

Creating New Files

The **New File** functionality of the Adabas Manager allows the creation of simple Field Definition Tables (FDT). There is no limitation in the number of fields you can create or to their complexity; however, for the creation of extensive and complex FDTs, the use of the ADACMP utility is strongly recommended (for details see the section *ADACMP: Compress-Decompress* in the *Adabas Utilities* documentation).

For open systems databases you also have the option to import an FDT (Page 2 of the **New File** process).

Once you have started the creation of a new FDT, its status will be stored even after a cancellation or during inactivity of the user until a timeout occurs (for timeout settings, see *Adabas Manager Session and Cache Administration*). It is recommended though that you carry out the file creation process without interruption; once you click the Adabas Manager entry in the tree-view or leave your session, any incomplete file creation process is terminated.

To create a new file for a database:

1. Select an Adabas database in tree-view and expand it.
2. Select **Database Files** in tree-view and right-click it.
3. Select **New File** on the drop-down menu.

The **New File** panel appears in detail-view.

Note:

During the following file creation procedure, clicking **Back** will return you to the previous page of the **New File** (i.e., for modifications or additional entries); **Cancel** will cancel the file creation and return to the file list display (after cancellation, the system will store the settings you have entered for the new file until you leave your session, a timeout occurs or you click the Adabas Manager entry in the tree-view).

4. Enter the following parameter values for the new file:
 - File Number
 - File Name (optional)
 - MAXISN
 - Data Storage Size
 - Normal Index Size
 - Upper Index Size

Note:

If you click **Find** next to the **File Number** text box, the next free file number will be displayed. If you enter a file number that already exists and click **Find**, the next free file number after the number you entered will be displayed.

5. Click **Next** to continue with the file creation.

Page 2 of the **New File** appears in detail-view.

6. Define the File Descriptor Table for the new file. Note that for open systems databases you have the option to import an FDT by specifying the path to the file.

If you are not importing an FDT, complete the following entries:

- **Level**

a one- or two-digit number in the range 01-07 (the leading zero is optional) used in conjunction with field grouping.

- **Name**

the name to be assigned to the field (or group). Names must be unique within a file. The name must be two characters long; the first character must be alphabetic; the second character can be either alphabetic or numeric. No special characters are permitted.

Adabas version 8.2 introduces the ability to create field names that contain lowercase alphabetic characters. With this change, the maximum number of field definitions for a file has increased from 926 to 3214. For example, fields WM, wm, wM, and Wm are now all valid field names and represent four unique fields.

Adabas version 6.2 for open systems also supports lower case field names; however, if the database you are creating the new file for is a version 6.1 database, any lower case entry will automatically be converted to upper case characters.

- **Length**

the length of the field (expressed in bytes).

- **Select the format in the selection box.**

Check the options you want to set; enter the position of the field if required.

Date-Time Option DT

Adabas versions 8.2 and 6.2 introduce a new DT field option which allows you to specify the edit mask for a field definition. This option DT assigns a date-time edit mask to a binary, fixed point, packed decimal, or unpacked decimal field. This option cannot be specified for fields of other formats.

The timestamp function is set by checking the TZ box and selecting the required value from the list.

Valid values are described in the following table. It also shows the required minimum field lengths for the different formats of fields that can specify the DT option; the length of the field must be large enough to store the date-time values.

Note:

In the table, "YYYY" represents the 4-digit year (1-9999), "MM" represents the 2-digit month (1-12), "DD" represents the 2-digit day of the month (1-31), "HH" represents the 2-digit hour (0-23), "II" represents the 2-digit minute within the hour (0-59), "SS" represents the 2-digit second within the

minute (0-59), and "XXXXXX" represents the 6-digit microsecond within the second.

