

## INTRODUCTION

Software copyright law is something that affects anyone who uses a computer, and most particularly businesses—it is not uncommon for a business to face civil or even criminal proceedings for software copyright infringement. At the same time, it is a complex area of law that is not widely understood.

The primary source of copyright law is the Copyright, Designs and Patents Act 1988. Copyright lasts for 70 years from the death of the creator of the work. In general, the Act provides that the author or creator of a work is the first owner of any copyright in that work. There are a number of exceptions, the most relevant being where the work is created in the course of employment. Here the employer is normally the owner of any copyright. The owner of the copyright has the right to prevent third parties from, without permission: copying the work; issuing copies of the work to the public; performing or broadcasting the work; adapting or amending the work. If someone carries out one or more of these restricted acts on the copyright work without the permission of the owner, or authorises someone else to do so, then that person is infringing the copyright in that work.

## DEFINITION OF SOFTWARE

For a computer to work, it has to be programmed, i.e. given a set of instructions in a language that computers understand. These programs are referred to as "software", to distinguish them from "hardware" (the physical objects that make up a computer system, such as microchips, processors, the keyboard, etc.).

*Hr ar o xa p o o ar*

- Operating systems, such as Microsoft Windows, and Linux. The operating system is the computer program that organises all of the other computer programs.
- Software for general, everyday use, such Web browsers, word processors, spreadsheets, software for making presentations, etc.
- More specialised software, such as computer-aided design software, software for statisticians, software for accountants, etc.
- The software that makes the Internet work, such as web server software (which sends web pages to your web browser on demand).

In order to understand the law of software copyright, it is necessary to understand two technical terms: "source code" and "object code".

"Source code" is a computer program in the form written by a programmer (in a language such as Perl or C).

"Object code" is a computer program converted into the form in which a computer would run it (in "machine language", i.e. ones and zeros). To convert source code into object code, you use a special computer program called a "compiler".

Computer program will exist in two forms: the source code form (the form in which it was written by human beings), and the object code form (the form in which a computer runs it). These are two different forms of one and the same computer program. So far as copyright law is concerned, both of these forms are covered by the definition of "computer program". Furthermore, the two forms are regarded as equivalent, in the sense that whoever owns the copyright in the source code will automatically own the copyright in the object code.

The directive also states that a computer program incorporated into the design of a silicon chip is nonetheless considered to be software for legal purposes. This makes sense: any computer program could theoretically be built into the design of a silicon chip, and it seems only reasonable that doing this has no effect on copyright.

Computer languages are not themselves pieces of software. For example, no one owns a copyright in the computer language C, or in the individual words that make up that language.

## SOFTWARE COPYRIGHT

Software copyright is not essentially different from any other sort of copyright. However, there are certain aspects of copyright law that are specific to software, because there are practical differences between software and other things that can be copyrighted (books, poems, drawings, sculptures, etc.).

Copyright law gives a programmer (or in the case of an employed programmer, that programmer's employer) a high degree of control over the program that he or she creates.

Specifically, it is (with a few very limited exceptions) unlawful for anyone other than the owner of the rights to run the program, copy the program, modify the program or distribute the program, except with the permission of the rights owner.

- The permission of the rights owner is necessary if you want to run the program.
- The permission of the rights owner is necessary if you want to make a copy of the program for any reason. (There is an exception for the making of a "back-up" copy—that is, a spare copy, in case the original is erased or damaged by accident.)

Even copying the program from a disk into your computer's memory is considered as "copying", and requires permission.

- Converting a computer program from source code to object code ("compiling" the program) counts as copying, and requires permission. The same applies to converting a computer program from object code to source code ("decompiling" the program). In practice, this is not important for ordinary computer users, but only for programmers.
- The permission of the rights owner is necessary if you want to modify the program. Once again, this is not important for ordinary computer users, but only for programmers.
- The permission of the rights owner is necessary if you want to distribute the program. This would include, for example, distributing the program over the Internet.

- However, copyright law does permit certain very limited exceptions, such as the exception for back-up copies described above.

It should be noted that (as under general copyright law) no registration, copyright notice, or other such formality is needed to establish copyright. Copyright protection is automatic.

## NEED OF SOFTWARE COPYRIGHT

The most important legal protection available to software publishers is federal copyright law.

Many software authors don't take advantage of the protections offered by federal copyright law, and risk finding themselves virtually at the mercy of infringers—all because they don't send in a simple registration form as soon as the software is published. Since registration is so easy, costs only \$30 per work and provides significant benefits, it's one of the great insurance deals of all time.

