

## **Software Development and Copyright**

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### **Introduction**

This guide is not meant to be an exhaustive examination of the law of copyright, but hopefully will go some what to explaining how software development interacts with the law of Copyright. I have tried to make the guide as non-legalistic as possible, but the fact that the law relies so closely on the Copyright Act has made referring to the Act unavoidable.

### **Works Eligible for Copyright**

For a work to be protected by Copyright, it must firstly be listed in the Copyright Act 98 of 1978 as being capable of protection. The Act protects copyright in original works, of which computer programs are one. Section 2 (1) of the Act sets out works that are eligible for protection:

#### **"2 Works eligible for copyright**

(1) Subject to the provisions of this Act, the following works, if they are original, shall be eligible for copyright-

- (a) literary works;
- (b) musical works;
- (c) artistic works;
- (d) cinematograph films;
- (e) sound recordings;
- (f) broadcasts;
- (g) programme-carrying signals;
- (h) published editions;
- (i) computer programs."

As we will see, software often consists of a combination of two or more of these types of work, which can cause complications. For example a typical application may include the source or object code ("computer program") a database ("literary work"), graphics ("artistic works"), or even "sound recordings" and "cinematograph films". For this reason, I will refer to "Software" as being the final product combining the constituent works.

Copyright is then conferred upon these types of work in terms of Section 3 as soon as they are created – no registration if copyright is necessary:

**"3 Copyright by virtue of nationality, domicile or residence, and duration of copyright**

- (1) Copyright shall be conferred by this section on every work, eligible for copyright, of which the author or, in the case of a work of joint authorship, any one of the authors is at the time the work or a substantial part thereof is made, a qualified person, that is-
- (a) in the case of an individual, a person who is a South African citizen or is domiciled or resident in the Republic; or
  - (b) in the case of a juristic person, a body incorporated under the laws of the Republic:..."

The two types of works that concern us primarily here are literary works and computer programs, the definitions of which are the following in terms Section 1 of the Act:

**"literary work'** includes, irrespective of literary quality and in whatever mode or form expressed-

- (a) novels, stories and poetical works;
- (b) dramatic works, stage directions, cinematograph film scenarios and broadcasting scripts;
- (c) textbooks, treatises, histories, biographies, essays and articles;
- (d) encyclopaedias and dictionaries;
- (e) letters, reports and memoranda;
- (f) lectures, speeches and sermons; and
- (g) tables and compilations, *including tables and compilations of data stored or embodied in a computer or a medium used in conjunction with a computer,*

*but shall not include a computer program;"* (my italics)

and

**"computer program'** means a set of instructions fixed or stored in any manner and which, when used directly or indirectly in a computer, directs its operation to bring about a result;"

Text files, database table structures and data contained in databases are thus "literary works", and source code (and executables compiled from it) are "computer programs".

## Authorship and Ownership

If a work is protected by copyright, who has the right to enforce the copyright? This person is the owner of the copyright but how do we determine who the owner of copyright in the work is? Generally speaking the author of a work is also the owner of the copyright on that work. Unfortunately the relationship is not always so straightforward as we will see.

Ownership in copyright is vested in the author in terms of Section 21 (1) (a) of the Act, and where the work is one of co-authorship, ownership vests in the co-authors.

An exception to this is where the author creates a work in the course of his employment. See Section 21 (1) (d): "Where ... a work is made in the course of the author's employment by another person under a contract of service or apprenticeship, that other person shall be the owner of any copyright subsisting in the work by virtue of section 3 or 4."

The definition of "author" in Section 1 of the Act is as follows:

**"author"**, in relation to-

- (a) a literary, musical or artistic work, means the person who first makes or creates the work;
- ...
- (h) a literary, dramatic, musical or artistic work or computer program which is computer-generated, means the person by whom the arrangements necessary for the creation of the work were undertaken;
- (i) a computer program, the person who exercised control over the making of the computer program;"

Working out the author of a literary work is straightforward (and note the definition of a "computer-generated" work), but establishing the authorship of a computer program is not so easy.

The best statement of the requirements for authorship of a computer program can be found in the case of Haupt v Brewers Marketing Intelligence (Pty) Ltd:

"In terms of section 1(1) of the Act, the author of a computer program is "the person who exercised control over the making of the computer program". As has been pointed out above, the person who exercises control over the making of a computer program is a person who has the power of regulation of the manner in which the person who "makes" the program is to do his or her work. "Control" in this context does not, in my view, mean that the person who exercises control must be able to instruct the programmer as to technical detail. Control means setting the purpose and requirements that the program to be made must satisfy, and evaluating the work of the person that "makes" the program to ensure that the requirements are met and that the program is functional and capable of fulfilling the stated purpose."

It is thus a curious effect of the separate protection of computer programs that where an independent contractor creates software, the authorship (and hence ownership) of the code itself will vest in the commissioner (the person who hired him), but the authorship and hence ownership of any associated databases will vest in the independent contractor!

