

Adabas Online System

File Maintenance

Version 7.4.4

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Adabas Online System

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

Selecting File Maintenance (option "F") from the Adabas Online System main menu invokes File Maintenance menu:

```
**** A D A B A S BASIC SERVICES *****
08:02:59
                                                                2005-11-22
                            - File Maintenance -
                                                                   PFL0002
                             Service
                      Code
                       C
                             Define/modify FDT
                       D
                             Release descriptor
                       Ε
                             Delete existing file
                       F
                             Define new file
                       Μ
                             Modify file parameters
                       0
                             Reorder file online
                             Refresh file to empty status
                       S
                             Allocate/deallocate file space
                       Χ
                             Maintain expanded files
                       ?
                             Help
                             Exit
        Code ....__
                             Descriptor Name .. ___
        File No ..... 0
        Database ID .. 105
                             (RD-105)
 Command ==>
 PF1---- PF2---- PF3---- PF4---- PF6---- PF7---- PF8---- PF12----
                    Exit
                                                                 Menu
```

Options "C" (Define/modify FDT) and "X" (Maintain expanded files) on this menu display additional menus. The other file maintenance options require you to enter a valid file number and database ID. Option "D" (Release descriptor) also requires that you specify the name of the descriptor to be released.

The Adabas Online System File Maintenance documentation is organized in the following topics:

	Code	Function			
3	С	Define / Modify FDT allows you to change the length of a field; add a field to a file; create a new field definition table (FDT); or create a special descriptor table (SDT).			
•	D	Release Descriptor allows you to release a field from descriptor status by freeing the specified field's inverted list in the Associator.			
•	E	Delete Adabas File allows you to free extents used by an existing Adabas file.			
•	F	Define a New File allows you to define a new database file for which an FDT has already been created.			
•	M	Modify File Parameters allows you to modify the padding factor, the maximum compressed record length, file number, file name, extent allocation for NI/UI/AC/DS, ISN reusage, and DS reusage.			
3	О	Reorder File Online allows you to start a process to reorder the Associator, Data Storage, or the entire file.			
3	R	Refresh File to Empty Status allows you to delete all file records and assign a single extent to each file component.			
3	S	Allocate or Deallocate File allows you to create or remove extents for the address converter, normal and upper index, and Data Storage of a file.			
•	X	Maintain Expanded Files allows you to insert or remove a component file into/from an expanded file chain.			

2 Define / Modify FDT

■ Add One or More Fields	
Change Field Parameters	
■ Define a New Field Definition Table (FDT)	
■ Invert a File Online	
■ Define a Special Descriptor Table (SDT)	. (

Selecting option "C" on the File Maintenance menu displays the FDT/SDT Definition / Modification menu:

```
08:34:30
                **** A D A B A S BASIC SERVICES *****
                                                               2005-11-22
                    - FDT/SDT Definition / Modification -
                                                                  PFLC002
                      Code
                             Service
                              Add new field(s)
                       Α
                       C
                              Change field parameters
                              Define new FDT
                              Online invert
                       Ι
                              Define/add SDT
                       S
                              Help
                              Exit
         Code .....
         File No. .... 50
         Field Name ...
         Database ID .. 00105 (RD-MPM105)
  Command ==>
 PF1---- PF2---- PF3---- PF4---- PF6---- PF7---- PF8---- PF12----
 Help
          Def. File Exit
```

This chapter covers the following topics:

Add One or More Fields

From this menu you can add one or more fields to an existing Adabas file.

To add a new field definition to the field definition table (FDT) of an existing file

- 1 Select option "A" (add new fields).
- 2 Specify the number of the existing file.
- 3 Specify a two-character field name that is not currently being used by the specified file.
- 4 Press enter.
- **Note:** You can view the FDT of the existing file by selecting option "R", *Database Report*.

A screen similar to the following is displayed providing input fields for defining a new field:

0	8:39:13 DBID 1955	***** /			SIC SERVI Field(s)		2005-11-22 PFLCA02
		(EMPLOYEES word if file	· ·	curity pr	otected	In Paralle	1 NO
		Level I Nan	ne I Le	ngth I Fo	rmat I Opt	ions 	I
		I	Ι	I	I		Ι
		Ι	Ι	I	I		Ι
		I	Ι	I	I		I
		I	I	Ι	Ι		I

The option **In Parallel** allows processing to continue against a file while the function you have selected modifies the file. Specify "YES" to select this option. With this option, Adabas performs the function while all applications executing against the file are temporarily quiesced and suspended. File integrity is always maintained. For this reason, your applications that are executing against the file may experience difficulty. Please maintain an awareness of the impact on your environment and the consequences of performing your selected functions against a file when using this option.

