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14 Attorneys for Plaintiffs
Oracle USA, Inc., Oracle International Corporation, and
15 Oracle EMEA Limited

16 UNITED STATES DISTRICT COURT
17 NORTHERN DISTRICT OF CALIFORNIA
18 SAN FRANCISCO DIVISION

19 ORACLE USA, INC., *et al.*,
20 Plaintiffs,
21 v.
22 SAP AG, *et al.*,
23 Defendants.

CASE NO. 07-CV-01658 PJH (EDL)

**DECLARATION OF ZACHARY J.
ALINDER IN SUPPORT OF
ORACLE'S OPPOSITION TO
DEFENDANTS' MOTION TO
COMPEL FURTHER COPYRIGHT
INFORMATION**

Date: May 19, 2009
Time: 2 p.m.
Place: Courtroom E, 15th Floor
Judge: Hon. Elizabeth D. Laporte

1 I, Zachary J. Alinder, declare as follows:

2 1. I am an attorney licensed to practice law in the State of California and am
3 a partner at Bingham McCutchen LLP, counsel of record for plaintiffs Oracle USA, Inc., Oracle
4 International Corporation and Oracle EMEA Ltd. (collectively, "Oracle"). Except where stated
5 below on information and belief, I have personal knowledge of the facts stated within this
6 Declaration and could testify competently to them if required.

7 2. Oracle has produced software related to over 60 copyrights in this action.
8 That list includes:

Title of Work	Date of Registration	Registration Number
Shop Floor Control program	March 7, 1995	TXu 619-303
EDI Interface (6) program	March 7, 1995	TXu 619-304
Configuration Management program	March 7, 1995	TXu 619-305
Master Production Scheduling program	March 7, 1995	TXu 619-306
Capacity Requirements Planning program	March 7, 1995	TXu 619-307
WorldCASE Development Environment program	March 7, 1995	TXu 619-308
Equipment Management (5) program	March 7, 1995	TXu 619-309
General Ledger & Basic Financial program	March 7, 1995	TXu 619-310
Enterprise Facility Planning program	March 7, 1995	TXu 619-311
Accounts Receivable program	March 7, 1995	TXu 619-312
Warehouse Management program	March 7, 1995	TXu 619-313
Inventory Management program	March 7, 1995	TXu 619-314
Sales Order Processing/Sales Analysis program	March 7, 1995	TXu 619-315
Purchase Order Processing program	March 7, 1995	TXu 619-316
Product Data Management program	March 7, 1995	TXu 619-317
Financial Reporting (FASTR) program	March 7, 1995	TXu 619-318
WorldCASE Foundation Environment (3) program	March 7, 1995	TXu 619-319
Accounts Payable program	March 7, 1995	TXu 619-320
Financial Modeling, Budgeting & Allocations program	March 7, 1995	TXu 619-321
PeopleSoft HRMS 7.0	December 15 1998	TX 4-792-577
PeopleSoft HRMS 7.5	December 15, 1998	TX 4-792-575
PeopleSoft HRMS 8.0	November 20, 2000	TX 5-291-440
PeopleSoft 8 HRMS SP1	March 26, 2001	TX 5-501-312
PeopleSoft 8.3 HRMS	February 1, 2002	TX 5-469-032
PeopleSoft 8.8 HRMS	June 11, 2004	TX 6-093-947
PeopleSoft 8 Customer Relationship Management	September 27, 2001	TX-5-456-777
PeopleSoft 8.8 Customer Relationship Management	June 11, 2004	TX 6-015-317
PeopleSoft Financials, Distribution & Manufacturing 7.5	December 15, 1998	TX 4-792-574
PeopleSoft 8 Financials and Supply Chain Management: Service Pack 2	September 27, 2001	TX-5-456-780
PeopleSoft 8.4 Financials and Supply Chain	August 5, 2002	TX-5-586-247

1	Management		
2	PeopleSoft 8.8 Enterprise Performance Management	June 11, 2004	TX-5-993-616
3	PeopleSoft 8 Student Administration Solutions	November 30, 2001	TX 5-431-289
4	PeopleTools 7.5	November 20, 1998	TX 4-792-578
5	PeopleTools 8.0	September 5, 2000	TX 5-266-222
6	PeopleTools 8.10	September 5, 2000	TX 5-266-221
7	PeopleTools 8.4	August 5, 2002	TX 5-586-248
8	Initial release of JD Edwards EnterpriseOne XE	April 26, 2007	TX 6-541-033
9	ESU for JD Edwards EnterpriseOne Xe	May 3, 2007	TX 6-541-051
10	Cumulative Update 8 for JD Edwards EnterpriseOne Xe	April 26, 2007	TX 6-541-048
11	Initial release of JD Edwards EnterpriseOne 8.0	April 26, 2007	TX 6-541-050
12	ESU for JD Edwards EnterpriseOne 8.0	April 26, 2007	TX 6-541-046
13	Cumulative Update 1 for JD Edwards EnterpriseOne 8.0	April 26, 2007	TX 6-541-034
14	Initial release of JD Edwards EnterpriseOne 8.9	April 26, 2007	TX 6-541-049
15	ESU for JD Edwards EnterpriseOne 8.9	April 26, 2007	TX 6-541-036
16	Initial release of JD Edwards EnterpriseOne 8.10	April 26, 2007	TX 6-541-038
17	ESU for JD Edwards EnterpriseOne 8.10	April 26, 2007	TX 6-541-037
18	Cumulative Update 2 for JD Edwards EnterpriseOne 8.10	April 26, 2007	TX 6-541-032
19	Initial release of JD Edwards EnterpriseOne 8.11	April 26, 2007	TX 6-541-028
20	ESU for JD Edwards EnterpriseOne 8.11	April 26, 2007	TX 6-541-035
21	Initial release of JD Edwards EnterpriseOne 8.11 SP1	April 26, 2007	TX 6-541-040
22	ESU for JD Edwards EnterpriseOne 8.11 SP1	April 26, 2007	TX 6-541-027
23	Cumulative Update 1 for JD Edwards EnterpriseOne 8.11 SP1	April 26, 2007	TX 6-541-039
24	Initial release of JD Edwards EnterpriseOne 8.12	April 26, 2007	TX 6-541-041
25	ESU for JD Edwards EnterpriseOne 8.12	April 26, 2007	TX 6-541-045
26	Cumulative Update 1 for JD Edwards EnterpriseOne 8.12	April 26, 2007	TX 6-541-042
27	Initial release of JD Edwards World A7.3	April 26, 2007	TX 6-541-029
28	Code Change for JD Edwards World A7.3	April 26, 2007	TX 6-541-043
29	Cumulative Update 16 for JD Edwards World A7.3	April 26, 2007	TX 6-541-031
30	Initial release of JD Edwards World A8.1	April 26, 2007	TX 6-541-047
31	Code Change for JD Edwards World A8.1	April 26, 2007	TX 6-541-044
32	Cumulative Update 6 for JD Edwards World A8.1	May 1, 2007	TX 6-545-421
33	Initial release of JD Edwards World A9.1	April 26, 2007	TX 6-541-030

3. Production of software for these copyrights can involve many CDs per release, and the related documentation and installation programs for these copyrights can involve many more. Almost all of the registered software releases are not the current version that a customer would license from Oracle, but rather relate to older legacy versions of that product.

1 Some of the older copyright registrations require substantial research and investigation to
2 identify, access and copy the applicable software, as it is no longer generally available for sale to
3 customers. Further, some of the copyright registrations, and in particular older J.D. Edwards
4 software, relate to software that is on tape, rather than CD or DVD, making it difficult to access
5 and copy the software without specialized equipment. Accordingly, there is significant burden
6 associated with production of these software releases. Beyond the extensive investigation
7 required for the production of the legacy software, the productions themselves are substantial.
8 Just the software currently in the Third Amended Complaint required production of over 80
9 software CDs, DVDs, and Tape media. A number of additional software copyrights were added
10 later into the Second Amended Complaint. Not surprisingly, in the course of these rather
11 substantial and often old software productions, certain software was produced incorrectly or with
12 errors and there were delays collecting old and subsequently-added software versions. To the
13 extent that Oracle is aware that any errors in copying occurred with respect to these software
14 release, they have been corrected and re-produced.

15 4. As discussed in the March 24, 2009 Discovery Conference Statement,
16 SAP recently raised the concern that it believed that Oracle had not produced all of the relevant
17 software. After the Discovery Conference, the Parties met and conferred a number of times. In
18 an effort to expedite resolution, Oracle requested that SAP provide a list of the specific software
19 that SAP believed to be outstanding to confirm an agreed list of software to be produced.
20 Attached as Exhibit A is a true and correct copy of a March 24, 2009 email that I sent to Laurie
21 M. Charrington, counsel for Defendants (with certain technical content not necessary here
22 redacted out of an abundance of caution), requesting Defendants to identify the list of software
23 that they believed had not been produced. Even though SAP's motion now reveals that SAP did
24 compile its own list of such software, SAP refused to provide that software list during the meet
25 and confer.

26 5. Without assistance from SAP, Oracle undertook to review, trace and
27 confirm the production for each of the Registered Works. Oracle provided SAP with regular
28 updates on the progress of that effort, and provided a rolling production of the outstanding

1 software. For example, attached as Exhibit B is a true and correct copy of an April 13, 2009
2 email string between Oracle's counsel and SAP's counsel, including myself and Elaine Wallace,
3 counsel for Defendants, in which Oracle provided updates identifying additional Registered
4 Works by bates-number, title and registration number in Oracle's production. Oracle sent a
5 further update to Defendants on April 20, 2009 identifying additional produced Registered
6 Works by bates-number, title and registration number in Oracle's production. Further, Oracle
7 made an additional production on April 27, 2009 of three remaining Registered Works.
8 Accordingly, Oracle has now produced all of the software asserted in the Third Amended
9 Complaint, except the current development environments that Judge Legge ruled Oracle did not
10 have to produce.

11 6. The first time that I was aware that SAP had any further issue related to
12 current development environments was after receiving an April 8, 2008 email from Ms. Wallace,
13 on which I was copied. Attached as Exhibit C is a true and correct copy of the April 8, 2009
14 email that Ms. Wallace sent to my colleague, John Polito, requesting information related to
15 current development environments. Moreover, I have reviewed the discovery conference
16 statements and hearing transcripts for the discovery conferences since July 18, 2008, and found
17 no mention of current development environments within the scope of Defendants' planned
18 copyright motion to compel. Attached as Exhibit D is a true and correct copy of the April 8,
19 2009 response email that I sent to Ms. Wallace, requesting additional information about
20 Defendants' request related to current development environments, including whether SAP sought
21 to re-litigate this issue and asking for SAP to provide a list of issues that they planned to include
22 in their motion to compel to see if the parties were on the same page. Attached as Exhibit E is a
23 true and correct copy of the April 9, 2009 email that Ms. Wallace sent to me in response,
24 continuing to request further information related to current development environments, and
25 insisting that the relevance to SAP's motion "should be clear" and that SAP is not "required to
26 give [Oracle] the preview of our motion you request."

27 7. Prior to the last discovery conference, Oracle agreed to provide SAP with
28 access to license codes to access the software that it had produced. Attached as Exhibit A, as

1 discussed above in Paragraph 4, is a true and correct copy of a March 24, 2009 email that I sent
2 to Ms. Charrington, counsel for Defendants, agreeing to provide the software license codes and
3 requesting further information from Defendants to do so. Following the discovery conference,
4 the Parties met and conferred and Oracle directed SAP to a public website where it could access
5 these license codes. During further meet and confer discussions, Oracle offered to provide
6 expert technical assistance should any issues arise with respect to the license codes. SAP has not
7 reported any further difficulty obtaining license codes, nor has it taken Oracle up on its offer of
8 technical assistance.

9 8. After Oracle objected to SAP's attempt to depose a 30(b)(6) witness from
10 Plaintiff Oracle International Corporation concerning the details of every piece of software and
11 other registered work in the Third Amended Complaint – 83 separate registrations – Oracle
12 offered through meet and confer to amend and supplement Interrogatory Response No. 13 with
13 information related to Registered derivative works as well. Following further meet and confers,
14 Oracle has now amended and supplemented its Response three times in an attempt to satisfy
15 SAP's ever-broadening requests for discovery related to derivative and pre-existing works.

16 9. In the meet and confer prior to Oracle's last supplementation of this
17 response on December 5, 2008, Oracle proposed to provide module-level detail for each
18 copyrighted work to the extent Oracle could locate that information. Oracle believed this
19 proposal meant information about which modules (e.g., Payroll) were contained within each
20 Registered version (e.g., Human Resources), and which fixes related to which modules. This
21 proposed supplementation would require an enormous amount of work by Oracle, because
22 compiling a list of module-level software products for numerous complex business software
23 programs, some of which are over a decade old, is a burdensome and manual process of sifting
24 through all of the documentation available for those software releases. Therefore, I previewed an
25 example of Oracle's planned response with SAP, specifically to make sure that if Oracle
26 undertook this time-consuming work, SAP would have vetted and agreed that the response was
27 sufficient. Attached as Exhibit F is a true and correct copy of an email string between me and
28 Ms. Wallace, counsel for SAP, including an October 17, 2008 email in which I proposed the

1 module-specific supplementation and requested assurances that it would be sufficient, as well as
2 Ms. Wallace’s October 21, 2008 response, stating that the proposal was “acceptable,” but
3 requesting additional information about how Oracle would supplement as to certain other works
4 and as to Topic 6 of SAP’s deposition notice, and finally, my November 18, 2008 response email
5 to Ms. Wallace providing the proposed supplementation strategy for the other works and for
6 Topic 6 of SAP’s deposition notice. On the basis of SAP’s statement that the proposal was
7 “acceptable,” and without further contrary response from SAP, Oracle proceeded with the further
8 supplementation of its response to Interrogatory No. 13.

9 10. In that November 18, 2008 response email (Exhibit F), I also proposed a
10 search for and production of software release notes related to the Registered Works to respond to
11 SAP’s request for derivative work/preexisting work information. These Release Notes describe
12 the software releases in detail, including information related to derivative and pre-existing works.
13 Indeed, a number of these Release Notes specify the changes from one PeopleSoft or J.D.
14 Edwards software release to the next – precisely the type of information SAP said it wanted.
15 Attached as Exhibit G, as exemplars from the 20,000+ pages of Release Notes that Oracle has
16 produced to SAP, are true and correct copies of the cover pages for Release Notes for (1)
17 PeopleSoft 8 – a 729 page document containing “an overview and preview of the new features
18 and enhancements in PeopleSoft 8” – produced from ORCL00259788 to ORCL00260516, and,
19 (2) EnterpriseOne XE – a 362 page document detailing the “Net Change” from the prior
20 EnterpriseOne software release to EnterpriseOne XE – produced from ORCL00254294 to
21 ORCL00254655. Both relate to Registered Works in Oracle’s Third Amended Complaint (*e.g.*
22 TX 5-291-440 and TX 6-541-033). Oracle’s proposed supplementation with regard to locating
23 these Release Notes was expected to (and did) require extremely burdensome searches for
24 historical documentation related to each of software releases listed in Oracle’s Third Amended
25 Complaint, and includes many preexisting releases. Ms. Wallace did not respond to my
26 November 18 email (Exhibit F) prior to the proposed supplementation date of December 5, 2008
27 to state that my proposal would not be “acceptable.” Accordingly, Oracle proceeded with the
28 collection, and on December 5, 2008, the same day that Oracle supplemented its interrogatory

1 response, it produced over 20,000 pages of these software Release Notes.

2 11. During meet and confer on the derivative and preexisting works issues,
3 one of the types of information that SAP said that they sought was information regarding
4 development and changes to Oracle's software. While Oracle continued to deny the relevance of
5 that derivative and preexisting work information (and went forward with the release note
6 production, which in many cases details that type of information), Oracle confirmed that certain
7 types of information responsive to SAP's requests, in addition to many other types of
8 information related to Oracle's copyrighted software, existed within the Customer Connection
9 databases. Accordingly, Oracle also referred SAP to these databases in its interrogatory
10 responses. Oracle never agreed that SAP's discovery into these areas was relevant or
11 appropriate, and we never offered these databases up as the "solution" to SAP's improper
12 requests.

13 12. The issue with large database/computer-related data productions being
14 "corrupted" or "unusable" (or at least perceived as such by other party) has been a recurring
15 issue in the case on both sides. Attached as Exhibit H is a true and correct copy of an email
16 string between Oracle's counsel and SAP's counsel related to the problems that SAP complained
17 of with regard to the Customer Connection databases (with certain technical content not
18 necessary here redacted out of an abundance of caution), including an April 6, 2009 email
19 exchange between myself and Scott Cowan, counsel for SAP, describing problems with usability
20 of computer data productions on both sides. Further, when SAP first produced its Lotus Notes
21 SAS database, Oracle could not review it and had to hire an expert solely dedicated to getting
22 Oracle access to review the material in that database (at a current cost to Oracle, solely in expert
23 fees, of \$37,862). Judge Legge also ordered SAP to assist Oracle with understanding that
24 database, just as Oracle has provided assistance to SAP relating to the Customer Connection
25 databases. After meeting and conferring with SAP to understand the problem with respect to the
26 Customer Connection databases, Oracle set up and restored the Customer Connection databases
27 itself. Then, Oracle went to great lengths to document the process and then provided SAP with
28 detailed written instructions and screen shots of the process for restoring SAP's own copy of the

1 relevant databases. SAP has not requested further technical assistance. Accordingly, all of
2 SAP's complaints about the usability of the Customer Connection databases appear to have been
3 resolved.

4 13. Anticipating that SAP may try to challenge Oracle's ownership of the
5 copyrights due to chain of title technicalities, Oracle took the additional step of recording the
6 copyright transfers with the Copyright Office. Attached as Exhibit I is a true and correct copy of
7 the two recordations with the Copyright Office recording the prior copyright transfers from
8 PeopleSoft and J.D. Edwards to Oracle, dated August 13, 2008.

9 14. Among other documents and data produced related to ownership of the
10 Registered Works, Oracle has produced relevant, non-privileged documents including form
11 copies of employment agreements, work for hire agreements, software release notes, numerous
12 software-related databases showing development of the works, and other assignment agreements
13 and inter-entity agreements. Further, two 30(b)(6) designees, Todd Adler and Ann Kishore,
14 testifying on Oracle's behalf, have discussed the relevant agreements and documents, including
15 as they relate to Oracle's ownership of the Registered Works.

16 15. As relates to acquisition documents, I am not aware that SAP ever
17 mentioned Distinction Software in any meet and confer or discovery conference. The only
18 mention of Red Pepper Software of which I am aware is a reference in an email dated April 9,
19 2009 from Ms. Wallace, counsel for SAP, to me. Attached as Exhibit J is a true and correct copy
20 of the April 9, 2009 email string, including the above-referenced email from Ms. Wallace, and
21 my response email of the same date. My response email at the top of Exhibit J, dated April 9,
22 2009, requested SAP provide any authority upon which it based the request for these remote
23 acquisition documents, including Vantive. SAP did not respond to my request for further
24 information as to Red Pepper and Vantive, and instead filed its motion to compel.

25 16. Attached as Exhibit K is a true and correct copy of certain pages,
26 including page 63, from an audio transcription of the October 10, 2008 Discovery Conference,
27 discussing the issue of production of documents "sufficient to show" copyright ownership.

28 17. Attached as Exhibit L is a true and correct copy of *Computer Assocs.*

1 *Int'l, Inc. v. Altai, Inc.*, 775 F. Supp. 544 (E.D.N.Y. 1991), *aff'd in part and vacated on other*
2 *grounds*, 982 F.2d 693 (2d Cir. 1992), highlighted for ease of reference. Attached as Exhibit M
3 is a true and correct highlighted copy of *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435
4 (9th Cir. 1994), highlighted for ease of reference.

5 I declare under penalty of perjury under the laws of the United States that the
6 foregoing facts are true and correct, and that this Declaration was executed on April 28, 2009, in
7 San Francisco, California.

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9 _____
10 Zachary J. Alinder
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EXHIBIT A

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Tuesday, March 24, 2009 1:38 PM
To: 'Laurie M Charrington'
Cc: 'Elaine Wallace'; Howard, Geoff; House, Holly; Jane L Froyd; 'jlfuchs@JonesDay.com'; Jason McDonell; Polito, John A.; Sherrod, Joy; 'Scott Cowan'
Subject: RE: Oracle's December 5, 2008 production

Laurie,

Request No. 63 does not ask for license activation codes. However, in the interest of compromise, Oracle will agree to produce license activation codes related to relevant Oracle software, to the extent such codes can be located following a reasonable search. To move forward, please let us know which J.D. Edwards and PeopleSoft software versions, for which you and your experts require license activation codes. Given the historical nature of some of the J.D. Edwards and PeopleSoft software products, we will need to investigate the process for obtaining and providing access to the proper license activation codes with that list in hand.

