

# **Adabas Online System**

## **System Operator Command Functions**

Version 7.4.4

September 2009

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# Adabas Online System

This document applies to Adabas Online System Version 7.4.4 and to all subsequent releases.

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

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# 1 System Operator Command Functions

---

Selecting Session Opercoms (option "O") displays the following menu:

```
09:27:14          ***** A D A B A S  BASIC  SERVICES *****          2005-11-24
                  - Session Opercoms -                               PACI002

Code  Service                                           Code  Service
-----
E     Extended Error Recovery                          S     Stop user(s)
F     Force Dual CLOG or PLOG switch                    T     Termination Commands
L     Lock or unlock files                              U     Manage Online Utilities
R     Reset ONLINE-DUMP-Status                          V     User Table Maintenance
?     Help
.     Exit
-----

Code ..... _
Userid(ETID) ... _____
CLOG/PLOG Ind .. _      Global.. _
Database ID .... 1955   (WIS1955)          NucID .. 1022

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

The Adabas Online System System Operator Command Functions documentation is organized in the following topics:

	<b>Code</b>	<b>Function</b>
	E	<b>Extended Error Recovery</b>
	F	<b>Force Dual/Multiple CLOG/PLOG Switch</b>
	L	<b>Lock / Unlock files</b>
	R	<b>Reset Online Dump Status</b>
	S	<b>Stop User(s)</b>
	T	<b>Termination Commands</b>
	U	<b>Manage Online Utilities</b>
	V	<b>Maintain the User Table (nucleus cluster environments only)</b>

# 2 Extended Error Recovery

---

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- Display/Modify Environment ..... 6
- Display/Modify Exits ..... 7
- Add/Delete PIN Modules ..... 8
- Display/Modify PIN Routines ..... 9
- Refresh Threshold and Alert Exits ..... 10
- SNAP a Nucleus Dump ..... 11

Selecting option "E" (Extended Error Recovery) from the Session Opercoms menu displays the Extended Error Recovery menu:

```
09:31:57          ***** A D A B A S  BASIC SERVICES  *****          2005-11-24
                  - Extended Error Recovery -          PACIE02

      Code      Service
      ----      -
      B          Display message buffer
      D          Display/modify environment
      E          Display/modify Exit routines
      M          Add/Delete PIN modules
      P          Display/modify PIN routines
      R          Refresh threshold and alert exits
      S          SNAP a nucleus dump
      ?          Help
      .          Exit
      ----      -

Code ..... _
Start Address .. _____ End Address ... _____
Database ID .... 105      (RD-MPM105)

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

From this menu you can

- display the message buffer
- display or modify the parameters controlling the extended error handling environment;
- display or modify parameters for invoking the error handling exits;
- add or delete PIN modules;
- display, activate, or deactivate specific PIN routines;
- refresh the ADATHRSH and ADALERTX exit modules loaded in memory;
- SNAP a dump image of nucleus memory.

This chapter covers the following topics:

## Display Message Buffer

Selecting option "B" (Display Message Buffer) from the Extended Error Recovery menu displays the contents of the message buffer:

```

09:38:27          ***** A D A B A S  BASIC SERVICES  *****          2005-11-24
DBID 105          - Display Message Buffer -          PACIEB2

Select starting message _____
Msg Num      Time   Msg ID          Message
-----
      2 09:15:11 ADAN5A FILES modified during AUTORESTART:
      3 09:15:11 ADAN5A NONE
      4 09:15:11 ADAN19 BUFFERFLUSH is  A S Y N C H R O N O U S
      5 09:15:11 ADAN8Y FILE-LEVEL CACHING INITIALIZED
      6 CWARN-140, FILE CACHING PARAMETER ERROR; Invalid FILE NUMBER
      7 09:15:11 ADAN80 ADABAS DYNAMIC CACHING ENVIRONMENT established.
      8 09:15:11 ADAN01 A D A B A S  V7.1.0  is active
      9 09:15:11 ADAN01 MODE = MULTI
     10 09:15:11 ADAN01 Running without RECOVERY-LOG
     11 09:45:23 ADAN8U ESP 64001 (WRK2)  Enabled on Demand.
     12 09:45:23 ADAN8U ESP 64002 (WRK3)  Enabled on Demand.
     13 09:45:23 ADAN8U FNR 00050 (BOTH)  Enabled on Demand.

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

```

Press PF4 to refresh the screen and show the latest messages added to the buffer.