With this option set to "NO" (the default), Adabas requires exclusive file control (that is, no application executing against the file) when performing the function.

The Add New Field(s) function corresponds to the Adabas utility function ADADBS NEWFIELD. The equivalent direct command is

ADD FIELD

Change Field Parameters

From this menu you can also change the parameters of a field in an existing Adabas file.

To change the parameters of an existing field in an existing file

- 1 Select option "C" (change field parameters).
- 2 Specify the number of the existing file.
- 3 Specify the name of the existing field to be changed.
- 4 If the file is protected, enter the password.
- 5 Press enter.
- **Note:** You can view the FDT of the existing file by selecting option "R", *Database Report*.

From the resulting Change Field Parameters screen, you can change

- the standard length of an Adabas field;
- a normal alphanumeric (A) field to a long-alpha (LA) field;
- the default field format from unpacked (U) to packed(P); or
- the setting of the In Parallel option.

Only one of these parameters may be changed at a time.

No modifications to records in Data Storage are made by this function. The user is, therefore, responsible for preventing references to the field that would cause invalid results because of an inconsistency between the new parameter value as defined to Adabas and the actual value contained in the record.

To change the length of the field

- Enter the new value in the Field Length field.
- To add the "LA" (long alphanumeric) option to a field with format "A" (alphanumeric)
- Enter "LA" in the Field Option field.
- To change the format of an elementary field from "U" (unpacked) to "P" (packed)
- Overwrite the "U" in the Field Format field with "P".

An elementary field defined as format "U" can only be changed to "P" if the field

- has not been defined with the field option "FI" (fixed storage length);
- is not the parent of a sub-/super-/hyperdescriptor; and

■ is not within an expanded file chain.

This function corresponds to the Adabas utility function ADADBS CHANGE. The equivalent direct command is

CHANGE FIELD file-number field-name

Define a New Field Definition Table (FDT)

To define a new FDT

■ Select option "D" (define new FDT) and press ENTER.

The following screen appears, which can be used to define a new FDT for a new file:

09:13:34 **** A D A DBID 105	B A S BASIC SERVICES ***** - Define FDT -	2005-11-22 PFLCD02
File Number 200 Enter Field Description(s)	New FDT Y:	
I _ I _ I _ I _ I _ I _ I _ I _ I _ I _	ength I Format I Options I I	I I I I I I I
I I I I I I	I I I I PF4 PF6 PF7 PF8	I I - PF12
Help Def SDT Exit		Menu

FDTs for existing files cannot be redefined with this option.

This function corresponds to the Adabas utility function ADACMP COMPRESS. The equivalent direct command is

<u>DEF</u>INE <u>FD</u>T

Invert a File Online



Note: This function is only available for Adabas version 7 or above databases.

Selecting "Online Invert" (option "I") displays the following screen:

```
**** A D A B A S BASIC SERVICES *****
09:17:06
                                                                2005-11-22
 DBID 105
                              - Online Invert -
                                                                   PFLCI02
 File Number ... 5
                      EMPLOYEES
 Password .....
 Enter the definition, using the syntax of the ADADBS ONLINVERT utility:
 Note: Only one Invert Process can be active for a file at any time.
 Examples:
 FIELD='AA'
                                     HYPDE='01, HD, 20, A, NU, MU=AA, AB'
 SUBDE='SB=AA(1,5)'
                                     PHONDE='PH(AA)'
 SUPDE='SP=AA(1,5),BB(1,2),CC(3,5)' COLDE='1,CD=AA'
 Enter Descriptor information and press 'enter'
PF1---- PF2---- PF3---- PF4---- PF6---- PF7---- PF8---- PF12----
Help
                  Exit
                                                                 Menu
```

The specified file must be currently loaded.

You must use the ADADBS ONLINVERT syntax. PF1 provides help information for this syntax; see the *Adabas Utilities* documentation for additional information.

Only one descriptor can be specified per process.

Only one invert process can be active for a file at any time. If an attempt is made to start a second invert process before the first one has completed, a response code 64 is returned.