Even if you don't put that little on your work, you automatically get a copyright the instant your software becomes fixed in a tangible medium. Theoretically, this means that you own the copyright, and no one may copy, distribute, display, or make adaptations of the work without your permission.

The problem comes if someone infringes on your copyright. Then, suddenly, the protection is no longer automatic. To stop the infringement, it's up to you to file a lawsuit in federal court and to convince the judge to order the other party to stop the infringement and compensate you for your losses. But you can't file a lawsuit unless you have registered the copyright with the U.S. Copyright Office.

I'll register if and when someone infringes on my software and I need to file a lawsuit. But if an infringement occurs, you'll want to register in a hurry so you can file your suit—and "expedited registration" costs several hundred dollars extra.

There is another—even more compelling—reason to register, and as soon as possible after the software is published. If you register the work before the infringement begins or within three months of the date the work is published, you may be entitled to recover standard damages from the infringer, in addition to your actual damages:

- your attorney fees and court costs, and
- "statutory damages"—special damages of up to \$100,000 per infringement—without having to establish what damage you actually suffered.

This is important because it is often hard to show exactly how much monetary damage a copyright infringement has caused. So even if you can prove infringement, you may not be able to show very much in the way of actual damages. And federal lawsuits usually cost a hellish amount of money in lawyer fees and litigation costs. This means that you might end up spending \$50,000 on legal fees but recover only \$40,000 in actual damages. In other words, relying on the recovery of actual damages creates a substantial risk that you will lose money bringing the suit.

Early registration can actually help keep you out of court. An infringer who knows that you could recover substantial statutory damages in court may be more willing to negotiate and settle out of court.

## CLASSIFICATION OF SOFTWARE ACCORDING TO COPYRIGHT

In terms of copyright, there are four broad classifications of software:

- Commercial
- Shareware
- Freeware
- Public Domain

### Commercial

COMMERCIAL software represents the majority of software purchased from software publishers, commercial computer stores, etc. When you buy software, you are actually acquiring a license to use it, not own it. You acquire the license from the company that owns the copyright. The conditions and restrictions of the license agreement vary from program to program and should be read carefully. In general, commercial software licenses stipulate that:

1. the software is covered by copyright;
2. although one archival copy of the software can be made, the backup copy cannot be used except when the original package fails or is destroyed;
3. modifications to the software are not allowed;
4. decompiling (i.e. reverse engineering) of the program code is not allowed without the permission of the copyright holder; and
5. development of new works built upon the package (derivative works) is not allowed without the permission of the copyright holder.

### Shareware

Shareware software is covered by copyright. When you acquire software under a shareware arrangement, you are actually acquiring a license to use it, not own it. You acquire the license, from the individual or company that owns the copyright.

The conditions and restrictions of the license agreement vary from program to program and should be read carefully. The copyright holders for Shareware allow purchasers to make

and distribute copies of the software, but demand that if, after testing the software, you adopt it for use, you must pay for it. In general, shareware, software licenses stipulate that:

1. the software is covered by copyright;
2. although one archival copy of the software can be made, the backup copy cannot be used except when the original package fails or is destroyed;
3. modifications to the software are not allowed;
4. decompiling (i.e. reverse engineering) of the program code is not allowed without the permission of the copyright holder;
5. development of new works built upon the package (derivative works) is not allowed without the permission of the copyright holder.

Selling software as *ar ar* is a marketing decision, it does not change the legal requirements with respect to copyright. That means that you can make a single archival copy, but you are obliged to pay for all copies adopted for use.

## Freeware

*r ar* also is covered by copyright and subject to the conditions defined by the holder of the copyright. The conditions for *r ar* are in direct opposition to normal copyright restrictions. In general, *r ar* software licenses stipulate that:

1. the software is covered by copyright;
2. copies of the software can be made for both archival and distribution purposes but that distribution cannot be for profit;
3. modifications to the software is allowed and encouraged;
4. decompiling (i.e. reverse engineering) of the program code is allowed without the explicit permission of the copyright holder; and
5. development of new works built upon the package (derivative works) is allowed and encouraged with the condition that derivative works must also be designated as *r ar*.

That means that you cannot take *r ar*, modify or extend it, and then sell it as *r ia* or *ar ar* software.

