value you must supply. There is no minimum form of the parameter.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 5px 0;"> UEX<i>nn</i> </div> 2. <div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 5px 0;"> [SORTDEV = { <i>device-type</i> ADARUN-device }] </div> <p>The syntax element "ADARUN-device" indicates that the device type identified by the ADARUN DEVICE</p>

Convention	Description	Example
	<p>referenced for the value appears in uppercase</p> <p>Syntax elements appearing in mixed case and normal font (not bold or italic) identify items established by other Adabas control statements. This notation is usually used to identify how default values are determined for some parameters in Adabas syntax.</p>	<p>parameter will be used as a default if a different device type is not specified. The literal "ADARUN-device" should <i>not</i> be specified for the SORTDEV parameter.</p>
underlining	<p>Underlined text identifies default values, wherever appropriate. Otherwise, the defaults are explained in the accompanying parameter descriptions.</p>	<div data-bbox="786 663 1313 758" style="border: 1px solid black; padding: 5px;"> <pre>[LRECL = {record-buffer-length <u>4000</u> }]</pre> </div> <p>In the example above, 4000 is the default that will be used for the LRECL parameter if no other record buffer length is specified.</p>
vertical bars ()	<p>Vertical bars are used to separate mutually exclusive choices.</p> <p>Note: In more complex syntax involving the use of large brackets or braces, mutually exclusive choices are stacked instead.</p>	<div data-bbox="786 915 1313 1020" style="border: 1px solid black; padding: 5px;"> <pre>ADAORD { RESTRUCTUREF REF }</pre> </div> <p>In the example above, you must select RESTRUCTUREF or REF for this ADAORD function. There are no defaults.</p>
brackets ([])	<p>Brackets are used to identify optional elements. When multiple elements are stacked or separated by vertical bars within brackets, only one of the elements may be supplied.</p>	<div data-bbox="786 1199 1313 1335" style="border: 1px solid black; padding: 5px;"> <pre>SORTSEQ = { descriptor [,MU] [,NU] ISN [, STARTISN = value] physical-sequence }</pre> </div> <p>In this example, the SORTSEQ parameter and the MU, NU, and STARTISN subparameters are optional.</p> <p>Note: Note that the mutually exclusive choices for the SORTSEQ parameter are stacked.</p>
braces ({ })	<p>Braces are used to identify required elements. When multiple elements are stacked or separated by vertical bars within braces, one and only one of the elements must be supplied.</p>	<div data-bbox="786 1556 1476 1713" style="border: 1px solid black; padding: 5px;"> <pre>{ SUSPEND [TTSYN = {time-available-to-sync ADARUN-TT }], [TRESUME = {time-until-resume <u>120</u> }], RESUME }</pre> </div> <p>In this example, either the SUSPEND or RESUME parameter is required. If SUSPEND is specified, either or both TTSYN or TRESUME may be specified.</p>

Convention	Description	Example
indentation	Indentation is used to identify subparameters of a parameter.	<pre>SUSPEND [TTSYN = {time-available-to-sync ADARUN-TT }] [TRESUME = {time-until-resume 120}] RESUME</pre> <p>In this example, TTSYN and TRESUME are subparameters of the SUSPEND parameter.</p>
ellipsis (...)	Ellipses are used to identify elements that can be repeated. If the term preceding the ellipsis is an expression enclosed in square brackets or braces, the ellipsis applies to the entire bracketed expression.	<pre>[FIELD = 'field-name [, option]... '] ...</pre> <p>In this example, the FIELD parameter can be repeated. In addition, more than one option can be associated with a field.</p>
other punctuation and symbols	All other punctuation and symbols must be entered exactly as shown.	<pre>[FIELD = 'field-name [, option]... '] ...</pre> <p>In this example, the single quotation marks must be specified around the field definitions and their associated options. In addition, options must be separated by commas.</p>

Adabas Utility Syntax

Adabas utilities have the following format:

```
utility function parameter-list
```

where:

<i>utility</i>	is the name of the utility to be executed. Examples of utility names include: ADAORD ADADBS ADAINV
<i>function</i>	is the name of the specific utility operation to be executed. For example: ADAORD REORDATA ADADBS ADD ADAINV COUPLE

	Most single-function utilities (ADASEL, ADAULD, etc.) whose function is implicit have either no function value or an optional one.
<i>parameter-list</i>	is a list of parameters following the function. The syntax of the parameters is the same as the syntax used elsewhere in this documentation. For more information, read Syntax Conventions , elsewhere in this document.

2 ADARUN Parameters

Parameter	Use to	Values	Default
AOSlog	Log to DDPRINT the commands issued by ADADBS OPERCOM or equivalent AOS functions that modify the active nucleus.	YES NO	NO
ARExclude	Exclude file(s) from autorestart.	1 - 5000	---
ARMname	Specify the automatic restart management (ARM) program name.	<i>arm-pgm-name</i>	---
ASSocache	Activate or deactivate controller caching for the Associator component (z/OS and z/VM only).	YES NO	YES
ASYtvs	Flush buffers asynchronously based on volume serial number.	YES NO	YES
CACHe	Load ADACSH (Adabas Caching Facility control) during Adabas session initialization.	YES NO	NO
CACTivate	Control RABN activation. (Adabas Caching Facility)	YES NO	NO
CASSODsp	Cache an Associator RABN or RABN range in the data space cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. (Adabas Caching Facility)	<i>rabn rabn1 - rabnx</i>	---
CASSOExt	Cache an Associator RABN or RABN range in the extended memory cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. (Adabas Caching Facility)	<i>rabn rabn1 - rabnx</i>	---
CASSOHsp	Cache an Associator RABN or RABN range in the hiperspace cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. (Adabas Caching Facility)	<i>rabn rabn1 - rabnx</i>	---

Parameter	Use to	Values	Default
CASSOV64	Cache an Associator RABN or RABN range in the virtual 64 storage cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. This parameter is available only in z/OS environments. (Adabas Caching Facility)	<i>rabn</i> <i>rabn1 - rabnx</i>	---
CASSOMaxs	Specify the unit size in which areas are allocated for Associator cache space. (Adabas Caching Facility)	80K - 2047M (extended memory, data spaces, or hiperspaces) 1M - your installation limit (virtual 64 memory)	1M (extended memory, data spaces, or hiperspaces) 1M (virtual 64 memory)
CBufno	Specify the number of read-ahead buffers for concurrent I/O processing. (Adabas Caching Facility)	0 - the NT parameter value	0
CCtimeout	Specify the cache space area inactivity time limit (in seconds) before it is released back to the system. If demand caching is in effect, use this parameter to specify the inactivity time limit (in seconds) of a RABN range, file or file range, before it is disabled. (Adabas Caching Facility)	60 - 2147483647	7200 seconds (2 hours)
CDATADsp	Cache a Data Storage RABN or RABN range in the data space cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. (Adabas Caching Facility)	<i>rabn</i> <i>rabn1 - rabnx</i>	---
CDATAExt	Cache a Data Storage RABN or RABN range in the extended memory cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. Only extended memory is available for BS2000 RISC machines. (Adabas Caching Facility)	<i>rabn</i> <i>rabn1 - rabnx</i>	---
CDATAHsp	Cache a Data Storage RABN or RABN range in the hiperspace cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. This parameter is available only in z/OS environments. (Adabas Caching Facility)	<i>rabn</i> <i>rabn1 - rabnx</i>	---
CDATAV64	Cache a Data Storage RABN or RABN range in the virtual 64 storage cache. This parameter is mutually exclusive with the CFILE and CXFILE parameters. This parameter is available only in z/OS environments.	<i>rabn</i> <i>rabn1 - rabnx</i>	---

Parameter	Use to	Values	Default
	(Adabas Caching Facility)		
CDATAMaxs	Specify the unit size in which areas are allocated for Data Storage cache space. (Adabas Caching Facility)	80K - 2047M (extended memory, data spaces, or hiperspaces) 1M - your installation limit (virtual 64 memory)	1M (extended memory, data spaces, or hiperspaces) 1M (virtual 64 memory)
CDEmand	Set the lowest Adabas buffer efficiency level accepted before caching is activated. A value of "0" indicates that no demand-level caching occurs. (Adabas Caching Facility)	0 - 2147483647	0
CDIspstat	Control whether RABN range statistics display on both the operator console and DDPRINT, or only on DDPRINT. (Adabas Caching Facility)	YES (display on both) NO (display only on DDPRINT)	YES
CDXnn	Specify the user routine of collation descriptor user exits. The <i>nn</i> in the parameter name can range from 01 through 08, so up to eight collation descriptor exits may be specified (in any order).	user routine name (up to 8 characters)	---
CExclude	Identify command types that should be excluded from read-ahead caching. More than one command type may be specified by separating values with forward slashes (/). (Adabas Caching Facility)	PHYS LOGI HIST FIND	---
CFile	Select a file or range of files to be cached. This parameter is also used to indicate the class of caching service, the caching scope, and the cache storage type that should be implemented for the file or file range. Specify this parameter using the following syntax: <code>CFILE=({ <i>fnr</i> ↔ <i>fnr1</i>-<i>fnrx</i>}[,<i>class</i>][,<i>scope</i>][,<i>cachetype</i>])</code> where: ■ <i>fnr</i> , <i>fnr1</i> , <i>fnrx</i> : valid file numbers. When a range is specified, the lower file number must be specified first (<i>fnr1</i>). ■ <i>class</i> : The percentage of cache space that can be used, which effectively assigns a priority to the files, with lower priority RABNs being purged first. A value of 1 indicates the highest priority, 5 indicates the lowest priority.	<i>fnr</i> , <i>fnr1</i> , <i>fnrx</i> : 0 - n <i>class</i> : 1 2 3 4 5 <i>scope</i> : A D B <i>cachetype</i> : D E H V	<i>fnr</i> , <i>fnr1</i> , <i>fnrx</i> <i>class</i> : 3 <i>scope</i> : B <i>cachetype</i> : D

Parameter	Use to	Values	Default
	<ul style="list-style-type: none"> ■ <i>scope</i>: Identifies the type of caching used: Associator (A), Data Storage (D), or both (B). ■ <i>cachetype</i>: Identifies the cache storage type used: data space (D), extended (E), hiperspace (H), or virtual 64 (V). Virtual 64 storage cache is only available in z/OS environments. <p>This parameter is mutually exclusive with the CASSOxxx, CDATAxxx and CSTORAGE parameters.</p> <p>(Adabas Caching Facility)</p>		
CLOGBmax	Specify the maximum size (bytes) of a logged buffer.	368 - 4294967295	4096
CLOGDev	Specify the device type used for multiple command log data sets. This parameter must be specified with the CLOGSIZE parameter.	Valid device types are listed in <i>Adabas Device Types and Block Sizes</i> .	value of the DEVICE parameter
CLOGLayout	Specify the format of the Adabas command log.	5 8	5
CLOGMax	Specify the maximum size (bytes) of all of the logged buffers allowed for an Adabas command.	368 - 4294967295	16384
CLOGMRg	Indicate whether the Adabas cluster should run with an automatic CLOG merge. (Adabas Cluster Services, Adabas Parallel Services)	YES NO	NO
CLOGSize	Specify the number of blocks available for each command log in multiple command log data sets. This parameter must be specified with the CLOGDEV parameter.	16 - 16777215	---
CLUCACHENAME	Identifies the name of the Adabas cluster cache structure/area in which the current nucleus participates. (Adabas Cluster Services)	<i>cluster-name</i>	---
CLUCACHESize	Specify the amount of storage to allocate for the global cache area that services the Adabas Parallel Services cluster in which the current nucleus participates. (Adabas Parallel Services)	128K - varies (depending on the cache type specified by the CLUCACHETYPE parameter)	---
CLUCACHETYPE	Identify the virtual storage type for the global cache area: shared dataspace (DSP) or virtual 64 cache (V64). The V64 value for this parameter is available in z/OS environments only. (Adabas Parallel Services)	DSP V64	DSP

Parameter	Use to	Values	Default
CLUCACHEUnchanged	Indicate whether unchanged blocks are written to global cache during Adabas Parallel Services processing. (Adabas Parallel Services)	YES NO	NO
CLUGroupname	Specify the XCF messaging group name in Entire Net-Work Client. (Adabas Cluster Services)	<i>groupname</i>	---
CLULOCKName	Specify the lock structure name defined in the CFRM policy or the global lock area in which the current nucleus participates. (Adabas Cluster Services)	<i>lockstructurename</i>	---
CLULOCKSize	Specify the amount of storage allocated for the global lock area. Specify values for this parameter using the following syntax: <i>nnn</i> [K M G] where <i>nnn</i> : the number of bytes (no unit specification), kilobyte (K), megabytes (M), or gigabytes (G). (Adabas Parallel Services)	131072 - 2147483147 (bytes) 128K - 2097152K 128K - 2048M 128K - 2G	---
CLUStEr	Indicate whether the Adabas nucleus will participate in a cluster of nuclei working on the same database, and, if so, the type of cluster in which it will participate. Valid values are "NO" (nucleus not participating in a cluster), "LOCAL" (nucleus participating in a cluster on the same operating system image), and "SYSPLEX" (nucleus participating in a cluster on different systems in a parallel sysplex). (Adabas Cluster Services, Adabas Parallel Services)	NO LOCAL SYSPLEX	NO
CMADdr	Identify the starting address of the GETMAIN common memory pool <i>above</i> the 16M line. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	X'1000000' - X'FE000000'	0 (X'1000000')
CMAxcspS	Specify the number of storage areas that can be allocated for ADACSH cache space in data spaces, hiperspaces, or virtual 64-bit storage. This parameter has no affect on a cache space in extended memory, where only one Associator and one Data Storage area are allowed. (Adabas Caching Facility)	1 - 16	8

Parameter	Use to	Values	Default
CMDqmode	Indicate where the command queue memory pool should be allocated: below the 16 MB line (BELOW) or above it (ABOVE). This parameter is valid only in BS2000 environments.	ABOVE BELOW	ABOVE (BELOW for Adabas versions prior to Version 8)
CMFix	Indicate whether the GETMAIN common memory pool must have a fixed location <i>above</i> the 16 MB line. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	YES NO	NO
CMLAddr	Identify the starting address of the GETMAIN common memory pool <i>below</i> the 16M line. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	X'10000' - X'E00000'	0 (X'10000')
CMLFix	Indicate whether the GETMAIN common memory pool must have a fixed location <i>below</i> the 16 MB line. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	YES NO	NO
CMLScope	Control access to the GETMAIN common memory pool <i>below</i> the 16 MB line. Valid values are "GROUP" (the pool can be accessed only by other tasks using the same user ID) and "GLOBAL" (the pool can be accessed by all user IDs in the system). This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	GROUP GLOBAL	GROUP
CMLSize	Specify whether the GETMAIN is performed in a common memory pool <i>below</i> the 16 MB line and, if so, its size in bytes. Valid values are "0" (required application memory is not obtained in a common memory pool, but in the class 6 memory of the system) or the size (in bytes) of user storage to allow in a common memory pool (<i>below</i> the 16 MB line) of the specified size, rounded up to the next megabyte. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.	0 <i>bytesize</i>	0
CMScope	Control access to the GETMAIN common memory pool <i>above</i> the 16 MB line. Valid values are "GROUP" (the pool can be accessed only by other tasks using the same user ID) and "GLOBAL" (the pool can be accessed by all user IDs in the system). This parameter is valid only in BS2000 environments.	GROUP GLOBAL	GROUP
CMSize	Specify whether the GETMAIN is performed in a common memory pool <i>above</i> the 16 MB line and, if so, its size in bytes. Valid values are "0" (required application memory is not obtained in a common memory pool, but in the class 6 memory of the system) or the size (in bytes) of user storage to allow in a	0 <i>bytesize</i>	0

Parameter	Use to	Values	Default
	common memory pool (<i>above</i> the 16 MB line) of the specified size, rounded up to the next megabyte. This parameter is valid only in BS2000 environments running Sockets versions less than 2.2.		
CRetry	Specify the number of seconds between Adabas Caching Facility attempts to acquire an area of cache space if the previous GETMAIN or space allocation failed. (Adabas Caching Facility)	60 - 2147483647	900 (15 minutes)
CStorage	Identify the type of cache space to which all RABNs for the database are cached (using system defaults). This parameter overrides the use of the CASSOxxx and CDATExxx ADARUN parameters. Valid values are "DATASPACE" (dataspace), "EXTENDED" (extended memory), "HIPERSPACE" (hiperspace), or "VIRTUAL64" (virtual 64-bit storage). "EXTENDED" is the only option available on BS2000 RISC machines; "HIPERSPACE" and "VIRTUAL64" are only valid in z/OS environments. This parameter is mutually exclusive with the CFILE and CXFILE parameters. (Adabas Caching Facility)	DATASPACE EXTENDED HIPERSPACE VIRTUAL64	---
CT	Specify the maximum time limit (in seconds) for interregion communication of results from Adabas to the user.	1 - 16777215	60
CWORKStorage	Identify the type of cache space used for Adabas Caching Facility work areas CWORK2FAC and CWORK3FAC. Valid values are "DATASPACE" (dataspace), "EXTENDED" (extended memory), "HIPERSPACE" (hiperspace), or "VIRTUAL64" (virtual 64-bit storage). "EXTENDED" is the only option available on BS2000 RISC machines; "HIPERSPACE" and "VIRTUAL64" are only valid in z/OS environments. (Adabas Caching Facility)	DATASPACE EXTENDED HIPERSPACE VIRTUAL64	---
CWORK2fac	Specify the percentage of Work part 2 to be cached. If "0" is specified, Work part 2 is not cached. (Adabas Caching Facility)	0 - 100	0
CWORK3fac	Specify the percentage of Work part 3 to be cached. If "0" is specified, Work part 3 is not cached. (Adabas Caching Facility)	0 - 100	0

Parameter	Use to	Values	Default
CXfile	<p>Select a file or range of files to be excluded from caching. Specify this parameter using the following syntax:</p> <pre>CXFILE=({ <i>fnr</i> <i>fnr1</i>-<i>fnrx</i>}[, , <i>scope</i>])</pre> <p>where:</p> <ul style="list-style-type: none"> ■ <i>fnr</i>, <i>fnr1</i>, <i>fnrx</i>: valid file numbers to be excluded. When a range is specified, the lower file number must be specified first (<i>fnr1</i>). ■ <i>scope</i>: Identifies the scope of exclusion: Associator RABNs only excluded (A), Data Storage RABNs only excluded (D), or both types of RABNs excluded (B). If a scope is specified, you must specify two commas before it. <p>This parameter is mutually exclusive with the CASSOxxx, CDATAxxx, and CSTORAGE ADARUN parameters.</p> <p>(Adabas Caching Facility)</p>	<p><i>fnr</i>, <i>fnr1</i>, <i>fnrx</i>: 0 - n</p> <p><i>scope</i>: A D B</p>	<p><i>fnr</i>, <i>fnr1</i>, <i>fnrx</i>: ---</p> <p><i>scope</i>: B</p>
Datocache	Control whether caching control is enabled (YES) or disabled (NO) for the Data Storage data set. This parameter is valid only in z/OS and z/VM environments.	YES NO	YES
DBid	Specify the physical database ID of the database. Note: If you specify the DBID parameter, you must also specify the ADARUN SVC parameter.	1 - 65535	1
DEvice	Specify the device type on which the first block of the Associator is stored. Valid device types for each platform are listed in <i>Adabas Device Types and Blocks Sizes</i> .	<i>devtype</i>	2000 (BS2000) 3390 (z/OS, z/VSE, z/VM)
DIrratio	Together with the ELEMENTRATIO ADARUN parameter, define the ratio of directory entries to data elements in Adabas cluster environments. (Adabas Cluster Services, Adabas Parallel Services)	1 - 32767	1
DSF	Enable Adabas Delta Save support. (Adabas Delta Save)	YES NO	NO
DSFEx1	Specify the user routine to be given control by Adabas Delta Save. (Adabas Delta Save)	<i>exitname</i>	---

Parameter	Use to	Values	Default
DTP	Indicate whether to enable distributed transaction processing, and, if so, whether the nucleus should be a resource or transaction manager. Valid values are NO (distributed transaction processing is not enabled), RM (the nucleus participates in distributed transaction processing as a resource manager), and TM (the nucleus participates in distributed transaction processing as a transaction manager). (Adabas Transaction Manager)	NO RM TM	NO
DUALCLD	Specify the device type to be used for dual command logging. Valid device types for each platform are listed in <i>Adabas Device Types and Blocks Sizes</i> .	<i>devtype</i>	value of the DEV parameter
DUALCLS	Specify the number of blocks available for each dual command log.	16 - 16777215	---
DUALPLD	Specify the device type to be used for dual protection logging. Valid device types for each platform are listed in <i>Adabas Device Types and Blocks Sizes</i> .	<i>devtype</i>	value of the DEV parameter
DUALPLS	Specify the number of blocks available for each dual protection log.	16 - 16777215	---
ELementratio	Together with DIRRATIO ADARUN parameter, define the ratio of directory entries to data elements in Adabas cluster environments. Adabas Cluster Services, Adabas Parallel Services	1 - 32767	1
EXcpvr	Indicate whether EXCP or EXCPVR should be used when running APF-authorized. This parameter is valid only in z/OS environments.	YES NO	YES
FAstpath	Enable Adabas Fastpath support. (Adabas Fastpath)	YES NO	NO
FMxio	Set a limit on the number of I/O operations that can be started in parallel by LFIOP flush processing. The full meaning of this parameter varies, depending on the setting of the ASYTVS ADARUN parameter. If ASYTVS=YES, you can use FMXIO to set the limit on the number of I/O <ul style="list-style-type: none"> ■ If ASYTVS=YES, you can use FMXIO to set a limit on the number of I/O operations to be started in parallel on each volume. ■ If ASYTVS=NO, you can use FMXIO to set a limit on the number of I/O operations to be started in parallel overall. 	1 - 16 (ASYTVS=YES) 1 - 100 (ASYTVS=NO)	1 (ASYTVS=YES) 60 (ASYTVS=NO)

Parameter	Use to	Values	Default
FOrce	Indicate whether the nucleus or Adabas Review hub can overwrite an existing ID table entry.	YES NO	NO
GROups	Indicate whether BS2000 interprocess communication is limited to users with the same logon ID. This parameter is available only in BS2000 environments.	YES NO	NO
HEXnn	Specify the hyperdescriptor exit(s) and associated user routine to be used by the nucleus. Specify this parameter using the following syntax: <div style="background-color: #f0f0f0; padding: 2px;"><code>HEXnn=user-routine-name</code></div> <p>where:</p> <ul style="list-style-type: none"> ■ nn: the number of the hyperdescriptor exit ■ user-routine-name: the name (up to eight characters) of the user routine that gets control for the associated hyperdescriptor exit. 	<ul style="list-style-type: none"> ■ nn: 01 - 31 ■ user-routine-name: text (up to eight characters) 	<ul style="list-style-type: none"> ■ nn: --- ■ user-routine-name: ---
IDTName	Define the name for an alternate ID table, resulting in an alternate Adabas environment. This parameter is valid only in BS2000 environments. Valid names must be begin with the letters "ADA" and must be eight characters long.	ADAxxxxx	ADABAS5B
IDTPsup	Suppress the IDT name in Adabas output messages. This parameter is valid only in BS2000 environments.	YES NO	NO
IGNDIb	Indicate whether an active nucleus entry in the data integrity block (DIB) should be ignored and deleted.	YES NO	NO
IGNDTP	Indicate whether the two-phase commit area (Work part 4) should be ignored.	YES NO	NO
INTnas	Specify the time interval (in units of 1.048576 seconds) between SYNS 60 checkpoints.	1 - 16777215	3600 (approximately one hour)
LBP	Specify the maximum number of bytes to be used for the Adabas buffer pool during a session.	80000 - 2147483647	350000
LCP	Specify the maximum number of bytes to be used for the Adabas security pool during a session.	2000 - 16777215	10000
LDEuqp	Specify the number of bytes to be used for the unique (UQ) descriptor pool during a session.	0 - 16777215	5000
LDTp	Define the length of the distributed transaction processing area (Work part 4) or the index of Work part 4: If you have Adabas Transaction Manager Version 7.4 or earlier installed, this parameter defines the length of the distributed transaction processing area (Work part 4) for use with DTP=RM.	Adabas Transaction Manager 7.4 or earlier: 0 - 65535 Adabas Transaction Manager 7.5 or later: 8 - one eighth of the WORK4 size	Adabas Transaction Manager 7.4 or earlier: 0 Adabas Transaction Manager 7.5 or later: 8

Parameter	Use to	Values	Default
	If you have Adabas Transaction Manager Version 7.5 or later installed, this parameter defines the size (in blocks) of the Work part 4 index which is used to administer the data on Work part 4 (DDWORKR4). (Adabas Transaction Manager)		
LFIop	Enable asynchronous buffer flush operations and define the length of the related buffer flush pool. A value of "0" disables asynchronous buffer flush operations; only asynchronous flushing occurs. A value of "1" enables asynchronous buffer flush operations, and defines the buffer pool size as 25% of the buffer pool (LBP parameter) size. Any other value (with a minimum of 80000 allowed) enables asynchronous buffer flush operations and defines the size of the pool directly (in bytes).	0 1 80000 - 2147483647	0
LFP	Specify the size (in bytes) of the Adabas internal format buffer pool.	6000 - 2147483647	12000
LI	Specify the size (in bytes) allocated for the table of ISNs (TBI) used to store ISN lists (overflow ISNs or saved ISN lists).	2000 - 16777215	10000
LNKGNAME	The name of the link globals table to be employed by an Adabas 8 batch/TSO link routine. Note: If you specify the LNKGNAME parameter, you must also specify the ADARUN DBID and SVC parameters.	valid module name for an IBM z/OS, z/VSE or z/VM operating system, or for a BS2000 module	LNKGBLS
LOCa1	Indicate whether an Adabas nucleus or Adabas Review hub is isolated and available for local use only. The isolated nucleus or hub will be unknown to the network.	YES NO	YES
LOGAbdx	Indicate whether Adabas buffer descriptions (ABDs) should be logged during this session. For the dependencies of the various logging parameters, please review the detailed description.	YES NO	NO
LOGCB	Indicate whether Adabas extended control blocks (ACBX) should be logged during this Adabas session. For the dependencies of the various logging parameters, please review the detailed description.	YES NO	NO
LOGCLex	Indicate whether the Adabas command log extension (CLEX) should be logged. For the dependencies of the various logging parameters, please review the detailed description.	YES NO	NO
LOGFb	Indicate whether Adabas format buffers (FB) should be logged.	YES NO	NO

Parameter	Use to	Values	Default
LOGGing	Indicate whether command logging should be used for the Adabas session. If this is set to "NO", all other LOGxxxx parameters are ignored.	YES NO	NO
LOGIB	Indicate whether Adabas ISN buffers (IB) should be logged.	YES NO	NO
LOGIO	Indicate whether Adabas I/O activity should be logged.	YES NO	NO
LOGMb	Indicate whether Adabas multifetch buffers (MB) should be logged. For the dependencies of the various logging parameters, please review the detailed description.	YES NO	NO
LOGRb	Indicate whether Adabas record buffers (RB) should be logged.	YES NO	NO
LOGSB	Indicate whether Adabas search buffers (SB) should be logged.	YES NO	NO
LOGSIze	Specify the maximum block size for the sequential command log.	100 - 32760	value of the QBLKSIZE ADARUN parameter
LOGUX	Indicate whether Adabas user exit B data should be logged. For the dependencies of the various logging parameters, please review the detailed description.	YES NO	NO
LOGVb	Indicate whether Adabas value buffers (VB) should be logged.	YES NO	NO
LP	Specify the number of blocks to allocate to the data protection area (Work part 1). The highest value you can set for this parameter is limited by the size of the Work data set and the sizes of Work parts 2, 3, and 4.	200 - *	1000
LQ	Specify the size (in bytes) of the table of sequential commands, which contains entries required during the processing of Adabas read sequential (L2/L5, L3/L6, and L9) commands.	2000 - 16777215	10000
LRDp	Specify the size (in bytes) of the redo pool, which allows for deferred publishing. If the value of this parameter is set to 0, updated database blocks are always written to global cache at the time the update is made; no deferred publishing occurs. (Adabas Cluster Services, Adabas Parallel Services)	0 80000 - 2137483647	value of the LFIOP ADARUN parameter
LRP1	Specify the size of the Adabas or Event Replicator replication pools, in bytes. This parameter should be specified for only: <ul style="list-style-type: none"> ■ an Adabas nucleus that also has REPLICATION=YES set. ■ an Event Replicator database 	20000 - *	100000 (if REPLICATION=YES) 0 (if REPLICATION=NO)

Parameter	Use to	Values	Default
	The values for the Adabas nucleus and the Event Replicator database may be different.		
LS	Specify the maximum number of bytes for internal sort processing. The maximum value for this parameter must be less than or equal to the LWP setting minus 19968 divided by two ($LS \leq (LWP - 19968) / 2$).	19968 - *	49920
LU	Specify the length (in bytes) of the intermediate user buffer area. The range of values varies based on the operating system on which Adabas is installed.. On z/OS and z/VM systems, LU cannot exceed a value greater than that produced by this calculation: $(NABvalue \times 4096)$ On z/VSE and BS2000 systems, LU cannot exceed a value greater than that produced by this calculation: $(NABvalue \times 4096) - 256$	a positive integer, minimum and maximum governed by the operating system.	65535
LWKP2	Specify the number of Work blocks to use for intermediate ISN lists Work part 2).	0 - 16777215	0
LWP	Specify the size (in bytes) of the Adabas work pool. This value must be equal to or greater than twice the sum of the specified internal sort area length (LS parameter) plus the minimum LS value (19968). In other words, the LWP value must be greater than or equal to a value calculated as follows: $(LS-value + 19968) \times 2$ The minimum value you can specify is 80000 or a value not less than the value of the NT parameter multiplied by 25000.	80000-2147483647	150000
MOde	Identify the Adabas operating mode. Valid operating modes include running in single-user mode (SINGLE) or running in multiuser mode (MULTI).	SINGLE MULTI	MULTI
MSGBuf	Specify the size (in kilobytes) of the message buffer area, which is used to buffer messages for use for performance and tuning and problem analysis.	0 - 128	0
MSGConsl	Specify the case of Adabas messages sent to the console.	Upper Mixed	Mixed
MSGDruck	Specify the case of Adabas messages sent to the DD/DRUCK data set.	Upper Mixed	Mixed
MSGPrint	Specify the case of Adabas messages sent to the DD/PRINT data set.	Upper Mixed	Mixed

Parameter	Use to	Values	Default
MXCANCEL	Specify the timeout threshold, in seconds, in which processing of an intracluster cancellation request must occur. Adabas Cluster Services, Adabas Parallel Services	15 - 2147483647	The value of the MXMSG parameter.
MXCANCELWarn	Specify the timeout threshold, in seconds, for an intracluster cancellation request to occur before issuing an early warning about the failure of the cancellation request. The value of this parameter must be less than the value of the MXCANCEL parameter. A value of "0" indicates that no warnings should be issued. Adabas Cluster Services, Adabas Parallel Services	0 4 - (MXCANCEL_value - 1)	The value of the MXCANCEL parameter divided by 4.
MXMSG	Specify the timeout threshold, in seconds, in which the processing of an intracluster command must occur. Adabas Cluster Services, Adabas Parallel Services	15 - 32767	300
MXMSGWarn	Specify the timeout threshold, in seconds, for a response to an intracluster command to occur before issuing an early warning about the failure of the request. The value of this parameter must be less than the value of the MXMSG parameter. A value of "0" indicates that no warnings should be issued. Adabas Cluster Services, Adabas Parallel Services	0 4 - (MXMSG_value - 1)	The value of the MXMSG parameter divided by 4.
MXStatus	Specify the interval, in seconds, at which the member-level XCF status monitoring heartbeat should occur. A value of "0" indicates that no member-level status monitoring should occur. Adabas Cluster Services	0 15 - 21474836	15
MXTNa	Set the maximum non-activity time, in seconds, that can be specified in the OP command for an individual user.	1 - 65535	3600
MXTSx	Set the maximum execution time (in seconds) that can be specified for the ADARUN TLSCMD parameter and for any override execution time setting that might be specified in the Adabas control block of an OP command.	1 - 65535	3600

Parameter	Use to	Values	Default
MXTT	Set the maximum transaction time limit, in seconds, that can be specified in the OP command for an individual user.	1 - 65535	3600
MXWtor	Specify the timeout interval, in seconds, in which an operator response to a self-termination operator query must occur before issuing a warning. A value of "0" indicates that no warning message should be issued. Adabas Cluster Services	0 15 - 64800	0
NAb	Specify the number of attached buffers to be used during the session. The maximum value you can specify for this parameter varies, depending on the amount of available virtual storage.	1 - varies	16
NC	Specify the maximum number of command queue elements (CQEs) for the session. The number of CQEs established for the session determines the maximum number of Adabas commands that may be queued or be in process at any one time during the session.	20 - 32767	200
NCLog	Specify the maximum number of command log data sets to be opened and logged in the PPT for the session. A value of "0" disables this parameter.	0 2 - 8	0
NH	Specify the maximum number of hold queue elements for the session.	20 - 16777215	500
NI snhq	Specify the maximum number of records that can be placed in hold status (hold queues) at the same time by a single user. The maximum value that can be specified for this parameter is the smaller of 65535 or the value of the NH parameter divided by 4. The default is the larger of 20 or the value of the NH parameter divided by the value of the NU parameter with the result multiplied by two ($(NH/NU) * 2$).	1 - 65535 NH/4 (whichever is smaller)	20 $(NH/NU) *$ (whichever is larger)
N0ndes	Indicate whether to allow (YES) searches using nondescriptors in search buffers.	YES NO	YES
NPlog	Specify the maximum number of protection log data sets to be opened and logged in the PPT. A value of "0" disables this parameter.	0 2 - 8	0
NQcid	Specify the maximum number of active command IDs per user.	1 - 65535	20
NSisn	Specify the maximum number of ISNs per ISN table (TBI) element. The maximum value that can be specified varies based on the device type of the Work data set or, in the case where user-defined Work block sizes are used, the maximum value is based on a	7 - *	51

