British Copyright Council / WIPO Copyright Course

Rights in Software and Computer Programs

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Rights in Software and Computer Programs

- Primarily from an EU & UK perspective
  - The two are for now identical
- Computer program protection
  - By copyright
  - By other means
- Computer program licensing
  - Generally
  - Open source licensing

Situation in Europe before the 1991 Directive on the Legal Protection of Computer Programs

- Disparities in protection for computer programs in Europe
  - Protected by copyright as literary works in UK, France etc
  - But Germany 1985 *Inkassoprogram* (German Federal Supreme Court)
    - Computer program protected by copyright only if it demonstrates an order of creativity which surpasses the general average of ability present in works of that kind
    - Therefore most German computer programs were not protected by copyright at the time
  - European Commission identified the need to harmonise the law to remove such disparities
    - As a result it proposed the first EU measure to harmonise copyright

Copyright & Computer Programs in Europe - History of the Directive

- 1989 - Original Commission proposal for Directive
- 1991 - Directive 91/250/EEC on the legal protection of computer programs adopted
- 1994 - TRIPS Agreement …
- 1996 - WIPO Copyright Treaty …
- 2000 - Commission Report on implementation and effects
  - Recommends no change
- 2001 - Copyright in the Information Society Directive adopted
  - Harmonises EU copyright laws other than for computer programs and databases
  - Different approach to exceptions and reservations to that for computer programs and databases
- 2009 - Directive 2009/24/EC on the legal protection of computer programs (codified version, replacing 91/250/EEC) adopted

Development of Copyright Law for Computer Programs - TRIPS (1994)

- *Article 9(2) - Relation to the Berne Convention*
  - Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such
- *Article 10(1) - Computer Programs and Compilations of Data*
  - Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)

Development of Copyright Law for Computer Programs – World Copyright Treaty (1996)

- *Article 2 - Scope of Copyright Protection*
  – Copyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such
- *Article 4 - Computer Programs*
  – Computer programs 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

Features of EU & UK Law on Copyright in Computer Programs

- What is protected (and what is not)?
- Who owns it?
- Has a restricted act been undertaken?
  - Nature of restricted acts
  - Substantiality
- Any specific defence?
  - Exhaustion of rights
  - Lawful user "rights"?
  - Exceptions & Reservations
  - Competition law

    Article 102 Treaty on Functioning of EU & Refusal to Licence

What is Protected under the Computer Program Directive?

- **Article 1(1)** … Member States shall protect computer programs, by copyright, as literary works within the meaning of the Berne Convention ... For the purposes of this Directive, the term 'computer programs' shall include their **preparatory design material.**
- **Article 1(2)** Protection … shall apply to the **expression** in any form of a computer program. ...
- **Article 1(3)** A computer program shall be protected if it is **original in the sense that is the author's own intellectual creation**. No other criteria shall be applied to determine its eligibility for protection.
- **Recital 15** - Whereas, in accordance with the legislation and jurisprudence of the Member States and the international copyright conventions, the **expression** of those ideas and principles is to be protected by copyright

What is Not Protected (under the Directive)?

- **Article 1(2)** **Ideas and principles** which underlie any element of a computer program, including those which underlie its interfaces, are **not protected** ...
- **Recital 13** Whereas, for the avoidance of doubt, it has to be made clear that only the **expression** of a computer program is protected and that **ideas and principles** which underlie any element of a program, including those which underlie its **interfaces**, **are not protected** ...
- **Recital 14** Whereas, in accordance with this principle of copyright, to the extent that **logic, algorithms and programming languages** comprise ideas and principles, those ideas and principles are not protected ...

What is and What is not Protected?