The equivalent direct command is

```
<u>ONL</u>INE <u>INV</u>ERT
```

Define a Special Descriptor Table (SDT)

Option "S", "Define/add SDT", is available only if an FDT exists but no file control block (FCB) exists for the file (for example, if the FDT has been created but no records loaded, or if the file was deleted with the option to retain the FDT).

Selecting option "S" displays the following screen, which can be used to define special descriptors in an existing FDT for a new file:

09:24:41 DBID 105	**** A [) A B A S BASIC - Define S		2005-11-22 PFLCH02
File Number Password				
Enter SDT-D	efinition, usir	ng the syntax of	the ADACMP Util	ity:
Enter SDT i	nformation and	press 'enter'		
	File Exit		PF7 F	PF8 PF12 Menu

To define new super-/sub-/hyperdescriptors, phonetic descriptors, and super-/subfields in an existing FDT

■ Use ADACMP syntax (see the *Adabas Utilities* documentation) on this screen.

This function corresponds to the Adabas utility function ADACMP COMPRESS. The equivalent direct command is

DEFINE STD

3 Release Descriptor

Option "D", "Release Descriptor", from the File Maintenance menu removes a descriptor by freeing the specified field's inverted list in the Associator. Field names listed in the field definition table (FDT) with an option of "DE" are descriptors.



Note: You can view the FDT of the existing file by selecting option "R", *Database Report*, from the main menu.

To release a descriptor

- 1 Select option "D" (Release Descriptor).
- 2 Specify the number of the existing file.
- 3 Specify the name of the existing descriptor to be released.
- 4 Press enter.
- 5 Confirm the release on the resulting screen:

```
      PF1---- PF2---- PF3---- PF4---- PF6---- PF7---- PF8---- PF12----

      Help
      Exit
      Confirm
      Menu
```

This function corresponds to the Adabas utility function ADADBS RELEASE. The equivalent direct command is

RELEASE DESCRIPTOR file-number descriptor

4 Delete Adabas File

Option "E" is used to free extents used by an existing file for use by other existing files or newly added files.

You have the option to save the field definition table (FDT) so that the field description of the deleted file remains in the database and can be used for a subsequent new file definition.

If the file to be deleted is a coupled file, it must first be uncoupled using option "U" or the UNCOUPLE direct command.

This function corresponds to the utility function ADADBS DELETE.

The equivalent direct command is

DELETE FILE file-number

5 Define a New File

Before option "F", "Define New File", can be used to add a new file to the specified database, an FDT must be defined for the file. Alternatively, you may choose to use an already existing FDT (retained from a Delete File function run with the "SAVE FDT" option).

To add a new file for which an FDT has been defined

- 1 Select option "F" (define new file).
- 2 Specify the number of the file to be added.
- 3 Specify the database to which it will be added.
- 4 Press enter.

If the file already exists in that database, a message is displayed at the top of the menu.

```
09:59:38
                                  BASIC SERVICES *****
               **** A D A B A S
                                                            2005-11-22
DBID 105
                             Define File -
                                                             PFLF002
File Name ..... TEST-80
MAXISN .....____
Datastorage Size .. _____
                            B (BLKs/CYLs)
                        ___ B (BLKs/CYLs)
Normalindex Size .. ____
Upperindex Size ... _____ B (BLKs/CYLs)
                       MINISN ....* 1
ACRABN .....
                                                    Anchor Fnr ...
DSRABN .....
                       ISN Size ..... 3 Byte
                                                    Ciphering ... N
NIRABN .....
                       ISN Reuse .....* N
UIRABN .....
                       DS Reuse .....* Y
                                                 Alpha Code .....
ASSO padding .* 10 %
                        DATA device .....* 8391
                                                 Wide Code .....
DATA padding .* 10 %
                        MIXDSDEV ..... N
                                                 User Wide Code .
                        Max comp. rec.len . 10792 Multi Client
Max Blks:
 DS extents ..
                        Index Compression . N
                                                 Support ..... N
```

```
NI extents .. No AC Extention ... N Owner-ID Len ... 8
UI extents .. Program Refresh ... N

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

This function corresponds to the utility function ADALOD LOAD.

The equivalent direct command is

```
DEFINE FILE file-number
```

To specify parameters for an ADAM file

■ Press PF7 (ADAM).

The following ADAM File Information window appears:

