Copyright Protection for Computer Software
What Exactly Is Protected?

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Like the best laid plans of Mice and Men the 1976 revision to the Copyright Act seems to be going astray, at least with respect to the revisions governing copyright protection for computer software. Although the 1976 Act and numerous court decisions have made clear that computer software is copyrightable subject matter, there remain unresolved many thorny foundational questions about what comprises computer software, and what is covered by a copyright for a computer program.

Section 101 of the Copyright Act of 1976 defines a "computer program" as "... a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." This definition though simple enough, fails to address the unique implications of this fast-moving technology. For example, is a computer program a set of statements in English, computer language (source code), or machine language (object code)? Does a copyright in the program protect the statements themselves individually, in parts or collectively? Does a copyright in the computer program protect the "results" brought about by use of the program?

Some of these difficult questions have been addressed in recent cases. For example, it is now well-recognized that copyright protection extends to both a program's source code written in conventional human language and in symbols and object code, written in binary language. A recent decision out of the Third Circuit Court of Appeals, Whelan Inc. v. Dental Laboratory, Inc., noted that general copyright principles require that the protection of software, which is defined under the Copyright Act as a literary work, extends beyond the literal elements of the program's source or object codes to its "structure, sequence and organization".

In Digital Communications Associates, Inc. v. Soft Klone Distributing Corporation, the Fifth Circuit attempted to determine whether the screens "the audiovisual image (on the computer monitor) generated by a computer program are covered by copyright in the program's source code. The Fifth Circuit acknowledged that similarity in screen displays has been used as indirect evidence of copying of the underlying program, but argued that that fact does not resolve the issue. The Soft Klone court noted that many different computer program can produce the same "results." It therefore concluded that it would be "illogical" to extend copyright protection in the program to its screen displays since a single screen could be deemed an infringing "copy" of many different programs. The court decided that separate copyrights should be registered for the screen displays.

The district court for the Northern District of California reached the opposite conclusion in Borderbund Software, Inc. v. Unison World, Inc. and held that the copyright in a computer program extends to its audiovisual displays as well. The Fourth Circuit Court of Appeals in Manufacturing Company v. Andrews held that a computer program is a "copy" of the audiovisual screen display and would therefore be protected "by a copyright in the original work" since copies of the original work are protected to the author under the Copyright Act.

This disagreement between the circuits is further compounded by the Copyright Office's refusal to issue separate copyright registrations for audiovisual display screens generated by computer programs. The Copyright Office argues that separate registration for screens generated by computer programs is unnecessary since the screens are part of the expression of the computer software, and since it has long been the practice of the copyright office to not issue separate registrations for mere parts of a copyrightable work. It has been accepted practice by practitioners in the field to rely on the copyright over the original work for protection of the audiovisual display screens. That practice, however, is now under review and the Copyright Office has requested, and on Sept. 16th, 1987 received, public comment in view of the Soft Klone decision. No ruling has been issued as of the date
this article was written.

In real terms, the dispute centers on whether the "results" of the execution of the computer program should be protected under the copyright for the program itself. Remarkably, the answer to that question lies in the extensive common law of Copyright and in the Copyright Act itself. To the extent that the results represent the achievement of a function and are thereby useful, they are clearly not entitled to copyright protection. Copyright protection extends only to the "expression" and not the "idea". Useful aspects of works are not copyrightable subject matter. However, the merely ornamental or creative expressions embodied in an audiovisual display screen are entitled to copyright protection. These non-functional aspects of individual screens can also be combined so that the "look and feel", "structure, sequence and organization" of successive screens generated by computer software are also copyrightable subject matter.

The difficult issue which the Soft Klone, Brodurbund, and Manufacturing courts tried to resolve however remains unsettled. This author would argue that copyright for the audiovisual screen should be separately registrable and that the screens should not be covered under the copyright for the original work. This would allow authors to specifically claim those elements, features or combinations of feature they believe to be worthy of separate protection. Although it has long been the position of the Copyright Office to not sit in judgment of what level of "creativity" or "originality" would entitle authors to copyright protection, it is certainly within the province, right and duty of the author himself to make those determinations.

In addition, allowing and indeed requiring separate Copyright for screen displays is consistent with traditional expectations for the legitimate scope of copyright protection. For example, detailed written instructions on how to draw a palm tree are copyrightable as a literary work, but the drawing created by executing the instructions would not be expected to be covered by a copyright in the instructions. A separate copyright would have to be registered for the drawing itself. Similarly, notes of a musical composition, and the composition itself are copyrightable but the performance of the composition, its arrangement, and the audio, or audio-visual recordings of the work are all separately registrable copyrightable works.

Securing copyright protection over all aspects of a computer software work has now become treacherous and difficult. While there is no disagreement that computer software is copyrightable, there is significant contest over what is actually copyrighted and which aspects of the work, and "the results" generated by a computer program, are in fact protected by the copyright over the original work. Although copyright applications have traditionally been uncomplicated enough for knowledgeable individuals or corporations to attempt on their own, this is no longer the case. With the significant value of the copyrighted work at stake, the guidance and experience of a practitioner in the field should be sought. This is particularly true where aspects of the computer software sought to be protected are considered to be trade secrets by the author. Failure to obtain protection over each of the various aspects of a work of computer software may result in those aspects being freely copied by the public at large.

Particularly thorny issues surround new sophisticated computer software tools such as program and report "generators" and "computer-aided design" or CAD programs. These software devices allow the user to generate and produce uniquely distinctive, specially designed programs or reports to satisfy the user's needs and applications. CAD programs act as highly sophisticated design or drafting tools that allow the user to quickly create three-dimensional drawing, sketches etc. Who authored the work produced by the user by use of these computer programs? Although the user's significant contribution to the ultimate work suggests that the copyright interests should vest in the user, there are strong arguments for insisting that the original program authors of the generator and design programs should have vested rights in these works. The "structure, sequence and organization" of the work as well as large portions of the literary work itself are after-all determined by the authors of the generator and design programs. Concepts of exclusive and/or non-exclusive license and of derivative works may provide guidance but dispute and disagreement will surely arise.

With each new advancement in technology comes the significant challenge of adapting the regulatory system to provide the maximum protection for authors of the original works. It takes great vigilance and care to anticipate and guard against loss of intellectual property rights in creative works. The significant value attached to computer software invites unscrupulous pirateers. The best shield available today is the knowledge and experience of a qualified intellectual property practitioner.