Desing protection related to software

And a wee bit of software patenting…

"DESIGN" PROTECTION FOR SOFTWARE

US

UTILITY PATENT

X

DESIGN PATENT

Utility patent

- "Standard" – how thigns work

"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 therefor, subject to the conditions and requirements of this title."

Section 101 of title 35, United States Code

One fine utility patent & task for you…

Patent claim:

A non-transitory computer-readable recording medium having a computer program recorded thereon that causes the computer to perform further operations comprising: determining when the first image of the cursor is positioned in the user interface over an object that is associated with an application in a busy state; controlling the display device to switch the display of the first image of the cursor to a display of a third image of the cursor in the user interface, upon determining that the first image of the cursor is positioned over the user interface object associated with the application in the busy state, the third image of the cursor comprising a second hybrid cursor having a pointer arrow and a second variable graphic replacing the tail comprised in the first image of the cursor; and controlling the display device to, while the cursor is positioned over the user interface object associated with the application in the busy state, display the second variable graphic of the third image of the cursor as a representation of the busy state of the application in the busy state.

Are you able to express this patent claim visually?

{As the descriptive drawing is always a part of the patent application}

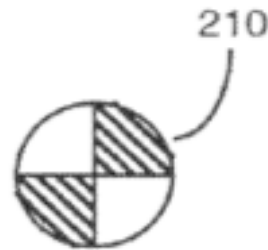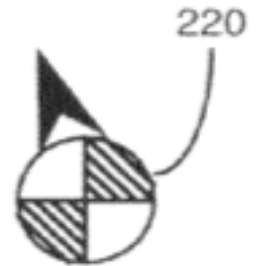# United States Patent No. 8,230,366

Fig. 3A

Fig. 3B

Fig. 3C

The Law

- *"Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title."*
  35 USC § 172

- *Patents for designs shall be granted for the term of fourteen years from the date of grant.*
  35 USC § 173

The Instrument

- A design consists of the visual ornamental characteristics embodied in, or applied to, an article of manufacture.

- Drawing disclosure – most important
- Single claim:
"The ornamental design for (the article which embodies the design or to which it is applied) as shown."

An example

- *"The ornamental design for a display screen or portion thereof with animated-graphical user interface, as shown and described."*

- DESCRIPTION

- Display screen or portion thereof with animated graphical user interface.

Let your fantasy run wild again:

Are you able to express this patent claim visually?

{As the descriptive drawing is always a part of the patent application}
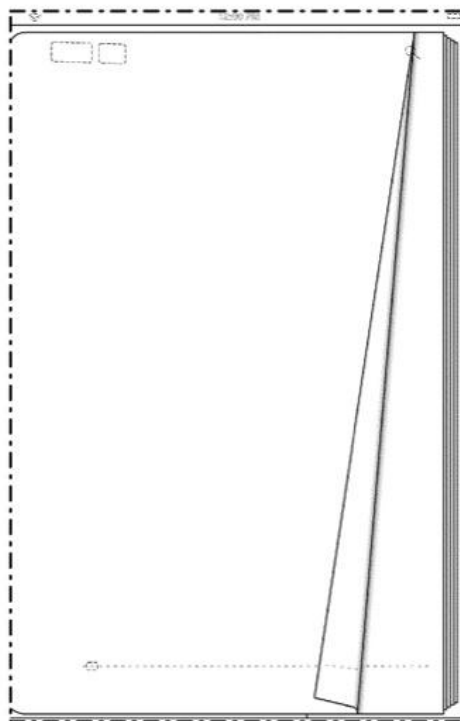
[US Design Patent **670,713**](#)
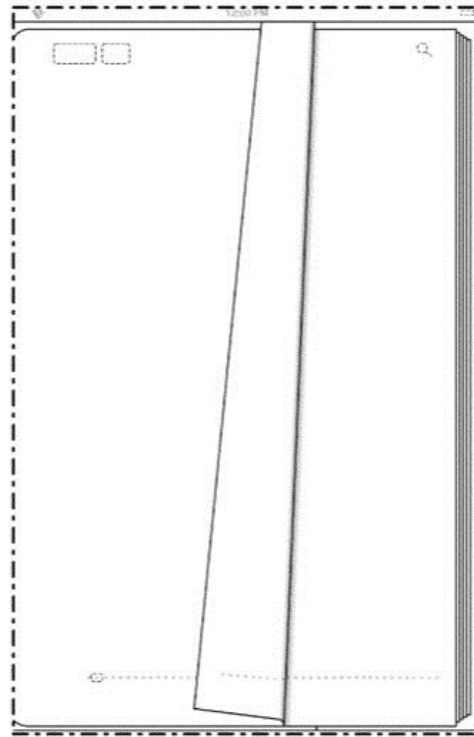
FIG. 1

