CRIMINAL SANCTIONS FOR VIOLATIONS OF SOFTWARE COPYRIGHT

HEARING

BEFORE THE

SUBCOMMITTEE ON INTELLECTUAL PROPERTY AND JUDICIAL ADMINISTRATION

OF THE

COMMITTEE ON THE JUDICIARY HOUSE OF REPRESENTATIVES

ONE HUNDRED SECOND CONGRESS

SECOND SESSION

ON

S. 893

CRIMINAL SANCTIONS FOR VIOLATIONS OF SOFTWARE COPYRIGHT

AUGUST 12, 1992

Serial No. 107

F/W 102 S.893

F/W PL 102-561

Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE

65-568 CC WASHINGTON : 1993

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-040825-3

COMMITTEE ON THE JUDICIARY

JACK BROOKS, Texas, *Chairman*

DON EDWARDS, California
JOHN CONYERS, JR., Michigan
ROMANO L. MAZZOLI, Kentucky
WILLIAM J. HUGHES, New Jersey
MIKE SYNAR, Oklahoma
PATRICIA SCHROEDER, Colorado
DAN GLICKMAN, Kansas
BARNEY FRANK, Massachusetts
CHARLES E. SCHUMER, New York
EDWARD F. FEIGHAN, Ohio
HOWARD L. BERMAN, California
RICK BOUCHER, Virginia
HARLEY O. STAGGERS, JR., West Virginia
JOHN BRYANT, Texas
MEL LEVINE, California
GEORGE E. SANGMEISTER, Illinois
CRAIG A. WASHINGTON, Texas
PETER HOAGLAND, Nebraska
MICHAEL J. KOPETSKI, Oregon
JACK REED, Rhode Island

HAMILTON FISH, JR., New York
CARLOS J. MOORHEAD, California
HENRY J. HYDE, Illinois
F. JAMES SENSENBRENNER, JR., Wisconsin
BILL McCOLLUM, Florida
GEORGE W. GEKAS, Pennsylvania
HOWARD COBLE, North Carolina
LAMAR S. SMITH, Texas
CRAIG T. JAMES, Florida
TOM CAMPBELL, California
STEVEN SCHIFF, New Mexico
JIM RAMSTAD, Minnesota
GEORGE ALLEN, Virginia

JONATHAN R. YAROWSKY, *General Counsel*
ROBERT H. BRINK, *Deputy General Counsel*
ALAN F. COFFEY, JR., *Minority Chief Counsel*

SUBCOMMITTEE ON INTELLECTUAL PROPERTY AND JUDICIAL ADMINISTRATION

WILLIAM J. HUGHES, New Jersey, *Chairman*

JOHN CONYERS, JR., Michigan
MIKE SYNAR, Oklahoma
PATRICIA SCHROEDER, Colorado
DAN GLICKMAN, Kansas
BARNEY FRANK, Massachusetts
CHARLES E. SCHUMER, New York
RICK BOUCHER, Virginia
MEL LEVINE, California
GEORGE E. SANGMEISTER, Illinois

CARLOS J. MOORHEAD, California
HOWARD COBLE, North Carolina
HAMILTON FISH, JR., New York
F. JAMES SENSENBRENNER, JR., Wisconsin
CRAIG T. JAMES, Florida
TOM CAMPBELL, California

HAYDEN W. GREGORY, *Counsel*
EDWARD O'CONNELL, *Assistant Counsel*
WILLIAM F. PATRY, *Assistant Counsel*
LINDA C. HALL, *Editor*
PHYLLIS HENDERSON, *Staff Assistant*
VERONICA L. ELIGAN, *Staff Assistant*
THOMAS E. MOONEY, *Minority Counsel*
JOSEPH V. WOLFE, *Minority Counsel*

CONTENTS

HEARING DATE

	Page
August 12, 1992	1

TEXT OF BILL

S. 893	3

OPENING STATEMENT

Hughes, Hon. William J., a Representative in Congress from the State of New Jersey, and chairman, Subcommittee on Intellectual Property and Judicial Administration	1

WITNESSES

Black, Edward J., vice president and general counsel, Computer & Communications Industry Association	46
Charne, James, vice president, legal and business affairs, Absolute Entertainment, Inc., Glen Rock, NJ, accompanied by James L. Bikoff, Esq., and Mary Jane Saunders, Esq., Arter & Hadden, Washington, DC	7
Ostfeld, David M., chairman, Intellectual Property Committee, Institute of Electrical and Electronics Engineers, Inc., United States Activities	56
Penner, Gail, counsel, Autodesk, Inc., Sausalito, CA, accompanied by Bruce Lehman, attorney, Swidler & Berlin, Washington, DC	23

LETTERS, STATEMENTS, ETC., SUBMITTED FOR THE HEARING

Black, Edward J., vice president and general counsel, Computer & Communications Industry Association: Prepared statement	48
Charne, James, vice president, legal and business affairs, Absolute Entertainment, Inc., Glen Rock, NJ: Prepared statement	10
Lehman, Bruce, attorney, Swidler & Berlin: Memorandum	37
Ostfeld, David M., chairman, Intellectual Property Committee, Institute of Electrical and Electronics Engineers, Inc., United States Activities: Prepared statement	58
Penner, Gail, counsel, Autodesk, Inc., Sausalito, CA: Prepared statement	26

CRIMINAL SANCTIONS FOR VIOLATIONS OF SOFTWARE COPYRIGHT

WEDNESDAY, AUGUST 12, 1992

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INTELLECTUAL PROPERTY
AND JUDICIAL ADMINISTRATION,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:12 a.m., in room B–352, Rayburn House Office Building, Hon. William J. Hughes (chairman of the subcommittee) presiding.

Present: Representatives William J. Hughes, Carlos J. Moorhead, F. James Sensenbrenner, Jr., Craig T. James, and Patricia Schroeder.

Also present: Hayden W. Gregory, counsel; William F. Patry, assistant counsel; Veronica L. Eligan, staff asssistant; Joseph V. Wolfe, minority counsel; and Amy Montemarano, intern.

OPENING STATEMENT OF CHAIRMAN HUGHES

Mr. HUGHES. The Subcommittee on Intellectual Property and Judicial Administration will come to order.

Good morning, and welcome to this morning's hearing.

The Chair has received a request to cover this hearing in whole or in part by television broadcast, radio broadcast and still photography, or by any of such methods of coverage. In accordance with committee rule 5(a), permission will be granted, unless there is objection. Is there objection?

[No response.]

Mr. HUGHES. Hearing none, permission is granted.

The subcommittee this morning is holding a hearing on S. 893, a bill introduced by Senator Hatch to impose felony penalties for criminal copyright infringement of computer programs. S. 893 seeks to build upon amendments made in 1982. Those amendments imposed felony penalties for infringing reproduction or distribution of motion pictures and sound recordings, if such acts are done willfully and for commercial advantage or for private financial gain. Penalties are to be determined by the number of copies made within a 6-month period.

S. 893 would prescribe a fine of not more than $250,000 or imprisonment for not more than 5 years or both if during any 6-month period at least 50 copies infringing the copyright in one or more computer programs are made or distributed.

A fine of not more than $250,000 or imprisonment for not more than 2 years, or both, would be imposed if during any 6-month pe-

riod more than 10 but not less than 50 copies infringing the copyright in one or more computer programs are made or distributed.

Proponents of the legislation give a number of reasons in support of the legislation. They include among others:

The retail price of many computer programs is quite high. The low cost of blank diskettes thus makes unauthorized copying attractive.

Unauthorized copying is extremely quick, cheap, and may be done on a commercial level without much investment in hardware.

The costs of developing computer programs are high. Accordingly, the losses from unauthorized copies are very high.

Computer pirates tend to be fly-by-night operators, for whom civil remedies are usually ineffective.

Federal prosecutors generally will not allocate scarce resources for misdemeanors.

Internationally, U.S. trade negotiators face arguments from foreign governments that they should not have to impose felony penalties on computer program piracy since the United States does not.

The proponents of the legislation also note that there was not a mass market for computer programs in 1982 when the felony penalties were created for motion pictures and sound recordings. All those reasons, it seems to me, have some merit.

The principal arguments against the legislation do not concern large-scale pirate operations. There appears to be a consensus, at least from the testimony, among those commenting on the legislation that such activity should be treated as a felony. Rather, the concerns are directed at a possible spillover of civil disputes into criminal prosecutions or the threat of such prosecution. Two areas in particular have been noted: First, the uncertain scope of protection for computer protection; and, second, the uncertain status of reverse engineering as a defense to a claim of infringement.

The computer industry is an important segment of our economy, both domestically and internationally. I look forward to hearing the testimony this morning because it is an important issue, and, obviously, it is important that we protect this form of creativity.

[The bill, S. 893, follows:]

I

102D CONGRESS
2D SESSION

S. 893

To amend title 18, United States Code, to impose criminal sanctions for violation of software copyright.

IN THE HOUSE OF REPRESENTATIVES

JUNE 9, 1992

Referred to the Committee on the Judiciary

AN ACT

To amend title 18, United States Code, to impose criminal sanctions for violation of software copyright.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) section 2319(b)(1) of title 18, United States Code, is amended—

(1) in paragraph (B) by striking "or" after the semicolon;

(2) redesignating paragraph (C) as paragraph (D);

(3) by adding after paragraph (B) the following:

"(C) involves the reproduction or distribution, during any 180-day period, of at least 50 copies infringing the copyright in one or more computer programs (including any tape, disk, or other medium embodying such programs); or";

(4) in new paragraph (D) by striking "or" after "recording,"; and

(5) in new paragraph (D) by adding ", or a computer program", before the semicolon.

(b) Section 2319(b)(2) of title 18, United States Code, is amended—

(1) in paragraph (A) by striking "or" after the semicolon;

(2) in paragraph (B) by striking "and" at the end thereof and inserting "or"; and

(3) by adding after paragraph (B) the following:

"(C) involves the reproduction or distribution, during any 180-day period, of more than 10 but less than 50 copies infringing the copyright in one or more computer programs (including any tape, disk, or other medium embodying such programs); and".

(c) Section 2319(c) of title 18, United States Code, is amended—

(1) in paragraph (1) by striking "and" after the semicolon;

(2) in paragraph (2) by striking the period at the end thereof and inserting "; and"; and

(3) by adding at the end thereof the following:

"(3) the term 'computer program' has the same meaning as set forth in section 101 of title 17, United States Code.".

Passed the Senate June 4 (legislative day, March 26), 1992.

Attest: WALTER J. STEWART,

Secretary.

Mr. HUGHES. The gentleman from California.

Mr. MOORHEAD. Well, thank you, Mr. Chairman. I would like to commend you for scheduling this hearing on Senator Hatch's bill S. 893, a bill to establish felony penalties for copyright infringement of computer programs.

My home State of California is the base for more than 50 percent of U.S. video game software development companies. Recently, I became aware of the detrimental impact piracy of computer software was having on the video game industry. As a result, I recently joined with several of my colleagues from California in writing to Ambassador Carla Hills to designate Taiwan as a priority country under the special 301 provisions of the U.S. trade law. USTR took such action on April 19, 1992, and as a result progress is being made with Taiwan in an effort to remedy serious intellectual property violations occurring in that country.

I have also had a chance to have a conversation with some of the leaders in that country, and they do have knowledge that these things are taking place and they actively agree that they will do everything possible to bring an end to the pirating where they can. But with a growing nation, at least totally as far as this kind of activity is concerned, they have more of a problem than they would have in many other places. Clearly there is a consensus that large-scale piracy of computer software is a significant problem for the country. Current remedies are inadequate to stem the rising tide of piracy.

Mr. Chairman, I look forward to working with you in an effort to provide the necessary protection for this country's dynamic computer software industry, and I look forward to the testimony of our distinguished witnesses.

Thank you, Mr. Chairman.

Mr. HUGHES. I thank the gentleman.

Our first panel consists of two witnesses favoring the legislation, James J. Charne, vice president, legal and business affairs, Absolute Entertainment, Inc., Glen Rock, NJ, and Gail Penner, counsel, Autodesk, Inc., of Sausalito, CA.

Mr. Charne has considerable experience in the entertainment and electronic audiovisual game industries, and we look forward to learning about your experiences in protecting your corporation's intellectual property.

Ms. Penner, who is appearing on behalf of the Software Publishers Association, has responsibility for a variety of intellectual property issues for Autodesk.

We welcome you on behalf of the subcommittee. I see you are joined by Bruce Lehman, a former staffer on the Judiciary Committee. We are delighted to have both of you with us.

We have your testimony, which, without objection, will be made a part of the record. We have read your testimony, so we hope that you can summarize for us.

Let's begin with you, Mr. Charne. Welcome.

STATEMENT OF JAMES CHARNE, VICE PRESIDENT, LEGAL AND BUSINESS AFFAIRS, ABSOLUTE ENTERTAINMENT, INC., GLEN ROCK, NJ, ACCOMPANIED BY JAMES L. BIKOFF, ESQ., AND MARY JANE SAUNDERS, ESQ., ARTER & HADDEN, WASHINGTON, DC

Mr. CHARNE. Thank you, Mr. Chairman, Mr. Chairman and members of the subcommittee, I am Jim Charne, vice president, legal and business affairs and general counsel of Absolute Entertainment, Inc., of Bergen County, NJ. I am accompanied today by Jim Bikoff and Mary Jane Saunders of Arter & Hadden, who are our industry counsel.

I want to thank you for the opportunity to testify today on behalf of the video game industry in support of S. 893. And I would like to submit my testimony for the record along with a letter to the subcommittee in support of S. 893 signed by more than 50 U.S. video game companies.

Mr. HUGHES. Without objection, it will be so received.

Mr. CHARNE. The U.S. video game industry is composed of firms like mine that design, develop, license, distribute and sell home video games, and companies that license popular trademarks and/or characters for use in those video games. Many of these video game companies are small. Yet this is an industry that produces many billions of dollars in taxable revenue each year. Indeed, video games are the single largest category of retail toy sales.

