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PACKIT

TRIPsystem
Product Documentation

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About this document

The following document describes the prompts received from the PACKIT utility and how to respond to them in order to successfully create a new BAF.

Conventions used in this document

Xyzzzy? (x) is a prompt from PACKIT to the user (where 'x' is the default response provided by PACKIT and taken if the user simply hits the RETURN key)

IF <condition> ... Else is a block whose entry is determined by the validity of the condition given to the IF clause. If the condition is false, the block following the "ELSE" keyword is to be executed.

What is PACKIT?

PACKIT is a utility provided with the TRIP system with the express purpose of allowing a database manager to create a new version of that database's BAF. The reasons for doing this are many and varied, but tend to be because the manager has deleted a large number of records and wishes to create a new, smaller, BAF or because he suspects a problem in the BAF itself which might be highlighted and/or fixed by creating a new BAF.

The utility works by reading every record from the old BAF and creating a copy of that record in the new BAF.

The PACKIT utility program is located in the directory with the same path that is defined as TDBS_EXE in the TRIPsystem configuration file tdb.conf. Run PACKIT from the command line:

```
<TDBS_EXE>/packit
```

Converting to another character set

The PACKIT utility can also be used to convert a database from one character set to another, at the same time packing the database content. The conversion will be from the character set of the specified database to the character set specified in parameter -c.

PLEASE NOTE! If the design of the database doesn't specify a character set, the environment variable TDBS_CHARS must be set correctly to specify the character set of the database.

To do this conversion you do the following:

1. Run the PACKIT program from TRIP v7 with the correct parameters (see below)
2. Make a clone of the old database design using TRIPmanager 6.1 or later
3. Change the character set in the new database design via TRIPmanager 6.1 or later
4. Rename the BAF file produced by PACKIT to the new database BAF file name
5. Reindex(!) the whole database using TRIP v7
6. Check the status of the database

This will produce a database with another name than the original, so you will probably have to rename the db files to get the result you want. You can instead replace the steps 2-4 with:

2. Remove (or rename) the old database files (BAF-, BIF- and VIF-files).
3. Change the Character set to the intended one via TRIPmanager 6.1 or later
4. Rename the BAF file produced by PACKIT to the old database BAF file name

The call to PACKIT should look something like this:

```
>Packit -d database -f new_BAF_file -c new_character_set ...
```

PLEASE NOTE! The -c option must be given on the command line, it is not prompted for. See 'Command line options' below for more information.

PLEASE NOTE! Check the TRIPsystem Change History document to see in which version the character set feature was introduced.

Prompts from PACKIT

PACKIT will prompt the user for required information. The values prompted for, as well as some other values, can be specified as options to the PACKIT program on the command line. See section "Command line options" below for more information.

The lines marked (not a prompt) are output for information only.

The character set (-c option) is not prompted for, it must be entered on the command line.

Database :

Specify here the name of the database whose BAF file you wish to recreate. Note that this requires your CONTROL file to be working. Also note that as the PACKIT utility is not installed with privilege, you must also have read access to the physical BAF (and, of course, write access to the new BAF as specified below).

```
Character set for new BAF file      : As for old BAF (not a prompt)
or e.g.
Character set for new BAF file      : UTF (not a prompt)
```

IF converting the database to another character set:

```
*****
*** When converting the database to another character set ***
*** the database must be completely reindexed afterwards. ***
*****
```

```
Current BAF file : ... filespec ... (not a prompt)
```

New BAF file specification :

Here you must specify a physical filename for the new BAF file to be created. This should not be the same as the reported "current BAF file", especially on UNIX as this will cause you to lose your database file. This is because the first thing that PACKIT does is attempt to create this file - as the database specified in the first prompt is only opened for read access the BAF will not be locked and so it can be deleted by creating a file of the same name. This does not happen on VMS as you will simply get a new version of the BAF created. However, this may cause problems for users during the duration of the PACKIT run, therefore you should always give a completely new file specification in response to this prompt.

