

INSTALLED File

Background & Overview of the Raquel Installation

Note : specific, detailed instructions for installing the Raquel system are given in the INSTALL.DBMS+GUI file.

The Software Installed

Use of the Raquel Database System always involves at least two components, viz. the DBMS itself and a 'Driver Application' which supplies the DBMS with RAQUEL statements to execute and receives the results back from the DBMS.

In principle the Driver Application can be any kind of application. In a practical situation it would be something written or obtained by the user to meet their particular needs.

Since the DBMS needs a Driver Application, one is provided in order that a user may try out statements written in the Raquel notation. It takes the form of a GUI frontend to the DBMS. The Raquel GUI is also called the Raquel Teaching Tool, because it is designed to allow a user to easily pick up, explore, and experiment with using the RAQUEL notation.

At the code level, the Raquel DBMS currently takes the form of a static library which is linked into the Raquel GUI/Teaching Tool frontend to form a single executable file. Other code arrangements are possible to maximise flexibility of use, and will hopefully be developed in future.

The Code Level

The Raquel DBMS source code is written entirely in C/C++ and its compilation and linking with the 'gcc' compiler (or equivalent) is straightforward. The DBMS is created as a static library called 'libRaquelDBMS.a' held in the '/usr/local/lib/RaquelDBMS' directory (or other suitable directory).

The Raquel GUI/Teaching Tool is written in Tcl/Tk, with the latter being augmented by several supplementary Tcl/Tk commands written in C specifically for the GUI/Teaching Tool. The GUI/Teaching Tool source code is separately compiled and its object code linked with the static DBMS library code and the dynamic Tcl and Tk runtime libraries (or interpreters) to produce a single executable file, which is held in the user's own directory.

Hence the Tcl/Tk interpreters (version 8.4.19 or later) must already be installed before the GUI/Teaching Tool is, and in the '/usr/local/lib' directory (or other suitable directory). The Tcl/Tk software may be downloaded from SourceForge or from <http://www.tcl.tk/software/tcltk/> (from where instructions on downloading and installing may also be found).

Currently the Raquel Database System is only available on Linux. The TCLTK_ON_LINUX file gives further installation information for Tcl/Tk, and the

SOFTWARE_DEPENDENCIES file lists all the software required to install the Raquel Database System (in the unlikely event that this is needed).

The Installation Process

Because there are many varieties of Linux, running on a variety of different hardware, installing the the Raquel Database System on Linux version requires downloading the program source code, compiling it, and installing it in the required directory locations.

To simplify the whole process, the GNU Autotools system has been used to develop a set of installation files that are automatically downloaded with the source code files and used to automate the process. These installation files use the GNU 'make' utility and generate appropriate 'Makefiles' for it to execute.

The precise instructions that the user should carry out are given in the INSTALL.DBMS+GUI file.

In case of a need to reference the installation files, they are listed in the INSTALLATION_FILES file.