

July 2017: Interim Eligibility Guidance Quick Reference Sheet

Significantly More Considerations

The Supreme Court has identified a number of considerations as relevant to the evaluation of whether the claimed additional elements amount to an inventive concept (significantly more than a judicial exception). The list of considerations here is not intended to be exclusive or limiting. Additional elements can often be labelled as more than one type of consideration and the type of consideration is of no import to the eligibility analysis.

The following are examples of limitations that were found by the Supreme Court and the Federal Circuit to be enough to qualify as “significantly more” when recited in a claim with a judicial exception.

Improvements to the functioning of a computer itself:

An example of a method that improves the functioning of a computer is *RCT v. Microsoft*. In this case, the claim was directed to a process of halftoning an image comprising the steps of generating a mask, comparing pixels, and using the results of the comparison to convert a binary image to a halftoned image. The process used less memory, had faster computation time, and produced improved image quality compared to other masks.

Improvements to any other technology or technical field:

The classic example in this category remains *Diamond v. Diehr* in which the Arrhenius equation is used to improve a process of controlling the operation of a mold in curing rubber parts. Another example is *SiRF Technology v. ITC* in which a GPS receiver uses software that makes use of a mathematical formula to improve its ability to determine its position in weak signal environments.

Applying the judicial exception with, or by use of, a particular machine:

One example of applying a judicial exception with a particular machine is *Mackay Radio & Telegraph v. Radio Corp. of America*. In this case, a mathematical formula was employed to use standing wave phenomena in an antenna system. The claim recited the particular type of antenna and included details as the shape of the antenna and the conductors, particularly the length and angle at which they were arranged.

It is important to note that a general purpose computer that applies a judicial exception, such as an abstract idea, by use of conventional computer functions has not been found by the courts to qualify as a particular machine.

Effecting a transformation or reduction of a particular article to a different state or thing:

Tilghman v. Proctor provides an example of effecting a transformation of a particular article to a different state or thing. In that case, the claim was directed to a process of subjecting a mixture of fat and water to a high degree of heat and included additional parameters relating to the level of heat, the quantities of fat and water, and the strength of the mixing vessel. The claimed process, which used the natural principle that the elements of neutral fat require that they be severally united with an atomic equivalent of water in order to separate and become free, resulted in the transformation of the fatty bodies into fat acids and glycerine.

It is noted that the mere manipulation or reorganization of data does not satisfy the transformation prong. See *Cybersource Corp. v. Retail Decisions, Inc.*

July 2017: Interim Eligibility Guidance Quick Reference Sheet

Significantly More Considerations

Adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application:

DDR Holdings, LLC v. Hotels.com, L.P. provides an example of additional elements other than those that are well-understood, routine and conventional in the field. In this case, the claims were directed to systems and methods of generating a composite web page that combines certain visual elements of a host website with the content of a third-party merchant. The court found that the claim had additional limitations that amounted to significantly more than the abstract idea. Namely, the claim recited that when a third party's advertisement hyperlink was selected by a user on a host's web page, the system would automatically identify the host web page, retrieve corresponding "look and feel" information from storage for the host web page and generate a hybrid web page including the merchant information from the third party web page with the "look and feel" elements of the host's website. This is different from the conventional operation of Internet hyperlink protocol which would transport the user away from the host's web page to the third party's web page when the hyperlink is activated.

Other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment:

An example of a claim that recites meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment is the claim in *Diamond v. Diehr*. Again, the claim is directed to the use of the Arrhenius equation in an automated process for operating a rubber-molding press. The court found the claim recites meaningful limitations along with the judicial exception including installing rubber in a press, closing the mold, constantly measuring the temperature in the mold, constantly recalculating the cure time and opening the press at the proper time. These limitations sufficiently limit the claim to the practical application of molding rubber products and are clearly not an attempt to patent the mathematical equation.

The following are examples of limitations that were found by the Supreme Court and the Federal Circuit not to be enough to qualify as "significantly more."

Adding the words "apply it" (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer:

An example of a claim in which a judicial exception was recited along with mere instructions to implement the abstract idea on a computer comes from *Alice Corp. v. CLS Bank*. In this case, the claim recited the concept of intermediated settlement as performed by a generic computer. The recitation of the computer in the claim amounted to mere instructions to apply the abstract idea on a generic computer.

Another example is *Gottschalk v. Benson*, which involved a claim reciting a process for converting binary-coded-decimal (BCD) numerals into pure binary numbers. The court found that the claimed process has no substantial practical application except in connection with a computer. The claim simply states a judicial exception (e.g., law of nature or abstract idea) while effecting adding words that "apply it" in a computer.

Simply appending well-understood, routine and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception:

An example of a claim that appends well-understood, routine and conventional activity in the industry at a high level of generality to the judicial exception is *Mayo v. Prometheus*. Here the claim recites a naturally occurring correlation along with the additional limitation of telling a doctor to

July 2017: Interim Eligibility Guidance Quick Reference Sheet

Significantly More Considerations

measure metabolite levels in the blood using any known process. This additional step in the claim is well understood, routine conventional activity already engaged in by the scientific community.

Alice Corp. is also an example of a claim to an abstract idea requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. The claim required no more than a generic computer to perform generic computer functions, that included creating and maintaining shadow accounts, obtaining data, adjusting account balances, and issuing automated instructions, all of which are generic computer functions are well-understood, routine and conventional activities previously known to the industry.

Adding insignificant extrasolution activity to the judicial exception:

This consideration is similar to past factors used in the *Bilski* and *Mayo* analyses that were described as mere data gathering in conjunction with a law of nature or abstract idea.

As an example, in *Ultramercial, Inc. v. Hulu, Inc.*, the court determined that the method of showing advertising in exchange for viewing copyrighted material included steps of consulting and updating an activity log, requiring a request from a user to view an advertisement and restricting public access that added nothing of practical significance to the underlying abstract idea and represented insignificant pre-solution activity.

Another example is *Cybersource Corp. v. Retail Decisions, Inc.* in which a method of verifying validity of credit card transactions over the internet included steps of obtaining information about transactions using the Internet, which was deemed mere gathering of data using the Internet as a source of data.

Generally linking the use of the judicial exception to a particular technological environment or field of use:

An example of generally linking a judicial exception to a particular technological environment or field of use is *Bilski v. Kappos*. In this case, the claims described how hedging could be used in the commodities and energy markets. These limitations generally linked the use of hedging to commodities and energy markets and did not impose meaningful limits on the concept of hedging.

A further example is *Parker v. Flook* where the claim was directed to a mathematical formula that was used in a process limited to petrochemical and oil-refining industries. This field of use limitation generally linked the use of the mathematical formula to the petrochemical and oil-refining industries but did not impose meaningful limits on use of the mathematical formula, which was used to obtain a result that informed whether an alarm limit should be adjusted.

Finally, in *buySAFE Inc. v. Google, Inc.*, the claim was directed to a method for guaranteeing a party's performance of its online transaction. The court found that the limitations regarding using a computer to receive and send information over a network were simply attempting to limit the abstract idea to a computer environment.

Note: The information on this QRS is excerpted from slides 21 and 22 of the training module titled "2014 Interim Guidance on Patent Subject Matter Eligibility".
For more information, see the [Computer-Based Training](#) and [slide](#) versions of this training module.