

Software Claims

EPO guidelines

The EPO Guidelines are the main resource used by EPO examiners for guidance in the examination process. Section F-IV, 3.9 of the guidelines sets out examples of acceptable kinds of claims directed to computer-implemented inventions (“CII”).

Section F-IV, 3.9 aims to codify a typical acceptable structure and formulation for claims related to CII, appreciating that differing formulations will be assessed on a case-by-case basis. The Guidelines suggest that the claims related to CII start with a method claim, followed by a respective pseudo-independent claim in the other categories (e.g. apparatus/device/system, computer program product, and computer readable medium/data carrier) that merely

reference the method claim. Examiners can then start with the method claim when assessing novelty and inventive step, and efficiently conclude that the subject-matter of the other corresponding claims in the set is novel and inventive as well.

➤ Methods carried out by generic data processing means

The suggested formulation is relatively concise for software inventions in which all the method steps can be carried out by one or more generic data-processing means. A set of exemplary claim formulations in such a case includes:

1. A computer-implemented method comprising steps A, B, ...

or: A method carried out by a computer comprising steps A, B, ...

2. A data-processing apparatus/device/system comprising means for carrying out the steps of the method of claim 1.

or: A data-processing apparatus/device/system comprising a processor adapted/configured perform the method of claim 1.

3. A computer program product comprising instructions which, when the program is executed by a computer, cause the computer to carry out the steps of the method of claim 1.

4. A computer-readable storage medium comprising instructions which, when executed by a computer, cause the computer to carry out the steps of the method of claim 1.

or: A computer-readable data carrier having stored thereon the computer program product of claim 3.

1. Be mindful to avoid reciting a list of method steps that may be considered to relate to excluded subject-matter (e.g. business or administrative, non-technical in nature), thus deemed straightforward for a skilled person (i.e. a programmer) to implement on generic data processing means.

*2. Under European practice, “means for” is generally interpreted as “means adapted/configured to” in the data-processing/computer program field. In *Qualcomm v Nokia* [2008] EWHC 329 (Pat) the word “for” was interpreted as “suitable for” the stated function, with a caveat over rigidly codifying the meaning of particular words.*

3. In this example, the device claim may make reference to method claim 1, since it is clear how means for executing this method are to be implemented.

4. For European applications, excess claims fees are calculated on the basis of the claims as filed. For PCT applications entering the EP regional phase, restructuring and reduction of the original claim set can be carried out after regional phase entry. A deadline will be subsequently set by the EPO to file amended claims that will form the basis for substantive examination and calculation of any excess claims fees.

EPO guidelines on software claims

> Methods requiring specific technical means

Particular considerations are necessary where the method steps are not fully performed by the computer and require specific technical means and/or require additional technical devices as essential features. In such cases, the claim formulations may require explicit definition of the essential features for executing the method, as well as their interactions:

1. A method carried out by a device/system comprising special technical means, the method comprising step A performed by the special technical means, and steps B, C...
2. A device comprising special technical means and means adapted to execute the steps of the method of claim 1.
3. A computer program product comprising instructions to cause the device of claim 2 to carry out the steps of the method of claim 1.
4. A computer-readable medium having stored thereon the computer program product of claim 3.

Multiple-dependencies are allowed under European practice, so the suggested formulations can be adapted to refer back to "the method of any one of claims 1 to n". This is a particularly effective way to reduce the number of claims in an EP application, bearing in mind that heavy fees are levied by the EPO for each claim over 15.

> Inventions realised in a distributed computing environment

Finally, for cases where the invention is realised in a distributed computing environment, the claim set may comprise claims directed to each entity of the distributed system and/or to the overall system and the corresponding methods:

1. A first device comprising means for performing steps A and B and means to transmit data to a second device.
2. A second device comprising means for receiving data from a first device and means for performing steps C and D.
3. A system comprising a first device according to claim 1 and a second device according to claim 2.
4. A computer program product comprising instructions which, when the program is executed by a first computer, cause the first computer to perform steps A and B and to transmit the data to a second computer.
5. A computer program product comprising instructions which, when the program is executed by a second computer, cause the second computer to receive data from a first computer and perform steps C and D.

EPO guidelines on software claims

Comment

Whereas these guidelines do no more than summarize long-established practice, adopting the above structure and formulation when drafting claims for computer implemented inventions before the EPO should help to avoid a number of formal issues and focus the examiner's attention on the underlying technical merit.

At Maucher Jenkins, for methods carried out by generic data processing means and/or requiring specific technical means, instead of the concise formulation 2, we may well recommend presenting a truly independent claim if there is no other independent apparatus claim. One reason is that often in writing an independent claim, one notices some nuance of meaning not apparent from the method claim (e.g. whether all the steps are necessarily carried out by the same device) and one adjusts the claim language, thereby providing two independent claims of slightly different scope, one or other of which may encompass a particular infringing scenario. This is particularly true in the second set above, in which there is some special technical means in some part of the apparatus or device. If adopting formulation 3 or 4, it is well worth pausing to consider whether the steps of the method may be separated into transmitter/receiver parts or client/server parts or the like.

Formulation 4 (a so-called Beauregard claim) is going out of fashion along with CD-ROMs and other physical data media and is in any case subsumed within formulation 3.

For these reasons, we recommend the following as a preferred strategy (subject to incurring costs for claims in excess of 15):

- Independent method claim(s) +
- Independent apparatus/device claims to the transmitter/ receiver or client/server or other parts +
- Pseudo-dependent claim(s) of formulation 3.



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