	Description	Minimum Field Length for Field Format			
		B	F	P	U
DATE	The date field is in the format Z'YYYYMMDD'.	4	4	5	8
TIME	The time field is in the format Z'HHIIS'.	3	4	4	6
DATETIME	The date and time field is in the format Z'YYYYMMDDHHIIS'.	6	8	8	14
TIMESTAMP	The date and time field is in the format Z'YYYYMMDDHHIISXXXXXX', with microsecond precision.	9	-	11	20
NATTIME	The time field is in Natural T format (tenths of seconds since year zero).	6	8	7	13
NATDATE	The date field is in Natural D format (days since year zero).	3	4	4	7
UNIXTIME	The time field is in UNIX time_t type format (seconds since January 1, 1970).	4	4	6	10
XTIMESTAMP	The date and time field is in UNIX timestamp format, with microsecond precision, since January 1, 1970 (UNIXTIME * 60**6 + microseconds).	8	8	10	18

Time zone Option TZ

If this option is specified, the date-time field value is presented in the user's local time and stored in UTC time, allowing for differences in time zones.

Option CR

Use the CR option to indicate that the system field value should only be set when a record is inserted and not when it is updated. The CR field option can only be specified for fields defined with the SY field option, but cannot be specified for an MU field.

For more information see *Field Definition Statements* in the *Adabas Utilities* documentation for mainframes and *FDT Record Structure* in the *Adabas Administration* documentation for open systems.

7. Click **Add Field** to add the field to the Field Definition Table of the new file.

Note:

Before the field is added to the FDT, Adabas Manager performs a check on all entries. Field names and their syntax and length are checked as well as any dependencies between fields and between field attributes. Existing Special Descriptors are checked, so that for example a field which is parent of a Special Descriptor cannot be deleted. Group fields are initially defined with all properties. During generation of the FDT, group fields are recognized and properties not required (format/length) are not used.

In case of invalid values, the resulting error messages will show you how to modify your entries so that the field can be added to the FDT. For detailed information on the field definitions see the section *ADACMP: Compress-Decompress* in the *Adabas Utilities* documentation.

8. Specify all required fields and add them to the FDT.

Your entries are displayed in the table below the entry fields; to remove a field you created, click its check box and then click **Remove**.

To modify a field, select the field by clicking in the appropriate check box until a check mark appears and click **Edit**.

9. After defining all fields, click **Next** to continue with the file creation.

Note:

Clicking **Finish** if the definition of special descriptors is not required will create the new file.

Page 3 of the **New File** appears in detail-view.

10. Define the Special Descriptor Table for the new file. Select the descriptor type in the selection box and complete the following entries:

- Number

only available for hyperdescriptor and collation descriptor; the user exit number to be assigned to the descriptor. The Adabas nucleus uses this number to determine the descriptor user exit to be called.

- Name

the name to be used for the descriptor/field. The naming conventions are identical to those for Adabas field names.

- Length

only available for hyperdescriptors; the default length of the hyperdescriptor.

- Select the format in the selection box.

- Parent

the name of the field from which the super-/subfield or super-/subdescriptor is to be derived. For collation descriptors and hyperdescriptors, an elementary field.

The following table shows some examples of the parent field entry syntax required by Adabas Manager in comparison to the ADACMP syntax:

Adabas Manager	ADACMP
AA,AB	HYPDE='01,HD,20,A,NU,MU=AA,AB'
AA(1,5)	SUBDE='SB=AA(1,5)'
AA	PHONDE='PH(AA)'
AA(1,5),BB(1,2),CC(3,5)	SUPDE='SP=AA(1,5),BB(1,2),CC(3,5)'
AA	COLDE='1,CD=AA'

Check the options you want to set; enter the position of the field if required.

- Click **Add Descriptor** to add the descriptor to the Special Descriptor Table.

Note:

Before the field is added to the Special Descriptor Table, Adabas Manager performs a check on all entries. In case of invalid values, the resulting error messages will show you how to modify your entries so that the field can be added to the FDT. For detailed information on the field definitions see the section *ADACMP: Compress-Decompress* in the *Adabas Utilities* documentation.

- Repeat the action for each descriptor you want to create.

The result of your modifications is shown in a table below the entry fields; to remove a descriptor you created, click its check box and then click **Remove**.