Similarly, in addition to the software code request discussed in the Anticipated Motions to Compel section of Defendants' draft Joint Discovery Conference Statement, Defendants state that Oracle has refused to "produce copies of allegedly infringed Registered Works...." Please identify which Registered Works you believe Oracle has refused to produce, so that we can evaluate whether to agree to any supplemental production of the requested software.

Best regards,
Zac Alinder

From: Laurie M Charrington [mailto:lmcharrington@JonesDay.com]
Sent: Tuesday, March 17, 2009 12:49 PM
To: Alinder, Zachary J.
Cc: 'Elaine Wallace'; Howard, Geoff; House, Holly; Jane L Froyd; 'jlfuchs@JonesDay.com'; Jason McDonell; Polito, John A.; Sherrod, Joy; 'Scott Cowan'
Subject: Re: Oracle's December 5, 2008 production

Zachary,

I write regarding your apparent refusal to produce the license activation codes requested by SAP, and your demand that SAP explain its need for the codes. Your response is insufficient and inappropriate. Oracle agreed to produce the software knowing it would have to be tested and evaluated by counsel and experts for Defendants (*see* Oracle's response to RFP No. 63). There is no way to do such testing and evaluation without installing the software on a computer, and Oracle could not reasonably have expected otherwise. Since we cannot review or analyze the software without the license keys, plaintiffs are in default on the discovery obligations they attempted to fulfill (or tried to avoid) by producing the software alone. Provide the license keys by close of business Thursday or we will move to compel.

REDACTED

Best regards,

4/28/2009

Laurie Charrington

Laurie M. Charrington
Associate
Jones Day - Silicon Valley
1755 Embarcadero Road
Palo Alto, California 94303
lmcharrington@jonesday.com
(650) 739-3946 (dir)
(650) 739-3900 (fax)

"Alinder, Zachary J." <zachary.alinder@bingham.com>

03/16/2009 06:05 PM

To "lmcharrington@JonesDay.com" <lmcharrington@JonesDay.com>, "Scott Cowan" <swcowan@JonesDay.com>, "Jason McDonell" <jmcdonell@JonesDay.com>

cc "Howard, Geoff" <geoff.howard@bingham.com>, "House, Holly" <holly.house@bingham.com>, "Sherrod, Joy" <joy.sherrod@bingham.com>, "Polito, John A." <john.polito@bingham.com>, "Elaine Wallace" <ewallace@JonesDay.com>, "Jane L Froyd" <jfroyd@JonesDay.com>, "jlfuchs@JonesDay.com" <jlfuchs@JonesDay.com>

Subject Re: Oracle's December 5, 2008 production

Dear Counsel:

Regarding the license activation code request, please explain why you need to make an additional copy (by installing on a computer) of copyrighted software that your clients have previously infringed.

REDACTED

4/28/2009

REDACTED

Best regards,
Zac Alinder

From: Laurie M Charrington
To: Rosenbaum, Briana Lynn; Sherrod, Joy
Cc: Elaine Wallace ; Greg Lanier ; Scott Cowan ; Jason McDonell ; Jane L Froyd ; Joshua L Fuchs ; Jacqueline K. S. Lee
Sent: Sat Mar 14 12:06:48 2009
Subject: Re: Oracle's December 5, 2008 production

I am writing to follow up on my email of March 10, below. We request that Oracle immediately provide us with the license activation codes, or provide a date certain by which we can expect a response.

Laurie M. Charrington
Associate
Jones Day - Silicon Valley
1755 Embarcadero Road
Palo Alto, California 94303
lmcharrington@jonesday.com
(650) 739-3946 (dir)
(650) 739-3900 (fax)

Laurie M Charrington/JonesDay
Extension 3-3946

03/10/2009 05:17 PM

To briana.rosenbaum@bingham.com

cc joy.sherrod@bingham.com, Elaine Wallace/JonesDay@JonesDay

Subject Oracle's December 5, 2008 production

Oracle's 31st production dated December 5, 2008 included 38 CDs containing PeopleSoft and JD Edwards Software (ORCL00264019 to ORCL00264056). The software on these CDs cannot be installed without the appropriate license activation codes. Please provide the necessary license activation codes as soon as possible, but no later than close of business Thursday, March 12.

Best regards,

Laurie Charrington

Laurie M. Charrington
Associate

4/28/2009

Jones Day - Silicon Valley
1755 Embarcadero Road
Palo Alto, California 94303
lmcharrington@jonesday.com
(650) 739-3946 (dir)
(650) 739-3900 (fax)

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EXHIBIT B

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Monday, April 13, 2009 8:03 PM
To: 'Elaine Wallace'; Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Jindal, Nitin; Howard, Geoff
Subject: RE: primary identification of software

Elaine,

As part of our continuing investigation into the software production, we are able to confirm:

1. The documentation for TX 6-541-025 and TX 6-541-026 is located at ORCL00009370-71 and ORCL00009364-65.

2. ORCL00264056 contains the following ESUs and Code Changes :

TX0006541046ESU for JD Edwards EnterpriseOne 8.0 (file JE1398)
TX0006541037ESU for JD Edwards EnterpriseOne 8.10 (file PG4998)
TX0006541027ESU for JD Edwards EnterpriseOne 8.11 SP1 (file JJ13072)
TX0006541045ESU for JD Edwards EnterpriseOne 8.12 (file JK10093)
TX0006541036ESU for JD Edwards EnterpriseOne 8.9 (file PF4811)
TX0006541051ESU for JD Edwards EnterpriseOne Xe (file JD20309)
TX0006541043Code Change for JD Edwards World A7.3 (file A738217431)
TX0006541044Code Change for JD Edwards World A8.1 (file A818217458)

3. The deposit materials for the following registrations are produced at the following bates numbers. Those deposit materials appear to contain a full copy of the Registered Work, but please let us know if that does not appear correct to you.

TX0006541018PeopleTools Third Party Daylight Saving Time Required Modifications (Revised)	ORCL00009400
TX0006541019PeopleTools Third Party Daylight Saving Time Required Modifications	ORCL00009382
TX0006541020ECRM89: Common Errors on Mobile Sales	ORCL00009359
TX0006541021GM--Grants issues resolved by FMS ESA 8.9 Bundle #10-653723 (Oct 06)	ORCL00009379
TX0006541022E1: 07/77: Quantum for Payroll Tax v.280	ORCL00009375
TX0006541023EAP WTHD06: 1099 IRS changes for the year 2006	ORCL00009363
TX0006541024E1: 1099: Year 2006 1099 ESUs	ORCL00009369
TX0006541025Changes to Daylight Savings Time for 2007 (DST)	ORCL00009372
TX0006541026JD Edwards World -- 1099 Changes for Tax Year 2006	ORCL00009366
TX0006838537PeopleSoft Payroll 1200457000 - User Documentation	ORCL00182374
TX0006838544PeopleSoft Application Update Installation Instructions (UPD595817)	ORCL00182385
TX0006838549PeopleSoft 8.01 & 8.31 Payroll Tax Update 05-F Year-End Processing: Canada	ORCL00182394

4. The software for the following registrations was produced at the following bates numbers:

TX0006541029Initial release of JD Edwards World A7.3	ORCL00399923
TX0006541047Initial release of JD Edwards World A8.1	ORCL00399922

Regards,

Zac

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Thursday, April 09, 2009 8:57 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: RE: primary identification of software

John,

As part of your investigation, please confirm that all the ESUs have been produced. We believe that ESU for JD Edwards EnterpriseOne 8.11 SP1 (TX 6-541-035) has not. The others may have been but it is difficult to tell because of the form in which ESUs have been produced. Also, we believe that documentation is missing for two registrations i.e. TX 6-541-025 and TX 6-541-026. Please produce complete copies of the materials claimed to be covered by these registrations.

We look forward to an update on the status of your investigation on Monday.

Regards.

Elaine Wallace
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 555 California Street, 26th Floor
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 (415) 875-5831 (Direct Dial)
 (415) 875-5700 (Fax)
 ewallace@jonesday.com

"Polito, John A." <john.polito@bingham.com>

04/08/2009 04:28 PM

To "Elaine Wallace" <ewallace@JonesDay.com>
 cc "Joshua Fuchs " <jlfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Alinder, Zachary J." <zachary.alinder@bingham.com>
 Subject RE: primary identification of software

Elaine,

Based on your email, we have followed up on the registrations that you identified. Here is what our continuing investigation has revealed so far; the remainder are still being investigated.

ORCL00264019 PeopleSoft 8.3 HRMS TX 5-469-032
 ORCL00264021 PeopleSoft 8.8 HRMS TX 6-093-947
 ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack **TX 5-456-780**
 ORCL00264027 PeopleSoft 8.8 Customer Relationship Management TX 6-015-317
 ORCL00264028 PeopleTools 8 CD TX 5-266-222
 ORCL00264030 PSOFT8 HRMS CD TX 5-291-440
 ORCL00264031 PSoft HRMS 7 CD TX 4-792-577

4/28/2009

ORCL00264035 PSOFT PeopleTools 8.10 CD TX 5-266-221
 ORCL00264038 PeopleSoft 8 Customer Relationship Management TX 5-546-777
 ORCL00264040 PeopleTools 7.50 TX 4-792-578
 ORCL00264041 JD Edwards EnterpriseOne Standalone DVD 1 of 1 July 2006 **TX 6-541-041**
 ORCL00264042 One World 8.11 SP1 1 of 2 AND ORCL00264049 One World 8.11 SP1 Standalone Windows 2
 of 2 October 2005 **TX 6-541-040**
 ORCL00264043 One World 8.11 Standalone Windows 1 of 2 AND ORCL00264044 One World 8.11 Standalone
 Windows 2 of 2 **TX 6-541-028**
 ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007 **TX 6-541-032**
 ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003 AND ORCL00264050 One World
 8.9 Standalone Windows 2 of 2 September 2003 **TX 6-541-049**
 ORCL00264051 One World 8.10 Standalone Windows 1 of 2 August 2004 AND ORCL00264052 One World 8.10
 Standalone Windows 2 of 2 August 2004 **TX 6-541-038**
 ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006 **TX 6-541-042**
 ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004 **TX 6-541-048**

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 john.polito@bingham.com

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 San Francisco, CA 94111-4067

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Monday, April 06, 2009 4:24 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: Re: primary identification of software

John,

We have some questions about the list below. First, the titles don't always match the titles on the registrations, especially for the JDE products. I have indicated (in red text below) the registrations we believe each Bates number is intended to match. Please confirm that these are correct. For the ones we have indicated are not an exact match or otherwise unclear, please let us know which registrations they correspond to. Second, please confirm that Oracle is producing everything covered by a registration and not just what a customer who licensed a Registered Work would have received. For example, if a registration covers source code that was not provided to customers, please confirm that Oracle is producing the source code as well.

We would like to have these questions answered before our meet and confer this week so that we can focus our discussion on the registrations for which productions have not been made at all or are incomplete rather than on what may just reflect minor variations between the titles on the CDs and the titles in the registrations.

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 ORCL00264021 PeopleSoft 8.8 HRMS TX 6-093-947
 ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions
 Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack
 Unclear.
 ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1 TX 5-993-616 [Not an exact

4/28/2009

match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD TX 5-501-312 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264027 PeopleSoft 8.8 Customer Relationship Management TX 6-015-317

ORCL00264028 PeopleTools 8 CD TX 5-266-222

ORCL00264030 PSOFT8 HRMS CD TX 5-291-440

ORCL00264031 PSoft HRMS 7 CD TX 4-792-577

ORCL00264035 PSOFT PeopleTools 8.10 CD TX 5-266-221

ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1 TX 5-586-247 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264038 PeopleSoft 8 Customer Relationship Management TX 5-546-777

ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions TX 5-431-289 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264040 PeopleTools 7.50 TX 4-792-578

ORCL00264041 JD Edwards EnterpriseOne Standalone DVD 1 of 1 July 2006 Unclear

ORCL00264042 One World 8.11 SP1 1 of 2 Unclear

ORCL00264043 One World 8.11 Standalone Windows 1 of 2 Unclear

ORCL00264044 One World 8.11 Standalone Windows 2 of 2 Unclear

ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007 Unclear

ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003 Unclear

ORCL00264049 One World 8.11 SP1 Standalone Windows 2 of 2 October 2005 Unclear

ORCL00264050 One World 8.9 Standalone Windows 2 of 2 September 2003 Unclear

ORCL00264051 One World 8.10 Standalone Windows 1 of 2 August 2004 Unclear

ORCL00264052 One World 8.10 Standalone Windows 2 of 2 August 2004 Unclear

ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006 Unclear

ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004 Unclear

ORCL00264056 registered ESUs Unclear

Regards,

Elaine Wallace
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 ewallace@jonesday.com

=====

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4/28/2009

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=====

EXHIBIT C

Alinder, Zachary J.

From: Elaine Wallace [ewallace@JonesDay.com]
Sent: Wednesday, April 08, 2009 3:49 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: RE: primary identification of software

John,

We believe that source code (whether or not provided to customers) may be relevant to identifying preexisting and new material in software registered as a derivative work. However, subject to your agreement that Oracle's infringement claims are limited to materials that were provided to customers, we are willing to agree for now that Oracle is not required to produce source code that was not provided to customers. We reserve our right to seek, at some later time, production of source code that was not provided to customers should Oracle expand its claims to include such material and/or such material prove necessary for the derivative works analysis issue. Please let me know whether you agree with this proposal.

Also, we need to discuss Oracle's position on production relating to the current development environment registrations. As you know, Oracle declined to produce the material it claims is covered by those registrations on the ground that such production would be duplicative of material produced in connection with other registrations. The issue was raised with Judge Legge and he agreed with Oracle's position. We need to know whether this is still Oracle's position. If so, we also need Oracle to identify the specific registrations and associated productions it contends are duplicative of the allegedly infringed current development environment materials. We understand that you may not be able to answer these questions on our call this afternoon but wanted to give you a heads up that it is something we would like to discuss prior to filing our motion to compel.

Regards,

Elaine Wallace
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 ewallace@jonesday.com

"Polito, John A." <john.polito@bingham.com>

04/07/2009 09:16 AM

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Joshua Fuchs" <jjfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Alinder, Zachary J." <zachary.alinder@bingham.com>

Subject RE: primary identification of software

4/28/2009

Elaine,

We have not yet scheduled our next meet and confer. Are you available Wednesday at 5 PM PT? We will make a best effort to respond regarding your proposed list of registrations and follow-up questions prior to that time.

As for your question regarding source code, Oracle's consistent position has been that we will provide software that embodies the Registered Works, but will not provide source code that would not have been provided to Oracle's customers. Please provide any basis upon which you believe it would be necessary for Defendants to inspect source code that Defendants could not have possibly obtained or modified through any legitimate means, and the specific registrations for which that argument applies.

Regards,
John Polito

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john.polito@bingham.com

B I N G H A M
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From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Monday, April 06, 2009 4:24 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: Re: primary identification of software

John,

We have some questions about the list below. First, the titles don't always match the titles on the registrations, especially for the JDE products. I have indicated (in red text below) the registrations we believe each Bates number is intended to match. Please confirm that these are correct. For the ones we have indicated are not an exact match or otherwise unclear, please let us know which registrations they correspond to. Second, please confirm that Oracle is producing everything covered by a registration and not just what a customer who licensed a Registered Work would have received. For example, if a registration covers source code that was not provided to customers, please confirm that Oracle is producing the source code as well.

We would like to have these questions answered before our meet and confer this week so that we can focus our discussion on the registrations for which productions have not been made at all or are incomplete rather than on what may just reflect minor variations between the titles on the CDs and the titles in the registrations.

ORCL00264019 PeopleSoft 8.3 HRMS TX 5-469-032
ORCL00264021 PeopleSoft 8.8 HRMS TX 6-093-947
ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack
Unclear.
ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1 TX 5-993-616 [Not an exact

4/28/2009

match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD TX 5-501-312 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264027 PeopleSoft 8.8 Customer Relationship Management TX 6-015-317
 ORCL00264028 PeopleTools 8 CD TX 5-266-222
 ORCL00264030 PSOFT8 HRMS CD TX 5-291-440
 ORCL00264031 PSoft HRMS 7 CD TX 4-792-577
 ORCL00264035 PSOFT PeopleTools 8.10 CD TX 5-266-221
 ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1 TX 5-586-247 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264038 PeopleSoft 8 Customer Relationship Management TX 5-546-777
 ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions TX 5-431-289 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264040 PeopleTools 7.50 TX 4-792-578
 ORCL00264041 JD Edwards EnterpriseOne Standalone DVD 1 of 1 July 2006 Unclear
 ORCL00264042 One World 8.11 SP1 1 of 2 Unclear
 ORCL00264043 One World 8.11 Standalone Windows 1 of 2 Unclear
 ORCL00264044 One World 8.11 Standalone Windows 2 of 2 Unclear
 ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007 Unclear
 ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003 Unclear
 ORCL00264049 One World 8.11 SP1 Standalone Windows 2 of 2 October 2005 Unclear
 ORCL00264050 One World 8.9 Standalone Windows 2 of 2 September 2003 Unclear
 ORCL00264051 One World 8.10 Standalone Windows 1 of 2 August 2004 Unclear
 ORCL00264052 One World 8.10 Standalone Windows 2 of 2 August 2004 Unclear
 ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006 Unclear
 ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004 Unclear
 ORCL00264056 registered ESUs Unclear

Regards,

Elaine Wallace
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 San Francisco, CA 94104
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 (415) 875-5700 (Fax)
 ewallace@jonesday.com

"Polito, John A."

<john.polito@bingham.com>

04/03/2009 02:40 PM

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Joshua Fuchs" <jjfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Alinder,

Zachary J." <zachary.alinder@bingham.com>

Subject primary identification of software

4/28/2009

Dear Elaine,

Below, please find a list of Bates numbers for software relating to the Registered Works, together with descriptions. As discussed during our meet and confer earlier today, this list is the result of Oracle's preliminary investigation. Oracle continues to investigate, and will provide additional information early next week.

Regards,
John Polito

ORCL00264019 PeopleSoft 8.3 HRMS
 ORCL00264021 PeopleSoft 8.8 HRMS
 ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack
 ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1
 ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2
 ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2
 ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD
 ORCL00264027 PeopleSoft 8.8 Customer Relationship Management
 ORCL00264028 PeopleTools 8 CD
 ORCL00264030 PSOFT8 HRMS CD
 ORCL00264031 PSoft HRMS 7 CD
 ORCL00264035 PSOFT PeopleTools 8.10 CD
 ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1
 ORCL00264038 PeopleSoft 8 Customer Relationship Management
 ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions
 ORCL00264040 PeopleTools 7.50
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 ORCL00264043 One World 8.11 Standalone Windows 1 of 2
 ORCL00264044 One World 8.11 Standalone Windows 2 of 2
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 ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006
 ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004
 ORCL00264056 registered ESUs

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4/28/2009

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This e-mail (including any attachments) may contain information that is private, confidential, or protected by attorney-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.

=====

EXHIBIT D

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Wednesday, April 08, 2009 7:49 PM
To: 'Elaine Wallace'; Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Howard, Geoff; House, Holly
Subject: RE: primary identification of software

Elaine,
After re-reading your email, I have some questions about your request related to the Current Development Environments. While I don't want to leap to conclusions, this reads like an attempt to re-litigate an issue decided by Judge Legge over a year ago. Further, this was never raised in any Joint Discovery Conference Statement or at any discovery conference hearing before Judge Laporte that I recall. Given that Defendants have not sought -- or received -- permission to file (or, as it appears, re-file) any motion related to Current Development Environments, we do not see why you would require a response "prior to filing [your] motion to compel." In any event, to make sure that we are both on the same page with respect to the issues to be included in your motion to compel next week, please send us a list of issues that you contend may properly be included in that motion.
Thanks,
Zac

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Wednesday, April 08, 2009 3:49 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: RE: primary identification of software

John,

We believe that source code (whether or nor provided to customers) may be relevant to identifying preexisting and new material in software registered as a derivative work. However, subject to your agreement that Oracle's infringement claims are limited to materials that were provided to customers, we are willing to agree for now that Oracle is not required to produce source code that was not provided to customers. We reserve our right to seek, at some later time, production of source code that was not provided to customers should Oracle expand its claims to include such material and/or such material prove necessary for the derivative works analysis issue. Please let me know whether you agree with this proposal.