Parameter	Use to	Values	Default
	formula. For more information, refer to the more detailed NSISN documentation.		
NT	Specify the number of threads to be used during the Adabas session.	3 - 250	5
NU	Specify the maximum number of user queue elements for the Adabas session.	20 - 16777215	200
NUCid	Specify the ID of an Adabas nucleus in an Adabas cluster. Adabas Cluster Services, Adabas Parallel Services	0 - 65000	0
OPenrq	Indicate whether an open command (OP) must be issued (is required) as the first command of a user session.	YES NO	YES
PGfix	Indicate whether pages containing I/O control blocks are released after I/O processing is completed or after the job has ended when using EXCPVR on z/OS systems. When this parameter is set to <i>YES</i> , pages containing the I/O control blocks are fixed for the duration of the job. When set to "NO", pages are fixed only for the duration of I/O processing.	YES NO	NO
PLOGDev	Specify the device type used for multiple protection log data sets. This parameter must be specified with the PLOGSIZE parameter.	Valid device types are listed in <i>Adabas Device Types and Block Sizes</i>	value of the DEVICE parameter
PLOGRq	Indicate whether a protection log is required for the Adabas session. For details on the meanings of the different values for this parameter, refer to the detailed PLOGRQ documentation.	YES NO SEL FORCE	YES
PLOGSEgds	Indicate whether all portions of a modified spanned storage record should be written to the protection log (PLOG).	YES NO	NO
PLOGSize	Specify the number of blocks available for each protection log in multiple protection log data sets. This parameter must be specified with the PLOGDEV parameter.	16 - 16777215	---
PREFetch	Indicate whether the Adabas command-level prefetch or multifetch features should be automatically enabled. YES enables the multifetch (M) option; OLD enables the prefetch (P) option; NO disables the prefetch feature.	YES OLD NO	NO
PREFICmd	Identify the commands that should be included in prefetch or multifetch processing. To specify multiple values for this parameter, list the values separated by forward slashes (/). For example: PREFICMD=L3/L9. The maximum number of entries	L1 - L9	---

Parameter	Use to	Values	Default
	<p>is 50. The same number of list items must be specified for this parameter as are specified for the PREFIFIL parameter. If you want several commands to be prefetched or multifetched for a single file, repeat the same file number in the PREFIFIL parameter.</p> <p>The values for this parameter are used in conjunction with the value of the PREFIFIL parameter to customize prefetch and multifetch processing during the session. You cannot specify this parameter in the same session as the PREFXCMD parameter; if you do, the values of the PREFXCMD parameter are used and the values for this parameter are ignored.</p>		
PREFIFil	<p>Identify the files that should be included in prefetch or multifetch processing. To specify multiple values for this parameter, list the values separated by commas. The maximum number of entries is 50. The same number of list items must be specified for this parameter as are specified for the PREFICMD parameter. If you want several commands to be prefetched or multifetched for a single file, repeat the same file number in the PREFIFIL parameter.</p> <p>The values for this parameter are used in conjunction with the value of the PREFICMD parameter to customize prefetch and multifetch processing during the session. You cannot specify this parameter in the same session as the PREFXFIL parameter; if you do, the values of the PREFXFIL parameter are used and the values for this parameter are ignored.</p>	1 - 5000	---
PREFNrec	Specify the number records that can be prefetched or multifetched. The maximum number of records that can be multifetched depends on the maximum that can be held by the record and ISN buffers.	0 - *	0
PREFSb1	Specify the size, in bytes, of the buffer for a single prefetch, which determines how much record data is prefetched.	1024 - 65535	3000
PREFTb1	Specify the size, in bytes, of the total prefetch buffer area.	6144 - 16777215	30000
PREFXCmd	<p>Identify the commands that should be <i>excluded</i> in prefetch or multifetch processing.</p> <p>To specify multiple values for this parameter, list the values separated by forward slashes (/). For example: PREFXCMD=L3/L9. The maximum number of entries is 50. The same number of list items must be specified for this parameter as are specified for the PREFXFIL</p>	L1 - L9	---

Parameter	Use to	Values	Default
	<p>parameter. If you want several commands to be prefetched or multifetched for a single file, repeat the same file number in the PREFXFIL parameter.</p> <p>The values for this parameter are used in conjunction with the value of the PREFXFIL parameter to customize prefetch and multifetch processing during the session. You cannot specify this parameter in the same session as the PREFICMD parameter; if you do, the values of this parameter are used and the values for the PREFICMD parameter are ignored.</p>		
PREFXFil	<p>Identify the files that should be excluded in prefetch or multifetch processing. To specify multiple values for this parameter, list the values separated by commas. The maximum number of entries is 50. The same number of list items must be specified for this parameter as are specified for the PREFXCMD parameter. If you want several commands to be prefetched or multifetched for a single file, repeat the same file number in the PREFXFIL parameter.</p> <p>The values for this parameter are used in conjunction with the value of the PREFICMD parameter to customize prefetch and multifetch processing during the session. You cannot specify this parameter in the same session as the PREFXFIL parameter; if you do, the values of the PREFXFIL parameter are used and the values for this parameter are ignored.</p>	1 - 5000	---
PROGram	Identify the program to be run.	ADACOM ADANUC ADAREV NETWRK RENTUSER USER <i>utility-name</i>	USER
QBlksize	Specify the block size, in bytes, for sequential data sets used by ADAIOR, the Adabas I/O component. A value of "0" does not indicate that 0-byte block sizes should be used, but that the block size should be determined by the media type. For more information, read the detailed QBLKSIZE documentation.	0 - 262144	0
REAdonly	Indicate whether the Adabas session is a read-only session or it should permit database updates.	YES NO	NO
REPllication	<p>Indicate whether replication should be activated for the Adabas nucleus.</p> <p>(Event Replicator for Adabas)</p>	YES NO	NO

Parameter	Use to	Values	Default
REVFilter	Indicate whether Adabas Review record filtering should be allowed during the session. (Adabas Review)	YES NO	YES
REVIew	Indicate whether Adabas Review should be run in local mode, hub mode (specifying the hub ID), or not at all. (Adabas Review)	NO LOCAL <i>hubid</i>	NO
REVLOGBmax	Specify the maximum allowable number of bytes of a logged buffer for Adabas Review. (Adabas Review)	0 - 30000	5120
REVLOGMax	Specify the maximum size of all of the logged buffers allowed for an Adabas Review command. (Adabas Review)	2000 - 32768 (32K)	16384
RPLCONNECTCount	Specify the number of connection attempts made for the Adabas or Event Replicator Server nucleus after an attempt fails.	0 - 2147483647	0
RPLCONNECTInterval	Specify the interval (in seconds) between connection attempts made for the Adabas or Event Replicator Server nucleus after an attempt fails.	0 - 2147483647	0
RPLParms	Identify the location where your replication definitions (initialization parameters) should be read from. Replication definitions can be read from the Replicator system file (FILE), from DDKARTE (PARMS), both the Replicator system file and from DDKARTE (where the DDKARTE specifications override any duplicates with the Replicator system file), or not at all (NONE). (Event Replicator for Adabas)	BOTH FILE NONE PARMS	If the Replicator system file resides on the Event Replicator database, definitions are read first from the Replicator system file and then from DDKARTE. If the Replicator system file does not reside on the Event Replicator database, the definitions are read from DDKARTE.
RPLSort	Indicate whether Event Replicator for Adabas transaction data sorting should occur. (Event Replicator for Adabas)	YES NO	YES
RPWARNINcrement	Specify the interval (in percentage of LRPL usage) at which warning messages should be sent indicating that the replication pool usage has exceeded the threshold set by the RPWARNPERCENT parameter. (Event Replicator for Adabas)	1 - 99	10

Parameter	Use to	Values	Default
RPWARNInterval	Specify the interval, in seconds, during which replication pool usage warning messages are suppressed on the console. (Event Replicator for Adabas)	1 - 2147483647	60
RPWARNMessageLimit	Specify the number of replication pool usage warning messages that can be issued to the console before message suppression begins. (Event Replicator for Adabas)	1 - 2147483647	5
RPWARNPercent	Specify the threshold for replication pool usage (expressed as a percentage of LRPL) at which replication pool usage warning messages should be sent. A value of 0 for this parameter indicates that no warning messages are issued (Event Replicator for Adabas)	0 - 99	0
SMgt	Indicate whether the error handling and message buffering facility should be enabled for the session. This parameter is not available on BS2000 systems.	YES NO	NO
Sortcache	Indicate whether to enable (YES) or disable (NO) controller caching for the Adabas Sort data set. This parameter is valid only in z/OS and z/VM environments.	YES NO	YES
Spt	Indicate use of Adabas triggers and stored procedures should be enabled for the session.	YES NO	NO
Submpsz	Specify the common memory pool size, in bytes, for subtask communication in products such as Adabas Parallel Services, Adabas Review, and Event Replicator for Adabas. This parameter is valid only in BS2000 environments.	100000 - *	1024000
Svc	Specify the Adabas SVC number or Adabas Review hub SVC number to be used for the session.	z/OS: 200 - 255 z/VSE: any free SVC value, although 45 is recommended.	z/OS: 249 z/VSE: 45
TAPere1	Specify how end-of-file (EOF) processing is handled for tapes and cartridges. This parameter is valid only in BS2000 environments.	KEEPUNL KEEP NO RELEASE UNLOAD	KEEPUNL
TARgetid	Specify the unique Entire Net-Work target ID for this node.	1 - 65535	1
TASKctgy	Identify the Adabas task category. This parameter is valid only in BS2000 environments.	BATCH TP	BATCH

Parameter	Use to	Values	Default
TCPIp	Indicate whether a direct TCP/IP link to the Adabas nucleus should be activated for this session. This parameter is valid only in z/OS environments.	YES NO	NO
TCPUr1	Identify the universal resource locator (URL) for the direct TCP/IP link to the Adabas nucleus (when TCPIP is set to "YES"). This parameter is valid only in z/OS environments.	<i>url</i>	---
TEmpcache	Indicate whether to enable (YES) or disable (NO) controller caching for the Adabas Temp data set. This parameter is valid only in z/OS and z/VM environments.	YES NO	YES
TFlush	Specify the time, in seconds, to allow for a synchronous buffer flush.	1 - 16777215	1
TLscmd	Specify the maximum time, in seconds, to be used to process a single Adabas S1, S2, or S4 command with complex search criteria.	1 - the setting of the ADARUN MSTSX parameter	300
TMDrq	Set the number of entries allowed in the Adabas Transaction Manager's internal request queue. (Adabas Transaction Manager)	10 - 32767	10
TMEtdata	Identify the database or databases that will store Adabas Transaction Manager's ET data. (Adabas Transaction Manager)	ATM TARGETS	TARGETS
TMGtt	Set the time limit, in seconds, during which a global transaction can be open without being prepared. (Adabas Transaction Manager)	1 - 16777215	720
TMLog	Identify the logging option for the current execution of the Adabas Transaction Manager. (Adabas Transaction Manager)	YES NO NEVER	NO
TMMsgsev	Set the severity threshold for the suppression of Adabas Transaction Manager warning messages. If this parameter is set to "0", no messages are suppressed. (Adabas Transaction Manager)	0 4 8	0
TMRestart	Identify how restart processing of problematic transactions should be handled. (Adabas Transaction Manager)	NORMAL FORCE FORCEALL	NORMAL
TMSyncmgr	Indicate whether the Adabas Transaction Manager is to interact with an external transaction coordinator. (Adabas Transaction Manager)	NONE RRMS	NONE

Parameter	Use to	Values	Default
TMTcidpref	Define the first one or two characters (the prefix) of dynamically-allocated client IDs. Up to two alphanumeric characters can be specified. (Adabas Transaction Manager)	<i>prefix</i>	TM
TNAA	Specify the maximum elapsed time, in seconds, that an access-only user may be considered active without issuing an Adabas command.	1 - 16777215	900
TNAE	Specify the maximum elapsed time, in seconds, that an ET logic user may be considered active without issuing an Adabas command.	1 - 16777215	900
TNAX	Specify the maximum elapsed time, in seconds, that an exclusive control user may be considered active without issuing an Adabas command.	1 - 16777215	900
TT	Specify the maximum elapsed time, in seconds, permitted for a logical transaction issued by an ET logic user.	1 - 16777215	900
UEX <i>nn</i>	Activate a user exit and specify the name of the user routine for the exit. The value of <i>nn</i> in the parameter name must be an integer in the range from 1 through 12, inclusive that identifies the number of the user exit. The value assigned the parameter must be a one to eight-character name of the corresponding user routine that gets control. Note: User exit 2 (UEX2) and user exit 12 (UEX12) are mutually exclusive.	<i>user-routine-name</i>	---
UTonly	Indicate whether the session should be restricted to Adabas utilities only.	YES NO	NO
Vista	Indicate whether support for Adabas Vista should be enabled. (Adabas Vista)	YES NO	NO
Workcache	Indicate whether to enable (YES) or disable (NO) controller caching for the Adabas Work data set. This parameter is valid only in z/OS and z/VM environments.	YES NO	YES

3 ADARUN Statement/Parameter Messages

The Adabas ADARUN statements and parameters define the nucleus operating environment. The error messages that can result from ADARUN statements and parameters are described in this section. These messages have the following format:

```
ADARUN error-nn,message-text
```

where *nn* is the message number and *message-text* describes the error. All ADARUN error messages are accompanied by a user abend 35 (abnormal end without a dump) code.

For information regarding ADARUN parameter syntax, refer to the Adabas operations documentation, provided in the *Adabas Operations Manual*.

error-1	I/O-error DDCARD
Explanation	A job control (JCL/JCS) error occurred.
Action	Correct the error and rerun the job.
error-2	Unknown module
Explanation	Either the ADARUN PROG parameter or the library allocation JCL is incorrect.
Action	Correct the error and rerun the job.
error-3	Invalid parmcard
Explanation	An ADARUN parameter statement is missing the literal "ADARUN" at the beginning of the ADARUN statement.
Action	Correct the error and rerun the job.

error-5	Invalid parm
Explanation	One of the following has occurred: <ul style="list-style-type: none">■ The starting position of a keyword is either lower than "A" or higher than "Z".■ Positions 1-72 contain no valid parameters.
Action	Correct the error and rerun the job.
error-6	Syntax error
Explanation	ADARUN detected invalid parameter syntax.
Action	Correct the error and rerun the job.
error-7	Unknown keyword
Explanation	ADARUN detected an invalid keyword parameter.
Action	Correct the error and rerun the job.
error-8	Error from load
Action	ADARUN detected a nonzero return code from the operating system's load function.
Action	Refer to any related ADAInn or other messages for the specific return code value, then refer to the appropriate operating system information for the action to take.
error-9	No user program
Explanation	ADARUN was not called by a user program, or required ADARUN parameters were missing.
Action	Correct the JCL or control statements and rerun the job.
error-10	Module = non-XS
Explanation	BS2000 only. ADARUN was loaded from the XS library. During the loading procedure, the specified non-XS module was deleted.
Action	Do not mix XS and non-XS libraries.
error-12	Invalid CMDQMODE = operand (above, below)
Explanation	BS2000 only. The CMDQMODE parameter specified an incorrect syntax option.
Action	Job terminates. Set the correct parameter value.

error-13	Invalid TAPEREL = operand (NO, RELEASE, KEEP, UNLOAD, KEEPUNL)
Explanation	BS2000 only. The TAPEREL parameter specified an incorrect syntax option.
Action	Job terminates. Set the correct parameter value.
error-20	RMODE error
Explanation	ADARUN detected one or more loaded modules linked with RMODE={ANY 31} while it runs in AMODE=24.
Action	Check the load library and either relink modules linked with AMODE=24 to AMODE={ANY 31}, or relink modules linked with RMODE=ANY to RMODE=24.
error-21	CLU parm error
Explanation	ADARUN detected inconsistent CLUSTER parameter: <ul style="list-style-type: none"> ■ CLUSTER=SYSPLEX or CLUSTER=LOCAL and NUCID=0; or ■ CLUSTER=NO (default) but NUCID is nonzero.
Action	Correct the error and rerun the job.
error-22	NXLOG error
Explanation	ADARUN detected inconsistent parameter: <ul style="list-style-type: none"> ■ Both NPLOG/NCLOG and DUALPLD/DUALCLD are specified; or ■ PPLOGDEV/CLOGDEV and PLOGSIZE/CLOGSIZE are specified but NPLOG/NCLOG is not specified; or ■ UEX2 together with NPLOG/NCLOG instead of UEX12 was found in the ADARUN parameters. ■ The CLOGMAX or CLOGBMAX parameter setting is smaller than 368 bytes.
Action	Correct the error and rerun the job.
error-23	RPL PARM error
Explanation	ADARUN detected an inconsistent replication parameter. <ul style="list-style-type: none"> ■ RPLPARMS was not "PARMS", "FILE", "BOTH", or "NONE". ■ RPWARNPERCENT was not in the range 0 to 99. ■ RPWARNINCREMENT was not in the range 0 to 99. ■ RPLSORT was not "YES", "NO", or "LAST".
Action	Correct the error and rerun the job.

error-24	CLOG PARM error
Explanation	ADARUN detected an inconsistent command logging parameter: <ul style="list-style-type: none">■ CLOGLAYOUT was not 5 nor 8.■ LOGABDX was not YES nor NO.■ LOGUB was not YES nor NO.■ LOGMB was not YES nor NO.
Action	Correct the error and rerun the job.
error-25	REV PARM error
Explanation	ADARUN detected an inconsistent Adabas Review parameter: <ul style="list-style-type: none">■ REVFILTER was not YES nor NO.■ REVLOGMAX was not in the range 2000 through 32768.■ REVLOGBMAX exceeded 32768.
Action	Correct the error and rerun the job.
error-31	IDTNAME does not start "ADA"
Explanation	This is a BS2000 only error. The user has defined the IDTNAME or the ENVNAME in the SSFB2C parameter module which does not begin with "ADA". This will lead to a failure in communication between Client applications and nucleus.
Action	Correct the IDTNAME in the ADARUN parameter list so that it begins with "ADA" and restart the nucleus.
error-98	Adabas v.v cannot run on NXS hardware
Explanation	BS2000 only. Adabas 6.2 and above require 31-bit processors.
error-99	Adabas v.v cannot run under BS2000 version lower than (<) 10
Explanation	BS2000 only. Adabas 6.2 and above require BS2000 version 10 or above.
error-107	detected during system open Replication initialization error
Explanation	An error occurred during initialization of replication. Refer to the messages preceding Parm-Error 107 to determine what action to take.
Action	Correct the condition specified in the message(s) displayed before Parm-Error 107 and restart initialization of replication.

If the replication definitions are stored on the Replicator system file and a change must be made to the Event Replicator Server definitions, complete the following steps:

1. Temporarily set the ADARUN parameter RPLPARMS to NONE.
2. Start the Event Replicator Server.
3. Make the related changes to the replication definitions in the Replicator system file.
4. Shut down the Event Replicator Server.
5. Change the ADARUN parameter RPLPARMS back to its original value.
6. Start the Event Replicator Server.

error-140	PPT-Area allocation failed
Explanation	The allocation of the PPT area failed. An attempt was made to allocate 32 ASSO blocks.
Action	Increase the ASSO size of database and rerun the job.
WARNING 26	Parameter AMODE out of service
Explanation	BS2000 only. ADARUN statement AMODE=31 detected. This parameter has been removed from Adabas. Targets that use SSF must run in AMODE 31.
Action	The job continues. Remove AMODE= from your ADARUN statements.
WARNING 27	Parameter IDTMODE out of service
Explanation	BS2000 only. IDTMODE=ABOVE statement detected. This parameter has been removed from Adabas. IDTs created by SSF are allocated above the 16-megabyte line.
Action	The job continues. Remove IDTMODE= from your ADARUN statements.
WARNING 28	Parameter NECB out of service
Explanation	BS2000 only. NECB= statement detected. This parameter has been removed from Adabas. The posted ECB queue can no longer overflow.
Action	Job continues. Remove NECB= from your ADARUN statements.

4 Console Operator Commands

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Nucleus Operator Commands

ADAEND Command

```
ADAEND [,GLOBAL]
```

Use the `ADAEND` command to terminate Adabas session normally. No new users are accepted after this command has been issued. ET logic updating is continued until the end of the current logical transaction for each user. After all activity has been completed as described above, the Adabas session is terminated. In nucleus cluster environments, the `GLOBAL` option can be used to terminate the Adabas session in all active cluster nuclei.

ALOCKF Command

```
ALOCKF=n
```

Use the `ALOCKF` command to lock a file in advance to ensure that an EXU, EXF, or UTI user will have exclusive control of the specified file. The advance-lock prevents new transactions from using the file. Once all current users have stopped using the file, the exclusive-control user has the lock. Until then, the exclusive-control user must wait.

To remove the advance lock without running the utility, see the `RALOCKF` command.

This command is not available in single user mode or for a read-only nucleus.

AOSLOG Command

```
AOSLOG={YES | NO}
```

Use the `AOSLOG` command to activate and deactivate logging of certain Adabas calls that modify the nucleus to DD/PRINT. These calls are issued either by ADADBS OPERCOM or Adabas Online System. Read and display calls are not logged.

ASYTVS Command

```
ASYTVS={YES | NO}
```

Use the `ASYTVS` command to activate or deactivate asynchronous flushing of buffers based on volume serial number.

CANCEL Command

```
CANCEL [,GLOBAL]
```

Use the `CANCEL` command to cancel the Adabas session immediately. All command processing is immediately suspended. A pending autostart will be in effect which in turn will cause the autostart routine to be executed during the initialization of the next Adabas session. In nucleus cluster environments, the `GLOBAL` option can be used to cancel the Adabas session in all active cluster nuclei.

CLOGMRG Command


```
CLOGMRG={YES | NO}
```

Use the `CLOGMRG` command to dynamically modify the setting of the `ADARUN CLOGMRG` parameter.

The `CLOGMRG` command is only valid in cluster environments. It is global by definition and affects all nuclei in the cluster.

CLUFREEUSER Command

CLUFREEUSER=[,TNA= *max-time*][,{UID | UIDPREFIX} = *userid*][,FORCE][,GLOBAL]

 **Note:** 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.

Use the CLUFREEUSER command to delete leftover cluster user table elements (UTES or PLXUSERS) in common storage that are no longer associated with user queue elements (UQEs) in a nucleus.

TNA TNA specifies a decimal number specifying the timeout value in seconds (*max-time*). PLXUSERS that are not used during the time specified may be deleted if other conditions are fulfilled. If TNA= is not specified, PLXUSERS may be deleted without regard to their recent use.

UID UID specifies a character string or hexadecimal byte string format user ID (*userid*) as follows:

<i>cccccccc</i>	where the argument is 1-8 letters, digits, or embedded '-' signs without surrounding apostrophes.
' <i>cccccccc</i> '	where the argument is 1-8 characters with surrounding apostrophes.
X' <i>xxxxxxxxxxxxxxxxxxxx</i> '	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 eight 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 eight bytes of a user's 28-byte communication ID match a specific user ID or user ID prefix (UIDPRFX parameter), that user's PLXUSER may be deleted if other conditions are fulfilled. If UID is not specified, PLXUSERS may be deleted regardless of their user IDs. "UID" may be abbreviated to "U".

UID and UIDPRFX are mutually exclusive; one or the other, but not both, can be specified.

UIDPRFX UIDPRFX accepts the same operands as UID. It operates in the same manner as UID, except that the operand is considered a prefix and there is no implicit padding. If the operand matches the initial bytes of the last eight bytes of the 28-byte communication ID, that PLXUSER may be deleted if other conditions are fulfilled. "UIDPRFX" may be abbreviated to "UP".

UID and UIDPRFX are mutually exclusive; one or the other, but not both, can be specified.

FORCE FORCE indicates that leftover PLXUSERS are to be deleted even if the users are due a response code 9, subcode 20. If FORCE is not specified, such PLXUSERS are not deleted. Before using the FORCE parameter, ensure that the users owning the PLXUSERS to be deleted will not expect any of their transactions to remain open.

GLOBAL GLOBAL indicates that leftover PLXUSERS throughout the Adabas cluster are to be deleted if they are no longer associated with UQEs and are eligible according to the other specified

parameters. Additionally and subject to the other rules, leftover PLXUSERS are deleted if their assigned nuclei have terminated since their last use. If GLOBAL is not specified, only PLXUSERS assigned to the local nucleus and used since the nucleus start are eligible for deletion.

CT Command



CT=timeout-limit

Use the CT command to dynamically override the ADARUN CT parameter value; that is, the maximum number of seconds that can elapse from the time an Adabas command has been completed until the results are returned to the user through interregion communication (which depends on the particular operating system being used). The minimum setting is 1; the maximum is 16777215.

In nucleus cluster environments, the CT command is global by definition and affects all nuclei in the cluster.

DAUQ Command



DAUQ

Use the DAUQ command to display the user queue elements of those users who have executed at least one Adabas command within the last 15 minutes.

DCQ Command



DCQ

Use the DCQ command to display all posted command queue elements (CQEs). The DCQ command displays each CQE's user ID, job name, and buffer length.

DDIB Command



DDIB

Use the `DDIB` command to display the data integrity block (DIB). This block contains entries indicating which Adabas utilities are active and the resources being used by each utility.

DDSF Command



DDSF

Use the `DDSF` command to display Adabas Delta Save Facility status. The `DDSF` command is only available if the Adabas nucleus is run with the parameter `ADARUN DSF=YES`.

DELUF Command



`DELUF= file-number`

Use the `DELUF` command to delete all users who are using the specified file. Any open transactions of the deleted users are backed out.

This command does not delete EXF or UTI users.

The `DELUF` command corresponds to the `ADADBS OPERCOM STOPF=file-number,PURGE` function.



Caution: If Adabas is running with `ADARUN OPENRQ=NO` (specifying that users are not required to issue an `OP` as the first command of the session), run the `DELUF` command only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.


DELUI Command

```
DELUI= timeout-limit
```

Use the `DELUI` command to delete all users who have not executed a command during the specified time interval (in seconds). Any open transactions of the deleted users are backed out.

This command does not delete EXF or UTI users.

The `DELUI` command corresponds to the ADADBS `OPERCOM STOPI=time,PURGE` function.

 **Caution:** If Adabas is running with `ADARUN OPENRQ=NO` (specifying that users are not required to issue an `OP` as the first command of the session), run the `DELUI` command only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.

DFILES Command

```
DFILES= { n | n1 ,... , n5 }
```

Use the `DFILES` command to display the number of users currently accessing, updating, or controlling either a specific file (*n*) or a series of individual files, specified in a list (*n1*, . . . , *n5*). A maximum of five files can be specified in the list. Users are displayed by job name and Adabas-assigned user ID, and listed by file.

DFILUSE Command

```
DFILUSE= nnn
```

Use the `DFILUSE` command to display the number of total commands processed so far for the specified file during the current session. The count is displayed in the nucleus message ADAN33.

DHQ Command



DHQ

Use the `DHQ` command to display up to five hold queue elements.

DHQA Command



DHQA

Use the `DHQA` command to display up to 1000 hold queue elements.

DLOCKF Command



DLOCKF

Use the `DLOCKF` command to display the locked files.

DNC Command



DNC

Use the `DNC` command to display the number of posted command queue elements waiting to be selected.

DNFV Command



Use the `DNFV` command to display nucleus file variables; that is, information about current 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;

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

DNH Command



Use the `DNH` command to display the number of ISNs currently in the hold queue.

DNU Command



Use the `DNU` command to display the number of current users.

DONLSTAT Command



Use the `DONLSTAT` command to display the status of each active reorder, invert online, or Event Replicator for Adabas initial-state process together with the process ID.

DPARM Command



Use the `DPARM` command to display the Adabas session parameters currently in effect.

Sample Output

```
ADAI29 Oper cmd: DPARM
ADAN16 00199 2009-01-27 22:48:43 READONLY=NO,UTIONLY=NO
ADAN16 00199 2009-01-27 22:48:43 ASYTVS=YES,AOSLOG=NO
ADAN16 00199 2009-01-27 22:48:43 NC=100,NH=500,NT=8,NU=100
ADAN16 00199 2009-01-27 22:48:43 LBP=5026304,LFP=20000,LWP=320000
ADAN16 00199 2009-01-27 22:48:43 LI=10000,LP=500,LQ=10000,LS=79872
ADAN16 00199 2009-01-27 22:48:43 LFIOP=80000,FMXIO=1,LU=65535
ADAN16 00199 2009-01-27 22:48:43 TT=6000,TNAA=6000,TNAE=6000,CT=60
ADAN16 00199 2009-01-27 22:48:43 TNAX=6000,MXTT=3600,MXTNA=3600
ADAN16 00199 2009-01-27 22:48:43 TLSCMD=300,MXTSX=3600
ADAN16 00199 2009-01-27 22:48:43 NOLOG
ADAN41 00199 2009-01-27 22:48:43 Function completed
```

DPPT Command



Use the `DPPT` command to display the parallel participant table (PPT); that is, to display the nucleus's own PPT block.

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

Sample Output

```

ADAI29 Oper cmd: DPPT
ADAN24 00199 2009-01-27 22:31:35 Display PPT RABNs 00000083 to 000000A2
ADAN24 00199 2009-01-27 22:31:35
ADAN24 00199 2009-01-27 22:31:35          PPT RABN: 00000083
ADAN24 00199 2009-01-27 22:31:35 Number of entries: 05
ADAN24 00199 2009-01-27 22:31:35 Nucleus indicator: E2
ADAN24 00199 2009-01-27 22:31:35          NUCID: 0000
ADAN24 00199 2009-01-27 22:31:35          Session number: 0005
ADAN24 00199 2009-01-27 22:31:35          Last PLOG block: 00000000
ADAN24 00199 2009-01-27 22:31:35          PLOG block ind: 00
ADAN24 00199 2009-01-27 22:31:35 PPT Entry length: 0023
ADAN24 00199 2009-01-27 22:31:35          Entry ID: E6
ADAN24 00199 2009-01-27 22:31:35 Dataset=/SAGUID/PLX2/V7/WORKR1/
ADAN24 00199 2009-01-27 22:31:35 PPT Entry length: 0023
ADAN24 00199 2009-01-27 22:31:35          Entry ID: 61
ADAN24 00199 2009-01-27 22:31:35 Dataset=/ SAGUID /PLX2/V7/PLOGR1/
ADAN24 00199 2009-01-27 22:31:35 PPT Entry length: 0023
ADAN24 00199 2009-01-27 22:31:35          Entry ID: 62
ADAN24 00199 2009-01-27 22:31:35 Dataset=/ SAGUID /PLX2/V7/PLOGR2/
ADAN24 00199 2009-01-27 22:31:35 PPT Entry length: 0023
ADAN24 00199 2009-01-27 22:31:35          Entry ID: 41
ADAN24 00199 2009-01-27 22:31:35 Dataset=/ SAGUID /PLX2/V7/CLOGR1/
ADAN24 00199 2009-01-27 22:31:35 PPT Entry length: 0023
ADAN24 00199 2009-01-27 22:31:35          Entry ID: 42
ADAN24 00199 2009-01-27 22:31:35 Dataset=/ SAGUID /PLX2/V7/CLOGR2/
ADAN41 00199 2009-01-27 22:31:35 Function completed

```

DRES Command



Use the `DRES` command to display the allocated pool space and the highest use level (high water mark) reached so far during the current session by record count and by percent for the following resources:

- Attached buffers (AB) - current allocation not supported
- Command queue (CQ)
- Format pool (FP)
- Hold queue (HQ)
- Pool for the table of ISNs (TBI)
- Pool for the table of sequential commands (TBQ or TBLES)
- User queue (UQ)
- Unique descriptor pool (DUQPOOL)
- Security pool
- Replication pool
- User queue file list pool
- Work pool (WP)
- Pool for global transaction IDs (XIDs; nonzero only with Adabas Transaction Manager)
- Redo pool (nonzero only with Adabas Cluster Services)

The actual values are displayed in nucleus message ADAN28 described in the *Adabas Messages and Codes* documentation.

DSTAT Command



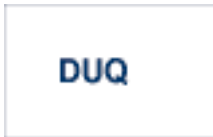
Use the `DSTAT` command to display the current Adabas nucleus status.

DTH Command

A rectangular box with a thin blue border containing the text "DTH" in a bold, blue, sans-serif font.

Use the `DTH` command to display thread status.

DUQ Command

A rectangular box with a thin blue border containing the text "DUQ" in a bold, blue, sans-serif font.

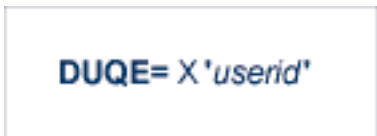
Use the `DUQ` command to display up to five active and inactive user queue elements.

DUQA Command

A rectangular box with a thin blue border containing the text "DUQA" in a bold, blue, sans-serif font.

Use the `DUQA` command to display up to 100 user queue elements.

DUQE Command

A rectangular box with a thin blue border containing the text "DUQE=X 'userid'" in a bold, blue, sans-serif font.

Use the `DUQE` command to display the user queue element for the specified Adabas-assigned user ID. The user ID must be entered in hexadecimal format as follows:

```
DUQE=X 'A3C1F2'
```

Do not enter a job name in place of the user ID.

DUUQE Command

DUUQE

Use the `DUUQE` command to display utility user queue elements.

FEOFCL Command

FEOFCL [,GLOBAL]

Use the `FEOFCL` command to close the current dual or multiple command log and switch to the another command log. This command is valid only if dual or multiple command logging is in effect.

In nucleus cluster environments, the `GLOBAL` option can be used to close and switch dual or multiple command logs in all active cluster nuclei.

FEOFPL Command

FEOFPL [,GLOBAL]

Use the `FEOFPL` command to close the current dual or multiple data protection log and switch to the another protection log. This command is valid only if dual or multiple data protection logging is in effect.

In nucleus cluster environments, the `GLOBAL` option can be used to close and switch dual or multiple protection logs in all active cluster nuclei.

FMXIO Command

```
FMXIO=nn
```

Use the `FMXIO` command to dynamically modify the setting of the ADARUN `FMXIO` parameter.

HALT Command

```
HALT [,GLOBAL]
```

Use the `HALT` command to perform a BT (back out transaction) for each active ET logic user's session, then terminate the Adabas session. No dumps are produced by `HALT`.

In nucleus cluster environments, the `GLOBAL` option can be used to perform a BT for all active ET logic user sessions and terminate the Adabas session in all active cluster nuclei.

LOCKF Command

```
LOCKF=n
```

Use the `LOCKF` command to lock the specified file. No use of the specified file is possible at any security level.

