File-related Long Running Utilities for Open Systems

Adabas Manager has two different ways of working with utilities:

- For utilities with a short processing time the job status is displayed in the detail-view. The user has to wait until the action is completed.
- For the so-called *Long Running Utilities* the job status is written to the System Management Hub Job Monitor. The utility runs in the background and leaves the user free to carry out other actions.

For detailed information on the SMH Job Monitor see *Monitoring Events and Jobs* in the *System Management Hub* documentation. For detailed information on Adabas utilities see the *Adabas for Open Systems Utilities* documentation.

The functions **Release Descriptor**, **Set Unique Descriptor**, **Reset Unique Descriptor** and **Add Constraint** are designated long running utilities (see *Setting and Releasing Descriptors*).

A number of other long running utilities have been grouped in a dropdown list in the **Database Files** detail-view.

To display the file-related utilities available with Adabas Manager:

1. Select **Database Files** in tree-view.

The files are listed in a file list display table in detail-view. The available long running utilities are listed in a dropdown list at the bottom of the panel.

- 2. Mark the file and select the utility you want to run in the list. Click **Execute**.
- 3. In the detail-view panel, specify your options and the location of the output file and click **OK**.

The utilities are described in more detail in the following sections:

- Backup (ADABCK)
- Restore (ADABCK)
- Load (ADAMUP)
- Unload (ADAULD)
- Compress (ADACMP)
- Decompress (ADADCU)
- Import (ADAORD)
- Export (ADAORD)

Backup (ADABCK)

- Verify (ADAVFY)
- Invert Descriptor (ADAINV)
- Reinvert Descriptor
- Verify Descriptor (ADAINV)
- Descriptor Summary (ADAINV)
- Display Descriptors
- File Usage

Backup (ADABCK)

Dumping only selected files allows a controlled backup of certain parts of the database in cases where backing up the complete database is unnecessary.

Options:

- 1. Allow parallel updates (DUMP)
 Parallel updates are permitted on the files to be backed up while the backup is in progress. If this option is disabled, only ACC users (access only) can access the files to be backed up while the backup is in progress (EXU_DUMP).
- 2. Enable **Create New Protection Log** if you want to close the current protection log file and create a new log file after executing the backup.
- 3. If you have allowed parallel updates, enter a value to define the time (in seconds) that the system waits for ET-logic (end transaction) users to come to ET status at the end of the backup in the **Time To Wait For ET Status** field. If you do not enter a value, the value currently in effect for the database nucleus is taken.

Output:

- 1. Enable/Disable Use Parallel Output Devices.
- 2. The specification of the backup save set is displayed in the **File** *x* box. Either leave the specification displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
- 3. Enable Create Two Physical Copies check box if you want to create two copies of the save set.
- 4. Enable/Disable Replace Existing Files.
- 5. Click **OK** to start the utility or **Cancel**.

Restore (ADABCK)

A backup copy can be used to restore/overlay selected files if single files are corrupted. When restoring/overlaying files, the RABNs required by the files must be available.

Options:

- 1. If **Allow for Allocation** is specified, the utility reallocates all files to be overlayed or the specified subset rather than attempting to restore them in the same block ranges as in the backup. Using this option reduces the number of file extents as much as possible.
- 2. If you want to restore the save set of one database into another database with a different DBID, select the **Ignore DBID in Backup File** check box, for example to restore the save set 'BCK001.004' (from the database with the DBID 4) into the database with the DBID 12.
- 3. Select the Format Associator and/or Format Data Storage check box if you want to format the blocks of the Associator and/or Data Storage. Formatting increases the time required for the restore to complete. If Allow Relocation is specified, ADABCK reallocates all files to be overlayed or the specified subset rather than attempting to restore them in the same block ranges as in the backup. Using this option reduces the number of file extents as much as possible.

Input:

1. The specification(s) of the save set(s) to be used for the restore is/are displayed in the **File** *x* box(es). Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

Additional Options:

- 1. It is possible to see whether the save set can be used to restore a database by choosing **Read Check**. This function checks the readability (absence of parity errors) and completeness of the ADABAS backup copy.
- 2. You can display information about the backup save set by selecting **Report**.