Video games are expensive to develop and produce, and U.S. companies and U.S. jobs will be put into jeopardy if counterfeiting goes unchecked. Video game pirates copy programs in large volume by means of inexpensive Read Only Memory chips and import the resulting counterfeits in large quantities into the United States. These are the works of systematic criminal enterprises. I have here the May 1991 issue of Asian Sources Electronics magazine. Three Taiwanese companies announced that their factories had capacity to produce more than 1 million pirated Nintendo games each month. We estimate annual industry losses of more than $1 billion from the displacement of legitimate video game sales arising from this counterfeiting activity.

Current criminal penalties for software copyright violations simply do not act as an effective deterrent to counterfeiters. Counterfeiting of video games is too lucrative for illegal operators to be concerned about misdemeanor convictions. Moreover, U.S. attorneys, forced to allocate their limited resources, have been unwilling to prosecute software pirates who can only be charged with misdemeanor offenses. They are much more interested in focusing on felony cases, as I am sure you can understand.

Mr. Chairman, I have brought with me specific examples of the piracy problems we want S. 893 to address.

First, this is a game my company developed for HiTech Expressions, which is a New York-based company. This game is based on the world-famous Barbie doll property owned by Mattel of California. This is a fake, counterfeit copy of the same game. As you can see, the front label on the fake is a copy of the original label. The software in the fake product is also an unauthorized copy of the original.

When I look at the counterfeit, I feel the same way the U.S. Treasury must feel when it looks at a counterfeit $20 bill, because

each one of these counterfeit sales represents a $25 loss at wholesale for our industry. Each time one of these bogus Barbie cartridges is sold, my company and its home State of New Jersey, HiTech Expressions and its home State of New York, and Mattel and its home State of California are all deprived of revenues, as are retailers selling legitimate video games.

The second example which I brought with me consists of authentic and counterfeit Robocop 2 cartridges. This is the authentic, and this is the counterfeit. Mr. Chairman, the counterfeit appears to be an exact copy of the original product. I can tell, though, that the cartridge is counterfeit because it doesn't meet the packaging standards that we expect. But I can't expect our customers to be that knowledgeable, that savvy.

This is probably the most blatant case that I brought. Not only is the package, the instruction booklet, the label and the cartridge holder copied, but the software containing the game within the cartridge has been stolen from Ocean of America, another California company. Ocean is in full support of this bill.

Finally, I brought with me three examples of pirated multigame cartridges. This first one, this cartridge, contains 110 games. This cartridge contains 210 games. And this last one is 150 games all in one cartridge. Here the packaging is not copied, but this kind of piracy is of equal concern to us. The software inside the cartridge has been copied without authorization.

We know that all multigame cartridges are pirated works because there are no authentic authorized cartridges containing more than a couple of games. It is also important to note that each sale of one of these cartridges result in losses to multiple copyright holders.

Mr. HUGHES. Where are they produced?

Mr. CHARNE. They are produced in Taiwan.

S. 893 would help tremendously in the battle against large-scale software piracy by elevating maximum penalties to 5 years imprisonment and a $250,000 fine. These sanctions will have a real deterrent effect upon the kinds of piracy I have shown you, which we believe should be the focus of this bill. Increased criminal sanctions in the United States will also help us persuade other countries to take strong action against pirates. It is a little difficult to persuade other countries that we are serious about software copyright infringement when U.S. law does not provide effective remedies.

I understand, Mr. Chairman, that some witnesses today are concerned with "look and feel" and reverse engineering issues. Our industry is faced with massive software piracy as I have illustrated with the examples I brought with me. We believe that S. 893 should address these piracy problems, and we are amenable to report language reflecting the exclusion of "look and feel" and reverse engineering matters from the coverage of this bill. This has to be done carefully, however, so that a pirate won't be able to hide behind "look and feel" and reverse engineering claims to avoid a felony charge when in fact what he is doing is pirating software.

Congress has already recognized that copyright piracy and trademark counterfeiting are serious matters. To this end, Congress acted 10 years ago to elevate trademark counterfeiting of all types and copyright violations for sound recordings and motion pictures

to felony offenses. The time has come to give parity to software copyright owners.

Enactment of legislation to increase criminal penalties for piracy of computer software is fully justified and badly needed. We urge you to consider S. 893 expeditiously and to bring this matter before the House this session.

Thank you again for the opportunity to appear.

Mr. HUGHES. Thank you, Mr. Charne.

[The prepared statement of Mr. Charne follows:]

Statement of James I. Charne
Vice President, Legal and Business Affairs
Absolute Entertainment, Inc.
251 Rock Road
Glen Rock, NJ 07452

Before the
Subcommittee on Intellectual Property
and Judicial Administration
U.S. House of Representatives
August 12, 1992

Mr. Chairman, members of the Subcommittee, my name is James I. Charne, and I am Vice President of Legal and Business Affairs for Absolute Entertainment, Inc. of Glen Rock, New Jersey. I would like to thank you for holding this hearing and giving me an opportunity to testify.

The video game industry is strongly in support of S. 893. As the popularity of video games has grown in the U.S., the problem of piracy of copyrighted video games has grown to be the major threat to the viability of our industry. Piracy, once essentially a cottage industry turning out individual, fairly costly counterfeit copies, is now a sophisticated criminal enterprise producing hundreds of thousands of low-cost mass-produced counterfeits. Yet the criminal penalties for this piracy do not reflect this new reality, and do not serve as a deterrent to the crimes being committed and the harm being done.

On behalf of the industry, I urge the Subcommittee to adopt S. 893 expeditiously so that it can be enacted before the end of the 102nd Congress. I would like to submit, as an attachment to

my testimony, a letter to Chairman Hughes in support of S. 893, signed by over 50 U.S. video game companies.

Development of Absolute Entertainment and the U.S. Video Game Industry

My company, Absolute Entertainment, of Glen Rock, NJ, is an independent American-owned and managed video game software developer and publisher. Since its beginnings in a Midland Park, New Jersey basement office in 1986, the company has grown significantly and currently employs 42 people, including residents of the states of New Jersey, Pennsylvania, New York and California. We are a non-polluting, high tech company providing high paying jobs to creative and technical innovators. Our products are the creations of our imaginations.

Absolute Entertainment began as a developer and publisher of Atari-compatible Video Games. While we continue to create game software for other hardware systems, we didn't really start to grow, however, until we began developing games for the Nintendo Entertainment System. Our success has been tied to the phenomenal acceptance by the American public of the Nintendo Entertainment System, now in 34% of American homes. Indeed, since we began developing Nintendo-compatible video game products, our revenues have grown 5-fold from the 1988 base year to 1992.

Absolute Entertainment is now the largest developer of Nintendo-compatible software in the U.S. Our latest product, "Super Battle Tank: War In The Gulf," the first published under the Absolute Entertainment brand name, is currently a top five best

seller. Our products have earned hundreds of millions of dollars in retail sales in markets around the country and the globe. Our staff includes some of the best known names in video game design and we have more than 20 new home video games currently under development. Our most valuable assets are our employees, our intellectual property and the copyrights that protect that intellectual property.

The Nintendo Entertainment System (NES) consists of a hardware unit comprised of a microprocessor and other components. This console operates video game software stored in semiconductor memory chips. The memory chips are mounted on printed circuit boards and housed in separate plastic game cartridges. The NES console is connected to a television set, which displays the game, and to hand-operated controllers, light-sensitive toy guns and other peripherals, which are used to control the game being played. A very popular hand-held unit, called the Game Boy, and an advanced Super Nintendo Entertainment System or Super NES console are also available.

There is a growing number of independent U.S.-based software licensees and developers -- currently approximately 125 -- which create most of the game titles for use with the three Nintendo hardware systems. Nintendo of America (NOA) licenses these products, but the copyrights are owned by the individual companies which create the games, and the marketing and ultimate success or failure of a particular game are the responsibility of the individual companies which own the copyrights. When a counterfeit

game is sold in lieu of a legitimate game, companies like Absolute Entertainment suffer substantial losses.

In addition to authorizing software licensees and developers, NOA has also initiated a program by which licensees manufacture video games in the United States. As more licensees manufacture games, the benefits to both the local and national economies will grow in terms of employment, income and spending.

It comes as a surprise to some, but video games are a multi-billion dollar a year industry. Indeed, video games are the single largest category in retail toy sales. We are as large as the PC-based business software industry.

The U.S. video game industry is composed of firms that design, develop, license, distribute and sell home video games, and companies that license popular trademarks and/or characters for use in those video games. Just like most business software companies, the majority of video game companies are small, yet this is an industry that produces many billions of dollars in taxable revenue each year. Our companies are young, entrepreneurial, growing, and when we can combine hard work with technical and creative innovation, profitable!

Scope of the Counterfeiting Problem

Like our peers in the business software industry, Absolute Entertainment and its fellow video game companies face the real danger that our profits will disappear overnight if our products

are pirated. We all protect our software by copyright, but if the copyright laws are inadequate, companies like mine have no effective legal protection against blatant counterfeiters and rip-off artists.

The U.S. video game industry in particular has been victimized by massive counterfeiting. As evidence of the growth of video game piracy, U.S. Customs has conducted more than 92 seizures of piratical video games since 1989. In addition, NOA has instituted civil actions against approximately 150 defendants since 1990 charging video game piracy. Similar enforcement actions have been commenced in foreign countries.

Counterfeiters today blatantly acknowledge their activities. In the May, 1991 issue of Asian Sources Electronics, three Taiwanese companies stated that they produced or had the capacity to produce more than 1,000,000 unauthorized Nintendo games per month.

Legitimate video games are extremely expensive to develop and produce, but copies can be made at very little cost to the pirate. Video games currently cost as much as $500,000 to develop and bring to market excluding the cost of manufacturing. The most popular games, which are the ones most likely to be counterfeited, provide the revenue necessary to finance new games and sustain less popular titles. Thus, infringements result in a loss of development funds and can rob companies of the capital needed to maintain themselves.

Initially illegal counterfeiting of video games occurred on a relatively minor scale. However, in recent years, we have encountered counterfeiters who copy games in very large volume by means of inexpensive Read Only Memory (ROM) chips and import them in large quantities into the U.S. Often these pirates will include multiple copyrighted programs (260 or more) on a single cartridge. Many video games companies can be hurt by a single counterfeit game cartridge. I have brought several examples of blatant counterfeits for the Subcommittee to see.

One of the video games that has been counterfeited is a game developed by Absolute's Imagineering division for Hi-Tech Expressions involving the well-known "Barbie" copyright and trademark owned by Mattel. For every counterfeit of this product sold to a consumer, Absolute and Mattel lose royalties and Hi-Tech loses sales.

Most counterfeit video games are produced in Taiwan and then shipped to the United States. More recently counterfeit video games produced in Korea, Hong Kong and the People's Republic of China (PRC) have been discovered. These are large scale, sophisticated operations working with the very latest technology. Some counterfeits are exact duplicates of the original, even down to the packaging and graphics; others are rip-offs of the software but not the packaging. It is difficult to take strong effective action against either variety of piracy even though every sale of a counterfeit is a loss for the video game industry.

Video game piracy is a particularly insidious crime when the counterfeit product is marketed as a legitimate product, with the package and graphics being forgeries or close facsimiles of the authentic product. Just as important, however, are those instances when only the software is copied. A consumer may purchase a counterfeit video game at the full price of a genuine article only to discover later that it is a forgery of poor quality. Counterfeit video games are often marred by imperfections, detectable only when the product is viewed or played. Dissatisfied consumers may assume the counterfeit is a genuine product, and may even try to return the counterfeit to a legitimate retailer. When the counterfeit is an exact replica of the original, the retailer is injured not only by the loss of the original sale but also in some cases by the cost of replacing the counterfeit product. The poor quality of a counterfeit game may also cause consumers to lose interest in buying or playing any video games, which is especially harmful to software companies that develop the games.

If counterfeiting like this continues unchecked, we believe a substantial number of U.S. companies like mine and thousands of U.S. jobs will be put into jeopardy. It is obviously impossible to determine with precision the extent of commercial counterfeiting of video games. Research conducted in the industry, however, suggests that companies like ours experience an aggregate annual loss of more than $1 billion from the displacement of sales of legitimate video games. Counterfeiting of video games harms not only the video game industry and its distributors, but also retailers and employees who benefit from legitimate video game

sales. This $1 billion figure does not include the loss to the U.S. Treasury, since it is doubtful counterfeiters bother to pay taxes on their illegal sales.

Efforts of the Industry to Halt Counterfeiting

The video game industry has made an effort to enforce its copyrights, working with U.S. Customs, the Office of the United States Trade Representative, and in the courts to stop blatant counterfeiters. The video game industry was instrumental in seeking and obtaining trade action against Taiwan, the center of video game piracy, and the industry has been active in civil litigation both in foreign countries and here in the United States.

Unfortunately, trade actions by the Administration and civil litigation by the industry are not enough. We also need stronger criminal sanctions in order to stop video game piracy. As counterfeiters build larger and more professional enterprises, they become increasingly callous towards the judicial process. In this regard, current criminal penalties for software copyright violations simply do not act as an effective deterrent to large-scale counterfeiting of video games.

As compared to motion picture and sound recording copyright infringement claims or trademark counterfeiting charges, the penalties for software copyright piracy are the most lenient. While it may be possible in unique situations involving massive quantities of counterfeit product or certain illegal import schemes

to obtain felony convictions, most software piracy violations are treated as misdemeanors. It's a felony if you make counterfeit motion pictures or sound recordings in certain specified quantities, but only a misdemeanor if you engage in massive software piracy. This is true even though software counterfeiting schemes are extremely lucrative. Counterfeiting of video games is so lucrative in fact, that we do not believe counterfeiters are the least concerned about mere misdemeanor convictions. Moreover, U.S. attorneys, forced to allocate limited resources, have been generally unwilling to prosecute software pirates who can only be charged with a misdemeanor offense. Not surprisingly, U.S. attorneys are much more interested in focusing their attention on felony cases.