FIG. 2

FIG. 3

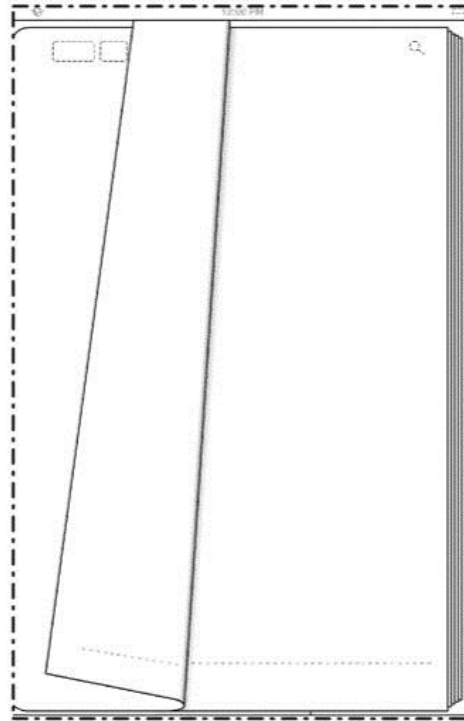# Things are tough all over cupcake…

The "Google Search Results" Design Patent
D533,561

The Apple v Samsung Patent Wars

- The Grand Finale – August 2012

- $1.05 billion in damages ($2.05 claimed initially) awarded to Apple

- Jurors were deliberating for 21 hours, 37 minutes (!)

- Aftermath > October ban on Galaxy Tab not lawful (no infringement)

- 3 utility patents + 4 design patents involved

1. Build three working groups
2. Familiarize yourselves with the presented granted patents
3. Try to explain the others what is your patent about in simple English

{demonstration on smartphone is welcome}

The guess what game…1

A computer-implemented method, for use in conjunction with a portable electronic device with a touch screen display, comprises displaying at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content, and detecting a first gesture at a location on the displayed portion of the structured electronic document. A first box in the plurality of boxes at the location of the first gesture is determined. The first box on the touch screen display is enlarged and substantially centered.

The guess what game...2

At least certain embodiments of the present disclosure include an environment with user interface software interacting with a software application. A method for operating through an application programming interface (API) in this environment includes transferring a set bounce call. The method further includes setting at least one of maximum and minimum bounce values. The set bounce call causes a bounce of a scrolled region in an opposite direction of a scroll based on a region past an edge of the scrolled region being visible in a display region at the end of the scroll.

The guess what game…3

In accordance with some embodiments, a computer-implemented method for use in conjunction with a device with a touch screen display is disclosed. In the method, a movement of an object on or near the touch screen display is detected. In response to detecting the movement, an electronic document displayed on the touch screen display is translated in a first direction. If an edge of the electronic document is reached while translating the electronic document in the first direction while the object is still detected on or near the touch screen display, an area beyond the edge of the document is displayed. After the object is no longer detected on or near the touch screen display, the document is translated in a second direction until the area beyond the edge of the document is no longer displayed.

1. tap-to-zoom

2. multi-touch

2. rubber band end

Jury's decisions in Apple v Samsung
August 2012

	Apple patent number	Number of infringements*
UTILITY PATENTS	7,864,163 Tap-to-zoom	16 (24)
	7,844,915 Interface for multi-touch gestures	21 (24)
	7,469,381 Bounce-back scrolling at end of page	21 (21)
DESIGN PATENTS	D593,087 A white iPhone's rounded edges	3 (8)
	D168,677 A black iPhone's rounded edges	12 (13)
	D504,889 An iPad's smoothed, rectangular form	0 (2)
	D604,305 Icon styles and layout	13 (13)