Also, we need to discuss Oracle's position on production relating to the current development environment registrations. As you know, Oracle declined to produce the material it claims is covered by those registrations on the ground that such production would be duplicative of material produced in connection with other registrations. The issue was raised with Judge Legge and he agreed with Oracle's position. We need to know whether this is still Oracle's position. If so, we also need Oracle to identify the specific registrations and associated productions it contends are duplicative of the allegedly infringed current development environment materials. We understand that you may not be able to answer these questions on our call this afternoon but wanted to give you a heads up that it is something we would like to discuss prior to filing our motion to compel.

Regards,

Elaine Wallace

4/28/2009

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(415) 875-5700 (Fax)
ewallace@jonesday.com

"Polito, John A." <john.polito@bingham.com>

04/07/2009 09:16 AM

To "Elaine Wallace" <ewallace@JonesDay.com>
cc "Joshua Fuchs " <jlfuchs@JonesDay.com>, "Laurie M Charrington"
<lmcharrington@JonesDay.com>, "Scott Cowan (swcowan@JonesDay.com)"
<swcowan@JonesDay.com>, "Alinder, Zachary J."
<zachary.alinder@bingham.com>
Subject RE: primary identification of software

Elaine,

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Regards,
John Polito

John A. Polito
Associate
T 415.393.2314
F 415.393.2286
john.polito@bingham.com

B I N G H A M
Bingham McCutchen LLP
Three Embarcadero Center
San Francisco, CA 94111-4067

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Monday, April 06, 2009 4:24 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: Re: primary identification of software

John,

4/28/2009

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We would like to have these questions answered before our meet and confer this week so that we can focus our discussion on the registrations for which productions have not been made at all or are incomplete rather than on what may just reflect minor variations between the titles on the CDs and the titles in the registrations.

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 ORCL00264021 PeopleSoft 8.8 HRMS TX 6-093-947
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 ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
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 ORCL00264028 PeopleTools 8 CD TX 5-266-222
 ORCL00264030 PSOFT8 HRMS CD TX 5-291-440
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 ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1 TX 5-586-247 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264038 PeopleSoft 8 Customer Relationship Management TX 5-546-777
 ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions TX 5-431-289 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]
 ORCL00264040 PeopleTools 7.50 TX 4-792-578
 ORCL00264041 JD Edwards EnterpriseOne Standalone DVD 1 of 1 July 2006 Unclear
 ORCL00264042 One World 8.11 SP1 1 of 2 Unclear
 ORCL00264043 One World 8.11 Standalone Windows 1 of 2 Unclear
 ORCL00264044 One World 8.11 Standalone Windows 2 of 2 Unclear
 ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007 Unclear
 ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003 Unclear
 ORCL00264049 One World 8.11 SP1 Standalone Windows 2 of 2 October 2005 Unclear
 ORCL00264050 One World 8.9 Standalone Windows 2 of 2 September 2003 Unclear
 ORCL00264051 One World 8.10 Standalone Windows 1 of 2 August 2004 Unclear
 ORCL00264052 One World 8.10 Standalone Windows 2 of 2 August 2004 Unclear
 ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006 Unclear
 ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004 Unclear
 ORCL00264056 registered ESUs Unclear

Regards,

Elaine Wallace
 JONES DAY

4/28/2009

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 San Francisco, CA 94104
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 (415) 875-5700 (Fax)
 ewallace@jonesday.com

"Polito, John A."

<john.polito@bingham.com>

04/03/2009 02:40 PM

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Joshua Fuchs" <jfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Alinder,

Zachary J." <zachary.alinder@bingham.com>

Subject primary identification of software

Dear Elaine,

Below, please find a list of Bates numbers for software relating to the Registered Works, together with descriptions. As discussed during our meet and confer earlier today, this list is the result of Oracle's preliminary investigation. Oracle continues to investigate, and will provide additional information early next week.

Regards,
 John Polito

ORCL00264019 PeopleSoft 8.3 HRMS
 ORCL00264021 PeopleSoft 8.8 HRMS
 ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack
 ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1
 ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2
 ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2
 ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD
 ORCL00264027 PeopleSoft 8.8 Customer Relationship Management
 ORCL00264028 PeopleTools 8 CD
 ORCL00264030 PSOFT8 HRMS CD
 ORCL00264031 PSoft HRMS 7 CD
 ORCL00264035 PSOFT PeopleTools 8.10 CD
 ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1
 ORCL00264038 PeopleSoft 8 Customer Relationship Management
 ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions
 ORCL00264040 PeopleTools 7.50
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 ORCL00264044 One World 8.11 Standalone Windows 2 of 2
 ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007
 ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003

4/28/2009

- ORCL00264049 One World 8.11 SP1 Standalone Windows 2 of 2 October 2005
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- ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006
- ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004
- ORCL00264056 registered ESUs

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 john.polito@bingham.com
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EXHIBIT E

Alinder, Zachary J.

From: Elaine Wallace [ewallace@JonesDay.com]
Sent: Thursday, April 09, 2009 9:03 AM
To: Alinder, Zachary J.
Cc: Howard, Geoff; House, Holly; Joshua Fuchs ; Polito, John A.; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com)
Subject: RE: primary identification of software

Zac,

As stated in my email, Oracle took the position with Judge Legge that it should not be required to produce copies of the current development environments because it would be duplicative of material produced in connection with its other registrations. However, Oracle has not yet produced copies of all materials it claims are covered by the other registrations and is still determining what has and has not been produced. In addition, more than a year has passed and a lot of discovery has been done since this issue was before Judge Legge. My questions are quite straightforward. Is Oracle's position still the same, i.e. that production of the allegedly infringed portions of the current development environments would be duplicative of its productions relating to other allegedly infringed Registered Works? If so, which other productions duplicate the allegedly infringed portions of the current development environments? The relevance of these questions to our motion to compel should be clear given that one of the subjects of the motion (as described in the Joint Discovery Statement and discussed at the March 31 conference) will be Oracle's obligation to produce copies of all software it contends was infringed. We are not required to give you the preview of our motion you request.

Regards,

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 ewallace@jonesday.com

"Alinder, Zachary J." <zachary.alinder@bingham.com>

04/08/2009 07:48 PM

To "'Elaine Wallace'" <ewallace@JonesDay.com>, "Polito, John A." <john.polito@bingham.com>

cc "Joshua Fuchs " <jlfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Howard, Geoff" <geoff.howard@bingham.com>, "House, Holly" <holly.house@bingham.com>

Subject RE: primary identification of software

Elaine,

After re-reading your email, I have some questions about your request related to the Current Development Environments. While I don't want to leap to conclusions, this reads like an attempt to re-litigate an issue decided by Judge Legge over a year ago. Further, this was never raised in any Joint Discovery Conference Statement or

4/28/2009

at any discovery conference hearing before Judge Laporte that I recall. Given that Defendants have not sought -- or received -- permission to file (or, as it appears, re-file) any motion related to Current Development Environments, we do not see why you would require a response "prior to filing [your] motion to compel." In any event, to make sure that we are both on the same page with respect to the issues to be included in your motion to compel next week, please send us a list of issues that you contend may properly be included in that motion.

Thanks,
Zac

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Wednesday, April 08, 2009 3:49 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: RE: primary identification of software

John,

We believe that source code (whether or not provided to customers) may be relevant to identifying preexisting and new material in software registered as a derivative work. However, subject to your agreement that Oracle's infringement claims are limited to materials that were provided to customers, we are willing to agree for now that Oracle is not required to produce source code that was not provided to customers. We reserve our right to seek, at some later time, production of source code that was not provided to customers should Oracle expand its claims to include such material and/or such material prove necessary for the derivative works analysis issue. Please let me know whether you agree with this proposal.

Also, we need to discuss Oracle's position on production relating to the current development environment registrations. As you know, Oracle declined to produce the material it claims is covered by those registrations on the ground that such production would be duplicative of material produced in connection with other registrations. The issue was raised with Judge Legge and he agreed with Oracle's position. We need to know whether this is still Oracle's position. If so, we also need Oracle to identify the specific registrations and associated productions it contends are duplicative of the allegedly infringed current development environment materials. We understand that you may not be able to answer these questions on our call this afternoon but wanted to give you a heads up that it is something we would like to discuss prior to filing our motion to compel.

Regards,

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 ewallace@jonesday.com

"Polito, John A."

<john.polito@bingham.com>

04/07/2009 09:16 AM

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Joshua Fuchs " <jfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Alinder, Zachary J." <zachary.alinder@bingham.com>

Subject RE: primary identification of software

4/28/2009

Elaine,

We have not yet scheduled our next meet and confer. Are you available Wednesday at 5 PM PT? We will make a best effort to respond regarding your proposed list of registrations and follow-up questions prior to that time.

As for your question regarding source code, Oracle's consistent position has been that we will provide software that embodies the Registered Works, but will not provide source code that would not have been provided to Oracle's customers. Please provide any basis upon which you believe it would be necessary for Defendants to inspect source code that Defendants could not have possibly obtained or modified through any legitimate means, and the specific registrations for which that argument applies.

Regards,
John Polito

John A. Polito
Associate
T 415.393.2314
F 415.393.2286
john.polito@bingham.com

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Bingham McCutchen LLP
Three Embarcadero Center
San Francisco, CA 94111-4067

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Monday, April 06, 2009 4:24 PM
To: Polito, John A.
Cc: Joshua Fuchs ; Laurie M Charrington; Scott Cowan (swcowan@JonesDay.com); Alinder, Zachary J.
Subject: Re: primary identification of software

John,

We have some questions about the list below. First, the titles don't always match the titles on the registrations, especially for the JDE products. I have indicated (in red text below) the registrations we believe each Bates number is intended to match. Please confirm that these are correct. For the ones we have indicated are not an exact match or otherwise unclear, please let us know which registrations they correspond to. Second, please confirm that Oracle is producing everything covered by a registration and not just what a customer who licensed a Registered Work would have received. For example, if a registration covers source code that was not provided to customers, please confirm that Oracle is producing the source code as well.

We would like to have these questions answered before our meet and confer this week so that we can focus our discussion on the registrations for which productions have not been made at all or are incomplete rather than on what may just reflect minor variations between the titles on the CDs and the titles in the registrations.

ORCL00264019 PeopleSoft 8.3 HRMS TX 5-469-032
ORCL00264021 PeopleSoft 8.8 HRMS TX 6-093-947

4/28/2009

ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack Unclear.

ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1 TX 5-993-616 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2 TX 5-586-248 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD TX 5-501-312 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264027 PeopleSoft 8.8 Customer Relationship Management TX 6-015-317

ORCL00264028 PeopleTools 8 CD TX 5-266-222

ORCL00264030 PSOFT8 HRMS CD TX 5-291-440

ORCL00264031 PSoft HRMS 7 CD TX 4-792-577

ORCL00264035 PSOFT PeopleTools 8.10 CD TX 5-266-221

ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1 TX 5-586-247 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264038 PeopleSoft 8 Customer Relationship Management TX 5-546-777

ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions TX 5-431-289 [Not an exact match. Please confirm and explain discrepancy between titles on registration and CD.]

ORCL00264040 PeopleTools 7.50 TX 4-792-578

ORCL00264041 JD Edwards EnterpriseOne Standalone DVD 1 of 1 July 2006 Unclear

ORCL00264042 One World 8.11 SP1 1 of 2 Unclear

ORCL00264043 One World 8.11 Standalone Windows 1 of 2 Unclear

ORCL00264044 One World 8.11 Standalone Windows 2 of 2 Unclear

ORCL00264046 8.10 Update 2 Windows 1 of 1 3/13/2007 Unclear

ORCL00264048 One World 8.9 Standalone Windows 1 of 2 September 2003 Unclear

ORCL00264049 One World 8.11 SP1 Standalone Windows 2 of 2 October 2005 Unclear

ORCL00264050 One World 8.9 Standalone Windows 2 of 2 September 2003 Unclear

ORCL00264051 One World 8.10 Standalone Windows 1 of 2 August 2004 Unclear

ORCL00264052 One World 8.10 Standalone Windows 2 of 2 August 2004 Unclear

ORCL00264053 8.12 Update 1 Windows 1 of 1 10/10/2006 Unclear

ORCL00264055 One World Xe Update 8 Standalone Windows 1 of 1 March 2004 Unclear

ORCL00264056 registered ESUs Unclear

Regards,

Elaine Wallace
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 (415) 875-5700 (Fax)
 ewallace@jonesday.com
 "Polito, John A."
 <john.polito@bingham.com>

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Scott Cowan (swcowan@JonesDay.com)" <swcowan@JonesDay.com>, "Joshua Fuchs" <jjfuchs@JonesDay.com>, "Laurie M Charrington" <lmcharrington@JonesDay.com>, "Alinder, Zachary J." <zachary.alinder@bingham.com>

04/03/2009 02:40 PM

Subject primary identification of software

4/28/2009

Dear Elaine,

Below, please find a list of Bates numbers for software relating to the Registered Works, together with descriptions. As discussed during our meet and confer earlier today, this list is the result of Oracle's preliminary investigation. Oracle continues to investigate, and will provide additional information early next week.

Regards,
John Polito

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 ORCL00264021 PeopleSoft 8.8 HRMS
 ORCL00264022 PeopleSoft 8 Financials/Supply Chain Management, Service Pack 2 and Promotions Management, Collaborative Supply Management, eRFQ, eSupplier Connection, Supply Chain Portal Pack
 ORCL00264023 PeopleSoft 8.8 Enterprise Performance Management Rev 1
 ORCL00264024 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 1 of 2
 ORCL00264025 PeopleTools 8.4, PeopleTools 8.4 Mobile Agent (use requires specific license) 2 of 2
 ORCL00264026 PSOFT8 HRMS Serv Pack 1 Rev. 1 CD
 ORCL00264027 PeopleSoft 8.8 Customer Relationship Management
 ORCL00264028 PeopleTools 8 CD
 ORCL00264030 PSOFT8 HRMS CD
 ORCL00264031 PSoft HRMS 7 CD
 ORCL00264035 PSOFT PeopleTools 8.10 CD
 ORCL00264037 PeopleSoft 8.4 Financials and Supply Chain Management - Rev 1
 ORCL00264038 PeopleSoft 8 Customer Relationship Management
 ORCL00264039 PeopleSoft 8 Student Administration and Contributor Relations Solutions
 ORCL00264040 PeopleTools 7.50
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 ORCL00264056 registered ESUs

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EXHIBIT F

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Tuesday, November 18, 2008 12:05 PM
To: Elaine Wallace
Cc: Howard, Geoff; House, Holly; Polito, John A.; Jason McDonell; 'Scott Cowan'; Jane L Froyd
Subject: Module-Specific Information for Oracle Software

Elaine,

In response to your questions, here is what we propose.

1. As you suggest, I think we can group the other registrations and agree on a format. Here is how I would propose to group them:

(a) For ESUs, Miscellaneous Code Changes, PeopleTools, and the March 1995 J.D. Edwards Registrations, we will state the title and short description of the work, e.g. Registration TX 6-838-549 would be identified by its title "PeopleSoft 8.01 & 8.31 Payroll Tax Update 05-F Year-End Processing 2005: Canada" and a short description like "Support material providing information customers need for using PeopleSoft Payroll 8.01 and 8.31 for North America to complete 2005 year-end payroll processing."; and,

(b) The identification information for Current Development Environments would have a format similar to the initial release of the same J.D. Edwards software version described in my October 17 email.

2. As for Topic 6 in the notice, we propose a reasonable search for, and production of, release notes that describe the PeopleSoft and J.D. Edwards software releases, including important changes from the prior releases. This information may also be relied on for module information for the specific software releases as described in my October 17 email.

We expect we will be able to provide this supplementation by December 5th.

Best regards,
 Zac Alinder

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Tuesday, October 21, 2008 3:18 PM
To: Alinder, Zachary J.
Cc: Howard, Geoff; House, Holly; Jane L Froyd; Jason McDonell; Polito, John A.; Scott Cowan
Subject: Re: Module-Specific Information for Oracle Software

Zac:

Your proposal is acceptable for the software releases identified in your email. However, we need you to clarify the following:

1. What is your proposal with regard to the other registrations in the Third Amended Complaint? These would include the registrations for the ESUs, Cumulative Updates, and Current Development Environments for the releases identified in your email, the PeopleTools registrations, the March 1995 J.D. Edwards registrations, and registrations for miscellaneous code changes. Perhaps we can group the other registrations into categories and agree on a format for identifying the materials covered by those as well, along the lines of what you've done for the software release registrations?

4/28/2009

2. What is your proposal for responding to the information sought by Topic 6 in the notice?

Regards,

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 (415) 875-5700 (Fax)
 ewallace@jonesday.com

"Alinder, Zachary J." <zachary.alinder@bingham.com> To "Jason McDonell" <jmcdonell@JonesDay.com>, "Elaine Wallace" <ewallace@JonesDay.com>
 10/17/2008 07:17 PM cc "Howard, Geoff" <geoff.howard@bingham.com>, "House, Holly" <holly.house@bingham.com>, "Polito, John A." <john.polito@bingham.com>, "Jane L Froyd" <jfroyd@JonesDay.com>, "Scott Cowan" <swcowan@JonesDay.com>
 Subject Module-Specific Information for Oracle Software

Dear Jason and Elaine,

As discussed last week, we have done some investigation into the possibility and burden of supplementing interrogatory response no. 13 to further detail the contents of various versions of J.D. Edwards and PeopleSoft software on a module level.

Here is a listing of the software release versions for which we have begun the above investigation:

- JD Edwards World A7.3, A8.1, and A9.1
- JD Edwards EnterpriseOne XE, 8.0, 8.9, 8.10, 8.11, 8.11 SP1, 8.12
- PeopleSoft HRMS 7.0, 7.5, 8.0, 8.0 SP1, 8.3, 8.8
- PeopleSoft Financials & Supply Chain Management (or simply "Financials") 7.5, 8 SP2, 8.4
- PeopleSoft Student Administration Solutions 8
- PeopleSoft Customer Relationship Management 8, 8.8
- PeopleSoft Enterprise Performance Management 8.8

Before we proceed further, however, we require additional information and/or clarification from you as to your expectation for this supplementation. It does not make sense for us to undertake this process, if at the end, you will just state that what we have provided is still unsatisfactory, as Elaine's recent emails suggest you may do. To this end, we have provided below an exemplar list of module names for PeopleSoft HRMS 8.8 (please note that this is not necessarily the actual list of modules for this software version, but is just an exemplar for discussion purposes). Our proposal is that within a reasonable amount of time Oracle would supplement interrogatory response no. 13 with information identifying the modules contained within each of the above software release versions, similar to the exemplar, including by referencing specific records pursuant to Rule 33(d) that contain such information if possible, to the extent that Oracle is able to do so following a reasonable investigation. If this proposal is not acceptable, please explain what you perceive as its shortcomings. If this proposal is acceptable, we will update you next week on our further progress.

4/28/2009

Best regards,

Zac Alinder

Exemplar Listing for PeopleSoft HRMS 8.8

Benefits Administration

eBenefits

eCompensation

eCompensation Manager Desktop

eDevelopment

eEquity

ePay

ePerformance

eProfile

eProfile Manager Desktop

eRecruit

eRecruit Manager Desktop

FSA Administration

Global Payroll for Australia

Global Payroll for Brazil

Global Payroll Core

Global Payroll for France

Global Payroll for Germany

Global Payroll for Hong Kong

Global Payroll for India

Global Payroll for Italy

Global Payroll for Japan

Global Payroll for Mexico

Global Payroll for New Zealand

Global Payroll for Singapore

Global Payroll for Spain

Global Payroll for Switzerland

Global Payroll for The Netherlands

Global Payroll for UK

HRMS Portal Pack

Human Resources

Mode Time Management

Payroll for North America

Payroll Interface

Payroll Interface Connector for ADP Connection

Pension Administration

Resume Processing

Stock Administration

Time and Labor

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4/28/2009

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EXHIBIT G

PeopleSoft 8 Release Notes

These Release Notes provide an overview and preview of the new features and enhancements in PeopleSoft 8, including:

PeopleSoft 8 Internet Integration Features

PeopleSoft Currency Conversion Utility

PeopleTools 8.1

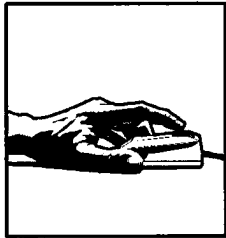
Enterprise-Wide Enhancements

PeopleSoft HRMS Enhancements

PeopleSoft Financials Enhancements

PeopleSoft Supply Chain Management Enhancements

Guide
September 2000



Net Change for Technical from B73.3.1 to PeopleSoft EnterpriseOne Xe

Release
EnterpriseOne Xe



EXHIBIT H

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Monday, April 06, 2009 12:45 PM
To: 'Scott Cowan'
Cc: Hann, Bree; 'ewallace@JonesDay.com'; Howard, Geoff; House, Holly; Jane L Froyd; Joshua L Fuchs; Jason McDonell; Polito, John A.; 'Laurie M Charrington'; Greg Lanier
Subject: RE: Meet and confer on Oracle's production of software/Customer Connection database

Scott,

We believed in good faith when we produced the Customer Connection databases that you would be able to load and use them, but based on your complaints we are evaluating the issues you've reported. And, as we've stated, we'll update you as to the progress of our evaluation of the Customer Connection databases as soon as we can.

