

Patenting Software and Services

-stakeholder view-

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OECD Conference IPR, innovation and economic performance
28-29 August 2003

Patent system

Principles of the Patent System

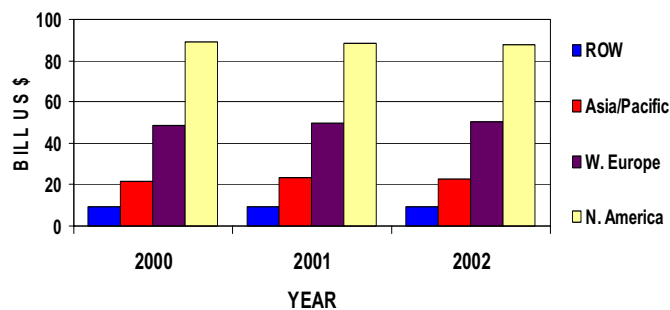
- provide protection to technical principles
- stimulate and support technical innovation
- create competition *"Win in product, win in patent"*
- create economic growth

What is the problem with software ?

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Software economy

Revenue with Software Products by region



Source: IDC

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Europe: Software Economy

1996

Revenue: € 37 bill.
 Tax revenue: € 15 bill.
 Jobs: 340.000

2001

Revenue: € 60. bill.
 Tax revenue: € 22 bill.
 Jobs: 430.000

(Source: PWC 5/1996, The Contribution of the Packed Software Industry to the European Economy)

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Views on software

Technical view

PAST : mainframe computing, minicomputers
 TODAY : personal computing
 pervasive computing
 embedded computing

PROBLEM TODAY :
 software is expensive to develop, but easy to copy

Legal view

PAST : Copyright protection only
 TODAY: Copyright protection, patent protection

QUESTION TODAY :
 What is the best way to protect software in a competitive market?

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Copyright vs. Patent I / legal FACTS

	Utility patent	Copyright
OWNER	Applicant filing request before Patent Office	Author creating &, fixing original expression
PROTECTION BEGINS	Granted after examination by Patent Office	upon creation, fixation of original expression
DURATION OF PROTECTION	Protection for max. 20 years	Protection for 50 to 120 years
SUBJECT MATTER	Protects technical ideas, concepts, principles	Literary, dramatic, musical, scientific work Protects Computer Code (Source code, Object code)
STANDARDS FOR INFRINGEMENT	Scope of protection defined by scope of patent claims	Copying and improper appropriation
STANDARDS FOR VALIDITY	Originality, novelty, nonobviousness	Originality & fixation in a tangible medium of expression

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Legal Background

Patents:

- National Patent Laws
- European Patent Convention
- Patent Cooperation Treaty (PCT)

-- *Directive on the patentability of computer-implemented inventions*

Copyright:

- National Copyright Acts
- European Union Directive 91/250/EC on the legal protection of computer programs
- Berne Union for the Protection of Literary and Artistic Property

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Limitations with software patents

Traditionally disallowed

- some statute laws exclude programs for computers as such; Art 52(2,3)
- influence on patent filing strategy*

Prior art poorly codified

lack of long-term patent data base

Patent system moves more slowly than the software industry

- issue of software patent might take more than 3 years i.e. longer than normal software innovation cycle

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Advantages of Patent Protection

Scope

- If claimed properly broader scope than copyright

Independent Creation

- Protection against independent creation
 - computer program developed first subject to patent protection

Monopoly

- Patent protection allows to exclude others from making, using, selling, importing
- no proof of copying by infringer
- threat of future infringement prevents from emulating technology

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Advantages of Copyright Protection

Lower standard

- lower threshold compared to required inventive step

Less expensive

- average costs : software patents 20.000 – 50.000 €
copyright registration: < 1.000 €

Shorter time to effect protection

- patent issued 2 – 3 years after filing

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Patent OR Copyright

Business view

- What are the grounds for competition ?
 - u market share, speed, quality, support
 - u price
 - u software innovation

