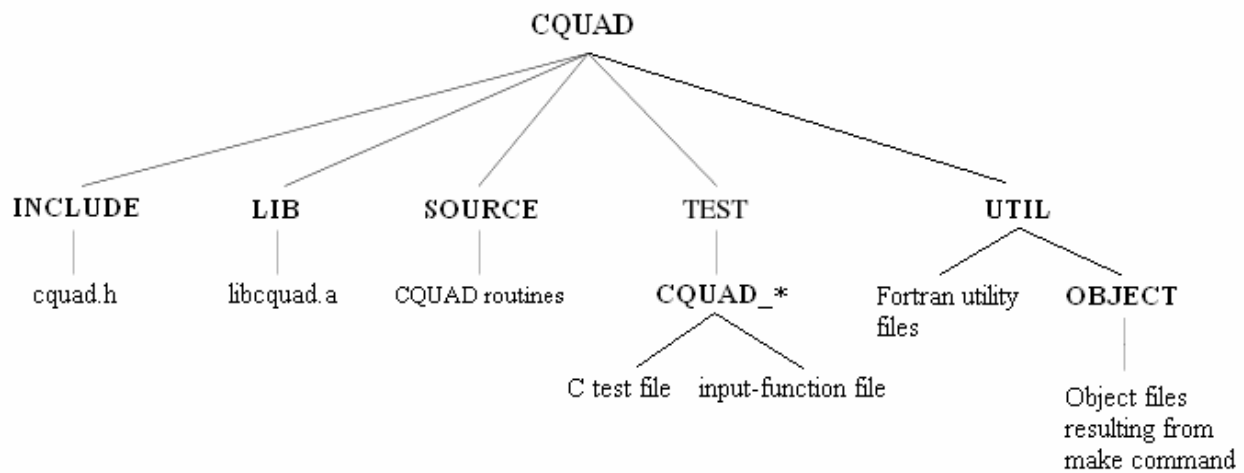


CQUAD – Installation Guide

Overview of contents

The software for CQUAD is distributed in the form of gzipped tar file which contains the C sources for CQUAD, the Fortran sources for QUADPACK, the Fortran utility files needed by CQUAD, the testing programs, a pre-built make file, and some documentation files (like a quick reference and an installation guide).

The software in tar file is organized in a number of essential directories as shown in following figure:



Please note that this figure show CQUAD directory after that make program has been call: in fact, before this call, both LIB and OBJECT directories are clearly empty.

Installing CQUAD 1.0 on a Unix System

Installing and testing CQUAD 1.0 on a Unix System involves the following steps:

1. gunzip and untar the file;
2. check that the C compiler **gcc** and that the Fortran compiler **f77** are installed on your pc: if yes, go to step 3, else installing them or edit the **makefile** file in CQUAD directory in proper way;
3. type make to create the library libcquad.a;
4. type `test_function_name` (for exemple `test_cquad_dqng`) to compile the test file for that function and to create an executable file.

Gunzip and untar the file

After you downloaded the **cquad.tar.gz** file, enter the following two commands:

```
gunzip cquad.tar.gz
```

```
tar -xf cquad.tar
```

This will create a top level directory called CQUAD which requires approximately 1 Megabyte of disk space.

Edit the makefile

This step is needed only if you have a C compiler different from gcc or a Fortran compiler different from f77 and you don't want to install them. In this case you have to edit two lines in makefile in CQUAD directory, and, more precisely, you have to change the line:

CC = gcc

and the line:

F77 = f77

giving proper values to CC and F77 variables.

Create the library

Now, you can move to CQUAD directory and type **make** from a terminal: this will create the libcquad.a file that will allow you to compile correctly your C programs with call to a CQUAD function.

Delete files

All testing executables can be deleted if you don't want store them on your disk. The removal of all executable files can be accomplished by the following:

```
cd CQUAD
```

```
make clean
```

In the same way, all object files can be deleted by:

```
cd CQUAD
```

```
make clean_obj
```

Finally, also the library libcquad.a can be deleted by:

```
cd CQUAD  
make clean_lib
```

Obviously, if you remove the libcquad.a file you can't compile other C files with one or more calls to CQUAD functions.