## Public Domain

*u i o ai* software comes into being when the original copyright holder explicitly relinquishes all rights to the software. Since under current copyright law, all intellectual works (including software) are protected as soon as they are committed to a medium, for something to be *u i o ai* it must be clearly marked as such. Before March 1, 1989,

it was assumed that intellectual works were *o* covered by copyright unless the copyright symbol and declaration appeared on the work. With the U.S. adherence to the Berne Convention this presumption has been reversed. Now all works assume copyright protection unless the *u i o ai* notification is stated. This means that for *u i o ai* software

1. copyright rights have been relinquished;
2. software copies can be made for both archival and distribution purposes with no restrictions as to distribution;
3. modifications to the software are allowed;
4. decompiling (i.e. reverse engineering) of the program code is allowed; and
5. development of new works built upon the package (derivative works) is allowed without conditions on the distribution or use of the derivative work.

## COPYRIGHT INFRINGEMENT

Essentially, it is when you run, copy, modify or distribute a computer program, other than:

- where you yourself are the rights owner for that program;
- where you have the licence (permission) of the rights owner, whatever form that licence may take; or
- where your conduct falls within one of the very narrow exceptions to copyright.

If you commit copyright infringement, you could face a civil action, and under some circumstances, criminal penalties.

In practical terms, as a computer user, you will need to ensure two things:

- you must be sure that all your software was lawfully obtained. If you are thinking of downloading software from a website, or obtain it from a friend, you must first check whether the rights owner ever consented to this form of distribution.
- If you are not sure, then look for the licence agreement—is it a proprietary licence (the more usual sort), or is it a shareware or copyleft licence, or the like? If there are no visible licence terms, then you should assume that it is infringing.

Except where the software carries a copyleft, shareware or similar licence, only acquire software from reputable dealers.

You must be sure that you abide by the licence agreement—whatever sort of licence agreement it may be.

Of course, you can always take advantage of the exceptions to copyright, and disregard any unlawful licence terms. So, for example, you will usually have the right to make a backup copy of the software, even if the licence agreement claims that you don't have this right.

## Various kinds of Infringement

It is worth pointing out, at this stage, that there various forms of software copyright infringement—all of which must be avoided! The most common kinds of infringement are the following:

- **Wholly unlicensed use:** for example, copying a piece of software from a friend, or over the Internet, etc., where the licence for the software does not explicitly permit this.
- **Overuse:** for example, buying a piece of software licensed for one computer, and installing it on two.
- **Failure to have a licence assigned, or to relicense:** if you acquire hardware second-hand, this does not necessarily transfer all software licenses, and you must take steps to ensure that your use is lawful.
- **Shareware abuse:** where software is licensed "for evaluation purposes only" or the like, it is copyright infringement to exceed these terms.
- **Obtaining software fraudulently:** for example, getting a reduced rate by pretending that your business is an educational institution.
- "Warez" copyright infringement: a "warez" site is a site on the Internet that allows people to download infringing copies of software. The software will usually have had its digital rights management "broken" and is referred to as "a warez copy", or "a hacked copy". Needless to say, the people who make warez copies, the people who run warez sites, and the people who download and use warez copies are all copyright infringers.
- Illicit "special offers" from hardware vendors: a hardware vendor sells a computer with software installed, but (often unknown to the customer) the software is unlicensed.
- Making an unlawful copy of software on a burnable CD-ROM, or the like, for the purpose of giving it to someone else. (Note that, in contrast, making a back-up copy is usually lawful! A back-up copy is a spare copy, made in case the original is erased or damaged by accident.)
- **Counterfeiting:** this is the making of unlawful copies of software on burnable CD-ROM, or the like, on a commercial scale, and having them sold under the pretence that they are lawful copies (by putting them in deceptive packaging, etc.). Counterfeiting is the preserve of professional criminals. If software is on sale at a greatly reduced price, it may well be counterfeited.

## What can happen if you infringe

Software companies—especially the larger ones—are vigilant in enforcing their rights, especially against businesses. They are even anonymous tip-off lines for people to report infringement. One disgruntled employee can get a company into serious trouble, if the company is disregarding copyright law!

If your business is caught, then the consequences might include civil damages, fines, police seizure of your company's computers, adverse publicity, and even the criminal prosecution of the individuals responsible.

If you are accused of copyright infringement, and the matter cannot be sorted out simply and amicably, you should consult a lawyer.