IF database contains non-indexed updates:

```
*****
*** This data base contains non-indexed modified records. ***
*** If you continue, make sure that the database is ***
*** completely reindexed afterwards. ***
```

Do you want to continue PACKIT? (Y) :

NOTE! This question can be suppressed by the `–[no-]force` cmd option (see below)

In the BAF file, TRIP maintains pointers to both the most recent version of a given record and to the most recently indexed version of that record (which in most cases will be the same, obviously). When a database is indexed, the most recently indexed version is compared to the most recent data version and the differences are what gets committed to the index. Following a PACKIT run, however, the most recently index version of the record is not written to the new BAF file, only the most recent data version is written, and therefore the differences cannot be calculated. In this instance, to get a reliable index the database must be completely reindexed.

IF database is not CONTROL :

Keep record numbers? (Y) :

One of the functions that PACKIT can perform is to compress the record number sequence, so that records which were given numbers and then deleted do not reserve space in the new number sequence. In databases which rely on the number sequence being maintained, such as databases which use an ASE routine to create a unique field based partly on the record number, this should not be performed. In most other cases, it can be performed without problem.

If NO to “Keep record numbers?” :

 *** Not keeping record numbers means that the database ***
 *** must be completely reindexed afterwards. ***

Do you want to continue PACKIT? (Y) :

NOTE! This questions can be suppressed by the `–[no-]force` cmd option.

If you choose not to keep record numbers, the database must be completely reindexed as the BIF file uses the record number as the primary key for a given indexed term.

Else (database is CONTROL) :

If the database is CONTROL, you will never be given the prompt concerning record numbers. Much of the cross reference information in the CONTROL database is kept in record number form as this is more compact than record names. Therefore, attempting to change record numbers would cause your CONTROL file to become so corrupt that even CONTRAIL could not recover it reliably.

“Real world” examples of using PACKIT

Let us suppose that a database has been double loaded at some point, so that during the course of events the database manager isolates a series of records which are duplicates. He, obviously, deletes these records and could then be left with a much larger database than is strictly necessary. In a live, dynamic, situation this is probably not such a bad thing, as the most time consuming part of writing to a file is extending its allocation. Therefore, if the file is bigger than it needs to be, TRIP can take advantage of the large amount of free space to add new updates to the BAF. If, however, the database is being archived or placed on non-modifiable media such as CD-ROM, it makes sense to try and get the smallest possible BAF.

```
**** TRIP System Utility PACKIT - Compress BAF file ****
      Version 6.0-0   10-DEC-2008 11:58:53.68

Data base                : alice
Current BAF file : TRIP$DEMO:ALICE.BAF
New BAF file specification : []alice.baf
Keep record numbers?      (Y) : n
*****
*** Not keeping record numbers means that the database      ***
*** must be completely reindexed afterwards.                ***
*****
Do you want to continue PACKIT? (Y) :

Elapsed: 00:00:16
```

Converting a database from LA1 to UTF-8 at the same time as packing it:

```
>packit -d carroll -f carroll_utf.baf -c utf --no-keep-rid --force

**** TRIP System Utility PACKIT - Compress a BAF file ****
      Version 7.0-4   20-Aug-2014 09:47:04

Data base                : carroll
Character set for new BAF file : UTF
*****
*** When converting the database to another character set    ***
*** the database must be reindexed after the conversion.      ***
*****
Current BAF file          : TRIP$DEMO:CARROLL.BAF
New BAF file specification : carroll_utf.baf
Keep record numbers?      (Y) : N

Number of records processed: 24

Elapsed: 00:00:00
```

Command line options

PACKIT takes the following options on the command line (see under "Prompts from PACKIT" above for more detailed explanation of each option):

USAGE: packit [OPTIONS]

OPTIONS WITH PARAMETERS:

- d <database> Name of database to process (no default)
- f <newfile> Name of new BAF file for the database (no default)
- c <charset> Character set for the new BAF file (default: as old BAF)
- z <rids> Delete records, comma separated list of rec. numbers (no def.)

BOOLEAN OPTIONS:

- [no-]keep-rid Keep record numbers? (no default)
- [no-]force Do not prompt for confirmation? (default: no-force)
- help or -h Show this help/usage text

NOTE: Valid character set values: GBK, LA1, LA2, LA3, UTF

NOTE: Required options are database, newfile and [no-]keep-rid

NOTE: The program will prompt for any required options not specified. Other options will not be prompted for unless the associated specified value is invalid.

Note also that option names are case sensitive.