Type:

The options Contents, Summary, and Files are available.

Contents displays a list of files (names and numbers) in an ADABAS backup save set, together with the name and number of the database.

Summary displays general information (name and number of the database, number of files loaded, maximum number of files, system file numbers), and the physical layout of the database.

Files displays status information for the files in an ADABAS backup save set.

3. Click **Restore** to start the utility or **Cancel**.

Note:

An interrupted restore/overlay of one or more files will result in lost RABNs. The lost RABNs can be recovered by using the Recover Lost Blocks function from the Administrate menu.

Load (ADAMUP)

Load is used to load compressed data into an existing file in a database. The output of the Compress or Unload functions can be used as input. Input files that do not contain descriptor value tables (produced using the 'Do not Unload Descriptor' check box of the Unload function) can also be processed if the file to be updated does not contain any descriptors.

The selected database can be either active or inactive.

Note:

The selected database must be inactive if you are updating the checkpoint or security file.

Input:

1. The specifications of the input files that contain the compressed data and the descriptor values are displayed in the **Data** and **Descriptors** boxes. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

Options:

- 1. If you want to skip records on the input file before starting to load data, enter the number of records to be skipped in the **Number of Records to Skip** box.
- 2. If you do not want to load all of the records on the input file, enter the number of records to be added in the **Max. Number of Records to Add** box. The Load function loads all of the records on the input file if you do not enter anything in this text box, and have not specified that records are to be skipped.
- 3. Enter the size of the workpool in the **Size of Workpool** box.
- 4. Select the **Load from Single File** check box if the input file was produced by the Compress or Unload functions with the **Compress to Single File** or **Unload to Single File** check boxes selected.
- 5. Select the **User ISNs** check box if you want to control ISN assignment for each record that is added to the database. Each ISN provided must be a four byte binary number immediately preceding each data record; within the current limit (MAXISN) for the file; unique within the specified file.
- 6. Select the **Allow for Other Descriptors** check box to continue processing if a field that is defined as a descriptor in the input data is not a descriptor in the FDT of the file being updated. Otherwise the Load function terminates and returns an error message.
- 7. Select the **Continue on UNIQUE Conflicts** check box to continue processing if conflicting values for a unique descriptor are detected. In this case, conflicting ISNs are written to the error log and the unique status of the descriptor in question is removed. Otherwise, the Load function terminates and returns an error message.

Miscellaneous:

1. The specification of the file that is to be used as the TEMP container is displayed in the **Temp Data** box. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

2. Click **OK** to start the utility or **Cancel**.

Unload (ADAULD)

Unload is used to retrieve records from a file in a database and write them to a sequential file. The main reasons for unloading a file are to change the space allocation, to reduce the number of logical extents assigned to the index, Address Converter or Data Storage, or to change the padding factor. In this case, the file has to be unloaded, deleted and then reloaded. Alternatively, the Unload function can be used to produce one or more test files that all contain the same data; this means that the file has to be unloaded and then reloaded using a different file number.

Note:

The selected database must be inactive if you are unloading the checkpoint or security file.

Output:

- 1. The specifications of the output files that will contain the compressed data and the descriptor values are displayed in the **Data** Descriptors boxes. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
- 2. Enable/Disable Replace Existing Files.

Options:

- 1. If you want to skip records before starting to unload data, enter the number of records to be skipped in the **Number of Records to Skip** box.
- 2. If you do not want to unload all of the records, enter the number of records to be unloaded in the **Max. Number of Records to Unload** box. The Unload function unloads all of the records if you do not enter anything in this text box, and have not specified that records are to be skipped.

3. Sort Sequence:

Select the sequence in which the records are to be unloaded: by physical sequence, by ISN or by Descriptor and enter the name of a descriptor, or sub- or superdescriptor, or the number of the ISN at which you want to start unloading (optional). If the specified ISN does not exist, unloading starts at the next highest ISN found.