Now, there is an opportunity to correct this problem. The U.S. Senate has approved a bill (S. 893), which would make software piracy a felony offense. S. 893 provides maximum felony penalties of five years imprisonment and/or a $250,000 fine for anyone who, within any 180-day period, illegally reproduces or distributes at least 50 copies of one or more copyrighted computer programs. Where more than 10 but less than 50 unauthorized copies are involved, the fine is the same, but the maximum period of imprisonment is two years. We believe that S. 893 would help tremendously in the battle against large-scale software piracy, because felony sanctions have real deterrent effect.

Congress has already recognized that copyright piracy and trademark counterfeiting are serious matters. To this end,

Congress acted in 1982 to strengthen the laws against record, tape and film piracy by increasing the penalties for trafficking in counterfeit labels for copyrighted records, tapes and audiovisual works, and for copyright infringements involving illicit reproduction and distribution of these products. Congress also elevated trademark counterfeiting to a felony offense in 1984. Of the major U.S. industries in need of felony level copyright protection, only software has been left out of the equation. The time has come to give parity to U.S. software copyright owners.

Enactment of legislation to increase criminal penalties for piracy of computer software is fully justified, and badly needed. On behalf of the video game industry, I urge the Subcommittee to see that S. 893 is enacted this year.

Thank you for your consideration of our views. I am happy to answer any questions from the Subcommittee.

65-568 0 - 93 - 3

August 12, 1992

Honorable William J. Hughes, Chairman
Subcommittee on Intellectual Property and Judicial
Administration
Committee on Judiciary
U.S. House of Representatives
207 Cannon House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

We are writing as companies involved in the video game industry to ask for expedited action on S. 893, a bill that would strengthen criminal penalties for the large scale piracy of computer software copyrights. S. 893 was approved unanimously by the Senate on June 4 of this year, and has been referred to your Subcommittee for consideration. This legislation is extremely important to the U.S. video game industry which has been victimized by massive counterfeiting, and we are hopeful that with your assistance, it may be adopted this year.

The U.S. video game industry is composed of firms that design, develop, license, distribute and sell home video games, and companies that license popular trademarks and/or characters for use in those video games. Many of these video game companies are small, yet this is an industry that produces many billions of dollars in taxable revenue each year. Indeed, video games are the single largest category in retail toy sales. Video games are expensive to develop and produce, and if counterfeiting continues unchecked, hundreds of U.S. companies and many thousands of U.S. jobs will be put into jeopardy.

Initially illegal counterfeiting of video games occurred on a relatively minor scale. However, in recent years, we have encountered counterfeiters who copy games in very large volume by means of inexpensive Read Only Memory (ROM) chips and import them in large quantities in the U.S. Often these pirates will include multiple copyrighted programs (260 or more) on a single cartridge. We estimate annual losses of more than $1 billion from the displacement of sales of legitimate video games, harming the video game industry and the distributors, retailers and employees who benefit from legitimate video game sales. This figure does not include the loss to the U.S. Treasury, since counterfeiters often do not pay taxes on their illegal sales.

Unfortunately, current criminal penalties for software copyright violations simply do not act as an effective deterrent to this illegal activity. Counterfeiting of video games is too lucrative for illegal operators to be concerned about misdemeanor convictions. Moreover, U.S. attorneys, forced to allocate limited resources, have been unwilling to prosecute software pirates who can only be charged with a misdemeanor offense. Not surprisingly, U.S. attorneys are much more interested in focusing their attention on felony cases.

S. 893 would help tremendously in the battle against large-scale software piracy. Conviction for reproduction or distribution of 50 or more copies of copyrighted computer programs in a 180-day period would bring a potential fine of $250,000 and up to 5 years imprisonment. Conviction for reproduction or distribution of between 10 and 50 copies in a 180-day period would bring a potential fine of $250,000 and up to 2 years imprisonment. These sanctions will have real deterrent effect.

Congress has already recognized that copyright piracy and trademark counterfeiting are serious matters. To this end, Congress acted ten years ago to elevate trademark counterfeiting of all types and copyright violations for sound recordings and motion pictures to felony offenses. The time has come to give parity to software copyright owners.

Enactment of legislation to increase criminal penalties for piracy of computer software is fully justified, and badly needed. We urge you to consider S. 893 expeditiously, and bring the matter before the House this session.

Thank you for your consideration of our views.

Sincerely,

ABSOLUTE ENTERTAINMENT, INC.
ACCLAIM ENTERTAINMENT, INC.
ACTIVISION, INC.
AMERICAN LASER GAMES
AMERICAN SAMMY CORPORATION
AMERICAN SOFTWORKS INTERNATIONAL CORPORATION
ASMIK CORPORATION OF AMERICA
BEESHU, INC.
BULLET-PROOF SOFTWARE
DATA EAST USA, INC.
DTMC INC.
ELECTRO BRAIN CORP.
EQUILIBRIUM
EXERTRON, INC.
FORMA PRECISION PLASTIC, INC.

FUJISANKEI COMMUNICATIONS
INTERNATIONAL, INC.
GAMETEK, INC.
HELIX, BANNISTER & NEWELL CO. INC.
HOT-B USA INC.
HUDSON SOFT USA, INC.
IDG, INC.
IGUANA ENTERTAINMENT, INC.
INFORMATION GLOBAL SERVICE
INTERPLAY PRODUCTIONS
IREM AMERICA CORPORATION
KANEKO USA, LTD.
KEMCO
LUCASARTS ENTERTAINMENT
MANLEY & ASSOCIATES, INC.
MC O'RIVER, INC.
MELDAC OF AMERICA, INC.
MICROPROSE
MINDSCAPE, INC.
MIRTHMAKERS, INC.
NINTENDO OF AMERICA
PATHWAYS, INC.
RARE COIN-IT, INC.
REALTIME ASSOCIATES
RENOVATION PRODUCTS
RIEDEL SOFTWARE PRODUCTIONS, INC.
ROMSTAR, INC.
SCULPTURED SOFTWARE, INC.
SEIKA CORPORATION
SETA USA, INC.
SOFEL CORPORATION
SOFTWARE TOOLWORKS
SONY IMAGESOFT INC.
SPHERE, INC.
STRATEGIC SIMULATIONS, INC.
SUN CORPORATION OF AMERICA
SUNCOM TECHNOLOGY
T.HQ INC.
TAITO AMERICA CORPORATION
TITUS SOFTWARE CORPORATION
VIRGIN GAMES

Mr. HUGHES. Ms. Penner, welcome.

STATEMENT OF GAIL PENNER, COUNSEL, AUTODESK, INC., SAUSALITO, CA, ACCOMPANIED BY BRUCE LEHMAN, ATTORNEY, SWIDLER & BERLIN, WASHINGTON, DC

Ms. PENNER. Good morning. Mr. Chairman, thank you for the opportunity to appear this morning on behalf of the Software Publishers Association in support of S. 893. I am Gail Penner, an attorney for Autodesk, Inc., a software company which produces high-end engineering and multimedia software. As Autodesk representative to the SPA Copyright Protection Fund, I work closely with the SPA in fighting piracy. The SPA has over 950 members and is the leading trade association of the personal computer software industry.

There are three principal reasons why the SPA supports making willful software piracy punishable as a felony. First, while the software industry is one of America's most vibrant industries, it is particularly vulnerable to piracy, which undercuts its technological leadership and ability to create jobs. Second, civil remedies and misdemeanor criminal penalties are not adequate to deter professional software pirates. And third, despite the economic seriousness of the crime, it is extremely difficult to interest Federal prosecutors and law enforcement agencies in pursuing software piracy because the extensive resources required for investigations yield only misdemeanor convictions.

With respect to the first point, the software industry is particularly vulnerable to software piracy. Anyone with a standard personal computer can make a perfect copy of a computer program by merely touching a few keys. In 1990, the software industry lost $2.4 billion to software piracy in the United States alone. Worldwide, revenue lost by U.S. software publishers to piracy was between $10 to $12 billions. Not only is the magnitude of these losses large, the losses from piracy have impacts throughout the U.S. economy. This is because piracy threatens this country's ability to remain on the cutting edge of technological advancement by depriving publishers of revenue that is crucial to support the extensive research and development that has been engaged in by our industry.

Moreover, software piracy deprives an extensive network of retailers and distributors of legitimate revenue, jeopardizing the jobs of Americans employed by publishers, retailers and distributors. Further, piracy forces consumers to pay higher prices for software products. Finally, piracy threatens one of this Nation's major export industries. Currently, 75 percent of all software used in the world is produced in the United States by U.S. companies.

With respect to the second point, civil remedies are simply not adequate to deter professional software pirates. Software pirates are adept at avoiding process, avoiding discovery, hiding assets and going underground when served with a civil complaint, only to resurface later to continue their activities. For example, in 1991, a SPA member learned that a California company was manufacturing and distributing pirated software. A civil seizure executed at several locations uncovered pirated software with a market value of more than $1 million. Despite the volume of pirated software un-

covered, no civil damages had been collected, because the only business record discovered was a single spiral notebook.

Normal business and financial records are not maintained by pirates, and attempts to use civil discovery to secure information about the whereabouts of business records and bank accounts are met with claims under the fifth amendment. Ironically, there have been recent indications that this illegal operation may be moving to resume operations under a different guise. This is a typical example of how civil remedies have been unavailing in the fight against software piracy. If software piracy were a felony, the full range of criminal investigative procedures, including the use of a grand jury and the grant of immunity for testimony, would be available to bring piracy under control.

Another civil action case focusing on a bicoastal operation led to proof that over 40,000 copies of software had been illegally copied and sold in a massive pirating operation. Attempts to trace the assets of the pirate operator revealed that some of the ill-gotten profits had been channeled to bank accounts overseas under the control of foreign nationals. The defendant declared bankruptcy in the United States and responded to all attempts at civil recovery with empty profits in spite of living an apparently lavish lifestyle.

There was evidence that the defendants regularly carried firearms and were, in fact, jailed for a time on other charges. Again, all attempts to use the normal civil process to determine the location of assets and other business information were met by claims under the fifth amendment. The availability of compelled testimony, grants of immunity, search warrants and grand jury subpoenas could well have broken this case.

The third and final point is that despite the economic seriousness of the crime, it has been extremely difficult to interest Federal prosecutors and law enforcement agencies in pursuing software piracy because these crimes require extensive resources to pursue effectively, yet yield only misdemeanor convictions. For example, in one case a SPA member learned that an individual was selling illegally duplicated copies of its product under a variety of names at computer fairs and similar venues. Local law enforcement officials seized illegal copies being marketed in one community, but when they turned the matter over to the FBI and the U.S. attorney they were told unequivocally that the case would not be pursued since it only constituted a misdemeanor offense.

In another case involving a mail order operation selling illegally duplicated software, a SPA member did get the attention of the FBI and the U.S. attorney. Although a 2-year investigation did eventually lead to a conviction, since the conviction was only a misdemeanor the defendant was sentenced to only probation and a fine of $500.

The likelihood under the current law that a conviction for software piracy will lead to probation and a relatively small fine explains why law enforcement agencies and prosecutors are unlikely to use their limited resources to pursue software piracy as long as it remains a misdemeanor.

Mr. Chairman, the U.S. software industry is one of the bright stars in the American economy. The industry will only be able to lift the economy out of recession and create new job opportunities

for the future if the industry actually receives the protection to which it is entitled under the Copyright Act. Civil remedies and misdemeanor criminal penalties offer no deterrent to the hardcore software pirate. Only felony criminal penalties will offer the necessary deterrents to would-be pirates and necessary incentives to Federal investigators and prosecutors so as to make criminal piracy of software not worth the risk.

Thank you, Mr. Chairman. I will be happy to answer any questions.

Mr. HUGHES. Thank you very much.

[The prepared statement of Ms. Penner follows:]

PREPARED STATEMENT OF GAIL PENNER, CORPORATE COUNSEL, AUTODESK, INC., SAUSALITO, CA

Mr. Chairman, Thank you for the opportunity to appear this morning in support of S. 893, increasing the penalties for criminal piracy of computer software. I am Gail Penner, Corporate Counsel for Autodesk, Inc., a Sausalito, California company which develops, markets and distributes a family of computer-aided design, engineering and software products for desktop computers and workstations. The SPA, with over 950 members, is the leading trade association of the U.S. desk-top software industry.

The SPA supports S. 893, a bill that will elevate the illegal copying of software from a misdemeanor to a felony by amending the Piracy and Counterfeiting Amendments of 1982 to include computer programs. As you know Mr. Chairman, the 1982 amendments increased the penalties for infringement of motion pictures and sound recordings to a felony level. When the 1982 legislation was being considered, the SPA did not exist. Indeed, our industry was in its infancy. However, since that time we have emerged as one of the fastest growing sectors of the U.S. economy, with enormous benefits to the nation's economic vitality and balance of payments. The U.S. software industry currently commands a 75% share of the world-wide software market.

The actual product produced and sold by SPA members is the computer code that is electronically embedded into disks, drives and semiconductor chips. This code is intangible and would have almost no value were it not for the protection against

unauthorized copying it receives under the.Copyright Act. In this sense we are like other copyright-based industries such as book publishing, motion pictures and sound recordings. However, unlike these other industries, software is exceptionally easy to reproduce. Whereas reproduction of a good copy of a book requires a printing plant and bindery, and commercial scale reproduction of copies of video cassettes or audio cassettes requires a small factory with hundreds of "slave" recording machines, all that is required to make perfect copies of a computer program within a few seconds is a standard personal computer.

The ease of copying of computer programs has made our products even more susceptible to piracy than more traditional copyrighted works. The greater retail value of most software, which reflects the research and development costs that go into producing these products, also increases the incentive to pirate. Typical mass market software products, such as WordPerfect and MS-DOS sell for hundreds of dollars per copy. More specialized products -- such as engineering software -- often sell for thousands of dollars per copy. Industry studies have indicated that, at a minimum, for each legal copy of software in circulation, one copy is pirated. We estimate that revenue lost to software piracy in the U.S. was $2.4 billion in 1990, the last year for which we have statistics. The losses abroad are even greater. In Western Europe alone the loss to software piracy was $4.46 billion. And, the cost of piracy is even higher in Pacific Rim, Eastern Europe and less developed countries.

