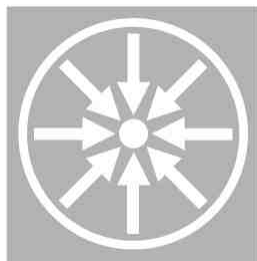


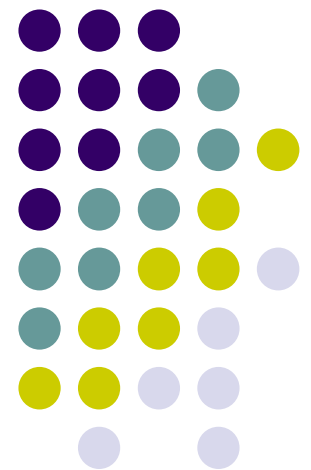
Copyright and Software

Andrew Marshall



M A R S H A L L

ATTORNEYS



Limits of IP Protection in Software: Problems



- Currently protected under Copyright
 - Protected under Patent law too?
- Technology constantly outgrows the law
- Ease of copying
 - File sharing
 - Source code copying
- Reverse Engineering
- Innovation & protection v Entrepreneurship



What is “Software”?

- Code = “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;”
 - Source code vs Object (executable) code
 - Script?
 - *Sui generis* work - unique to SA
- Databases – Literary works
- Graphics – Artistic works
- Planning documentation, user manuals etc – Literary works

Copyright Infringement: Elements



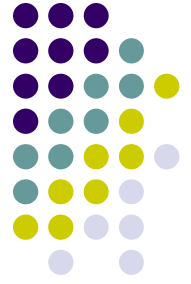
- Copyrighted work
- Violation of exclusive right of © owner
- Causal connection of material
- Substantiality
- “Infringing act” not excepted



Copyrighted Work

- By operation of law – no registration
- Eligible work
 - literary works, musical works, artistic works, cinematograph films, sound recordings, broadcasts, programme-carrying signals, published editions, computer programs.
- Original
 - Low threshold

Exclusive rights – Computer Program



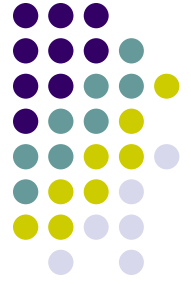
- Reproducing (copying)
- Adapting
- Letting or offering to hire
- Publishing
- Performing (how?)



Causal Connection

- Is there a link between the original and the alleged infringing copy?
- Can be imputed from surrounding circumstances
 - Opportunity to copy
 - Objective Similarity

Objective Similarity



- Factors:
 - Few differences
 - Unique features
 - Mistakes
 - E.g. style of code, comments

Substantiality in Computer Programs



- Quantity & quality of material most important factors for substantiality generally
- Quality especially important with software
- Much code is “housekeeping” or ties in 3rd party components – does not go to the “purpose” of the software
- “Core” functionality may be a few hundred lines out of thousands
- Liability possible for copying of only a few lines if “core” functionality
- BUT possible to copy “non-core” code without infringement
- Don’t try this at home!

Code Borrowing & “Libraries”



- Common usage for developers to borrow (copy) code from each other
- Many also keep personal “libraries” of code written for previous employers
- Unrealistic to expect this practice to stop
- If amounts to copying of another’s copyrighted material, possible liability



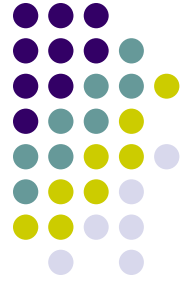
Adapting

- Making an adaptation is an infringement
- BUT copyright in substance of adaptation vests in infringer
- Adaptation for compatibility
 - Excepted in the UK
 - Probably infringement in SA

Excepted Acts – Computer Programs



- Act is not an infringement if:
 - Backups for private use
 - Criticism / review
 - Reporting current events
 - Use in judicial proceedings
 - Quotation (fair practice)
 - Educational material
- No “fair dealing” exception for private use or study

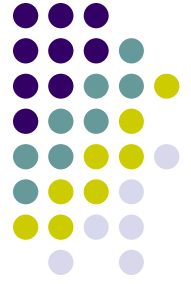


Reverse Engineering

- Unlike UK law, no exception for reverse engineering for compatibility
- Thus reverse engineering is a copy, hence an infringement
- BUT if black-box reverse engineering used to build an interface / driver, then probably not, because no adaptation or reproduction
- No decided cases in SA