The Msg Num column contains the sequential record number for each item in the message buffer. Enter a record number in the field Select starting message to position the display to a particular record.

These functions are the same as the error handling operator commands

```
SMGT,DISPLAY=MSGBUF
```

## Display/Modify Environment

Selecting option "D" (Display/Modify Environment) from the Extended Error Recovery menu displays the current setting of several extended error handling parameters:

```

09:46:13          ***** A D A B A S  BASIC SERVICES  *****      2005-11-24
DBID 105          - Display/Modify Environment -                      PACIED2

----- Alert Limits -----          --- Parameters ----- Status - Executions -
User Queue ..... 85                Smart Management (SMGT) ON           3
Command Queue ..... 80             Message Buffering ..... ON
Threads ..... 75%                  Abnormal Term. Handler. ON           0
Hold Queue ..... 500               Response Code Handler . ON           0
Data Blocks ..... 80%              Heartbeat Subtask ..... ON
Asso Blocks ..... 90%              Full System Dump (DUMP) OFF
Flushes/Interval ... 40             Threshold Interval .... 30
Format Overwrites .. 1

          ----- Most Recent Recovery Action -----
          Last error occurred on 2005-11-24 09:11:45
          Condition: Rsp 017 Location: * N/A *

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

If the heartbeat subtask is inactive or if the ADATHRSH module is not installed, the Alert Limits and the threshold interval values are blank.

The parameters with "ON"/"OFF" values in the Status column can be activated and deactivated by changing the value. The threshold interval parameter and the threshold levels displayed in the Alert Limits column cannot be changed in Adabas Online System. See the *Adabas DBA Reference* documentation for more information.

The functions on this screen mirror the error handling operator commands

```

SMGT,{ON | OFF}
SMGT,ABNORMALTERM={ON | OFF}
SMGT,DUMP={ON | OFF}
SMGT,HEARTBEAT={ON | OFF}
SMGT,MSGBUF={ON | OFF}
SMGT,DISPLAY=THRESHOLD
SMGT,DISPLAY=LAST
    
```



```
SMGT,XLOAD=exit-code  
SMGT,XLOAD=(exit-code,module-name)  
SMGT,{XCRITICAL | XNOTCRITICAL}=exit-code
```

## Add/Delete PIN Modules

Selecting option "M" (Add/Delete PIN Modules) from the Extended Error Recovery menu displays a list of currently available PIN modules:

```
10:02:45          ***** A D A B A S  BASIC SERVICES *****          2005-11-24  
DBID 105          - Add/Delete PIN Modules -          PACIEM2  
  
Mark entries with 'A' to Add or 'D' to Delete:  
  
      M  Module      Description      Message  
      -  - - - - -  - - - - - - - - - - - - - - -  
      _  ADAMXY      Standard Nucleus PIN Routines  
      _  PINAAF      SAF Security  
      _  PINAFP      Adabas Fastpath  
      _  PINATM      Adabas Transaction Manager  
      _  PINAVI      Adabas Vista  
      _  PINRSP      Adabas Response Code Handler  
      _  PINUES      Universal Encoding Support
```

### ▶ To load a PIN module into memory

- Enter "A" in the M column next to the module name.

This command is successful only if the exit module exists in a library accessible to the Adabas nucleus.

### ▶ To remove a PIN module from memory

- Enter a "D" in the M column next to the module name.

When deleting a PIN module from memory, all related PIN routines are also removed.

These functions are the same as the error handling operator commands

```
SMGT,{ADDPIN | DELPIN}=module-name
```



## Refresh Threshold and Alert Exits

Selecting option "R" (Refresh Threshold and Alert Exits) from the Extended Error Recovery menu loads the ADATHRSH and ADALERTX modules into memory.

The following confirmation screen is displayed:

```

10:10:02          ***** A D A B A S  BASIC SERVICES *****          2005-11-24
                  - Extended Error Recovery -                          PACIE02

      Code      Service
      ----      -
      D          Display/modify environment
      E          Display/modify Exit routines
      M          Add/Delete PIN modules
      P          Display/modify PIN routines
      R          Refresh threshold and alert exits
      S          SNAP a nucl
      ?          Help
      .          Exit
      -----
Code ..... r
Start Address .. _____
End Address .... _____
Database ID .... 105 (RD-MPM105)
EACIEP1 : Display/Modify PINs functio
Command ==>
PF1----- PF2----- PF3----- PF4----- PF6----- PF7----- PF8----- PF12-----
Help          Exit          Menu
    