```
10:07:34
               **** A D A B A S BASIC SERVICES *****
                                                             2005-11-22
DBID 105
                           - Define File -
                                                              PFLF002
File Name ..... TEST-80
MAXISN ..... 100_____
Datastorage Size .. 5______ B (BLKs/CYLs)
Normalindex Size .. 5_____ B (BLKs/CYLs)
Upperindex Size ... 5______ B (BLKs/CYLs)
ACRABN .....
                                                     Anchor Fnr ..
DSRABN .....
                    ADAM File Information:
                                                     Ciphering ... N
NIRABN .....
UIRABN .....
                  | ADAMDE (field/ISN).
                                                  Alpha Code .....
ASSO padding .* 10 | ADAMPARM ......
                                                  Wide Code .....
DATA padding .* 10 | ADAM Overflow .....
                                                  User Wide Code .
                  | ADAM Dataform ..... Y
Max Blks:
                                                 Multi Client
                                                  Support ..... N
 DS extents ..
                                                  Owner-ID Len ... 8
 NI extents ..
                        No AC Extention ... N
                        Program Refresh ... N
 UI extents ..
PF1---- PF2----- PF3----- PF4----- PF6---- PF7---- PF8---- PF12----
Help
                                            ADAM
                                                            Menu
                 Exit
```

6 Modify File Parameters

Change Padding Factors, Maximum Allocation, and Record Length	19
Rename or Renumber the File	
Select File Options	19
Change Code Pages	20

To modify parameters for a file

- 1 Select option "M" (modify file parameters).
- 2 Specify the number of the file to be modified.
- 3 If the file is protected, supply the password.
- 4 Press enter.

The Modify File Parameters screen is displayed:

```
**** A D A B A S BASIC SERVICES *****
10:19:39
                                                             2005-11-22
DBID 1955
                     - Modify File Parameters -
                                                             PFLM002
 File No. ... 1
 File Name .. EMPLOYEES
                                Max. Allocation
 ASSO PFAC ..... 10
                                 UI Blks per extent .. 0
 DATA PFAC ..... 10
                                 NI Blks per extent .. 0
 Max. RECL ..... 4816
                                DS Blks per extent .. 0
 New File Name .. EMPLOYEES_____ ISN Reuse ..... OFF
 New File No. ... 1
                                       with RESET ....
                                       in Parallel .... NO
User ISN ..... OFF
                                DS Reuse ..... ON_
                                       with RESET ..... ON_
 File Password ..
                                       in Parallel
                                Mixed DS Device..... OFF
 AlphaNum Encoding .. 0
                                Program Refresh ..... OFF
WideChar Encoding .. 0
PF1---- PF2---- PF3---- PF4---- PF6---- PF7---- PF8---- PF12----
Help
                 Exit
                                                            Men
```

This function corresponds to the utility function ADADBS MODFCB.

The equivalent direct command is

```
<u>MO</u>DIFY <u>FILE</u> <u>file-number</u>
```

This chapter covers the following topics:

Change Padding Factors, Maximum Allocation, and Record Length

You can use the Modify File Parameters screen to change the Associator and Data Storage padding factors for the file, the maximum number of blocks that can be allocated (for a new Data Storage, normal index, or upper index extent), and the maximum compressed record length allowed.

The "padding factor" is the percentage (%) of each Associator or Data Storage block that is reserved; that is, not loaded. This area is used to create new records later. The range is from 3 to 90 percent. The factor size allocated should depend on the amount of updating that is expected. The number of bytes left in the Associator after padding must exceed the largest descriptor value by at least 10.

Rename or Renumber the File

On the same Modify File Parameters screen, you can change the name or number of the file using the New File Name or New File No fields.

The equivalent direct commands are

```
RENAME FILE file-number
```

RENUMBER FILE file-number

Select File Options

You can also turn off or on several file options on this screen:

```
User ISN
ISN Reuse ...with RESET
Data Storage Reuse ...with RESET
Mix Data Storage Dev
Program Refresh
```

ISN Reuse and Data Storage Reuse determine whether ISNs and Data Storage blocks for deleted records are reused as new records are added to the file. The equivalent direct commands are

```
REUSE ISNS file-number

REUSE DS file-number
```

When setting either of these two options to "ON", you can also set the RESET option "ON" to start the search for an unused ISN and/or Data Storage block at the beginning of the file.

Change Code Pages

If the file was loaded using universal encoding support (UES), the code values may be changed on this screen.

7 Reorder File Online

Note: This function is only available for Adabas version 7 or above databases and is not available in the Cluster or Parallel Services environments. It cannot be started for the checkpoint or security files.

Selecting Reorder File Online (option "O") from the File Maintenance menu displays the following screen, which can be used to start an online reorder process for the specified file:

```
10:25:37 ***** A D A B A S BASIC SERVICES ***** 2005-11-22
DBID 105 - Online Reorder File - PFL0002

Reorder for file... 5 EMPLOYEES
Password....