- Case C-406/10 *SAS Institute v World Programming* (CJEU 2 May 2012)
  - 1. Article 1(2) of [the computer program Directive means] that neither the **functionality of a computer program** nor the **programming language** and the **format of data files** used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive.
  - 2. …
  - 3. Article 2(a) of [the copyright in the information society Directive means] that the reproduction, in a computer program or a user manual for that program, of certain elements described in the **user manual** for another computer program protected by copyright is capable of constituting an infringement of the copyright in the latter manual if – this being a matter for the national court to ascertain – that reproduction constitutes the expression of the intellectual creation of the author of the user manual for the computer program protected by copyright.

Who is the Author & Who owns Copyright?

- 2(1) The author of a **computer program** shall be the natural person or group of natural persons who has **created** the program,
  - … or where the legislation of the Member State permits, the legal person designated as the rightholder by that legislation.
  - Where collective works are recognized by the legislation of a Member State, the person considered by the legislation of the Member State to have created the work shall be deemed to be its author.
  - 2(2) …
- 2(3) Where a computer program is created by an **employee** in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights in the program so created, unless otherwise provided by contract.
  - NB – No provision equivalent to 2(3) in other EU copyright legislation

What are the Restricted Acts under Article 4?

- Reproduction ...
  - permanent or temporary, by any means and in any form, in part or in whole
  - including "loading, displaying, running, transmission or storage of the computer program necessitate such reproduction"
- Adaptation ...
  - eg source code to object code
- Distribution ...
  - Including
    - Rental
    - [Communication to the Public]
      - 1991 Directive preceded 1996 WIPO Copyright Treaty and so has no explicit right of "communication to the public"
      - Commission has suggested it is included within the concept of "Distribution" in the Directive which in this context alone is not limited to distribution of physical articles
      - NB In other EU Directives that harmonise copyright "distribution" is limited to physical articles

Issues as to the Scope of the Restricted Act of Reproduction

- Application other than to “bit for bit” copying
- Copying the “look and feel”
- Is this reproduction of a substantial part?
- The problems of assessing “substantiality “ in relation to a utilitarian work
- The “idea-expression” conflict and the tendency to conflate
  - the scope of the copyright subject matter
  - the substantiality of the reproduction
- Addressed in US case law in the 1980s
  - Before it became clear that one could patent computer programs in the USA
  - Adopted “abstraction-filtration-comparison” test
- English case law ...

Scope of the Restricted Act of Reproduction - English Case Law

- English case law concerning infringement of copyright in computer programs
  - *John Richardson Computers v Flanders and anr* [1993] FSR 497
  - *Ibcos Computers v Barclays Mercantile Finance & anr* [1994] FSR 275]
  - *Cantor Fitzgerald International & anr v Tradition (UK) & ors* [2000] RPC 95
  - *Navitaire v Easyjet* - [2004] EWHC 1725 (Ch)
  - *Nova Productions v Mazooma Games* – [2006] EWHC 24 (Ch), [2006] EWCA Civ 1044
  - *SAS Institute v World Programming* – [2010] EWHC 1829, [2010] EWHC 3012, [2013] EWHC 69
  - *Navitaire, Nova* and *SAS* (and other UK cases since 2000) at http://www.bailii.org/
- All concern non-literal copying
- Not easy to derive legal principles given their differing fact situations, but generally
  - Resist influence of old US case law and "abstraction-filtration-comparison" test
  - Rely less and less on old UK case law on compilations and book plots
  - Trend to exclude from protection interfaces, programming languages etc
    eg Case C-406/10 *SAS Institute v World Programming* (CJEU 2 May 2012)

The Restricted Act of Distribution

- "… any form of distribution to the public, including the rental, of the original computer program or of copies thereof."
- "First sale in the [EU/EEA] of a copy of a program by the rightholder or with his consent
  - shall exhaust the distribution right within the [EU/EEA] of that copy,
  - with the exception of the right to control further rental of the program or a copy thereof."
- Therefore exception does not apply to unauthorised parallel imports from outside the EU/EEA which accordingly infringe
  - (cf in trade marks *Silhouette, Davidoff,* confirmed as to copyright in Case C-479/04 *Laserdisken ApS v Kulturministeriet* – all CJEU cases)
- Extends also to computer programs that have been the subject of an authorised download onto a carrier
  - Case C-128/11 *UsedSoft v Oracle International* (CJEU 3 July 2012)
  - Case C-166/15 *Ranks & Vasilevics* (CJEU 16 October 2016)