```

These modules can be refreshed only if the heartbeat subtask is active and the module being refreshed exists in a library accessible to the Adabas nucleus. Both modules can be refreshed at one time.

 **Note:** Option "R" is only valid for pre-741 versions of Adabas. When running against an Adabas version 741 database, you will receive a message stating that it cannot be accessed.

### ▶ To refresh a module

- Enter "YES" in the input field following the module name.

This deletes the module from memory and reloads a new copy.

These functions are the same as the error handling operator commands

```
SMGT, REFRESHTHRESHOLDS  
SMGT, REFRESHALERTEXIT
```

## SNAP a Nucleus Dump

---

Selecting option "S" (SNAP a Nucleus Dump) from the Extended Error Recovery menu generates a formatted dump of the nucleus without error diagnostics.

▶ **To generate a dump of the whole nucleus**

- Leave the Start Address and End Address fields on the menu blank.

To generate a SNAP dump of only a range of addresses, enter hexadecimal addresses in the Start Address and End Address fields on the menu.

The formatted dump is written to the DDPRINT dataset specified in the nucleus.

This function is the same as the error handling operator command

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



# 3

## Force Dual/Multiple CLOG/PLOG Switch

---

Using this option, you can immediately switch (by forcing an end-of-file) between dual or multiple command log (CLOG) or protection log (PLOG) files. Switching (that is, "toggling") changes from one CLOG or PLOG file to another.

Equivalent direct commands are

```
FORCE CLOGSWITCH
```

```
FORCE PLOGSWITCH
```



# 4 Lock / Unlock Files

---

This option is used to lock, unlock, or display locked files.

Files can be locked or unlocked for all users or for all but utility/EXF users. Once locked for all users, a file cannot be unlocked for utility users only.

Locking is immediate: a transaction in process whose file becomes locked will be backed out.

Unlocking makes the file available again for normal use.

Equivalent direct commands are

LOCK FILE

UNLOCK FILE

Selecting option "L" (Lock/Unlock Files) from the Session Opercoms menu displays the following:

```
10:12:10          ***** A D A B A S  BASIC  SERVICES  *****          2005-11-24
                  - Lock / Unlock Files -          PACIL02

Code      Service
-----
D         Display locked files
F         Lock file for all users
K         Advance lock file
L         Lock file except for UTI/EXF users
N         Unlock file from general lock
R         Release an advance lock
U         Unlock file from UTI/EXF lock
?         Help
.         Exit
-----

Code ..... _
File Number .. 30
```



## 5 Reset Online Dump Status

---

Use this option to reset the online dump status for use when an ADASAV online dump operation has ABENDED.

An equivalent direct command is

```
RESET ONLINESTATUS
```



## 6 Stop User(s)

Selecting option "S" (Stop Users) from the Session Opercoms menu displays the Stop Users menu:

```
10:22:02          ***** A D A B A S  BASIC SERVICES  *****          2005-11-24
                   - Stop Users -                               PACIS02

                   Code  Service
                   ----  -
                   F    Stop users using file
                   I    Stop inactive users
                   J    Stop users by jobname
                   U    Stop a selected user
                   ?    Help
                   .    Exit
                   ----  -

Code ..... -
File Number ..... _____
Last Activity .... _____ (elapsed time in seconds)
Job Name ..... _____
Purge UQE(s) .... N
Selected Userid ..
Database ID ..... 105 (RD-105)

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

You can stop a specific user, all users of a specific file or job, or all inactive users. The current transactions of those users being stopped are backed out.

Press PF2 (Disp UQ) to display the current user queue.

Press PF4 (Clear UID) to clear the selected user ID.