Because piracy is a national economic issue, and stealing software means stealing jobs, control of international piracy has become a major goal of U.S. trade policy makers. Passage of S. 893 would help meet this goal. Agreements to strengthen protection against piracy have been major elements of GATT negotiations, the North American Free Trade Agreement, European Community Directives and bi-lateral trade negotiations with many countries. Much of the effort to control piracy abroad has centered on developing adequate criminal sanctions to deter piracy. When we press for such sanctions abroad, it is imperative that we show that we are implementing strong, deterrent criminal sanctions here at home as well.

Mr. Chairman, let me make clear that we in the software industry do not consider all unauthorized copying of our programs to constitute felonious behavior. The proposed legislation requires that copying be "willful" and "for purposes of commercial advantage or private financial gain" in order to be considered a felony offense. The many thousands of people who make an extra copy for a family member or friend would rarely meet this test. In many cases businesses make multiple copies of software in violation of licensing agreements. We at SPA have an active program of public education, audits of commercial establishments, and where necessary, civil litigation, to deal with these problems. While we consider such copying to violate our copyrights, we do not believe that it falls into the area of felonious behavior.

The kind of activity to which S. 893 is directed is the kind of professional criminal behavior which was the focus of the 1982 amendments in the area of audio and video piracy. As the following examples demonstrate, civil remedies are not adequate since professional software pirates are adept at avoiding process, avoiding discovery, hiding assets and going underground when served with a civil complaint only to resurface later. Therefore, standard civil remedies have only limited deterrent effect on professional software pirates. Moreover, despite the economic seriousness of software piracy, it has been extremely difficult to interest federal prosecutors and law enforcement agencies in pursuing software piracy, because these crimes require a great deal of resources to pursue effectively and, when successful, yield only misdemeanor convictions.

In June of 1991, an SPA member software company learned that in violation of its copyright, a California company had sold more than $400,000 worth of pirated software to a Florida distributor. Further investigation revealed that the California company was operating a sophisticated manufacturing, packaging and distribution system -- all without any authorization from the software copyright owner. A civil seizure order executed against the California operation at several clandestine locations uncovered packaged, pirated software with a market value of more than a million dollars. Over 6500 sets of diskettes, binders and manuals were seized; clear evidence of professional, willful piracy. Despite the wealth of the illegal product found, no civil damages have been collected in this case. The only business record found was a single spiral notebook containing dates, cash amounts and item references. The kind of normal business records and financial

data that would be maintained by a legitimate concern were completely missing. Therefore, we had no records of where the revenues from the operation had gone. Attempts to use civil discovery to secure information about the whereabouts of business records and bank accounts were met with claims under the Fifth Amendment. There have been recent indications that this illegal operation may be moving to resume operations under a different guise. This is a typical example of how civil remedies have been unavailing in the fight against software piracy. If software piracy were a felony, the full range of criminal investigative procedures, including the grant of immunity for testimony, would be available to trace assets and to put the pirates behind bars.

In another case, a civil action focusing on a bi-coastal operation led to proof that over 40,000 copies of software and accompanying manuals had been illegally copied and sold in a massive pirating operation. Attempts to trace the assets of the pirate operator revealed that at least some of the ill-gotten profits had been channeled to bank accounts overseas under the control of foreign nationals. The defendant declared bankruptcy in the U.S. and responded to all attempts at civil recovery with empty pockets, in spite of living an apparently lavish lifestyle. There was evidence that the defendants regularly carried firearms, and were in fact jailed for a time on other charges. Again, all attempts to use the normal civil discovery process to determine the location of assets and other business information were met by claims under the Fifth Amendment. The availability of compelled testimony, grants of immunity, search warrants, and grand jury subpoenas could well have broken this case open.

In yet another case, a company that makes high-end engineering software received reports of a single individual selling illegally duplicated copies of its product under a variety of names at computer fairs and similar venues. Local law enforcement officials seized illegal copies being marketed in one community, but when they turned the matter over to the FBI and the U.S. Attorney, they were told unequivocally that the case would not be pursued due to the fact that it only constituted a misdemeanor offense.

In a final example, involving a mail order operation selling illegally duplicated software, the same company did get the attention of the FBI and the U.S. Attorney. However, although a two year effort did eventually lead to conviction, the defendant was sentenced only to probation and a fine of $500. The prospect of this type of sentence is a good example of why law enforcement agents are unlikely to use their limited resources to pursue software piracy as long as it remains a misdemeanor.

Mr. Chairman, there is very little difference between the cases I have described above and the kinds of video and record piracy cases which have been prosecuted under the 1982 amendments. But, because of the enactment of that statute, which made substantial piracy of videos and records a felony, the film and record industries have been very successful in bringing the problem of commercial piracy under control. Felony sanctions have had a tremendous deterrent effect.

Moreover, the 1982 amendments have not created any legal confusion. There is absolutely no evidence that prosecutors, law enforcement agencies, or the film and record industries have abused the law or that there have been unjustified prosecutions. The absence of abuse is especially significant given the widespread opportunities for legitimate commercial disputes between copyright owners and the many thousands of video and record store owners and individual users of their works. With films and recordings, appropriate application of the criminal law has not interfered with civil litigation of commercial disputes.

The existing felony provisions work well for the record and film industries because the standards are clear and easy to apply. First, 17 U.S.C. Sec. 506 requires a showing of willfulness and that the infringement was for commercial advantage or private financial gain. Second, the provisions of 18 U.S.C. Sec. 2319 require the illegal duplication of certain numbers of copies in order to subject the violator to felony penalties. The number of illegal copies involved would be greater than those which would be made by the normal civil defendant who would lack criminal intent. This same approach has been followed in S. 893, which requires duplication of more than 49 copies in order to subject the offender to the five year felony term and more than ten but less than 50 copies for a two year felony term.

We are not advocating that this law should apply to cases where legitimate differences of opinion exist as to whether or not portions of a program have been

illegally copied in the creation of a new work. Disputes involving complex issues regarding potential copying of non-literal elements of a computer program, commonly referred to the "look and feel" of software, would no more have a place in criminal jurisprudence under S. 893 than would comparable disputes under the current criminal copyright law as applied to the film and recording industries.

Mr. Chairman, the U.S. software industry is one of the bright spots of the American economy today. If the industry is to play its role in lifting the economy out of recession and creating new opportunities for the future, it must be able to take advantage of the incentives of the Copyright Act. Every dollar which ends up in an off shore bank account or is funneled into other illegal activities by organized gangs of pirates is a dollar unavailable to support the research and development necessary to keep the software industry vibrant and growing. Consumers are also harmed when they are sold software which lacks the warranty and customer support offered by legitimate vendors and retailers, and when they have to pay higher prices for their software to compensate for the amount of product pirated.

Monetary damages alone offer no deterrent to the hardcore criminal software pirate who has the ability to hide assets and move his operations in the dead of night to another city or state. Only effective criminal penalties will offer the kind of deterrent effect that will make criminal piracy of software not worth the risk. On behalf of the industry I urge you to move quickly to mark up and pass S. 893. We will be happy to

cooperate with you and your staff in amendments or modifications to the legislation to make it a better bill.

Thank you, Mr. Chairman, I shall be happy to answer any questions you may have.

Mr. HUGHES. First of all, Mr. Charne, your written statement indicates that most counterfeiting of your company's products is done in Taiwan and then shipped into this country. The Copyright Act gives the Customs Office the ability to seize pirated goods. Why isn't that a sufficient remedy?

Mr. CHARNE. U.S. Customs has been very diligent in trying to intercept goods coming into the country, but we recognize that quite a bit comes through. S. 893 gives us a remedy after the goods enter the United States to go after people who are selling and distributing counterfeit products at the retail and distribution level.

Mr. HUGHES. Your works contain two copyrights, one for the computer program that generates the audiovisual display, as I understand it, and one for the audiovisual display itself. Why can't you rely on audiovisual copyright in order to get a felony prosecution?

Mr. CHARNE. Frequently in the programs, particularly in the samples of multiple games, the audiovisual display is not presented in its entirety. Multiple game cartridges frequently contain portions that are taken from games. Therefore audiovisual copyright is not always an adequate remedy to stop the problem.

Mr. HUGHES. You have to have the entire audiovisual copy to prosecute?

Mr. CHARNE. I would like to defer to my counsel.

Mr. HUGHES. Please. Counsel, why don't you just pull up a chair and join us at the witness table? Identify yourself.

Ms. SAUNDERS. I am Mary Jane Saunders from Arter & Hadden.

The piracy that we are seeing these days is becoming much more sophisticated, and on certain occasions we have got very limited versions of the program being presented in the 151 and 210 on one cassette. Our concern is that without protection or software copyrights apart from the audiovisuals that the pirates will in the future be modifying these copies even more so so that we aren't able to take effective protection against the counterfeits that we are seeing.

Mr. HUGHES. Would you agree that as long as there is some audiovisual element that that would perhaps trigger a prosecution?

Ms. SAUNDERS. It would. But we think that it would be enhanced if there was also protection for software copyrights.

Mr. HUGHES. The Robocop that you point to as one of the more egregious violations because of the copying of not just the material software but also the packaging and instructions and everything else, as well as the Barbie counterfeit, can't they be prosecuted under the Trademark Counterfeiting Act which we wrote a number of years ago, 18 U.S.C. 2320? It provides for a 5-year term of imprisonment.

Ms. SAUNDERS. This one probably can. The problem is that this model can't, because this model doesn't reproduce the trademarks of the copyright holder.

Mr. HUGHES. I see. Ms. Penner, your statement indicates that you do not wish to sweep within the bill disputes over copying nonliteral elements of a computer program nor "look and feel" issues. However, you don't mention reverse engineering issues such as those in the *Sega-Accolade* case. Do you intend to exclude those also from the bill?

Ms. SAUNDERS. Reverse engineering is much like the "look and feel" cases in that it is an unsettled area of the law. There are basic legitimate questions of law that exist in that area.

The bill calls for willful copyright infringement, and, if I may, I would like to read to you from a treatise by Stanford Prof. Paul Goldstein on willfulness.

"To be criminally liable a copyright infringer must have acted willfully. This means that the government must prove not only that the infringer knew that the work in issue was the subject of a valid copyright and that he was copying it without the copyright owner's permission, the government must also prove that the defendant knew that his acts constituted copyright infringement or at least knew that there was a high probability that his acts constituted copyright infringement. The reverse engineering cases, because of the unsettled state of the law, are not covered by this willful type of act."

Mr. LEHMAN. Mr. Chairman, we have a memorandum that we have given to counsel on the willfulness issue which we would like to put in the record, if that is OK.

Mr. HUGHES. Without objection, it will be so received.

[The memorandum follows:]

Software Publishers Association

1730 M Street
Northwest
Suite 700
Washington, DC
20036-4510

Telephone
(202) 452-1600

Fax
(202) 223-8756

TO: The Honorable William Hughes

FROM: Software Publishers Association

DATE: August 10, 1992

RE: Willfulness Requirement

The following is a discussion of the willfulness requirement as it has been interpreted in copyright infringement cases.

Willfulness

In order for infringement of a copyright to be criminal, the infringement must be committed "willfully."[1]

Two divergent lines of cases have defined the term "willfully" as used in Section 506 of the Act.[2] Most courts require a showing of bad purpose or evil motive in the sense that there is an intentional violation of a known legal duty.[3] A minority view defines "willfully" to require only an intent to copy and does not require proof of an intent to infringe.[4]

---

[1] 17 U.S.C. § 506(a). The term "willfully" is not defined in Section 506 of the Act, nor is a definition provided in the legislative history of that section.

[2] United States v. Moran, 757 F. Supp. 1046, 1048-51 (D. Neb. 1991); 3 Nimmer on Copyright, §15.01 at 15-5, 15-6 n. 13 (1991).

[3] United States v. Moran, 757 F. Supp. 1046, 1048 (D. Neb. 1991); United States v. Cross, 816 F.2d 297, 300 (7th Cir. 1987); United States v. Heilman, 614 F.2d 1133 (7th Cir. 1987), cert. denied, 447 U.S. 922, 100 S.Ct. 3014 (1980); United States v. Gottesman, 724 F.2d 1517 1522-1523 (11th Cir. 1984); United States v. Wise, 550 F.2d 1180 (9th Cir. 1977), cert. denied, 434 U.S. 929, 98 S.Ct. 416 (1977), reh'g denied, 434 U.S. 977, 98 S.Ct. 542 (1977); United States v. Rose, 149 U.S.P.Q. 820 (S.D.N.Y. 1966).

[4] United States v. Backer, 134 F.2d 533, 535 (2d Cir. 1943); United States v. Taxe, 380 F. Supp. 1010 (C.D. Cal. 1974); aff'd in part, rev'd in part, 540 F.2d 961 (9th Cir. 1976), cert. denied, 429 U.S. 1040, 97 S.Ct. 737 (1977), reh'g denied, 429 U.S. 1124, 97 S.Ct. 1163 (1977).

Thus, while the general rule is that ignorance of the law or mistake of the law is no defense to a criminal prosecution, the majority of courts hold otherwise when it comes to criminal copyright infringement. Specifically, they interpret the "willful" element of the offense as requiring the prosecution to prove that the defendant's conduct was a "voluntary, intentional violation of a known legal duty."[5]

Courts have articulated this interpretation of the "willfulness" requirement of the Copyright Act in several ways. In one case, for example, the court instructed the jury that "willfully" means that "the act was committed by a defendant voluntarily, with knowledge that it was prohibited by law, and with the purpose of violating the law, and not by mistake, accident or in good faith."[6] Another court stated that "willfully" generally means "an act done with a bad purpose . . . without ground for believing it is lawful . . . or conduct marked by careless disregard of whether or not one has the right so to act."[7] In a third case the court stated that "[a]n act is done willfully if done voluntarily and purposely and with specific intent to do that which the law forbids -- that is to say, with a bad purpose either to disobey or disregard the law."[8] The 9th Circuit has also interpreted "willfulness" in the context of a criminal copyright infringement under the 1909 Act, to mean "with a bad purpose to disobey or disregard the law."[9]

In summary, the majority of cases which have interpreted the meaning of "willfully" as used in connection with Section 506 of the Act have determined that such term means a voluntary, intentional violation of a known legal duty. Accordingly, the general principle that ignorance of the law or mistake of the law is no defense to a criminal prosecution would not

---

[5] United States v. Moran, 757 F. Supp. 1046, 1049-51 (D. Neb. 1991).