The Restricted Act of Distribution

- Case C-128/11 *UsedSoft v Oracle International*. (CJEU 3 July 2012).
  - Article 4(2) … [means] 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."
  - Articles 4(2) and 5(1) … [means] 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) …, and hence be regarded as lawful acquirers of a copy of a computer program within the meaning of Article 5(1) … and benefit from the right of reproduction provided for in that provision.
- ie downloading of computer program copyright work can in certain circumstances be equated with its distribution on physical carrier
- *Lex Specialis* for computer programs with no relevance to other copyright works – cf C-263/18 *Tom Kabinet* (19 December 2019)

Exceptions to the Restricted Acts - Overview

- Art 5 - Lawful user exceptions
  - 5(1) ... necessary for the use of the computer program … in accordance with its intended purpose, including for error correction. …

    Case C-166/15 *Ranks & Vasilevics* (CJEU 16 October 2016)
  - 5(2) … back-up ….
  - 5(3) … observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program.

    Case C-406/10 *SAS Institute v World Programming* (CJEU 2 May 2012)
- Art 6 - Decompilation exception (also for lawful users)...
  - But determined by Commission in *Microsoft* investigation to be of limited value as evidence was that it took too long to decompile
  - Commission imposed “compulsory licence” of interoperability information upheld by CJEU GC in October 2007
- Art 9(1) ... Any contractual provisions contrary to Article 6 or to the exceptions provided for in Article 5 (2) and (3) shall be null and void.

Lawful User Exceptions – Article 5 Text

- Art 5(1) In the absence of specific contractual provisions, [reproduction and adaptation] shall not require authorization 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**.
- Art 5(2) The making of a **back-up copy** by a person having a right to use the computer program may not be prevented by contract insofar as it is necessary for that use.
- Art 5(3) The person having a right to use a copy of a computer program shall be entitled, without the authorization 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.

Lawful User Exceptions – Article 5(3) Case law

- Case C-406/10 *SAS Institute v World Programming* (CJEU 2 May 2012)
  - 1. …
  - 2. Article 5(3) of [the computer program Directive means] that

    a person who has obtained a copy of a computer program under a licence is entitled,

    without the authorisation of the owner of the copyright,

    to observe, study or test the functioning of that program so as to determine the ideas and principles which underlie any element of the program,

    in the case where that person carries out acts covered by that licence and acts of loading and running necessary for the use of the computer program,

    and on condition that that person does not infringe the exclusive rights of the owner of the copyright in that program.
  - 3. …

Measures against Circumventing Technical Protection

- Article 7(1)(c) Computer Program Directive
  - "… 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 unauthorized removal or circumvention of any technical device which may have been applied to protect a computer program".
- cf Article 6 Copyright in the Information Society Directive
  - Much more detailed – Case C-355/12 *Nintendo v PC Box* (CJEU 23 January 2014)
- No corresponding provision in Computer Program Directive as to Rights Management Information
  - cf Article 7 Copyright in the Information Society Directive as to Rights Management Info
- Hence Article 7, but not Article 6, Copyright in the Information Society Directive applies also to computer programs

Computer Program Licensing Practices – Constraints on Licensing in Europe

- Article 9 – Computer Program Directive
  - 1. ... Any contractual provisions contrary to Article 6 or to the exceptions provided for in Article 5 (2) and (3) shall be null and void.
- Competition Law (Article 101 Treaty on Functioning of EU)
  - Provisions in licences that would be contrary to this by analogy with other areas of IP licensing in Europe
    - Exclusive grant backs
      - Contrast effective use of non-exclusive grant back in certain types of "open source" license
    - "No challenge" provisions
  - Computer software licences now (along with licences of patents and of know-how) subject to Technology Transfer Block Exemption
- National consumer and other "unfair contract terms" laws