- 4. Select the **Unload to a Single File** check box if you want to write the data information and the descriptor information to a single file.
- 5. Select the **Do not Unload Descriptor** check box if you want to omit the descriptor values that are used to build the index. You must not select this check box if you intend to use the output of the Unload function as input for the Load function. The **Unload to a Single File** check box and the **Do not Unload Descriptor** check box are mutually exclusive.
- 6. Select the **Decompress Unloaded Data** check box if you want to decompress the data immediately after unloading.
- 7. Click **OK** to start the utility or **Cancel**.

Note:

The Unload function does not have a restart capability. An abnormally terminated unload must be rerun from the beginning.

Compress (ADACMP)

Compress is used to compress raw user data into a form which can be used by the Load function. The input data must be in a sequential file. Each field in the input record is compressed. Compression consists of removing trailing blanks from alphanumeric fields and leading zeros from numeric fields. Unpacked and packed fields are checked for correct data. Fields that are defined with fixed length are not compressed.

This function also covers format conversions for data that originally comes from mainframes.

The selected database can be either active or inactive.

Input:

- 1. The specifications of the input files that contain the raw data and the field definition table are displayed in the **Data** and **FDT** boxes. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
- 2. Specify the type of record separation used in the input file by selecting the corresponding structure from the **Record Structure** dropdown list:
 - Excl.Len.Prefix

The records are separated by a two-byte exclusive length field.

• Incl.Len.Prefix

The records are separated by a two-byte inclusive length field.

• ASCII-File

The records are separated by a new-line character.

• Host:Var.Blocked (Tape)

The records are in variable blocked format.

• BS2000 (FTP)

Format conversion BS2000 to UNIX or PC systems.

• IBM-Host (FTP), VAX

Format conversion IBM (MVS, CMS) to UNIX or PC systems.

• RDW

Format conversion of data that has been transferred from an IBM host using the FTP site rdw option.

3. Select the **User ISNs** check box if you want to assign the ISNs for the records in the input file. In this case you must provide the ISN to be assigned to each record as a four-byte binary number immediately preceding each record. ISNs can be assigned in any order and must be unique for the file. The ISN must not exceed the maximum number of records specified for the file. If you do not

select this check box, the ISNs are assigned by the system.

Note:

User ISNs cannot be used in conjunction with the ASCII-File record structure.

- 4. Select the **Null Value** check box if you are compressing data according to the standard FDT and the status values of the NC option fields are provided in the input data.
- 5. Select the MU/PE count length.
- 6. If you want to skip records before starting to compress data, enter the number of records to be skipped in the **Number of Records to Skip** box.
- 7. If you do not want to compress all of the records, enter the number of records to be compressed in the **Max. Number of Records to Process** text box. The Compress function compresses all of the records if you do not enter anything in this text box, and have not specified that records are to be skipped.
- 8. If you enter a character in the **Separator** text box, the fields in the raw data records must be separated by the character you specify. In this case, the same fields in different records can be of different lengths. If you specify a format buffer by choosing Fields, the order in which the field names are selected must correspond to the order in which the fields are specified in the FDT.
- 9. Enter the **Character Set** which specifies the default encoding used in the decompressed file based on the encoding names listed at http://www.iana.org/assignments/character-sets.

Temporary Data:

1. The file specified in the **Temporary Data** box is used to store the output of the format conversion step before the actual compression step starts if you have selected BS2000 or IBM-Host (FTP) as **Record Structure**. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

Output:

- 1. The specifications of the output files that will contain the compressed data and the descriptor values are displayed in the **Data DVT** boxes. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
 - If you select **Compress to Single File**, the data and the descriptor information are written to a single file, and the DVT text box is disabled.
- 2. Select the **Load Compressed Data** check box if you want to load the compressed data immediately after compression. After choosing OK, the **Load** dialog box will be displayed before the Compress function starts.
- 3. Enable/Disable Replace Existing Files.

Source Architecture:

- 1. Specify the source architecture (character set, floating point format, and byte order) of the input records by selecting the corresponding entries from the **Source Architecture** dropdown lists.
- 2. Choose Fields if you want to specify a subset of the fields defined in the FDT. In this case, the input records do not have to contain all of the fields that are defined in the FDT. Enter the desired format buffer in the dialog box.
- 3. Click **OK** to start the utility or **Cancel**.

