The General Rule

According to 35 U.S.C. 101, “whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title”.

The US Supreme Court in *Diamond v Chakrabarty* 447 U.S. 303, 309; 206 USPQ 193,197 (1980) acknowledged that the US Congress intended statutory patentable subject matter to “include anything under the sun that is made by man”, except the following three categories of non-statutory subject matter, as specifically identified by the US Supreme Court in *Diamond v Diehr*, 450 U.S. 175 (1981) (the “Diamond”) at 185:

1. laws of nature;
2. natural phenomena; and
3. abstract ideas.

Computer programs and business methods that are not reduced to a practical application may represent nothing more than an abstract idea, and therefore may not be patentable subject matter.

Useful, Concrete and Tangible Result

If an abstract idea is reduced to a practical application and produces a *useful, concrete and tangible result*, the abstract idea no longer stands alone, and therefore satisfies the requirements of 35 U.S.C. 101, which is the rationale behind the *State Street Bank case 47 USPQ 2d 1596 (CAFC1998)*. In the *State Street Bank* case, the patent claims recite a data processing system for
implementing an investment structure. The system transforms data, representing discrete dollar amounts, into a final share price using a machine (computer) that processes a series of mathematical calculations. It is patentable because the practical application of a computer algorithm produces “a useful, concrete and tangible result”, that is, the final share price.

What is “useful”?  

The US Supreme Court in Diamond requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished. The claimed invention as a whole must be of specific, substantial, and credible utility.

What is “concrete”?  

A claimed invention is concrete when a result can be assured or is reproducible.

What is “tangible”?  

“Tangible” is the opposite of “abstract”, which means the invention has a practical result. For example, if the invention is simply a mathematical construct, such as a disembodied data structure and method of making it, it will be viewed as a manipulation of an abstract idea and does not fulfill the requirement of 35 U.S.C. 101.

Tips for computer software patent application  

Thus, to make it easier for grant of computer software patent, the applicant should demonstrate that the invention is of “useful, concrete and tangible result” in the specification by:-
1. identifying the functionalities of the programmed computer, that is, what the computer does when it runs the software;
2. describing how the computer is to be configured in order to achieve the functionalities;
3. explaining, where possible, relationship between the programmed computer and other peripherals, for example, other devices that are a part of the invention; and
4. disclosing all functions of the computer software

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IMPORTANT:
The law and procedure on this subject are very specialized and complicated. This article is just a very general outline for reference and cannot be relied upon as legal advice in any individual case. If any advice or assistance is needed, please contact our solicitors.