Further, we could easily detail the lack of usability in multiple productions and re-productions from the data warehouse and SAS database by Defendants (e.g. (1) the original downloaded SSMS production was all corrupted files, just like REDACTED (2) Defendants would not even admit that there were missing logical images on of meet and confer before their eventual production, (3) the recently-produced SAS database was both incomplete and corrupted, (4) the re-production of Disk 9 - unrequested and unannounced - was produced in a different proprietary format than the first TN Disk 9 production for no apparent reason, other than to make that data more difficult to access).

Regardless, when we've had problems with your electronic productions that we could not solve, we've pointed them out to you, met and conferred, and worked with you and your experts to get a resolution. We would hope that you'd do the same, rather than try to engage us in a useless battle of email finger-pointing.

On a different note, my understanding following the discovery conference was that you were going to send us the revised de-designation proposal without the "similar" language inserted and with new dates proposed for the de-designation to conclude. Please let me know when we can expect that.

Thanks,
Zac

-----Original Message-----

From: Scott Cowan [mailto:swcowan@JonesDay.com]
Sent: Monday, April 06, 2009 10:14 AM
To: Alinder, Zachary J.
Cc: Hann, Bree; 'ewallace@JonesDay.com'; Howard, Geoff; House, Holly; Jane L Froyd; Joshua L Fuchs; Jason McDonell; Polito, John A.; 'Laurie M Charrington'; Greg Lanier
Subject: RE: Meet and confer on Oracle's production of software/Customer Connection database

Zac,

I am intimately familiar with Defendants' production history. There has been nothing remotely comparable in Oracle's production. As Josh said during the meet and confer call, Defendants have always tested the native data produced to Oracle to ensure that it will work. We have gone to great effort and expense to produce SAS, DotProject, BakTrak, Pathfinder and other native applications in a usable form for Oracle. In fact, Defendants have made every reasonable effort to make the native production have the same functionality, usability, and look and feel as a TN employee would see and have when accessing the data. As you guys indicated during the meet and confer Oracle's production of the "back-end" of Customer Connection has none of that. It is now clear to us that no Oracle employee would be forced to look at the data in the manner in which it has been produced to Defendants. More troubling, however, is that you guys did not test the reviewability or usability of these hundreds of databases prior to producing them to us. Thus, there is no basis for you to now suggest that this is a simple configuration issue on Defendants' part. While we have sent you some of the initial error messages we received in merely trying to open some of the

databases, Defendants fully expect Oracle to produce the data in a usable manner as similar as possible to that in which an Oracle employee would experience. And, most importantly, we expect Oracle to do the same thing we have done on similar productions and test the usability of all databases prior to producing it to Defendants.

We look forward to your update.

Regards,
SWC

Scott W. Cowan
Jones Day
717 Texas, Suite 3300
Houston, Texas 77002
Direct: 832-239-3721
Cell: 832-867-2621
Fax: 832-239-3600
Email: swcowan@jonesday.com

"Alinder, Zachary
J."
<zachary.alinder@
bingham.com>

04/03/2009 08:20
PM

"Laurie M Charrington"
<lmcharrington@JonesDay.com>

To

cc

"Howard, Geoff"
<geoff.howard@bingham.com>, "House,
Holly" <holly.house@bingham.com>,
"Hann, Bree"
<bree.hann@bingham.com>, "Polito,
John A." <john.polito@bingham.com>,
"'ewallace@JonesDay.com'"
<ewallace@JonesDay.com>,
"'swcowan@JonesDay.com'"
<swcowan@JonesDay.com>, "Greg
Lanier" <tglanier@JonesDay.com>,
"Jason McDonell"
<jmcdonell@JonesDay.com>, "Jane L
Froyd" <jfroyd@JonesDay.com>,
"Joshua L Fuchs"
<jlffuchs@JonesDay.com>

Subject

RE: Meet and confer on Oracle's
production of software/Customer
Connection database

Laurie,

Your tone suggests that you are unaware of the history of unusable electronic information produced by Defendants. That aside, we believe that the meet and confer today was productive and will work diligently to understand why you are having problems accessing these databases. As a first step, thanks for providing the error statements that you are receiving. As we discussed on the meet and confer call today, these should help troubleshoot the issues that you are encountering regarding these databases. In

particular, this should help us understand whether the problem is with how you've configured the databases, or whether, as you appear to believe, there was some inadvertent problem in the production itself such that it cannot be accessed in its current form. Though we may not have full answers to you by Tuesday or Wednesday, we will provide you with an update at that time. I hope you have a nice weekend.

Zac

From: Laurie M Charrington [mailto:lmcharrington@JonesDay.com]
Sent: Friday, April 03, 2009 12:53 PM
To: Alinder, Zachary J.
Cc: Howard, Geoff; House, Holly; Hann, Bree; Polito, John A.; 'ewallace@JonesDay.com'; 'swcowan@JonesDay.com'; Greg Lanier; Jason McDonell; Jane L Froyd; Joshua L Fuchs
Subject: Meet and confer on Oracle's production of software/Customer Connection database

Zac,

As discussed on our call today, there are technical problems with the Customer Connection databases that prevent us from accessing the data. As you requested, below you will find some of the error messages we received while trying to access the data. However, as Judge Laporte noted at Tuesday's discovery conference, it is Oracle's obligation to ensure that the data it produces is in a usable form. This includes confirming before production that the produced item actually works, which Oracle has not done. Also as discussed, we would like to arrange a further meet and confer early next week to find out when we can expect to receive the databases in a usable form, what assistance we may need from Oracle to use them, and when we can expect the mapping information we will need to locate any responsive information contained in the databases.

The database cannot be opened and generates the following error when such attempts are made:

TITLE:

REDACTED

ADDITIONAL INFORMATION:

REDACTED

We request that a new version of be produced.
Dozens of the .mdf files also appear to be incorrectly copied, and generate the following error when opened:

TITLE:

REDACTED

ADDITIONAL INFORMATION:

REDACTED

Because this same error occurs when trying to access some but not all of the .mdf files in each of the eight databases (other than REDACTED which as stated above, cannot be accessed at all) we request a new version of these eight databases also be produced.

Laurie M. Charrington
Associate
Jones Day - Silicon Valley
1755 Embarcadero Road
Palo Alto, California 94303
lmcharrington@jonesday.com
(650) 739-3946 (dir)
(650) 739-3900 (fax)

=====
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EXHIBIT I



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This is to certify that the attached document was recorded
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This certificate is issued under the seal of the
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13Aug08

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DOC. NO.

3569

435

VOLUME

DOC. NO.

Marybeth Peters

Register of Copyrights and
Associate Librarian for Copyright Services



Document Cover Sheet

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For Recordation of Documents

Volume 3509 Document 435

Volume _____ Document _____

Date of recordation M. 8 D. 13 Y. 08
(ASSIGNED BY THE COPYRIGHT OFFICE)

Funds received _____

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To the Register of Copyrights: Please record the accompanying original document or properly certified copy thereof.

1 First party name given in the document J.D. Edwards World Source Company
(IMPORTANT: Please read instruction for this and other spaces.)

2 First title given in the document Shop Floor Control Program

3 Total number of titles in the document 19

4 Amount of fee calculated \$145.00

5 Fee enclosed Check Money order
 Fee authorized to be charged to Copyright Office deposit account

Deposit account number DA066664

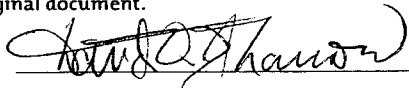
Deposit account name Bingham McCutchen LLP

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7 Certification of Photocopied Document Complete this certification if a photocopy of the original signed document is substituted for a document bearing the actual original signature.
NOTE: This space may not be used for documents that require an official certification.

I declare under penalty of perjury that the accompanying document is a true and correct copy of the original document.

Signature  Date 8/12/08

Duly authorized agent of Oracle International Corporation

8 Return to: Name David O. Johanson, Esq., Bingham McCutchen LLP

Number/street One Federal Street Apt/suite _____

City Boston State MA Zip 02110

Phone number 617-951-8000 Fax number 617-951-8736

Email david.johanson@bingham.com

SEND TO: Library of Congress, Copyright Office, Documents Recordation Section, 101 Independence Avenue SE, Washington, DC 20559-6000
INCLUDE ALL THESE TOGETHER: (1) Two copies of this form; (2) payment from a deposit account or by check/money order payable to Register of Copyrights; and (3) your document.

**JDE COMPANIES
OIC ASSET TRANSFER AGREEMENT**

THIS OIC ASSET TRANSFER AGREEMENT (this "Agreement") is entered as of March 1, 2005 (the "Effective Date") by and between Oracle Corporation ("Oracle") a Delaware Corporation having its principal place of business at 500 Oracle Parkway, Redwood Shores, California 94065, Oracle International Corporation ("OIC") a California Corporation having its principal place of business at 500 Oracle Parkway, Redwood Shores, California 94065, PeopleSoft, Inc. ("PeopleSoft"), a Delaware corporation, having its principal place of business at 4460 Hacienda Drive, Pleasanton, CA 94588, J.D. Edwards & Company, LLC ("JDE LLC") a Delaware limited liability company, having its principal place of business at One Technology Way, Denver, Colorado 80237, J.D. Edwards YOUcentric Company ("JDE YOUcentric") a Delaware corporation having its principal place of business at One Technology Way, Denver, Colorado 80237, J.D. Edwards World Source Company ("JDE WorldSource") a Colorado corporation having its principal place of business at One Technology Way, Denver, Colorado 80237 (JDE YOUcentric and JDE WorldSource, together, the "JDE Companies").

RECITALS

WHEREAS, each of the JDE Companies are indirect subsidiaries of Oracle;

WHEREAS, Oracle has determined that it is desirable and in the best interest of Oracle and its stockholders to reorganize the corporate organizational structure (the "Reorganization") of Oracle and its subsidiaries, including the JDE Companies;

WHEREAS, in connection with the Reorganization, it is contemplated that:

(a) PeopleSoft, a wholly-owned subsidiary of Oracle, the parent of JDE LLC and the indirect parent of JDE WorldSource and JDE YOUcentric, will merge with and into Oracle, pursuant to which merger Oracle will continue as the surviving entity (the "Initial Merger"); (b) immediately following the Initial Merger, JDE LLC, a wholly-owned subsidiary of PeopleSoft and parent of JDE WorldSource and JDE YOUcentric, will merge with and into Oracle, pursuant to which merger Oracle will continue as the surviving entity (the "Second Merger"); and (c) immediately following the Second Merger, each of JDE WorldSource and JDE YOUcentric will merge with and into Oracle, with Oracle as the surviving entity (the "Third Merger" and "Fourth Merger", respectively; all of the foregoing transactions, collectively, the "Mergers");

WHEREAS, in connection with the Reorganization, each of the Parties desires that, immediately prior to the Initial Merger, each of JDE WorldSource and JDE YOUcentric will transfer all of their intellectual property (collectively, the "JDE IP Assets") directly to OIC (a wholly-owned subsidiary of Oracle), and that OIC will assume all obligations with respect to such JDE IP Assets (the "JDE IP Transfer"). Each such transfer will be treated for tax purposes as a transfer of the JDE IP Assets by the JDE Companies to Oracle in connection with the Third Merger and Fourth Merger, respectively, in a transaction that qualifies as a "reorganization" under the Internal Revenue Code of 1986, as amended (the "Code") section 368(a), followed by a contribution of the JDE IP Assets from Oracle to OIC in a transaction described in Code sections 368(a)(2)(C) and 351.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements, provisions and covenants contained herein, and for other good and valuable consideration, the receipt and legal sufficiency whereof are hereby acknowledged, the parties hereto further agree as follows:



Article I

Authorization and Transfer of Assets

Section 1.1. Parent Entity Authorization and Directive. Based on the foregoing recitals, each of Oracle, PeopleSoft and JDE LLC hereby authorizes and directs each of JDE YouCentric and JDE WorldSource to make the assignments described below to OIC on behalf of Oracle, PeopleSoft and JDE LLC to facilitate and effectuate the JDE IP Transfer as contemplated above.

Section 1.2. Transfer of Assets. Upon and subject to the terms and conditions of this Agreement, as of 12:01 a.m. Pacific Standard Time on the Effective Date, the JDE Companies hereby assign, agree to assign, transfer, convey and deliver to OIC:

(a) Patents Copyrights, Trade Secrets, Know-How, and Other Intellectual Property. All of its right, title, and interest in: (i) all inventions, patents, and pending applications; (ii) all copyrights, trade secrets, know-how, and any other proprietary rights and intellectual assets, registered and unregistered, that are embodied in, or that pertain to the development, testing, installation, implementation, customization, optimization, configuration, operation, support, promotion, marketing, advertising, sale, hosting or other use thereof of the educational core curriculum, the software programs and related documentation specified in the JDE Companies' global price lists; and (iii) all copyrights, trade secrets, know-how, and any other proprietary rights and intellectual assets, registered and unregistered, that relate to the JDE Companies' business operations, products, and services (collectively the "IP"), together with (iv) the goodwill of the JDE Companies' businesses connected with the use of and symbolized by the IP and all the rights and privileges that inhere in such IP.

(b) Tradenames and Trademarks. All of its rights, title, and interest in all global tradenames, trademarks, service marks, trade dresses, logos, designs and slogans, whether in word mark, stylized or design format, registered and unregistered (the "Marks"), together with the goodwill of the JDE Companies' business connected with the use of and symbolized by the Marks and all the rights and privileges that inhere in such Marks.

Section 1.3. Liabilities. The JDE Companies shall not transfer, and OIC shall not assume, any liabilities whatsoever as part of this Agreement, except any obligations related to the assets being transferred.

Section 1.4. Deliveries. The JDE Companies shall deliver to OIC such documents as are necessary to transfer the assets listed above in Section 1.2.

Section 1.5. Acknowledgment. The JDE Companies acknowledge that from and after the execution of this Agreement, OIC is the owner of all right, title and interest in and to the IP and Marks in any form or embodiment thereof and is also the owner of the goodwill attached to the IP and Marks. The JDE Companies shall not at any time do or suffer to be done any act or thing which may materially adversely affect any rights of OIC in or to the IP and Marks. OIC acknowledges that the JDE Companies have granted certain licenses and other rights to the IP and Marks and that OIC acquires such IP and Marks subject to such licenses and other rights.

Section 1.6. Cooperation. The JDE Companies shall take all actions necessary to execute any and all documents as may be reasonably requested by OIC from time to time to fully vest or perfect in OIC all right, title and interest in and to the IP and Marks pursuant to this Agreement. Such actions shall include without limitation, providing documents and information useful or necessary to prosecuting any

application to register or perfect any of the IP and Marks, maintaining any trademark registration, or pursuing or defending any administrative, court, or other legal proceeding involving one or more of the IP and Marks.

Article II

Representations and Warranties of the JDE Companies

Section 2.1. JDE YOUCentric Incorporation; Authorization. JDE YOUCentric hereby represents and warrants to OIC as follows:

(a) Organization and Good Standing. JDE YOUCentric is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of the State of Delaware. JDE YOUCentric has full corporate power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by JDE YOUCentric has been duly authorized by all necessary corporate and shareholder actions.

(b) Binding Effect. This Agreement has been duly executed and delivered by JDE YOUCentric and, assuming the due execution and delivery hereof to OIC, constitutes the legal, valid and binding obligation of JDE YOUCentric, enforceable against JDE YOUCentric in accordance with its terms.

Section 2.2. JDE WorldSource Incorporation; Authorization. JDE WorldSource hereby represents and warrants to OIC as follows:

(a) Organization and Good Standing. JDE WorldSource is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of the State of Colorado. JDE WorldSource has full corporate power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by JDE WorldSource has been duly authorized by all necessary corporate and shareholder actions.

(b) Binding Effect. This Agreement has been duly executed and delivered by JDE WorldSource and, assuming the due execution and delivery hereof to OIC, constitutes the legal, valid and binding obligation of JDE WorldSource, enforceable against JDE WorldSource in accordance with its terms.

Article III

Representations and Warranties of OIC

Section 3.1. Incorporation; Authorization. OIC hereby represents and warrants to each of the JDE Companies as follows:

(a) Organization. OIC is a corporation duly organized, validly existing and in good standing under the laws of the State of California. OIC has full corporate power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by OIC has been duly authorized by all necessary corporate actions on the part of OIC.

(b) Binding Effect. This Agreement has been duly executed and delivered by OIC, and, assuming the due execution and delivery hereof by the JDE Companies, this Agreement constitutes the legal, valid and binding obligation of OIC, enforceable against OIC in accordance with its terms.

Article IV

Miscellaneous Provisions

Section 4.1. Governing Law.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of California and, to the extent applicable, federal laws as they affect trademarks, copyrights and patents and the transfer and assignment thereof.

(b) The parties agree to submit to the exclusive jurisdiction of, and venue in, the state or federal court in San Francisco, San Mateo, or Santa Clara counties in California, and that venue is proper in such courts, for any disputes arising out of or relating to the Agreement.

Section 4.2. Third Party Beneficiaries. Nothing in this Agreement is intended, nor shall it be constructed, to confer any rights or benefits upon any person (including, but not limited to, any employee or former employee of the JDE Companies) other than the parties hereto.

Section 4.3. Entire Agreement. This Agreement contains the entire agreement between the parties with respect to the transfer of assets of the JDE Companies to OIC, and constitutes the complete, final and exclusive embodiment of the parties' agreement with respect to that subject matter and supersedes all prior agreements whether written or oral which may have been entered into by the parties on the subject matter.

Section 4.4. Successors and Assigns. This Agreement shall be binding upon and inure to the parties hereto and their respective successors and assigns, provided, however, that no party hereto will assign its rights or delegate its obligations under this Agreement without the express written consent of the other parties hereto except that OIC may, upon notice to the other parties hereto, assign its rights under this Agreement to any one or more of its affiliates so long as such assignee or assignees assumes all of OIC's liabilities and obligations hereunder.

Section 4.5. Amendment. No change, modification or amendment of this Agreement shall be valid or binding on the parties unless such change or modification shall be in writing signed by the party or parties against whom the same is sought to be enforced.


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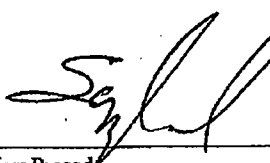
* * * * *

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ORACLE CORPORATION

ORACLE INTERNATIONAL CORPORATION


By: 
Name: Daniel Cooperman
Title Senior Vice President, General Counsel & Secretary

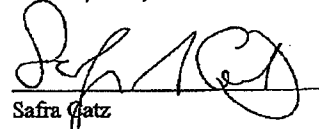
By: 
Name: Sanjay Prasad
Title Vice President

PEOPLESOFT, INC.

JD EDWARDS & COMPANY, LLC

By: PEOPLESOFT, INC., its sole member

By: 
Name: Safra Gatz
Title President

By: 
Name: Safra Gatz
Title President

JD EDWARDS YOUCENTRIC COMPANY

JD EDWARDS WORLD SOURCE COMPANY

By: _____
Name: Deborah Lange
Title Vice President

By: _____
Name: Deborah Lange
Title Vice President

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ORACLE CORPORATION

ORACLE INTERNATIONAL CORPORATION

By: _____
Name: Daniel Cooperman
Title Senior Vice President, General Counsel & Secretary

By: _____
Name: Sanjay Prasad
Title Vice President

PEOPLESOFT, INC.