[6] United States v. Cross, 816 F.2d 297, 300 (7th Cir. 1987).

[7] United States v. Heilman, 614 F.2d 1133, 1137 (7th Cir. 1980), quoting United States v. Murdock, 290 U.S. 389, 394-395, 54 S. Ct. 223, 225 (1933); see also United States v. Wise, 550 F.2d 1180, 1194 (9th Cir. 1977) (In a claim for criminal violation of 17 U.S.C. § 104, which prohibited willful vending of copyrighted motion pictures, the government had the burden to prove, in addition to the usual requirement of an act intentionally done in violation of the law, that appellant knew that the film which he had sold had not been first sold by the copyright owner).

[8] United States v. Rose, 149 U.S.P.Q. 820, 824 (S.D. N.Y. 1966).

[9] See United States v. Wise, 550 F. 2d 1180, 1194 (9th Cir. 1977); United States v. Atherton, 561 F.2d 747, 749 (9th Cir. 1977); United States v. Drebin, 557 F.2d 1316, 1323-4 (9th Cir. 1977).

apply in this context, because knowledge of the law is an element of the mens rea required to constitute a violation of Section 506 of the Act.

Although ignorance of the law is relevant in negating the willfulness required for criminal copyright infringement, most courts require that such ignorance be objectively reasonable.[10] At least one court, however, has rejected this "objective" reasonableness standard with respect to Section 506 of the Act, and held that the term willful "does not require that a defendant's belief that his or her conduct is lawful be judged by an objective standard." Instead, it held that the test is whether the defendant "truly believed" that the copyright laws did not proscribe his or her conduct.[11] However the court went on to state that "the more unreasonable the asserted belief or misunderstanding, the more likely it is that the finder of fact will consider the asserted belief or misunderstanding to be nothing more the simple disagreement with known legal duties imposed by the law, and will find that the government has carried its burden of proving knowledge."[12]

Because willfulness is a state of mind, it can rarely be proved by direct evidence. Thus, proof that an individual acted willfully ordinarily depends on inferences reasonable drawn from the evidence.[13]

---

[10] United States v. Moore 627 F.2d 830, 833 (7th Cir. 1980); cert. denied, 450 U.S. 916, 101 S.Ct. 1360 (1981) (in a case involving willful failure to file a tax return court held that "[t]he mistake of law defense is extremely limited and the mistake must be objectively reasonable"); United States v. Barker, 546 F. 2d 940, 947-48 (D.C. Cir. 1976); United States v. Breasler, 772 F.2d 287, 290 (7th Cir. 1985), cert. denied, 474 U.S. 1082, 106 S.Ct. 852 (1986) (in case involving conviction for willfully failing to file income tax returns, court held that a good faith misunderstanding of the law will negate willfulness only if the misunderstanding is objectively reasonable); Brown v. Bullock, 294 F.2d 415 (2d Cir. 1961) (one must have "grounds" for believing the conduct lawful); United States v. Squires, 440 F.2d 859 (2d Cir. 1971) (one may not deliberately close one's eyes to the obvious, for example, by failing to read a form).

[11] United States v. Moran, 757 F. Supp. 1046, 1051 (D. Neb. 1991) (adopting the ruling in Cheek v. United States, ___ U.S. __, 111 S.Ct. 604, 610 (1991), which held in a criminal tax prosecution that a good faith misunderstanding of the law or a good faith belief that one is not violating the law negates willfulness, whether or not the claimed belief or misunderstanding is objectively reasonable); see also, United States v. Aitken, 755 F.2d 188, 192 (1st Cir. 1985) (criminal tax prosecution); United States v. Burton, 737 F.2d 439, 441-43 (5th Cir. 1984) (criminal tax prosecution).

[12] United States v. Moran, 757 F. Supp. 1046, 1051 (D. Neb. 1991); Cheek v. United States, ___ U.S. __, 111 S.Ct. 604, 611-612 (1991).

[13] United States v. Wilson, 631 F.2d 118, 199 (9th Cir. 1980); United States v. Rose, 149 U.S.P.Q. 820, 824-25 (S.D. N.Y. 1966); United States v. Sherman, 576 F.2d 292, 297 (10th Cir. 1978).

Mr. HUGHES. It seems to me that it does raise some serious questions as to whether or not we are not reaching that type of conduct within the purview of this bill. My question is why leave that open? Why not deal with that right up front and make it very clear that we do not intend to cover that kind of conduct, reverse engineering, which I think most parties agree has a salutary effect?

Mr. LEHMAN. Mr. Chairman, as I mentioned, we put a fairly extensive memorandum into the record on this issue, and it would be our view that if you really look at the existing case law that interprets the existing statute, which has been around for quite a long period of time, there really is absolutely no way in which that kind of conduct could fall under this statute.

You know, when we were working on this, obviously, we thought about various ways of approaching this legislation. And, the approach that we took, which I think was completely reasonable, was to try to make the least intrusion into the existing statutory law, because otherwise there would be more confusion. And so we built on the 1982 amendments, which have worked very well. And by the way, there are similar issues in the motion picture and sound recording industries. There is lots of civil litigation. A lot more than there is in the software area, and you have not found the criminal penalties being used in that area at all, and that is because of the extensive case law that I mentioned that makes it pretty clear. That case law is summarized in Professor Goldstein's treatise.

So, we looked at this and we decided that the more prudent course of action would be to stick with the existing statutory law. But having said that, we would be prepared to work with you and your staff to address your concerns in any way we can.

Mr. HUGHES. You have anticipated my next question. Thank you.

Mr. CHARNE. Excuse me. Mr. Chairman, we don't have a problem addressing the reverse engineering issues or reverse compilation issues here, but we really think that a better place for it is in the legislative history and the report where it can be described in more detail.

Mr. HUGHES. I expected that would be your position. Now the second panel will tell us they prefer it in the statute because some judges, like Justice Scalia, doesn't think that legislative history is worth the paper it is written on. So.

The gentleman from California.

Mr. MOORHEAD. Thank you. If this legislation is passed, where would you hope to catch the violators? I have visited the Los Angeles Airport where the Customs Service has some very, very technical equipment and they can really tell whether an item is counterfeited or not in a matter of seconds. By taking one example of an item and putting it in this machine they have, they can tell immediately. I don't know how thorough the other Customs agents are in other places than LAX, but I wouldn't want to try to get something through there and hope to be successful.

I would think with your items that are being copied the most, if you would give examples to customs agents they might be able to catch a whole lot more than they are right now, if they knew exactly what they were looking for.

Mr. CHARNE. We have worked with Customs, and Customs has been successful in making quite a large number of seizures.

Mr. MOORHEAD. Oh, they had a lot of it when I was there.

Mr. CHARNE. They have done a wonderful job. But we know that a lot of goods do get through. What this allows us to do is to create a blanket so that we can address the problem of the goods which do enter the country by targeting people who are engaged in the distribution of counterfeit goods and people who are selling counterfeit goods. That is something that we don't really have a chance to do now.

I am told that physically Customs can examine less than 1 percent of the shipments that come into the country. You know, we are not questioning the efforts or the results that Customs is achieving, but I think that it is a bigger problem. They are not able to do it themselves.

Mr. MOORHEAD. Is the problem of piracy for the video game industry primarily an international one, or are there a lot of people here within this country that are doing that same kind of copying?

Mr. CHARNE. The manufacturing of the products now is primarily done overseas, but we are beginning to see the beginnings of a U.S. industry. While U.S. manufactured pirated games are not a major problem today, we expect it is going to become a larger problem going forward.

Mr. MOORHEAD. Do you know what kind of cooperation the Government, our Government is receiving from Taiwan and other places on these issues?

Ms. SAUNDERS. I am going to deflect to my colleague here.

Mr. BIKOFF. The Government of Taiwan, as you stated, Mr. Congressman, entered into an agreement with the United States to provide an export mechanism of surveillance on outgoing software which is to become effective this fall. However, what we have seen in the video game industry is a migration of manufacturing of counterfeit video games to Taiwan to places like Hong Kong, more recently Thailand, Malaysia, Singapore, and the total figures are growing while the figures in Taiwan are being reduced.

Customs has been very helpful to the video game industry but the counterfeiters are very clever, and many times the games do not come in in this form. The multicartridge games that we see now, many of them are coming in blank, even without the memory chips, which are being smuggled in separately, and a lot of assembly, increased amounts of assembly are taking place in the United States.

Mr. MOORHEAD. You know, we have passed a 1982 law that would cover this kind of thing with motion pictures and other things of that sort. Do you know of any problems that have developed as a result of that law? How effective has it been?

Mr. BIKOFF. Well, from what I am told by colleagues in the motion picture and recording industries, that law is working very well, and prosecutors have been careful to apply the law to the piracy situation and not to what should be handled civilly.

Mr. MOORHEAD. One thing that I am wondering about, and I support the legislation, but if you make it a felony you may be able to step up the prosecution somewhat. I wonder if you will step up the sentences that come as a result of it. As the jails are so full of drug traffickers and violent criminals and others, there is just no room for anyone else in there.

Mr. BIKOFF. Well, Congressman, it would be my hope that if this software piracy is made a felony that it will serve as a strong deterrent and that those who import and distribute counterfeit software in any form will think twice because they will have to think about a possible criminal penalty.

Mr. MOORHEAD. Do you think it will have an effect outside of the United States?

Mr. BIKOFF. Yes, I do.

Mr. MOORHEAD. In what way?

Mr. BIKOFF. I think the effect it will have is it will give our negotiators at the U.S. Trade Representative's Office more ammunition when they insist that our trading partners pass legislation to increase the penalties against the production of many of these pirated works.

Mr. MOORHEAD. Thank you very much.

Mr. HUGHES. The gentleman from Florida.

Mr. JAMES. Yes. What is the difference in the number of copies involved with motion pictures, does anyone know?

Mr. HUGHES. Would the gentleman defer? I neglected to go to this side.

Mrs. SCHROEDER. No. That is OK. He got here first. Go ahead.

Mr. HUGHES. OK. The gentleman from Florida.

Mr. JAMES. What is the difference, does anyone know? Without looking at the statute, do any of you know the difference that we are talking about?

Mr. LEHMAN. It is 7 videos, I think, for the 2-year felony, and 65 for the 5-year felony.

Mr. JAMES. Why is it we don't have a general statute that would apply to all copyrights, for felonies in that area, because I assume you have the same problem with other type of copyrights?

Mr. LEHMAN. That was mentioned actually in the chairman's statement earlier, and that is because in 1982 when these amendments were originally passed dealing with video piracy and sound recording piracy the computer software, mass market computer software industry really didn't exist. You had a big mainframe software industry and you didn't really have this kind of mass marketing pirating problem. So we are really dealing with an industry that has come into being. It is hard to believe that it has been such a short period of time, but an industry that has literally come into being in the last 10 years.

Mr. JAMES. I understand why you want it. All the more reason, I would assume, to have a general law of some sort or at least we should probably consider that if it is a valid concept.

Mr. LEHMAN. I think the reason that the law was kept limited reflects some of the concerns of the chairman, which we are very sensitive to as an industry. And, that is, that these are very serious penalties, and one must approach this very cautiously, and that is why we are here. We wouldn't be coming to Congress if we really didn't have a problem, and we want to work with the committee to see that this is a surgical approach and that we get what we need and then don't go overboard.

Mr. JAMES. This would involve just copyrights that are federally copyrighted, I suppose, in Washington? That is where you get your jurisdiction, because it is a Federal copyright?

Mr. LEHMAN. But you know, Mr. James, the copyright law is preemptive, and so there are really no State law rights, which makes it more difficult for us to use State law enforcement mechanisms to deal with the problem.

Mr. JAMES. They really won't try to enforce a Federal law in State courts.

Mr. LEHMAN. That is correct.

Mr. JAMES. So you can't do it.

How many cases have been made with the motion picture industry? Can anyone tell me that? How successful has that been as far as the criminal prosecutors?

Mr. LEHMAN. I don't have actually the exact statistics, but before the hearing I did talk with counsel to the Motion Picture Association about their experience under the 1982 law. And interestingly, one of the things that happened after the 1982 law went into effect was that the problem really started to dry up. There have not been that many prosecutions, largely because of the deterrent effect.

These people who are in this business are businessmen and criminals both, and they make a calculated judgment: Is the potential remuneration that I am going to get from this worth the down side if I get caught, and obviously that is the calculation that was made. There was very extensive piracy, and it gave rise to those 1982 amendments. The experience of the Motion Picture Association and the record industry both, was that much of it dried up. And so interestingly, going back to Mr. Moorhead's question, we are less likely to see demand for prosecutorial resources, less likely to see problems with people in jail, if this deterrent effect is in the law because these are not crimes of passion, these are very cold, calculated decisions that are made by businessmen.

Mr. JAMES. So you could, I suppose, have State laws that involve the theft of an idea even though it is a Federal copyright, I suppose.

Mr. LEHMAN. Well, actually there is considerable case law that suggests that there is almost no room for State law in this area.

Mr. JAMES. The case law is pretty clear you can't pass a State statute saying a theft of a copyright is actionable because it is——

Mr. LEHMAN. That is correct. In fact, interestingly, there is even a Federal case that I was just reading yesterday which even suggests in one case the Supreme Court overturned a prosecution for copyright on what was essentially a copyright infringement under other Federal statutes because of the very strong presumption that this is an intellectual property area, and that Congress must legislate through its intellectual property policy authority.

Mr. JAMES. So, if you are going to have a criminal penalty it has to be on the Federal level, period?

Mr. LEHMAN. Yes.

Mr. JAMES. Regardless of any other demonstration of jurisdiction, et cetera.

Mr. BIKOFF. That is true, Mr. James. The trademark law is different. There is concurrent jurisdiction between the Federal and the State governments. But for copyright and patent, there is a preemption statute.