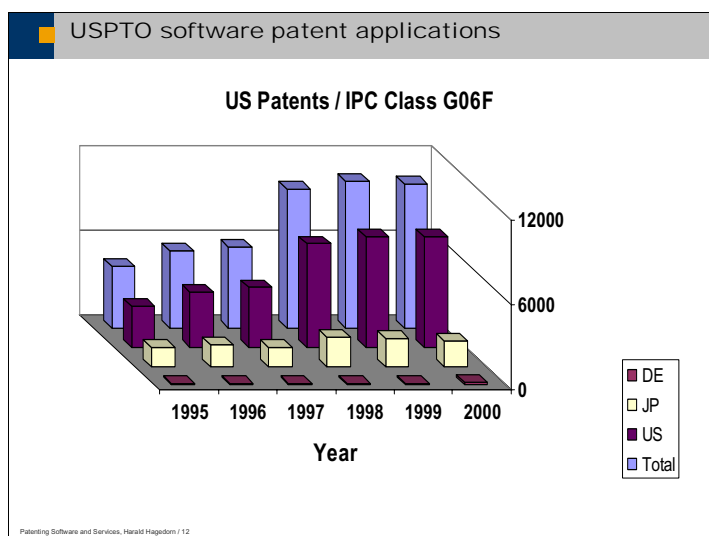
Legal view

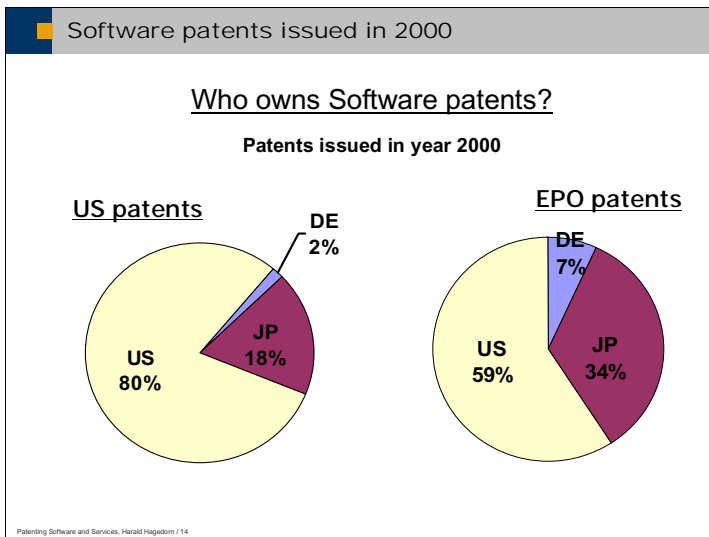
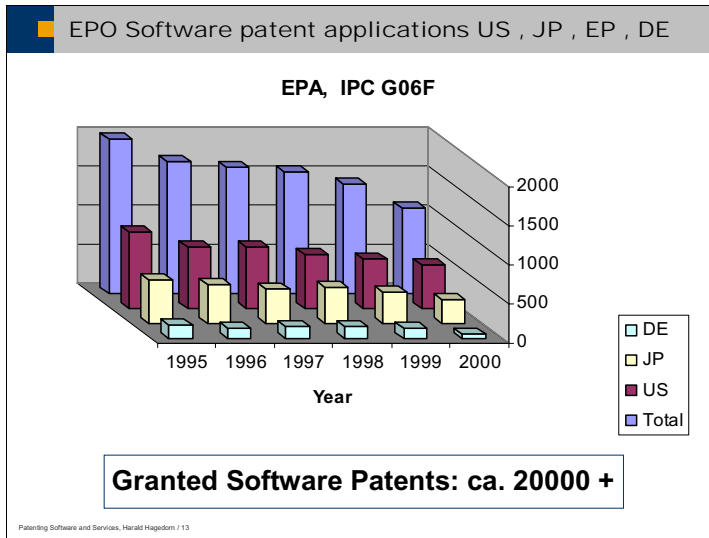
- predictability to get software patents granted
- predictability to the resolution of software patent and copyright litigation cases

Technological view

- What kind of innovation is important to your software development ?
 - Incremental or fundamental changes
 - hardware innovation
- What is the product life cycle of your software ?
 - compared to term of right

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- software related inventions to protect by patent
- What kinds of things can IP protect in software?
software you can think of . . .
- | | |
|------------------------------------|---------------------------------|
| Interfaces (User and other) | Debugger |
| Language & extensions | Operating systems |
| Data structures | File systems |
| Tools | Graphics & windowing systems |
| Business methods | Compilers & simulators |
| Features/Functionality | Cryptography & data compression |
| Integration | Data storage and retrieval |
| E-commerce solutions | |
| Internet solutions | |
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Why do companies apply for software patents ?

- Provide competitive advantage
- Protect your investment
- Control market growth
- Revenue generation
 - Product exploitation Licensing programs
 - Help form strategic alliances with partners
- Access to underlying technology in exchange for state of the art
- Legitimization
 - Market
 - Investors
- Cross-license
 - Avoid blocking patents
 - Avert litigation
- Counter claim is best defense in patent litigation

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current issues with software patents in Europe

Objectives to be addressed by EU directive on CII

- n Harmonization among EU member states
 - u What makes a computer implemented invention technical?
- n Legal certainty, transparency, clarity of law
- n Enforceability of granted software patents
- n Rise awareness for software patents
- n How to deal with business method patents

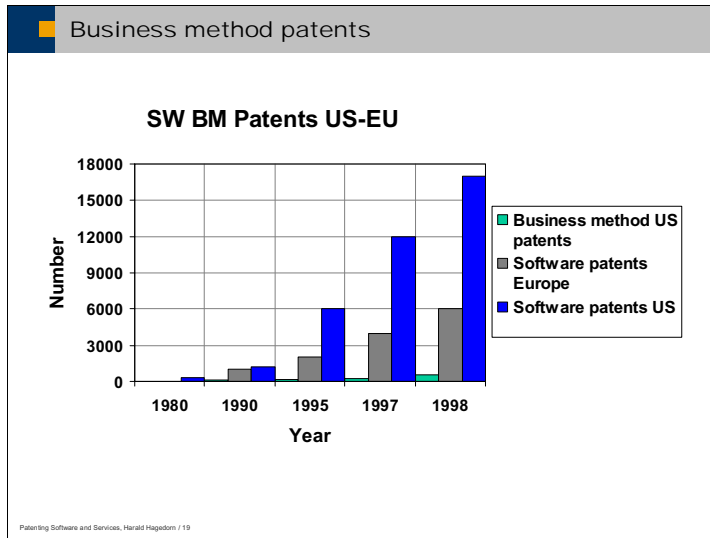
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Business method patents

Methods for doing business

- n Teaching
- n Selling, Trading
- n Valuation of assets e.g. risk evaluation
- n Insurance
- n Financial
- n Services

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Conclusion

- patentability of software is a challenge to the patent system
- software patents are reality
- software companies can't ignore them
- open questions exist on
 - quality standard in granting software patents
 - cross boarder enforcement of software patents

*One hundred years ago, companies made products. Manufacturing drove the economy.
 Now it's all about ideas. Knowledge is the foundation of today's economy.
 In fact, up to 85% of the market capitalization of today's Fortune 500 now lies in intellectual assets, rather than traditional tangible assets.
 (Source: The Gartner Group, October 2001)*

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