Note:

The Compress function does not have a restart capability. An abnormally terminated compress must be rerun from the beginning. The Compress function does not change the database, therefore no considerations need to be made concerning the status of the database before a compress is restarted.

Decompress (ADADCU)

Decompress is used to decompress records produced by the Compress and Unload functions. The output produced can be used as input for programs that use standard file access methods. It can also be used as input for the Compress function once you have made any changes to the data structure or to the data definitions.

You can decompress either complete records, or selected fields within records. If you decompress complete records, any multiple-value fields or periodic groups are preceded by a one-byte count field. If you only decompress selected fields, you can change the length and formats of the fields, and allocate space for the subsequent addition of new fields by using a literal element or a blank element.

The selected database can be either active or inactive.

Input:

- 1. The specification of the input file that contains the compressed data is displayed in the **Data** box. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
- 2. If you want to skip records before starting to decompress data, enter the number of records to be skipped in the **Number of Records to Skip** box.
- 3. If you do not want to decompress all of the records, enter the number of records to be decompressed in the **Max. Number of Records to Process** text box. The Deompress function compresses all of the records if you do not enter anything in this text box, and have not specified that records are to be skipped.

Output:

1. The specifications of the output files that will contain the decompressed data and the field definition table are displayed in the **Data** and **FDT** boxes. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

The **FDT** box is only enabled if you select the **Dump FDT** box.

- 2. Enable/Disable Replace Existing Files.
- 3. Enable/Disable **Dump FDT**.
- 4. Select the **Null Value** check box if you want to decompress the records according to the standard FDT, and the records contain NC option fields with their status values.
- 5. Select the MU/PE count length.
- 6. Select the **User ISNs** check box if you want the ISN to be output together with each decompressed record. You should do this if you want to subsequently reload the file with the same ISNs.

Note:

User ISNs cannot be used in conjunction with the ASCII-File record structure.

- 7. Select the **Truncation of Alphanumeric Fields** check box if you want to enable the truncation of alphanumeric field values. If you do not select this check box, all of the records which contain truncated alphanumeric field values are written to the error log.
- 8. Specify the type of record separation to be used in the output file by selecting the corresponding structure from the **Record Structure** dropdown list. The following structures are supported: .

• Excl.Len.Prefix

The records are separated by a two-byte exclusive length field. There is no separator character, and there are no restrictions on the use of this format.

• Incl.Len.Prefix

The records are separated by a two-byte inclusive length field. There is no separator character, and there are no restrictions on the use of this format.

• ASCII-File

The records are separated by a new-line character. This format can only be specified if the field values of the output do not contain the new-line character (i.e., if the record only contains packed, unpacked, and alphanumeric fields, and if the alphanumeric fields only contain printable characters).

• Host:Var.Blocked (Tape)

The records are stored in blocks. Each record begins with an inclusive four-byte length field.

• BS2000 (FTP)

Format conversion BS2000 to UNIX or PC systems.

• IBM-Host (FTP), VAX

Format conversion IBM (MVS, CMS) to UNIX or PC systems.

• RDW

Format conversion of data that has been transferred from an IBM host using the FTP site rdw option.

9. Enter the **Character Set** which specifies the default encoding used in the decompressed file based on the encoding names listed at http://www.iana.org/assignments/character-sets.

Target Architecture:

- 1. Specify the target architecture (character set, floating point format, and byte order) of the output records by selecting the corresponding entries from the **Target Architecture** dropdown lists.
- 2. Choose **Fields** if you want to define a new structure for the output records. The fields to be decompressed are specified by their field name, format and length. Enter the format buffer that you want in the dialog box that appears.
- 3. Click **OK** to start the utility or **Cancel**.

Note:

The Decompress function does not have a restart capability. An abnormally terminated decompress must be rerun from the beginning. The Decompress function does not change the database, therefore no considerations need to be made concerning the status of the database before a decompress is restarted.

Import (ADAORD)

Import imports one or more files into a database, using the data in the sequential file (ORDEXP) produced when exporting files or a database. The files to be imported may not already be loaded in the database and must not exceed the maximum file number defined for the database.

Note:

By default, the Import function controls the placement of files and the allocation quantities. The options and parameters that can be used to overwrite the default settings can only be used if you are importing a single file.