## SOFTWARE COPYRIGHT COMPLIANCE POLICY FOR BUSINESS

Much infringement is caused by ignorance, neglect or carelessness, rather than by wilful disregard of the law. In order to ensure that business does not infringe, the following guidelines may be useful:

- Company should have a written policy on compliance with software copyright law.
- Appoint someone senior in your company as your Compliance Officer. This person should be familiar with software copyright law. It is also important to decide who will deputize for the Compliance Officer if he or she is absent.
- The Compliance Officer should keep (and maintain up to date) a record of all the software used by the company, together with the licence terms for that software, and be responsible for ensuring that those licence terms are complied with.
- Except where the software carries a "copyleft", shareware or similar licence, only acquire software from reputable dealers. (Remember that even a software package that looks genuine may, in fact, be the product of a counterfeiting operation run by professional criminals.)
- If any software has particularly restrictive licence terms, procedures for ensuring that those terms are complied with should be put in place. For example, if a particular program is licensed on the condition that it may not be used on more than five computers at once, it may be possible to program the central server to enforce this rule.
- Staff should be taught the importance of respecting software copyright. They should be taught to recognise that certain "problematic" activities raise serious copyright concerns, and should not be undertaken without the authorisation of the Compliance Officer. (If other senior staff are familiar with copyright law, they too may be given authority to authorise "problematic" activities. However, the Compliance Officer should remain in overall control.)

*Such activities include:*

- Downloading software over the Internet.
- Making copies of software.
- Transferring software from one computer to another.

- Putting software from home (or elsewhere) onto any of the company's computers.
- Taking company software home.

These activities should be regarded as "problematic" even if they are only undertaken for a brief period of time.

If an employee has a question, then he or she should be told to ask the Compliance Officer. (Needless to say, it is important that the Compliance Officer deals with such questions promptly, or else the system breaks down.)

- Finally, it should be made clear to your staff, as part of your compliance policy, that they will be disciplined if they are caught breaking the law.

## SOFTWARE AUDITING

It is sometimes recommended for a business to "audit" its software.

In essence, a software audit consists of taking stock of all the software used by the business, examining the licence terms for that software, and ensuring that the business is in compliance.

If your business has a compliance policy, then auditing is redundant. If, on the other hand, you have not previously had a compliance policy (or your compliance policy has not been properly implemented, etc.), then it is necessary to carry out this procedure as a step towards introducing a well-functioning compliance policy.

Software manufacturers trade associations sometimes ask businesses to audit their software. They may even send you a so-called "audit form", and ask you to return it to them, complete with information about your business's software use. Such schemes are entirely voluntary.

## COPYRIGHT NOTICE

When authority of the copyright owner publishes a work, a notice of copyright may be placed on publicly distributed copies. As per the Berne Convention for protection of literary and artistic works, to which India is a signatory, use of copyright is optional. It is however, a good idea to incorporate a copyright notice.

A copyright notice consists of the following:

- The symbol c (letter c in a circle) or the word copyright
- The year of first publication, and
- The copyright owners name.

An example of notice: (c) 1998 Nasscom.

The copyright notice should be placed on computer program copies in such a way as to give reasonable notice of the claimant of copyright. As an example, the notice could be placed on the title page of program's written documentation and at the user terminal at sign on. Failure to give notice of copyright does not destroy copyright protection provided:

- the notice has been omitted from a relatively few publicly distributed copies;
- copyright registration is made within six years after first publication without a notice and a reasonable effort is made to add notice to copies already publicly distributed, or
- the notice was omitted in violation of an express agreement, in writing, by which the copyright owner authorized another to distribute the program publicly.

As already brought out earlier, as per the Berne convention, use of copyright notice is optional.

## Copyright for Third Party Developed Program

Works created by third parties on commission do not automatically vest the copyright in the commissioning party. If the third party is an independent contractor, it is essential for the commissioning party to obtain the copyright through a written deed of assignment. It is a common misconception that the copyright automatically belongs to the commissioning party. Thus, it is only where the developer is an employee creating the work under a contract of service that the rights belong to the employer.

## Transfer of Copyright Right

The owner of the copyright in an existing work or prospective owner of the copyright in a future work may assign to any person the copyright, either wholly or partially in the following manner:

- for the entire world or for a specific country or territory; or
- for the full term of copyright or part thereof; or
- relating to all the rights comprising the Copyright or only a part of such rights.

There are no special forms for the transfer of copyright rights. However, these details need to be recorded while registering copyright at serial 11 of Statement of Particulars. The rules regarding transfers are complicated and should be discussed with an attorney.