LOCKU Command

```
LOCKU=n
```

Use the `LOCKU` command to lock the specified file for all non-utility users. Adabas utilities can use the specified file normally.

LOCKX Command



LOCKX=*n*

Use the `LOCKX` command to lock the specified file for all users except EXU or EXF users. EXU and EXF users can use the file normally. The lock is released automatically when an EXU user issues an OP command.

LOGGING Command



LOGGING

Use the `LOGGING` command to start command logging.

LOGCB Command



LOGCB

Use the `LOGCB` command to start logging of the Adabas control block for each command logged.

LOGFB Command



LOGFB

Use the `LOGFB` command to start logging of the Adabas format buffer for each command logged.

LOGIB Command

LOGIB

Use the LOGIB command to start logging of the Adabas ISN buffer for each command logged.

LOGIO Command

LOGIO

Use the LOGIO command to start logging of Adabas I/O activity for each command logged.

LOGRB Command

LOGRB

Use the LOGRB command to start logging of the Adabas record buffer for each command logged.

LOGSB Command

LOGSB

Use the LOGSB command to start logging of the Adabas search buffer for each command logged.

LOGUX Command



LOGUX

Use the `LOGUX` command to start logging of user exit B data for inclusion in the CLOG record. This command is only valid when `CLOGLAYOUT=5`.

LOGVB Command



LOGVB

Use the `LOGVB` command to start logging of the Adabas value buffer for each command logged.

NOLOGGING Command



NOLOGGING

Use the `NOLOGGING` command to stop or prevent command logging.

NOLOGCB Command



NOLOGCB

Use the `NOLOGCB` command to stop or prevent logging of the Adabas control block.

NOLOGFB CommandA rectangular box with a thin blue border containing the text **NOLOGFB** in blue, bold, uppercase letters.

Use the `NOLOGFB` command to stop or prevent logging of the Adabas format buffer.

NOLOGIB CommandA rectangular box with a thin blue border containing the text **NOLOGIB** in blue, bold, uppercase letters.

Use the `NOLOGIB` command to stop or prevent logging of the Adabas ISN buffer.

NOLOGIO CommandA rectangular box with a thin blue border containing the text **NOLOGIO** in blue, bold, uppercase letters.

Use the `NOLOGIO` command to stop or prevent logging of Adabas I/O activity.

NOLOGRB CommandA rectangular box with a thin blue border containing the text **NOLOGRB** in blue, bold, uppercase letters.

Use the `NOLOGRB` command to stop or prevent logging of the Adabas record buffer.

NOLOGSB Command

NOLOGSB

Use the `NOLOGSB` command to stop or prevent logging of the Adabas search buffer.

NOLOGUX Command

NOLOGUX

Use the `NOLOGUX` command to stop logging of user exit B data for inclusion in the CLOG record. This command is only valid when `CLOGLAYOUT=5`.

NOLOGVB Command

NOLOGVB

Use the `NOLOGVB` command to stop or prevent logging of the Adabas value buffer.

ONLRESUME Command

ONLRESUME=X'*identifier*'

Use the `ONLRESUME` command to resume a previously-suspended online reorder, invert, or Event Replicator for Adabas initial-state process.

ONLSTOP Command

```
ONLSTOP=X 'identifier'
```

Use the `ONLSTOP` command to stop an online reorder, invert, or Event Replicator for Adabas initial-state process cleanly. The process continues up to its next interrupt point in order to produce a consistent state, and then terminates after performing all necessary cleanup.

ONLSUSPEND Command>

```
ONLSUSPEND=X 'identifier'
```

Use the `ONLSUSPEND` command to suspend an online reorder, invert, or Event Replicator for Adabas initial-state process. The process continues up to its next interrupt point in order to produce a consistent state, performs a command throwback, and enters a state where it cannot be selected for processing. This command is useful if the online process is consuming too much of the nucleus resources.

RALOCKF Command

```
RALOCKF=n
```

Use the `RALOCKF` command to remove the advance lock on the specified file (see `ALOCKF` command) without running the utility.

RALOCKFA Command

```
RALOCKFA
```

Use the `RALOCKFA` command to remove the advance lock on all files for which it has been set (see `ALOCKF` command) without running the utility.

RDUMPST Command

RDUMPST

Use the `RDUMPST` command to terminate online dump status. This command is normally used if online execution of the `ADASAV` utility has terminated abnormally.

READONLY Command

READONLY={YES | NO}

Use the `READONLY` command to switch `READONLY` status on or off. A value of "YES" switches it on; a value of NO switches it off.

REVIEW Command

REVIEW={ NO | LOCAL | *hub-id* }

Use the `REVIEW` command to:

- deactivate Adabas Review,
- change from hub mode to local mode, or
- to specify or change the Adabas Review hub with which a nucleus communicates.

STOPF Command

STOPF=*file-number*

Use the `STOPF` command to stop all users who are using the specified file. Any open transactions of the stopped users will be backed out. A stopped user who returns (by sending a command) will receive response code 9.

This command does not stop EXF or UTI users.

STOPI Command

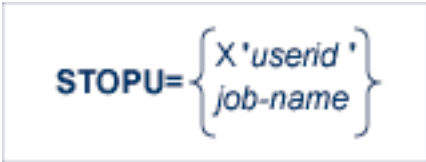


STOPI= *time*

Use the `STOPI` command to stop all users who have not executed a command during the specified time interval (in seconds). Any open transactions of the stopped users will be backed out. A stopped user who returns (by sending a command) will receive response code 9.


This command does not stop EXF or UTI users.


STOPU Command



STOPU= { *X'userid'*
job-name }

Use the `STOPU` command to stop and delete the user with the Adabas-assigned user ID (in the form shown in the display commands), or stop and delete all users with the specified job name (*job-name*). Any open transactions of the stopped users will be backed out.

 **Caution:** If Adabas is running with `ADARUN OPENRQ=NO` (specifying that users are not required to issue an `OP` as the first command of the session), run the `STOPU` command only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.

 **Note:** The `STOPU=X'userid'` command is not allowed for online reorder or invert processes. Use the `ONLSTOP=X'identifier'` command instead.

The user ID must be specified in hexadecimal format; for example:

```
STOPU=X'1CF2'
```

SYNCC Command

SYNCC

Use the SYNCC command to force synchronization for all ET users. The nucleus waits for all ET users to reach ET status.

TCPIP Command

TCPIP={ OPEN=*url* | CLOSE=*url* | CLOSE }

Use the TCPIP command to open or close a direct TCP/IP link to the Adabas nucleus or to close all TCP/IP links when no URL is specified.

This command is only possible when the ADARUN parameter TCPIP is set to "YES" and all conditions for that setting have been met. This command can be used to close the URL set in the ADARUN TCPURL parameter, or to open or close additional TCP/IP links.

You must identify the universal resource locator (URL) for the TCP/IP link you want to open or close. The URL is a 20-byte address that conforms to the RFC specification for URLs:

api-name://*stackid*:*port-number*

where:

api-name is a 1-3 character value identifying the application programming interface (API) to use. Both APIs for the IBM TCP/IP stack (HPS, OES) and the API for the Interlink stack (ILK) are currently supported.

stackid is a 1-8 character value identifying the stack to use:

- for the HPS API, this is the name of the TCP/IP started task.
- for the OES API, no value is needed.
- for the ILK API, this is the subsystem identifier.

port-number is a 1-5 character number in decimal notation.

Examples

```
TCPIP=OPEN=ILK://ILZ5:1234
```

```
TCPIP=CLOSE=ILK://ILZ5:1234
```

To close all open URLs:

```
TCPIP=CLOSE
```

TNAA Command



TNAA= *n*

Use the `TNAA` command to set the non-activity time limit for access-only users. This value must be greater than zero and replaces the value set by the `TNAA ADARUN` parameter.

In nucleus cluster environments, the `TNAA` command is global by definition and affects all nuclei in the cluster.

TNAE Command



TNAE= *n*

Use the `TNAE` command to set the non-activity time limit for ET logic users. This value must be greater than zero and replaces the value set by the `TNAE ADARUN` parameter.

In nucleus cluster environments, the `TNAE` command is global by definition and affects all nuclei in the cluster.

TNAX Command



TNAX= *n*

Use the `TNAX` command to set the non-activity time limit for exclusive control users. This value must be greater than zero and replaces the value set by the `TNAX ADARUN` parameter.

In nucleus cluster environments, the `TNAX` command is global by definition and affects all nuclei in the cluster.

TT Command



TT=*n*

Use the TT command to set the transaction time limit for ET logic users. This value must be greater than zero and replaces the value set by the TT ADARUN parameter.

In nucleus cluster environments, the TT command is global by definition and affects all nuclei in the cluster.

UNLOCKF Command



UNLOCKF=*n*

Use the UNLOCKF command to unlock the specified file. File usage is restored to its pre-locked status.

UNLOCKU Command



UNLOCKU=*n*

Use the UNLOCKU command to unlock the specified file that was previously locked for all non-utility users. File usage is restored to its pre-locked status.

UNLOCKX Command



UNLOCKX=*n*

Use the UNLOCKX command to unlock the specified file that was previously locked for non-exclusive control users. File usage is restored to its pre-locked status.

UTIONLY Command

```
UTIONLY={YES | NO}
```

Use the `UTIONLY` command to switch the `ADARUN UTIONLY` status parameter on or off. The default is `NO`.

DSTAT Utility Operator Command

```
DSTAT
```

Use the `DSTAT` command to display the current `ADALOD`, `ADAORD`, `ADARES`, `ADASAV`, `ADAULD`, or `ADAVAL` operating status. The following are examples of the output that results when `DSTAT` is entered during specific Adabas utility operations:



Note: `ADAORD`, `ADARES`, `ADAULD`, and `ADAVAL` do not accept operator commands if they run in `MODE=SINGLE`.

Example 1: ADALOD

```
ADAU00 dbid OPERATOR TYPE-IN : DSTAT ADAU22 dbid LOADING DATA STORAGE. REC-NO=3599
ADAU00 dbid OPERATOR TYPE-IN : DSTAT ADAU21 dbid SORTING/LOADING DESCRIPTOR AA
```

Example 2: ADAORD

```
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU26 dbid UNLOADING INDEX. FILE=1
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU25 dbid UNLOADING DATASTORAGE. FILE=2
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU29 dbid LOADING DATASTORAGE. FILE=2
```

Example 3: ADARES

```
ADAU08 dbid OPERATOR TYPE-IN : DSTAT REGENERATE INPUT VOLUME = BMC002, PLOG-NUM = 12
FROMBLK =          1, FROMTIME = 1996-04-10 11:27:56
TOBLK =           1, TOTIME   = 1996-04-10 11:27:56
```

Example 4: ADASAV

```
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU92 dbid          STILL INITIALIZING
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU10 dbid 435 BLOCKS OUT OF 465 SAVED
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU11 dbid 342 BLOCKS OUT OF 451 RESTORED
```

Example 5: ADAULD

```
ADAU08 dbid OPERATOR TYPE-IN : DSTAT ADAU67 dbid UNLOADING FILE=17, RECNO=2875
```

SMGT Operator Command

The Adabas error handling and message buffering facility uses a single operator command, SMGT, followed by a comma and one or more operands:

SMGT, operand [, operand],...

Valid *operands* are: ABNORMAL, ACTIPIN, ADDPIN, DEACTPIN, DELPIN, DISPLAY, DUMP, MSGBUF, OFF, ON, SNAP, XACTIVATE, XCRITICAL, XDEACTIVATE, XLOAD, and XNOTCRITICAL. Some of these operands are mutually exclusive. All operands are described in *Operands for SMGT*, elsewhere in this section.

Operands may require that you enter one or more of the following variables:

Variable Type	Description
<i>exit-code</i>	The code that identifies an exit routine to an SMGT operator command is one of the following: <ul style="list-style-type: none"> ■ UEXn, where n is a single-digit user exit number ■ UXnn, where nn is a double-digit user exit number ■ HXnn, where nn is a hyperexit number (single-digit numbers are preceded by a zero; e.g., HX02) ■ CX00 (the Adabas Caching Facility user exit) ■ SX00 (the PIN routine user exit)

Variable Type	Description
<i>start, end</i>	The range of addresses for the SNAP operand where <i>start</i> is the hexadecimal address where the SNAP dump begins and <i>end</i> is the hexadecimal address where it ends.
<i>module-name</i>	The name of the module. For the XLOAD operand, it is the name of the exit routine module to be loaded; for ADDPIN and DELPIN operands, it is the name of the PIN module to be added or deleted, respectively.
<i>pin-number</i>	When a PIN is added, it is assigned a number that can be found using the DISPLAY=PINS operand. This pin number is used for the ACTPIN and DEACTPIN operands to identify the PIN routine to be activated or deactivated, respectively.

Acceptable abbreviations for operands are provided in mixed case notation (capital letters required, lowercase letters optional). Default values for operands are underlined>.

Operands for SMGT

SMGT, { ABNormalterm | MSGbuf } = { ON | OFF }

The **ABNORMALTERM** (**ABN**) operand determines whether the error handling and message buffering facility will handle abnormal termination errors.

The **MSGBUF** (**MSG**) operand temporarily deactivates (**OFF**) or reactivates (**ON**) message buffering.

The **ABN** and **MSG** operands are mutually exclusive; if one is specified on an individual **SMGT** command, the other cannot be.

SMGT, { ACTpin | DEACTpin } = *pin-number*

The **ACTPIN** (**ACT**) operand is used to activate an individual PIN routine or to reactivate it after it has been temporarily deactivated.

The **DEACTPIN** (**DEACT**) operand is used to deactivate an individual PIN routine.

The **ACT** and **DEACT** operands are mutually exclusive; if one is specified on an individual **SMGT** command, the other cannot be.

SMGT,{ ADDpin | DELpin } = *module-name*

The `ADDPIN` (`ADD`) operand adds PIN routines to the error handling facility. The PIN routine module indicated is loaded and the PINs that are found in it are added to the facility. When a PIN is added, it is assigned a number which can be found using the `DISPLAY=PINS` operand.

The `DELPIN` (`DEL`) operand deletes a PIN module and all the PINs it contains from the facility.

The `ADD` and `DEL` operands are mutually exclusive; if one is specified on an individual `SMGT` command, the other cannot be.

SMGT,Display = { ALL | EXITS | MSGBUF | PINS | SUMMARY | LAST }


The `DISPLAY` (`D`) operand writes status and history information about the error handling and message buffering facility to the job log and to `DDPRINT`:

- `ALL` (the default) displays all reports
- `EXITS` displays current user exit, hyperexit, and other exit status
- `MSGBUF` displays message buffering status
- `PINS` displays PIN routine status
- `SUMMARY` displays only the summary information from `ALL`
- `LAST` displays details of the most recent recovery action

Sample output for the various `DISPLAY` values is provided in *SMGT Display Output Samples*, in *Adabas Operations*.

SMGT,DUMP = { ON | OFF }

The `DUMP` operand determines whether a full system dump is taken for the Adabas nucleus in the event of an error. The default (`OFF`) means that only a snap dump is taken.

 **Note:** To use this command successfully under z/OS, the data set `ADASNAP` must be provided in the Adabas startup JCL. For more information, read *Adabas Session Execution*, in *Adabas Operations*.


```
SMGT,{ ON | OFF }
```

The `OFF` operand deactivates the error handling and message buffering facility temporarily; the `ON` operand reactivates it.

When `SMGT=OFF`:

- The only valid `SMGT` operands that can be specified after `SMGT=OFF` is specified are `ON` (in a new `SMGT` command) and `DISPLAY`. All other `SMGT` commands are rejected until `SMGT=ON` is issued.
- All other functions of the error handling facility are disabled. PIN modules cannot be invoked. Any user exits marked `NOTCRITICAL` are treated as `CRITICAL`; that is, the nucleus terminates abnormally if an error occurs in the exit.

The `ON` and `OFF` operands are mutually exclusive; if one is specified on an individual `SMGT` command, the other cannot be.

```
SMGT,SNAP [= ( start, end ) ]
```

The `SNAP` operand displays a formatted dump of the nucleus without error diagnostics. If `SNAP` is specified without any additional parameters, the whole nucleus is displayed; if hexadecimal addresses are specified for `start` and `end`, the `SNAP` dump is displayed only for that range of addresses.

The `SNAP` operand can degrade system performance as long as it is active.



Note: To use this command successfully under z/OS, the data set `ADASNAP` must be provided in the Adabas startup JCL. For more information, read *Adabas Session Execution*, in *Adabas Operations*.

```
SMGT,{ XActivate | XDeactivate } = exit-code
```

The `XACTIVATE` (`XA`) operand activates a loaded exit module; the `XDEACTIVATE` (`XD`) operand deactivates an active exit module.

The `XA` and `XD` operands are mutually exclusive; if one is specified on an individual `SMGT` command, the other cannot be.

SMGT,{ XNotcritical | XCritical } = *exit-code*

The XNOTCRITICAL (XN) operand changes the status of an exit from the default critical to noncritical for the functioning of the Adabas nucleus. Any abnormal termination or program check in a noncritical exit results in the exit being automatically deactivated; however, the Adabas nucleus continues to run. The disabled user exit is not recalled until it is reset. Once the exit error has been corrected, the exit can be reactivated using the XACTIVATE operand.

The XCRITICAL (XC) operand changes the status of an exit from noncritical back to the default critical for the functioning of the Adabas nucleus. Any abnormal termination or program check in a critical exit causes the Adabas nucleus to terminate.

The XN and XC operands are mutually exclusive; if one is specified on an individual SMGT command, the other cannot be.

**SMGT,XLoad = { *exit-code*
(*exit-code, module-name*) }**

The XLOAD (XL) operand loads a new version of an exit module.

The module-name parameter is required only for new exits. Because the default is the previous module name, the parameter is optional for exits that have previously been used. The parameter is also optional for any exit defined with a number of zero; for example, the ADACSH exit which is always named ADACSHUX.

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ADAACK ACCHECK: Check Address Converter Against Data Storage

```
ADAACK ACCHECK [FILE={ file | file - file | all-files }]
                [ISN={ isn - isn | all-isn }]
                [NOOPEN]
                [NOUSERABEND]
```

ADACDC: Capture Delta Changes

```
ADACDC [FILE= filelist ]
        [IGNORESPANNED]
        [ISN]
        [NOET]
        [PHASE={ 1 | 2 | BOTH }]
        [RESETTXF]
```

ADACMP COMPRESS: Compress an Adabas File

```

ADACMP COMPRESS {field-definition-statements | FDT = file-number}
  [CODE = cipher-code]
  [DATADEVICE = { device-type | ADARUN-device } ]
  [DEVICE = { device-type-list | ADARUN-device } ]
  [FACODE = file-alpha-EBCDIC-key ]
  [FILE = { file-number | 0 } ]
  [FWCODE = file-wide-key ]
  [FUWCODE = { wide-key | UWCODE-definition } ]
  [FORMAT = format ]
  [HEADER = { YES | NO } ]
  [LOBDEVICE = { device-type-list | DEVICE-parmvalue } ]
  [LOBVALUES = { YES | NO } ]
  [MAXLOGRECL = buffer-size ]
  [MUPECOUNT = 1 | 2 ]
  [MUPEX]
  [NOUSERABEND]
  [NUMREC = number-of-records]
  [PASSWORD = "password" ]
  [RECFM = { E | FB | V | VB | U } ]
    [, LRECL = record-length ] ]
  [SPAN]
  [ { USERISN | MINISN = { start-isn | 1 } } ]
  [UACODE = userdata-alpha-key ]
  [UWCODE = { userdata-wide-key | FWCODE-definition } ]
  [UARC = { userdata-architecture-key | 2 } ]

```

ADACMP DECOMPRESS: Decompress Adabas Files

```

ADACMP DECOMPRESS [CODE = cipher-code ]
                    [FORMAT = output-record-format-definition ]
                    [HEADER = { YES | NO } ]
                    [INFILE = file-number ]
                    [ETID = owner-id ]
                    [LPB = { prefetch-buffer-size | based-on-ADARUN-lu } ]
                    [PASSWORD = ' password ' ]
                    [SORTSEQ = { descriptor [,NU] | ISN | physical-sequence } ]
                    [UTYPE = { EXF | EXU } ]
                    [ISN]
                    [LOBVALUES = { YES | NO } ]
                    [MAXLOGRECLN = buffer-size ]
                    [NOUSERABEND]
                    [NUMREC = { number-of-records | all-records } ]
                    [TRUNCATE]
                    [UACODE = userdata-alpha-key ]
                    [UWCODE = userdata-wide-key ]
                    [UARC = { architecture-key | 2 } ]
    
```

Field Definition Statements

The following syntax must be followed when entering field definitions. A minimum of one and a maximum of 926 definitions may be specified.

Statement Type	Syntax
Field and Group	FNDEF = ' <i>level, name</i> [, <i>length, format</i>] [, MU [(<i>occurrences</i>)]] [, <i>option</i>] ... '
Periodic Group	FNDEF = ' <i>level, name</i> [, PE [(<i>occurrences</i>)]]'
Collation descriptor	COLDE = ' <i>number, name</i> [, UQ [, XI]] = <i>parent-field</i> '

Statement Type	Syntax
Hyperdescriptor	HYPDE = ' <i>number, name, length, format</i> [{ , <i>option</i> } ...] = { <i>parent-field</i> }, ...'
Phonetic descriptor	PHONDE = ' <i>name (field)</i> '
Subdescriptor	SUBDE = ' <i>name</i> [, UQ [XI]] = <i>parent-field (begin, end)</i> '
Subfield	SUBFN = ' <i>name = parent-field (begin, end)</i> '
Superdescriptor	SUPDE = ' <i>name</i> [, UQ [XI]] = { <i>parent-field (begin, end)</i> }, ...'
Superfield	SUPFN = ' <i>name = parent-field (begin, end)</i> [, <i>parent-field (begin, end)</i>]...'

User comments may be entered to the right of each definition. At least one blank must be present between a definition and any user comments.

ADACNV CONVERT: Convert a Database to Higher Version

```

ADACNV CONVERT [IGNPPT]
                 [NOUSERABEND]
                 [PLOGDEV = { multiple-PLOG-device-type | ADARUN-device } ]
                 [RESTART]
                 [TEST]
                 [TOVERS = { target-version | ADACNV-version } ]

```

ADACNV REVERT: Revert a Database to Lower Version

```

ADACNV REVERT [TOVERS = target-version ]
                [IGNPPT]
                [NOUSERABEND]
                [PLOGDEV = { multiple-PLOG-device-type | ADARUN-device } ]
                [RESTART]
                [TEST]
    
```

ADADBS ADD: Add Data Set

```

ADADBS ADD { ASSOSIZE = size [ ASSODEV = { device-type | ADARUN-device } ] |
             DATASIZE = size [ DATADEV = { device-type | ADARUN-device } ] }
             [NOUSERABEND]
             [TEST]
    
```

ADADBS ALLOCATE: Allocate File Extent

```

ADADBS ALLOCATE FILE = file-number
                 { ACSIZE | AC2SIZE | DSSIZE | NISIZE | UISIZE } = size
                 [DEVICE = device-type ]
                 [NOUSERABEND]
                 [PASSWORD = ' password ' ]
                 [STARTRABN = start-rabn ]
                 [TEST]
    
```

ADADBS CHANGE: Change Standard Length or Format of a Field

```
ADADBS CHANGE FILE = file-number
                FIELD = 'field-name'
                { FORMAT=P | LENGTH=new-length | OPTION=LA }
                [ NOUSERABEND ]
                [ PASSWORD = 'password' ]
                [ TEST ]
```

ADADBS CVOLSER: Print Adabas Extents on Given Volume

```
ADADBS CVOLSER VOLSER = volume-serial-number
                [ NOUSERABEND ]
                [ TEST ]
```

ADADBS DEALLOCATE: Deallocate File Extent

```
ADADBS DEALLOCATE FILE = file-number
                  { ACSIZE | AC2SIZE | DSSIZE | NISIZE | UISIZE } = size
                  [ NOUSERABEND ]
                  [ PASSWORD = 'password' ]
                  [ STARTRABN = start-rabn ]
                  [ TEST ]
```

ADADBS DECREASE: Decrease Last Associator or Data Storage Data Set Size

```
ADADBS DECREASE { ASSOSIZE | DATASIZE } = sizeB  
[NOUSERABEND]  
[TEST]
```

ADADBS DELCP: Delete Checkpoint Records

```
ADADBS DELCP TODATE = yyyymmdd  
[NOUSERABEND]  
[TEST]
```

ADADBS DELETE: Delete File

```
ADADBS DELETE { FILE = fnr [KEEPFDT] [PASSWORD = 'password' ] }  
[NOUSERABEND]  
[TEST]
```

ADADBS DSREUSE: Reuse Data Storage Blocks

```
ADADBS DSREUSE FILE = file-number
                MODE = { ON | OFF }
                [NOUSERABEND]
                [PASSWORD = 'password' ]
                [RESET]
                [TEST]
```

ADADBS ENCODEF: Change File Encoding

```
ADADBS ENCODEF FILE = file-number
                FACODE = alpha-key | UWCODE = wide-key
                [NOUSERABEND]
                [TEST]
```

ADADBS INCREASE: Increase Last Associator or Data Storage Data Set Size

```
ADADBS INCREASE { ASSOSIZE | DATASIZE } = size
                [ NOUSERABEND ]
                [TEST]
```

ADADBS ISNREUSE: Reuse ISNs

```

ADADBS ISNREUSE FILE = file-number
                MODE = { ON | OFF }
                [NOUSERABEND]
                [PASSWORD = 'password' ]
                [RESET]
                [TEST]
    
```

ADADBS MODFCB: Modify File Parameters

```

ADADBS MODFCB  FILE = file-number
                [ASSOPFAC = new-padding-factor ]
                [DATAPFAC = new-padding-factor ]
                [LOBFILE = file-number ]
                [MAXDS = maximum-secondary-allocation ]
                [MAXNI = maximum-secondary-allocation ]
                [MAXUI = maximum-secondary-allocation ]
                [MAXRECL = maximum-compressed-record-length ]
                [NOUSERABEND]
                [PASSWORD = 'password' ]
                [PGMREFRESH = { YES | NO } ]
                [RPLUPDATEONLY = { YES | NO } ]
                [TEST]
    
```

ADADBS MUPEX: Set Maximum Count for MU and PE Fields

```
ADADBS MUPEX FILE = file-number
              MUPECOUNT = { 1 | 2 }
              [PASSWORD = 'password' ]
              [NOUSERABEND]
              [TEST]
```

ADADBS NEWFIELD: Add New Field

```
ADADBS NEWFIELD FILE = file-number
                 [FNDEF = 'Adabas-field-definition' ]
                 [NOUSERABEND]
                 [PASSWORD = 'password' ]
                 [SUBFN = 'name = parent-field (begin , end )' ]
                 [SUPFN = 'name = { parent-field (begin , end ) } ...' ]
                 [TEST]
```

ADADBS ONLINVERT: Start Online Invert Process

```

ADADBS ONLINVERT FILE = file-number
    { FIELD = 'field-name [ , option, ... ]' |
      SUPDE = 'name [ , UQ [ , XI ] ] = parent-field (begin, end), ...' |
      SUBDE = 'name [ , UQ [ , XI ] ] = parent-field (begin, end)' |
      PHONDE = 'phonde-name (parent-field)' |
      HYPDE = 'nr, name, length, format [ , options] = parent-field, ...' |
      COLDE = 'nr, name [ , UQ [ , XI ] ] = parent-field' }
[CODE = cipher-code ]
[PASSWORD = 'password' ]
[NOUSERABEND]
[TEST]
[WAIT]

```

ADADBS ONLREORFASSO: Start Online Reorder Associator for Files

```

ADADBS ONLREORFASSO FILE = file-number
    [ASSOPFAC = asso-padding-factor ]
    [PASSWORD = password ]
    [NOUSERABEND]
    [TEST]
    [WAIT]

```

ADADBS ONLREORFDATA: Start Online Reorder Data for Files

```

ADADBS ONLREORFDATA FILE = file-number
    [DATAPFAC = data-padding-factor ]
    [SORTSEQ = { ISN | de-name | physical-sequence } ]
    [PASSWORD = password ]
    [NOUSERABEND]
    [TEST]
    [WAIT]

```


ADADBS ONLREORFILE: Start Online Reorder Associator and Data for Files

```

ADADBS ONLREORFILE  FILE = file-number
                    [ASSOPFAC = asso-padding-factor]
                    [DATAPFAC = data-padding-factor]
                    [SORTSEQ = { ISN | de-name | physical-sequence  }]
                    [PASSWORD = password ]
                    [NOUSERABEND]
                    [TEST]
                    [WAIT]

```

ADADBS OPERCOM: Issue Adabas Operator Commands

```

ADADBS OPERCOM operator-command
                [NOUSERABEND]
                [NUCID = { nuc-id | 0 } ]
                [TEST]

```

Operator Commands Supported by ADADBS OPERCOM

The following Adabas operator commands can be used in the ADADBS OPERCOM utility function:

- **ADAEND [, GLOBAL]**

This command terminates an Adabas session normally. No new users are accepted after this command has been issued. ET logic updating is continued until the end of the current logical transaction for each user. After all activity has been completed as described above, the Adabas session is terminated.

In nucleus cluster environments, the GLOBAL option can be used to terminate the Adabas session in all active cluster nuclei.

■ **ALOCKF = *file-number***

Lock a file in advance to ensure that an EXU, EXF, or UTI user will have exclusive control of the specified file. The advance-lock prevents new transactions from using the file. Once all current users have stopped using the file, the exclusive-control user has the lock. Until then, the exclusive-control user must wait.

To remove the advance lock without running the utility, see the RALOCKF command.

This command is not available

- in single user mode; or
- for a read-only nucleus.

■ **CANCEL [, GLOBAL]**

Cancel the Adabas session immediately. All command processing is immediately suspended. A pending autorestart is in effect which in turn causes the autorestart routine to be executed during the initialization of the next Adabas session.

In nucleus cluster environments, the GLOBAL option can be used to cancel the Adabas session in all active cluster nuclei.

■ **CLOGMRG = { YES | NO }**

Switches automatic command log merging (ADARUN CLOGMRG parameter value) on or off in nucleus cluster environments.

The CLOGMRG command is global by definition and affects all nuclei in the cluster. If a NUCID is specified, it is ignored.

■ **CLUFREEUSER = [, TNA = *max-time*] [, UID = *userid*] [, FORCE] [, GLOBAL] [, NUCID = *nucid*]**



Note: 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.

Delete leftover user table elements (UTEs) in common storage that are no longer associated with user queue elements (UQEs) in a nucleus where:

Parameter	Is...
TNA	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	<p>A character string or hexadecimal byte string, as follows:</p> <ul style="list-style-type: none"> ■ <code>cccccccc</code> <p>where the argument is 1-8 letters, digits, or embedded '-' signs without surrounding apostrophes.</p> <ul style="list-style-type: none"> ■ <code>'cccccccc' ←</code> <p>where the argument is 1-8 characters with surrounding apostrophes.</p> <ul style="list-style-type: none"> ■ <code>X'xxxxxxxxxxxxxxxxxx' ←</code> <p>where the argument is an even number of 2-16 hexadecimal digits preceded by an "X" and enclosed in single quotation marks.</p> <p>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 UID string ends with a '*' (or X'5C'), the preceding characters are treated as a user ID prefix: only the prefix is needed for an argument match. 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.</p>
FORCE	Indicates that leftover UTEs are to be deleted 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.
GLOBAL	Indicates that leftover UTEs throughout the Adabas cluster are to be deleted if they are no longer associated with UQEs and are eligible according to the other specified parameters. Additionally and subject to the other rules, leftover UTEs are deleted 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.
NUCID	Identifies the ID of the specific nucleus that should be used to process the command.

■ **CT = *timeout-limit***

Dynamically override the ADARUN CT parameter value; that is, the maximum number of seconds that can elapse from the time an Adabas command has been completed until the results are returned to the user through interregion communication (which depends on the particular operating system being used). The minimum setting is 1; the maximum is 16777215.

In nucleus cluster environments, the CT command is global by definition and affects all nuclei in the cluster. If a NUCID is specified, it is ignored.

■ **DAUQ**

Display the user queue element (UQE) of each user who has executed at least one Adabas command within the last 15 minutes.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

■ **DCQ**

Display all posted command queue elements (CQEs). Each CQE's user ID, job name, and buffer length is displayed.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

■ **DDIB**

Display data integrity block (DIB). This block contains entries indicating which Adabas utilities are active and the resources being used by each utility. The DDIB function can be performed with either an active or an inactive nucleus.

In nucleus cluster environments, the information displayed by the DDIB command is global; the command can be run on any nucleus.

DDSF

Display Adabas Delta Save Facility (DSF) status. The Adabas nucleus displays the DSF status on the operator console as well as in the ADADBS job protocol.

This function is only available if the nucleus is run with the parameter ADARUN DSF=YES.

In nucleus cluster environments, the information displayed by the DDSF command is global; the command can be run on any nucleus.

DFILES= { n | n1 ,..., n5 }

Displays the number of access, update, EXU, and UTI users for the specified files. User types are totaled for each file, and are listed by file. Up to five files can be specified in this command. Up to 798 users are displayed.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

DFILUSE = file-number

Displays the count of commands processed for the specified file so far during the current session.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

DHQA

Display up to 1000 hold queue elements (HQEs).

DLOCKF

Display locked files.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.



Display the number of posted command queue elements (CQEs) waiting to be selected.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.



Display the number of ISNs currently in the hold queue.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.



Display the number of current users.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Display status of each active reorder or invert online process together with the process ID.

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

DPARM

Display the Adabas session parameters currently in effect.

DRES

Display the allocated pool space and the highest use level ('high water mark') reached so far during the current session by record count and by percent for the following resources:

- attached buffers (AB) - current allocation not supported
- command queue (CQ)
- format pool (FP)
- hold queue (HQ)
- pool for the table of ISNs (TBI)
- pool for the table of sequential commands (TBQ or TBLES)
- user queue (UQ)
- unique descriptor pool (DUQPOOL)
- security pool
- user queue file list pool
- work pool (WP)
- pool for global transaction IDs (XIDs; nonzero only with Adabas Transaction Manager)
- cluster block update redo pool (nonzero only for a cluster nucleus with ADARUN LRDP greater than zero)

The actual values are displayed in nucleus message ADAN28 described in the *Adabas Messages and Codes* documentation.