JD EDWARDS & COMPANY, LLC

By: PEOPLESOFT, INC., its sole member

By: _____
Name: Safra Catz
Title President

By: _____
Name: Safra Catz
Title President

JD EDWARDS YOUCENTRIC COMPANY

JD EDWARDS WORLD SOURCE COMPANY

By: Deborah Lange
Name: Deborah Lange
Title Vice President

By: Deborah Lange
Name: Deborah Lange
Title Vice President

LIST OF J.D. EDWARDS COPYRIGHTS IN THE SECOND AMENDED COMPLAINT

Type of Work	Registration Number	Registration Date	Title of the work.	Description of the work	Copyright Claimant	Creation Date	Date of Publication	Derivative Work / Material Added	Miscellaneous	Chain of title
Computer File	TXu000619303	3/7/1995	Shop Floor Control program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619304	3/7/1995	EDI Interface (6) program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619305	3/7/1995	Configuration Management program.	Computer program.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619306	3/7/1995	Master Production Scheduling program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619307	3/7/1995	Capacity Requirements Planning program.	Computer program.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619308	3/7/1995	WorldCASE Development Environment program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619309	3/7/1995	Equipment Management (5) program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619310	3/7/1995	General Ledger & Basic Financial program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619311	3/7/1995	Enterprise Facility Planning program.	Computer program.	J.D. Edwards & Company	1994				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557

LIST OF J.D. EDWARDS COPYRIGHTS IN THE SECOND AMENDED COMPLAINT

Type of Work	Registration Number	Registration Date	Title of the work.	Description of the work	Copyright Claimant	Creation Date	Date of Publication	Derivative Work / Material Added	Miscellaneous	Chain of title
Computer File	TXu000619312	3/7/1995	Accounts Receivable program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619313	3/7/1995	Warehouse Management program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619314	3/7/1995	Inventory Management program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619315	3/7/1995	Sales Order Processing/Sales Analysis program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619316	3/7/1995	Purchase Order Processing program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619317	3/7/1995	Product Data Management program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619318	3/7/1995	Financial Reporting (FASTR) program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619319	3/7/1995	WorldCASE Foundation Environment (3) program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557
Computer File	TXu000619320	3/7/1995	Accounts Payable program.	Computer program + user's manual.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557

LIST OF J.D. EDWARDS COPYRIGHTS IN THE SECOND AMENDED COMPLAINT

Type of Work	Registration Number	Registration Date	Title of the work.	Description of the work	Copyright Claimant	Creation Date	Date of Publication	Derivative Work / Material Added	Miscellaneous	Chain of title
Computer File	TXu000619321	3/7/1995	Financial Modeling, Budgeting & Allocations program.	Computer program.	J.D. Edwards & Company	1993				Transferred to J.D. Edwards World Source company via recorded transfer V3270P557



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436

VOLUME

DOC. NO.

Marybeth Peters

Register of Copyrights and
Associate Librarian for Copyright Services



Document Cover Sheet

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Volume 35269 Document 436

Volume _____ Document _____

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Funds received _____

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To the Register of Copyrights: Please record the accompanying original document or properly certified copy thereof.

1 First party name given in the document PeopleSoft, Inc.
(IMPORTANT: Please read instruction for this and other spaces.)

2 First title given in the document PeopleTools 7.5

3 Total number of titles in the document 17

4 Amount of fee calculated \$145.00

5 Fee enclosed Check Money order
 Fee authorized to be charged to Copyright Office deposit account

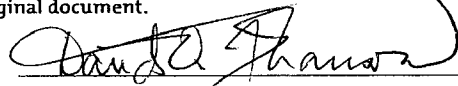
Deposit account number DA066664

Deposit account name Bingham McCutchen LLP

6 Completeness of document Document is complete by its own terms Document is not complete. Record "as is."
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7 Certification of Photocopied Document Complete this certification if a photocopy of the original signed document is substituted for a document bearing the actual original signature.
NOTE: This space may not be used for documents that require an official certification.

I declare under penalty of perjury that the accompanying document is a true and correct copy of the original document.

Signature  Date 8/12/08
Duly authorized agent of Oracle International Corporation

8 Return to: Name David O. Johanson, Esq., Bingham McCutchen LLP

Number/street One Federal Street Apt/suite _____

City Boston State MA Zip 02110

Phone number 617-951-8000 Fax number 617-951-8736

Email david.johanson@bingham.com

SEND TO: Library of Congress, Copyright Office, Documents Recordation Section, 101 Independence Avenue SE, Washington, DC 20559-6000
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**PEOPLESOFT/JDE LLC
OIC ASSET TRANSFER AGREEMENT**

THIS OIC ASSET TRANSFER AGREEMENT (this "Agreement") is entered as of March 1, 2005 (the "Effective Date") by and between Oracle Corporation ("Oracle") a Delaware Corporation having its principal place of business at 500 Oracle Parkway, Redwood Shores, California 94065, Oracle International Corporation ("OIC") a California Corporation having its principal place of business at 500 Oracle Parkway, Redwood Shores, California 94065, PeopleSoft, Inc. ("PeopleSoft") a Delaware corporation, having its principal place of business at 4460 Hacienda Drive, Pleasanton, CA 94588 and J.D. Edwards & Company, LLC ("JDE LLC") a Delaware limited liability company having its principal place of business at One Technology Way, Denver, Colorado 80237 (PeopleSoft and JDE LLC, together, the "Transferring Parties").

RECITALS

WHEREAS, PeopleSoft is a wholly-owned subsidiary of Oracle and JDE LLC is an indirect subsidiary of Oracle;

WHEREAS, Oracle has determined that it is desirable and in the best interest of Oracle and its stockholders to reorganize the corporate organizational structure (the "Reorganization") of Oracle and its subsidiaries, including PeopleSoft and JDE LLC;

WHEREAS, in connection with the Reorganization, it is contemplated that: (a) PeopleSoft, a wholly-owned subsidiary of Oracle, will merge with and into Oracle, pursuant to which merger Oracle will continue as the surviving corporation (the "Initial Merger"); and (b) immediately following the Initial Merger, JDE LLC, a wholly-owned subsidiary of PeopleSoft, will merge with and into Oracle, pursuant to which merger Oracle will continue as the surviving entity (the "Second Merger"); and

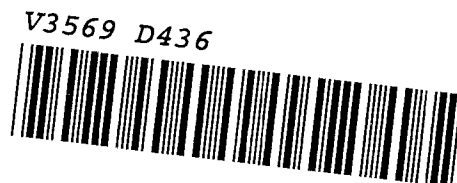
WHEREAS, in connection with the Reorganization, each of the parties desires that, immediately prior to the Initial Merger, each of PeopleSoft and JDE LLC will transfer all of their intellectual property (the "PeopleSoft/JDE LLC IP Assets") directly to OIC (a wholly-owned subsidiary of Oracle), and that OIC will assume all obligations with respect to such PeopleSoft/JDE LLC IP Assets (the "IP Transfer"). Each such transfer will be treated for tax purposes as a transfer of the PeopleSoft/JDE LLC IP Assets by PeopleSoft to Oracle in connection with the Initial Merger in a transaction that qualifies as a "reorganization" under the Internal Revenue Code of 1986, as amended (the "Code") section 368(a), followed by a contribution of the PeopleSoft/JDE LLC IP Assets to OIC in a transaction described in Code sections 368(a)(2)(C) and 351.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements, provisions and covenants contained herein, and for other good and valuable consideration, the receipt and legal sufficiency whereof are hereby acknowledged, the parties hereto further agree as follows:

Article I

Authorization and Transfer of Assets

Section 1.1. Parent Entity Authorization and Directive. Based on the foregoing recitals:



(a) Oracle hereby authorizes and directs PeopleSoft to make the assignments described below to OIC on behalf of Oracle to facilitate and effectuate the IP Transfer as contemplated above.

(b) Each of Oracle and PeopleSoft hereby authorizes and directs JDE LLC to make the assignments described below to OIC on behalf of Oracle and PeopleSoft to facilitate and effectuate the IP Transfer as contemplated above.

Section 1.2. Transfer of Assets. Upon and subject to the terms and conditions of this Agreement, as of 12:01 a.m. Pacific Standard Time on the Effective Date, the Transferring Parties hereby assign, agree to assign, transfer, convey and deliver to OIC:

(a) Patents, Copyrights, Trade Secrets, Know-How, and Other Intellectual Property. All of its right, title, and interest in: (i) all inventions, patents, and pending applications; (ii) all copyrights, trade secrets, know-how, and any other proprietary rights and intellectual assets, registered and unregistered, that are embodied in, or that pertain to the development, testing, installation, implementation, customization, optimization, configuration, operation, support, promotion, marketing, advertising, sale, hosting or other use thereof of the educational core curriculum, the software programs and related documentation specified in the Transferring Parties' global price lists; and (iii) all copyrights, trade secrets, know-how, and any other proprietary rights and intellectual assets, registered and unregistered, that relate to the Transferring Parties' business operations, products, and services (collectively the "IP"), together with (iv) the goodwill of the Transferring Parties' businesses connected with the use of and symbolized by the IP and all the rights and privileges that inhere in such IP.

(b) Tradenames and Trademarks. All of its rights, title, and interest in all global tradenames, trademarks, service marks, trade dresses, logos, designs and slogans, whether in word mark, stylized or design format, registered and unregistered (the "Marks"), together with the goodwill of the Transferring Parties' business connected with the use of and symbolized by the Marks and all the rights and privileges that inhere in such Marks.

Section 1.3. Liabilities. The Transferring Parties shall not transfer, and OIC shall not assume, any liabilities whatsoever as part of this Agreement, except any obligations related to the assets being transferred.

Section 1.4. Deliveries. The Transferring Parties shall deliver to OIC such documents as are necessary to transfer the assets listed above in Section 1.2.

Section 1.5. Acknowledgment. The Transferring Parties acknowledge that from and after the execution of this Agreement, OIC is the owner of all right, title and interest in and to the IP and Marks in any form or embodiment thereof and is also the owner of the goodwill attached to the IP and Marks. The Transferring Parties shall not at any time do or suffer to be done any act or thing which may materially adversely affect any rights of OIC in or to the IP and Marks. OIC acknowledges that the Transferring Parties have granted certain licenses and other rights to the IP and Marks and that OIC acquires such IP and Marks subject to such licenses and other rights.

Section 1.6. Cooperation. The Transferring Parties shall take all actions necessary to execute any and all documents as may be reasonably requested by OIC from time to time to fully vest or perfect in OIC all right, title and interest in and to the IP and Marks pursuant to this Agreement. Such actions shall include without limitation, providing documents and information useful or necessary to prosecuting any application to register or perfect any of the IP and Marks, maintaining any trademark registration, or

pursuing or defending any administrative, court, or other legal proceeding involving one or more of the IP and Marks.

Article II

Representations and Warranties of Transferring Parties

Section 2.1. PeopleSoft Incorporation; Authorization. PeopleSoft hereby represents and warrants to OIC as follows:

(a) **Organization and Good Standing.** PeopleSoft is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of the State of Delaware. PeopleSoft has full corporate power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by PeopleSoft has been duly authorized by all necessary corporate and shareholder actions.

(b) **Binding Effect.** This Agreement has been duly executed and delivered by PeopleSoft and, assuming the due execution and delivery hereof to OIC, constitutes the legal, valid and binding obligation of PeopleSoft, enforceable against PeopleSoft in accordance with its terms.

Section 2.2. JDE LLC Incorporation; Authorization. JDE LLC hereby represents and warrants to OIC as follows:

(a) **Organization and Good Standing.** JDE LLC is a limited liability company duly organized, validly existing and in good standing under the laws of the jurisdiction of the State of Delaware. JDE LLC has full power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by JDE LLC has been duly authorized by all necessary corporate and member actions.

(b) **Binding Effect.** This Agreement has been duly executed and delivered by JDE LLC and, assuming the due execution and delivery hereof to OIC, constitutes the legal, valid and binding obligation of JDE LLC, enforceable against JDE LLC in accordance with its terms.

Article III

Representations and Warranties of OIC

Section 3.1. Incorporation; Authorization. OIC hereby represents and warrants to each of the Transferring Parties as follows:

(a) **Organization.** OIC is a corporation duly organized, validly existing and in good standing under the laws of the State of California. OIC has full corporate power and authority to execute, deliver and perform this Agreement. The execution, delivery and performance of this Agreement by OIC has been duly authorized by all necessary corporate actions on the part of OIC.

(b) **Binding Effect.** This Agreement has been duly executed and delivered by OIC, and, assuming the due execution and delivery hereof by the Transferring Parties, this Agreement

constitutes the legal, valid and binding obligation of OIC, enforceable against OIC in accordance with its terms.

Article IV

Miscellaneous Provisions

Section 4.1. Governing Law.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of California and, to the extent applicable, federal laws as they affect trademarks, copyrights and patents and the transfer and assignment thereof.

(b) The parties agree to submit to the exclusive jurisdiction of, and venue in, the state or federal court in San Francisco, San Mateo, or Santa Clara counties in California, and that venue is proper in such courts, for any disputes arising out of or relating to the Agreement.

Section 4.2. Third Party Beneficiaries. Nothing in this Agreement is intended, nor shall it be constructed, to confer any rights or benefits upon any person (including, but not limited to, any employee or former employee of the Transferring Parties) other than the parties hereto.

Section 4.3. Entire Agreement. This Agreement contains the entire agreement between the parties with respect to the transfer of assets of the Transferring Parties to OIC, and constitutes the complete, final and exclusive embodiment of the parties' agreement with respect to that subject matter and supersedes all prior agreements whether written or oral which may have been entered into by the parties on the subject matter.

Section 4.4. Successors and Assigns. This Agreement shall be binding upon and inure to the parties hereto and their respective successors and assigns, provided, however, that no party hereto will assign its rights or delegate its obligations under this Agreement without the express written consent of the other parties hereto except that OIC may, upon notice to the other parties hereto, assign its rights under this Agreement to any one or more of its affiliates so long as such assignee or assignees assumes all of OIC's liabilities and obligations hereunder.

Section 4.5. Amendment. No change, modification or amendment of this Agreement shall be valid or binding on the parties unless such change or modification shall be in writing signed by the party or parties against whom the same is sought to be enforced.


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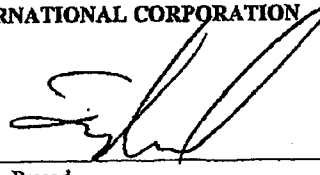
* * * * *

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ORACLE CORPORATION

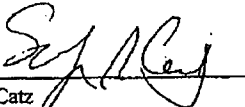
ORACLE INTERNATIONAL CORPORATION

By: 
Name: Daniel Cooperman
Title: Senior Vice President, General Counsel & Secretary

By: 
Name: Sanjay Prasad
Title: Vice President

PEOPLESOFT, INC.

J.D. EDWARDS & COMPANY, LLC

By: 
Name: Safra Catz
Title: President

By: _____
Name: Deborah Lange
Title: Vice President

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ORACLE CORPORATION

ORACLE INTERNATIONAL CORPORATION

By: _____
Name: Daniel Coopeman
Title: Senior Vice President, General
Counsel & Secretary

By: _____
Name: Sanjay Prasad
Title: Vice President

PEOPLESOFT, INC.

J.D. EDWARDS & COMPANY, LLC

By: _____
Name: Safra Catz
Title: President

By: Deborah Lange
Name: Deborah Lange
Title: Vice President

LIST OF PEOPLESOFT COPYRIGHTS IN THE SECOND AMENDED COMPLAINT

Type of Work	Registration Number	Registration Date	Title of the work.	Description of the work	Copyright Claimant	Creation Date	Date of Publication	Derivative Work / Material Added	Miscellaneous	Chain of title
Computer File	TX0004792578	11/20/1998	PeopleTools 7.5	Computer program.	PeopleSoft, Inc.	1998	4/30/1997	New Matter: revision & additions. (a) Previously published version; (b) new and revised		
Computer File	TX0004792574	12/15/1998	PeopleSoft Financials 7.5	Computer Software Program	PeopleSoft, Inc.	1998	4/30/1998	software code (a) Previously published version; (b) new and revised		
Computer File	TX0004792575	12/15/1998	PeopleSoft HRMS 7.5	Computer Software Program	PeopleSoft, Inc.	1998	4/24/1998	software code (a) Previously published version; (b) new and revised		
Computer File	TX0004792577	12/15/1998	PeopleSoft HRMS 7.0	Computer Software Program	PeopleSoft, Inc.	1997	9/15/1997	software code New Matter: new & rev. 1999.		
Computer File	TX0005266221	9/5/2000	PeopleTools 8.10	Computer program.	PeopleSoft, Inc.	2000	9/1/2000	software code New Matter: new & rev. 1999.		
Computer File	TX0005266222	9/5/2000	PeopleTools 8.0	Computer program.	PeopleSoft, Inc.	1999	12/28/1999	software code. (a) Previously published version; (b) new and revised		
Computer File	TX0005291440	11/20/2000	PeopleSoft Human Resources Management Software (HRMS) 8.0	Computer Software Program	PeopleSoft, Inc.	2000	9/1/2000	software code (a) Previously published version; (b) new and revised		
Computer File	TX0005501312	3/26/2001	PeopleSoft 8 HRMS SPI PeopleSoft 8 customer relationship management.	Computer Software Program	PeopleSoft, Inc.	2000	12/18/2000	software code New Matter: additions.		
Computer File	TX0005456777	9/27/2001	PeopleSoft 8 financials and supply chain management : service pack 2.	CD-ROM.	PeopleSoft, Inc.	2001	6/29/2001	New Matter: additions.		
Computer File	TX0005456780	9/27/2001	PeopleSoft 8 financials and supply chain management : service pack 2.	CD-ROM.	PeopleSoft, Inc.	2001	6/29/2001	New Matter: additions.		

LIST OF PEOPLESOFT COPYRIGHTS IN THE SECOND AMENDED COMPLAINT

Type of Work	Registration Number	Registration Date	Title of the work.	Description of the work	Copyright Claimant	Creation Date	Date of Publication	Derivative Work / Material Added	Miscellaneous	Chain of title
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Computer File	TX0005431289	11/30/2001	PeopleSoft 8 Student Administration Solutions	Computer Software Program	PeopleSoft, Inc.	2001	8/31/2001	(a) Previously published versions; (b) new software code		
Computer File	TX0005469032	2/1/2002	PeopleSoft 8.3 HRMS	Computer Software Program	PeopleSoft, Inc.	2001	11/2/2001	(a) Previously published version; (b) new and revised software code		
Computer File	TX0005586247	8/5/2002	Peoplesoft 8.4 financials and supply chain management.	CD-ROM + Computer program.	PeopleSoft, Inc.	2002	3/22/2002	New Matter: additions & revisions.	Prev. reg. 2001.	
Computer File	TX0005586248	8/5/2002	PeopleTools 8.4	CD-ROM + Computer program.	PeopleSoft, Inc.	2002	3/15/2002	New Matter: additions & revisions.	Prev. reg. 2001.	
Computer File	TX0005993616	6/11/2004	PeopleSoft 8.8 Enterprise Performance Management	Computer Software Program	PeopleSoft, Inc.	2002	12/11/2002	(a) Previously Released Version for PeopleSoft 8.3 Enterprise Performance Management (b) new and revised software		
Computer File	TX0006015317	6/11/2004	PeopleSoft 8.8 Customer Relationship Management	Left blank on copyright	PeopleSoft, Inc.	2002	12/26/2002	(a) Previously released version for PeopleSoft 8.4 Customer Relationship Management; (b) new and revised software	Prev. reg. 2002, TX 5-469-032.	
Computer File	TX0006093947	6/11/2004	PeopleSoft 8.8 HRMS	Computer program.	PeopleSoft, Inc.	2002	12/20/2002	New Matter: additions & revisions.		

EXHIBIT J

Alinder, Zachary J.

From: Alinder, Zachary J.
Sent: Thursday, April 09, 2009 5:40 PM
To: 'Elaine Wallace'
Cc: Hann, Bree; Howard, Geoff; House, Holly; Jane L Froyd; Joshua L Fuchs; Jason McDonell; Polito, John A.; Scott Cowan; Greg Lanier
Subject: RE: Vantive acquisition documents and inter-Oracle agreements

Elaine,

1. The presumption in Oracle's copyright registrations satisfies the proper scope of the ownership and authorship information for the Registered Works. Having Oracle chase down PeopleSoft acquisition documents years after the fact is precisely the type of pointless discovery that the copyright presumption was intended to prevent. If you have any authority for your position that remote acquisition documents need to be produced to show ownership despite the presumption, please provide that, along with the list of acquisitions as to which you believe your argument applies.

2. As to ORCL00182365-67, yes, that is our understanding. Next, the January 1, 2004 PeopleSoft agreement was produced yesterday morning. I am sure that you don't need me to chase down bates-numbers for you. As to JDEE, it is ironic that you are now arguing that JDEE is relevant to damages, given Defendants' contradictory position on its motion to dismiss -- something that you did not attempt to distinguish in your email. Given the history, we are skeptical of the relevance of any JDEE discovery. That said, we are still willing to consider producing this agreement if you can distinguish your motion to dismiss position and can make a relevance argument as to the current parties. So far, you have been unable to do either.

