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SOFTWARE PROTECTION

Outline

- Historical overview
  - What form of IP protection?
- IP Basics
- Legal Framework
  - Berne Convention, TRIPS, WIPO World Copyright Treaty
  - European Software Directive ("EUSD")
- (Legal) Nature of Software & Future of IP Protection
- F/OSS

History I

- 1960s – software as accessory
- 1969 – Unbundling – IBM 360-series
- 1970s and 1980s – the Great Debate USA – Commission on New Technological Uses of Copyrighted Works (CONTU)
  - Contract clauses
  - Trade secret
  - Patent Law
  - Copyright Law

History II

- 1991 – EU Software Directive
- 1996 – WIPO World Copyright Treaty
- 2002 – Proposal for Directive on the protection by patents of computer-implemented inventions - FAIL
- 2009 - Recodification

IP Basics

Copyright Law

› Idea-Expression dichotomy

› Sufficient level of creativity or originality (!)

› Original works of authorship 70y

Patent Law

› Definded by claims

› new, non-obvious, and useful or industrially applicable implementation (inovative step)

of ideas

› 20y

The Difference

- Droit d'auteur
  - Civil Law
  - Author

- Copyright
  - Common law
  - Rightholder

Legal framework I

- Berne Convention
  - Art 2 – Definitions – literary works
  - Art 9 – Right of Reproduction
- The Agreement on Trade-related Aspects of Intellectual Property Rights ("TRIPS")
  - Article 10 –
    - *Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention.*

Legal framework II

- WIPO World Copyright Treaty (Art 4)
  - *...are protected as literary works within the meaning of Article 2 of the Berne Convention. Such protection applies to computer programs, whatever may be the mode or form of their expression.*
- Directive on the legal protection of computer programs ("EUSD") 2009/24/EC

© Protection

- Computer programs as literary works

European Patent Convention

- Art 52
- The following in particular shall not be regarded as patentable inventions:
    - *(c) schemes, rules and methods for performing mental acts, playing games or doing business, and **programs for computers**;*

Terminology

- Proprietary Software

- Shareware

- Freeware

- Abandonware

- Adware

- Public Domain Software

Proprietary Soft

- "Traditional"
- Non-free
- Closed source code
  - Only binaries distributed
  - Source code – how could it be protected?
- Licensing

Shareware

- Proprietary software
- Business model
- Trialware, demoware, added functionality (levels)

Freeware

- "Fully" copyrighted
  - i.e. no modification, redistribution possible
- Available for use at no cost or for an optional fee
- No disclosure of source code

Public Domain Soft

- Disclaimed copyright
- Not possible under Berne Convention
- Quasi public domain Software
  - After 70y – Free work

Abandonware

- Copyrighted software
- Copyright infringement (!)
- No enforcement
- www.abandonia.com
- *"When we become aware of these instances of piracy, we go to these sites and pursue our IP (intellectual property) rights," "It's not something we go after on a day-to-day basis, but if it's our IP, then it's our IP."*

Nancy Bushkin, (former) Infogrames
vice president of corporate communications

EUSD

- Overview
  - **Art 1 Object of protection**
  - Art 2 Authorship
  - Art 3 Beneficiaries of protection
  - Art 4 Restricted acts
  - Art 5 Exceptions
  - Art 6 Decompilation
  - Art 7 Special measures of protection
  - Term of protection

EUSD Art 1

- (1)
  - *In accordance with the provisions of this Directive, Member States shall protect computer programs, by copyright, as **literary works** within the meaning of the Berne Convention for the Protection of Literary and Artistic Works.*
  - *For the purposes of this Directive, the term "computer programs" shall include their **preparatory design material**.*

EUSD Art 1

- (2)

  – *Protection in accordance with this Directive shall apply to the **expression in any form** of a computer program.*

  – *Ideas and principles which underlie any element of a computer program, including those which underlie its interfaces, **are not protected** by copyright under this Directive.*

EU Art 1

- (3)
  - *A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation.*
  - ***No other criteria shall be applied*** *to determine its eligibility for protection.*

What is protected?

YES	No
- Expression of a computer program - Binary Code - Source code - Preparatory underlying materials	- Ideas - Principles - Logic - Algorithms - Programming languages - Data formats - GUI

C-406/10, SAS v WPL

- [39] „*Neither the functionality of a computer program nor the programming language and the format of data files used in a computer program … constitute a form of expression of that program*
- *and*
- *as such, <u>are not protected </u>by copyright".*

C-393/09, BSA v Ministerstvo kultury

- [38] *„any form of expression of a computer program must be protected from the moment when its reproduction would engender the reproduction of the computer program itself*
- [40] *graphic user interface is an interaction interface which enables communication between the computer program and the user*
- [42] *does not constitute a form of expression of a computer program*
- [42] *cannot be protected specifically by copyright in computer programs by virtue of that directive"*

C-393/09, BSA v Ministerstvo kultury

- [46] „*graphic user interface can, as a work, be protected by copyright if it is its author's own intellectual creation.*"

- [44] „*graphic user interface of a computer program can be protected by the ordinary law of copyright*"

- [49] „*where the expression of those components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable*"

Originality

- Eligibility criterion for copyright protection
- skill, labour, and judgment doctrine (UK)
- sweat of the brow (US)
  - After ***Feist Publications, Inc., v. Rural Telephone Service Co.***, 499 U.S. 340 (1991)
    - a program may not be a copy of another program, and it must be possible to demonstrate a minimum degree of creativity
- Author's mark (France)
- Kleine Münze (Germany)

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EUSD Art 2, 3

- Authorship
  1. natural person, group of natural persons, legal person designated as the rightholder, collective works
  2. group of natural persons jointly
  3. employee – employer
- Beneficiaries

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EUSD Art 4

- (1) Exclusive acts (rights)
  - Reproduction (a)
  - Integrity (b)
  - Distribution (c)

- (2) Exhaustion of Rights
  - UsedSoft GmbH v. Oracle International Corp..

