



Topic: 1.5.3 Library programs

Library programs are collections of resources used to develop software. These include pre-written code and subroutines.

Library programs contain code and data that provide services to other programs such as interface (look and feel), printing, network code and even the graphic engines of computer games. If you have ever wondered why all Microsoft Office programs have the same look and feel, that is because they are using the same graphical user interface libraries. For computer games a developer might not have the time and budget to write a new graphics engine so they often buy graphical libraries to speed up development, this will allow them to quickly develop a good looking game that runs on the desired hardware.

Most programming languages have a standard set of libraries that can be used, offering code to handle input/output, graphics and specialist math functions. You can also create your own custom libraries and when you start to write lots of programs with similar functionality you'll find them very useful. Below is an example of how you might import libraries into VB.

What is a DLL?

A DLL is a library that contains code and data that can be used by more than one program at the same time. For example, in Windows operating systems, the Comdlg32 DLL performs common dialog box related functions. Therefore, each program can use the functionality that is contained in this DLL to implement an **Open** dialog box. This helps promote code reuse and efficient memory usage.

By using a DLL, a program can be modularized into separate components. For example, an accounting program may be sold by module. Each module can be loaded into the main program at run time if that module is installed. Because the modules are separate, the load time of the program is faster, and a module is only loaded when that functionality is requested.

Additionally, updates are easier to apply to each module without affecting other parts of the program. For example, you may have a payroll program, and the tax rates change each year. When these changes are isolated to a DLL, you can apply an update without needing to build or install the whole program again.