Sources: US Patent and Trademark Office; US District Court

*Samsung devices that the jury agreed infringed Apple's patents (the number that Apple claimed)
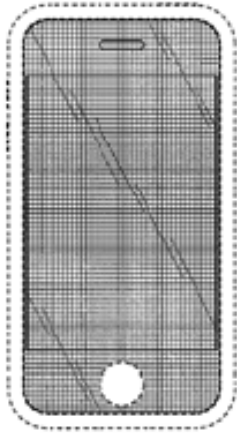
Patents involved

Utility patents

- 7,864,163 – "Tap-to-Zoom"
- 7,844,915 – "Multi-touch"
- 7,469,381 – "Bounce-back"

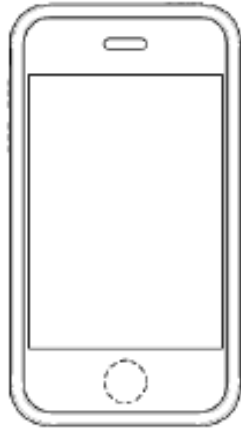**Design patents**

- D504,889 – iPad
- D593,087 – iPhone (white)
- D618,677 – iPhone (black)
- D604,305 – Icons & Style

Apple
Design Patents
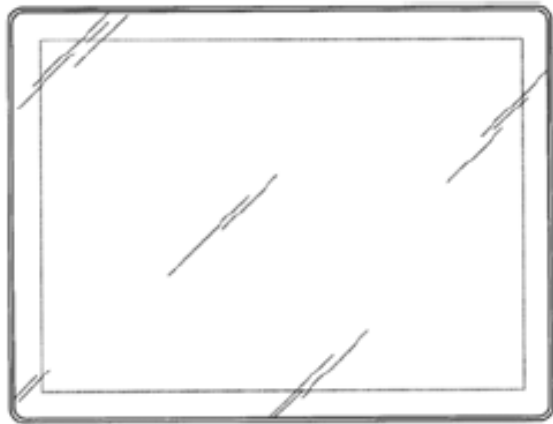
Apple D'677

Apple D'087

Apple D'889

Samsung
Accused Products

Samsung
Galaxy S 4G

Samsung
Infuse 4G

Samsung
Galaxy S 4G

Anything else similar?

No. 3,886,196 iOS phone app

No. 3,889,642 iOS messaging app

No. 3,886,200 iOS photos app

No. 3,889,685 iOS settings app

No. 3,886,169 iOS notes app

No. 3,86,197 iOS contacts

Available at:

EU – REGISTERED COMMUNITY TRADEMARK

The law

- **Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs**
- "**design**" means the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation;
- "**product**" means any industrial or handicraft item, including inter alia parts intended to be assembled into a complex product, packaging, get-up, **graphic symbols** and typographic typefaces, but ~~excluding computer programs~~;

Requirements for protection

A design shall be protected by a Community design to the extent that it is new and has individual character.

Unregistered design

- three years as from the date on which the design was first made available to the public within the Community.

Novelty (Art. 5)

1. A design shall be considered to be new if no identical design has been made available to the public:

(a) in the case of an unregistered Community design, before the date on which the design for which protection is claimed has first been made available to the public;

(b) in the case of a registered Community design, before the date of filing of the application for registration of the design for which protection is claimed, or, if priority is claimed, the date of priority.

2. Designs shall be deemed to be identical if their features differ only in immaterial details.

Individual character (Art. 6)

1. A design shall be considered to have individual character if the overall impression it produces on the informed user differs from the overall impression produced on such a user by any design which has been made available to the public:

(a) in the case of an unregistered Community design, before the date on which the design for which protection is claimed has first been made available to the public;

(b) in the case of a registered Community design, before the date of filing the application for registration or, if a priority is claimed, the date of priority.

2. In assessing individual character, the degree of freedom of the designer in developing the design shall be taken into consideration.

The Instrument

- SINGLE
  - Application
  - Language of filing
  - Administrative centre a
  - File to be managed
  - Payment
- 5 years + 4x5 years
- novelty and individual character
- OHIM

The All-New iGun.
Loaded.