Mr. JAMES. And so you think there won't be—we only have, what, 1,100 Federal judges? If we really did have a series of pros-

ecutions, I think you would have to measure the pressure that would be placed on our Federal courts in that regard. But you are suggesting that they will make a calculated decision to get out of the business rather than face the felony prosecution if Federal authorities show themselves serious about prosecuting those cases?

Mr. BIKOFF. Well, I think if we look at the motion picture bill as an example that shows us that indeed that is what happened in those two industries, then we would think that in the software industry there would be a similar strong deterrent effect by a bill of this type.

Mr. JAMES. Thank you so much. You have all been very helpful. Thank you for your testimony.

Mr. HUGHES. The gentlelady from Colorado.

Mrs. SCHROEDER. Thank you, Mr. Chairman. And having been around when we did the 1982 act, I am very sympathetic to what has developed here.

Basically, I think most of the questions I wanted to ask have been asked. Is any of this coming out of Mainland China?

Mr. BIKOFF. Yes, Mrs. Schroeder. We are finding that this game, Robocop 2, which is actually manufactured in Hong Kong, contains parts that are subcontracted in the Shenzhen portion of the People's Republic of China, and I think we are going to see an increase in that activity.

Mrs. SCHROEDER. Interesting. And we are seeing all of that area just explode, especially in the toy stores and things. So I assume that the games are getting picked up there.

But you think we have enough protection so that if somebody is visiting Hong Kong and buys that on the street, they will not be able to bring it back to the United States. So you won't have some businessman who buys that for his kid.

Mr. BIKOFF. Well, unfortunately, tourists who visit foreign countries under our current state of the law are allowed to bring one of anything back into the country. So you could have one of these bought in the street of Hong Kong and come back into the United States. But commercial quantities, they are being screened by Customs. Unfortunately, the pirates stay one step ahead of Customs and now we see many components coming into the United States unmarked and Customs can't stop them because many times they are smuggled in on PC boards that don't have the infringing chips.

Mrs. SCHROEDER. Well, the other thing that is so troubling is it is all so small. We got into the same thing with records and movies. So small that briefcases and everything else, you can't just have everybody open them up as they come through.

Mr. BIKOFF. No, that is true. You can fit quite a few of these in one suitcase.

Mr. LEHMAN. Mrs. Schroeder, it is important also to understand in the area of business software, which is a large part of what the Software Publishers Association is concerned with, that most of the piracy that we are talking about originates right here in the United States. The duplication and all of that takes place right here.

Mrs. SCHROEDER. And that is really small, little disks.

Mr. LEHMAN. Yes. And, as we mentioned, those can be reproduced extremely easily, and that is a part of our problem. The software, Ms. Penner's company produces is engineering software that

sells for about $3,000 a copy. Yet you can duplicate it in a matter of a few minutes, and obviously there is a tremendous incentive to make a business of that, unless there are sanctions which suggest it is not going to be remunerative for you.

Mrs. SCHROEDER. OK. Thank you, Mr. Chairman. Thank you very much.

Mr. HUGHES. Is it safe to assume that we will see more and more of that trend toward shipping parts, and not necessarily a total package, to this country, and assembly facilities in this country which put software packages together? Is that going to be the trend?

Mr. BIKOFF. My personal opinion is that we will see more of that because counterfeiters in foreign countries are aware that the U.S. Customs Service is looking at a certain number of shipments coming in a year, and what we see more and more is the assembly and the parts coming in separately.

Mr. HUGHES. And I presume that would then argue more forcefully for the need for a felony statute as a deterrent?

Mr. BIKOFF. Yes, we believe so.

Mr. HUGHES. All right. The gentleman from California.

Mr. MOORHEAD. Is the quality as good on these items that are counterfeited as the original product?

Mr. BIKOFF. I will speak only to the video games. But in many of the video games the quality is equal to the original quality because they are basically copies. But on some of the ones that we have looked at there is a definite lesser quality and it can have an effect on the equipment that is used to play the games, an adverse effect. Also, if one looks closely at some of the copies, you will see that the reproduction of the photographic material is fuzzy because it is a poor copy. So we see copies that range from the very good to the very poor, and some that are not going to work on the machinery that is used to produce it.

In addition, the games on many of these are abbreviated in ways where the customer will not get the complete game that the copyright owner markets himself.

Mr. MOORHEAD. Do you make any attempt to monitor? For instance, if you saw Robocop 2 being advertised at about 60 percent of what is the cost of the regular item, is there any attempt to monitor these major organizations selling them at cut rates so that then you could have a followup?

Mr. BIKOFF. Yes. Mr. Moorhead, the video game industry has been extremely active in its enforcement efforts going all the way from large-scale investigations, not only in the United States but overseas, to civil actions and attempts to get criminal prosecutions where necessary. But the investigative component is a large one, and any time an ad appears on what looks like a counterfeit or pirated game the companies do try to purchase and send an investigator out to find out whether or not it is authentic. If not, then some action is taken in every case.

Mr. MOORHEAD. Thank you.

Mr. HUGHES. All right. Thank you very much. You have been very helpful to us this morning. We appreciate your willingness to join us and to contribute to this particular hearing. Thank you.

Mr. HUGHES. Our second and final panel consists of Edward J. Black, vice president and general counsel of the Computer & Communications Industry Association, and David Ostfeld, chairman of the Intellectual Property Committee, Institute of Electrical and Electronics Engineers, Inc., United States Activities.

Mr. Black brings a wealth of experience from his employment as a staff member here in the House and the State Department, as a partner in a law firm and in his current position with CCIA.

Mr. Ostfeld has testified before the subcommittee on a number of occasions, most recently on H.R. 191, a bill introduced by Mrs. Morella to amend section 105 of title 17.

We welcome both of you this morning. We have your statements, which, without objection, will be made a part of the record in full. And, as you know, we would like you to summarize, since we have read your statement, but you may proceed as you see fit.

Mr. Black.

STATEMENT OF EDWARD J. BLACK, VICE PRESIDENT AND GENERAL COUNSEL, COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

Mr. BLACK. Thank you, Mr. Chairman. It is a pleasure to be here this morning. I am Edward Black, vice president and general counsel of CCIA.

Concerning the issue before us, we have heard some good expositions of a problem that does exist, and CCIA has always vigorously opposed counterfeiting and piracy of software. It is a problem that needs an adequate remedy.

However, as our testimony tries to lay out, we believe it is essential that there are adequate definitions and reasonable boundaries in crafting any legislation to address this problem. We do not think it is tolerable to unintentionally interject felony criminal law into areas of dispute more properly resolved in a civil law context.

Although the legislation and all the testimony to support it talks about piracy, the legislative language does not use that term. And, on the issue of intent, which I am actually very anxious to see a memorandum relating to this, we think there is a desirability to have some specific definition of the type of intent which is necessary to move this into the felony area.

As you know, there is substantial controversy and disagreement within the computer and software industry on some areas of software copyright law. A sizable portion of the industry strongly believes that reverse engineering and limited decompilation of software code is entirely proper and legal. It is extremely widespread throughout all of industry, and it is indeed necessary and essential to the health and vitality of our industry and the continued growth of innovation on which it depends. There are others in the industry who are advocating an interpretation which would be overly restrictive and used to lessen competition, industry entry and innovation.

Therefore our principal concern is to ensure that any statutory language adopted to further criminalize piracy or counterfeiting be clearly limited to cover only egregious behavior which everyone agrees is piracy. There should be no ambiguity that would allow even the possibility that it could be extended to cover the numerous

instances where legitimate disputes over alleged copyright infringement will likely arise with increasing frequency as we attempt to grapple with the meaning of traditional copyright law as reasonably extended to the relatively new, more complicated and evolving computer and software industry.

We support the committee's efforts to try to come up with a provision of law to address this problem. We believe that proposals in this area, however, must be very carefully analyzed and understood so that we do not improperly impose heavy criminal sanctions on behavior which is not piracy, nor allow the threat of criminal sanction to be used as a tool to intimidate parties in essentially civil dispute situations. A situation, unfortunately, which has occurred already in the area of misdemeanor law in this area.

I look forward to working with your committee as you attempt to refine this legislation, and to answer any questions.

Mr. HUGHES. Thank you, Mr. Black.

[The prepared statement of Mr. Black follows:]

PREPARED STATEMENT OF EDWARD J. BLACK, VICE PRESIDENT AND GENERAL COUNSEL, COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

Mr. Chairman, Members of the Subcommittee, I am Ed Black, Vice President & General Counsel of the Computer & Communications Industry Association (CCIA). We appreciate the opportunity to testify before you today on S. 893, a bill to impose criminal sanctions for violations of software copyright law.

As you know, CCIA has a 20-year history of active participation in national computer and telecommunications policy debates before the Congress and the Executive Branch. The Association is comprised of some 50 companies who are manufacturers and/or providers of computer, information processing, and telecommunications products and services. CCIA's member companies are drawn from virtually every sector of the computer and communications industry and range in size from small, entrepreneurial firms to many of the largest in the industry. Collectively, CCIA's members generate annual revenues in excess of $190 billion and employ over a million people.

CCIA has a long-standing commitment to ensuring vital, dynamic competition within our industry. Thus, we have been very supportive of vigorous anti-trust laws, open standards for industry products, and intellectual property rules which carefully balance the rights of old and new innovators, consumers and the general public welfare.

Overall position

CCIA believes that counterfeiting and piracy of software are wrong and are serious problems. It may be necessary to utilize the criminal law including, when appropriate, felony treatment,

to respond adequately to these problems. We also believe it is essential that clear definitions and reasonable boundaries be established as part of any effort to define such conduct, so as not to unintentionally interject felony criminal law into areas of dispute more properly resolved in a civil law context. In analyzing problems in the software copyright area, it is important to keep in mind that there are fundamental differences between the computer industry, where software is a building block which must mesh and interoperate with other industry products, and the entertainment industry where the record or movie is the end product.

Principal Area of Concern

Upon first reading the bill S. 893, we were inclined to be very supportive of it because CCIA has always vigorously opposed counterfeiting and piracy of software. However, as we have further considered this specific bill a number of concerns have arisen. The Senate report language has attempted to address some of them, but we believe some further attention to these concerns by this Subcommittee is warranted. Although the Senate report language describing the legislation talks about "piracy", it does not define it, and the legislative language does not use the term. We want to ensure that the intent of the legislation is clear, and targeted to this important area of real abuse.

As Members of the Subcommittee may recall from previous testimony there is substantial controversy and disagreement within the computer and software industry on some areas of software copyright law. A sizeable portion of the industry strongly believes that reverse engineering and limited decompilation of software code is entirely proper and legal, is extremely widespread throughout all of industry, and is indeed necessary and essential to the health and vitality of our industry and the continued growth of innovation on which it depends. There are

some others in industry who are advocating an interpretation which would be overly restrictive and used to lessen competition, industry entry and innovation.

Therefore, our principal concern is to ensure that any statutory language adopted to further criminalize piracy or counterfeiting be clearly limited to cover only egregious behavior which everyone agrees is piracy. There should be no ambiguity that would allow even the possibility that it could be extended to cover the numerous instances where legitimate disputes over alleged copyright infringement will likely arise with increasing frequency as we attempt to grapple with the meaning of traditional copyright law as reasonably extended to the relatively new, more complicated, and evolving computer and software industry.

One area in which the Senate Committee report language leaves us concerned is that it stresses that S. 893 "only punishes willful infringement for purposes of commercial advantage or private gain". While in the movie or record industry copies made by an alleged infringer for "commercial advantage or private gain" may serve to distinguish between less serious, tolerable infringers and more serious and reprehensible infringers, the distinction has little relevance in the computer industry. The disputes we face center around which types of "copying" ought or ought not be allowed pursuant to the fair use doctrine, even though all contested "copies" are made in an industrial setting and presumably are all done to achieve "commercial advantage or private gain". Even though there is additional report language which states that the bill "does not encompass situations in which there is a legitimate commercial dispute over whether there was copying", we remain concerned that the statutory language alone, or when coupled with the contradictory report language, leaves the situation too uncertain with regard to our industry.

We do not expect disagreement as to the desirability of narrowly defining the offenses which are the subject of this bill. Thus, we do not believe that we need to take up the Subcommittee's time to discuss extensively at this time, our strongly-held position on the necessity and desirability of allowing reverse engineering and limited decompilation, or of why and how a balanced copyright system is in the public interest, particularly as it relates to our industry. But if our expectations are incorrect, we would welcome the opportunity to do so.

The questions before the Subcommittee

It would seem that the general question before the Committee is to define exactly what types of behavior are so especially egregious that they justify the most severe sanctions which accompany the classification of such behavior as felonious.

It would seem that among the things the Subcommittee needs to determine are:

is there a problem?

what are its actual parameters?

is it of sufficient magnitude as to justify felony status for certain
behavior?

are there no other less severe methods to deal with the problem?

what are the key elements of the behavior which compel the change?

are there ambiguous boundaries surrounding the impermissible behavior that bring into question the coverage of less serious offences or even wholly justified behavior?

Nature of the Problem

We believe there is a serious problem both in the U.S. and abroad of counterfeiting and piracy. You will hear from private and governmental sources calculations as to the extent of the problem. We are, however, not comfortable with most estimates which have been put forward to describe its magnitude. We also think it is important to look at the various types of improper copying and not just at an aggregate figure. For example, some calculations assume that every possessor of an improperly copied program would actually buy a legally made one at full price if a cheap illegal alternative were not available. However appealing the sales prospects, we don't think such an outcome is very likely.

We think it is important that the Committee examine the methodology by which such figures are arrived at, and in so doing to identify the various sub-elements which go into the large total dollar figures often used to describe the extent of this problem. Specifically, it is important to identify where the major economic impact occurs, in terms of software type, quantities copied, business setting, and offender types. This should help to identify more precisely the nature, characteristics and boundaries of the problem, and thus the appropriateness of the proposed remedies.

We urge this not because we don't agree that there is a substantial problem, but because we believe it is important to have a solid understanding of the various types of behavior and situations in which such criminal law is to be applied if we are to determine the proper boundaries under the criminal law.