If you are importing a system file (checkpoint or security file), the selected database must be inactive.

Options:

- 1. Enter the number(s) of the file(s) hat you want to import in the **File Number(s)** box. The file numbers specified must not exceed the maximum file number defined for the database in question.
- 2. Enter a new value for the maximum ISN for the file in the **Maximum ISN** box. The Import function uses this number to determine the new amount of space to be assigned to the file's Address Converter. If you do not enter a value, the maximum ISN in effect for the file when it was exported is used.
- 3. Enter a new file number for the file to be imported in the **New File Nr.** box if you want the file to have a different file number to the one it was exported with.
- 4. Enter a new lobfile number for the LOB file to be imported in the **New LOB File Nr.** text box if you want the LOB file to have a different file number to the one it was exported with.
- 5. Enter the **LOB Size**.

6. The specification of the input file that is to be used is displayed in the **Input** box. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.

Structure:

Enter the new amount of space to be allocated to the structures in the Size boxes. If you want to
allocate a structure to a given disk section or to a specific container extent, enter the starting RABN
in the Start RABN box. If you do not enter any values, the Import function assigns the starting
RABNs and calculates the respective sizes.

Padding:

- 1. Enter new values in the **Padding** boxes if you want to change the padding factors for the Associator and Data Storage. Specify a value in the range 0 10 if you expect little or no descriptor updating (ASSO), or little or no record expansion (DATA). You should specify a value in the range 10 50 if you expect a large amount of descriptor updating/record expansion.
- 2. You can display information about the input file by choosing **Report**. The infomation displayed includes the time and date when the files were exported, the name and number of the database from which they were exported, the names and numbers of the exported files, and the dates on which they were loaded.
- 3. Click **OK** to start the utility or **Cancel**.

Note:

An abnormally-terminated import of one or more files will result in lost RABNs for the last file being imported.

Export (ADAORD)

Export exports (copies) one or more files from the database to a sequential output file (ORDEXP). The Data Storage of each file is copied, together with the information that is required to reestablish its index.

If you are exporting a system file (checkpoint or security file), the selected database must be inactive.

Options:

- 1. The specification of the data file (ORDEXP) that is produced is displayed in the **Export Data** box. Either leave the specification that is displayed in the box unchanged if you want to accept it, or enter the specification directly. You can also browse to another file.
- 2. Enable/Disable Replace Existing Files.

3. Sort Sequence:

Select the sequence in which the records are to be exported: by physical sequence, by ISN or by Descriptor and enter the name of a descriptor, or sub- or superdescriptor. The descriptor specified must not be a multiple-value field, be contained in or derived from a periodic group or refer to a field defined with null value suppression.

Note:

You can only sort by descriptor if only one file has been selected.

4. Click **OK** to start the utility or **Cancel**.

Note:

The Export function does not have a restart capability. An abnormally terminated export must be rerun from the beginning.

Verify (ADAVFY)

Verify is used to verify the internal consistency of a file or selected files. The general control block (GCB) is validated together with the file control block (FCB) and the field definition table (FDT) of the selected file. You can verify the Associator (Address Converter and index) and/or the Data Storage. Running the Verify function with an active database may lead to errors being reported; this is because updates may be made while the function is processing, and these updates will only be reflected in the nucleus buffer pool.

Running the Verify function with an active database may lead to errors being reported; this is because updates may be made while the function is processing, and these updates will only be reflected in the nucleus buffer pool.

Verify Associator:

- 1. Select **File Control Block** to verify the the file control block together with the field definition table for the selected file.
- 2. Select **Address Converter** to verify the Address Converter; this function checks the existence of a record within the Data Storage for an existing ISN in the Address Converter.

Choose the extent of your output in the dropdown list.

3. Select the **Index** check box if you want to verify the index.

Choose the extent of your output in the dropdown list.

4. The **RABN to dump from** boxes are used to specify a range of RABNs (Relative ADABAS Block Numbers) in the index. Only the RABNs specified will be dumped.

Verify Data:

1. Select **Data** to verify the Data Storage of the selected file. This function checks the existence of an ISN within the Address Converter for an existing record in the Data Storage.