An equivalent direct command is

Stop User(s)

---

STOP USERS

# 7 Termination Commands

Selecting option "T" (Termination Commands) from the Session Opercoms menu invokes the Session Termination menu from which you can choose to terminate a session normally (ADAEND), cancel a session immediately (CANCEL), or stop a session (HALT).

```
11:24:00          ***** A D A B A S  BASIC SERVICES *****          2005-11-24
                   - Session Termination -                               PACT002

                   Code      Service
                   -----
                   A        Normal session termination (ADAEND)
                   C        Cancel session immediately (CANCEL)
                   H        Stop session (HALT)
                   ?        Help
                   .        Exit
                   -----
Code ..... _
Database ID .. 105      (RD-MPM105)
Current nr. of users in User Queue ... 9
Nr. of users with open transactions .. 0

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

In all cases, you are prompted to confirm your termination request before the action is taken.

An equivalent direct command is

```
TERMINATE SESSION
```



## 8 Manage Online Utilities

Selecting option "U" (Manage Online Utilities) from the Session Opercoms menu displays the following screen:

```

10:28:33          ***** A D A B A S  BASIC SERVICES  *****          2005-11-24
DBID 105          - Manage Online Processes -          PACIP02

Total Processes...
Mark entries with 'S' (Suspend), 'R' (Resume), or 'X' (Stop):
  I      I Process I Sort I Current I Throw- I Process I
M I  FNR I   Type I Seq I RABN/ISN I Backs I   ID   I Status  I
-----
_ I    50 I Reor Data I Phy I      3345 I      6 I 000003FC I Active  I
_ I    61 I Invert DE I AA  I      286 I      1 I 000003FF I Suspended I
_ I   101 I Reor Asso I BJ  I          I      1 I 000000C2 I Active  I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I
_ I      I          I    I          I      I          I          I

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

```

From this screen, you can manage (that is, monitor, suspend, resume, and stop) online utility processes.

All online processes currently in the database nucleus are listed, up to a maximum of 40. You can use PF6 (back to the start of the list), PF7 (back one screen), and PF8 (forward one screen) to scroll among the processes.

The equivalent direct command is

`DISPLAY PROCESS`

To maintain the processes, enter one of the following maintenance codes in the M column to the left of the process named in the Process Type column:

S	suspend an active process
R	resume a suspended process
P	stop a process

You can maintain multiple processes at the same time.

The equivalent direct command is

`MANAGE PROCESS`

The sort sequence being used by a process is indicated in the Sort Seq column:

For process type . . .	Sort Seq. contains the descriptor currently being . . .
reorder Data Storage	reordered*
invert descriptor	inverted
reorder Associator	reordered

\* When reordering Data Storage for a file, the default sort sequence is physical sequence or "PHY". Other possible options include "ISN" if the file is to be sorted in ISN order, or the two character descriptor name to sort the file according to the value of the specified descriptor.

The Current RABN/ISN column shows the progress of work:

For process type . . .	Current RABN/ISN displays the current . . .
reorder Data Storage	RABN being processed
invert descriptor	ISN, as this function works in ISN sequence
reorder Associator	(left blank)

## 9 Maintain the User Table

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

When option "V" (User Table Maintenance) is selected, the following screen is displayed:

```
10:39:29          ***** A D A B A S  BASIC  SERVICES *****          2005-11-24
                  - User Table Maintenance -                          PACIV02

                  Code      Service
                  ----      -
                  C        Begin CLUFREEUSER process
                  ?        Help
                  .        Exit
                  ----      -

Code ..... _
TNA ..... 0_____
UID ..... _____
Force ..... _
Global ..... _

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

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

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

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

TNA	is a decimal number specifying the timeout value in seconds. UTEs that are not used during the time specified may be deleted if other conditions are fulfilled. If TNA is not specified, UTEs may be deleted without regard to their recent use.
UID	<p>is a character string or hexadecimal byte string as follows:</p> <p>ccccccc                    where the argument is 1-8 letters, digits, or embedded '-' signs without surrounding apostrophes.</p> <p>'ccccccc'                    where the argument is 1-8 characters with surrounding apostrophes.</p> <p>X'xxxxxxxxxxxxxxxx' where the argument is an even number of 2-16 hexadecimal digits enclosed by apostrophes and preceded by an X.</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 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	Delete leftover UTEs even if the users are due a response code 9, subcode 20. If FORCE is not specified, such UTEs are not deleted. Before using the FORCE parameter, ensure that the users owning the UTEs to be deleted will not expect any of their transactions to remain open. Specify FORCE on this screen by marking the Force field with any character.
GLOBAL	Delete leftover UTEs throughout the Adabas cluster if they are no longer associated with UQEs and are eligible according to the other specified parameters. Additionally and subject to the other rules, delete leftover UTEs if their assigned nuclei have terminated since their last use. If GLOBAL is not specified, only UTEs assigned to the local nucleus and used since the nucleus start are eligible for deletion. Specify GLOBAL on this screen by marking the Global field with any character.

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