UsedSoft Case C-128/11

Article 4(2) of Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs must be interpreted as meaning that the right of distribution of a copy of a computer program is exhausted if the copyright holder who has authorised, even free of charge, the downloading of that copy from the internet onto a data carrier has also conferred, in return for payment of a fee intended to enable him to obtain a remuneration corresponding to the economic value of the copy of the work of which he is the proprietor, a right to use that copy for an unlimited period.

UsedSoft Case C-128/11

Articles 4(2) and 5(1) of Directive 2009/24 must be interpreted as meaning that, in the event of the resale of a user licence entailing the resale of a copy of a computer program downloaded from the copyright holder's website, that licence having originally been granted by that rightholder to the first acquirer for an unlimited period in return for payment of a fee intended to enable the rightholder to obtain a remuneration corresponding to the economic value of that copy of his work, the second acquirer of the licence, as well as any subsequent acquirer of it, will be able to rely on the exhaustion of the distribution right under Article 4(2) of that directive, and hence be regarded as lawful acquirers of a copy of a computer program within the meaning of Article 5(1) of that directive and benefit from the right of reproduction provided for in that provision.

C-166/55

Article 4(a) and (c) and Article 5(1) and (2) of Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs must be interpreted as meaning that, although the initial acquirer of a copy of a computer program accompanied by an unlimited user licence is entitled to resell that copy and his licence to a new acquirer, he may not, however, in the case where the original material medium of the copy that was initially delivered to him has been damaged, destroyed or lost, provide his back-up copy of that program to that new acquirer without the authorisation of the rightholder.

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EUSD Art 5 (1)

- Intended use
  - *In the absence of specific contractual provisions...(reproduction+alternation)...*

    *shall not require authorisation by the rightholder where they are necessary for the use of the computer program by the **lawful acquirer** in accordance with its **intended purpose**, including for error correction.*

EUSD Art 5 (2)

- Back-up copies
  - *The making of a back-up copy by a **person having a right to use the computer program** may not be prevented by contract in so far as it is necessary for that use.*

X

- EUCD Art 5 (2)(b)
  - *made by a natural person for private use*

EUSD Art 5 (3)

- Interpretation
  - *The **person having a right to use a copy of a computer program** shall be entitled, without the authorisation of the rightholder, to observe, study or test the functioning of the program in order to determine the **ideas and principles** which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is **entitled to do**.*

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EUSD Art 6

› Decompilation
  › Interoperability
  › Only:
    › Independent program
    › Person having a right to use a copy of a program
    › No necessary information available
  › Gained result
    › Any other purpose
    › Three-step test
      › in a manner which unreasonably prejudices the rightholder's legitimate interests or conflicts with a normal exploitation of the computer program

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EUSD 7

- Special measures of protection
  - Infringing copies
  - Technical protection measures (measures)
    - Act of circumvention not illegal
    - Any act of putting into circulation, or the possession for **commercial purposes** of, any means the **sole intended** purpose of which is to facilitate the unauthorised removal or circumvention of any technical device which may have been applied to protect a computer program.

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Term of protection

- WAS 50y
- Council Directive **93/98/EEC** harmonisig the term of protection of copyright and certain related rights
- NOW **70y** post mortem auctoris
- Justification X life-span
- New versions? – derivative works

FREE AND OPEN SOURCE SOFTWARE

Free Software

- *'Free software is a matter of liberty, not price. To understand the concept, you should think of free as in free speech, not as in free beer.'*

The Idea of FS

4 essential freedoms:youtube.com/watch?v=uJi2rkHiNqg

- run the program, for any purpose,
- study how the program works (through access to the source code) and change it at will,
- copy and share the program with others
- share modifications with others

Idea of OSS

- Business oriented
- No ethical call
- System of software development
  - Cathedral
    - "carefully crafted by individual wizards or small bands of mages working in splendid isolation"
  - Bazaar
    - "a great babbling bazaar of differing agendas and approaches."

- *"The fundamental difference between the two movements is in their values, their ways of looking at the world. For the Open Source movement, the issue of whether software should be open source is a practical question, not an ethical one."*
- http://www.gnu.org/philosophy/free-software-for-freedom.html

LEGAL ASPECTS OF FOSS

Legal Aspects

- Copyright
- Licences
  - Copyleft effect / Share-alike
- Various types of licences
  - opensource.org/licenses/alphabetical

Copyleft Effect

- *GNU GPL v2.0*
- *"Art. 2 b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, **to be licensed** as a whole at no charge to all third parties **under the terms of this License**."*

Legal typology

- Strongly protective licences
  - "viral licences"
  - GNU General Public License

- Weakly protective licences
  - Lesser General Public License (LGPL)

- Permissive licences
  - Author's crediting
  - BSD License, MIT License

GNU LICENCES

- GNU GPL
- LGPL
- GNU Free Documentation License

BSD License

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Legal Issues

- Enforceability
- Technical Protection Measures (DRM)
- Multi-licensing
  - Mozilla Suite / tri-license
- Liability and Warranty Disclaimers
- Copyright / Droit d'auteur
- Dynamic linking
  - GNU GPL no – derivative works?
  - LGPL yes