As for your threat of some future motion regarding "Oracle's investigation and production of inter-entity agreements and other documents relevant to its copyright ownership claims," Oracle has produced the inter-entity agreements necessary to prove its claims, and has followed up as requested by Defendants over and over regarding other agreements. If Defendants felt there were additional inter-entity documents relevant to their defenses, Defendants have had the ability to request any inter-entity agreements that they've wanted (and as this email string demonstrates have done so time and again) and have had the ability to bring a motion to compel before Judge Laporte (following appropriate meet and confer assuming Defendants are following those rules) if Oracle refused to produce them.

Best regards,
Zac Alinder

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Thursday, April 09, 2009 9:09 AM
To: Alinder, Zachary J.
Cc: Hann, Bree; Howard, Geoff; House, Holly; Jane L Froyd; Joshua L Fuchs; Jason McDonell; Polito, John A.; Scott Cowan; Greg Lanier
Subject: RE: Vantive acquisition documents and inter-Oracle agreements

Zac,

In response to the email below:

1. What is the status of your investigation into the Vantive issue? It appears that other PeopleSoft acquisitions are relevant to Oracle's copyright ownership claims as well, such as PeopleSoft's acquisition of Red Pepper Software and subsequent incorporation of Red Pepper's supply chain management software into PeopleSoft's

4/28/2009

product line. Please confirm that in responding to our discovery requests regarding ownership of the copyrighted materials Oracle has investigated these acquisitions and searched for responsive documents.

2. With respect to the inter-entity agreements, can you clarify your statement that "we believe that the January 1, 2004 JDE agreement referred to below (ORCL00182365-67) is the correct one"? Do you mean that the January 1, 2004 JDE agreement (ORCL00182365-67) is the same one referred to in the June 1, 2005 cost-sharing agreement (ORCL00182217-47)? Also, have you produced the January 1, 2004 PeopleSoft agreement yet? If so, please provide the Bates number. In response to your request for an explanation of the relevance of the missing distributor agreement, I provided that explanation in my January 15 email:

"These agreements are responsive to our damages related RFPs and relevant to the same issues as the other agreements Oracle has produced. For example, OEMEA has brought tortious interference claims on its own behalf and/or as successor in interest to PeopleSoft and JD Edwards entities. An agreement between JDEE and PSBV regarding distribution of JDE products within the relevant discovery time frame, as this one is, is certainly relevant to that claim. Moreover, Oracle has already produced an amendment to the agreement that permitted PSBV to distribute JDE products to Oracle affiliates, including OIC and OEMEA, under the same terms. It's hard to see how the amendment could be relevant if the underlying agreement is not."

In light of your email of yesterday regarding the proper scope of our motion to compel, please be advised that we plan to raise in our motion (and in other contexts, as to which we will provide the required formal notice when appropriate) the adequacy of Oracle's investigation and production of inter-entity agreements and other documents relevant to its copyright ownership claims.

Regards,

Elaine Wallace
 JONES DAY
 555 California Street, 26th Floor
 San Francisco, CA 94104
 (415) 875-5831 (Direct Dial)
 (415) 875-5700 (Fax)
 ewallace@jonesday.com

"Alinder, Zachary J." <zachary.alinder@bingham.com>

03/17/2009 02:44 PM

To "Elaine Wallace" <ewallace@JonesDay.com>

cc "Greg Lanier" <glanier@JonesDay.com>, "Scott Cowan" <swcowan@JonesDay.com>, "Jason McDonell" <jmcdonell@JonesDay.com>, "Jane L Froyd" <jfroyd@JonesDay.com>, "Joshua L Fuchs" <jjfuchs@JonesDay.com>, "Hann, Bree" <bree.hann@bingham.com>, "Howard, Geoff" <geoff.howard@bingham.com>, "House, Holly" <holly.house@bingham.com>, "Polito, John A." <john.polito@bingham.com>

Subject RE: Vantive acquisition documents and inter-Oracle agreements

Elaine,

We are looking into the Vantive issue you raise below. As to the inter-entity agreements, we can provide the following update. First, we believe that the January 1, 2004 JDE agreement referred to below (ORCL00182365-67) is the correct one. Second, we will agree to produce the January 1, 2004 PeopleSoft agreement as well. We expect it to be included in the next production. Third, as to the JDEE agreement that you identify, we do not understand your relevance argument, particularly considering that the Court granted SAP's motion to dismiss JDEE as a plaintiff, based on SAP's argument that JDEE only had distribution rights in EMEA. However, we will consider any further information, authority or other basis that you can provide as to why that agreement is relevant to the claims or defenses here.

4/28/2009

Best regards,
Zac Alinder

From: Elaine Wallace [mailto:ewallace@JonesDay.com]
Sent: Friday, March 13, 2009 5:09 PM
To: Alinder, Zachary J.; Hann, Bree; Howard, Geoff; House, Holly
Cc: Greg Lanier; Scott Cowan; Jason McDonell; Jane L Froyd; Joshua L Fuchs
Subject: Vantive acquisition documents and inter-Oracle agreements

Counsel,

It appears based on Oracle's recent production of the PeopleSoft legal database that PeopleSoft's acquisition of Vantive Corporation is relevant to Oracle's ownership claim for the PeopleSoft CRM product line. We do not believe any documents relating to that acquisition have been produced. The Vantive acquisition documents are responsive to, among others, RFP No. 55 and should have been produced. Please produce them.

Also, we have not received any response to our requests on January 14, 15, and 26 that Oracle produce three agreements that are missing from its production of inter-Oracle agreements, i.e. two January 1, 2004 Amended and Restated Research and Development Cost Sharing Agreements, one for PeopleSoft and one for JDE, and a January 1, 2004 distributor agreement between JDEE and PeopleSoft International B.V. Please produce these as well.

Regards,

Elaine Wallace
JONES DAY
555 California Street, 26th Floor
San Francisco, CA 94104
(415) 875-5831 (Direct Dial)
(415) 875-5700 (Fax)
ewallace@jonesday.com

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EXHIBIT K

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3 SAN FRANCISCO DIVISION

4 ORACLE CORPORATION, et al.,
5 Plaintiffs,
6 vs. No. C07-1658 PJH (EDL)
7 SAP AG, et al.,
8 Defendants.

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REPORTER'S TRANSCRIPTION OF DISCOVERY CONFERENCE
BEFORE: HON. ELIZABETH D. LAPORTE
Friday, October 10, 2008

Reported by:
CLAUDIA A. BETTUCCHI
CSR No. 12214
JOB No. 98424

1 complaint.
2 THE COURT: Okay. But you are asking for a --
3 and I think a declaration of a person most knowledgeable
4 as to what?
5 MR. McDONELL: No, I'm willing to take
6 counsel's representation here on the record that they
7 have now produced all of the intercompany license
8 agreements that substantiate which of the entities have
9 copyrights rights. And I think counsel, as I heard him,
10 said they have now been produced.
11 MR. HOWARD: Yes. The -- I'm not sure what
12 copyrights rights are. We've alleged that one of the
13 plaintiffs owns the copyrights and other plaintiff have
14 claims of the copyrights. And we have indeed produced
15 all of the documents that substantiate those allegations
16 in the complaint.
17 THE COURT: Okay. Have you produced all of
18 the intercompany agreements that relate to any of the
19 copyrighted material that is the subject of the
20 complaint?
21 MR. HOWARD: The reason I'm hesitating, Your
22 Honor, is because there are a lot of entities and a lot
23 of intercompany agreements. But what I am confident of
24 is that we have produced all of the intercompany
25 agreements that are relevant to determining the

1 MR. McDONELL: -- discovery over --
2 THE COURT: Right.
3 MR. McDONELL: -- on new parties.
4 THE COURT: Okay.
5 MR. McDONELL: And I think they have agreed.
6 MR. HOWARD: We're just going to deem
7 everything --
8 THE COURT: Okay.
9 MR. HOWARD: -- that's been done as under the
10 new plaintiffs.
11 THE COURT: Good.
12 MR. HOWARD: And if there is an issue, we'll
13 identify it going forward. I don't think it's a big --
14 it shouldn't be --
15 THE COURT: All right. And motion to compel
16 copyright-related documents and information. You are
17 still discussing that?
18 MR. McDONELL: Some of those issues actually
19 are ripe, but we are expecting to bundle them with some
20 other issues that are in the process of being wrapped up
21 through a 30(b)(6) discovery that's in midstream and
22 other things we're dealing with.
23 THE COURT: Okay.
24 MR. McDONELL: We don't want to just segregate
25 those, so we'll bring those all together when the time

1 ownership or other copyright standing of the named
2 plaintiffs with respect to each of the copyright
3 registrations that are identified in the complaint as
4 the registered works at issue in the case.
5 MR. McDONELL: Then we'll rely on that --
6 THE COURT: Okay.
7 MR. McDONELL: -- for present purposes.
8 THE COURT: All right.
9 MR. McDONELL: I think what he's saying is
10 that they have produced all of --
11 THE COURT: It sounds like it's sufficient to
12 show as opposed to everything possible, but that is
13 normally a good approach.
14 MR. McDONELL: Sufficient to show who owned
15 what and when they owned it.
16 THE COURT: And that's --
17 MR. McDONELL: We'll rely on that.
18 THE COURT: Yes, but let's just -- so on the
19 mo- -- you were anticipating a motion to compel with
20 documents related to potential new plaintiffs? Is that
21 what this boils down to?
22 MR. McDONELL: It's a little -- it's a little
23 different issue, and I think we've got that worked out
24 by agreement. We didn't want to have to start --
25 THE COURT: Right.

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I, CLAUDIA BETTUCCHI, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing audiotaped proceedings were taken down by me to the best of my ability using machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribe my name.

Dated: October 15, 2008

CLAUDIA A. BETTUCCHI
CSR NO: 12214

EXHIBIT L

United States District Court,
 E.D. New York.
 COMPUTER ASSOCIATES INTERNATIONAL, INC.,
 Plaintiff,
 v.
 ALTAI, INC., Defendant.
No. CV 89-0811.

Aug. 9, 1991.

Copyright owner brought action for infringement of copyright protecting operating system compatibility component of computer program. The District Court, George C. Pratt, Circuit Judge, sitting by designation, held that: (1) certificate stating that copyright was claimed in text of derivative computer program based on unregistered program was sufficient compliance with registration requirement; (2) rewritten compatibility component in computer program was not substantially similar to copyrighted component and, therefore, did not infringe it; and (3) Copyright Act preempted claim for misappropriation of trade secrets.

So ordered.

West Headnotes

[1] Copyrights and Intellectual Property 🔑50.25
[99k50.25 Most Cited Cases](#)

Certificate stating that copyright was claimed in text of derivative computer program based on unregistered program was sufficient compliance with registration requirement to permit owner to maintain action for infringement of unregistered operating system compatibility component of program; code for compatibility component had not been placed in public domain, and owner was author of compatibility component. [17 U.S.C.A. §§ 102, 103\(b\), 408\(a\), 411\(a\), 412.](#)

[2] Copyrights and Intellectual Property 🔑36
[99k36 Most Cited Cases](#)

Copyright protection for registered computer program that was derived from unregistered program covered unregistered operating system compatibility component of program; compatibility component's code had not been placed in public domain, and owner was author of compatibility component. [17 U.S.C.A. §§ 102, 103\(b\), 408\(a\),](#)

[411\(a\), 412.](#)

[3] Copyrights and Intellectual Property 🔑50.16
[99k50.16 Most Cited Cases](#)

(Formerly 99k50.15)

When owner registered copyright in computer program as derivative work, it was not required simultaneously to register separately every component part such as operating system compatibility component. [17 U.S.C.A. §§ 102, 103\(b\), 408\(a\), 411\(a\), 412.](#)

[4] Copyrights and Intellectual Property 🔑75.5
[99k75.5 Most Cited Cases](#)

Copyright infringement action need not be dismissed simply because registration occurs after filing of complaint; formalistic dismissal, followed by re-registration and commencement of new action, is unnecessary and would be wasteful. [17 U.S.C.A. § 411\(a\).](#)

[5] Copyrights and Intellectual Property 🔑82
[99k82 Most Cited Cases](#)

No substantive rights were affected by treating supplemental copyright registration as relating back to date of original registration, where three-year statute of limitations running from knowledge of infringement had not expired at time that motion to amend was made. [17 U.S.C.A. § 411\(a\).](#)

[6] Copyrights and Intellectual Property 🔑53(1)
[99k53\(1\) Most Cited Cases](#)

(Formerly 99k53)

"Access" is opportunity to view or copy plaintiff's copyrighted work.

[7] Copyrights and Intellectual Property 🔑51
[99k51 Most Cited Cases](#)

"Substantial similarity" inquiry in copyright infringement case requires court to decide whether similarity shared by works are something more than mere generalized ideas or themes.

[8] Copyrights and Intellectual Property 🔑53(1)
[99k53\(1\) Most Cited Cases](#)

(Formerly 99k53)

In determining similarities between operating system compatibility components of copyrighted computer program and allegedly infringing program, court could turn

attention away from programs as "behavior" and focus more closely on programs as text, i.e., source code and object code. [17 U.S.C.A. §§ 102\(a\), 102\(b\)](#).

[9] Copyrights and Intellectual Property 🔑53(1)
[99k53\(1\) Most Cited Cases](#)

(Formerly 99k53)

As applied to computer software programs, abstractions test of substantial similarity between copyrighted program and allegedly infringing program progresses in order of increasing generality from object code, to source code, to parameter list, to services required, and to general outline.

[10] Copyrights and Intellectual Property 🔑53(1)
[99k53\(1\) Most Cited Cases](#)

(Formerly 99k53)

Computer program's operating system compatibility component that was rewrite of infringing program was not substantially similar to and, therefore, did not infringe copyrighted component; allegedly infringing component contained virtually no lines of code that were identical to copyrighted component, evidence indicated that many parameter lists and macros were dictated by functionality of program, great deal of overlap between list of services was required by demands of functionality, and high-level structure was not important.

[11] Courts 🔑99(1)
[106k99\(1\) Most Cited Cases](#)

Generally, when court has ruled on issue, that decision should be adhered to by that court in subsequent stages of the same case.

[12] Courts 🔑99(1)
[106k99\(1\) Most Cited Cases](#)

Disregard of earlier ruling should not be allowed to prejudice party seeking to benefit under law-of-the-case doctrine.

[13] Courts 🔑99(1)
[106k99\(1\) Most Cited Cases](#)

"Prejudice" as used in principle that disregard of earlier ruling should not be allowed to prejudice party seeking to benefit under law-of-the-case doctrine does not mean harm; it refers to lack of sufficiency of notice or lack of sufficient opportunity to prepare armed with knowledge that prior ruling is not deemed controlling.

[14] Courts 🔑99(6)
[106k99\(6\) Most Cited Cases](#)

No prejudice could result from reconsidering law of the case that Copyright Act did not preempt claim for misappropriation of trade secrets; both parties briefed preemption issue in briefs before and after trial and treated issue as one which was in play. [17 U.S.C.A. § 301\(a\)](#).

[15] Courts 🔑99(6)
[106k99\(6\) Most Cited Cases](#)

District court's ruling that Copyright Act did not on its face preempt claim for misappropriation of trade secrets would be clearly erroneous and, therefore, would not be law of the case barring consideration of preemption issue. [17 U.S.C.A. § 301\(a\)](#).

[16] States 🔑18.15
[360k18.15 Most Cited Cases](#)

[16] Antitrust and Trade Regulation 🔑416
[29Tk416 Most Cited Cases](#)

(Formerly 382k986 Trade Regulation, 379k10(5))

Trade secret rights allegedly violated by copying component of computer program were equivalent to copyright owner's exclusive rights of reproduction and distribution and, therefore, were preempted by Copyright Act. [17 U.S.C.A. §§ 101, 106, 106\(1-5\), 301\(a\)](#).

[17] Copyrights and Intellectual Property 🔑101
[99k101 Most Cited Cases](#)

[17] States 🔑18.87
[360k18.87 Most Cited Cases](#)

Right "equivalent to" copyright and preempted by Copyright Act is one which is infringed by act of reproduction, performance, distribution, or display. [17 U.S.C.A. §§ 101, 106, 106\(1-5\), 301\(a\)](#).

[18] Antitrust and Trade Regulation 🔑413
[29Tk413 Most Cited Cases](#)

(Formerly 382k984 Trade Regulation, 379k10(5))

Computer program can be copyrighted and still maintain its trade secret status.

[19] Limitation of Actions 🔑95(7)
[241k95\(7\) Most Cited Cases](#)

Texas' two-year statute of limitations on trade secret claim would not begin to run until discovery.

[20] Copyrights and Intellectual Property 🔑87(1)
[99k87\(1\) Most Cited Cases](#)

Copyright owner's actual damages from copying of oper-

ating system compatibility component of computer program could not be calculated on assumption that owner would have sold its percentage market share of infringer's sales; owner sold much more expensive product, and nothing indicated that infringer's customers would have gone to owner in anything near proportion that owner was able to select from overall market. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[21] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Copyright owner's actual damages from copying of operating system compatibility component of computer program could not be calculated on assumption that infringer would have marketed no competing product but for the infringement; before infringing component was developed, infringer was producing program in competition with copyrighted component, and other versions of programs could readily have been developed. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[22] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Profits attributable to infringement by copying operating system compatibility component of computer program could not be calculated on basis of infringer's complete revenues on sales of products; many customers were unaware of compatibility components, and it could not be assumed that no sales would have been made without the compatibility components. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[23] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Allocating fair proportion of profit on particular sale to presence of infringing operating system compatibility component of computer program would be appropriate in calculating profits attributable to infringement; many customers were not aware of compatibility component, and its presence was not factor in decision of most customers. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[24] Copyrights and Intellectual Property 87(2)
[99k87\(2\) Most Cited Cases](#)

Proper measure of value of infringer's enhanced good will would have been to compare preinfringement value with postinfringement value and to allow the difference. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[25] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Lack of evidence that copyright owner lost any sales as result of infringement of operating system compatibility component of computer program did not preclude recovery of actual damages; fact that some damage occurred had to be recognized. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[26] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Profits attributable to copyright infringement of operating system compatibility component of computer program were not represented by money saved through developing compatibility component by infringement, rather than by independent research, and were not extra profits earned because infringer could deliver program to market place three months earlier. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[27] Copyrights and Intellectual Property 87(2)
[99k87\(2\) Most Cited Cases](#)

Actual damages as result of approximately five years of infringement of copyright protecting operating system compatibility component of computer program could be calculated by assigning one third of value of infringing compatibility component to the infringed portion, evaluating significance of infringing component in infringer's programs as one third of total value, deducting \$500,000 caused by owner's higher price levels and infringer's competition without infringing copyright, deducting \$500,000 as reasonable additional cost allowance, and multiplying net revenues of \$2,500,000 by one-ninth. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[28] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

Significance or value of copied material was not necessarily measured by counting lines of code to compute actual damages for infringing copyright that protected operating system compatibility component of computer program; qualitative value should also be taken into account. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[29] Copyrights and Intellectual Property 87(1)
[99k87\(1\) Most Cited Cases](#)

One third of estimated profits from sales of computer programs over four-year period were attributable to infringement of copyright protecting operating system compatibility component of computer program; approximately 30% of lines of code in infringing component were copied directly from copyrighted component, and one third of value of infringing component should be attributed to infringed portion. [17 U.S.C.A. §§ 504, 504\(b\)](#).

[30] Copyrights and Intellectual Property 90(2)

[99k90\(2\) Most Cited Cases](#)

Copyright owner was not entitled to attorney fees for infringement that began before registration of copyright. [17 U.S.C.A. §§ 412, 505](#).

Costs for court-appointed expert could be divided equally between copyright owner and infringer; infringement produced lawsuit and necessitated expert's testimony, but infringer prevailed on principal issue whether rewritten computer program infringed copyright. [Fed.Rules Evid.Rule 706, 28 U.S.C.A.](#)

*547 Weil, Gotshal & Manges by [Stephen D. Kahn](#), New York City, for plaintiff.

[31] Copyrights and Intellectual Property 90(2)

[99k90\(2\) Most Cited Cases](#)

Infringer that prevailed on claim that rewritten computer program did not infringe copyright was not entitled to attorney fees. [17 U.S.C.A. § 505](#).

Anderson Kill Olick & Oshinsky by [Susan G. Braden](#), Washington, D.C., Susman & Godfrey by [Steven D. Susman](#), Dallas, Tex., for defendant.

