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*Attorneys for Defendant/Counterclaim-Plaintiff  
International Business Machines Corporation*

**IN THE UNITED STATES DISTRICT COURT**

**FOR THE DISTRICT OF UTAH**

THE SCO GROUP, INC.

Plaintiff/Counterclaim-Defendant,

-against-

INTERNATIONAL BUSINESS MACHINES  
CORPORATION,

Defendant/Counterclaim-Plaintiff.

**DECLARATION OF  
RANDALL DAVIS**

Civil No. 2:03CV-0294 DAK

Honorable Dale A. Kimball

Magistrate Judge Brooke C. Wells

## I. INTRODUCTION

1. I am a professor of Computer Science at the Massachusetts Institute of Technology in Cambridge, Massachusetts. Addendum A provides more details of my technical background and experience, a list of publications, and a list of cases in which I have testified or been deposed. I received my undergraduate degree in Physics from Dartmouth College in 1970 and a Ph.D. in Computer Science from Stanford in 1976.

2. I have published some 50 articles on issues related to artificial intelligence and have served on several editorial boards, including *Artificial Intelligence*, *AI in Engineering*, and the MIT Press series on AI. I am a co-author of *Knowledge Based Systems in AI*.

3. In recognition of my research in artificial intelligence, I was selected in 1984 as one of America's top 100 scientists under the age of 40 by *Science Digest*. In 1986 I received the *AI Award* from the Boston Computer Society for contributions to the field. In 1990 I was named a Founding Fellow of the American Association for AI and in 1995 was elected to a two-year term as President of the Association. From 1995-1998 I served on the Scientific Advisory Board of the U.S. Air Force.

4. In addition to my work with artificial intelligence, I have also been active in the area of intellectual property and software. Among other things, I have served as a member of the Advisory Board to the US Congressional Office of Technology Assessment study on software and intellectual property, published in 1992 as *Finding a Balance: Computer Software, Intellectual Property, and the Challenge of Technological Change*. I have published a number of articles on the topic, including co-authoring an

article in the *Columbia Law Review* in 1994 entitled “A Manifesto Concerning Legal Protection of Computer Programs” and an article in the *Software Law Journal* in 1992 entitled “The Nature of Software and its Consequences for Establishing and Evaluating Similarity.”

5. From 1998-2000 I served as the chairman of the National Academy of Sciences study on intellectual property rights and the emerging information infrastructure entitled *The Digital Dilemma: Intellectual Property in the Information Age*, published by the National Academy Press in February 2000.

6. I have been retained as an expert in over thirty cases dealing with alleged misappropriation of intellectual property, such as the allegations raised in this case, and have done numerous comparisons of code. I have been retained by plaintiffs who have asked me to investigate violations of intellectual property, by defendants who have asked me to investigate allegations made against them, and by both sides to serve as the sole arbiter of a binding arbitration.

7. In 1990 I served as expert to the Court (Eastern District of NY) in *Computer Associates v. Altai*, a software copyright infringement case that articulated the abstraction, filtration, comparison test for software. I have also been retained by the Department of Justice on its investigation of the INSLAW matter. In 1992 (and later in 1995) my task in that engagement was to investigate alleged copyright theft and subsequent cover-up by the Federal Bureau of Investigation, the National Security Agency, the Drug Enforcement Agency, the United States Customs Service, and the Defense Intelligence Agency.

## **II. ASSIGNMENT/SUMMARY OF FINDINGS**

8. I have been asked by counsel for IBM to examine the 198 Items in SCO's December 22, 2005 Disclosure of Material Allegedly Misused by IBM (the "Final Disclosures") that are challenged by IBM in its Motion to Limit SCO's Claims Relating to Allegedly Misused Material ("IBM's Motion"). Specifically, I have been asked to (1) determine the extent to which SCO has specified its claims, by identifying versions, files and lines of code with respect to each of the items; and (2) describe the effort that would be required to evaluate SCO's allegations based on the level of specificity that it has provided.

9. In summary, SCO fails specifically to identify lines of System V, AIX or Dynix, and Linux material with respect to any of the 198 Items. As a result, it is impossible fully to evaluate SCO's claims.

