Extended Error Recovery

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  *****         2006-07-14
                          -  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

- Display/Modify Environment

- Display/Modify Exits

- Add/Delete PIN Modules

- Display/Modify PIN Routines

- Refresh Threshold and Alert Exits

- SNAP a Nucleus Dump

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  *****       2006-07-14
 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  V8.1.0  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  *****       2006-07-14
  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 2006-07-14 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
```

Display/Modify Exits

Selecting option "E" (Display/Modify Exits) from the Extended Error Recovery menu displays the status of the exits currently loaded:

```
 09:58:48          *****  A D A B A S   BASIC  SERVICES  *****         2006-07-14
   DBID 105              -  List/Modify Exit Routines  -              PACIEE2

  Mark with 'A' Activate, 'D' Deactivate, 'L' Load, 'C' Critical, 'N' Not Crit
   M   Exit  Program    Status    Critical  M  Exit   Program    Status    Critical
   -   ----  --------   --------   --------  -  ----   --------   --------   --------
   _   SX00  ADASMXIT   Active     Critical  _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _
   _                                         _



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

The exit code, the name of the program invoked by the exit, the current status, and the criticality are listed for each exit. You can change the status and criticality of the exit from this screen.

To change the status and criticality of the exit, enter In the M column next to the selected exit

A	to activate the exit
D	to deactivate the exit
L	to reload the exit program in memory or to load a new exit
C	to make the exit critical
N	to make the exit noncritical

After changes have been made, use PF4 to refresh this screen.

These functions are the same as the error handling operator commands

```
SMGT,DISPLAY=EXITS
SMGT,{XACTIVATE | XDEACTIVATE}=exit-code
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  *****         2006-07-14
  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

1. 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

1. 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
```

Display/Modify PIN Routines

Selecting option "P" (Display/Modify PIN Routines) from the Extended Error Recovery menu displays a list of PINs currently loaded in memory:

```
10:08:49           *****  A D A B A S   BASIC   SERVICES  *****         2006-07-14
  DBID 105                - List/Modify PIN Routines    -              PACIEP2

 Mark entries with 'A' Activate, or 'D' Deactivate:          Total Pins: 012

  M  Condition         Error Location          Status  Uses  Module     Message
  -  ---------  --------------------------  -------  ----  --------  -----------
  _   000C1000  All Locations               Active     0   ADAMXY
  _   000C2000  All Locations               Active     0   ADAMXY
  _   000C3000  All Locations               Not Act    0   ADAMXY
  _   000C4000  All Locations               Active     0   ADAMXY
  _   000C5000  All Locations               Active     0   ADAMXY
  _   000C6000  All Locations               Active     0   ADAMXY
  _   000C7000  All Locations               Not Act    0   ADAMXY
  _   000C8000  All Locations               Active     0   ADAMXY
  _   000C9000  All Locations               Active     0   ADAMXY
  _   000CB000  All Locations               Active     0   ADAMXY
  _   000CF000  All Locations               Active     0   ADAMXY
  _   00047000  All Locations               Active     0   ADAMXY

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

For all PIN routines on the list, the screen indicates the conditions that cause them to be executed, the current status, the number of times they have been used, and the module in which they are located.

To change the status of the PINs from this screen, enter in the M column next to the PIN number

A	to activate a PIN
D	to deactivate a PIN

After changes have been made, use PF4 to refresh the screen.

These functions are the same as the error handling operator commands

```
SMGT,DISPLAY=PINS
SMGT,{ACTPIN | DEACTPIN}=pin-number
```

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  *****        2006-07-14
                          - 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        | Refreshing will delete and reload  |
                         .       Exit        | the modules in memory.             |
                       ------   ----------   |                                    |
                                             | Enter PF3 to cancel or YES to      |
        Code .......... r                    | confirm the refreshing of:         |
        Start Address .. _____            | Thresholds (ADATHRSH)... ___       |
        End Address .... _____            | Alert Exit (ADALERTX)... ___       |
        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**

1. 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**

1. 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 data set specified in the nucleus.

This function is the same as the error handling operator command

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