To modify a descriptor, select the field by clicking in the appropriate check box until a check mark appears and click **Edit**.

- After defining all required descriptors, click **Next** to continue with the file creation.

Note:

Clicking **Finish** if the setting of optional parameters is not required will create the new file.

Page 4 of the **New File** appears in detail-view.

- The following optional parameters can be set:

Property	Description
ACRABN	The address converter RABN space.
DSRABN	The data storage RABN space.
NIRABN	The normal index RABN space.
UIRABN	The upper index RABN space.
ASSO Padding	The padding factor (percentage of each block) set for the ASSO dataset (the default is 10).
DATA Padding	The padding factor (percentage of each block) set for the DATA dataset (the default is 10).

Property	Description						
Max. Blocks of DS Extents	The number of blocks allowed per secondary Data Storage extent ("0" indicates that the parameter is not set; the default then is no limit).						
Max. Blocks of NI Extents	The number of blocks allowed per secondary Associator normal index extent ("0" indicates that the parameter is not set; the default then is no limit).						
Max. Blocks of UI Extents	The number of blocks allowed per secondary Associator upper index extent ("0" indicates that the parameter is not set; the default then is no limit).						
Maximal Compressed Record Length	<p>The maximum compressed record length (in bytes) allowed for the file (the default is the maximum possible size). You can also set</p> <table border="0"> <tr> <td style="padding-right: 20px;">Index Compression</td> <td>if the index for the file can be loaded in compressed form (the default depends on the input file).</td> </tr> <tr> <td>No AC Extension</td> <td>if the MAXISN value for the file can be increased ("YES" is required for expanded files).</td> </tr> <tr> <td>Program Refresh</td> <td>if a user program is allowed to refresh the file using an E1 call to Adabas when the file is loaded (the default is "NO").</td> </tr> </table>	Index Compression	if the index for the file can be loaded in compressed form (the default depends on the input file).	No AC Extension	if the MAXISN value for the file can be increased ("YES" is required for expanded files).	Program Refresh	if a user program is allowed to refresh the file using an E1 call to Adabas when the file is loaded (the default is "NO").
Index Compression	if the index for the file can be loaded in compressed form (the default depends on the input file).						
No AC Extension	if the MAXISN value for the file can be increased ("YES" is required for expanded files).						
Program Refresh	if a user program is allowed to refresh the file using an E1 call to Adabas when the file is loaded (the default is "NO").						
Alpha Code	Current file encoding set for alphanumeric fields in the file.						
Wide Code	Current file encoding set for wide-character fields in the file.						
User Wide Code	Current user encoding set for wide-character fields in the file.						
MINISN	The lowest ISN that can be assigned to a record in the file ("0" indicates that the parameter is not set; the default then is "1"). MINISN is required for expanded files.						

Property	Description
ISN Size	Whether 3- or 4-byte ISNs are used for the file (the default is 3). You can also set
	ISN Reuse if a freed ISN can be reused for a new record (the default is "NO").
	DS Reuse if Data Storage space can be reused (the default is "YES").
Data Device	The device containing the Associator, Data Storage, or Work component. You can also set
	MIXDSDEV if secondary Data Storage extents may be allocated on different device types and therefore with different block lengths.
Anchor Fnr	Whether the file is part of an expanded file. You can also set
	Ciphering if the file is to be encrypted.
Multi Client Owner-ID Length	The length of the internal owner ID for multiclient files (if Multi Client Support has been set).
ADAMDE (Field/ISN)	Specifies the field to be used as the ADAM key (if the ADAM option has been selected for the file).
ADAPARM	The number of bits to be truncated from the ADAM descriptor value before it is used as input to the ADAM randomizing algorithm (if the ADAM option has been selected for the file). A value in the range 1-255 may be specified. If this parameter is omitted, a value of 0 bits (no truncation) will be used.
ADAM Overflow	The size of the Data Storage area to be used for ADAM file overflow (if the ADAM option has been selected for the file).

15. Specify any parameters you may wish to set and click **Finish** to create the new file.