Appropriateness of criminal law

As an organization CCIA does not normally testify about criminal law or the criminal justice system. However, since we are here it seems appropriate to point out that we think it is important to ensure that criminal law imposing felony liability be as precise and clear as possible. The limits of the law's reach should be unambiguous and easily identifiable by those who engage in totally legal, or even in less egregious, albeit improper, behavior.

Also, while there may be grounds to extend felony criminal treatment for certain extremely harmful behavior relating to copyright violation, we understand the reluctance which some may have at the prospect of creating too many new felonies at a time when our prosecutors, courts and prisons are greatly over-burdened and, some would say, nearing breakdown.

Comments on the legislative approach

The bill before us seeks to amend the law by following the form employed to deal with wrongful copies of sound recordings and motion pictures. The different nature of the industries need to be examined more closely to determine if this is a reasonable model to follow. The core difference is that our industry has a large number of legitimate and complex disputes and issues surrounding the question of infringement and the disputes clearly are connected not only with commercial gain but with business strategy.

There are smaller differences as well. I assume that the making of 10 or 50 pirated copies of a major movie would net substantial revenues because it could be shown and reshown to large audiences. Such an outcome would not necessarily result in the case of software. By focusing on the number of copies improperly made, rather than on the value of such copies, there is an

opportunity for some incongruities in application, e.g. some copyrighted software programs may conceivably sell for $30 dollars or so, others for many thousands of dollars. Making 10 or 50 copies of a very inexpensive program might result in a felony charge for behavior which causes an economic loss of only a few hundred dollars, while fewer copies of far more expensive software worth thousands of dollars might not result in reaching the felony category. Should value be used instead of, or with, numbers of copies?

If a number of copies approach is used, are 10 and 50 reasonable levels?

Is "infringing the copyright" sufficent, or should there be an explicit intent requirement added specifying the intent to illegally profit from such action? Don't we need to better define the intent of a "pirate? Should there be some explicit protection for justified or good faith "copying"? And, if so, should it be in defining the elements of the crime, or as a defense? We need to ensure that the processes of research, study and analysis are not endangered by the chilling effect that can come from even the hint of felony action.

The words "reproduction or distribution" may raise few concerns in other industries and, absent our concern over the uncertainty of software copyright law, would not for us. However, we can easily imagine a situation where retail software outlets could be caught in the middle of a legitimate dispute over whether there has been an infringement. Software company A could notify retailers that it has a claim (or even a trial court decision under appeal) against company B, and that continued sale of company B's product would be a felony.

Conclusion

CCIA supports all reasonable efforts to stop software counterfeiting and piracy, including the use of criminal law to do so. We also believe that proposals in this area need to be carefully analyzed and understood so that we do not improperly impose heavy criminal sanctions on other behavior which is not piracy, nor allow the threat of criminal sanction to be used as a tool to intimidate parties in essentially civil dispute situations.

We would welcome the opportunity to work further with the Subcommittee as it develops answers to the questions raised by this bill, and considers alternative language.

Mr. HUGHES. Mr. Ostfeld, welcome.

STATEMENT OF DAVID M. OSTFELD, CHAIRMAN, INTELLECTUAL PROPERTY COMMITTEE, INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., UNITED STATES ACTIVITIES

Mr. OSTFELD. Thank you. I am pleased to testify as a volunteer on behalf of the Institute of Electrical and Electronics Engineers, U.S. Activities Board. The IEEE is a transnational professional technical society whose membership currently includes more than 320,000 electrical, electronics and computer engineers worldwide. The U.S. Activities unit represents 250,000 engineers who live and work in the United States, and about one-third of whom work in the computer and computer-related fields. I recognize that the last time I was here I sort of ran over my 5 minutes, and I intend to stay way under my 5 minutes.

Mr. HUGHES. I had forgotten that, Mr. Ostfeld.

Mr. OSTFELD. Sorry I reminded you. I was first tempted to say "what he said is fine with me" and stop there. But I would like to add a couple of other things.

What we are dealing here with, and I sympathize with the people who just spoke, is a device that can be mass produced. It is not like a book. It is not easy to reproduce books quickly. No shop space to take up here. We are dealing with easy things to reproduce. And, as far as pirating is concerned, I sympathize and think that, with one exception, it should be continued just the way it is in the statute now.

The one exception, so you understand, is I guess a conscience one. Ten copies is a pretty small number of copies. Kids produce 10 copies in 6 months and they trade them to other kids. They do that in order to obtain something they would otherwise have to pay money for. So, in fact, one could consider it both willful and for personal financial gain. Therefore, we recommend that the numbers be upped. I don't think, from the testimony I have heard, moving from 10 to 50 as the base point is really going to change significantly anything that deals with the kind of pernicious conduct that this bill is really meant to address.

The second problem I had is in the area of copyright for software as a dynamic legal issue. I don't really think the copyright statute is the right place to protect all the problems that are occurring in the software area today. I think we need new legislation. But in the meantime, and let me just take the reverse engineering which you focused on earlier as an example, *Sega* v. *Accolade* has been decided by a district court which ruled that in a software game a noninfringing copy literally, if you looked at them it is two different games, was infringing because someone took the original software that Sega produced, decompiled it, which meant got a printout that could be understandable, and then wrote their games because they could see the security code. Those Accolade produced are now tainted copies. This new game is tainted and therefore an infringement. This is not a new statute but a court ruling. This is a case interpreting the copyright statute finding infringement.

If the ninth circuit upholds that, everyone who has now produced games or any other software in the past using decompiling will suddenly be in the position of being willful and for commercial gain

if they keep their software on the market, even if it is in a circuit that has not yet ruled on reverse engineering. So I think you could end up, by not focusing on the pirating issue, with stifling a part of our very vital computer software industry.

Those are the only two changes we are suggesting, and I am not necessarily happy with the words I suggested to you with regard to the second issue. But I do agree we should focus on pirating and take care of it once and for all so everybody understands what kind of pernicious activity we are really after.

Thank you very much.

[The prepared statement of Mr. Ostfeld follows:]

TESTIMONY

DAVID M. OSTFELD, CHAIRMAN

INTELLECTUAL PROPERTY COMMITTEE
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
UNITED STATES ACTIVITIES

ON

CRIMINAL SANCTIONS FOR VIOLATION
OF
SOFTWARE COPYRIGHT

I am pleased to testify on behalf of the Institute of Electrical and Electronics Engineers - United States Activities' (IEEE-USA) Intellectual Property Committee. The IEEE is a transnational professional technical society whose membership currently includes more than 320,000 electrical, electronics and computer engineers worldwide. The United States Activities unit of IEEE represents 250,000 of these engineers who live and work in the United States.

On June 4, 1992 the Senate passed legislation introduced by Senator Orrin Hatch that has now been referred to this Committee. The legislation would impose severe criminal sanctions on those who copy software programs. Presently, copyright infringement of software is enforced by civil and criminal action but not as severe as the criminal sanctions of this bill.

If passed, this bill would impose penalties of up to two years imprisonment and a $250,000 fine for making an excess of 50 infringing copies of software within an 180-day period. The reproduction or distribution of 10-49 copies would be punishable by up to one year in

prison accompanied by a $25,000 fine.

While IEEE-USA believes that piracy of software (copying programs and distributing them without alteration for commercial gains), as with sound recordings or audio and visual works, should be punished, IEEE-USA also believes that the measures of the bill, in its current form, are far too stringent in a field that is in such a state of flux as is copyright infringement. Further, IEEE-USA believes that there are still far too many ambiguities in the interpretation of copyright law as it relates to software, and therefore opposes this legislation in its present form.

According to a recent Office of Technology Assessment study, there are, "difficulties that the functional aspects of computer programs present in determining the appropriate scope of copyright protection for programs."[1] The difficulties arise out of the functional characteristics of software that are not protected by copyright law. While software is considered to be a literary work under copyright law, it has far too many unique characteristics to fit neatly into the existing model for testing copyright infringement.

By statute, copyright should only protect the expression of an idea and not the idea itself. As straight forward as this principle may seem, it becomes extremely complicated and unclear what part of the software is the "idea" and what part is the "expression." It is also unclear whether the protection of any type of expression may be

[1]U.S. Congress, Office of Technology Assessment, Finding a Balance: Intellectual Property, and the Challenge of Technological Change, OTA-TC-527 (Washington, D.C.: Government Printing Office, May 1992), p.29

used to monopolize the idea.

This bill attempts to impose severe criminal sanctions on those who infringe software copyright by copying or distributing computer programs without the permission of the author. Illustrations of the difficulty of application of the word "infringement" to the word "software" may indicate why severe penalties even for willful infringement may substantially restrain our vital software industry.

There is a wide range of definitions in the courts at this time as to what constitutes "copying." The first, and most obvious method of copying, "willful copying," is verbatim copying--copying a program from one disk to another. There is little doubt that this is infringement of copyrighted software since it clearly copies the expression. IEEE-USA believes that infringers of this type of copying should be sanctioned under 17 U.S.C. 506. Also, because software is susceptible to mass and efficient verbatim copying, despite protective devices to prevent copying, this type of copying should be sanctioned as severely as proposed by S.893.

However, beyond literal infringement the issue becomes more difficult. According to some United States courts, the structure, sequence, and organization of the software is the expression of an idea and therefore is protected. (Whelan v. Jaslow decided in 1986). However, a recent ruling in Autoskill Inc. v. National Educational Support Systems, Inc. (NESS), stated that the Whelan ruling was "too simplistic."[2] The opinion said that, "it does not account for the

[2]The Bureau of National Affairs, Patent, Trademark & Copyright Journal, (Washington, D.C.: Bureau of National Affairs, Inc., Vol. 44, No. 1085, June 1992), p.122

reality that many ideas may exist in a given work." The opinion went on to say, "Adopting the Whelan rule would also put a damper upon the important goal of encouraging others to build upon the ideas conveyed in a work."[3]

In the June 22, 1992 decision in Computer Associates v. Altai, the Second Circuit Court of Appeals wrote, "We seek to insure two things: 1) that programmers may receive appropriate copyright protection for innovative utilitarian works containing expression; and 2) that non-protectable technical expression remains in the public domain for others to use freely as building blocks in their own work."[4] This case expressly declined to follow Whelan.

Another illustration of the problem of software infringement is in the process of reverse engineering or decompilation of software. It is most widely used for research, enhancement of technology, and interoperability and can produce competitive or additional products. Nevertheless, some forms of reverse engineering may be considered copying by some U.S. district courts. The difficult question raised is whether reverse engineering copies, (a paper copy or screen display of the decompiled software is made), are fair use or whether reverse engineering taints all uses and the ideas obtained from the decompiled or disassembled software. If one can convince a court that the expression of the underlying idea was copied, even one copy, then infringement appears to have occurred and taints all programs that

---

[3]The Bureau of National Affairs, Patent, Trademark & Copyright Journal, (Washington, D.C.: Bureau of National Affairs, Inc., Vol. 44, No. 1085, June 1992), p.123

[4]Computer Associates v. Altai, ___ F2d ___ (Second Cir.1992)

derived any information from the decompiled or disassembled work. Therefore, a court could conclude that software which utilizes the ideas that were obtained by decompilation or disassembly is an infringing copy.

This situation now exists in a case on appeal to the Ninth Circuit Court of Appeals. A District Court in California recently ruled, in Sega v. Accolade, that Accolade had infringed Sega's copyright in its final game code, solely because it made intermediate disassembled copies of Sega's object code, to learn how to gain access to Sega's hardware game module. The court, however, did not rule that Accolade's final code or game software infringed any copyright except that it was tainted by learning information through reverse engineering. If this opinion is upheld, all software that has been influenced by the ideas of other copyrighted software would become an infringing product. If the interpretation of infringement becomes so broad in this country, the software industry would move outside of the U.S., to a jurisdiction where such an extreme interpretation of infringement would not be made.

As you can see from the aforementioned examples, there are far too many discrepancies and interpretations in defining infringement of software copyrights. To impose such strict sanctions, as the bill purposes, upon people who may be infringing in one court but not infringing in another court, presents a serious problem. Further, the quantities of copies should be raised significantly so we do not put bright children in extreme jeopardy.

We are certain that it is not the intent of Congress to penalize

those engineers who employ the technique of reverse engineering for purposes of enhancing technology or where there is a close question of infringement. Until there is language in this legislation that will not penalize those who use the process of reverse engineering for purposes of research, enhancement of technology, and interoperability, IEEE-USA cannot support such legislation.

IEEE-USA, however, would be willing to support the bill if the attached changes to the bill were made. We believe that the IEEE-USA's recommended changes will be acceptable to all parties.

IEEE-USA SUGGESTED AMENDMENTS TO

S.893

Page 2

Line 3: At the beginning of the line, change "50" to "250".

Line 6: After "grams)", insert "by reproducing or distribution of computer programs that are substantive copies or derivatives that are essentially the same as the copyrighted computer program or programs".

Line 21: After "than", change "10" to "50" and after "less than", change "50" to "250".

Line 24: After "programs)", insert "by reproducing or distribution of computer programs that are substantive copies or derivatives that are essentially the same as the copyrighted computer program or programs".

Mr. HUGHES. Let me just pick up, if I might, right there, Mr. Ostfeld, with the *Sega-Accolade* opinion and your belief that if that is upheld it will have a chilling effect. I wonder if it isn't just an overstatement of both the *Sega* case and the Copyright Act itself.

Sega involved the making of at least three intermediate verbatim copies of the work. The Copyright Act does not prohibit works from being influenced by earlier works, only from copying expression. Do you disagree with that?

Mr. OSTFELD. Not at all.

Mr. HUGHES. Where is it your concern lies?

Mr. OSTFELD. In the *Sega* case what the court held was because the three intermediate works were made, all of the use of the ideas embedded in those works, in other words how to beat the hardware, were copyright infringement. So what you had was a totally noninfringing work with the exception of this little bit of code embedded to beat the hardware screen so that it would play on the Sega device. Suddenly it becomes an infringing work and subject to the bill.

What troubled me a little bit, to be frank with you, was it smacked a little of *United States* v. *Hux,* which is a criminal conviction under 17 U.S.C. 506(a), and I began to worry how far could you push what percent of the code is copied.