DSTAT

Display the current Adabas nucleus operating status.



Display thread status.

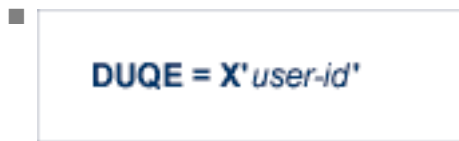


Display up to five active and inactive user queue elements.



Display all user queue elements (UQEs).

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.



Display a user queue element for the specified Adabas-assigned user ID as follows:

```
DUQE=X 'A3CF2'
```

The user ID must be entered in hexadecimal format. Do not use a job name for the user ID.

In nucleus cluster environments, NUCID must always be specified because the user ID is not unique to the cluster.



Display utility user queue elements (UQEs).

In nucleus cluster environments, the NUCID=0 option can be used to display information for all active cluster nuclei. Information is displayed for each nucleus, one after the other.

■ **FEOFCL [, GLOBAL]**

Close the current dual or multiple Command log and switch to the other dual or another multiple Command log. This command is valid only if dual or multiple command logging is in effect.

In nucleus cluster environments, the GLOBAL option can be used to switch the dual or multiple command log in all cluster nuclei at the same time.

■ **FEOFPL [, GLOBAL]**

Close the current dual or multiple data Protection log and switch to the other dual or another multiple Protection log. This command is valid only if dual or multiple data protection logging is in effect.

In nucleus cluster environments, the GLOBAL option can be used to switch the dual or multiple protection log in all cluster nuclei at the same time.

■ **HALT [, GLOBAL]**

Stop Adabas session. A BT (backout transaction) command is issued for each active ET logic user. The Adabas session is then terminated; no dumps are produced.

In nucleus cluster environments, the GLOBAL option can be used to halt the Adabas session in all active cluster nuclei.

■ **LOCKF = *file-number***

Lock the specified file. The specified file will be locked at all security levels.

■ **LOCKU = *file-number***

Lock the specified file for all non-utility use. Adabas utilities can use the file normally.

■ **LOCKX = *file-number***

Lock the specified file for all users except EXU or EXF users. EXU and EXF users can use the file normally. The lock is released automatically when an EXU user issues an OP command.

■ **LOGGING**

Start command logging.

■ **LOG_{xx}**

Begin logging as indicated by *xx* for each command logged where *xx* is one of the following:

- CB -
- FB - the Adabas format buffer
- IB - the Adabas ISN buffer
- IO - Adabas I/O activity
- RB - the Adabas record buffer
- SB - the Adabas search buffer
- UX - user data passed in the seventh parameter of the Adabas parameter list
- VB - the Adabas value buffer

■ **NOLOGGING**

Stop or prevent command logging.

■ **NOLOG_{xx}**

Stop or prevent logging of *xx* where *xx* is one of the following:

- CB - the Adabas control block
- FB - the Adabas format buffer

- IB - the Adabas ISN buffer
- IO - Adabas I/O activity
- RB - the Adabas record buffer
- SB - the Adabas search buffer
- UX - user data passed in the seventh parameter of the Adabas parameter list
- VB - the Adabas value buffer

ONLRESUME = X'identifier'



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Resume a previously suspended online reorder or invert process.

In a cluster environment, NUCID must always be specified because the online process ID is not unique to the cluster.

ONLSTOP = X'identifier'



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Stop an online reorder or invert process cleanly. The process continues up to its next interrupt point in order to produce a consistent state, and then terminates after performing all necessary cleanup.

In a cluster environment, NUCID must always be specified because the online process ID is not unique to the cluster.

ONLSUSPEND = X'identifier'



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Suspend an online reorder or invert process. The process continues up to its next interrupt point in order to produce a consistent state, performs a command throwback, and enters a state where it cannot be selected for processing. This command is useful if the online process is consuming too much of the nucleus resources.

In a cluster environment, NUCID must always be specified because the online process ID is not unique to the cluster.

■ `RALOCKF = n`



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Remove the advance lock on the specified file (see ALOCKF command) without running the utility.

■ `RALOCKFA`



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Remove the advance lock on all files for which it has been set (see ALOCKF command) without running the utility.

■ `RDUMPST`

Terminate online dump status. This command is normally used if online execution of the ADASAV utility has terminated abnormally.

■ `READONLY = { YES | NO }`



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Switches READONLY status on or off.

In nucleus cluster environments, the READONLY command is global by definition and affects all nuclei in the cluster. If a NUCID is specified, it is ignored.

```
REVIEW = { NO | LOCAL | hub-id }
```



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Deactivate Adabas Review; change from hub mode to local mode; specify or change the Adabas Review hub with which a nucleus communicates.

```
STOPF = file-number [, PURGE]
```

Stop all users who are using the specified file. Any open transactions of the stopped users are backed out. Unless PURGE is also specified, a stopped user who returns (by sending a command) receives response code 9.

If the optional PURGE parameter is specified, the stopped users are also deleted (their user queue elements are removed from the user queue).

This command does not stop EXF or UTI users.

The following is an example of using the PURGE parameter:

```
ADADBS OPERCOM STOPF=5,PURGE
```



Caution: If Adabas is running with ADARUN OPENRQ=NO (specifying that users are not required to issue an OP as the first command of the session), run the STOPF command with PURGE only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.

```
STOPI = time [, PURGE]
```


Stop all users who have not executed a command during the specified time interval (in seconds). Any open transactions of the stopped users are backed out. Unless PURGE is also specified, a stopped user who returns (by sending a command) receives response code 9.

This command does not stop EXF or UTI users.

If the optional PURGE parameter is specified, the stopped users are also deleted (their user queue elements are removed from the user queue).


The following is an example of using the PURGE parameter:


```
ADADBS OPERCOM STOPI=3600,PURGE
```

 **Caution:** If Adabas is running with ADARUN OPENRQ=NO (specifying that users are not required to issue an OP as the first command of the session), run the STOPI command with PURGE only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.

STOPU = { X' *user-id*' | *job-name* }

Stop and delete the user with the Adabas-assigned user ID (in the form shown in the display commands), or stop and delete all users with the specified job name (*job-name*). Any open transaction by the stopped users will be backed out.

 **Caution:** If Adabas is running with ADARUN OPENRQ=NO (specifying that users are not required to issue an OP as the first command of the session), run the STOPU command only if you are certain that the users to be deleted are no longer active. If a user with an open transaction is deleted, but then returns (by sending a command), no indication is given about the transaction backout. If the user continues the transaction, logical inconsistencies in the database could occur.

 **Note:** The STOPU=X' *userid*' command is not allowed for online reorder or invert processes. See the ONLSTOP=X' *identifier*' command instead.

The user ID must be specified in hexadecimal format; for example:

```
STOPU=X'1CF2' ←
```

In a cluster environment, NUCID must always be specified because the user ID is not unique to the cluster.

SYNCC

Force resynchronization of all ET users on the nucleus. The nucleus waits for all ET users to reach ET status before continuing.

TNAu = time

Set non-activity time limit (in seconds) for users where *u* is one of the following:

- A - for access-only (ACC) users
- E - for ET logic users
- X - for exclusive control (EXF/EXU) users

If specified, *time* must be a value greater than zero; it overrides the ADARUN value.

In nucleus cluster environments, the TNAu commands are global by definition and affect all nuclei in the cluster. If a NUCID is specified, it is ignored.

TT = time

Set transaction time limit (in seconds) for ET logic users. If specified, this value must be greater than zero; it overrides the ADARUN value. In nucleus cluster environments, the TT command is global by definition and affects all nuclei in the cluster. If a NUCID is specified, it is ignored.

UNLOCKF = file-number

Unlock the specified file and restore its usage to the prelocked status.

UNLOCKU = file-number

Unlock the specified file for utility use and restore it to its prelocked status for non-utility users.

UNLOCKX = file-number

Unlock the specified file and restore its usage to the prelocked status.

```
UTIONLY = { YES | NO }
```



Note: Not currently available for use with Adabas Parallel Services cluster nuclei.

Switch UTIONLY status on or off.

In nucleus cluster environments, the UTIONLY command is global by definition and affects all nuclei in the cluster. If a NUCID is specified, it is ignored.

ADADBS PRIORITY: Change User Priority

```
ADADBS PRIORITY USERID = 'user-id'  
[NOUSERABEND]  
[PRTY = { n | 255 }]  
[TEST]
```

ADADBS RECORDSPANNING: Enable or Disable Record Spanning

```
ADADBS RECORDSPANNING FILE = file-number  
MODE = { ON | OFF }  
[PASSWORD = 'password']  
[NOUSERABEND]  
[TIMELIMIT = { 60 | timelimit }]  
[TEST]
```

ADADBS RECOVER: Recover Space

```
ADADBS RECOVER [NOUSERABEND]
                [TEST]
```

ADADBS REFRESH: Set File to Empty Status

```
ADADBS REFRESH FILE = file-number
                [NOUSERABEND]
                [PASSWORD = 'password' ]
                [TEST]
```

ADADBS REFRESHSTATS: Reset Statistical Values

```
ADADBS REFRESHSTATS [ALL]
                    [CMDUSAGE]
                    [COUNTERS]
                    [FILEUSAGE]
                    [NUCID = nucid ]
                    [NOUSERABEND]
                    [POOLUSAGE]
                    [THREADUSAGE]
```

ADADBS RELEASE: Release Descriptor

```
ADADBS  RELEASE  FILE = file-number
          DESCRIPTOR = 'name'
          [NOUSERABEND]
          [PASSWORD = 'password' ]
          [TEST]
```

ADADBS RENAME: Rename a File or Database

```
ADADBS  RENAME   NAME = 'name'
          [FILE = file-number ]
          [NOUSERABEND]
          [PASSWORD = 'password' ]
          [TEST]
```

ADADBS RENUMBER: Change File Number

```
ADADBS  RENUMBER FILES = current-number, new-number
          [NOUSERABEND]
          [TEST]
```

ADADBS REPLICATION: Activating or Deactivating Replication

```
ADADBS REPLICATION FILE = file-number
                    {ON | OFF | MODIFY [ACTIVATE | DEACTIVATE] }
                    [DSBI = { ON | OFF } ]
                    [KEY = field | NOKEY]
                    [TARGET = dbid ]
```

ADADBS REPTOR: Activating, Deactivate, Open or Close an Event Replicator for Adabas Resource

```
ADADBS REPTOR { ACTIVATE | DEACTIVATE | OPEN | CLOSE }
               [ DBID = dbid , FILE = file-number
                 DESTINATION = dest-name
                 IQUEUE = qname
                 SUBSCRIPTION = sub-name ]
```

ADADBS RESETDIB: Reset Entries in Active Utility List

```
ADADBS RESETDIB { JOBNAME = 'job-name' [ IDENT = identifier ] }
                 [ IDENT = identifier
                 [NOUSERABEND]
                 [TEST]
```

ADADBS RESETPPT: Reset PPT Blocks

```
ADADBS RESETPPT [NOUSERABEND]
                [TEST]
```

ADADBS SPANCOUNT: Count Spanned Records

```
ADADBS SPANCOUNT FILE = file-number
                  [PASSWORD = 'password' ]
                  [NOUSERABEND]
                  [TIMELIMIT = { 60 | timelimit } ]
                  [TEST]
```

ADADBS TRANSACTIONS: Suspend and Resume Update Transaction Processing

```
ADADBS TRANSACTIONS {
  SUSPEND
  [TTSYN = { time-available-to-sync | ADARUN-TT } ]
  [TRESUME = { time-until-resume | 120 } ]
  RESUME
  [NOUSERABEND]
  [TEST]
}
```

ADADBS UNCOUPLE: Uncouple Files

```
ADADBS UNCOUPLE FILES = number, number
                    [NOUSERABEND]
                    [PASSWORD = 'password' ]
                    [TEST]
```

ADADCK DSCHECK: Check Data Storage and DSST

```
ADADCK DSCHECK [FILE = { file [FROMRABN = DS-blknum ] [TORABN = DS-blknum ] | file - file } ]
                [MAXPISN = { num | 1000 } ]
                [NOOPEN]
                [NOUSERABEND]
                [REPAIR]
                [USAGE]
```

ADADEF DEFINE: Define a Database and Checkpoint File

```

ADADEF DEFINE ASSOSIZE = size-list
DATASIZE = size-list
WORKSIZE = size
FILE = file-number, CHECKPOINT
    DSSIZE = size
    MAXISN = maximum-number-of-records-expected
    [ACRABN = starting-rabn ]
    [ASSOPFAC = { Associator-padding-factor | 10 } ]
    [ASSOVOLUME = 'Associator-extent-volume' ]
    [DATAPFAC = { Data-Storage-padding-factor | 10 } ]
    [DATAVOLUME = 'Data-Storage-extent-volume' ]
    [DSDEV = device-type ]
    [DSRABN = starting-rabn ]
    [DSREUSE = { NO | YES } ]
    [ISNSIZE = { 3 | 4 } ]
    [MAXDS = maximum-Data-Storage-secondary-allocation ]
    [MAXNI = maximum-normal-index-secondary-allocation ]
    [MAXUI = maximum-upper-index-secondary-allocation ]
    [NAME = { 'file-name' | CHECKPOINT } ]
    [NIRABN = starting-rabn ]
    [NISIZE = size ]
    [UIRABN = starting-rabn ]
    [UISIZE = size ]
    [ASSODEV = { device-type-list | ADARUN-device } ]
    [DATADEV = { device-type-list | ADARUN-device } ]
    [DBIDENT = { database-id | ADARUN-dbid } ]
    [DBNAME = { database-name | GENERAL-DATABASE } ]
    [FACODE = { alpha-EBCDIC-key | 37 } ]
    [FWCODE = { wide-key | 4095 } ]
    [MAXFILES = { maximum-number-of-files | 255 } ]
    [NOUSERABEND]
    [OVERWRITE]
    [RABNSIZE = { 3 | 4 } ]
    [REPTOR = YES | NO ]
    [UACODE = { alpha-ASCII-key | 437 } ]
    [UES = { YES | NO } ]
    [UWCODE = { wide-key | FWCODE-definition } ]
    [WORKDEV = { device-type-list | ADARUN-device } ]

```

ADADEF MODIFY: Change File Encodings

```

ADADEF MODIFY [FACODE = { alpha-EBCDIC-key | current-setting } ]
                [FWCODE = { wide-key | current-setting } ]
                [NOUSERABEND]
                [REPTOR = YES | NO ]
                [UACODE = { alpha-ASCII-key | current-setting } ]
                [UES = { YES | NO } ]
                [UWCODE = { wide-key |

```

ADADEF NEWWORK: Define a Work File

```

ADADEF NEWWORK WORKSIZE = size
                [NOUSERABEND]
                [WORKDEV = { device-type-list | ADARUN-device } ]

```

ADAFRM: Format Adabas Database Components

To format the Associator (ASSO) or Data Storage (DATA) data sets, use this syntax:

```

ADAFRM { ASSOFRM | DATAFRM } SIZE = size
                [DEVICE = { device-type | ADARUN-device } ]
                [ { FROMRABN = { starting-rabn | NEXT } |
                  NUMBER = { dataset-number | 1 } } ]
                [NOUSERABEND]

```

To format the Work (WORK), command log (CLOG), protection log (PLOG), or sort (SORT) data sets, use this syntax:

```

ADAFRM { WORKFRM | CLOGFRM | PLOGFRM | SORTFRM }
    SIZE = size
    [DEVICE = { device-type | ADARUN-device }]
    [ { FROMRABN = starting-rabn | NUMBER = {dataset-number | 1 } } ]
[NOUSERABEND]

```

To format the recovery log (RLOG), use this syntax:

```

ADAFRM RLOGFRM SIZE = size
    [DEVICE = { device-type | ADARUN-device }]
[NOUSERABEND]

```

To format the Temp (TEMP) data set, use this syntax:

```

ADAFRM TEMPFRM SIZE = size
    [DEVICE = { device-type | ADARUN-device }]
[FROMRABN = starting-rabn]
[NOUSERABEND]

```

To reformat blocks of an existing Associator, Data Storage, or Work data set, use this syntax:

```

ADAFRM { ASSORESET | DATARESET | WORKRESET }
    SIZE = size
    FROMRABN = start-rabn
[NOUSERABEND]

```

ADAICK ACCHECK: Check Address Converter

```
ADAICK  ACCHECK  FILE = file-number  
                [NOPEN]  
                [NOUSERABEND]
```

ADAICK ASSOPRINT: Print/Dump Associator Blocks

```
ADAICK  ASSOPRINT  RABN = {rabn | rabn-rabn}  
                [NOUSERABEND]
```

ADAICK BATCH: Set Printout Width to 132 Characters Per Line

```
ADAICK  BATCH  [NOUSERABEND]
```

ADAICK DATAPRINT: Print/Dump Data Storage Blocks

```
ADAICK  DATAPRINT  RABN = {rabn | rabn-rabn}  
                [NOUSERABEND]
```

ADAICK DSCHECK: Print/Dump Content of Data Storage Record

```
ADAICK  DSCHECK  FILE = file-number  
          [ISN = isn-of-record]  
          [NOOPEN]  
          [NOUSERABEND]
```

ADAICK DUMP: Activate Dump Print Format

```
ADAICK  DUMP [NOUSERABEND]
```

ADAICK FCBPRINT: Print/Dump File Control Block

```
ADAICK  FCBPRINT  FILE = file-number  
          [NOPEN]  
          [NOUSERABEND]
```

ADAICK FDTPRINT: Print/Dump Field Definition Table

```
ADAICK  FDTPRINT  FILE = file-number  
          [NOUSERABEND]
```

ADAICK GCBPRINT: Print/Dump General Control Blocks

```
ADAICK GCBPRINT [NOUSERABEND]
```

ADAICK ICHECK: Check Index Against Address Converter

```
ADAICK ICHECK FILE = { file-number | file-number-file-number }  
[NOOPEN]  
[NOUSERABEND]
```

ADAICK INT: Activate Interpreted Print Format

```
ADAICK INT [NOUSERABEND]
```

ADAICK NIPRINT: Print/Dump Normal Index

```
ADAICK NIPRINT FILE = file-number  
[NOUSERABEND]
```

ADAICK NOBATCH: Set Print Width to 80 Characters Per Line

```
ADAICK NOBATCH [NOUSERABEND]
```

ADAICK NODUMP: Suppress Dump Print Format

```
ADAICK NODUMP [NOUSERABEND]
```

ADAICK NOINT: Suppress Interpreted Format

```
ADAICK NOINT [NOUSERABEND]
```

ADAICK PTPRINT: Print/Dump Parallel Participant Table

```
ADAICK PTPRINT [NOUSERABEND]
```

ADAICK UIPRINT: Print/Dump Upper Index

```
ADAICK  UIPRINT  FILE = file-number
                [NOUSERABEND]
```

ADAINV COUPLE: Define File-Coupling Descriptors

```
ADAINV  COUPLE  FILES = file-number1 , file-number2
                    DESCRIPTOR = 'fieldname , fieldname'
                    SORTSIZE = size
                    TEMPSIZE = size
                    [LPB = { prefetch-buffer-size | ADARUN-lu } ]
                    [LWP = { workpool-size | 1048576 } ]
                    [NOUSERABEND]
                    [PASSWORD = 'password' ]
                    [SORTDEV = { device-type | ADARUN-device } ]
                    [TEMPDEV = { device-type | ADARUN-device } ]
                    [TEST]
```

ADAINV INVERT: Create Descriptors

```
ADAINV INVERT  FILES = file-num
                SORTSIZE = size
                TEMPSIZE = size
                [FIELD = 'field-name [ , option ]... ' ] ...
                [COLDE = 'num, name [ , UQ [ , XI ] ] = parent-field' ]
                [HYPDE = 'num, name, length, format [ , option ]... = parent-field, ...' ]
                [PHONDE = 'name (field-name)' ]
                [SUBDE = 'name [ , UQ [ , XI ] ] = parent-field (begin, end)' ]
                [SUPDE = 'name [ , UQ [ , XI ] ] = {parent-field (begin, end)}, ...' ]
                [CODE = cipher-code ]
                [LPB = { prefetch-buffer-size | ADARUN-lu } ]
                [LWP = { workpool-size | 1048576 } ]
                [NOUSERABEND]
                [PASSWORD = 'password' ]
                [SORTDEV = {device-type | ADARUN-device } ]
                [TEMPDEV = {device-type | ADARUN-device } ]
                [TEST]
```

ADALOD LOAD: Load a File

```

ADALOD LOAD FILE = file-number [ , filetype ]
DSSIZE = size
MAXISN = max-number-of-records [MAXISN2 = max-number-of-secondary-spanned-records ]
SORTSIZE = size
TEMPSIZE = size
[ACRABN = starting-rabn ] [AC2RABN = starting-rabn ]
[ADAMFILE ADAMDE = {field | ISN } [ADAMOFLOW = size ] [ADAMPARM = {number | 0 }]]
[ALLOCATION = { FORCE | NOFORCE } ]
[ANCHOR = file-number MINISN = lowest-allocated-isn, NOACEXTENSION ]
[ASSOPFAC = {padding-factor | 10 } ] [ASSOVOLUME = 'Associator-extent-volume' ]
[{BASEFILE | LOBFILE} = file-number ]
[DATAFRM = { YES| NO } ]
[DATAPFAC = { padding-factor | 10 } ] [DATAVOLUME = 'Data-Storage-extent-volume' ]
[DSDEV = device-type ] [DSRABN = start-rabn ] [DSREUSE = { YES | NO } ]
[ETID = owner-id ]
[IGNFDT]
[INDEXCOMPRESSION = { YES | NO } ]
[ISNREUSE = { YES | NO } ] [ISNSIZE = { 3 | 4 } ]
[LIP = { isn-pool-size | 2000 } ]
[LOWNERID = { owner-id-length | 0 } ]
[LWP = { work-pool-size | 1048576 } ]
[MAXDS = {max-DS-secondary-allocation | no-limit } ]
[MAXNI = { max-NI-secondary-allocation | no-limit } ]
[MAXRECL = {max-compressed-record-length| max-possible } ]
[MAXUI = {max-UI-secondary-allocation | no-limit } ]
[MINISN = {lowest-allocated-isn | 1 } ]
[MIXDSDEV]
[NAME = {name | TESTFILE } ]
[NIRABN = start-rabn ] [NISIZE = size ]
[NOACEXTENSION]
[NOUSERABEND]
[NUMREC = { max-number-of-records-to-load | all-records } ]
[PGMREFRESH = { YES | NO } ]
[REPLICATOR]
[RESTART]
[
  RPLTARGETID = ' reprot-target-id'
  [RPLDSBI]
  [RPLKEY = ' primary-key-for-replication ' ]
  [RPLLOAD = { YES | FILE | NO } ]
]
[RPLUPDATEONLY = { YES | NO } ]
[SKIPREC = {number| 0 } ]
[SLOG]
[SORTDEV = { device-type | ADARUN-device } ]
[TEMPDEV = { device-type | ADARUN-device } ]
[TEST]
[UIRABN = start-rabn ] [UISIZE= size ]
[UQDE = descriptor-list ]
[USERISN = { YES | NO } ]
[VERSION = { 4 | 5 | 6 | 7 } ]

```

ADALOD UPDATE: Add/Delete Records

```
ADALOD UPDATE  FILE = file-number
                 SORTSIZE = size
                 TEMPSIZE = size
                 [DDISN]
                 [DELISN = isn-list ]
                 [DSREUSE = { YES | NO } ]
                 [ETID = multiclient-file-owner-id ]
                 [ISNREUSE = { YES | NO } ]
                 [LIP = { isn-pool-size | 2000 } ]
                 [LWP = { work-pool-size | 1048576 } ]
                 [MAXISN = number
                 [ACRABN = starting-rabn ]
                 [ASSOVOLUME = 'Associator-extent-volume' ] ]
                 [MAXISN2 = number
                 [AC2RABN = starting-rabr]
                 [ASSOVOLUME = 'Associator-extent-volume' ] ]
                 [NOUSERABEND]
                 [NUMREC = number]
                 [PASSWORD = 'password' ]
                 [RESTART]
                 [RPLLOAD = { YES | NO } ]
                 [SKIPREC = { number | 0 } ]
                 [SORTDEV = { device-type | ADARUN-device } ]
                 [TEMPDEV = { device-type | ADARUN-device } ]
                 [TEST]
                 [USERISN = { YES | NO } ]
```

ADAMER Utility: ADAM Estimation

```
ADAMER ADAMDE = { descriptor | ISN }  
MAXISN = maximum-number-of-records  
[BITRANGE = { minimum | 0 } {, maximum | 18} {, increment | 2} ]  
[DATADEV = { device-type | ADARUN-device } ]  
[DATAPFAC = padding-factor ]  
[DATASIZE = minimum, maximum [,increment ] ]  
[NOUSERABEND]  
[NUMREC = { number-of-records | all-records } ]
```

ADAORD REORASSO: Reorder Associator

```

ADAORD REORASSO [DBINDEXCOMPRESSION = { YES | NO } ]
                  [FILE = file-number ]
                    [ACRABN = starting-rabn ]
                    [AC2RABN = starting-rabn ]
                    [ALLOCATION = { FORCE | NOFORCE } ]
                    [ASSOPFAC = padding-factor ]
                    [ASSOVOLUME = 'Associator-extent-volume' ]
                    [INDEXCOMPRESSION = { YES | NO } ]
                    [ISNSIZE = { 3 | 4 } ]
                    [MAXISN = highest-isn ]
                    [MAXISN2 = highest-isn ]
                    [NIRABN = starting-rabn ]
                    [NIRELEASE]
                    [NISIZE = size ]
                    [UIRABN = starting-rabn ]
                    [UIRELEASE]
                    [UIsize = size ]
                  [LPB = { prefetch-buffer-size | ADARUN-lu } ]
                  [MAXFILES = maximum-number-files ]
                  [NEWDBID = database-identifier ]
                  [NEWDBNAME = database-name]
                  [NOUSERABEND]
                  [RAID]
                  [RPLUPDATEONLY = { YES | NO } ]
                  [TEST]

```

ADAORD REORDATA: Reorder Data Storage

```
ADAORD REORDATA [FILE = file-number ]  
                [ALLOCATION = { FORCE | NOFORCE } ]  
                [DATAPFAC = padding-factor ]  
                [DATAVOLUME = 'Data-Storage-extent-volume' ]  
                [DSDEV = device-type ]  
                [DSRABN = starting-rabn ]  
                [DSRELEASE]  
                [DSSIZE = size ]  
                [MAXRECL = record-length ]  
                [SORTSEQ = { descriptor | ISN | physical-sequence } ]  
                [LIP = { isn-pool-size | 16384 } ]  
                [LPB = { prefetch-buffer-size | ADARUN-lu } ]  
                [NOUSERABEND]  
                [RAID]  
                [TEST]
```

ADAORD REORDB: Reorder Database

```

ADAORD REORDB  [DBINDEXCOMPRESSION = { YES | NO } ]
                 [FILE = file-number ]
                 [ACRABN = starting-rabn ]
                 [AC2RABN = starting-rabn ]
                 [ALLOCATION = { FORCE | NOFORCE } ]
                 [ASSOPFAC = padding-factor ]
                 [ASSOVOLUME = 'Associator-extent-volume' ]
                 [DATAPFAC = padding-factor ]
                 [DATAVOLUME = 'Data-Storage-extent-volume' ]
                 [DSDEV = device-type ]
                 [DSRABN = starting-rabn ]
                 [DSRELEASE]
                 [DSSIZE = size ]
                 [INDEXCOMPRESSION = { YES | NO } ]
                 [ISNSIZE = { 3 | 4 } ]
                 [MAXISN = highest-isn ]
                 [MAXISN2 = highest-isn ]
                 [MAXRECL = record-length ]
                 [NIRABN = starting-rabn ]
                 [NIRELEASE]
                 [NISIZE = size ]
                 [SORTSEQ = { descriptor | ISN | physical-sequence } ]
                 [UIRABN = starting-rabn ]
                 [UIRELEASE]
                 [UIsize = size ]
                 [LIP = { isn-pool-size | 16384 } ]
                 [LPB = { prefetch-buffer-size | ADARUN-lu } ]
                 [MAXFILES = maximum-number-files ]
                 [NEWDBID = database-identifier ]
                 [NEWDBNAME = database-name ]
                 [NOUSERABEND]
                 [RAID]
                 [TEST]

```

ADAORD REORFASSO: Reorder Associator for a Single File

```

ADAORD REORFASSO FILE = file-number
    [ACRABN = starting-rabn ]
    [AC2RABN = starting-rabn ]
    [ALLOCATION = { FORCE | NOFORCE } ]
    [ASSOPFAC = padding-factor ]
    [ASSOVOLUME = 'Associator-extent-volume' ]
    [INDEXCOMPRESSION = { YES | NO } ]
    [ISNSIZE = { 3 | 4 } ]
    [MAXISN = highest-isn ]
    [MAXISN2 = highest-isn ]
    [NIRABN = starting-rabn ]
    [NIRELEASE]
    [NISIZE = size ]
    [PASSWORD = password ]
    [UIRABN = starting-rabn ]
    [UIRELEASE]
    [UISIZE = size ]
    [EXCLUDE = file-list ]
    [LPB = { prefetch-buffer-size | ADARUN-lu } ]
    [NOUSERABEND]
    [TEST]

```

ADAORD REORFDATA: Reorder Data Storage for a Single File

```
ADAORD REORFDATA FILE = file-number  
    [ALLOCATION = { FORCE | NOFORCE }]  
    [DATAPFAC = padding-factor ]  
    [DATAVOLUME = 'Data-Storage-extent-volume' ]  
    [DSDEV = device-type ]  
    [DSRABN = starting-rabn]  
    [DSRELEASE]  
    [DSSIZE =size ]  
    [MAXRECL = record-length ]  
    [PASSWORD = password ]  
    [SORTSEQ = { descriptor | ISN | physical-sequence } ]  
    [EXCLUDE = file-list ]  
    [LIP = { isn-pool-size | 16384 } ]  
    [LPB = { prefetch-buffer-size | ADARUN-lu } ]  
    [NOUSERABEND]  
    [TEST]
```

ADAORD REORFILE: Reorder File

```

ADAORD REORFILE FILE = file-number
    [ACRABN = starting-rabn ]
    [AC2RABN = starting-rabn ]
    [ALLOCATION = { FORCE | NOFORCE } ]
    [ASSOPFAC = padding-factor ]
    [ASSOVOLUME = 'Associator-extent-volume' ]
    [DATAPFAC = padding-factor ]
    [DATAVOLUME = 'Data-Storage-extent-volume' ]
    [DSDEV = device-type ]
    [DSRABN = starting-rabn ]
    [DSRELEASE]
    [DSSIZE = size ]
    [INDEXCOMPRESSION = { YES | NO } ]
    [ISNSIZE = { 3 | 4 } ]
    [MAXISN = highest-isn ]
    [MAXISN2 = highest-isn ]
    [MAXRECL = record-length ]
    [NIRABN = starting-rabn ]
    [NIRELEASE]
    [NISIZE = size ]
    [PASSWORD = password ]
    [SORTSEQ = { descriptor | ISN | physical-sequence } ]
    [UIRABN = starting-rabn ]
    [UIRELEASE]
    [UIsize = size ]
[EXCLUDE = file-list ]
[LIP = { isn-pool-size | 16384 } ]
[LPB = { prefetch-buffer-size | ADARUN-lu } ]
[NOUSERABEND]
[TEST]

```

ADAORD RESTRUCTUREDB: Restructure Database

```
ADAORD { RESTRUCTUREDB | REDB }
    [DBASSODEV = { device-type | ADARUN-device } ]
    [DBDATADEV = { device-type | ADARUN-device } ]
    [DBINDEXCOMPRESSION = { YES | NO } ]
    [FILE = file-number ]
        [ASSOPFAC = padding-factor ]
        [ASSODEV = { device-type | DBASSODEV-value } ]
        [DATADEV = { device-type | DBDATADEV-value } ]
        [DATAPFAC = padding-factor ]
        [INDEXCOMPRESSION = { YES | NO } ]
        [ISNSIZE = { 3 | 4 } ]
        [SORTSEQ = { descriptor | ISN | physical-sequence } ]
    [LPB = { prefetch-buffer-size | ADARUN-lu } ]
    [NOUSERABEND]
    [TEST]
```

ADAORD RESTRUCTUREF: Restructure Single Files

```
ADAORD { RESTRUCTUREF | REF }  
  FILE = file-number  
    [ASSODEV = { device-type | DBASSODEV-value }]  
    [ASSOPFAC = padding-factor ]  
    [DATADEV = { device-type | DBDATADEV-value }]  
    [DATAPFAC = padding-factor ]  
    [DBASSODEV = { device-type | ADARUN-device }]  
    [DBDATADEV = { device-type | ADARUN-device }]  
    [INDEXCOMPRESSION = { YES | NO }]  
    [ISNSIZE = { 3 | 4 }]  
    [PASSWORD = password ]  
    [SORTSEQ = { descriptor | ISN | physical-sequence }]  
  [LPB = { prefetch-buffer-size | ADARUN-lu }]  
  [NOUSERABEND]  
  [TEST]
```

ADAORD STORE: Store Files

```
ADAORD STORE [ALLFILES]
[CHECKPOINT]
[FILE = file-number ]
  [ACRABN = starting-rabn ]
  [AC2RABN = starting-rabn ]
  [ALLOCATION = { FORCE | NOFORCE } ]
  [ASSOPFAC = padding-factor ]
  [ASSOVOLUME = 'Associator-extent-volume' ]
  [DATAPFAC = padding-factor ]
  [DATAVOLUME = 'Data-Storage-extent-volume' ]
  [DSDEV = device-type ]
  [DSRABN = starting-rabn ]
  [DSRELEASE]
  [DSSIZE = size ]
  [INDEXCOMPRESSION = { YES | NO } ]
  [INSIZE = { 3 | 4 } ]
  [MAXISN = highest-isn ]
  [MAXISN2 = highest-isn ]
  [MAXRECL = record-length ]
  [NIRABN = starting-rabn ]
  [NIRELEASE]
  [NISIZE = size ]
  [UIRABN = starting-rabn ]
  [UIRELEASE]
  [UISIZE = size ]
[EXCLUDE = file-list ]
[LIP = { isn-pool-size | 16384 } ]
[NOUSERABEND]
[OVERWRITE]
[REPLICATOR]
[SECURITY]
[SLOG]
[TEST]
[TRIGGER]
```