Record validates the Data Storage and checks the structure of each record.

Choose the extent of your output in the dropdown list.

2. Enable **Field** to verify the record structure and validate the contents of packed, unpacked and floating point fields.

Miscellaneous:

- 1. Select **Search Lost Blocks** to search for lost RABNs in the selected file. The Dump Physical Structure option dumps the layout of the database.
- 2. Enter the maximum number of errors to be reported before the Verify function terminates.
- 3. Click **OK** to start the utility or **Cancel**.

Invert Descriptor (ADAINV)

Invert is used to create new elementary, sub-, super-, hyper- and phonetic descriptors at any time after a file has been initially loaded.

Options:

- 1. Specify the Size of Workpool.
- 2. Enable/disable the **Continue on Unique Conflicts** box.

Field Options:

- 1. Enter the name of the field that you want to invert in the **Short Name** box.
 - The short name must either be the name of an existing elementary field for which an elementary descriptor is to be defined, or a new name that has not been used in the FDT yet in the case of sub-, super-, hyper-, and phonetic descriptors.
- 2. Use the **Descriptor** dropdown list and the **Unique** check box (if required) to specify the type of descriptor.
- 3. Click **Add** to add the new descriptor to the field list.
- 4. Click **OK** when you have finished defining all of the new descriptors, or **Cancel**.

Note:

Defining a new descriptor leads to modifications in the Field Definition Table (FDT) and results in the creation of an inverted list. New Main Index and Normal Index blocks are required to store the inverted list entries for the new descriptor. The new Normal Index and Main Index are built on a descriptor by descriptor basis. During this process, the linking entries are still missing in the Upper Index and none of the new inverted lists can be accessed. When the Normal Index and Main Index of all the new descriptors have been built, the FDT is updated and corresponding entries are added to the Upper Index.

Reinvert Descriptor

Reinvert is used to implicitly release and subsequently invert one or more descriptors.

Options:

- Select the Continue on Unique Conflicts check box to continue processing if duplicate values are
 found for a unique descriptor. In this case, the unique status of the descriptor in question is removed,
 and processing continues. Otherwise the Reinvert function terminates and returns an error message if
 duplicate values are detected.
- 2. Select the **Format** box if you want to format index blocks that are no longer used but which are still allocated to the selected file; this is because the new index created when a descriptor is reinverted is generally smaller than the old index.
- 3. Specify the **Size of Workpool**.
- 4. Select the descriptors.
- 5. Click **OK**, or **Cancel**.

Verify Descriptor (ADAINV)

Verify Descriptor checks the integrity of the inverted lists of the specified file.

Options:

- 1. Specify the **Size of Workpool**.
- 2. In the **Max. No. of Errors** box, enter the number of errors that have to be detected before the Verify function terminates. If you do not enter anything in this box, the default value is used.
- 3. Select the descriptors.
- 4. Click **OK**, or **Cancel**.

Descriptor Summary (ADAINV)

Verify Descriptor displays the descriptor space summary for specified descriptors and the sizes required to process these descriptors.

Options:

- 1. Select the **Full Summary** box if you want to display each descriptor together with the sizes required for that descriptor.
- 2. Select the descriptors.
- 3. Click **OK**, or **Cancel**.

Note:

Inverted lists are maintained for each elementary, sub-, super-, hyper- and phonetic descriptor defined within a file. In order to guarantee their integrity, it must be ensured that each ISN in the inverted list is associated with an existing data record and that this data record is the correct one; that each record in the data storage is represented in the inverted list by its ISN and the descriptor value entries generated. When verifying a descriptor, the Verify function simulates loading of the normal index and matches the output

from the sort against the content of the inverted list. This checks both of the points mentioned above in one run and detects uniqueness conflicts. All inconsistencies found will be reported. The file remains unchanged.

Display Descriptors

Options:

- 1. Select **All Descriptors** or enter the names of the descriptors you want to display.
- 2. Enable/disable Histogram.
- 3. Click **OK**, or **Cancel**.

File Usage

Options:

- 1. Specify Data Storage, Normal Index or Upper Index.
- 2. Click **OK** to run the utility, or **Cancel**.