Apple strikes in Europe

- [The Tablet](#)

- Design number: 000181607-0001

Versus
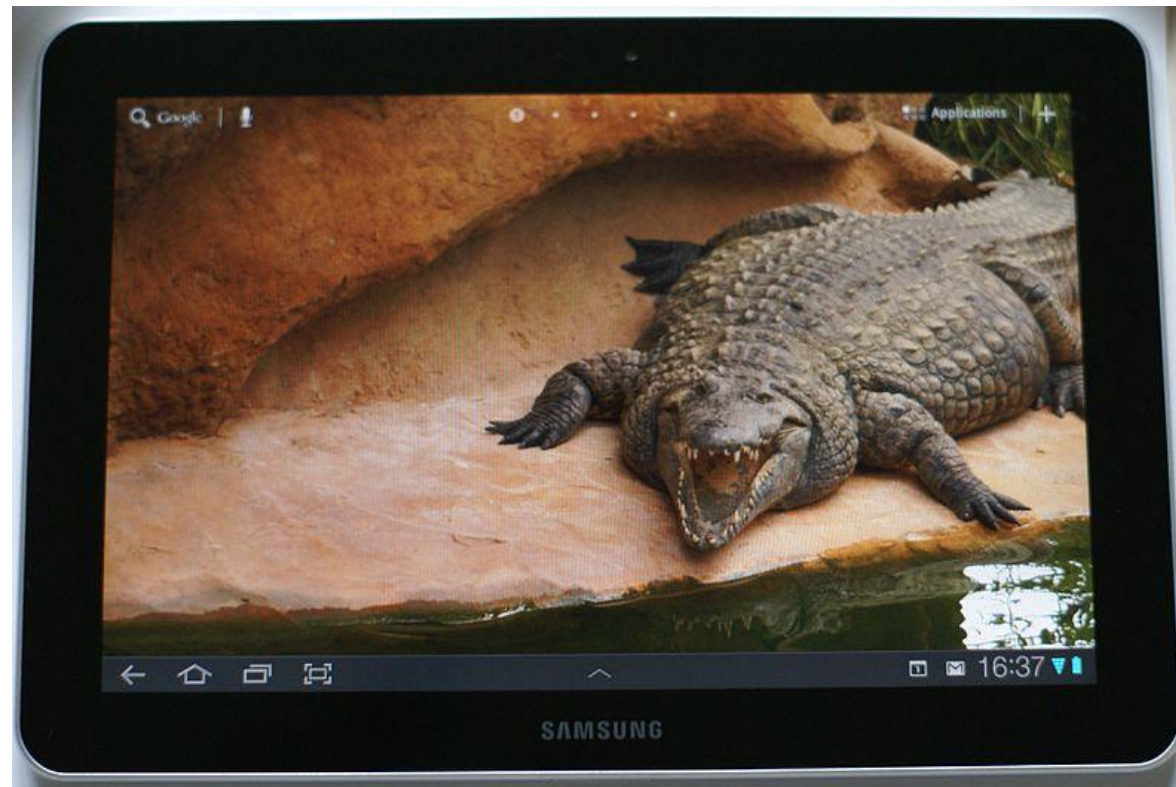
Seems familiar?

- Design number : 000264288-0006
- OHIM Database

Locarno Classification

- 14.04
- Design number: 000748694-0003
- [What about Apple?](#)

SOFTWARE PATENTS
AKA
COMPUTER IMPLEMENTED INVENTIONS

Software patent

- Can we file a patent application that claims for protection of the sourcet code as such?

Art 52 para 2

The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and ~~programs for computers~~;

(d) presentations of information.

Art 52 para 3

Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities **as such**.

European Patent Office

Obtaining a patent

| Patent application | Patent Examination
 • Patentability
 • Disclosure | Patent obtained |