[32] Copyrights and Intellectual Property 90(1)

[99k90\(1\) Most Cited Cases](#)

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*549 MEMORANDUM AND ORDER

GEORGE C. PRATT, Circuit Judge (sitting by designation):

I. INTRODUCTION

Plaintiff Computer Associates International, Inc. ("CA") brought this action in August 1988 alleging that defendant Altai, Inc. ("Altai") had copied substantial portions of CA's SCHEDULER program into Altai's own computer software programs known as ZEKE, ZACK, and ZEBB. CA claims that Altai infringed CA's copyright in CA-SCHEDULER; in addition, CA claims that Altai misappropriated CA's trade secrets by incorporating elements of the CA-SCHEDULER program into ZEKE, ZACK, and ZEBB. The focal point of CA's claims of both copyright infringement and trade secret misappropriation is a discrete portion of Altai's programs called OSCAR, which CA contends was copied from a portion of its CA-SCHEDULER program known as ADAPTER.

After most of the pretrial proceedings had been completed, this case was assigned to the undersigned for trial without a jury. Because of the extensive technical evidence and expert testimony anticipated from both sides, the court appointed Dr. Randall Davis of the Massachusetts Institute of Technology as its own expert, pursuant to [Fed.R.Evid. 706](#).

Trial commenced on March 28, 1990, and concluded on

April 6, 1990, following which counsel submitted additional memoranda for the court's consideration.

This memorandum and order disposing of this action includes the court's findings of fact and conclusions of law as required by [Fed.R.Civ.P. 52\(a\)](#).

II. FACTS AND BACKGROUND

A. *The Parties*

Plaintiff CA is incorporated under the laws of the State of Delaware, and has its principal place of business at 711 Stewart Avenue, Garden City, New York 11530. Defendant Altai is incorporated under the laws of the State of Texas and has its principal place of business at 624 Six Flags Drive, Arlington, Texas 76011. Both CA and Altai design, develop, market, and support various computer software programs.

B. *Computers, Computer Programs, and Operating Systems*

To understand what ADAPTER and OSCAR do, it is necessary to focus upon how computers work and consider some basic computer terminology. Computers are machines which can do certain things based upon instructions. A computer is traditionally viewed as composed of three fundamental components: a CPU (central processing unit), some memory, and some means of getting input and displaying output. The CPU is where all the actual computing is done. Memory is used to hold the program that is being run, as well as to provide a place for the pro-

gram to store the intermediate results of a calculation.

A computer program, as defined in [17 U.S.C. § 101](#), "is a set of statements or instructions to be used directly or indirectly in a computer to bring about a certain result." Computer programs can be classified as systems programs and applications programs. Systems programs are concerned with the operation or use of the computer. Applications programs perform a task or set of tasks for the computer user, such as payroll accounting, data base operation, or word processing.

Programs that run on the same computer and operating system can be divided into three types. The first, resident programs, reside in the computer's memory where they run continuously. CA-SCHEDULER and Altai's ZEKE are resident programs. A second type, batch programs, are scheduled, started, and run to completion of a particular job. The third group, server programs, are resident programs used by other programs to perform a service. ADAPTER and OSCAR are both classified as server programs.

One particular type of system software is called operating system software. Operating systems are the programs that *550 manage the resources of the computer and allocate those resources to other programs that need them. For example, operating system software might perform, among others, these functions:

- channeling information entered at a keyboard to the proper application program;
- sending information from an application program to a display screen;
- providing blocks of memory to an application program that requires them; and
- allocating processing time among several application programs running on the computer at the same time.

Operating system software interacts with whatever other programs are being used or "executed" by the computer, providing computer resources such as processors, memory, disk space, printers, tape drives, etc. for the other programs that need them through what are often referred to as "system calls". For this interaction to occur properly, the other programs must be compatible with the operating system software in use on the computer, *i.e.*, they must be able to exchange information precisely and accurately with the operating system to interact with those computer resources.

The computers involved in this case are IBM's System

370 family of computers. These are mainframe computers which come in varying sizes. IBM designed and developed three different operating systems for use with its System 370 computers: DOS/VSE for use with the small-to-medium-size computers; MVS for larger computers; and CMS for interactive computers.

DOS/VSE and MVS are especially popular operating systems with businesses that run mostly batch jobs (which are sequences of application programs requiring no active user input during job execution), although both systems can support interactive applications in which users continuously interact with the computer. Businesses that run interactive applications or do a large amount of application development, which is also highly interactive, often choose the CMS operating system, which is the most efficient system for a highly interactive environment.

Although the mix of batch and interactive jobs is a major influence in a data center's choice of operating system, all data centers run a large number of batch jobs each day. Job scheduling programs are particularly useful in managing the summary of batch jobs.

Because an operating system manages the operation of a computer, a computer program must "fit", or "speak in the same language as", the operating system used by the computer on which the program is run. In general, a program written for one operating system, *e.g.*, DOS/VSE, will not, without modification, run under another operating system such as MVS.

It is commercially desirable for software development companies like CA and Altai to market the same system or application program in versions that can run in connection with different operating systems. That way, users can take advantage of the services which the system or application program provides and the methods for its use, regardless of what operating system they are currently using. Users can switch operating systems (for example, users may switch from VSE to MVS as their computer installations grow), or even use multiple operating systems, yet continue to use a program that appears to them to be functionally identical. Using application or system programs that can function on several different operating systems can save a data center time and money that would otherwise be spent acquiring new programs similar in functionality to the old ones, adapting the system to run them, and training users to operate them.

Various approaches to software development address this

operating-system problem. One common technique is to develop different versions of the program that are identical in most respects, but have system calls written to function under the different operating systems. Thus, for example, a software company might develop three versions of an application or system program, one each for DOS/VSE, MVS, and CMS. *551 Each version might also be rewritten somewhat to take advantage of features offered in one operating system but not another.

A deficiency inherent in this approach is that it requires a software company to develop and maintain many different versions of the same program. Changing the program or adding new features requires modifications to all versions. When problems are found and fixed in one version, the other versions must be examined to determine if the same problem must be fixed in each of them as well. Software developers must insure that any changes made to a program are sensitive to the particular operating system under which the program runs.

Marketing multiple versions of each product also increases the work required for development and maintenance. Additional programming resources are needed to develop features and fix problems to all versions in parallel. In addition, the software development staffs must coordinate carefully to make the versions as similar to each other as possible from the users' point of view. This is a cumbersome way to develop and maintain products that run on multiple operating systems.

C. Operating System Compatibility Components (Interfaces)

A more efficient approach to the problem of developing an application or system program that will function on different operating systems is to divide the program into two components:

- a first component that contains only the task-specific portions of the program, independent of all operating system issues, and
- a second component that contains all the interconnections between the first component and the operating system.

In a program constructed in this way, whenever the first, task-specific, component needs to ask the operating system for some resource through a "system call", it calls the second component instead of calling the operating system directly.

The second component serves as an "interface" or "com-

patibility component" between the task-specific portion of the program and the operating system. It receives the request from the first component and translates it into the appropriate system call that will be recognized by whatever operating system is installed on the computer, e.g., DOS/VSE, MVS, or CMS. Since the first, task-specific, component calls the adapter component rather than the operating system, the first component need not be customized to use any specific operating system. The second, interface, component insures that all the system calls are performed properly for the particular operating system in use.

Once a version of the interface component has been created for each operating system using this approach, the task-specific component of each program only has to be written once. This has two desirable effects.

First, to adapt a program to a new version of an existing operating system or an entirely new operating system, the developer need only modify the interface component; no changes need to be made to the task-specific component, which now has no operating-system-specific parts.

Second, revisions to the task-specific component of the program to correct problems or add features will not affect the program's ability to run under all operating systems, as long as the changes that request operating system services use the interface component. This method is an efficient and effective way to develop and maintain an application or system program that runs in many operating systems.

Since the interface component is invisible to the end user, the end user need not even be aware that operating system compatibility is an issue. Therefore, the end user can switch operating systems and still use a given application or system program without apparent differences. It may be necessary to acquire and install a different version of the application program, but once the different version is installed, the end user will not notice the difference.

*552 D. The Computer Programs of This Case

1. CA-SCHEDULER

CA-SCHEDULER is a job scheduling program for IBM mainframe computers. As one of a group of CA's data center automation products, CA-SCHEDULER's functions are to create a schedule that specifies when the com-

puter should run various tasks, and to control the computer as it progresses through that schedule. CA began development of CA-SCHEDULER in mid-1981, and first installed it at a customer location in August 1982. This version of CA-SCHEDULER included ADAPTER, as did all subsequent versions of CA-SCHEDULER.

2. ADAPTER

Part of CA-SCHEDULER is an operating system compatibility component called ADAPTER, which connects CA-SCHEDULER with the three different operating systems used on IBM mainframe computers: DOS/VSE, MVS and VM/CMS. The ADAPTER component enables CA-SCHEDULER to be run on any of the IBM operating systems. Without the specialized technology provided by ADAPTER, CA would have had to develop, support, and market three separate versions of each of its products, such as CA-SCHEDULER, so that the product could be used on a customer's computer regardless of which of the three IBM operating systems it used. ADAPTER is not a separate CA product; it is not marketed as such, and it has no capability of acting as an independent product. Rather, it is a component part of CA-SCHEDULER, as it is of several other CA products.

CA began work on ADAPTER in 1979, and has continued to enhance it even up to the present. When ADAPTER is used as one component of a CA program, the other component, which contains the task-specific code, is designed to mate with ADAPTER rather than directly with the computer's operating system. This approach followed a concept--operating system independence--that had been successfully used for several years prior to the development of ADAPTER.

ADAPTER was designed and written in 1979 for use with a group of CA's programs called the DYNAM line. CA included a separate copyright notice on ADAPTER with 1979 as the date of first publication. Since 1979, there have been several revisions and changes to ADAPTER code. CA never registered ADAPTER in the copyright office as a separate computer program.

3. ZEKE

James P. Williams of Altai began development of ZEKE in July, 1981, and first installed it at a customer location in June 1982. This original version of ZEKE was available for use only on the VSE operating system, and made all its own service calls directly to the operating system.

One of its principal competitors was CA-SCHEDULER, but Williams did not know that SCHEDULER included ADAPTER, nor did he know specifically what CA products used ADAPTER.

4. OSCAR

OSCAR is Altai's operating-system compatibility component. It was first developed in 1984 in a VSE version for use with Altai's ZEKE program. The first version, called OSCAR 3.4, was developed by Claude F. Arney III, who copied approximately 30% of OSCAR's source code from the source code of ADAPTER, which he had taken from CA when he left CA to go to work for Altai as a programmer. Like CA's ADAPTER, Altai's OSCAR is not a separate product; it is not marketed as such, and it has no capability of acting as an independent product.

Version 3.4 was first used in the ZEKE program, and later in Altai's ZACK and ZEBB programs. After this action was commenced against Altai, OSCAR was rewritten by different Altai programmers as version 3.5, and was substituted for version 3.4 as a component in the Altai programs. Altai concedes that Arney copied from CA's ADAPTER, but claims that he did it without the knowledge of anyone at Altai. Altai further claims that once it was alerted *553 to and had confirmed the illegal copying, right after this action was begun, it rewrote the OSCAR program to eliminate any of the claimed infringements. Whether Altai was successful in its attempted "cleanup" of OSCAR is one of the principal issues in this lawsuit.

E. *Dramatis Personae*

1. James P. Williams

In 1977, James P. Williams was employed by CA, where he became a product manager. He left CA in August 1980 when he went to work for Software Design, Inc., a predecessor to Altai. Currently, he is the President of Altai and has held that position since October 31, 1988. While at CA he was not involved with the actual development of CA's products, and Williams had no responsibilities with regard to ADAPTER. Although he was aware of ADAPTER, he never actually saw the ADAPTER code.

In late 1983 Altai determined, based on customer interest, that it should write ZEKE/VSE so that it could be

used on the MVS operating system. Williams, who had developed Altai's VSE version of ZEKE, was the sole programmer at Altai and felt that Altai needed an additional programmer to write the MVS version. At the time, Williams knew about CA's SCHEDULER, which had been developed after Williams left CA, but he was not aware that SCHEDULER used ADAPTER.

Williams approached Arney, who had been a long-standing friend and co-worker of Williams even before their days at CA, and invited him to come to work for Altai. Arney was then, and since 1978 had been, an employee of CA, where he had worked with and helped to develop the VSE version of the ADAPTER component.

2. Claude F. Arney, III

Arney had been employed by CA as a programmer for approximately five years before he moved to Altai. During that period, Arney did development work on CA's DYNAM/D, DYNAM/T, DYNAM/F1, and ADAPTER programs. In this role, he rewrote or enhanced many portions of ADAPTER/VSE. Arney had no responsibilities, however, for ADAPTER/MVS. For his work, CA permitted him to take home a paper copy of the source code of ADAPTER and anything else he needed to assist him. He did not recall being denied access to any materials by the company.

Arney was approached by Williams in December 1983 about working for Altai. Williams told him that his first project would be to develop an MVS version of ZEKE. Arney had no direct experience with MVS, but he was an accomplished programmer. When he left CA in January 1984, Arney took with him copies of the source code for both the VSE and MVS versions of ADAPTER, even though he recognized that this was contrary to the agreements he had signed prohibiting employees from retaining such copies.

F. Development of OSCAR 3.4

When he began work at Altai, Arney discussed with Williams different possible approaches for making ZEKE work with the MVS operating system. Williams, who had developed ZEKE for VSE, estimated that to modify it to run with MVS would require changing approximately 30% of its code. The other 70% worked independently of the operating system.

Williams had not considered at that point using a common system interface either for ZEKE or for any other Altai products. Arney argued, however, in favor of the long-term advantages of the common system interface. After discussing the possibilities, they decided to use the method of operating system independence, which would place all the system calls in a single program that they ultimately called OSCAR.

After this decision was made, Arney began to write a VSE version of OSCAR. A VSE version was written first, because this allowed Altai to take advantage of its already-working ZEKE/VSE program. In other words, it could be assumed that any difficulties in running ZEKE with OSCAR *554 on VSE systems could be attributable to problems in OSCAR, not in ZEKE.

No one at Altai, other than Arney, knew that Arney had the ADAPTER code, or that he had referred to it when he was writing OSCAR/VSE, a project that took him three months, or when he was writing OSCAR/MVS, which took him an additional month. Only when this lawsuit was commenced did Altai learn that Arney had copied some 30% of the OSCAR code from CA's ADAPTER.

From 1985 to August 1988, Altai used OSCAR 3.4 in its ZEKE, ZACK, AND ZEBB products, unaware of Arney's copying. In late July 1988 CA learned for the first time that Altai may have copied its ADAPTER program. It investigated to confirm the suspicion and then registered for the first time a copyright on versions 2.1 and 7.0 of its CA-SCHEDULER program. Both 2.1 and 7.0 were registered as "derivative works". Having registered the two versions of CA-SCHEDULER, CA commenced this action. CA alleged that by copying ADAPTER into the ZEKE, ZACK, and ZEBB programs, Altai has both infringed CA's copyright and misappropriated trade secrets.

G. Rewrite of OSCAR 3.4 into OSCAR 3.5

Upon receiving the complaint, Altai learned for the first time of the possible copying of ADAPTER code into OSCAR. Williams met immediately with Arney to investigate CA's allegations. Arney admitted then that he had copied some of the ADAPTER code. Williams set about immediately to determine the extent of the damage, and he reviewed with Arney exactly which portions of OSCAR had been copied. In doing so, Williams did not look at the ADAPTER code, but Arney consulted it in identifying which modules of the code had been copied and which had been separately developed either from

ZEKE or independently.

At this point Williams consulted counsel about how to go about rewriting the OSCAR program so as to cure the harm done by Arney's improper copying. The first step was to exclude Arney entirely from the rewriting process. The original ADAPTER code was locked up. Williams then assigned to Altai's eight programmers various segments of the program that had to be rewritten.

Williams wrote the parameter lists and gave them to the programmers. In doing so he worked primarily from ZEKE, not from Arney's version of OSCAR. The programmers were denied access to OSCAR 3.4, and were forbidden to talk with Arney during the rewrite process. Williams' goal in following this procedure was to salvage from OSCAR 3.4 the portions that Altai legitimately could use, and to eliminate from it those portions, ultimately determined to be about 30%, that had been copied by Arney from ADAPTER.

All the programmers employed by Altai (with the exception of Arney) were used in the rewriting process. None of them had been involved in developing or enhancing OSCAR. The process of rewriting involved first determining what operating system services were needed by ZEKE; this list was formulated by reference to the version of ZEKE marketed before OSCAR was developed. Williams provided a brief description of each service to a programmer through the parameter lists, and told the programmer to write the appropriate code for obtaining that service from the operating system. After the new code was written, the revised OSCAR was tested and debugged. The entire process took approximately six work-months of effort, and was completed by mid-November 1988, thus producing OSCAR 3.5.

Beginning in November 1989, OSCAR 3.5 was shipped to all new customers. It was also shipped by Altai, as a "free upgrade", to all customers who had OSCAR 3.4. Delivery of OSCAR 3.5 to all customers, new and existing, was completed by July 31, 1989.

H. Evaluation of Altai's Rewrite of OSCAR

If CA's claim of misappropriation of trade secrets did not fail on preemption grounds, it would be necessary to examine *555 in some detail the conflicting claims and evidence relating to the process by which Altai rewrote OSCAR and ultimately produced version 3.5. Since CA's only viable claim is for copyright infringement (see

discussion below about preemption of trade secrets misappropriation claim), our attention must be directed not so much to the rewriting process, itself, but to the result of the rewrite. We must determine, in short, whether Altai's OSCAR 3.5 infringes CA's ADAPTER. We make that determination as part of the discussion that follows. Additional facts are included where pertinent to the discussion.

III. DISCUSSION

CA has presented two causes of action: copyright infringement and misappropriation of trade secrets.

A. Copyright Infringement

There are two elements of a copyright infringement claim: ownership of a valid copyright, and copying of the plaintiff's copyrighted work by the defendant. [Novelty Textile Mills, Inc. v. Joan Fabrics Corp.](#), 558 F.2d 1090, 1092 (2d Cir.1977); see also [Reyher v. Children's Television Workshop](#), 533 F.2d 87, 90 (2d Cir.), cert. denied, 429 U.S. 980, 97 S.Ct. 492, 50 L.Ed.2d 588 (1976); 3 *Nimmer On Copyright* § 13.01, at 13-4 (1991). On both elements the plaintiff carries the burden of proof.

1. Ownership of a Valid Copyright

[Section 102 of title 17 of the U.S.Code](#) provides in part: "Copyright protection subsists * * * in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device". The owner of a copyright may register it with the copyright office "[a]t any time during the subsistence of copyright in any published or unpublished work". However, "[s]uch registration is not a condition of copyright protection." [17 U.S.C. § 408\(a\)](#). The act further provides, in [§ 411\(a\)](#), that "no action for infringement of the copyright in any work shall be instituted until registration of the copyright claim has been made in accordance with this title."

Registration has effects in addition to permitting an infringement action. One relates to plaintiff's entitlement to attorney's fees under [§ 412](#), as will be discussed later in this opinion. Another effect of a certificate registration is that, if timely obtained, it "constitute[s] *prima facie* evidence of the validity of the copyright and of the facts stated in the certificate." [17 U.S.C. § 410\(c\)](#). One of those facts is ownership of the copyright. See [Durham](#)

Industries Inc. v. Tomy Corp., 630 F.2d 905, 908 (2d Cir.1980); 3 *Nimmer On Copyright* § 13.01, at 13-5 to 13-7.

[1] In this case there is no dispute that CA owns a valid copyright in the computer program CA-SCHEDULER 2.1, which contains ADAPTER as one of its components. Plaintiff's exhibit 2 is the certificate of copyright registration for CA-SCHEDULER 2.1, having the effective date of August 19, 1988. By statute, that certificate is *prima facie* evidence of the facts stated therein. It establishes that CA is the author, and Altai does not contest this.

The certificate also states, however, that the nature of the material in which copyright is claimed is "text of computer program". It also states that CA SCHEDULER 2.1 is a "derivative work" whose "pre-existing material" was CA-SCHEDULER 1.0. Finally, for our purposes, the certificate states that the material added to CA-SCHEDULER 1.0 "and in which copyright is claimed" is: "Computer program has been re-written with revised code and added new code."

Thus, as asserted in CA's registration, which provides the basis for this lawsuit, the copyright is of a derivative work based upon a prior version of CA-SCHEDULER. The evidence shows that CA-SCHEDULER 1.0 was never registered. Most significantly, the evidence also shows that the ADAPTER component of version 2.1 was incorporated into version 2.1 from the pre-existing version 1.0, and indeed was incorporated *556 into CA-SCHEDULER 1.0 from one of CA's DYNAM programs, none of which are shown to have been registered.

Based on these facts, which are undisputed, Altai has argued, with some persuasiveness, that CA may not maintain this suit for copyright infringement of the ADAPTER code. Altai argues essentially that the registration, a precondition to maintenance of this infringement suit, was only of a derivative work and, that according to the statute, "[t]he copyright in a * * * derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material." 17 U.S.C. § 103(b). That subsection goes on, however, and provides that "[t]he copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material."