## **III. ANALYSIS**

10. In its Final Disclosures, SCO identifies 294 Items of allegedly misused material, including the 198 Items at issue in IBM's motion. I have reviewed the 198 Items to consider the extent to which they describe SCO's claims with specificity.

11. I conclude that SCO has failed to identify with specificity any of the 198 Items. SCO does not provide a complete set of reference points (version, file and line) for any of the 198 Items, which makes it practically impossible fully to evaluate SCO's claims.

12. As shown in Addendum B, SCO does not specifically identify lines of System V, AIX or Dynix, and Linux material for any of the 198 Items. SCO does not identify

with specificity System V, AIX, or Dynix version(s) or file(s) with respect to more than a few of the Items. Specific versions and files of Linux code are omitted with respect to many of the Items.

13. In its memorandum in opposition to IBM's preclusion motion, SCO tells the Court that it has provided "color coded illustrations", "line by line source code comparisons" and "over 45,000 pages of supporting materials". However, tens of thousands of those pages concern Item 294, which SCO expressly abandons in its opposition brief. While the Final Disclosures include color-coded illustrations and line-by-line source comparisons, they either do not do so with regard to any of the 198 Items at issue or the materials provided do little to particularize SCO's claims.

14. Absent more specific information about SCO's claims, an extraordinary effort would be required to evaluate the claims. In fact, based on the information SCO has provided, it would be impossible fully to evaluate SCO's claims without considering the entire universe of potentially relevant code.

15. SCO's failure to specify its claims puts on IBM the impossible burden of looking for undefined needles in an enormous haystack. The multiple versions of Unix, AIX, Dynix, and Linux comprise more than 1 billion lines of code.

16. The size of the haystack is only part of the problem. With enough time, IBM would likely be able to search the haystack for the allegedly misused material, although I note that SCO's Mr. Sontag testified that it would take 25,000 man years to compare a single version of Linux (a mere 4,000,000 lines of code) to a single version of Unix.

17. The true difficulty with the Items at issue is that SCO does not describe the needles it is sending IBM to find. Instead of defining the 198 items at issue by providing version, file and line information, SCO describes them generally and imprecisely. As a result, the needles look just like hay. This suggests that SCO does not know what it claims or is hiding what it claims.

18. To take just one example (of many), in Item 146, SCO identifies IBM's "Use of Dynix/ptx for Linux development" by reference to an email that concerns "performance and profiling" and lists 11 Linux files without mentioning which versions of Linux these files come from.

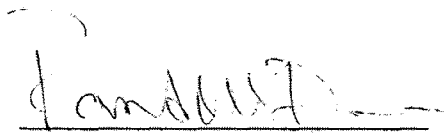
19. This provides no meaningful information about what IBM is alleged to have done wrong. SCO does not say where such "profiling" was done in System V or Dynix or even where specifically it is allegedly done in Linux. Absent more information, it is practically impossible for IBM to conduct a proper investigation to fully defend itself.

20. I understand, and for this purpose assume, that SCO's claims require inquiry into, among other things, the origin of the code and concepts (which are, of course, embodied in code), the value of the code, whether SCO distributed the code under the GPL, whether it was developed to comply with publicly known standards, whether the code is dictated by externalities, whether the code is merely an unprotectable idea, whether the code ever shipped without a required copyright notice and whether the code is otherwise in the public domain. These questions must be answered on a line by line basis. And that cannot be done properly without knowing which versions, files and lines are at issue.

#### **IV. SUMMARY**

21. SCO has failed to provide the most basic information relating to the 198 Items at issue in IBM's motion. SCO has declined, as a practical matter, to tell IBM what is in dispute. SCO's failure to specify its claims puts on IBM the impossible burden of searching an enormous haystack for needles that look just like hay.

22. I declare under the penalty of perjury that the foregoing is true and correct.

A handwritten signature in cursive script, appearing to read "Randall Davis", is written over a horizontal line.

Randall Davis

Date: 29 March 2006

Place: Taipei, Taiwan



**CERTIFICATE OF SERVICE**

I hereby certify that on the 4th day of April, 2006, a true and correct copy of the foregoing was sent by U.S. Mail, postage prepaid, to the following:

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