ADAPLP: Print Data Protection Records from PLOG/Work

```

ADAPLP { IPLOGPRI | PLOGPRI | SPLOGPRI | WORKPRI }
      [ TYPE = type
        FILE = file-number [ ISN = isn ]
        RABN = data-storage-rabn ]
      [ DEVICE = { multiple-PLOG-device-type | ADARUN-device } ]
      [ LAYOUT = { 1 | 2 | 3 } ]
      [ NOUSERABEND ]
      [ NUMBER = { 1 | n } ]
      [ PRINT ]
      [ SKIPRABN = { block-count | 0 } ]
      [ STOPRABN = block-count ]

```

where *type* is one of the following:

```

[ { ALL
  ASSO
  DATA } [ , FILE = file-number ] [ ISN = isn ]
  { ALL
  DATA } [ RABN = data-storage-rabn ]
  { C1
  C5
  ET
  EEKZ
  SAVO
  VEKZ }
  REPR [ , FILE = file-number ] ]

```

ADAPRI: Print Selected Adabas Blocks

```
ADAPRI {
  ASSOPRI
  DATAPRI
  WORKPRI
  TEMPPRI
  SORTPRI
  RLOGPRI
  CLOGPRI [NUMBER = {1 | n}]
  PLOGPRI [NUMBER = {1 | n}]
}

FROMRABN = block-number
TORABN = block-number
[BATCH]
[DEVICE = {device-type | ADARUN-device}]
[NOUSERABEND]
```

ADARAI CHKDB: Check the Database Recovery Status

```
ADARAI CHKDB [{ACTIVE | INACTIVE}]
```

ADARAI DISABLE: Deactivate Recovery Logging

```
ADARAI DISABLE
```

ADARAI LIST: Display Current RLOG Generations

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

ADARAI PREPARE: Initialize and Start the RLOG

```
ADARAI PREPARE RLOGSIZE = size
              [RLOGDEV = { device | ADARUN-device } ]
              [MINGENS = { count | 4 } ]
```

ADARAI RECOVER: Build a Recovery Job Stream

```
ADARAI RECOVER [AUTOBACKOUT]
              [DRIVES = { number | 1 } ]
              [DSIMSIZE = { size, DSIMDEV = { device | ADARUN-device } } ]
              [ FEOFPL = { NO
                          YES [, PLOGDEV = { device | ADARUN-device } ] } ]
              [FILE = { file-list [, AUTOBACKOUT] } ]
              [JCLLOG = { YES | NO } ]
              [OPT = { YES | NO } ]
              [RELGEN = { number | 0 } ]
              [RESTFILE = { YES | NO } ]
              [RLOGDEV = { device | ADARUN-device } ]
```

ADARAI REMOVE: Remove the Recovery Aid

ADARAI REMOVE

ADAREP: Request Database Status Report

```
ADAREP [REPORT]
      [ {CPEXLIST [, OFFSET = {column-number | 63} ] | CPLIST }
        [FROMDATE = yyyymmdd] [TODATE = yyyymmdd]
        [FROMSESSION = session] [TOSESSION = session]]
      [ {FILE = { file-list | all-files } [, LAYOUT = 1 ] | NOFILE } ]
      [LIMCOUNT | NOCOUNT]
      [NOFDT]
      [ { NOLGLIST | NOPHLIST | NOSTD } ]
      [NOUSERABEND] }
      [SAVETAPE
        [PLOGNUM = protection-log-number [ { SYN1 | SYN4 } = PLOG-block-number ] ] ]
```

ADARES BACKOUT SIBA: Back Out Updates Using the Sequential Protection Log (SIBA)

```

ADARES BACKOUT {
  PLOGNUM = protection-log-number
  FROMPLOG = start-session [, TOPLOG = stop-session ]
}
[EXCLUDE = file-list ]
[FILE = file-list [CONTINUE] ]
[FROMCP = checkpoint-name [, FROMBLK = checkpoint-block ]]
[IGNORECOUPLE]
[IGNOREEXP]
[MTR = { YES | NO } [NPCALLS = maximum-number-of-parallel-calls ]]
[NOAUTOBACKOUT | PARALLELREAD]
[NOUSERABEND]
[PLOGDBID = { alternate-log-dbid | ADARUN-dbid }]
[TEST]
[TOCP = checkpoint-name [, TOBLK = checkpoint-block ]]

```

ADARES BACKOUT DPLOG or MPLOG: Back Out Updates Using the Dual or Multiple Protection Log

```

ADARES BACKOUT {
  DPLOG [DUALPLD = { device-type | ADARUN-device } ]
  MPLOG [PLOGDEV = { device-type | ADARUN-device } ]
}
[EXCLUDE = file-list ]
[FILE = file-list [CONTINUE] ]
[FROMCP = checkpoint-name [, FROMBLK = checkpoint-block ]]
[IGNORECOUPLE]
[IGNOREEXP]
[MTR = { YES | NO } [NPCALLS = maximum-number-of-parallel-calls ]]
[NOAUTOBACKOUT | PARALLELREAD]
[NOUSERABEND]
[PLOGDBID = { alternate-log-dbid | ADARUN-dbid }]
[TEST]
[TOCP = checkpoint-name [, TOBLK = checkpoint-block ]]

```

ADARES CLCOPY: Copy Dual Command Log

```
ADARES CLCOPY [DUALCLD = {device-type | ADARUN-device} ]  
               [NOUSERABEND]  
               [OPENOUT]  
               [TEST]  
               [TWOCOPIES]
```

ADARES COPY: Copy a Sequential Protection Log or Save Tape

```
ADARES COPY   [ PLOGNUM = protection-log-number  
               FROMPLOG = start-session [, TOPLOG = stop-session ] ]  
               [NONUC]  
               [NOUSERABEND]  
               [OPENOUT]  
               [RLOGDEV = { device-type | ADARUN-device } ]  
               [TEST]  
               [TWOCOPIES]  
               [UTICPLIST]
```

ADARES MERGE CLOG: Merge Nucleus Cluster Command Logs

```
ADARES MERGE CLOG, NUMLOG = nn
```


ADARES PLCOPY: Copy Protection Log to Sequential Data Set

```

ADARES  PLCOPY  [PLOGDEV = { device-type | ADARUN-device } ]
                [NOPPT]
                [NOUSERABEND]
                [OPENOUT]
                [RLOGDEV = { device-type | ADARUN-device } ]
                [SBLKNUM = starting-block-num ]
                [TEST]
                [TWOCOPIES]
                [UTICPLIST]

```

ADARES REGENERATE: Regenerate Updates

```

ADARES  REGENERATE { PLOGNUM = protection-log-number
                    FROMPLOG = start-session [, TOPLOG = stop-session ] }
                [ALLOCATION = { FORCE | NOFORCE } ]
                [EXCLUDE = file-list ]
                [FILE = file-list [, CONTINUE] ]
                [FROMCP = { checkpoint-name | 'SYNS, INCLUDE' }
                [FROMBLK = checkpoint-block ] ]
                [IGNORECOUPLE]
                [IGNOREEXP]
                [MTR = { YES | NO } [NPCALLS = maximum-number-of-parallel-calls ] ]
                [NOAUTOBACKOUT | PARALLELREAD]
                [NOUSERABEND]
                [PLOGDBID = { alternate-log-dbid | ADARUN-dbid } ]
                [RAID]
                [TEST]
                [TOCP = { checkpoint-name | 'SYNS, INCLUDE' }
                [AUTOBACKOUT] [TOBLK = checkpoint-block ] ]

```

ADARES REPAIR: Repair Data Storage Blocks

```

ADARES REPAIR  DSRABN = { rabn | rabn - rabn }
                  [FILE = { locked-file-list | entire-database } ]
                  [NOUSERABEND]
                  [TEST]
    
```

ADASAV RESTONL: Restore Database from Online Source

```

ADASAV RESTONL [BUFNO = { number-of-buffers | 1 } ]
                  [CLOGDEV = { CLOG1-device-type | ADARUN-device } ]
                  [DRIVES = { count | 1 } ]
                  [EXCLUDE = file-list ]
                  [NEWDBID = new-database-id ]
                  [NEWDBNAME = new-database-name ]
                  [NOUSERABEND]
                  [OVERWRITE]
                  [PLOGDEV = { PLOG-device-type | ADARUN-device } ]
                  [PLOGNUM = PLOG-number [, SYN1 = PLOG-block-number ] ]
                  [TEST]
    
```

ADASAV RESTONL FILES: Restore Files to Original RABNs from Online Source

```

ADASAV RESTONL FILES = file-list [ALLOCATION = { FORCE | NOFORCE } ]
[BUFNO = { number-of-buffers | 1 } ]
[DRIVES = { count | 1 } ]
[EXCLUDE = file-list ]
[NEWFILES = file-list ]
[NOUSERABEND]
[OVERWRITE]
[PASSWORD = 'password-list' ]
[PLOGNUM = protection-log-number ]
    [ { SYN1 | SYN4 } = PLOG-block-number ]
[TEST]

```

ADASAV RESTONL FMOVE: Restore Files to Any RABNs from Online Source

```

ADASAV RESTONL FMOVE = file-list [ACRABN = AC-start-rabn-list ]
[AC2RABN = AC2-start-rabn-list ]
[ALLOCATION = { FORCE | NOFORCE } ]
[ASSOVOLUME = 'Associator-extent-volume' ]
[BUFNO = { number-of-buffers | 1 } ]
[DATAVOLUME = 'Data-Storage-extent-volume' ]
[DRIVES = { count | 1 } ]
[DSRABN = DS-start-rabn-list ]
[DSSIZE = DS-size-list ]
[EXCLUDE = file-list ]
[MAXISN = isn-count-list ]
[MAXISN2 = isn-count-list ]
[NEWFILES = file-list ]
[NIRABN = NI-start-rabn-list ]
[NISIZE = NI-size-list ]
[NOUSERABEND]
[OVERWRITE]
[PASSWORD = 'password-list' ]
[PLOGNUM = protection-log-number ]
    [ { SYN1 | SYN4 } = PLOG-block-number ]
[TEST]
[UIRABN = UI-start-rabn-list ]
[UIsize = UI-size-list ]

```

ADASAV RESTONL GCB: Restore Database Incremental from Online Source

```
ADASAV RESTONL GCB [BUFNO = {number-of-buffers | 1}]
                   [CLOGDEV = {CLOG1-device-type | ADARUN-device}]
                   [DRIVES = {count | 1}]
                   [EXCLUDE = file-list]
                   [FILES = file-list]
                   [NEWDBID = new-database-id]
                   [NEWDBNAME = new-database-name]
                   [NOUSERABEND]
                   [OVERWRITE]
                   [PLOGDEV = {PLOG-device-type | ADARUN-device}]
                   [PLOGNUM = PLOG-number [, SYN1 = PLOG-block-number]]
                   [TEST]
```

ADASAV RESTORE: Restore Database from Offline Source

```
ADASAV RESTORE [BUFNO = {number-of-buffers | 1}]
               [CLOGDEV = {CLOG1-device-type | ADARUN-device}]
               [DRIVES = {count | 1}]
               [EXCLUDE = file-list]
               [NEWDBID = new-database-id]
               [NEWDBNAME = new-database-name]
               [NOUSERABEND]
               [OVERWRITE]
               [PLOGDEV = {PLOG-device-type | ADARUN-device}]
               [TEST]
```

ADASAV RESTORE FILES: Restore Files to Original RABNs from Offline Source

```

ADASAV RESTORE FILES = file-list  [ALLOCATION = { FORCE | NOFORCE } ]
                                     [BUFNO = { number-of-buffers | 1 } ]
                                     [DRIVES = { count | 1 } ]
                                     [EXCLUDE = file-list ]
                                     [NEWFILES = file-list ]
                                     [NOUSERABEND]
                                     [OVERWRITE]
                                     [PASSWORD = 'password-list' ]
                                     [TEST]

```

ADASAV RESTORE FMOVE: Restore Files to Any RABNs from Offline Source

```

ADASAV RESTORE FMOVE = file-list  [ACRABN = AC-start-rabn-list ]
                                     [AC2RABN = AC2-start-rabn-list ]
                                     [ALLOCATION = { FORCE | NOFORCE } ]
                                     [ASSOVOLUME = 'Associator-extent-volume' ]
                                     [BUFNO = { number-of-buffers | 1 } ]
                                     [DATAVOLUME = 'Data-Storage-extent-volume' ]
                                     [DRIVES = { count | 1 } ]
                                     [DSRABN = DS-start-rabn-list ]
                                     [DSSIZE = DS-size-list ]
                                     [EXCLUDE = file-list ]
                                     [MAXISN = isn-count-list ]
                                     [MAXISN2 = isn-count-list ]
                                     [NEWFILES = file-list ]
                                     [NIRABN = NI-start-rabn-list ]
                                     [NISIZE = NI-size-list ]
                                     [NOUSERABEND]
                                     [OVERWRITE]
                                     [PASSWORD = 'password-list' ]
                                     [TEST]
                                     [UIRABN = UI-start-rabn-list ]
                                     [UISIZE = UI-size-list ]

```

ADASAV RESTORE GCB: Restore Database Incremental from Offline Source

```
ADASAV RESTORE GCB [BUFNO = {number-of-buffers | 1}]
                   [CLOGDEV = {CLOG1-device-type | ADARUN-device}]
                   [DRIVES = {count | 1}]
                   [EXCLUDE = file-list ]
                   [FILES = file-list ]
                   [NEWDBID = new-database-id ]
                   [NEWDBNAME = new-database-name ]
                   [NOUSERABEND]
                   [OVERWRITE]
                   [PLOGDEV = {PLOG-device-type | ADARUN-device}]
                   [TEST]
```

ADASAV RESTPLOG: Restore Protection Log Only

```
ADASAV RESTPLOG PLOGNUM = protection-log-number
                { SYN1 | SYN4 } = starting-block-number
                [FILES = file-list ]
                [NEWFILES = file-list ]
                [NOUSERABEND]
                [TEST]
```

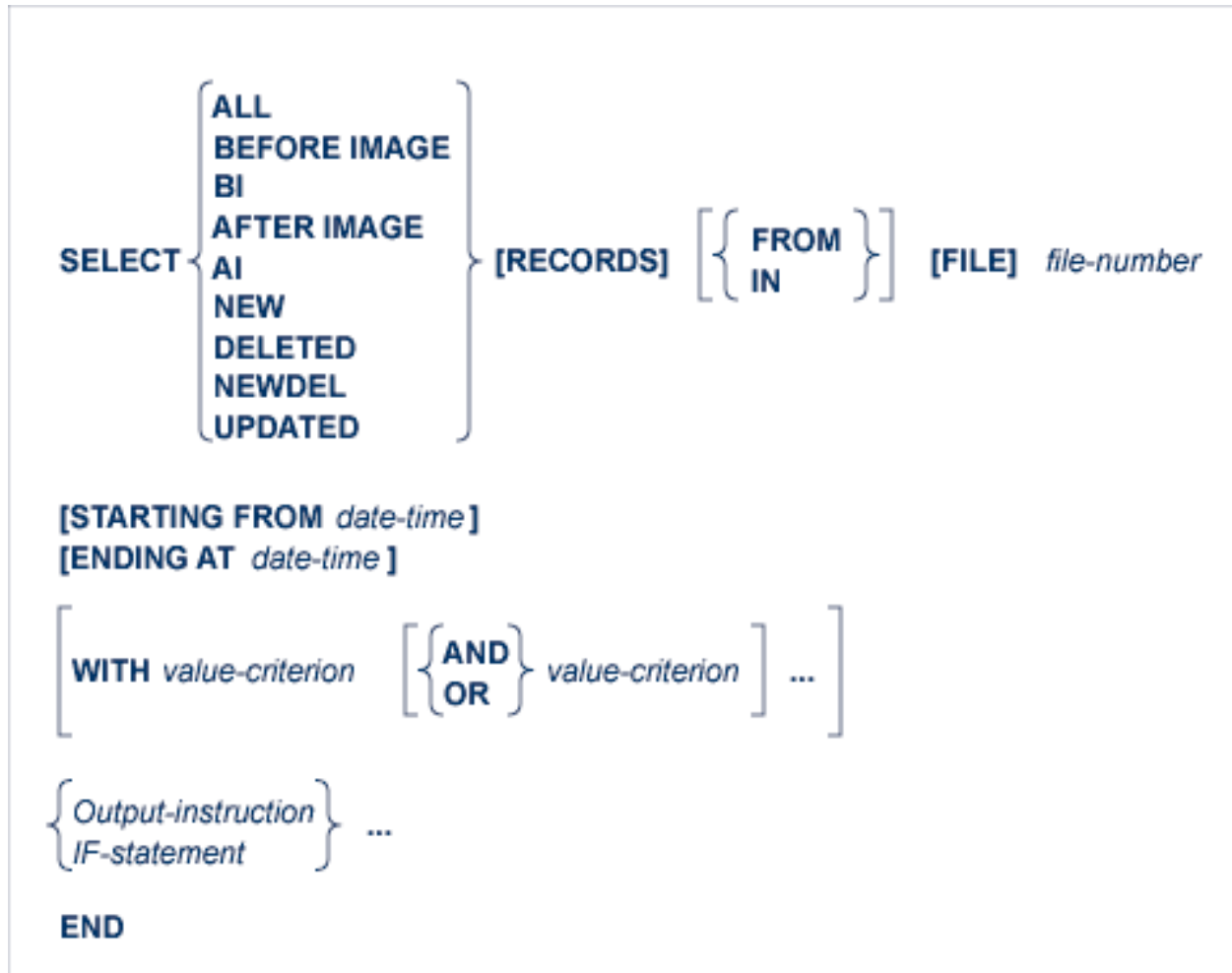
ADASAV SAVE: Save Database

```
ADASAV SAVE [BUFNO = {number-of-buffers | 1}]
             [DRIVES = {count | 1}]
             [INCREMENTAL]
             [NOUSERABEND]
             [PERDRIVE = disk-drive-per-tape-drive , ...]
             [TTSYN = {seconds | ADARUN-tt}]
             [TWOCOPIES]
             [TEST]
```

ADASAV SAVE FILES: Save Specified Files

```
ADASAV SAVE FILES = file-list [BUFNO = {number-of-buffers | 1}]
                               [DRIVES = {count | 1}]
                               [INCREMENTAL]
                               [NOUSERABEND]
                               [PASSWORD = 'password-list']
                               [PERDRIVE = disk-drive-per-tape-drive , ...]
                               [TEST]
                               [TTSYN = {seconds | ADARUN-tt}]
                               [TWOCOPIES]
                               [UTYPE = EXU]
```

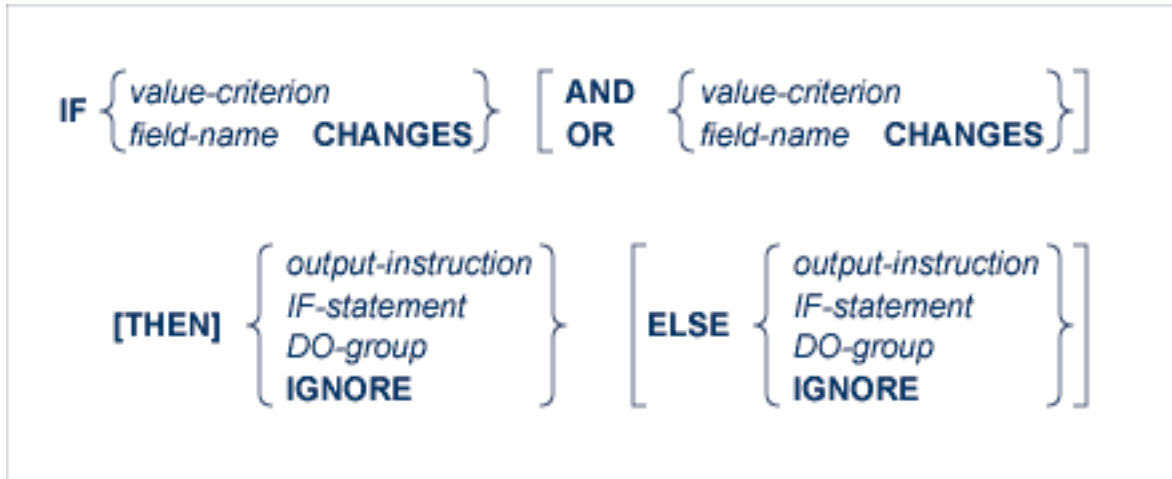
ADASEL Utility: Select Protection Data



- IF Statement
- DO Group
- Value Criterion
- Output Instruction
- DISPLAY Statement

- SET GLOBALS Statement

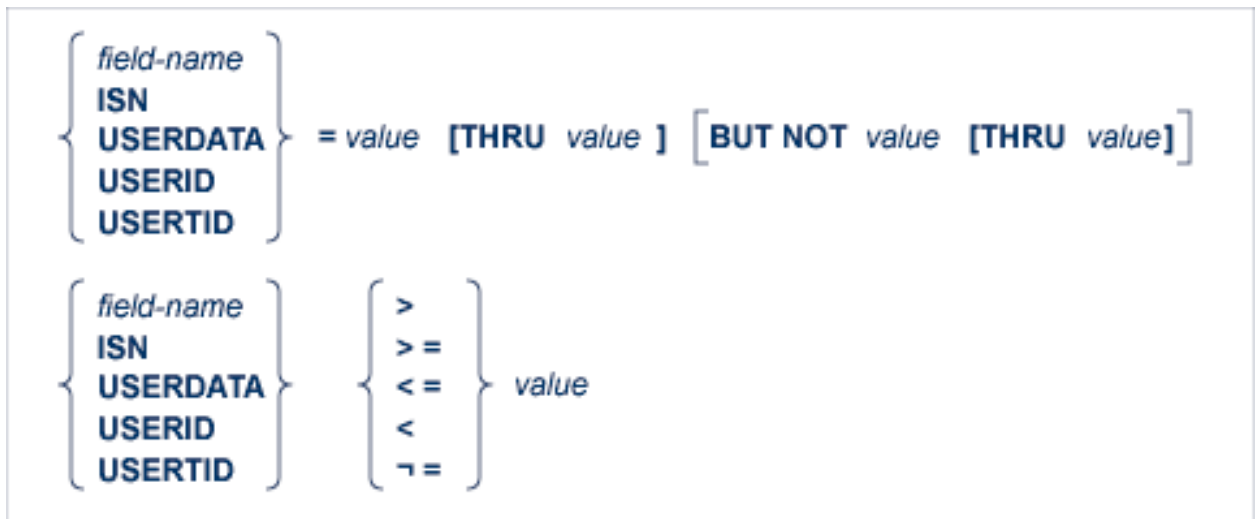
IF Statement



DO Group



Value Criterion



Output Instruction

```
[DISPLAY item ... ]
[OUTPUT [ { [WITH] LOGINFO | EXTENDED } ] [TO] EXPAn ]
[SKIP n { LINE | LINES } ]
[NEWPAGE]
```

DISPLAY Statement

```
DISPLAY {
  field-name [HEX]
  ISN [HEX]
  USERDATA [HEX]
  USERTID [HEX]
  USERID [HEX]
  NOHEADER
  'text'
} ...
```

SET GLOBALS Statement

ADASEL global parameters override default table and buffer sizes. Overrides are in effect only for the ADASEL run in which the SET GLOBALS statement is specified.

If used, SET GLOBALS must be the first ADASEL input statement. Comment statements can precede it. The statement has the following syntax:

```
SET GLOBALS { global-parameter = value } ...
```

No spaces are permitted between the parameter name, the equal sign, and the value. However, at least one space must separate parameters. Special characters are not permitted as separators. If multiple lines are used, the SET GLOBALS keyword must be repeated on each line. The first non-blank character string that does not begin with a parameter name terminates the SET GLOBALS statement. Thus, trailing comments are not permitted.

ADASEL provides the following global parameters. Default values are underscored.

Parameter	Description
LST={ <i>len</i> 12000 } ←	Length of the statement table, which is used to store the translated ADASEL statements. Depending on its complexity, a statement is translated into one or more segments. Each segment is 44 bytes plus a value length. For example: IF BA EQ 'SMITH' . . . requires 49 bytes: 44 bytes plus 5 bytes for "SMITH". The default table size (12,000 bytes) handles approximately 200 segments. If the table size is exceeded, a SEL003 error occurs.
NCFLD={ <i>n</i> 10 }	The maximum count of " <i>field-name</i> CHANGES" statements allowed in the selection query, and the maximum number of parallel updates during the original session. When a statement includes a CHANGES criterion, ADASEL uses a change pool with NCFLD * NCUPD entries to track changed field values. If this pool is too small, a SEL060 error occurs. In this case, it is necessary to increase one or both of the parameters and then rerun ADASEL.
NCUPD={ <i>n</i> 10 }	
NF={ <i>n</i> 20 }	The maximum number of files that can be processed during a single ADASEL run. NF is used to allocate space for the FDT for each file processed. A SEL014 error occurs if the NF value is exceeded. This value is <i>not</i> related to the maximum number of output files (DDEXPA <i>n</i> / EXPA <i>n</i>); although more than 20 files can be processed during an ADASEL run, a maximum of 20 output files can be written.
NIF={ <i>n</i> 20 }	Number of nested IF levels permitted.
NOUSERABEND	If specified, ADASEL terminates with condition code 20 instead of a user abend 034 after an error is encountered.
NV={ <i>n</i> 100 }	Number of field values. NV is used to allocate a table for the evaluation of field values. One entry is required for every field specified in the statements (including duplications). For example, the following statement requires two entries even though the same Adabas field name is used: <pre>IF BA = 'SMITH' THEN OUTPUT TO EXPA1 ELSE IF BA = 'SMYTH' THEN OUTPUT TO EXPA2</pre>
LPV={ <i>n</i> 0 }	Length of the PE-value table used in the evaluation of field values for a PE. Normally, ADASEL uses an estimated number of PE occurrences to compute the table size. If the table size is insufficient, a SEL047 error occurs; you can increase the table size using the global LPV parameter as indicated on the screen.
PS={ <i>n</i> 60 }	The page size parameter is used to alter the number of lines printed before a new page is started. The minimum page size is 2; the maximum is 999.
LS={ <i>n</i> 80 }	The line size parameter is used to alter the number of printed columns. If an output line is longer than the line size, the line is truncated at the nearest blank. The rest of the line is continued on the next output line, beginning in Column 1. The minimum line size is 1; the maximum is 132.

Example

```
SET GLOBALS LST=15000 NF=15
SET GLOBALS LS=132
```

ADAULD UNLOAD FILE: Unload Specified File

```

ADAULD [UNLOAD] FILE=file-number
[CODE = cipher-key ]
[DDISN]
[ERRLIM = {error-threshold-count | 1 }]
[ETID = multiclient-file-owner-id ]
[LPB = {prefetch-buffer-size | based-on-ADARUN-lu ]
[LRECL = {maximum-compressed-length | 4000 }]
[MODE = SHORT]
[NOUSERABEND]
[NUMOUT = { 1 | 2 }]
[NUMREC = number ]
[PASSWORD = file-password ]
[SAVETAPE]
[PLOGNUM = plog-number, { SYN1 | SYN4 } = plog-block-number ]
[TEMPDEV = {device-type | ADARUN-device ]
[TEMPSIZE =size ]
[SELCRIT = 'selection-criteria', SELVAL = 'values-for-selection-criteria']
[STARTISN =value ]
[
  SORTSEQ = {
    descriptor [MU] [NU]
    ISN [, STARTISN = value]
    physical-sequence
  }
]
[TEST]
[UTYPE = { EXU | EXF }]

```

ADAVAL Utility: Validate the Database

```

ADAVAL VALIDATE FILE= file-list
                   SORTSIZE= size
                   TEMPSIZE= size
                   [CODE = cipher-key ]
                   [DESCRIPTOR = 'descriptor-list' ]
                   [LPB = { prefetch-buffer-length | based-on-ADARUN-lu } ]
                   [LRECL = { record-buffer-length | 4000 } ]
                   [LWP = { work-pool-size | 1048576 } ]
                   [NOUSERABEND]
                   [PASSWORD = password ]
                   [SORTDEV = { device-type | ADARUN-device } ]
                   [TEMPDEV = { device-type | ADARUN-device } ]

```

ADAWRK Utility: Work Area Recovery Reports

```

ADAWRK [ABEND34]
                   [CHECKPOINT = {YES | NO } ]
                   [CMID = id1 [, id2 ] ... [, id24 ] ]
                   [ETID = etid1 [, etid2 ] ... [, etid32 ] ]
                   [FILES = fn1 [, fn2 ] ... [, fn64 ] ]
                   [FORCE = {YES | NO } ]
                   [LWP = nnnK | 1024K ]
                   [NOPPT]
                   [NOUSERABEND]
                   [REPORTFILE = {YES | NO } ]
                   [SUMMARY = {NO | YES } ]
                   [TEST]
                   [TIMEZONE = {MACHINE | LOCAL | {+ | -} nn } ]
                   [TRANSACTIONS = { NO | YES | DETAIL | FULL } ]
                   [USERID = id1 [, id2 ] ... [, id24 ] ]

```

ADAZAP Utility: Display or Modify Asso, Data, and Work Data Sets

```
ADAZAP MCODE = master-code
      { ASSO | DATA | WORK }
      [LENGTH = length-of-data ]
      [OFFSET = { offset-from-RABN-start | 0 } ]
      [RABN = { rabn-number | 1 } ]
      [REP = replace-data ]
      [VER = verify-data ]
```

6 Adabas Device Types and Block Sizes

- Supported z/OS and z/VM Device Types 144
- Supported z/VSE Device Types 145
- BS2000 Device Types and Block Sizes 146

The standard characteristics of the device types supported by Adabas in environments under the z/OS, z/VSE, z/VM, and BS2000 operating systems are summarized here.

Supported z/OS and z/VM Device Types

The standard characteristics of the device types supported by Adabas on z/OS and z/VM are summarized in the following table. Adabas block sizes and RABNs per track are provided for each Adabas component for each device type.

Device	Trks/Cyl	ASSO	DATA	WORK	PLOG/RLOG	CLOG	TEMP/SORT/DSIM	Notes
0512	16	2044:8	4092:4	8192:2	8192:2	8192:2	8192:2	
3310	11	2044:8	4092:4	4096:4	4096:4	4096:4	8192:2	
3330	19	1510:8	3140:4	4252:3	4252:3	3156:4	3140:4	
3340	12	1255:6	2678:3	3516:2	3516:2	3516:2	3500:2	
3350	30	1564:11	3008:6	4628:4	4628:4	3024:6	3008:6	
3370	12	2044:15	3068:10	5120:6	5120:6	3072:10	7680:4	
3375	12	2016:15	4092:8	4096:8	4096:8	4096:8	8608:4	
3380	15	2004:19	4820:9	5492:8	5492:8	4820:9	7476:6	3
3390	15	2544:18	5064:10	5724:9	5724:9	5064:10	8904:6	3
8345	15	4092:10	22780:2	22920:2	22920:2	22920:2	22920:2	
8350	30	3008:6	6232:3	9442:2	9442:2	9442:2	9442:2	1
8380	15	3476:12	6356:7	9076:5	9076:5	9076:5	9076:5	1
8381	15	3476:12	9076:5	11476:4	11476:4	9076:5	9076:5	1
8385	15	4092:10	23292:2	23468:2	23468:2	23468:2	23468:2	1
8390	15	3440:14	6518:8	10706:5	10706:5	8904:6	8904:6	1
8391	15	4136:12	10796:5	13682:4	13682:4	8904:6	18452:3	1
8392	15	4092:12	12796:4	18452:3	18452:3	18452:3	18452:3	1
8393	15	4092:12	27644:2	27990:2	27990:2	27990:2	27990:2	1
9332	6	2044:10	4092:5	5120:4	5120:4	10240:2	10240:2	2
9335	6	2556:14	3580:10	5120:7	5120:7	7168:5	7168:5	
9345	15	4092:10	7164:6	11148:4	11148:4	22920:2	22920:2	3



Notes:

1. The 8350, 838*n*, and 839*n* are pseudodevice types physically contained on a 3350, 3380, and 3390 device, respectively, but for which some or all of the standard block sizes are larger.
2. The number of tracks per cylinder listed here is artificial.

- The IBM RAMAC 9394 emulates devices 3390 Model 3, 3380 Model K, or 9345 Model 2.

Supported z/VSE Device Types

The standard characteristics of the device types supported by Adabas are summarized in the following table. The Adabas block sizes and RABNs per track are provided for each component for each device type.

Device	Trks/Cyl	ASSO	DATA	WORK	PLOG/RLOG	CLOG	TEMP/SORT/DSIM	Notes
1512	7	1536:37	18944:37	18944:37	18944:37	18944:37	18944:37	
3375	12	2016:15	4092:8	4096:8	4096:8	4096:8	8608:4	
3380	15	2004:19	4820:9	5492:8	5492:8	4820:9	7476:6	2
3390	15	2544:18	5064:10	5724:9	5724:9	5064:10	8904:6	2
3512	16	4096:64	16384:16	16384:16	16384:16	16384:16	16384:16	
5121	15	2048:16	4096:8	4096:8	4096:8	4096:8	4096:8	
5122	15	4096:8	8192:4	8192:4	8192:4	8192:4	8192:4	
5123	15	4096:8	16384:2	16384:2	16384:2	16384:2	16384:2	
8345	15	4092:10	22780:2	22920:2	22920:2	22920:2	22920:2	
8380	15	3476:12	6356:7	9076:5	9076:5	9076:5	9076:5	1
8381	15	3476:12	9076:5	11476:4	11476:4	9076:5	9076:5	1
8385	15	4092:10	23292:2	23468:2	23468:2	23468:2	23468:2	1
8390	15	3440:14	6518:8	10706:5	10706:5	8904:6	8904:6	1
8391	15	4136:12	10796:5	13682:4	13682:4	8904:6	18452:3	1
8392	15	4092:12	12796:4	18452:3	18452:3	18452:3	18452:3	1
8393	15	4092:12	27644:2	27990:2	27990:2	27990:2	27990:2	1
9345	15	4092:10	7164:6	11148:4	11148:4	22920:2	22920:2	2



Notes:

- The 8350, 838 n , and 839 n are pseudo-device types physically contained on a 3350, 3380, and 3390 device, respectively, but for which some or all of the standard block sizes are larger.
- The IBM RAMAC 9394 emulates devices 3390 Model 3, 3380 Model K, or 9345 Model 2.