Patent Granted

Patentee
- Exclusive rights

Third parties
- Access to information

Patentability

Patentable subject

Novelty

Inventive step

Industrial applicability
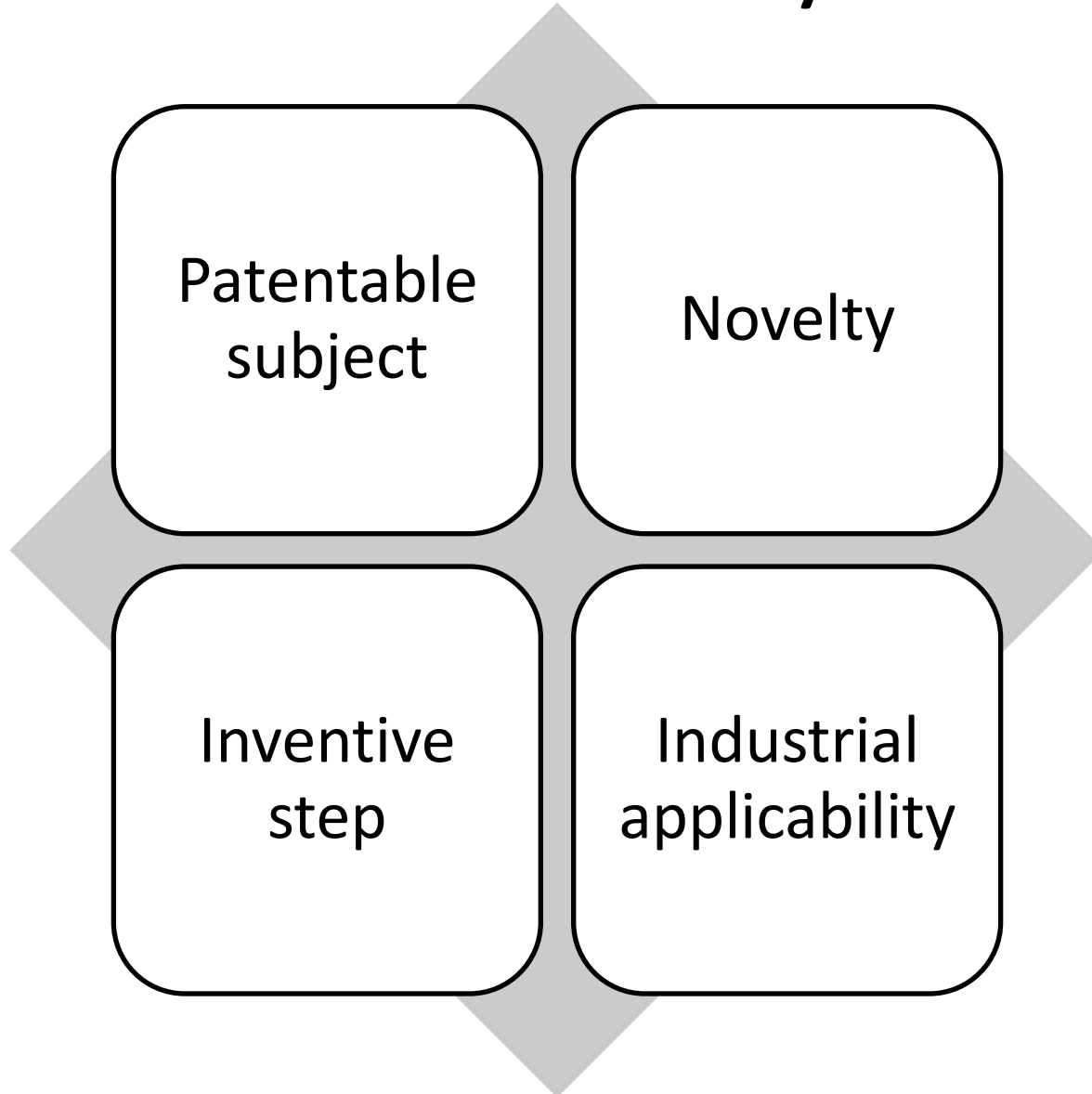
The grant procedure at a glance

Applicant *European Patent Office* *Public domain*

European patent application

Filing and formalities examination

Search and search report together with a preliminary opinion on patentability

Publication of the application and search report. Observations by third parties possible.

Refusal of
the application

Substantive
examination

Validation in the
designated states

Grant of a
European patent

Publication
of the patent
specification

Limitation
or revocation
proceedings

Opposition
proceedings

Limitation or revocation proceedings → Opposition proceedings → Appeal proceedings

24

- European patents and the grant proceudre, p. 24. [cited 27. 11. 2012] Available at: http://documents.epo.org/projects/babylon/eponet.nsf/0/e6ce616afbb87afac125 773b004b93b5/$FILE/EPO_EuroPatente10_en.pdf

International Patent Classification

- http://web2.wipo.int/ipcpub/#refresh=page

Patent research – relevant Section

G06F, Q

(G06F17)

Example: Google PageRank

G06F 1730

Patentable Invention

- Inventions solving non-technical problems relying on subject matter void of any technical character are not eligible for a patent.

Art 52 para 1

European patents shall be granted for any inventions, in all fields of technology, provided that they are

- new,

- involve an inventive step and are

- susceptible of industrial application.

