

Libraries

Function libraries are used extensively in all programming applications, simple examples being trigonometric functions and logarithms. Basic functions can be used without even realising that they are being called as they are set up by default. The obvious benefits of these simple libraries can be extended to more complex tasks such as root finding, matrix manipulation, curve fitting and just about anything else you care to mention. These library routines can be used for two reasons: To save you the trouble of writing the routine and in order to benefit from the expertise of computer scientists who have developed extremely fast and/or accurate algorithms taking advantage of a deep understanding of computer architecture.

I haven't yet made a thorough search, preliminary findings are:

- NAG libraries are overpriced outdated versions of routines 'copied' from ?????
- Argonne National Laboratories is the place to look for things like this
- MATLAB is based on routines LAPACK, EISPACK and MINPACK.
- BLAS is the library to use