The solution of course is to enter into a proper contract with the independent contractor in terms of which ownership of ALL works vest in the commissioner.

## **Copyright in Adaptations -- Derivative Works**

What happens if you make adaptations to a work where the copyright in that work is owned by another person? Who owns the copyright in the adaptations? What if for example someone takes another's source code, makes certain alterations to it and then distributes it under a different name.

Copyright in adaptations arises from Section 2 (3):

"A work shall not be ineligible for copyright by reason only that the making of the work, or the doing of any act in relation to the work, involved an infringement of copyright in some other work."

The upshot of this is that even if an adaptation is made of an unauthorised copy of software which amounts to any infringement of the copyright owner's rights, while the original copyright does not lapse, the author of the adaptations acquires a copyright over those adaptations as such.

This aspect was recently addressed on appeal in the case of Haupt v Brewers Marketing Intelligence (Pty) Ltd. In this case Haupt was employed by Brewers Marketing Intelligence and while in their employ oversaw the partial development of certain software. As he was an employee of Brewers, copyright in the source code was owned by Brewers. He subsequently left the employ of Brewers and completed development of the program. Brewers then obtained a copy of the final product and distributed it, with a few further changes, as its own. The court held that even though Brewers held the copyright in the original computer program, Haupt held the copyright in the alterations, and that hence Brewers had infringed Haupt's copyright by adapting and distributing it.

## **Infringement**

So what constitutes infringement? The essential elements are the following:

Firstly the work in question should be eligible for copyright in the first place as explained above.

Secondly, there must be a violation of exclusive right of copyright owner. These "restricted acts" which only the owner of copyright is allowed to do differ depending upon the types of protected work. Those of a literary work include: copying, publishing, performing and adapting the work. Restricted acts for a computer program include these, as well as letting or hiring out the computer program.

Thirdly, there must be a "causal connection" between the original work and the infringing work. In other words, if there are allegations of copying, there must be proof of actual copying; merely showing that there is similarity without actually showing that a copy was made and that there was not a mere fortuitous similarity is not good enough.

Fourthly, there are certain circumstances where acts that would otherwise be infringements are "excepted". For example, you can make copies of literary works "...for the purposes of research or private study by, or the personal or private use of, the person using the work..." (section 12). In the case of a computer program, you can make copies for backup purposes if the backup is "intended exclusively for personal or private purposes" (section 19B).

Finally, the infringement must be substantial. This is such an important aspect that I have dedicated a section to it below.

## **Substantiality**

There is common myth that you can avoid infringing copyright in a computer program for example by changing a few lines of the source code and thus creating something original. This is not so. While you will have copyright in the changes that you make, the copyright in the computer program will remain. However, it is true that in order to infringe copyright you have to perform a "restricted act" in respect of a substantial portion of the work in question. The question then naturally arises as to what a substantial portion actually is.

The emphasis as it turns out is not in the quantity of material copied (or otherwise infringed), but rather the quality (see e.g. Galago Publishers v Erasmus). The implication for software development then is that even if you only pilfer a few lines of someone else's code, if it is an important part of that computer program – code that is "core" to the workings of that application, then you will be liable for infringement of copyright in that computer program.

## **Remedies for Infringement**

What can be done if copyright is infringed? There are essentially two remedies: the infringing party can be interdicted from continuing with the infringement and / or can be sued for damages (there are other remedies which are beyond the scope of this guide).

It may seem at first sight that being sued for damages would be the most serious for the infringing party, but this is often not the case. In the ICT industry particularly, an interdict would prevent the infringing party from using the software containing, for example, a fragment of someone else's source code. If that software is mission-critical for the infringing party, that party's business may come to a halt as a result of the interdict.

## **Infringement: "Code Borrowing"**

The above leads us to an interesting problem. Software developers very often keep their own personal collections of code which they have written themselves for previous employers, or have obtained from other developers, with their consent or otherwise. What happens if this code is used by the developer in a project for a new employer? Depending upon the code used in this way, this behaviour could very well amount to an infringement of copyright. If the code in question was written for a previous employer, then it is likely that the previous employer would have grounds for an infringement action with the disastrous consequences outlined above.

I suggest that the following steps to taken to prevent this from happening:

- A clear policy should be established in terms of which developers report the source and substance of all source code written for previous employers or "borrowed" from other developers to their managers if they wish to use this code.
- The manager should then obtain written permission from the relevant source if it is decided to use the code at all; often it is simpler to re-write the code.
- Keep dated copies of all preparatory materials and versions of source code and other.

Where independent contractors are used in a software project, these should:

- Warrant that they either own or are licensed to utilise all relevant software.
- indemnify the commissioner against all actions or damages resulting from their using infringing code or other works in creating the software.
- undertake to have same procedures in place for their employees as set out above.

**Conclusion**

This has been a very brief discussion of the law in this area. If you are unclear on any aspect or wish to discuss any aspect, please feel free to contact the writer.

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