

# Patent Protection for Computer Software in Europe

**Examples of patentable and non-patentable  
computer related inventions**

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# “Tree of Knowledge” Theory

- What is “technology” in terms of patent law?
  - “Technology” (in terms of patent law) is a dynamic term; it reflects the permanent progress of human endeavor.
  - Only certain areas of human endeavor are covered by this term.
  - “Technology” (in terms of patent law) covers all areas of human endeavor which can be regarded as further development of skills & knowledge from the area of engineering and natural sciences (Tree of Knowledge).
  - = “technical considerations necessary” to achieve the invention (T 769/92)?

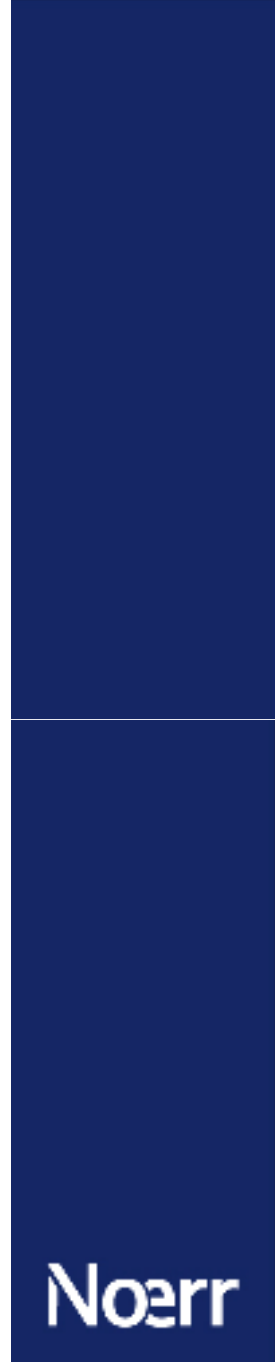
# “Tree of Knowledge” Theory

- “Technology” in terms of Patent Law:



Further developments of skills & knowledge from the area of engineering and natural sciences

Traditional engineering & natural sciences



# “Technology” in terms of Patent Law

- Control Engineering
  - Decision “Anti blocking system”
    - German Federal Supreme Court
    - Published in GRUR 1980, 849
    - Patentability confirmed
    - Novelty resides in the brake control algorithm



# “Technology” in terms of Patent Law

- Control Engineering
  - Decision “Position Drive”
    - German Federal Patent Court
    - Published in GRUR 1985, 522
    - Patentability confirmed
    - Algorithm calculates the speed of an object (e.g. elevator) depending on its current position.



# “Technology” in terms of Patent Law

- Control Engineering
  - Decision “Temperature Control”
    - German Federal Patent Court
    - Published in GRUR 1991, 195
    - Patentability confirmed
    - Algorithm regulates the temperature of a panel heating device (e.g. a floor heating).



# “Technology” in terms of Patent Law

## ■ CAD/CAM

- Decision “Logic Verification”
  - German Federal Supreme Court
  - Published in GRUR 2000, 498
  - Patentability confirmed
  - Algorithm for creating the layout of semiconductor chips.



# “Technology” in terms of Patent Law

- Digital Signal Processing
  - Decision “Fourier Transform”
    - German Federal Patent Court
    - Published in GRUR 1989, 336
    - Patentability confirmed
    - Algorithm reduced the data volume of measuring data by using a Fourier transform.





# “Technology” in terms of Patent Law

- Digital Signal Processing
  - Decision “Seismic Detection System”
    - German Federal Patent Court
    - Published in GRUR 1990, 261
    - Patentability confirmed
    - Algorithm analyses seismic detection signal data and enhances the visibility of different geological structures.



# “Technology” in terms of Patent Law

- Operating Systems
  - Decision “Side Buffer”
    - German Federal Supreme Court
    - Published in GRUR 1992, 36
    - Patentability confirmed
    - Algorithm administrates the use of the buffer of a computer.



# “Technology” in terms of Patent Law

- Word Processing
  - Decision “Chinese Characters”
    - German Federal Supreme Court
    - Published in GRUR 1992, 33
    - Patentability denied
    - Algorithm was an input assistant (using the phonetic pinyin transcription).



# “Technology” in terms of Patent Law

- Word Processing

- Decision “Summarizing and retrieving documents/IBM”
  - EPO Board of Appeal
  - T 22/85
  - Patentability denied
  - Algorithm compared the words within a document with a list of pre-set keywords, and displayed the matching words as keywords of the text.



# “Technology” in terms of Patent Law

- Word Processing
  - Decision “Thesaurus”
    - EPO Board of Appeal
    - T 22/85
    - Patentability denied
    - Algorithm generated a list of semantically identical words.



# “Technology” in terms of Patent Law

- Word Processing

- Decision “Word Processing/IBM”
  - EPO Board of Appeal
  - T 38/86
  - Patentability denied
  - Algorithm adjusts the level of language used in a document (e.g. replaces less-known words by more common words) .



# “Technology” in terms of Patent Law

- Business Administration
  - Decision “Material Planning Program”
    - German Federal Supreme Court
    - Published in GRUR 1977, 96
    - Patentability denied
    - Algorithm analyzed changes of values in a table in order to assist in material planning/dispatching tasks.



# “Technology” in terms of Patent Law

- Business Administration

- Decision “Controlling Pension Benefits/PBS”
  - EPO Board of Appeal
  - T 931/95
  - Patentability denied
  - Algorithm calculated the insurance premium and the return of a given pension fund.





# “Technology” in terms of Patent Law

## ■ Translating Programs

- Decision “Application Software”
  - German Federal Patent Court
  - Published in GRUR 1986, 733
  - Patentability denied
  - Specific user guidance within a translation program; user had to first select a special “translation situation” (e.g. “in the hotel”), and then the program selected the matching vocabulary.



# Contact

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