-----oooOooo-----

Authorship & Ownership in Software



- General rule: creator of a work is both author and owner
- Distinction necessary where e.g. work is sold
- Then creator = author
- Purchaser (assignee) = owner
- Code protected as “Computer Program” – not literary work (unique to SA)

Authorship in Software



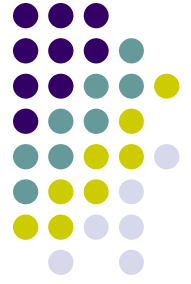
'author', in relation to-

(a) a literary, musical or artistic work, means the person who **first makes or creates** the work;

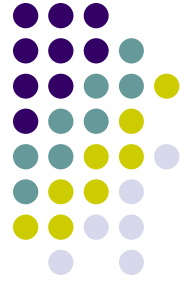
...

(i) a computer program, the person who **exercised control** over the making of the computer program;

Authorship in Software (2)



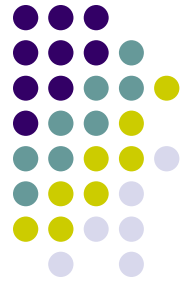
- “Exercised Control”
 - No need for supervisor to have understanding of technical aspects
 - But must have some physical control of the programming process – a position of authority
 - Probably not sufficient merely to set out requirements and check that they are fulfilled



Authorship in Software (3)

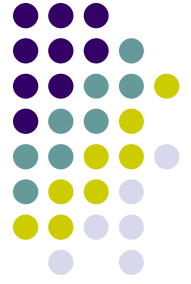
- Code protected as “**Computer Program**”
- Databases are protected as **literary works** therefore author = developer
- Almost all code accesses a database
- Databases often developed by same person / company which writes the computer program
- Potential Problem

Ownership of © in Software



- Contract of Employment
 - “s21(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...”
- If in “course of employment” then:
 - employee = author
 - employer = owner
- “Course of Employment”- Minister of Police v Rabie
 - If employee acts purely for own interests may fall outside course and scope
 - BUT depends on employee’s intention and how closely employee’s interests coincide with the employer’s

Ownership of © in Software (2)



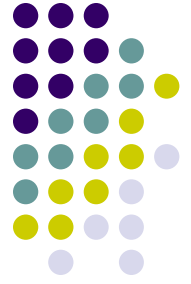
- Independent contractor
 - Independent Contractor is author & hence owner of copyright in computer program
 - UNLESS commissioner (employer) is author and hence owner by “exercising control”
 - OR agreement to the contrary



Potential Problem

- Where commissioner “exercises control” over independent contractor:
 - Ownership in code vests in commissioner
 - Ownership in databases & graphics (and preparatory materials) vests in independent contractor
 - Can’t use one without the other
- “Common Vehicle” approach?
- Solution: a proper contract.

————ooOoo————



3 “kinds” of Software

- Bespoke
 - Created especially for a particular client to particular specifications
- Modified
 - Developer’s “stock” code or standard product which has been modified for client’s needs
- Proprietary (to Developer)
 - Not modified, used as standard by Developer



How to protect ©

- Have a contract...
- Remember different components of software
 - code, database, documentation etc
- License, don't assign:
 - Proprietary code is licensed to client
 - Modified code is licensed to client subject to restrictions on use in other projects
- Escrow agreement if necessary

Bespoke Software



- First prize:
 - exclusive license in perpetuity
 - No modifications / maintenance by any other developer
 - Maintenance agreement
 - No reproduction beyond business needs (i.e. no on-selling)
 - Escrow agreement
- BUT Client will typically WANT:
 - ownership of copyright
 - delivery of source code
- THEN:
 - Reservation of right of developer to use standard code for other projects



Copyleft

- Owner's copyright asserted
- Licensed on basis that:
 - adaptation and reproduction allowed by licensees
IF all modifications made are distributed subject to the original license
- i.e. software remains free to modify in any context if is freely distributed

Thank You

Further information:
www.marshall.law.za