BS2000 Device Types and Block Sizes

The primary access method for direct access data sets used by Adabas under BS2000 is PAM (primary access method). The device types defined by Adabas establish a logical structure on a PAM data set in order to process a fixed number of consecutive PAM blocks (e.g., one Adabas block consisting of two PAM blocks or one logical track consisting of four PAM blocks).

These device types are “artificial”; there is no relation to the physical devices being used. A maximum of 16 PAM blocks per track can be combined into one I/O call. For more than 16 PAM blocks per track, parameter chaining is used.

The artificial device types defined by Software AG for BS2000 systems are summarized in the following table. The ASSO, DATA, WORK, PLOG, CLOG, and TEMP/SORT/DSIM block sizes are given in RABNs per track.

Device	Trks/Cyl	PAM Blks/Trk	ASSO	DATA	WORK	PLOG	CLOG	TEMP/SORT/DSIM	Notes
2000	20	4	2048:4	4080:2	4096:2	4096:2	4096:2	4080:2	
2001	19	8	2044:8	4092:4	4096:4	4096:4	8192:2	8192:2	
2002	19	8	4092:4	8188:2	8192:2	8192:2	16384:1	16384:1	see note 1
2003	17	15	2044:15	6140:5	6144:5	6144:5	10240:3	10240:3	
2004	17	15	6140:5	10236:3	10240:3	10240:3	30720:1	30720:1	
2005	11	20	2044:20	4092:10	8192:5	8192:5	10240:4	10240:4	
2006	11	20	4092:10	8188:5	10240:4	10240:4	10240:4	10240:4	
2007	17	15	10236:3	30716:3	30720:3	30720:3	30720:3	30720:3	see note 2
2008	17	16	4092:8	32656:1	32760:1	32760:1	32760:1	32760:1	see note 1
2009	17	16	4092:8	32656:1	32740:1	32740:1	32740:1	32740:1	see note 1
2010	15	16	4092:8	8188:4	16380:2	16380:2	16380:2	16380:2	see note 1
2200	15	16	4092:8	8088:4	16380:2	16380:2	16380:2	16380:2	see note 1
2201	15	12	4092:6	12184:2	12288:2	12288:2	12288:2	12288:2	see note 1
2202	15	16	4092:8	16280:2	16380:2	16380:2	16380:2	16380:2	see note 1



Notes:

1. This device can be used with BS2000/NK4 disk types. In these cases, all direct access database files have been defined with a standard block size which is a multiple of 2.
2. Although supported, the 2007 device is not recommended for use with Adabas. Support for the 2007 will be removed in a later Adabas release.

If the current database device is not of a compatible type for NK4 disks and it is necessary to migrate it to those disks, you must use the ADAORD RESTRUCTUREDB utility as described in *Adabas Utilities*.

Splitting Data Sets Across Volumes

For private volumes, splitting is possible under every LOGON user ID:

In ISP format:

```
/FILE data-set,DEVICE=D3480,VOLUME=PRIV01,SPACE=60000
/FILE data-set,DEVICE=D3480,VOLUME=PRIV02,SPACE=60000
```

In SDF format:

```
/CREATE-FILE data-set,PRIV-DISK(SPACE=(60000),VOLUME=PRIV01)
/MOD-FILE-ATTR data-set,PROT=(USER-ACC=*ALL)
/MOD-FILE-ATTR data-set,SUP=PRIV-DISK(SPACE=(60000),VOLUME=PRIV02)
```

For public volumes, the splitting is possible under every LOGON user ID if the master catalog entry of the pubset has the attribute:

```
PHYSICAL-ALLOCATION=USER-ALLOWED
```

This attribute is set by issuing the following command under TSOS:

```
/MOD-MASTER-CAT CAT-ID=ABC,PHYSICAL-ALLOCATION=USER-ALLOWED
```

Once this attribute is set, it is possible to split a data set across two or more public volumes under any LOGON user ID that has the right of space allocation on that particular pubset.

In ISP format:

```
/FILE data-set,VOLUME=ABC.00,DEVICE=D3480,SPACE=60000
/FILE data-set,VOLUME=ABC.01,DEVICE=D3480,SPACE=60000
```

In SDF format:

```
/CREATE-FILE data-set,PUB(SPACE=(60000),VOLUME=ABC.00)  
/MOD-FILE-ATTR data-set,PROT=(USER-ACC=*ALL)  
/MOD-FILE-ATTR data-set,SUP=PUB(SPACE=(60000),VOLUME=ABC.01)
```

At this point, even a particular physical allocation can be made.

In ISP format:

```
/FILE data-set,VOLUME=ABC.02,DEVICE=D3480,SPACE=(20002,60000,ABS)
```

In SDF format (following the CREATE-FILE and MOD-FILE_ATTR...PROT specifications listed earlier):

```
/MOD-FILE-ATTR data-set,SUP=PUB(SPACE=ABSOLUTE(20002,60000),VOLUME=ABC.02)
```

The example extent covers physical PAM pages 20002 through 80001 on volume ABC.02. The required disk space must, of course, be available. If you are unsure of the available disk space, consult your system administrator.

Saving the Extent List of Data Sets

The utility ADAR2E converts the extent list of given data sets into a JOB containing /CREATE-FILE commands. For more information, see the section on the ADAR2E utility in the *Adabas Utilities* documentation.

7 Database Space Allocation Rules

When processing an add or update record command, the Adabas nucleus may need to allocate an additional extent to any of the following file components:

- address converter
- normal index
- upper index
- Data Storage

This chapter describes the rules used for the allocation.

Address Converter (AC)

The size of the address converter is initially defined by the MAXISN parameter in the ADALOD utility. The actual highest expected ISN is slightly higher because the address converter is stored in entire blocks. For example:

- If RABNSIZE=3, MAXISN=5000 on a model 3380 with 668 entries per block (2004/3) results in 8 blocks. The highest ISN expected (before further expansion) is therefore 5343 ($668 * 8 - 1$).
- If RABNSIZE=4, MAXISN=5000 on a model 3380 with 501 entries per block (2004/4) results in 10 blocks. The highest ISN expected is therefore 5009 ($501 * 10 - 1$).

If the Adabas nucleus requires an additional extent for a file when executing N1 commands, the allocation routine attempts to locate a new extent of 25% of the current size:

- If an unused extent between 25% and 28% can be found using the free space table (FST), that space is taken immediately;
- If only longer extents are available in the FST, a new extent of exactly 25% is taken;
- If only smaller extents are available in the FST, the longest available extent is taken;

- If an additional AC extent is required, and the maximum has already been assigned, Adabas will return an appropriate response code to the calling program;
- If a file has the attribute "one AC extent only" (e.g., if the file is an expanded file), an attempt to allocate a second AC extent will cause a response code.

Normal Index (NI), Upper Index (UI), Data Storage (DS)

For the purpose of allocating a new extent, the following formulas are used:

$$Z1 = \text{MIN} \left(2 * B, (E-U) * B/U \right)$$

$$Z = \text{MIN} \left(\text{MAX}(Z1, B/8 + 10), 1000000 \right)$$

where

B number of blocks currently allocated.

E highest ISN expected.

U highest ISN currently allocated.

If an extent found in the FST is contiguous with the end of a previous extent, it is allocated for a maximum of Z blocks.

If *no* such extent can be found in the FST

- but an extent between Z and $9 * Z/8$ is found, it is allocated.
- but an extent with more than $9 * Z/8$ blocks is found, then a new extent is allocated with exactly Z blocks.
- the longest extent in the FST is allocated as the new extent.

Additionally, if the MAXNI, MAXUI, or MAXDS parameter is specified for the current file, the nucleus allocates no more than the specified maximum number of blocks for the NI, UI, or DS, respectively.

8 Nucleus Response Codes

After each Adabas command is processed, a response code is returned in bytes 11 and 12 of the ACB or in the ACBX. Some response codes also return a subcode in the rightmost two bytes of the ACB's Additions 2 field (offset 45-48) or in the ACBX's Error Subcode (ACBXERRC) field (offset 115-116). This section describes those response codes and subcodes.



Note: Proprietary functions of Adabas may also return response codes and subcodes, some of which are not described here. Refer to the documentation for those functions for more information.

Response code 0 indicates that the Adabas command was processed successfully; any other response code is returned as a result of an error during command processing.

All Adabas commands resulting in a response code other than 0, 1, and 145 restore all Adabas control block fields except the response code field (see the Adabas Command Reference documentation) to the contents the fields held at the beginning of command execution.

For internal errors, contact your Adabas technical support representative.

Response 0

Explanation The command was executed successfully.

Response 1

Explanation Depending on the subcode in the rightmost two bytes of the ACB's Additions 2 field or the ACBX's Error Subcode (ACBXERRC) field, one of the following has occurred:

1	An online SAVE operation cannot be executed without the nucleus' PLOG.
2	The selected record is not allowed.
3	S2 command did not have enough space.
4	S2/S9 internal program error.
5	System was not in save status at the end of an online ADASAV.

Note: When one of the subcodes 2-4 is present, the cause could be an Sx command using security-by-value that found at least one ISN.

Action Increase the ADARUN LS parameter value.

Response 2

Explanation This response code can only occur with a BT or ET command. The BT or ET command executes successfully. One of the following has occurred:

1	Adabas attempted to hold an ISN already being held by another user.
2	The number of ISNs as specified in the ISN buffer was too large compared to the ISN buffer length (ET or BT command with the M option).
4	ISN is not on hold during multifetch ET/BT. ET/BT has successfully executed the ISNs so far released. The remaining ISNs are still on hold.

Response 3

Explanation One of the following has occurred:

- An end-of-file or end-of-list condition was detected.
- A program tried to read/change a multiclient file's record using either a blank or incorrect-length owner ID, or an owner ID that is not allowed for the record.

Response 7

Explanation A complex search command was rejected because it was estimated that it would exceed the maximum search time TLSCMD.

Response 8

Explanation The current user's command was interrupted to prevent a Work overflow because of a pending backout operation.

Action The value specified for the LP parameter might have to be increased.

Response 9**Explanation**

A subcode indicating the specific cause and action for this response code appears in the low-order (rightmost) two bytes of the ACB's Additions 2 field or in the ACBX's Error Subcode (ACBXERRC) field. The following are the subcodes and their meanings:

1	<p>The user was backed out because the hold queue was full</p> <p><i>Action:</i> Set the number of hold queue elements (ADARUN NH parameter) higher, or tune the application to issue more frequent ET commands.</p>
2	<p>The transaction time limit (TT) has been exceeded, and the transaction was backed out.</p> <p><i>Action:</i> Correct the cause of the timeout, then restart the transaction.</p>
3	<p>One of the following is the case:</p> <ul style="list-style-type: none"> ■ The transaction non-activity time limit (TNAE, TNAX, or TNAA) has been exceeded. ■ The user was stopped by the STOPF or STOPI operator, or an Adabas Online System command. ■ A security violation response code has been returned for an ET-logic user. Information about response codes for security violations is provided in the Adabas Security documentation. ■ When a new user issues an OP cmd with the same user ID (in ADD1) as an earlier user did and the earlier user was inactive for more than 60 seconds, the new user can, by issuing a second OP cmd again (the first OP cmd will get response code 9, subcode 64), take over the user ID of the earlier user. When the earlier user becomes active again, this subcode can be received. <p><i>Action:</i> Correct the cause of the timeout, then restart the transaction.</p>
15	<p>The user was backed out because a pending Work area overflow occurred during this operation.</p> <p><i>Action:</i> Either reduce the transaction length to lessen the data protection area requirement, or increase the protection area on Work.</p>
17	<p>At the end of an online recovery process that was initiated after the failure of a peer nucleus in an Adabas cluster, the nucleus was unable to reacquire the ETID specified by the user in the Additions 1 field of the OP command.</p> <p><i>Action:</i> (In the application program:) Redo the OP command with the ETID specified in the Additions 1 field to reacquire the user ID. Contact your Software AG technical support representative.</p>
18	<p>The user's active transaction was interrupted and backed out because a peer nucleus in an Adabas cluster terminated abnormally.</p> <p><i>Action:</i> (In the application program:) Rerun the transaction.</p>

19	<p>The user's active command was interrupted and stopped because a peer nucleus in an Adabas cluster terminated abnormally. If the interrupted command was using a command ID (CID), the command ID is deleted.</p> <p><i>Action:</i> (In the application program:) Clean up and reacquire the current context pertaining to Adabas command IDs; rerun the transaction.</p>
20	<p>The Adabas cluster nucleus assigned to the user terminated while the user had an open transaction. The transaction has been or will be backed out.</p> <p><i>Action:</i> (In the application program:) If the user was defined with a user ID (ETID) in the Additions 1 field of the OP command, redo the OP command to reacquire the ETID; clean up and reacquire the current context pertaining to Adabas command IDs; rerun the transaction.</p>
21	<p>The user's active command was waiting for an ISN in hold status when the user was backed out and closed due to a timeout or a STOP command.</p>
22	<p>The user's active command was waiting for free space in the work pool when the user was backed out and closed due to a timeout or a STOP command.</p>
62	<p>An OP (open) command was issued without a user/ET ID, which is required for this type of application or environment.</p> <p><i>Action:</i> Correct the program to specify a user/ET ID, and rerun the program.</p>
63	<p>An OP command was given for an ET user not in ET status. The user is backed out with an Adabas-generated BT command, and the operation is closed.</p> <p><i>Action:</i> Repeat the OP call.</p>
64	<p>An OP command was issued with an 8-byte ET ID that already exists.</p>
66	<p>An Adabas session with OPENRQ=YES was active and the user issued an Adabas command without having issued an OP command.</p> <p><i>Action:</i> Ensure that all users issue an OP command as the first Adabas command.</p>
67	<p>Insufficient Work part 1 space for open command with ETID definition when trying to read the user profile.</p>
68	<p>The user queue element has been deleted. Most likely the command was thrown back due to ISN contention or space shortage. The space shortage is normally workpool space; if this is the case, the LWP parameter setting should be increased.</p>
73-78	<p>These subcodes are given only when Adabas Transaction Manager is in use. Review the Adabas Transaction Manager documentation for more information.</p>
79	<p>Used by Adabas System Coordinator to signal the (optional) terminal timeout. Review the Adabas System Coordinator documentation for more information.</p>
80-99	<p>These subcodes are given only when Adabas Transaction Manager is in use. Review the Adabas Transaction Manager documentation for more information.</p>
130	<p>In a cluster, the UQE of the user was deleted between the time the user's command was routed to one nucleus in the cluster and the time that nucleus selected the command for processing.</p>

249	This subcode is given only when Adabas Vista is in use. Review the Adabas Vista documentation for more information.
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Response 10

Explanation Too many occurrences for a periodic group.

Response 17

Explanation A subcode indicating the specific cause and action for this response code appears in the low-order (rightmost) two bytes of the ACB's Additions 2 field or in the ACBX's Error Subcode (ACBXERRC) field. The following are the subcodes and their meanings:

1	The program tried to access system file 1 or 2, and no OP command was issued. <i>Action:</i> Restructure the program to begin with an OP command.
2	The program tried to access system file 1 or 2, and the user is not authorized. <i>Action:</i> Change the program to avoid the access.
4	One of the following occurred: - The specified file number is invalid. - When running with ADARUN DTP={RM TM}, an attempt was made by a non-ATM user to access/update an ATM system file.
5	The file is either not loaded, or has been locked by another user for privileged use. For ADAORD and ADAINV utility operations, the write phase has started and use of the file is now blocked for the type of operation you requested.
6	An E1 (delete record) command was given without specifying a valid file number.
7	The program tried to perform an LF command on system file 1 or 2.
8	The program tried to access a file that was not listed in the file list of an open (OP) executed with the R option.
9	The file that the program attempted to access is completely locked. This is usually because the maximum number of logical file extents that can fit into the FCB have been used. <i>Action:</i> Reorder, then unlock the file. Continue operation.
10	The program attempted to access a file which is locked with exclusive EXU status.
11	An LF command (read FDT) was run on a file that is not loaded; neither the FCB nor the FDT exists.
12	File has been locked with LOCKF.
13	A file is password-protected and the password was specified, but the corresponding security file is missing (not loaded).
14	A command was issued against a LOB file. Commands involving LB fields should be directed against the base file, not the LOB file.

15	A file is being loaded so its information is temporarily unavailable.
16	An attempt was made to perform an update (e.g. A1, E1, N1/2) against a file loaded with the attribute RPLUPDATEONLY=YES.
18	File has been locked with ALOCKF.
21	Not enough space for encoding elements (ECSE).
22	The required ECS objects needed for conversion between user and system data representation could not be loaded.
23	ECS object could not be located. The following objects must be available in the encoding objects library: File Alpha, File Wide EDD, User Alpha, User Wide EDD, and the PTOs for the combinations between file/user alpha/wide encodings. <i>Action:</i> Check that the required EDD and PTO objects are available.
24	ECS function get_attribute() failed. <i>Action:</i> The function's return code is logged with the nucleus message ADAN7A.
25	One of the following occurred: - A required encoding attribute was missing in an ECS object (encoding type, class, and flags) - The default space character length was > 4 - Default space table allocation failed - If DBCS-only plane exists, wide space character was undefined, or the length > 4, or wide space table allocation failed
29	An Adabas Review communication error has occurred. Contact your Software AG support representative.
249	This subcode is given only when Adabas Vista is in use. Review the Adabas Vista documentation for more information.

Response 18

Explanation

Invalid file number usage. The file number was modified between successive L2/L5 calls.

Response 19

Explanation

An attempt was made to update a file which was opened for access only. The leftmost two bytes of ACB's Additions 2 field or the ACBX's File Number (ACBXFNr) field may contain the file number.

Response 20

Explanation

One of the following invalid values was used for a command ID value:

- X'00000000'
- X'40404040'
- X'FFxxxxxx'

User Action: Avoid usage of any of the above command ID values.

Response 21

Explanation

An invalid command ID value was detected. One of the following explanations or subcodes is provided:

- The command ID value specified with the GET NEXT option of an L1/L4 command was not found.
- The command ID value was not found and the L3/L6 call was not an initial call.
- The command ID value specified for the L3/L6 command was assigned to another L2/L5 or L9 command.
- The command ID value specified for the L9 command was assigned to another L2/L5, L3/L6 or L9 command.
- An invalid global format ID was specified.
- The command ID is already present in the format pool, but for another file.

1: The command ID value was not found in the sequential command table. Either this is not an initial call and there was no previous initial call, or the initial call was issued for another file.

6: The command ID value specified for the S8 command was not found.

7: The command ID value specified was assigned to an internal format buffer for a different file.

8: The command ID value specified for the S8 command is for an unsorted ISN list.

9: An application running with PREFETCH=YES or PREFETCH=OLD attempted to dynamically reverse the read direction of an L3/L6/L9 command. This is not allowed.

Response 22

Explanation

The command is invalid. A subcode indicating the specific cause and action for this response code appears in the low-order (rightmost) two bytes of the ACB's Additions 2 field or in the ACBX's Error Subcode (ACBXERRC) field.

When using the LNCSTUB module, this response code may indicate problems with the initial call (IC) to the Adabas CICS command-level link component. If the Adabas control block shows a command code of "IC", the link routine being used may not be at the proper release level or may not be the command-level version.

The following are the subcodes and their meanings:

1	The nucleus detected an invalid command code. <i>Action:</i> Correct the command code, and rerun the program.
2	This command cannot be issued by an ACC (access only) user.
3	This command cannot be performed on a read-only nucleus.
4	This privileged command was issued without a previous OP (open) command.
5	The command is not valid for a nonprivileged user.
6	The command was rejected by user exit 1.
7	Incorrect command options were specified for a privileged command.
8	The command is invalid for an ET user in preliminary ET status. First complete the transaction using Adabas Transaction Manager.
9	The current user is not authorized to issue an ET/BT command.
10	The C2 command is no longer permitted.
11	The C3 command can only be issued by EXU users.
12	The L1/4 command with the option "F" is not valid for expanded files.
13	The call issued is not permitted when the database is in a suspend state.
14	Invalid privileged command.
15	An L1 command specified the multifetch option "M" or "O" combined with either the "I" or "N" option.
16	The user does not have "privileged" command authorization.
17	Not permitted during online save.
18	Applications using the ADALNK X'48 call logic receive this response when the logic has been suppressed.
21	ET command is invalid for a distributed transaction managed by Adabas Transaction Manager.
22	The current transaction has already been heuristically terminated.
23	BT command is invalid for a distributed transaction managed by the Adabas Transaction Manager.
24	CL is invalid because the user has a transaction in progress that is managed by Adabas Transaction Manager.
25	A command was sent from an Event Replicator Server to an Adabas nucleus, but the Adabas nucleus is not running with ADARUN REPLICATION=YES.
26	An attempt was made by an Adabas nucleus to connect to an Event Replicator Server when the target of the message is actually another Adabas nucleus, not an Event Replicator Server.
28	A replicated utility may not be executed for a replicated file when the Adabas nucleus is running in single-user mode.
29	An error occurred during a connection attempt by an Event Replicator Server database. Ensure that you are trying to connect to another Adabas nucleus and not an Event Replicator Server and try again.

32	An attempt was made to update a replicated file in single-user-mode. Replicated files can be updated only in multi-mode; replication is not supported in single-mode. However, a nucleus with replication support can be started in single-mode for maintenance purposes.
50	The Router (LCC) detected an invalid command code. This may also arise when a new ACBX-type call is presented to a back-level router.

Response 23**Explanation**

An invalid starting ISN was specified for an L2/L5 command sequence:

- The ISN was not assigned to a record in the file; or
- The ISN was greater than the MAXISN in effect for the file.

Response 24**Explanation**

S9 command:

- The ISN list in the ISN buffer was already sorted; or
- The ISN list in the ISN buffer contained an invalid ISN; or
- The "D" option was specified when trying to sort an ISN list by ISN.

Response 25**Explanation**

The ISN specified in ISN lower limit field for an S1/S4 or S2/S9 command was not found.

Response 26**Explanation**

An invalid ISN buffer length for an S9 command was detected. The number of ISNs to be sorted as provided in ISN quantity is equal to 0.

2	An S9 command with an ISN buffer contains ISNs that are higher than the TOP-ISN of the file.
---	--

Response 27

Explanation

Sufficient work space was not available to accommodate the combined sizes of the search and value buffers as indicated in the search buffer length and value buffer length fields.

1	Sufficient work space was not available to generate the format translation.
---	---

Response 28

Explanation

The first two bytes of the Additions 1 field contained an invalid descriptor for an L3/L6 or S2/S9 command:

- the Additions 1 field contained a descriptor different from that contained in the search buffer; or
- the field was not a descriptor; or
- the descriptor was changed between successive calls; or
- the descriptor is contained within a periodic group.

Response 29

Explanation

L3/L6 command; a value repositioning was attempted (bytes 3-4 of the Additions 1 field contain spaces) and the Command Option 2 field did not contain the value "V". The command ID is released.

Response 34

Explanation

An invalid command option has been detected.

Action

Either remove the invalid command option or replace it with a valid option.

Response 35

Explanation

The user/DBA attempted to perform a function for a noncluster Adabas nucleus that is available only for an Adabas cluster database.

Response 40

Explanation

One of the following syntax errors was detected in the format buffer:

- The terminating period was missing.
- The first position contained a period.
- Length and/or format was specified with a range definition.
- An invalid element was detected.

- The L9 descriptor name in the search buffer did not agree with the name in the format buffer.
- Format 'C.' was specified for an update command.
- Subcode 9: Selective format not allowed with multiple buffers

Response 41**Explanation**

One or more specification errors exist in the format buffer. When possible, the short name of the field for which the error occurred is stored at offset 2 of the ACB's Additions 2 field or in the ACBX's Error Character Field (ACBXERRB). The following specification errors may have been made:

1	A phonetic descriptor or hyperdescriptor was specified.
2.	A field specification error occurred: <ul style="list-style-type: none"> ■ The specified field name is reserved for edit masks. ■ The field is not in the selected file.
3	An indexing error occurred: <ul style="list-style-type: none"> ■ No index was specified for a periodic-group name or field. ■ A group or multiple-value field index greater than the allowed maximum was specified. In Adabas versions prior to Version 8, this maximum is "191"; in Adabas version 8 or later, this maximum is "65,534". ■ The specified index was zero (0). ■ The specified index range is descending. ■ Indexes are missing for some of the multiple-value fields specified. ■ A reference to a multiple-value field count is missing an index.
4	A periodic-group error occurred: <ul style="list-style-type: none"> ■ A reference to a periodic group is missing an index. ■ The command specified a group containing a multiple-value field. ■ A periodic-group reference specifies a length/format. ■ No index was specified in a periodic-group reference.
5	A group error occurred: a group reference specified a length/format.
6	A multiple-value field error occurred: <ul style="list-style-type: none"> ■ A count was specified for a non-multiple-value field. ■ The methods for indexing multiple-value fields were mixed. Only one type of indexing can be used in the format buffer.

7	The descriptor name not found in FDT/SDT.
8	A length indicator (<i>fldL</i>) or asterisk notation (<i>fld,*</i>) is not allowed for field <i>fld</i> (for example, when <i>fld</i> is a superdescriptor or subdescriptor field)
9	1-N or x-N range notation is not permitted for elementary large object (LB) fields in a periodic group.
10	An LB field is not permitted in an L9 command.
11	A length indicator (<i>fldL</i>) or asterisk notation (<i>fld,*</i>) is not allowed for field <i>fld</i> (for example, when <i>fld</i> does not have the LA or LB option)
12	The old MU syntax is not allowed for LB fields.
13	A length indicator (<i>fldL</i>) or asterisk notation (<i>fld,*</i>) is not allowed with a count indicator (<i>fldC</i>) or field range (for example, AA-ZZ)
14	The length indicator (<i>fldL</i>) and asterisk notation (<i>fld,*</i>) are not allowed together (for example, <i>fldL,*</i>)
15	A length indicator (<i>fldL</i>) or asterisk notation (<i>fld,*</i>) is not allowed with a significance operator (for example, <i>fldS</i>).

User Action: Correct the specification error and reissue the command or job. For more information about syntax rules for multiple field and periodic group indexing, refer to the Adabas Command Reference documentation.

Response 42

Explanation A space problem occurred. The following are the subcodes and their meanings:

1	The Work pool was too small to store a user format. <i>Action:</i> Increase the LWP specification and retry .
2	The internal format buffer was too small to store a user format (translated into internal structure). <i>Action:</i> Increase LFP specification and retry.

Response 43

Explanation L9 command; the descriptor specified in the format buffer did not agree with the descriptor specified in the search buffer.

Response 44**Explanation**

One of the following format buffer errors occurred (subcodes are shown in the leftmost column):

1,3	The format buffer specification was invalid (conditional format buffers are not allowed for update operations).
2,4	The L9 command's format buffer format is not allowed for other commands.
5	The L9 command specified a conditional format in the format buffer.
6	A floating-point field was addressed using a length other than 4 or 8; or a fixed-point field was addressed using a length other than 4.
7	Conditional format and more than one format buffer was specified.
8	The current Adabas call provides a different number of format buffers than the format reference by CID.

Response 45**Explanation**

The internal format buffer space has been exceeded. Either the LWP parameter setting is too small or the internal format buffer requires more than 2 G.

Increase the size of the LWP parameter and try again. If the problem persists, contact your Software AG technical support representative for assistance.

Response 46**Explanation**

The maximum value for the NQCID parameter was exceeded (the number of TBI and/or TBQ elements is greater than NQCID).

Response 47**Explanation**

The maximum value for the NISNHQ parameter was exceeded. This value is 1/4 the ADARUN NH parameter value up to 65535.

Response 48**Explanation**

An error occurred during the processing of a command such as OP or N1. Refer to the hexadecimal subcode that appears in the low-order (rightmost) two bytes of the ACB's Additions 2 field or in the ACBX's Error Subcode (ACBXERRC) field.

1	A specified file is locked against the requested use.
2	A specified file is currently in conflicting use.
3	A utility cannot start because an online save operation is in progress.
5	A utility requiring exclusive database control cannot start because an online save operation is in progress.
6	A utility that requires exclusive database control cannot start because the user queue is not empty.
8	The user ID specified in the open command is already in use by another user.
9	An EXU/EXF/UTI lock was requested in the open command, but the file is currently in the file list of a user in UPD/EXU/EXF/UTI status.
10	An EXF/UTI lock was requested in the open command, but the file is currently in the file list of a user in ACC status.
11	A nonprivileged user issued an open command to a nucleus in UTIONLY status.
13	Online file save attempting to run on an advance-locked file.
14	UPD/ACC open attempted against advance-locked file.
15	A file requested for an online utility (Adabas Online System or ADADBS) or an E1 program refresh is currently being used.
16	ACODE or WCODE was specified in the record buffer on the command but the nucleus was not activated with UES support.
17	A specified file is locked against the requested use and is advance-locked.
18	A second command was issued by a user who is participating in a two-phase commit (preliminary ET completed; final ET outstanding) or whose transaction has been heuristically terminated.
19	The file number is zero or is greater than the maximum number of files allowed for the database (based on the MAXFILES parameter setting when the database was defined using the ADADEF utility).
20	A regenerate/backout with exclusive database control is rejected because there are in-doubt transactions or heuristically terminated transactions on Work part 4.
21	File is locked for utility usage.
25 - 30	Reserved for Adabas Transaction Manager. These subcodes are given only when Adabas Transaction Manager is in use. Please see the <i>Adabas Transaction Manager</i> documentation for more information.
31	File locked for normal usage
32	A file is in use by an exclusive update (EXU) user. An update request from another user is not permitted.
33	A file is locked for exclusive file control (EXF) or utility update (UTI) usage. The request from a user with a different type is not permitted.
257 - 260	Reserved for use by Event Replicator for Adabas on open systems.

Response 49**Explanation**

The compressed record was too long. It exceeds the maximum permitted compressed record length for the file. The following subcodes may be indicated:

1	Multiple-value (MU) field.
2	Periodic (PE) group field.
3	MU field.
4	PE group.
5	PE group level.
6	Remaining fields.
7	Record too long for protection logging (internal error).
8	A compressed record exceeds the permitted length. The error was detected when updating a multiple field.
10	Long alpha or wide field.
14	An MU update caused the compressed record to become too long.
15	An MU update caused the compressed record to become too long.
16	An MU update caused the compressed record to become too long.
18	An update to an LA field caused the compressed record to become too long.

Response 50**Explanation**

A syntax error in the record buffer was detected during processing of an OP command.

Response 51**Explanation**

An error in the record buffer was detected during processing of an OP command.

Response 52**Explanation**

One of the following errors occurred while processing the record, value, or search buffer. In an ACB, the rightmost two bytes of the Additions 2 field contain the subcode; for subcodes 1-5, the leftmost two bytes contain the Adabas name of the field where the error occurred. In an ACBX, the subcode is stored in the Error Subcode (ACBXERRC) field; for subcodes 1-5, the Adabas field name where the error occurred is stored in the Error Character Field (ACBXERRB).

1	Invalid packed or unpacked decimal value in record buffer.
2	Invalid length for variable-length field specified in record buffer.
3	Invalid null value or no value at all provided for field with NN option.
4	Invalid value for S element in record buffer.
5	Invalid value for S element in value buffer.
6	Encoding a collation descriptor value failed: the collation descriptor exit issued a return code.
7	Decoding a collation descriptor value failed: the collation descriptor exit issued a return code.
99	An invalid field length was specified.

Response 53

Explanation

One of the following errors occurred (the leftmost column indicates the subcode):

0	<p>The record buffer is too small.</p> <p><i>Action:</i> If the record buffer size</p> <ul style="list-style-type: none"> ■ conflicts with the lengths specified in the format buffer, change either the record buffer size or the format buffer specifications to resolve the conflict. ■ conflicts with the established global format ID (GFID), either release the GFID or change the record buffer size to match the GFID. ■ default is too small to hold the records in the file including the DVT when running the ADAULD utility, increase the size of the record buffer by setting the ADAULD LRECL parameter. See the Adabas Utilities documentation for more information.
2	<p>The ISN buffer is too small.</p> <p><i>Action:</i> Increase the size of the buffer.</p>
7	<p>At least one of the record buffers was too small for the data defined in the corresponding format buffer. EDEERE contains the buffer number in error.</p>
8	<p>The referenced existing format buffer requires more space than that given in one of the record buffers.</p> <p>If this subcode occurs using ADACMP DECOMPRESS, the LRECL of the output record is too small.</p>
249	<p>This subcode is given only when Adabas Vista is in use. Review the Adabas Vista documentation for more information.</p>

Response 54**Explanation**

The record buffer for a C3, C5, or ET command is too long. The maximum allowed is 2048 bytes. The following subcodes (in hexadecimal) may be indicated:

1	The record buffer for the C3 command is too long.
2	The record buffer for the C5 command is too long.
3	The record buffer for the ET command is too long.

User Action:

Correct the record buffer specification, then reissue the C3, C5, or ET command.

Response 55**Explanation**

One of the following occurred:

- During a read-type operation, a field defined with the SQL null (NC) option contained a null value, but the format buffer held no "S" (significant null) indicator for the field.

In an ACB, the Additions 2 may contain the field name in the leftmost two bytes; the rightmost two bytes may contain the offset into the record buffer. In an ACBX, the Error Character Field (ACBXERRB) may contain the field name; the Error Offset in Buffer (ACBXERRA or ACBXERRG) fields may contain the offset into the record buffer.

- Attempted format conversion was not possible due to incompatible data formats or other compatibility problems.

In an ACB, the Additions 2 will contain the field name in the leftmost two bytes; the rightmost two bytes will contain the offset into the record buffer. In an ACBX, the Error Character Field (ACBXERRB) will contain the field name; the Error Subcode (ACBXERRC) field will contain the subcode.

0	Conversion error on record decompression.
1	Invalid conversion between formats.
2	Invalid length for fixed encoding. For example, user encoding Unicode with code-point size of 2 bytes and no even length specified.
4	Conversion error of a floating-point field (underflow) when converting to/from a non-IBM floating-point format.
5	Format conversion of field with NV option is not allowed.
6	An invalid length was specified (for example, a wide character field in Unicode encoding must have an even length).
7	Invalid conversion between formats (different case than subcode 1).
8	Conversion error of a floating-point field (overflow) when converting to/from a non-IBM floating-point format.

n	Data between user and system data representation could not be converted without error and 2-byte error code from ECS.
254	Numeric field length in format shorter than the field length in the FDT.
255	Field length exceeded maximum for variable fields.