Art 52 para 2

The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and ~~programs for computers~~;

(d) presentations of information.

Art 52 para 3

Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities **as such**.

"Computer-implemented invention" - CII

- an invention whose implementation involves the use of a
  - computer, computer network or other programmable apparatus
  - with features realised wholly or partly by means of a computer program

As defined in: MACHEK, Jörg. Computer Implemented Inventions at the EPO
Available at: http://www.pks.rs/SADRZAJ/Files/Biro%20za%20saradnju%20sa%20EU/
Inovacije%20u%20kompjuterskoj%20tehnici%20u%20EPZ.pdf

- Computer Program – Algorithm
- Algorithm implementation

Patentable Invention

- Inventions solving non-technical problems relying on subject matter void of any technical character are not eligible for a patent.

What is „technical"

- Processing physical data
- Processing that affects the way a computer operates
- Physical entity

Non-technical subject matter

- Pure abstract concepts (methods, trading, insurance, system modelling, mathematical methods)

Case law of the Boards of Appeal

- As such = purely abstract concepts without any technical implementation not patentable
- T 258/03 / HITACHI

Case law of the Boards of Appeal

- Further technical effect
{no electricity flow as discussed last lecture}

- [T 0935/97](#)

- *"For the purpose of interpreting the exclusion from patentability of programs for computers under Article 52(2) and (3) EPC, it is assumed that programs for computers cannot be considered as having a technical character for the very reason that they are programs for computers."*

T 0935/97

Technical effect

further technical effect	no further technical effect
control of a brake in a car	aesthetical effects of music or a video
faster communication between mobile phones	new rules for an auction scheme
secure data transmission (encryption of data)	selling and booking sailing cruise packages
resource allocation in an operating system	calculation of a pension contributions

As defined in: MACHEK, Jörg. Computer Implemented Inventions at the EPO
Available at: http://www.pks.rs/SADRZAJ/Files/Biro%20za%20saradnju%20sa%20EU/
Inovacije%20u%20kompjuterskoj%20tehnici%20u%20EPZ.pdf

Example: Controlling a physical process

- Computer-implemented method
  {as such not patentable}

- Compares parameters > generates data = series of mathematical steps
  {as such not patentable}

- Controls physical process [physical entity]
  {clearly patentable}

What is examined at the EPO?

- Exclusion check
  - Technical character
  - IF YES THEN – checked in the inventive step

Industrial applicability

- Met *prima facie*
- Computers and their implementations can be produce on a mass scale

Novelty

- Are the claimed features know from a single prior art document? (published patent, published patent application, journal, book, etc.)

Inventive step

- Technical aspect
- Problem – Solution approach
  - Establish closest prior art
  - Determine differentiating features and their technical effects
  - Formulate an objective technical problem
  - Decide whether the proposed solution is obvious for the skilled person

Allowable claims

- Method claims
- Apparatus/system claims
- Storage medium/data carrier with computer program claims
- Signal claims
- Data-structure claims

Example claim

Claim 1 „A method of operating a data-processing stes: A, B, C…. {algorithms}

Corresponding apparatus claim:

"A data processing apparatus/system comprising of means for carrying out the method of claim 1"

OR

"A data processing apparatus/system comprising of means for carrying out step A, means for carrying step B…

Example claim

Claim 1 „A method of operating a data-processing stes: A, B, C…. {algorithms}

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OR

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Summary

Computer implemented invention

↓

Technical character

↓

Case Law – technical subject-matter

↓

"Further technical effect"

Code in patent application

Rule 49(10) 4.12 Computer programs

In the particular case of inventions in the computer field, program listings in programming languages cannot be relied on as the sole disclosure of the invention. The description, as in other technical fields, should be written substantially in normal language, possibly accompanied by flow diagrams or other aids to understanding, so that the invention may be understood by a person skilled in the art who is deemed not to be a specialist in any specific programming language, but does have general programming skills. Short excerpts from programs written in commonly used programming languages can be accepted if they serve to illustrate an embodiment of the invention.

EPO Examination Guidelines, Part F - Chapter II 9

The difference

EPO practice

- acknowledges an inventive step only when an invention is a non-obvious technical solution to a technical problem

USPTO practice

- no such technical contribution in order to satisfy the requirement of non-obviousness.