Computer Program Licensing Practices – Free and Open Source Licensing

- Copyright provides the framework by which Free and Open Source Principles can be advanced
- Thus such software is distributed under a copyright license which imposes on the user terms consistent with Free and Open Source Principles
- But many different Free and Open Source Licences
  - eg as to Open Source at https://opensource.org/licenses
- One major differentiation is approach to reciprocity and "copyleft", ie
  - Whether or not a term of the licence to use the source code is that all modifications and derivatives be subject to the same licence
    - And also that the source code to those modifications and derivatives be published.
  - Resulting in a spectrum of approaches, with, at the two ends -
    - No copyleft – eg Apache 2.0 and Microsoft Permissive licenses
    - Strong copyleft – eg GPL licenses

Computer Program Licensing Practices – Open Source Licensing

- Open Source Definition (https://opensource.org/docs/osd) requires following terms:
  - 1. Free Redistribution
  - 2. Source Code Availability
  - 3. Derived Works Allowed
  - 4. Integrity of The Author's Source Code
  - 5. No Discrimination Against Persons or Groups
  - 6. No Discrimination Against Fields of Endeavor
  - 7. Distribution of License
  - 8. License Must Not Be Specific to a Product
  - 9. License Must Not Restrict Other Software
  - 10. License Must Be Technology-Neutral
- Does not take a position on copyleft

Protection for Computer Programs other than by Literary Copyright in the Program Itself

- Copyright in associated copyright works
  - Such as copyright in screen displays - useful in computer games cases
- Technical protection
  - Protection against circumvention of technical means of protection - eg Article 7(c) of Directive
- Contractual protection - in the context of licences
- Collateral commercial protection - eg support availability etc
- Confidential information
  - But information accessible through reverse engineering is not confidential - *Mars v Tecknowledge* 1999 & Article 3(1)(b) EU Trade Secrets Directive
- Unfair competition in the civil law countries
- Trade marks - especially for piracy and counterfeiting
  - Used for example by Microsoft in the UK
- Patents (and in some countries other than the UK) utility models
  - As to the principles underlying the program that cannot be protected by copyright …

Patent Protection for Computer Programs and Business Methods

- Recital 13 of Directive
  - “Underlying ideas and principles of a computer program can never be protected by copyright”
- How then can these "ideas and principlesbe protected?
- Patents?
  - But – in Europe express exceptions in Article 52 European Patent Convention 1973 and 2000 (and thus in national patent laws in Europe) for patentability of, inter alia
    - Programs for computers and methods of doing business, etc
    - But only to the extent that “patent relates to that thing as such”
  - No equivalent statutory constraints in USA or many other countries
    - But US position now less clear under s 101 patent eligibility
- European Patent Office (EPO) requires invention to be of a “technical character” and to cause a “technical effect” and now analyses this for computer programs in the context of assessing inventive step
  - See EPO Enlarged Board of Appeal decision G 1/19 (10 March 2021)
  - Many tens of thousands of patents granted by EPO for computer implemented inventions
  - But not for pure business methods

Copyright Protection for Computer Programs in EU & UK - Summary

- Three types of copyright "work" in EU & UK law (in addition to the "matters" in which related rights subsist)
  - Computer Programs
  - Databases in which copyright subsists by virtue of their selection and arrangement

    cf "Sui Generis" EU & UK database right, owned by the maker, where there has been "qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents [of the database]"
  - Other works (ie most content, eg computer program user manuals)
- Different EU & UK copyright regimes preserved by virtue of Copyright in Information Society Directive 2001
  - Harmonises most aspects of law as to "other works"
- Little enthusiasm for reopening discussion of EU copyright legislation in the areas of computer programs (or databases)