Entire Conversion Service (ECS) error codes are described in *Entire Conversion Service (ECS) Errors*, elsewhere in the Adabas Messages documentation.

Response 56

Explanation

One of the following occurred:

.	The descriptor value was too long; or
n	The collation value exceeded the maximum 253 bytes. The subcode "n" is the collation descriptor exit number.

Response 57

Explanation

L9 command; the descriptor specified in the search buffer or in the Additions 1 field was invalid, or the descriptor was not specified.

Response 58

Explanation

The format could not be found (as defined within format selection criterion).

Response 59

Explanation

Format conversion of a subfield is not possible. The source field has "F" or "G" format.

Response 60

Explanation

A syntax error was detected in the format or search buffer. Generally in an ACB, the first two bytes of the Additions 2 field contain the two characters under inspection when the error was detected and the rightmost two bytes of the Additions 2 field in the ACB contain one of the following subcodes. In an ACBX, the Error Character Field (ACBXERRB) contains the two characters under inspection when the error was detected and the Error Subcode (ACBXERRC) field contains one of the following subcodes.

1	Format buffer length is invalid.
2	Invalid syntax element in the search buffer.
3	Missing start/ending apostrophe for literal value.
4	Literal of zero bytes.
5	Invalid delimiter or missing period.
6	Missing close parentheses ")".
7	Empty criterion: soft coupling or conditional format.
8	Invalid second character in a "FN" definition.
9	Edit mask number greater than 15.
10	Invalid character following field name specification.
11	Invalid form of case ABN(xxx)/ AB3(xxx)/ AB3-6(1-4).
12	More than 8 digits for a numeric value is not permitted.
14	Invalid L element definition.

Response 61**Explanation**

An error was detected in the search buffer. One of the following subcodes may also be included with this response code:

Subcode	Meaning
3	An invalid logical operator was specified for an S8 command - Command Option 2.
7	This subcode indicates that one of the following errors occurred: <ul style="list-style-type: none"> ■ The length of a descriptor value was greater than 253. ■ Invalid file number specification. ■ Invalid selection criteria for an Event Replicator for Adabas initial-state definition. ■ Invalid usage of the "S" or "N" operator. ■ The element order was invalid. ■ The specified field was not a descriptor. ■ The specified field has the "LA" option active. ■ A descriptor contained in a periodic group was specified without an index. ■ Invalid connection of partial criteria or different indices were used for a descriptor contained within a periodic group. ■ Invalid periodic group index. ■ Invalid or disallowed use of a phonetic descriptor. ■ A descriptor derived from or contained in a periodic group is not allowed.

Subcode	Meaning
	<ul style="list-style-type: none"> ■ The FROM-TO operator was specified with a phonetic descriptor. ■ Invalid FROM-TO range specification, or the FROM value was greater than the TO value. ■ The BUT-NOT value was outside the range of the preceding FROM-TO range. ■ An invalid command option was specified for ISN LIST processing (S8 command). ■ The search buffer "S" significant null indicator was specified with a value operator other than "EQ" (equals), which is not allowed.
8	An invalid FROM-TO range was specified. The BUT-NOT value was outside the range of the preceding FROM-TO value.
9	An invalid search criteria was specified.

Response 62

Explanation

One of the following has occurred:

- The length of the search and/or value buffers as specified in the search and value buffer length fields, respectively, was not sufficient to accommodate the search criteria specified.
- The first character in the search buffer was a "."
- The search buffer does not contain a "."

Response 63

Explanation

The command ID value specified in the search buffer was not found.

Response 64

Explanation

This response code is used for communication with Adabas utilities and Adabas Online System (AOS), and was returned for one of the following reasons:

- The requested function cannot be performed on Adabas system (including checkpoint and security) files. Refer to the ADAREP output report for a list of the system files, or to the subcodes in the job output for more information.
- An error occurred in an AOS or utility function. For AOS, a subcode is displayed in the error message, following the AOS module number. For utility functions, the subcodes are described within the message text.

Action If you do not understand the action to take for a response code 64 and/or subcode, note the subcode and the function that caused the response code, and call your Software AG technical support representative for assistance.

Response 65

Explanation An internal error occurred. The nucleus detected a space calculation error.

Response 66

Explanation An incompatible owner ID was detected during an update operation on a multient file. The owner ID may be blank, or too long.

Response 67

Explanation One of the following errors occurred:

.	An internal error occurred while executing an Sx command.
2	An error occurred during superfield generation.

Action Retain all related information, and contact your Software AG technical support representative for assistance.

Response 68

Explanation A nondescriptor field was used as a search criterion, and the non-descriptor search facility has been set "OFF" (the default for this facility is "ON").

Action The ADARUN parameter NONDES has been set to reject non-descriptor searches; either reset the NONDES parameter to its default value, or remove non-descriptor searches from your application. Natural provides a trace facility which locates such Natural application characteristics. Contact Software AG for details.

Response 70

Explanation An overflow occurred in the table of sequential commands.

Action The DBA may increase the value used for the LQ parameter and/or RC commands may be used.

Response 71

Explanation

An overflow occurred in the table of resulting ISN lists.

Action

The DBA may increase the value used for the LI parameter and/or RC commands may be used.

Response 72

Explanation

One of the following errors occurred:

7	An overflow occurred in the user queue.
8,9	An overflow occurred in the user queue file list pool.

Action

The DBA may increase the value used for the NU parameter.

Response 73

Explanation

An overflow occurred in the section of the Work data set in which resulting ISN lists are stored.

Action

The DBA may increase the size of the Work data set and/or the number of saved ISN lists during an Adabas session may be decreased.

Response 74

Explanation

No space was available on the Work data set for complex find commands.

Action

Increasing the size of the Work data set alone will not solve this problem. Instead, set the value of LWKP2 (WORK-PART-2) to a higher value than the calculated one (whatever that might be). Then increase the size of the Work data set to ensure there is sufficient space for WORK-PART-3.

Response 75

Explanation

Attempts to allocate additional logical file extents for a file were issued, but the maximum that can be handled by the FCB have already been allocated. BT or autorestart could cause the file to be locked because of inadequate extent space (see response code 48).

Action

Ask the DBA for assistance; Associator or Data Storage extents may have to be reallocated.

Response 76

Explanation An overflow occurred in an inverted list index (the maximum is 15 levels).

Response 77

Explanation Sufficient space was not available for a required Associator or Data Storage extent. The following subcodes further define the error:

1	FST empty.
2	AC START RABN not available.
3	AC END RABN not available.
4	FST will not fit into five ASSO blocks.
5	FST exhausted trying to allocate AC extent.
6	ASSO space allocation RABN not on device.
7	ASSO space on required device not available.
8	FROM RABN available, but contiguous space is not sufficient.
9	Data Storage space of the requested size is not available.
10	Data Storage space on the same device as the previous extent is not available.
11	FST is empty, or data storage for the current MAXRECL value is not available.
12	FST empty.

Response 78

Explanation The cause of this response is indicated by one of the following subcodes:

1	The AC file cannot be increased; only one file extent is permitted.
2	The file contains more than either 4 billion or 16 MB of ISNs, depending on the ISN length.

Action

If the file has reached the 16-MB limit, you might convert it to a file with the 4-byte ISN option or to an expanded file.

Response 79

Explanation A collation descriptor exit or hyperexit error occurred. The following table describes the possible subcodes for this response code and their meanings:

1	Either a collation descriptor exit (subcode 'CDX' <i>n</i> where <i>n</i> is the one-byte binary collation descriptor exit number) or a hyperdescriptor exits ("hyperexit") was not specified ADARUN.
5	The hyperexit stub was called for an extended MU/PE file.
6	Improper use of the parameter list was detected by the Hyperexit Stub. The most likely reason is that a hyperexit using the Adabas 8 parameter structures is linked to the Hyperexit Stub.
7	The Hyperexit Stub could not resolve the HEXOLD external reference.
8	Improper use of the parameter list was detected. The second word of the parameter list was modified.
9	A hyperexit did not return an output parameter area address.
10	A hyperexit rejected the call by setting a nonzero return code in the output parameter header.

Action

The following table describes the actions you should take for each possible subcode for this response code:

1	Reissue ADARUN with the CDX <i>nn</i> or HEX <i>nn</i> parameter. For more information about ADARUN parameters, read <i>Adabas Initialization (ADARUN Statement)</i> , in <i>Adabas Operations Manual</i> ; for more information about user exits and hyperexits, read <i>User Exits and Hyperexits</i> , in <i>Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual</i> .
5	The Hyperexit Stub may not be used with extended MU/PE files. For more information about hyperexits, read <i>User Exits and Hyperexits</i> , in <i>Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual</i> .
6,7	Investigate the Hyperexit Stub link job. For more information about hyperexits, read <i>User Exits and Hyperexits</i> , in <i>Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual</i> .
8	A likely cause of the error is that a pre-Adabas 8 hyperexit was called without a linked Hyperexit Stub. For more information about hyperexits, read <i>User Exits and Hyperexits</i> , in <i>Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual</i> .
9	Hyperexits must return an output parameter area address upon return. For more information about hyperexits, read <i>User Exits and Hyperexits</i> , in <i>Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual</i> .
10	Investigate the hyperexit to determine why the call was rejected.

Response 82

Explanation A hyperexit routine returned an invalid ISN.

Response 83

Explanation Hypertable overflow.

Response 84

Explanation Too many values were present for a subdescriptor or a superdescriptor.

Response 85

Explanation Too many descriptor values were present for an update or add record command.

Response 86

Explanation A hyperdescriptor exit return error occurred for one of the following reasons:

- An incorrect sign for a packed descriptor value was created.
- A value with an incorrect length byte was returned.
- The ISN was changed by an update command.

Response 87

Explanation The Adabas buffer pool is locked; it is too small to accommodate all blocks needed for (parallel) command execution.

Action Check the length of the buffer pool (LBP) as follows:

1	Check the LBP value with DPARM.
2	Increase the ADARUN LBP parameter value;
3	Retry the operation. If the error recurs, call your Software AG support representative for assistance.

Response 88

Explanation This response code generally occurs when there is a workpool (LWP) shortage. When this response code occurs, refer to the hexadecimal subcode that appears in the low-order (rightmost) two bytes of the ACB's Additions 2 field or in the ACBX's Error Subcode (ACBXERRC) field. This subcode describes what kind of operation encountered the error.

The following table describes the subcodes and provides recommended actions.

Subcode	Operation Encountering the Workpool Shortage	Action
1	Only active command is waiting for workpool space.	Increase the ADARUN LWP setting and try again.
	During session autorestart, insufficient workpool or user queue space was encountered.	Increase ADARUN LWP and NU parameter settings and try again.
2	Only active command is waiting for workpool space.	Increase the ADARUN LWP setting and try again.
3	A command waiting for workpool space was interrupted for transaction backout.	
4	A1 command	
5	E1 command	
7	Superfield value generation	
8	N1 command	
9	OP command	
10	Descriptor value generation	
11	Hyperdescriptor value generation	
12		
13	Subdescriptor value generation	
15	DTP=RM: A getmain error during Work-Part-4 initialization.	
16	Hard-coupled file update processing encountered a workpool shortage.	
17	A session autorestart encountered a workpool shortage.	
22	Online reorder by descriptor	
23	Online invert	
24	Work I/O buffers for session autorestart in cluster (offline/online recovery)	
25		
80	Spanned record processing	
96	Internal command queue full	
98	Cluster with DTP=RM: Recovery of distributed transactions encountered a workpool shortage.	
99	ET command with P-option	
	Descriptor value generation for multi-client file	
	Single-user mode: Command initialization	
	Replication: Setup of initial-state process	

Subcode	Operation Encountering the Workpool Shortage	Action
	DTP=RM: Insufficient user queue space during Work-part-4 initialization	Increase the ADARUN NU setting and try again.

Action Review the actions described in the table above.

Response 89

Explanation The UQE was already in use, and an attempt was made to execute two commands at the same time for the same user.

Response 94

Explanation An I/O error occurred on DDWORKR4.

Response 95

Explanation An I/O error occurred on the Work LP area.

Response 96

Explanation An error occurred during ADARES REPAIR utility execution.

2	An I/O error occurred during nucleus termination; Additions 2 may contain RABN.
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Response 97

Explanation An I/O error occurred during buffer flush. Additions 2 may contain RABN.

Response 99

Explanation An I/O error occurred.

Response 101

Explanation An error has occurred using one of the client-based Adabas add-on products such as Adabas System Coordinator, Adabas Fastpath, Adabas Vista, Adabas Transaction Manager, or Adabas SAF Security.

- Subcodes 1-20 are generated by Adabas Fastpath.
- Subcodes 21-69, 32766 and 32767 are generated by Adabas System Coordinator.

Please refer to the documentation for the appropriate add-on product for further information on subcodes and console messages that can help you resolve the error.

Response 102

Explanation Space calculation error.
Action Retry the open operation.

Response 106

Explanation The prefetch table record buffer specified in the UCB is too small.

Response 107

Explanation Either a GETMAIN error occurred or there was insufficient space when performing prefetch. Prefetch is switched off.

Response 109

Explanation The specified command ID is already active on another database for this user.

Response 110

Explanation The command ID pool is full.
Action Increase the size of either or both the ADARUN NQCID or NU parameters.

Response 113

Explanation The specified ISN was invalid because one of the following occurred:

- An HI command was issued with ISN less than MINISN.
- An N2 command was issued with ISN equal to 0 or larger than the MAXISN in effect for the file.
- An N2 command was issued and the specified ISN was assigned to another record in the file.
- An A1, L1/L4, E1, or S1/S2/S4 (with FB) command was issued for a nonexistent ISN.
- An N1/N2 command tried to access a file protected by security-by-value, but the command user is not authorized to access the file.
- A read or update command tried to access a multicient file's record using either a blank or incorrect-length owner ID, or an owner ID that does not apply to the record.
- Subcode 249 is given only when Adabas Vista is in use. Refer to the Adabas Vista documentation for more information.

Response 114**Explanation**

A refresh file error occurred. One of the following subcodes may be present:

Subcode	Description
1	A file refresh is not permitted for the file (PGMREFRESH=NO) or the command ID field (ACBCID or ACBXCID) is not all blanks.
2	The user has not completed transactions to the file. Updates have been performed or records are still in hold, but the user has not issued an ET or BT command to commit or back out the updates.
3	Other users are accessing or updating the file. This is determined by the user access or update counts available internally to Adabas.
4	The file is a multiclient file and the user is not a superuser.

Response 123**Explanation**

An error was reported by the Adabas cluster messaging service on the sender's side. The message was not sent. One of the following subcodes may be present:

Subcode	Description
4	No valid destination(s)
8	Too many destinations
12	Invalid message type
16	Invalid environment
20	Send buffer length exceeded
24	Receive buffer length exceeded
28	No replies or acknowledgment(s) before the message timed out. For more information about the timeout value, refer to descriptions of the ADARUN MXMSG parameter.
32	Unable to allocate AXMCB
36	Timed out on originating system
40	Timed out on destination system
44	Cancelled on destination system
48	Receive error on destination system
52	Unable to allocate buffer
80	Messaging is inactive
96	Terminate member unsuccessful
128	Other transport service error

Action

If you are unable to resolve the problem, contact your Software AG technical support representative.

Response 124

Explanation An error was reported by the Adabas cluster messaging service on the receiver's side. The message was sent. One of the subcodes described for response code 123 may be present.

Action If you are unable to resolve the problem, contact your Software AG technical support representative.

Response 125

Explanation An internal error occurred when one cluster nucleus attempted to issue an internucleus command to one or more of the other cluster nuclei. This condition usually leads to abnormal termination.

Action Contact your Software AG technical support representative.

Response 126

Explanation A messaging error occurred during internucleus communication:

- The nucleus did not respond within the allotted time (see the ADARUN MXMSG parameter); or
- One or more problems occurred in what could be a broadcast; that is, a communication with multiple targets. In this case, each individual ACB contains either response code 0 or 123 or 124.

Action If you are unable to resolve the problem, contact your Software AG technical support representative.

Response 129

Explanation In an Adabas cluster environment, the user attempted to perform an Adabas function that is not yet supported by Adabas cluster nuclei.

Response 130

Explanation An error identified by one of the following subcodes occurred in an Adabas sysplex cluster environment:

Subcode	Description
1	A user table entry (UTE/PLXUSER) was not found in the MPM 8 call. This may indicate that a command was directed to an Adabas Cluster Services or Adabas Parallel Services nucleus ID (NUCID), not the DBID.
2	A user table entry (UTE/PLXUSER) was not found in the MPM 12 call.
3	A command queue entry (CQE) was not found in the MPM 8 call.
4	An intermediate user buffer (IUB) was not found in MPM 8 call.
5	An Adabas control block not found in MPM 8 call.

Subcode	Description
6	An invalid UTE/PLXUSER was found on the nucleus chain .
7	An invalid UTE/PLXUSER was found on the user chain add.
8	An invalid UTE/PLXUSER was found on the "lura" chain (that is, the linked list of UTEs representing local users remotely assigned) delete.
23	An invalid CQE was found.

Action For subcode 1, correct the application program attempting to issue commands using the NUCID. If that is not the case, or for other subcodes, contact your Software AG technical support representative for assistance.

Response 131

Explanation

In most cases this response code will be given to the user in the URBRRSP field of the URBR block with the subcode in the URBRSUB field. The subcode appears either in the low-order (rightmost) two bytes of the additions 2 field or in the URBRSUB field. It indicates the specific cause and action for this response code. The following are the subcodes and their meanings:

CodeMeaning

- 1 The combination of URBD plus payload data does not fit in the output buffer.
Action: Change the subscription definition to make the record shorter.
- 2 The subscription user exit set a value in URBERRRC.
Action: Check the URBERRRC field and correct the error if appropriate.
- 3 There is insufficient space in the nucleus replication pool. In other words, the value specified by LRPL has been exceeded.
Action: Increase the LRPL size of the nucleus and try again.
- 4 There is insufficient space in the Event Replicator Server replication pool. In other words, the value specified by LRPL has been exceeded.
Action: Increase the size of the LRPL parameter and try again.
- 5 The subscription user exit modified data length (URBDLEND) to an invalid value.
Action: Check the subscription user exit.
- 6 The response destination (URBIRNAM) specified in a client request is undefined or not usable for sending the response.
Action: Correct the status request to specify the name of an existing destination definition.
- 7 Both the subscription (URBISNAM) and the destination (URBIDNAM) to be specified in a status request are missing. At least one of them must be specified.
Action: Correct the status request.
- 8 The subscription (URBISNAM) specified in a status request is undefined.
Action: Correct the status request.
- 9 The initial state name specified was not found.
Action: Correct the initial-state request.

CodeMeaning

- 10 The destination for response in URBI following URBI 1 is not equal to those of URBI 1.
Action: Correct the initial-state request.
- 11 The initial state name in URBI following URBI 1 is not equal to that of URBI 1.
Action: Correct the initial-state request.
- 12 The combination of DBID and file specified in the initial-state request is not found in the initial-state definition.
Action: Correct the initial-state request.
- 14 Not all combinations of DBID and file are specified in the initial-state request. A URBI must be sent for each DBID/file specified in the initial-state definition.
Action: Correct the initial-state request.
- 15 Field URBILEND is invalid.
Action: Correct the initial-state request.
- 16 The specified ISNLIST is invalid.
Action: Correct the initial-state request.
- 17 The initial-state process has been stopped by an operator request.
Action: No action is required.
- 18 Different request tokens have been specified in different URBI elements in the same message.
Action: Correct the initial-state request.
- 19 Selection data is not allowed for an initial-state definition for all records or for destination open/close client requests.
Action: Correct the initial-state or destination open/close client request.
- 20 Invalid input data for decompression was found during the subscription phase.
Action: Check the index of the replicated file.
- 22 The file/DBID supplied for the initial-state process is deactivated for replication.
Action: Check the cause of deactivation and repeat the request after reactivation.
- 23 Invalid UES parameter in URBI . URBIARC, URBIACOD, and URBIWCOD must contain invalid values and must not be all blanks.
Action: Verify that the URBIARC, URBIACOD, and URBIWCOD elements are not all blanks.
- 24 Invalid UES parameter in URBI.
URBIARC, URBIACOD and URBIWCOD must be zero for input requests where encoding and architecture is not evaluated -- that is, for status requests, destination open/close requests, "initial state all records" or "initial state ISN list" requests.
Action: The URBIARC, URBIACOD, and URBIWCOD elements must be zeros for "initial state all records" requests, "initial state ISN list" requests, status requests, or destination open/close requests. Verify that this is the case.
- 25 The unused URBIRES1 and URBIRES2 fields must contain binary zeros for all requests.
Action: Verify that these fields contain binary zeros.

CodeMeaning

- 26 The destination (URBIDNAM) specified in a client request is either undefined or not usable for sending the response.
Action: Correct the client request.
- 27 No active destinations for status request.
Action: No action is required.
- 28 An initial-state request was issued to an Event Replicator Server address space that was terminating as a result of an ADAEND or HALT command. An initial-state request may only be issued when the Event Replicator Server is active.
Action: Reissue the initial-state request when the Event Replicator Server has been restarted.
- 30 Unknown response destination name in URBIRNAM for a prior-transaction request.
Action: Correct the prior-transaction request.
- 31 Unknown destination name in URBIDNAM for a prior-transaction request.
Action: Correct the prior-transaction request.
- 32 Unknown or omitted subscription name in URBISNAM for a prior-transaction request.
Action: Correct the prior-transaction request.
- 33 Destination in URBIDNAM is not related to subscription in URBISNAM for a prior-transaction request.
Action: Correct the prior-transaction request.
- 34 Subscription in URBISNAM has no resend buffer defined for a prior-transaction request.
Action: Correct the prior-transaction request.
- 35 Transaction in URBITSNR for subscription in URBISNAM was not found in the resend buffer. The transaction may have been overwritten in the circular resend buffer.
Action: Check the source of the transaction number.
- 36 The subscription in URBISNAM is not active.
Action: No action is required.
- 37 An invalid transaction was found in the resend buffer. This is an internal error.
Action: Notify your Software AG technical support representative.
- 38 There are no active destinations for a prior-transaction request.
Action: No action is required.
- 39 URBILEND must be zero for prior-transaction requests.
Action: Correct the prior-transaction request.
- 40 URBIDBID and URBIFNR may not be specified for this type of client request.
Action: Correct the client request.
- 41 URBIINAM may not be specified for prior-transaction requests.
Action: Correct the prior-transaction request.

CodeMeaning

- 42 UES parameters URBIARC, URBIACOD and URBIWCOD may not be specified for prior-transaction requests.
Action: Correct the prior-transaction request.
- 43 Reserved fields URBIRES1 and URBIRES2 must be zero for prior-transaction requests.
Action: Correct the prior-transaction request.
- 44 Number of active concurrent initial-state requests exceeded IMAXREQ.
Action: Increase the IMAXREQ setting or reduce the number of active concurrent initial-state requests.
- 45 Input request URBH eyecatcher is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 46 Input request URBHLEN is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 47 Input request URBHBORD is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 48 Input request URBHVERS is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 49 Input request message truncated.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 50 Input request URBHLENT is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 51 Input request URBILENH is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 52 Input request URBILEND is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .

CodeMeaning

- 53 Input request URBILEN is invalid.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 54 Input request reserved area is not zero.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 55 Input request more than one status received.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 56 Input request invalid URBI request received.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 57 Input request different interleaved requests received.
Action: Verify that you are submitting only one kind of request to the Event Replicator Server. Only one type can be submitted at a time (for example, you cannot request initial-state processing and transaction status information requests in the same message).

Correct the input information and try again. For more information, read Event Replicator Client Requests in Event Replicator for Adabas Application Programmer's Reference .
- 58 Invalid destination for response.
Action: Correct the input information and try again. For more information, read Event Replicator Client Requests in the Event Replicator for Adabas Application Programmer's Reference .
- 59 A replay request was issued for a database not defined to the Event Replicator Server.
Action: Correct the DBID in the replay request or define the database to the Event Replicator Server.
- 60 Invalid replay token. The replay token is not defined or is outdated.
Action: Specify a valid replay token.
- 61 Invalid request sent to Event Replicator Server. RBL is insufficient, no FB provided on initial handshake or other such errors.
Action: Notify your Software AG technical support representative.
- 62 After an Adabas failure and session autorestart, replication data was recovered for which a matching FDT was no longer available. The FDT had been changed or deleted by a utility operation. Adabas suppressed the record images of the replicated records, because without a matching FDT, the Event Replicator Server could not process them.
Action: Use application-specific means to bring the replicated data in sync again, if necessary.

CodeMeaning

- 63 The file specified in a C5 command with R-option is not replicated.
Action: Specify the file number of a replicated file.
- 64 The filter defines a comparison between two field types for which a comparison is invalid.
Action: Correct the filter definition.
- 65 The filter refers to a field that is not defined in the internal format buffer.
Action: Correct the filter definition or define the field in the database.
- 66 The filter defines a comparison against a field that is not selectable as it has no type (for example, a superdescriptor).
Action: Correct the filter definition.
- 67 The filter uses values in an FLIST specification that are invalid or out of range.
Action: Correct the filter definition.
- 69 Replay for same DBID/FNR already running.
- 71 Date/time format or value incorrect for replay.
Action: Check the syntax of the specified date and time values. Do not specify future date and time values.
- 72 Incorrect replay parameters.
Action: Check and correct the specified replay parameters.
- 73 A subscription involved in the replay was inactive at the beginning of replay processing or was deactivated while the replay was running.
Action: Reactivate the deactivated subscription and rerun the replay process for the subscription.
- 74 A destination involved in the replay was inactive at the beginning of replay processing or was deactivated while the replay was running.
Action: Reactivate the deactivated destination and rerun the replay process for the destination.
- 75 A replay destination that was defined without SLOG was closed at the beginning of replay processing or while the replay was running.
Action: Reopen the closed destination and rerun the replay process for the destination.
- 76 ADARPL terminated abnormally.
Action: Investigate the cause of the error, correct it, and run a new replay job.
- 77 Invalid replay status transition. Events that change the status of a replay process occurred in an unexpected order.
Action: Notify your Software AG technical support representative.
- 78 New transactions from Adabas could not be kept on hold during a replay in synchronized mode.
Action: Run a new replay process involving the same subscriptions and destinations as the previous replay process to recover the replication data that Adabas produced while the first replay was running.
- 79 A replay process was canceled by a user (RPLCLEANUP operator command).
Action: If appropriate, run another replay job with corrected parameters.

CodeMeaning

- 80 A timeout occurred while the Event Replicator Server was waiting for the end of a synchronization process after reactivating replication for a file in Adabas. The synchronization process ends when all transactions have finished that had updated the file before it was reactivated.
Action: Wait until the Event Replicator Server reports the activation of the file (ADAF2L message). Then run a new replay job.
- 81 A utility other than ADARPL specified a replay token when connecting to the Event Replicator Server.
Action: Notify your Software AG technical support representative.
- 82 The Event Replicator Server is not connected to Adabas at the start of a replay process with the TOKEN parameter.
Action: Start Adabas and let it connect to the Event Replicator Server. When running a replay with the TOKEN parameter, Adabas must be active.
- 83 Neither a subscription nor a destination was specified in a replay request.
Action: Specify at least one subscription or destination.
- 84 A replay in replay-only mode was requested, but replication data from Adabas would flow through an active subscription-destination pair involved in the replay. For a replay in replay-only mode, some subscriptions and destinations must be inactive such that no data from Adabas can flow through the same subscription-destination pairs as the replay data from ADARPL.
Action: Change the replay parameters or the activation status of the subscriptions or destinations involved in the replay.
- 85 A file involved in the replay was inactive at the beginning of the replay or deactivated while the replay was running.
Action: Reactivate the deactivated file and rerun the replay process for the subscriptions involved in the replay that get data from the file.
- 86 Invalid format buffer was specified for destination-type Adabas update commands
Action: Correct the format buffer.
- 87 An unexpected message sequence number was encountered.
Action: Contact your Software AG support representative.
- 88 An unrecognized eye-catcher was encountered in control block following the URBH.
Action: Contact your Software AG support representative.
- 89 The same subscription name was specified more than once for an Adabas automated replay (defined using the Adabas Event Replicator Subsystem or Event Replicator Administration).
Action: Verify that a subscription is specified only once in an automated replay, and try again.
- 90 The same destination name was specified more than once for an Adabas automated replay (defined using the Adabas Event Replicator Subsystem or Event Replicator Administration).
Action: Verify that a destination is specified only once in an automated replay, and try again.

CodeMeaning

- 91 The replay start date and time were not supplied for an automated replay (defined using the Adabas Event Replicator Subsystem or Event Replicator Administration) or for multiple destination open/close client requests.
Action: Verify that a destination is specified only once in an automated replay or in multiple destination open/close client requests and try again.
- 92 The timeout parameter specified for an automated replay was too high.
Action: Reduce the timeout parameter value and try again.
- 93 PLOG information was not recorded in the Event Replicator Server system file.
Action: Contact your Software AG support representative.
- 94 The AI/BI format buffer was used also for the key. An attempt was made to decompress a key value, but the related format buffer is for data storage and not for a key.
Action: Contact your Software AG support representative.
- 95 An attempt to set user/Event Replicator Server encoding 01-RPEQU * failed. This might occur if you are using enhanced filtering logic and UES SACODE/SWCODE/SARC values are set for a subscription.
Action: Contact your Software AG support representative.
- 96 The Adabas nucleus that was the target of an initial-state request returned response code 148, indicating it is not available.
Action: Start the targeted Adabas nucleus and retry the initial-state request.
- 99 The subscription name (URBISNAM) specified in the destination open/close client request contains a value other than spaces.
Action: Correct the destination open/close client request by setting this field to spaces.
- 100 The transaction sequence number (URBITSNR) specified in a destination open/close client request contains a value other than binary zeroes.
Action: Correct the destination open/close client request by setting this field to binary zeroes.
- 101 The destination open/close request failed on some tasks.
Action: Investigate the cause of the error.
- 102 The destination open/close request failed.
Action: Investigate the cause of the error.
- 103 The destination open/close request was not performed because the destination's status was already in the state being requested. In other words, the destination was already opened or closed.
Action: No action is required.
- 104 Begin byte in field filter is longer than the field length.
Action: Adjust the specifications for the beginning byte or length and try again.
- 105 Begin byte plus the portion length in the field filter is longer than the field length.
Action: Adjust the specifications for the beginning byte or the portion length and try again.

CodeMeaning

- 106 Begin byte or length not supported for field with format U, P, F, G, or W.
Action: Specifying a beginning byte or length is only supported for alphanumeric and binary fields. Change the field on which you are working or abandon this attempt.
- 107 Length value invalid for field.
Action: Adjust the length specification and try again.
- 108 Input request URBI eyecatcher is invalid.
Action: Correct the input information and try again. For more information, read *Event Replicator Client Requests* in the *Event Replicator for Adabas Application Programmer's Reference*.

Response 132**Explanation**

This response code indicates that an error occurred while Adabas was reading or updating a *LOB file*. The subcode indicates the kind of error.

If the subcode is less than 256, it is the same as the original response code that occurred during LOB file processing. The most likely subcodes are listed in the table below. For subcodes not listed, see the description of the Adabas response code with the same value.

If the subcode is greater than 256, it signals an error condition unique to the processing of LOB files. These subcodes are listed in the table below.

Subcode	Description
8	A LOB file operation was aborted due to a pending backout of the user's command or transaction. One reason for this backout may be that the user's transaction occupied too much space on the protection area on the Work data set (see response code 9, subcode 15).
17	The LOB file is not loaded.
48	The LOB file is locked for exclusive read or update by another user.
65	An internal error in the work pool space calculation occurred for LOB file processing.
113	A LOB file segment record was not found in the Address Converter element referred to by the LOB file index. Either the LOB file is physically inconsistent or an illegal concurrent LOB file update occurred during the LOB file read operation.
145	An attempt failed to put a LOB file segment record on hold for a user, because it was already held by another user. This subcode indicates illegal update contention for the same large object field value. The base file-LOB file pair is possibly inconsistent.
165	The LOB file descriptor is not found in the index; The LOB file index is bad.
172	An ISN in the LOB file index is bad. The LOB file may be physically inconsistent.

Subcode	Description
175	The descriptor value in a LOB file segment record differs from the descriptor value in the LOB file index. Either the LOB file is physically inconsistent or an illegal concurrent LOB file update occurred during the LOB file read operation.
177	A LOB file segment record was not found in the Data Storage block referred to by the Address Converter. Either the LOB file is physically inconsistent or an illegal concurrent LOB file update occurred during the LOB read operation.
257	An error in the base file-LOB file linkage exists; a file with LB fields is not really the <i>base file</i> of the <i>LOB group</i> .
258	An error in the base file-LOB file linkage exists; the file linked to the base file of a LOB group is not really a LOB file.
259	An error in the base file-LOB file linkage exists; the LOB file linked to a base file of a LOB group refers back to a different base file (or none at all).
260	An error in the base file-LOB file linkage exists; either no LOB file was linked to a base file or the LOB file number is invalid.
261	The LOB file has been left in an inconsistent state by an aborted utility execution.
262	An LB field length element specification error occurred in the format buffer (' <code>xxL,4,B</code> ' was expected).
263	An invalid LOB file segment descriptor was encountered. The set of LOB file segment records associated with one LB field value is inconsistent. Either the LOB file is bad or an illegal concurrent LOB file update occurred during the LOB file read operation.
264	An invalid LOB file segment record was encountered. The contents of a LOB file record are inconsistent. The LOB file is bad.
265	The length of an LB field value in the LOB file differs from the length stored in the associated base file record. Either the base file and the LOB file are out-of-sync or an illegal concurrent LOB file update occurred during the LOB file read operation.
266	A bad LB field value reference was encountered in a base file record. The base file is bad.
297	A planned feature for large object (LB) fields (for example, character code conversion of LB field values) is not yet supported.
298	Too many (more than 32,767) LB field occurrences were specified in the format buffer.
299	An internal error occurred due to LOB file processing.

Response 133**Explanation**

An error was detected when an attempt was made to replicate a compressed record. The subcode identifies the kind of error.