Type of Reorder..... _
Options: Asso Padding Factor.. __
Data Padding Factor.. __
Sort Sequence..... __
```

To select the type of reorder to be performed

■ Enter one of the following reorder type codes:

Reorder type	Corresponds to ADADBS	Reorders
B (both)	ONLREORFILE	the entire file
A (Associator)	ONLREORFASSO	the Associator for the file only
D (Data Storage)	ONLREORFDATA	Data Storage for the file only

The only file level parameters that can be changed using this function are the padding factors. If these fields are left blank, the current parameter settings are used during the reorder.

When reordering Data Storage for a file, you can specify a sort sequence. The default 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.

<u>ONL</u>INE <u>REOR</u>DER

The equivalent direct command is

8

Refresh File to Empty Status

Option "R", Refresh File to Empty Status, deletes all file records and assigns a single extent to each file component.

To refresh a file to empty status

- 1 Select option "R" (refresh file to empty status).
- 2 Specify the number of the existing file in the specified database.
- 3 Press enter.
- 4 Confirm the refresh on the resulting screen:

```
10:35:38 ***** A D A B A S BASIC SERVICES ***** 2005-11-22
DBID 105 - Refresh File - PFLR002

File Number ... 200
File Name .... TEST-FILE
Password .....

Enter File Name to confirm ...
```

This function corresponds to the utility function ADADBS REFRESH.

The equivalent direct command is

```
REFRESH FILE file-number
```

9

Allocate or Deallocate File Space

To allocate or deallocate space for a file

- 1 Select option "S" (allocate/deallocate file space).
- 2 Specify the file to be modified.
- 3 If the file is protected, supply the password.
- 4 Press enter.

The resulting Allocate/Deallocate File Space screen is used to create or remove extents for the address converter, normal index, upper index, and Data Storage of a file. You can specify the allocation in blocks or in cylinders, a starting relative Adabas block number (STARTRABN), and the device where allocated space is to be located.

```
10:45:12
              **** A D A B A S BASIC SERVICES *****
                                                          2005-11-22
                     - Allocate/Deallocate File Space -
  DBID 105
                                                            PFLS002
  File Number ..... 200
  File Name ..... TEST-FILE
  Enter Parameters :
                                  Possible values:
    Allocate/Deallocate ... _
                                    (A/D)
    Table Type ..... ___
                                    (AC/DS/NI/UI)
    Size .....
    Blocks or Cylinders ... B
                                    (B/C)
    Start RABN ..... ____
    Device Type ..... _
  File Password .....
```

This function corresponds to the utility functions ADADBS ALLOCATE and ADADBS DEALLOCATE.

The equivalent direct commands are

<u>AL</u>LOCATE <u>SP</u>ACE <u>file-number</u>

DEALLOCATE SPACE file-number

10

Maintain Expanded Files

Selecting option "X" on the File Maintenance menu displays the Expanded File Maintenance menu:

```
BASIC SERVICES *****
10:51:56
                       ADABAS
                                                                 2005-11-22
                            Expanded File Maintenance
                                                                    PFLX002
                      Code
                              Service
                              Insert file into chain
                              Remove file from chain
                       ?
                              Help
                              Exit
        Code .....
        File No. .... 75
        Master Fnr ...
        Password ....
        Database ID .. 105
                              (RD-105)
```

This function corresponds to the utility functions ADALOD LOAD and ADALOD UPDATE.

To insert an existing file into an expanded file chain

- 1 Select option "I".
- 2 Specify the number of the file to be inserted (File No field).
- 3 Specify the number of the master file of the expanded file chain into which the file is being inserted (Master Fnr field).
- 4 Press enter.
- **Note:** If the file to be inserted is to be the first (master) file of the chain, both File No and Master Fnr fields must be set to the same value.

To remove a component file from an expanded file chain

Select option "R" and specify just the number of the file to be removed (File No field) from the chain.

If the file to be removed is the master file, the next file in the chain will become the new master file.

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