Mr. HUGHES. I understand. Both your statement and Mr. Black's statement notes the present uncertainty over the scope of protection for software as a reason for amending the bill. I have a couple of questions.

First, haven't the courts already upheld criminal convictions of computer programs? For example, in *United States* v. *Hux* the court of appeals upheld a jury verdict of criminal infringement of software applying general copyright principles.

Mr. OSTFELD. That is correct. They did do that. I agree that they upheld that. Didn't uphold the Communications Act conviction, but upheld the 506(a) conviction. It is very hard to tell from the appellate record whether the defense's argument that, well, only a little percent was actually copied, the rest was his own stuff, whether that really flew or not.

Mr. HUGHES. It is hard to say.

Second, isn't the scope of protection for software always going to be uncertain, just like it is for every copyrighted work?

Mr. OSTFELD. The answer to your question is in the foreseeable future yes, with one exception. You know a pirated work when you see it.

Mr. HUGHES. Don't know how to describe it.

Mr. OSTFELD. That is it. But I sure know it when I see it. That is it.

Mr. HUGHES. We hear that all the time.

Mr. OSTFELD. Right. I did chase and have chased pirated videotapes and you sure know a pirated videotape. Let's get away from digital sampling for a minute and just down to it, you know. As a matter of fact, my favorite is chasing Chinese soapers that were illegally imported into this country, and we shut them down after a fashion. Those are easy to tell—boy, that is copyrighted, that is not—because nobody will buy the noncopyrighted product. In this case, in software it is a little tougher because you can really do a

lot of things and still have infringement, maybe even willful infringement, but I don't think pirated infringement.

Mr. BLACK. If I could, Mr. Chairman, on that point. There will always be boundaries and there may always be some gray area. I think what we are talking is we would like a narrow boundary of gray area, not a wide one.

Mr. HUGHES. Let me pick right up on that. I share your concern that commercial disputes over the scope of computer programs not be turned into criminal prosecutions. I think we all agree that that is something we would not want to do.

Do you have any suggestions about how language could be drafted that would make it a felony to engage in large-scale commercial copying of entire computer programs but exclude commercial disputes?

Mr. BLACK. We have talked some but not in great length of possible language. I suppose I would prefer to start out with the limitations in the existing language proposed, which is for purposes of commercial advantage or private gain as an element, because all of the area of reverse engineering issues, "look and feel" are in a commercial setting, and, in essence, that does not provide in our mind a level of indication of a criminal intent, whether you want to say, in fact, a specified level of intent of knowledge to steal. I mean in essence, the concept of theft is what we need present, not just an intent to copy for commercial gain, and that is really all that this language says—intent to copy for commercial gain. That is not in my concept a clear definition of what a pirate is.

Mr. HUGHES. I see. Do you suggest that focusing on the value of the copies might be an alternative approach? In section 2319 of title 17 we do trigger felony violations based upon the number of copies. We are not plowing new ground.

Mr. BLACK. I mention that not as, maybe, the core concern because I think the intent issue really is. But certainly we realize there are a lot of software that is very expensive, thousands of dollars or hundreds, but there are many pieces which are, frankly, much less expensive, and when you start talking about 10 copies of one of the lower priced programs, you are not in a dollar value area that, in my understanding, is traditionally made into felonies. So I thought you needed probably some type of cushion that could be put there to make sure we don't catch people that we really are definitely not targeting outside of the reverse engineering issue.

I should make reference to SPA testimony where I think they make many excellent points, but one in particular where they talk about the difference between this industry and others and how relatively easy it is to make copies. There are millions of people with personal computers to make copies. That is exactly one of the reasons I think you want to be very careful. You do not want to be accidentally making a large percentage of the American people, either small businesses or citizens, into the gray area of criminal law.

Mr. HUGHES. I think that that is probably true for us also. We would not want to do that.

Let me ask you. My colleague from Florida asked some questions of the previous panel about why shouldn't we have a more generic statute? We understand the history of these particular statutes,

how it developed. But we sort of have a hybrid right now. We basically draw on a civil statute to create criminal penalties. What is your feeling about creating a generic statute to deal with this type of criminal conduct?

Mr. BLACK. In the abstract, I would certainly think I would be willing to seriously take a look at those options. The one thing I guess I would have as a caveat going in and a caution is that many of the problems in the civil area, reverse engineering, et cetera, are because we have taken a general concept of copyright and applied it to a very complex new area of technology and industry, and I would want to make sure that as we do, or would attempt to do something generic that we don't get driven by the idea of making something uniform that ignores some of the unique aspects of this industry that might need some special qualifications.

Mr. HUGHES. Thank you. The gentleman from California.

Mr. MOORHEAD. Thank you, Mr. Chairman.

If I understand your testimony correctly, you are concerned that if we pass this law as it is recommended we will raise some commercial disputes to a felony level where they don't belong. In other words, where two companies may have a product that is similar and one of them is copyrighted, they may try to bring criminal charges against the other because of the similarity of programs. Is that correct?

Mr. BLACK. That is one possibility. There are some other situations as well.

Mr. MOORHEAD. Well, you know the thing that strikes me is the real damage is done when you put an item in a folder pretending it is the original work of another company.

Mr. BLACK. Absolutely.

Mr. MOORHEAD. Because then you are competing using the other person's logo, the design on their cover and everything else, and you are stealing the customers that want to buy Robocop 2 or whatever it is. If you had exactly the same thing in another cover, you probably wouldn't be doing as much damage to them as you do when you try to take advantage of their advertising and everything else.

Mr. OSTFELD. I am sorry. I was just going to say I am not sure, knowing the potential audience for Robocop, that——

Mr. MOORHEAD. Well, I am not advocating that you make that legal by a long ways. But I am just trying to get at your point and see what it really is.

Mr. OSTFELD. There is no question the point first is piracy should be stopped whether or not it is in the package. I think that if you had a cheap, knocked-off version of Robocop and you didn't put it in the package but it delivered the same goods when you put it in your computer, the kids would find it out fast enough.

Mr. MOORHEAD. The kids would find out sooner or later. I understand.

Mr. OSTFELD. And then they buy it like crazy, and they might even like the fanciful label that said "Barbie doll" on it instead of "Robocop."

Mr. MOORHEAD. But it would appear to me from all of the examples that were presented to us that anyone would know that those were pirated products if they weren't authorized by the original

company. I don't know how anybody could say that these were anything but pirated products.

Mr. OSTFELD. Clear-cut. Easy.

Mr. BLACK. I think there is unanimity of agreement by all of us who have testified.

Mr. MOORHEAD. Where do you move into this area that you are concerned about? What does it have to be specifically?

Mr. OSTFELD. Can I draw the other boundary first?

Mr. MOORHEAD. Sure.

Mr. OSTFELD. The other boundary is where I examine somebody else's product, either by decompiling, which is called reverse engineering, or by testing it out, seeing how it functions. "Flexing it," I think, was an expression I have heard. Either way I do that I develop my own software independently.

Now, that software can have two characteristics. One, it can have a look and feel that operates the same. It has the same function. It works in the same process and procedures, follows the same rules. Externally it seems to operate just like the software that was examined.

Well, some courts have held, *Whalen* in particular, that that is copyright infringement. Now, once it is determined it is copyright infringement, to continue on the course is, I think, to put yourself in harm's way and probably should be stopped. But certainly it shouldn't be called a criminal act and probably wouldn't be.

But let's do the reverse engineering for a minute. I actually made the copy, absolutely identical copy. I either printed out the machine code or what is called the assembled. I got it back to a language I could read, and then I make a whole different program. Doesn't even look, and doesn't even play the same functions. It is not Robocop, it is some little robot that goes and does something else. Has nothing to do with Robocop. You would never be able to say the two are the same. But I used that code. I infringed, the district court in California said, when I printed out a copy of that code, and therefore this new code is an infringement even though it would never be literally, if it had been written without any reference.

The minute that case is upheld in the ninth circuit, I assure you there is more than one company that has decompiled somebody else's program to make competitive or ancillary goods. These software manufacturers are all going to be willful infringers. And they are all doing it for gain, and they are all going to have made more than 50 copies, even after that date. What do they do with the inventory they have? How do they reconcile that issue? That is the other extreme.

So what am I really saying? Where am I trying to point the boundary? I am saying let's just go with the big problem. Let's just go with if you make a copy and vend it, or a substantial copy or a substantial derivative copy and you vend that copy that is a criminal act. Otherwise take it up in the courts somewhere as civil infringement.

Mr. MOORHEAD. But in the other instance you are trying to deceive the potential customer to say the least.

Mr. OSTFELD. In which instance?

Mr. MOORHEAD. The one in which you have the cover that looks similar.

Mr. OSTFELD. Oh, sure.

Mr. MOORHEAD. You are trying to deceive, and you are going to take some of the customers even though they would have otherwise spent their $97 or whatever it is buying the other program.

Mr. OSTFELD. If I make an independent program and package it so it looks like somebody else's program, there is a trademark criminal statute that will take care of that. And really, I think that is outside the realm of what we are talking about in the copyright infringement area. And so I would say yes, that is reprehensible, but I think a criminal statute would take care of that. That is separate.

Mr. MOORHEAD. Do you have anything to add to that, Mr. Black?

Mr. BLACK. Directly on point, I think that says it really quite well. I do think as we are talking about the value of legislative language versus something in report language, I think one thing to keep in mind, a rationale for this legislation which has been raised which I think is a legitimate one is the international arena, where a great deal of the actual pirating and counterfeiting activity takes place. We have GATT negotiations. There are some areas that a lot of us have worked together on to try to help address that problem, which is useful. But, as we go into the international arena to do that, we are going to find that other countries are going to be developing, frankly, modeling, and we have asked them often to model after our laws. Our copyright and our criminal laws I think in this area are likely to be copied.

I have far less reliance or trust that a foreign court applying a statute modeled on a U.S. statute is going to look to U.S. legislative history. What we do will be looked at as it surfaces. And I think therefore the rationale for the statutory language being clear and explicit that this is not being covered in the international context is even multiplied as to its importance.

Mr. MOORHEAD. To tie it down—my time has about expired, but as I understand it, you support legislation in this area. You think it should be tightened up a little bit from what it presently is, but you support the concept?

Mr. OSTFELD. That is correct. That is correct.

I was just going to make one last supplement, which is, as an engineer, having worked in the field before I became a lawyer, to take away this issue of reverse engineering, to stifle that, with your engineers, it is going to stifle your engineers.

Mr. HUGHES. Thank you. The gentleman from Florida.

Mr. JAMES. Thank you very much. You know, I wish we had sort of had your testimony the other day in the hearing in Judiciary where we were considering the Inslaw issue. You know, somehow a good percentage of Congressmen are apparently under the impression that it is appropriate to have an independent counsel appointed for the purposes of investigating this very issue, I think, copyrighting or using a copyright item. And you say the FBI won't prosecute the misdemeanors, but maybe an independent counsel will consider it. I don't know if that would be the case. I thought it was rather fascinating because we were dealing with the identical issue there, and it is so weighty that in general Judiciary Committee—and maybe I have missed a point here, but it seems

to me perfectly parallel. Maybe the chairman could correct me. I think he was at the same hearing.

It is fascinating to hear that the Federal Government never considers an issue prosecutable when it is a misdemeanor. And it is my understanding from your testimony that all copyright infringements as they relate to computer programming are as a matter of law nothing more than a misdemeanor at this time. There is no felony involved. Is that correct?

Mr. OSTFELD. With two exceptions that the chairman already pointed out. One of which would be if you packaged it in a trademarked manner that was infringing, and number two, in the video game area I believe that you could still prosecute the displays, if they are infringing, in a criminal manner.

Mr. JAMES. So if it was trademarked you may be able to elevate it to a felony?

Mr. OSTFELD. If somebody falsely uses—counterfeits your mark.

Mr. JAMES. Oh. Uses your trademark and calls it theirs. I see. Gucci shoes or whatever, using the name or something like that, that seemed analogous to the situation.

Mr. OSTFELD. Right. Or the little Robocop thing that they showed here, which had the same packaging.

Mr. JAMES. Or call it Robocop. OK.

What about the issue of just putting in language to exclude reverse engineering and define what reverse engineering means? Would that save us from stifling the industry?

Mr. OSTFELD. The answer is, I think, not yet. There is a real fight over what is copyright infringement of software right now, and so I don't want, for example, to have a criminal prosecution in the third circuit when if you did it in the second circuit you wouldn't be a criminal.

Mr. JAMES. OK. But sitting here as Congressmen not as engineers or knowledgeable about the technical language involved, so we have to look to an engineer-lawyer to give us the technical language so we go just so far, as far as we want to go. So we will look to you, I suppose, or someone like you to give us language that we can incorporate or otherwise we may overstep the bounds of propriety that would be offensive to this present panel.

So I would suggest that you come up with some language is what I am trying to say in a polite way. So that perhaps this panel would not make an overaggressive move, we need that language. Because I suspect you may well have a bill that might be passed, and if it goes too far, it is hard to correct bills once they are passed.

Mr. OSTFELD. I appreciate your invitation, and, in fact, had made some proposed language. It is attached to our testimony. And I would invite the other panel to join with me. We don't belong to anybody. We are not IBM. We are not AT&T. We are not anybody.

Mr. JAMES. I understand that.

Mr. OSTFELD. We would love to have people chip in and come up with something that would still define piracy and take care of our——

Mr. JAMES. And perhaps my last question is, if we can't come up with language that is satisfactory to both sides you say pass nothing? I mean, in other words, if we can't come up with language that satisfies you, you would say do nothing.

Mr. BLACK. We would be confident that we can probably come up with some language and narrowly. As long as there is a will of everybody here, and I think there is, to focus on that specific issue, I assume that we can come up with language.

Mr. JAMES. Thank you. I am sure my time is up. And thank you, Mr. Chairman, for the time.

Mr. HUGHES. I thank the gentleman. I thank the panel again. You have been very, very helpful to us, and we appreciate it very much.

That concludes the testimony for today, and the subcommittee stands adjourned.

[Whereupon, at 11:26 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]

○

65-568 (76)