Subcode	Description
1	The function is not permitted for this type of file. The file is a LOB-file.
2	The compressed input record length is invalid .
11	The record structure is invalid.
12	An invalid elementary empty field was encountered. The structure does not agree with the FDT definition.
13	An invalid multiple-field count was encountered.
14	An invalid periodic group count was encountered.
15	An invalid structure of an elementary field was encountered.
65	A space calculation error occurred.

Response 144**Explanation**

One of the following occurred:

- The ISN specified with an update (A1) command was not in hold status for the user, and Command Option "H" was not specified.
- An ET or BT command specifying the "M" (multifetch) option specified an ISN in the ISN buffer that is not in hold status for the user. All currently held ISNs are released from hold status.

Action

If Adabas Transaction Manager is in use, verify that the setting for the Transaction Model parameter is appropriate for the program that was executing and is also appropriate for the runtime environment in use.

Response 145**Explanation**

One of the following occurred:

- An N1/N2 command was issued, but no hold queue entry was available.
- A command was issued with the return option specified that attempted to hold an ISN already in the hold queue for another user. The command is not placed in "wait" status.

Use the subcode associated with this response code to further clarify why this response occurred.

Subcode	Description
0	N2 command for an existing ISN was issued.
1	Hold queue space problem detected. The user is the only active user and is running with the -R option.
2	The ISN was held by someone else. The read request is running with the -R option.
9	Two or more users became deadlocked while holding ISNs and attempting to put more ISNs in hold status.

Response 146

Explanation

An invalid buffer length was detected by the Adabas interface routine. If the command uses a classic ACB, the buffer is larger than 32,767. If the command uses an ACBX, the buffer is greater than 2,147,483,647, or the send length in the ABD is greater than the buffer length. The subcode identifies the buffer type:

Subcode	Buffer Type
1	Format buffer
2	Record buffer
3	Search buffer
4	Value buffer
5	ISN buffer
6	User information buffer
7	Performance buffer
8	Multifetch buffer

Response 147

Explanation

The ISN was invalid. The ISN transformation resulted in a negative ISN or an ISN greater than the maximum ISN permitted for the file.

Response 148

Explanation

The Adabas nucleus was either not active, or not accessible. In an ACB, refer to the hexadecimal subcode that appears in the low-order (rightmost) two bytes of the Additions 2 field; in an ACBX, refer to the binary subcode that appears in the Error Subcode (ACBXERRC) field.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

The following are the decimal equivalents of the subcodes and their meanings:

Subcode	Description	Action
1	Exclusive database control requirement conflicts with read-only nucleus status.	Remove the READONLY=YES parameter setting for the nucleus and restart it.
2	A nonprivileged call was made to the nucleus while it was in utility-only (UTI) mode.	Remove the UTIONLY=YES parameter setting for the nucleus and restart it.
3	The nucleus is performing shutdown processing (an ADAEND operation) and will not accept new users or new transactions. Either a new user is attempting to begin operation or an existing user in ET status is trying to continue operation.	Wait for the nucleus to shut down, restart it, and reissue the command.
4	A utility with exclusive database control is running.	Either stop the utility or wait for its processing to complete (this is preferred) and try again.
5	A single-user nucleus could not start operation due to an error that could not be corrected.	Verify that single-user mode has been set up correctly and restart the nucleus.
8	A user is performing a logical ADALNK call. The IDT for the call has not been allocated.	On BS2000 systems, check the setting of the parameter accessed by the link name DDLNKPAR or DDCARD, or in the macro B2CONFIG of the module SSFB2C. Also check the IDTNAME parameter of the database to be accessed.
50	At command completion RSP148 was set but without a subcode. This subcode is set to indicate the command was processed by the target.	Contact your Software AG support representative for assistance.
51	The command router found no suitable target. The target was determined not to be an Adabas Cluster Services or Adabas Parallel Services database.	Contact your Software AG support representative for assistance.
52	The command router found no suitable target. The target was determined to be an Adabas Cluster Services or Adabas Parallel Services database.	Contact your Software AG support representative for assistance.
53	The command router found a suitable target but the target became inactive while queuing the command.	Contact your Software AG support representative for assistance.

Subcode	Description	Action
54	When the caller attempted to retrieve the results of a completed command the target was no longer active.	Contact your Software AG support representative for assistance.
55	The target became inactive while the caller was attempting to retrieve the results of a completed command.	Contact your Software AG support representative for assistance.
101/201	Set in SVCCLU when a specifically designated local nucleus is not available for a physical call. The 201 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
102/202	Set in SVCCLU when a specifically designated remote nucleus is not available for a physical call. The 202 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
103/203	Target ID disagreement between IDTE and PLXNUC. The 203 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
104/204	Unable to find PLXMAP matching an existing PLXUSER. The 204 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
105/205	Entire Net-Work unavailable, can't route existing user to remote nucleus. The 205 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
106/206	Entire Net-Work unavailable, can't route new user to remote nucleus. The 206 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
107/207	No nucleus available for remote user. The 207 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
108/208	Incorrect PLXMAP update received by LOCAL=YES nucleus. The 208 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.
109/209	An internal command used to synchronize across multiple nodes was received for an Adabas Parallel Services database. Such databases may execute on only one node. Depending on intersystem communications timing this may occur as a database is changed from Adabas Cluster Services to	Contact your Software AG support representative for assistance.

Subcode	Description	Action
	Adabas Parallel Services. Otherwise this is a logic error.	
110/210	Unable to assign specified nucleus to remote user. The physical command arrived via Entire Net-Work for a specific nucleus, but the specified nucleus is on another system. Only one Entire Net-Work transmission is allowed. The 210 subcode appears when this subcode is set on a remote node.	Contact your Software AG support representative for assistance.

Response 151**Explanation**

A command queue overflow occurred.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Action

The DBA may increase the value for the NC parameter and/or the command may be issued when a lower level of command activity is in effect.

Response 152**Explanation**

The internal user buffer was not large enough to contain the user buffer areas.

Action

The DBA should increase the value of the LU parameter.

Response 153**Explanation**

A "CALL ADABAS" was issued by a user while a previous call for the user was still being processed.

Response 154**Explanation**

A command was rejected because it resulted in a trigger being fired, but the queue is full at this time.

Action

Retry the command.

Response 155

Explanation A command resulted in a pre-command trigger being fired. The triggered procedure returned a nonzero command, so the command was not executed.

Action Check the Additions 4 field for the error returned from the procedure.

Response 156

Explanation A command resulted in a post-command trigger being fired. The triggered procedure returned a nonzero command, indicating an unsuccessful execution of the procedure.

Action Check the Additions 4 field for the error returned from the procedure.

Response 157

Explanation A command resulted in either a pre- or post-command trigger being fired; however, Adabas Triggers has been shut down with the option to reject all commands that result in a trigger being fired.

Action Determine the cause of the shut-down and resolve the problem. If rejection of commands is not the required action in such a situation, then set the error action field in the Adabas Triggers profile to halt or ignore.

Response 159

Explanation The Adabas link module is missing or invalid. One of the following occurred:

- No Adabas link module is linked to the Natural nucleus and the Adabas link module specified in the Natural profile parameter ADANAME could not be loaded.
- (CICS only) The loaded Adabas link module is macro-level in a command-level only environment.

Action Check the setting of the Natural profile parameter ADANAME and/or provide the correct version of the Adabas link module in one of the current STEPLIBs.

Response 160

Explanation Too many Associator and Data Storage blocks were marked as active in the buffer pool for a single command.

Response 161

Explanation The RABN chain in the header list of the Adabas buffer pool is invalid.

Response 162

Explanation No additional space is available for Adabas buffer pool header blocks.

Response 163

Explanation The RABN to be linked into the RABN header chain is already in the chain.

Response 164

Explanation Too many work areas were allocated for the command.

Response 165

Explanation A descriptor name was either invalid or did not exist in the descriptor value table (DVT). For expanded files: the descriptor does not exist on all component files. In an ACB, the leftmost two bytes of Additions 2 may contain the descriptor name; in an ACBX, the Error Character Field (ACBXERRB) may contain the descriptor name. If this occurred for an expanded file, check to see if there is an FDT mismatch between the components of the file.

Response 166

Explanation An error was detected in an inverted list index. The cause may be damage in the Associator.

Response 167

Explanation The field in a coupled file does not exist or the coupled list is invalid.

Response 168

Explanation An internal command ID required during coupling processing was not found.

Response 170

Explanation The Adabas RABN required for the command could not be located for one of the following reasons:

- The buffer segment was called with a RABN of zero.
- The specified RABN does not belong to this database and is invalid.

Response 171

Explanation The constant set used by Adabas could not be located.

Response 172

Explanation An ISN was less than the MINISN or greater than the MAXISN setting in effect for the file.

Response 173

Explanation An invalid Data Storage RABN was detected.

Response 174

Explanation For an L2/L5 command with start ISN, the Data Storage RABN stored in the address converter for the file is invalid.

Response 175

Explanation An inconsistency was detected between the index and Data Storage.

This response code can be expected when reading a descriptor value for a ciphered file if an incorrect cipher code was used.

Action Run the check utilities (especially ADAICK and ADAVAL) against the file, and contact your Software AG technical support representative.

Response 176

Explanation Either an inconsistency in an inverted list was detected or an internal error occurred during inverted list processing. The following possible subcodes are associated with this response code:

Subcode	Description
2	Bad index
3	Invalid search request
4	Invalid format indicator or field not found in FDT/SDT
11	Invalid search request
12	Bad index block
13	Bad UI block
14	Mismatch block length
15	Bad MI block
16	Mismatching block length
17	Bad NI block

Subcode	Description
18	Bad ISN count
21	Bad index block
22	Mismatching block length
23	Invalid ISN count
29	Inactive index block
31	Bad index block
32	Mismatching block length
33	Invalid ISN count
39	Inactive index block
41	Bad index block
42	Mismatching block length
43	Bad MI block
44	Bad NI block
81	Invalid level indicator
82	Bad element position in block
83	Position in block did not match element lengths
84	Bad MI block
85	Bad NI block
86	Bad NI block
87	Invalid ISN count
88	Position in block did not match element lengths
89	Index block not active
91	Wrong level
92	Mismatching block length

Action Run ADAICK to determine whether an inconsistency exists in an inverted list. If not, contact your local Software AG technical support representative. Make sure to report the subcode to your Software AG technical support representative.

Response 177

Explanation A record could not be found in the Data Storage block in which it should have been contained as indicated by the address converter. If this response code is returned to the ADAULD UNLOAD utility function with the parameter SORTSEQ, the file might be inconsistent and data lost.

Action Check the file with the "check" utilities, especially ADAACK, and contact your Software AG technical support representative.

Response 178

Explanation An internal error occurred when updating a multiple-value field:

1	Inconsistency in descriptor value table (DVT).
2	An inconsistency was detected between the field definition table (FDT) and the internal format buffer.
3	Inconsistency when updating a phonetic descriptor.

Response 179

Explanation Internal error; identifier could not be found in Work part 3.

Response 181

Explanation Autobackout was executed and the start of a transaction could not be located.

Response 182

Explanation Necessary ET data was not found in the appropriate Work block.

Response 183

Explanation An internally assigned number for a database I/O operation was detected as invalid.

Response 184

Explanation A phonetic field name could not be found.

Response 185

Explanation The ADAM field could not be found in the compressed record.

Response 197

Explanation The DEUQ pool is too small.

User Action: Increase the ADARUN LDEUQP parameter.

Response 198

Explanation An attempt was made to duplicate a descriptor value for a unique descriptor. In an ACB, the leftmost two bytes of the Additions 2 field may contain the descriptor name; in an ACBX, the Error Character Field (ACBXERRB) may contain the descriptor name.

Response 199

Explanation An inconsistency in the inverted list index was found during an update operation. In an ACB, the leftmost two bytes of Additions 2 may contain the descriptor name; in an ACBX, the Error Character Field (ACBXERRB) may contain the descriptor name. This response code can also occur if UTYPE=EXU was specified for an ADARES BACKOUT operation that uses the sequential (SIBA) log.

Response 200

Explanation Either an invalid cipher code or an Adabas SAF Security or Adabas security violation was detected.

From Adabas SAF Security processing, the command could not satisfy the necessary security checks and may be accompanied by a subcode as follows:

0	A standard user check failed.
1	There is no free user file cache entry for a workstation user.
2	A cross-level security check failed.
3	No security information is available for the command.
4	A timeout occurred during a workstation logon.

For more information about Adabas SAF Security, read the Adabas SAF Security documentation.

Response 201

Explanation The password specified was not found.

Response 202

Explanation An attempt was made to use a file for which the user is not authorized, or the file password is being changed.

User Action: Either correct the authorization, or retry the operation with the new password.

Response 203

Explanation An attempt was made to delete a record in a file for which the user is not authorized.

Response 204

Explanation A password pool overflow occurred.

Response 207

Explanation Adabas SAF Security completed phase 1 of logon and requested phase 2. This is an internal Adabas SAF Security and ADALNK two-phase response code for a remote workstation logon. This code is normally not displayed or presented.

For more information, read your Adabas SAF Security documentation.

User Action: Send a phase 2 logon request to Adabas SAF Security.

Response 208

Explanation As an Adabas SAF Security remote user, you should execute a phase 1 logon. The logon ID and your password are sent to Adabas SAF Security. This response indicates that two-phase logon can continue.

For more information, read your Adabas SAF Security documentation.

Action If the user application receives this response, it is on a workstation platform that does not have the proper Adabas link routine installed. This response code is intercepted by the workstation Adabas link routine and phase 1 logon is performed.

Response 209

Explanation Adabas SAF Security detected an expired password on the server.

Action Create a valid password on the server for ACF2, RACF, or Top Secret. Entire Net-Work users may use the Adabas SAF Security feature.

Response 210

Explanation Logical ID greater than 255 (internal error).

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Response 211

Explanation Invalid ID table index in UB (internal error).

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Response 212

Explanation Invalid input/output buffer for internal command.

Response 213

Explanation ID table not found (SVC not properly installed).

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

The following table describes the possible subcodes that might occur if an Adabas DBID/SVC routing table error occurs:

Subcode	Description
16	The specified SVC number does not correspond to a currently installed SVC on the z/OS or VSE system. Check to be sure that the specified SVC number is correct and, if it is, ensure that an Adabas SVC is installed using that SVC number.
20	The specified SVC number corresponds to an installed SVC on the z/OS or VSE system, but the SVC is not an Adabas SVC. Ensure that the provided SVC number is correct and, if it is, determine why the SVC installed for that number is not an Adabas SVC for z/OS or VSE.

User Action: Inform the DBA. The Adabas installation procedure was not properly executed.

Response 214

Explanation Internal command issued from Adabas version 4 Adalink.

Response 216

Explanation Command rejected by user exit.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Response 217

Explanation Command rejected by user exit.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Response 218

Explanation The following table describes the subcodes that appear with this response code, clarifying why the response was received.

Subcode	Description
X'00' (00)	The UB (TP monitor user block) pool is too small. There must be at least one user block for each concurrent user. This is controlled by the TP monitor link routines. The GETMAIN for the UB failed.
X'48' (72)	An IPC message call parameter error occurred. This may indicate an internal product error or a TP-monitor storage overlay. Contact Software AG technical support for assistance.
X'49' (73)	The IPC message caller did not provide a pointer to the extended user ID block. This is probably an internal product error. Contact Software AG technical support.
X'4C' (76)	The extended user ID data provided to the IPC Message Call is either binary zeroes or blank. This is probably an internal product error. Contact Software AG technical support.
X'4D' (77)	A getmain failed for the work area used in an IPC Message Call. Determine why the TP monitor is running short of storage. The storage will be acquired in the AMODE of the calling program, usually 31-bit for Natural transactions.

User Action: Increase the UB pool by respecifying the NUBS parameter in the link routines. See the ADAGSET macro information in the Adabas Installation documentation.

Response 219

Explanation This response code should only occur when Adabas Transaction Manager is being used.

2	The global transaction is not in the status that allows the call.
3	Two transaction ID (XID) entries exist.
4	The "R" and "J" options are not supported; or this is not a global transaction. The transaction ID (XID) does not exist or cannot be found (or example, when the given XID does not belong to the UQE).
5	The record or value buffer definition may be invalid; for example, the length size may be invalid (less than or equal to 144 bytes); or the value buffer content may be invalid; for example, it may not contain a valid transaction ID (XID).
6	The user is not an update or ET user or is already involved in a global transaction or the user is already on PET (preliminary end-of-transaction) status.
7	A protocol error occurred: The user has been copied to Work 4 or the transaction was backed out.
8	A protocol error occurred: The transaction was terminated or the user has no transaction ID (XID) or the recover call for an active user is not permitted.
9	The system is currently locked due to a pending Work area 4 or DDWORKR4 overflow.
10	The call is not permitted; either ADAEND or an ET-sync point is in process for the nucleus. Force the ATM nucleus to backout (BT) the transaction.
11	The user has not made any updates. A preliminary ET command, therefore, is not permitted.
12	A logic error occurred.
20	The transaction ID (XID) is unknown. This error occurs only in a cluster environment.

Response 220**Explanation**

The request was rejected by Entire Net-Work due to a shortage of short term buffers.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Action

For BS2000 systems running Sockets 2.2 or later, check the address space limit using the SHOW-USER-ATTRIBUTES command in the field ADDRESS-SPACE-LIMIT (the value is in megabytes). If necessary, increase it using the MODIFY-USER-ATTRIBUTES command from a privileged user ID.

For BS2000 systems running Sockets 2.1 or earlier, increase the CMSIZE parameter to enlarge the common memory pool, as long as there is enough room in the address space. Then restart Entire Net-Work.

For z/OS and z/VSE, increase the region size. For z/VM, increase the amount of virtual storage available to the Entire Net-Work machine.

Response 221

Explanation The LU size of the remote partner is smaller than the size required for the Adabas request.

Action Either increase the size specified for the LU= parameter on the remote system, or modify the application to reduce its buffer sizes.

Response 222 - 223 (reserved)

Response 224

Explanation The request waited for a reply for a longer time period than specified by the REPLYTIM parameter in either the NODE statement or the SET operator command. The reply may be delayed or lost due to a target malfunction, or because of a connecting link failure. If you are using Natural, and all connections are verified, check the ADAMODE setting. The ADAMODE=0 setting is the only option Entire Net-Work supports.

Response 225

Explanation A command was issued from a server, such as an Adabas nucleus, to another server, such as Entire Net-Work. The command did not complete within a prescribed time period. The issuer proceeds and no longer expects a response to the command.

Note that the command may still execute in the target. There will be no notification to the issuer if it does. The target may display message ADAM92, User Gone, if the target attempts to notify the issuer of command completion.

The subcode identifies the environment from which the command was issued.

Subcode	Issuer
1	ADAMPM
2	Adabas nucleus, thread-synchronous command
3	Adabas nucleus, not thread-synchronous. Under z/OS, the command was TCB-synchronous.

Action Contact your Software AG technical support representative for assistance if the reason for the command's failure to complete cannot be identified.

Response 226 - 227 (reserved)

Response 228

Explanation This response is issued by an Adabas link routine. It indicates that an ASCII-formatted user request has been issued against an EBCDIC-formatted database that is not properly configured to handle the translation:

1	The SVC is not a valid Adabas version 7 SVC.
2	The database is not UES-enabled.

User Action: Ensure that your Adabas installation is for a supported version and that the database is UES-enabled. Refer to the UES information.

Response 229

Explanation The Entire Net-Work 5 convertor detected an inconsistency or error in the application format buffer or search buffer and is unable to correctly translate the user's data.

Response 231-239

Explanation These response codes are assigned in some Adabas user exits, and have meanings as defined by the user. One example is the response code in the ADALOG log data field issued by user exit 4.

User Action: Refer to the description of user exits in the Adabas User, Hyperdescriptor, and Collation Descriptor Exits Manual documentation for more information.

Response 240-244

Explanation These response codes are returned by Adabas Transaction Manager. Consult the Adabas Transaction Manager documentation for more information.

Response 245

Explanation This response code is issued for communication problems between add-on products that use the system coordinator (COR) interface to Adabas; that is, Adabas Fastpath, Adabas Vista, Adabas SAF Security, and Adabas Transaction Manager.

Subcode	Description
1	Internal error.
2	A required module could not be loaded. This is probably an installation error.

Action For subcode 1, contact your Software AG technical support representative. For subcode 2, consult the installation instructions for the add-on product.

Response 248

Explanation These response codes are returned by Adabas Data Archiving processing. Review the Adabas Data Archiving documentation for more information.

Response 249

Explanation This response code is given only when Adabas Vista is in use. Review the Adabas Vista documentation for more information.

Response 250

Explanation The ACBX (ACBX) failed validation. The following subcodes are possible:

Subcode	Description
1	Unsupported ACBX version
2	ADACBX provided without UBE.
3	ACBX file number > 65,535.
4	Reserved field not zero.
5	ACBX length incorrect

Action If subcode 3 occurs, notify your Software AG technical support representative. If any of the other subcodes occur, correct the ACBX specification and rerun.

Response 251

Explanation An error occurred in Adabas cluster processing.

Under certain conditions, the Adabas cluster SVC (SVCCLU) component of the ADASVC returns response code 251 in the ACB's response code field, along with a hexadecimal subcode (listed below in decimal) in the low-order (rightmost) two bytes of the Additions 2 field. In the case of an ACBX, the ADASVC returns response code 251 in the ACBX's Response Code (ACBXRSP) field and the subcode in the Error Subcode (ACBXERRC) field.

- If the local SVCCLU detects the condition, the subcode will range from 2 through 30.
- If a remote SVCCLU detects the condition, it will range from 102 through 130.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Subcode	Description
2	The remote cluster nucleus to which the user is assigned cannot be accessed.
4	There are no user table entries (UTES) available for use.
5	Internal error. The nucleus specified by an internal command was not found.
7	Internal error. The user was assigned to a remote nucleus by the local system but the remote system found that the nucleus was not active.
9	Internal error. The 28-byte user ID is all zeros.
17	Entire Net-Work is not active.
19	Internal error. Invalid internal command code.
20	Remote nuclei are active; command must be assigned remotely but the remote nuclei are not accepting commands.
21	The remote image to which the user is assigned has no usable nuclei.
22	An attempt was made to assign a user remotely but Entire Net-Work is not active.
25	No system image target
26	System image target changed
27	Internal error.
28	Version mismatch between the PLXCB and the SVCCLU part of the ADASVC.
29	Probably, you used a NUCID value from a restricted range. Otherwise, this is an internal error. <i>Action:</i> Ensure that the NUCID assignments are valid.
30	More than 32 NUCIDs were detected for the same SVC/DBID combination. <i>Action:</i> Reduce the number of NUCIDs on the SVC/DBID to 32.

Action For internal errors, contact your Software AG technical support representative. For all other errors except as noted, contact your systems administrator.

Response 252

Explanation

An error occurred during Adabas SVC processing (post error).

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Response 253

Explanation An error occurred processing a buffer.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

The following subcodes are possible:

Subcode	Description
0	Buffer length 0 (ACB user only)
1	Format buffer address zero
2	Record buffer address zero
3	Search buffer address zero
4	Value buffer address zero
5	ISN buffer address zero
6	User information buffer address zero
7	Performance buffer address zero
8	Multifetch buffer address zero
9	Unsupported ABD buffer type
10	Attached buffer overrun
11	Unsupported ABD version
12	ACBX not accepted by target
13	Unable to convert ACBX to ACB
14	ALET value not permitted
15	Unable to process 64-bit buffer address
16	Invalid buffer location indicator
17	Logic error locating ABD
18	More than 32,767 ABDs
19	Reserved field not zero
20	ADABDX length incorrect

Action Subcodes 10 and 17 are internal logic errors; notify your Software AG support representative. For all other subcodes, correct the buffer specification error and rerun.

Response 254**Explanation**

A validation error occurred during command completion processing while attempting to return results to the caller.

One of the following has occurred:

- An internal error occurred during processing of an attached buffer (buffer overflow)
- The CT parameter limit was exceeded. Message ADAM93 (or a similar message) is printed or displayed on the console.

If the CT parameter limit was exceeded, the nucleus terminated the user, generated the equivalent of a BT command internally, released the CQE and attached buffer space, and issued ADAM93 (or a similar message).

If the user was not terminated, the subcode in the right-most two bytes of the ACB's Additions 2 field or the subcode in the ACBX's Error Subcode (ACBXERRC) field describes the failed validity check.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

Subcode	Description
1	UBCQEX is less than or equal to zero
2	UBCQEX is greater than CQHNCQES
3	CQEFLAG is not equal to CQEFAB plus CQEFW16
4	CQEAUB is not equal to A'UB
5	CQEAUPL is not equal to A'APL
6	The low-order 6 bytes of CQECKSUM does not equal UBCKSUM
7	CQE was timed out
8	An inconsistency in the CQE such as the following: The CQE was unexpectedly taken by another call The user buffer (UB) is not receiving expected user information The target move data length is inconsistent
9	Record buffer overflow
10	ISN buffer overflow
11	Inconsistent format buffer length
12	Inconsistent search buffer length
13	Inconsistent value buffer length
14	Inconsistent user buffer length
15	Invalid attached buffer ABD index (internal logic error)
16	Buffer overflow; see ACBXERRD and ACBXERRE

Action Ensure that the caller's control structures and parameters are not altered while the command is being processed. If you are unable to resolve the error, notify your Software AG support representative.

Response 255

Explanation All attached buffers were allocated at the time the command was processed. Buffer allocation (NAB) "high water marks" may not reflect this condition when no buffer allocation occurs.

Note: If you are running with Entire Net-Work, the leftmost two bytes of the Additions 2 field (in the ACB) or the ACBXERRC field (in the ACBX) may contain the ID of the Entire Net-Work node that issued this response code.

9 Adabas Checkpoints

The CP-NAME is the checkpoint identifier. In the case of a user non-synchronized checkpoint, this is the checkpoint identifier supplied by the user program. Checkpoint names starting with "SYN" are reserved for the Adabas nucleus and utilities:

- SYNC -- A synchronized checkpoint made during nucleus initialization, including the status of the ADARUN IGNDIB and FORCE parameters.
- SYN F -- A checkpoint taken by a user program or utility that requires exclusive (EXF) control of one or more files.
- SYN P -- A checkpoint from a utility that requires privileged control. Such a utility can perform updating without using the Adabas nucleus.
- SYN S -- A checkpoint from Adabas Online System (SYSAOS) or ADADBS with three exceptions from the nucleus. The function identified by this checkpoint is implemented without user intervention during regeneration.

Exceptions include a second SYN S 5B recorded at the end of a nucleus session, SYN S 60 recorded at an interval specified by the ADARUN INTNAS parameter, and SYN S 61 recorded when more space is allocated for a file.

- SYN V -- Indicates that a volume ID changed during sequential write to a data set is being closed.
- SYN X -- A checkpoint from a utility requiring exclusive control (EXU) of one or more files.
- SYN 1 -- A checkpoint made at the beginning of online ADASAV execution (SAVE database function).
- SYN 2 -- A checkpoint made at the end of online ADASAV execution (SAVE database function).
- SYN 4 -- A checkpoint made at the beginning of online ADASAV execution (SAVE files operation).
- SYN 5 -- A checkpoint made at the end of online ADASAV execution (SAVE files operation).

The following table describes the checkpoints written by the Adabas nucleus or utilities:

Type	Name	Originator	Description
01	SYNC	ADANUC	Written by nucleus at start of nucleus session.
01	SYNF	User/Util.	User/utility session OPEN with files used in EXF (exclusive use) mode.
01	SYNX	EXU user	EXU user open.
02	SYNV	ADANUC	VOLSER entry. Written at volume switch on DD/SIBA and at the end of the session if sequential logging is used.
03	SYNF	User/Util.	Close checkpoint for an EXF user.
03	SYNX	EXU	Close checkpoint for an EXU user.
05	SYNP	ADASAV	SAVE file(s)-start of operation
06	SYNP	ADASAV	SAVE database-start of operation
07	SYNP	ADASAV	RESTORE file(s)-end of operation
08	SYNP	ADASAV	RESTPLOG-end of operation
09	SYNV	ADASAV	SAVE file(s), VOLSER entry. Written at volume change on DD/SAVE and at SAVE-operation end.
0A	SYNV	ADASAV	SAVE database, VOLSER entry. Written at volume switch on DD/SAVE and at SAVE-operation end.
0B	SYNP	ADASAV	SAVE DELTA-end of operation
0C	SYNP	ADASAV	RESTORE DELTA-end of operation
0D	SYNP	ADASAV	MERGE-end of operation
0E	SYNV	ADASAV	SAVE DELTA, VOLSER entry
0F	SYNV	ADASAV	MERGE, VOLSER entry
10	SYNP	ADAINV	COUPLE files
11	SYNP	ADAINV	INVERT field(s)
15	SYNP	ADAORD	REORDER Associator database
16	SYNP	ADAORD	REORDER Data Storage database
17	SYNP	ADAORD	REORDER database
18	SYNP	ADAORD	REORDER Associator file
19	SYNP	ADAORD	REORDER Data Storage file
1A	SYNP	ADAORD	REORDER file
1B	SYNP	ADAORD	STORE
1C	SYNP	ADAORD	RESTRUCTURE
1D	SYNP	ADADEF	DEFINE NEWWORK
1E	SYNP	ADADEF	MODIFY default character encodings
22	SYNX	ADARES	REGENERATE file
23	SYNX	ADARES	BACKOUT file
24	SYNX	ADARES	REGENERATE all; CPEXLIST lists excluded files
25	SYNX	ADARES	BACKOUT all; CPEXLIST lists excluded files
26	SYNP	ADARES	REPAIR Data Storage

Type	Name	Originator	Description
27	SYNV	ADARES	COPY sequential protection log
28	SYNP	ADARES	PLCOPY function successfully completed
28	SYNV	ADARES	PLCOPY dual or multiple protection log
29	SYNV	ADARES	CLCOPY dual or multiple command log
2A	SYNP	ADARES	PLCOPY MERGE function successfully completed
2A	SYNV	ADARES	PLCOPY MERGE dual or multiple protection log
2B	SYNP	ADARES	CLOG MERGE function successfully completed
2B	SYNV	ADARES	CLOG MERGE dual or multiple command log
30	SYNP	ADALOD	LOAD file
31	SYNP	ADALOD	Mass update
35	SYNX	ADAULD	Unload file
3F	SYNP	ADAZAP	Successful VERIFY - REPLACE
40	SYNS	SYSAOS	Add extent
41	SYNS	SYSAOS	CHANGE default field length
42	SYNS	SYSAOS	DECREASE database size
44	SYNS	SYSAOS	Delete file
45	SYNS	SYSAOS	INCREASE database size
47	SYNS	SYSAOS	RECOVER space
48	SYNS	SYSAOS	Refresh file
49	SYNS	SYSAOS	Remove component file from expanded-file chain
4A	SYNS	SYSAOS	Release descriptor
4B	SYNS	SYSAOS	RENAME file
4C	SYNS	SYSAOS	RENUMBER file
4D	SYNS	SYSAOS	RESET DIB
4E	SYNS	SYSAOS	Reuse ISN
4F	SYNS	SYSAOS	Reuse Data Storage
50	SYNS	SYSAOS	UNCOUPLE files
51	SYNS	SYSAOS	ALLOCATE file extent
52	SYNS	SYSAOS	DEALLOCATE file extent
53	SYNS	SYSAOS	Delete checkpoint
54	SYNS	SYSAOS	Set user priority
55	SYNS	SYSAOS	Modify FCB
57	SYNS	SYSAOS	DEFINE file
58	SYNS	SYSAOS	Write FDT
59	SYNS	SYSAOS	DEFINE new field
5B	SYNS	ADADBS	Write refreshed statistics (some or all per user request)

Type	Name	Originator	Description
5B	SYNS	ADANUC	Write (all) statistics at end of nucleus session
5B	SYNS	ADARES	Write refreshed statistics (command, file, and thread usage; DRES and DSTAT)
5C	SYNS	SYSAOS	CHANGE default field format
5D	SYNS	SYSAOS	Change file encoding
5E	SYNS	ADADBS	ADADBS REPTOR function (refer to your Event Replicator for Adabas documentation)
60	SYNS	ADANUC	Nucleus statistic checkpoint
61	SYNS	ADANUC	Allocate file space
64	SYNS	ADASCR	Protect files
65	SYNS	ADASCR	Protect fields
66	SYNS	SYSAOS	Link component file into expanded-file chain
68	SYNS	SYSAOS	Set USERISN on/off
69	SYNS	SYSAOS	Set MIXDSDEV on/off
6A	SYNS	SYSAOS	Install Delta Save DLOG area
6B	SYNS	SYSAOS	Change Delta Save DLOG area
6C	SYNS	SYSAOS	Remove Delta Save DLOG area
6E	SYNS	ADADBS	ADADBS REPLICATION function (refer to your Event Replicator for Adabas documentation)
6F	SYNS	SYSAOS	Online process initiated
70	SYNS	SYSAOS	Online invert process
71	SYNS	SYSAOS	Online reorder process
73	SYNC	ADANUC	Nucleus (nuclei) successfully quiesced.
74	SYNC	ADANUC	Nucleus (nuclei) have resumed normal processing.
75	SYNS	ADANUC	Delete heuri-user-entry after Response 72 was detected during nucleus startup.
76	SYNS	ADANUC	Delete heuri-user-entry after Response 72 was detected during nucleus session.
77	SYNS	ADADBS	Enable spanned record support.
78	SYNS	ADADBS	Enable or disable extended MU or PE fields

10 Adabas Command Log Layouts

Two command log layout formats are supported by Adabas mainframe products:

- The first format (invoked by CLOGLAYOUT=5) is supported in all supported Adabas mainframe versions and is the default format.

The DSECT that maps the layout of the CLOGLAYOUT=5 records is called LOREC and can be found in the `ADAvrs.SRCE` library.

- The second format (invoked by CLOGLAYOUT=8) is supported only in Adabas version 8 or later. This format includes all of the information provided in CLOGLAYOUT=5, but each buffer is prefixed by its corresponding Adabas buffer description (ABD) as well. Each segmented buffer (format, record, or multifetch) is written separately and uniquely identified.

The DSECT that maps the layout of the CLOGLAYOUT=8 records is called LORECX and can be found in the `ADAvrs.SRCE` library.

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