[2] If there were evidence that the ADAPTER code had been placed in the public domain, or was owned by someone other than CA, Altai's argument that the derivative nature of the registration did not extend to the ADAPTER code would be compelling. However, there is no such evidence. On the contrary, the undisputed evidence establishes that ADAPTER was developed by CA originally for CA's DYNAM programs, even before CA-SCHEDULER was developed, and was then incorporated as a separate component into the SCHEDULER versions. In short, CA is the author of the ADAPTER program and its "copyright protection" subsists without regard to registration. See Rand McNally & Co. v. Fleet Management Systems, Inc., 591 F.Supp. 726, 733 n. 6 (N.D.Ill.1983); Williams Prods., Inc. v. Construction Gaskets, Inc., 206 U.S.P.Q. 622, 624-25 (E.D.Mich.1977) (1909 act); Rexnord, Inc. v. Modern Handling Systems, Inc., 379 F.Supp. 1190, 1198 (D.Del.1974) (1909 act). Accord 2 *Nimmer on Copyright* § 7.16[B][2], at 7-164 to 7-165.

Moreover, the court interprets the restriction on commencement of an infringement action contained in § 411(a) as not being a bar to CA's claim in this case. Dr. Davis's testimony convincingly established that a computer program such as CA-SCHEDULER 2.1, for which registration was obtained, is made up of a series or collection of sub-programs, many of which are made up of sub-sub-programs, and so on, down for several levels. As Dr. Davis pointed out, it would make no sense to permit the copyright of a computer program that is an operable entity, such as CA-SCHEDULER OR ZEKE, without including in the copyright protection all of the sub-programs and sub-sub-programs, etc., which are combined with other instructions in order to make up the copyrighted program.

Of course, § 103(b) limits the extent of a copyright in a derivative work to "the material contributed by the author of such work". Here the author is CA, and among the material contributed by CA to CA-SCHEDULER 2.1 was the ADAPTER code. Section 103(b) does contrast the "material contributed by the author" with "the preexisting material employed in the work", and it provides that the copyright "does not imply any *exclusive* right in the preexisting material." (emphasis added). It further provides that the copyright in a derivative work neither enlarges nor diminishes the "scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material."

[3] In short, CA had a subsisting copyright in the ADAPTER code even though ADAPTER was not itself separately registered. CA was the uncontested owner of the code. When CA registered its copyright in CA-SCHEDULER 2.1 as a derivative work, it was not required simultaneously to register separately every component part, such as ADAPTER, of that work. Otherwise complete copyright protection for a complicated program developed by the same author over a period of time would require dozens if not hundreds of registrations. Plaintiff's exhibit 2, the certificate of copyright registration for CA-SCHEDULER 2.1, was sufficient compliance with the registration requirement *557 of § 411(a) to permit CA to maintain this action against Altai for infringement of ADAPTER.

Confronted at trial with Altai's argument that CA's registration of CA-SCHEDULER 2.1 had a more limited effect than we have just held, CA took what it described as a "belt and suspenders" approach and obtained from the copyright office supplemental certificates of copyright registration, see plaintiff's exhibit 299, which purported to amend the original certificates to show that both CA-SCHEDULER 2.1 and CA-SCHEDULER 7.0 were original, not derivative works. CA sought the amended registrations while the trial was pending, and did so without informing either Altai or the court.

The amended certificates were presented to the court with a proposed second amended complaint on the last day of the trial. A number of objections were raised both to the amendment of the complaint and to the admission of the amended certificates into evidence. The court reserved decision on those motions. In view of the ruling made with respect to plaintiff's exhibit 2, the original certificate of copyright registration for CA-SCHEDULER 2.1--that it was sufficient compliance with § 411(a) to permit maintenance of this action--there is little importance left for the amendment of the complaint and the admission into evidence of the supplemental certificate. For the record, however, CA's motion to file a second amended complaint is granted, and the two supplemental certificates of registration, amending plaintiff's exhibits 1 and 2, are admitted in evidence as plaintiff's exhibit 299.

No prejudice is inflicted on Altai by the amendment of the complaint, so leave to amend should be "freely given". *Foman v. Davis*, 371 U.S. 178, 182, 83 S.Ct. 227, 230, 9 L.Ed.2d 222 (1962). See *S.S. Silberblatt, Inc. v. East Harlem Pilot Block*, 608 F.2d 28, 42 (2d Cir.1979);

Fed.R.Civ.P. 15(a). This action was prepared and tried on the theory that Altai's OSCAR infringed CA's ADAPTER. CA's "error" was technical in nature; it described version 2.1 as a derivative work. Calling it an original work at the time the original certificate was obtained would not have affected anyone's rights with respect to the work. Correcting the error, even on the last day of the trial, had no direct effect on the evidence or arguments presented during the trial.

[4][5] Even on a technical level, despite the language of § 411(a) that "no action for infringement * * * shall be instituted" until the copyright claim is registered, an action need not be dismissed simply because the registration occurs after the filing of the complaint. See, e.g., *Frankel v. Stein & Day, Inc.*, 470 F.Supp. 209, 212-13 n. 2 (S.D.N.Y.1979), *aff'd*, 646 F.2d 560 (2d Cir.1980); *Schuchart & Assocs. v. Solo Serve Corp.*, No. SA-81-CA-5, 1983 WL 1147, at *9 (W.D.Tex. June 28, 1983) (Sessions, J.). A formalistic dismissal, followed by a re-registration and commencement of a new action, is unnecessary and would be wasteful. Where, as here, the three-year statute of limitations running from knowledge of infringement had not expired at the time the motion to amend was made, no substantive rights are affected by treating the supplemental registration as relating back to the date of the original registration.

In sum, with respect to the first element of CA's infringement claim, CA has established a subsisting copyright in ADAPTER which has been registered with the copyright office and, therefore, may maintain this suit for infringement.

2. Copying of the Copyrighted Work

The second element of a claim for copyright infringement is that the plaintiff must prove copying of the copyrighted work by the defendant. In order to prove its work has been copied, generally a plaintiff must--absent the rare instance, such as with OSCAR 3.4, where there is direct evidence of copying-- prove "access and substantial similarity between the works, and also show that his expression was 'improperly appropriated,' by proving that the similarities relate to copyrightable material." *Walker v. Time Life Films, Inc.*, 784 F.2d 44, 48 (2d Cir.), *cert. denied*, *558476 U.S. 1159, 106 S.Ct. 2278, 90 L.Ed.2d 721 (1986) (quoting *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 977 (2d Cir.), *cert. denied*, 449 U.S. 841, 101 S.Ct. 121, 66 L.Ed.2d 49 (1980)). Unlike the situation with respect to OSCAR 3.4, on which infringe-

ment is conceded, there is no convincing direct evidence here that OSCAR 3.5 was copied from ADAPTER. Therefore, as to 3.5, we must consider both access and substantial similarity--the two factors that would allow the court to infer copying on the part of Altai.

a. Access

[6] Access is not seriously disputed in this case. Under the prevailing definition, access is "the opportunity to view or to copy" the plaintiff's work. *Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1172 (9th Cir.1977) (citing *Arrow Novelty Co. v. Enco National Corp.*, 393 F.Supp. 157, 160 (S.D.N.Y.), *aff'd*, 515 F.2d 504 (2d Cir.1975)); 3 *Nimmer on Copyright* § 13.02[A], at 13-10. Here, Arney took from CA a copy of the source code for ADAPTER. Since Arney personally developed OSCAR 3.4 for Altai, and since Arney admits having used substantial portions of the ADAPTER code in the original version of OSCAR, access, at least with respect to version 3.4 of OSCAR, is established.

With respect to version 3.5, the rewritten version of OSCAR, an argument could be made that Altai did not have access because of the precautions attempted by Altai when it undertook to eliminate from OSCAR those portions of the program that had been copied from ADAPTER. There is conflicting evidence as to Williams' access to the ADAPTER code during the rewrite process. CA claims that it was accessible to him at least indirectly through his conversations with Arney, particularly at the time that Williams set up the parameter lists for the new OSCAR.

Rather than decide the difficult factual issue that access presents in connection with OSCAR 3.5, the court instead assumes that Altai did have access, but finds that neither Williams nor any of the other programmers who worked on OSCAR 3.5 took advantage of the ADAPTER code that was available to them, either by direct copying or by indirect copying from OSCAR 3.4. Altai's purpose in undertaking the rewrite of OSCAR was to eliminate from it all of the infringing aspects that had been included in version 3.4. The court finds that the Altai employees undertook that effort in good faith and adopted reasonable means to accomplish it.

The question, then, becomes whether Altai did in fact accomplish their objective of developing a "clean" version of OSCAR, and that brings us to the second aspect of the copying element: substantial similarity.

b. Substantial Similarity

[7] In most cases the "substantial similarity" inquiry presents the heart of a copyright infringement case; it requires the court to "decide whether the similarities shared by the works are something more than mere generalized ideas or themes." *Warner Bros. Inc. v. American Broadcasting Companies*, 654 F.2d 204, 208 (2d Cir.1981). This inquiry is fundamental, because the copyright act protects only the expression of ideas, and not the ideas themselves. *Baker v. Selden*, 101 U.S. (11 Otto) 99, 25 L.Ed. 841 (1879); *Lotus Development Corp. v. Paperback Software International*, 740 F.Supp. 37, 42 (D.Mass.1990) (Keeton, J.); 17 U.S.C. § 102(b). "No amount of proof of access will suffice to show copying if there are no similarities." *Sid & Marty Krofft Television*, 562 F.2d at 1172 (citing *Arnstein v. Porter*, 154 F.2d 464, 468 (2d Cir.1946)).

In the context of computer programs, many of the familiar tests for similarity prove to be inadequate, for they were developed historically in the context of artistic and literary, rather than utilitarian, works. It may be this inadequacy that led the third circuit, in *Whelan Associates v. Jaslow Dental Laboratory*, 797 F.2d 1222 (3d Cir.1986), *cert. denied*, 479 U.S. 1031, 107 S.Ct. 877, 93 L.Ed.2d 831 (1987), to set forth what now seems to be a simplistic test for similarity between computer programs. In *Whelan*, the court adopted an extremely broad view of copyrightability for a computer program. The court stated *559 that "the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea", *id.* at 1236 (emphasis omitted), and therefore protectable by copyright. The purpose, and therefore the "idea", of the program at issue in *Whelan* "was to aid in the business operations of a dental laboratory." *Id.* at 1238. Therefore, "the detailed structure of the Dentalab program is part of the expression, not the idea, of that program". *Id.* at 1239. Elsewhere in its opinion the *Whelan* court elaborated that as part of its broadly-defined "expression", the "structure, sequence, and organization" of a computer program, in addition to its source and object codes, were protected by copyright. *Id.* at 1238-40.

The *Whelan* test is inadequate and inaccurate. Professor Nimmer has pointed out one of its pitfalls: "The crucial flaw in this reasoning is that it assumes that only one 'idea,' in copyright law terms, underlies any computer program, and that once a separable idea can be identified,

everything else must be expression." 3 *Nimmer on Copyright* § 13.03[F], at 13-62.34.

In the case at bar, Dr. Davis pointed out further technical flaws in the *Whelan* analysis which render its reasoning inadequate. As he so convincingly demonstrated, a computer program is made up of sub-programs and sub-sub-programs, and so on. Each of those programs and sub-programs has at least one idea. Some of them could be separately copyrightable; but many of them are so standard or routine in the computer field as to be almost automatic statements or instructions written into a program.

Dr. Davis further explained that a computer program must be viewed both as text and as behavior. The text perspective focuses upon the object code and the source code. Although not understandable to people untrained in computer programming, both object code and source code can be expressed in written form. Object code appears as a series of zeros and ones, representing the magnetic polarization of the "bits" that are read by the computer. The source code is a combination of words, symbols, and numbers used by programmers to describe, or provide the basis for, the object code of a particular program.

A computer program, however, is more than a collection of zeros and ones. When properly loaded into a computer and provided with appropriate input from, for example, the keyboard, the program behaves. In a word processing program, for example, text can be deleted, blocks of text can be moved, formatting of documents can be changed; all sorts of operations can be instituted, and these can only be described as behavior. Similarly with a spreadsheet program, numbers can be added, subtracted, multiplied or divided; formulae can be developed to process the results of various computations; information can be inserted, deleted, moved, or processed in various ways. In this way, a spreadsheet program also behaves according to the instructions given to it.

Central to Dr. Davis's criticism of the *Whelan* "structure, sequence, and organization" formulation is the fact that there is no necessary relationship between the sequence of operations in a program, which are part of behavior, and the order or sequence in which those operations are set forth in the text of the program--the source code and object code. As Dr. Davis pointed out, "the order in which sub-routines appear in the program text is utterly irrelevant", and the two views of a computer program, as text

and as behavior, are "quite distinct".

Each view--textual and behavioral--has its own structure, sequence, and organization. In the standard jargon of programmers, there is static structure, which refers to the program-as-text view, and dynamic structure, which refers to the program-as-behavior view. The static structure and dynamic structure of a program can be quite different; indeed from dealing with the behavior of a program, *i.e.*, operating it, one can tell virtually nothing about its text. Thus, according to Dr. Davis, "it makes no technical sense to talk simply about the 'structure' of a program, because *560 the term is ambiguous and the distinction [between dynamic structure and static structure] matters."

Whelan, therefore, is fundamentally flawed according to Dr. Davis, by failing to distinguish between the static and dynamic views of a program. When *Whelan* states in footnote 1 that the terms "structure", "sequence", and "organization", are used interchangeably and are intended to be synonymous, the court's view of computer science is "exactly wrong technically; it is precisely because a program is not only text, but also behaves, that these terms (in all their meanings) are not synonymous. The problem is thus compounded: where [prior to *Whelan*] the terms were merely ambiguous, they have now been declared equivalent when they are not."

[8] Going beyond Dr. Davis's analysis, the court notes a possible statutory difficulty that arises when we recognize, as we must, that a computer program "behaves". [Section 102\(a\)](#) provides that copyright protection subsists for original works of authorship including those making up computer programs. Subsection (b) provides, however: "In no case does copyright protection for an original work of authorship extend to any idea, procedure, *process*, *system*, *method of operation*, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work." (emphasis added). Since the behavior aspect of a computer program falls within the statutory terms "process", "system", and "method of operation", it may be excluded by statute from copyright protection. Indeed, it has been suggested that computer software is better protected by patent law than by copyright law. Comment, [A Plea For Due Processes: Defining the Proper Scope of Patent Protection for Computer Software](#), 85 *Nw.U.L.Rev.* 1103, 1123-25 (1991). Fortunately, this court need not wrestle with that possible development in the law of intellectual property, because CA's rights in this case are fully protected by

viewing the ADAPTER program as text. In determining the similarities between OSCAR and ADAPTER, therefore, our attention turns away from the programs as behavior and focuses more closely on the programs as text, *i.e.*, the source code and object code.

Professor Nimmer suggests that in lieu of the *Whelan* test of "structure, sequence, and organization", a better approach to determining similarities in computer programs can be found in the "abstractions test" first enunciated by Learned Hand in [Nichols v. Universal Pictures, 45 F.2d 119, 121 \(2d Cir.1930\), cert. denied, 282 U.S. 902, 51 S.Ct. 216, 75 L.Ed. 795 \(1931\)](#). Professor Nimmer's suggestion is helpful. The abstractions test not only has the endorsement of one of the most distinguished judicial writers on copyright law; it is also the law of this circuit.

The "abstractions test" of *Nichols* reads:

Upon any work * * * a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the [work] is about and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his "ideas" to which, apart from their expression, his property is never extended.

[Nichols, 45 F.2d at 121.](#)

[9] As applied to computer software programs, this abstractions test would progress in order of "increasing generality" from object code, to source code, to parameter lists, to services required, to general outline. In discussing the particular similarities, therefore, we shall focus on these levels.

i. Similarities between ADAPTER and OSCAR 3.4

This question need not detain us long, for Altai concedes that a substantial part, approximately 30 percent, of OSCAR 3.4 was copied directly from the source code of ADAPTER that Arney took from CA. Thus, with respect to OSCAR 3.4, Altai admits infringement. In late 1988, as we have seen, OSCAR was rewritten as version *561 3.5, which completely replaced OSCAR 3.4 with all of Altai's customers by July 1989. Since OSCAR 3.4 has now been completely abandoned, there is no need for injunctive relief. On this aspect of the case, therefore, there remains only the matter of determining what damages should be awarded to CA for Altai's infringement with OSCAR 3.4 during the period in which that program

was used. These damages will be discussed later in this opinion.

ii. Similarities between ADAPTER and OSCAR 3.5

[10] After Altai learned, from the complaint in this action and its ensuing investigation, how Arney had copied from ADAPTER in order to develop OSCAR 3.4, it set about to rewrite the OSCAR program by developing OSCAR 3.5 independent of the ADAPTER code. This rewriting process was described earlier in this opinion. Since there is no direct evidence of copying from ADAPTER to OSCAR 3.5, the point of analysis turns to whether, after the rewrite, OSCAR 3.5 is substantially similar to ADAPTER. If so, it infringes CA's copyright, and CA would be entitled to injunctive relief and damages based on OSCAR 3.5. If not, then there was no infringement by OSCAR 3.5 and this part of CA's complaint should be dismissed.

Based upon all the evidence in the case, the evaluations of Dr. Davis, the court's own evaluations of the reports of the experts for CA and Altai, and the impact on these facts and circumstances of the applicable law of copyright as applied to computer programs, discussed above, the court finds and concludes that--even assuming that Altai had access to ADAPTER's source code--after the rewrite, OSCAR 3.5 was not substantially similar to ADAPTER, and therefore did not infringe CA's copyright.

CA's expert, Dr. Popper, devoted most of his direct testimony, as set forth in his report, to establishing the similarities between ADAPTER and OSCAR 3.4, an issue that Altai did not contest. The major points of similarity cited by Dr. Popper were object code, source code, parameter lists, macros, and so-called high-level structure.

Dr. Davis addressed the relative importance of these factors to a computer program. He realized that some other cases had approached the problem of substantial similarity by merely counting lines of code identical in the two programs. But, as Dr. Davis correctly noted, some code is more important than others. Moreover, with respect to OSCAR 3.5, he found no need for any such detailed analysis of lines of code, because in the revision that was carried out by Altai in developing OSCAR 3.5, there remained virtually no lines of code that were identical to ADAPTER.

With respect to the parameter lists and the macros, there was evidence from which one might infer there had been some copying; at the same time, there was evidence that

many, if not most, of the parameter lists and macros were dictated by the functionality of the program. The operation that both ADAPTER and OSCAR had to perform was to translate the calls for operating-system services that were required by the applications program into a form that could be read by the particular operating system. In this case, the operating system was established by IBM, and the forms for calls for services from each of the three IBM operating systems lie in the public domain, because they are intended to be known in the industry and to be used by programmers.

On the other side of ADAPTER and OSCAR, the task-specific side, the calls for services from the operating system are made by different applications programs--SCHEDULER for CA, and ZEKE, ZACK, and ZEBB for Altai. There is no claim that Altai's applications programs infringe the task components of CA's application programs. Thus, many of the parameters and macros were dictated by external factors and could not be deemed to be infringing.

Dr. Davis found that on the evidence presented he could not make a determination whether the parameter lists and macros of OSCAR 3.5 had been copied to any significant extent from ADAPTER. Although he invited further evidence from *562 the parties' experts on the point, not enough was forth-coming to warrant any further comment by him. As a result, the court finds that--with respect to

Code	1,000
Parameter Lists	100
Macros	100
List of Services	1
Organization Chart	Nil

As applied to OSCAR 3.5, the factor which is by far the most important--code, rated at 1,000--presents no similarity at all, because the code was rewritten.

The parameter lists and macros, combined, amount to 200, but on these factors, CA failed to carry its burden of proving substantial similarity. Even without a burden-of-proof analysis, however, the evidence is conflicting and, viewed most favorably to CA, would show that only a few of the lists and macros were similar to protected elements in ADAPTER; the others were either in the public domain or dictated by the functional demands of the program. The court thus finds and concludes that there was no substantial similarity established in either the parameter lists or the macros.

the parameter lists and macros of OSCAR 3.5--CA has failed to meet its burden of proof of copying, because it has failed to prove "substantial similarity" between those of OSCAR 3.5 and those of ADAPTER.

With respect to the list of services required for ADAPTER and OSCAR, there was considerable overlap, but a great deal of that was required by the demands of functionality and was not attributed by Dr. Davis, nor is it by the court, to direct copying. Furthermore, because the list of services is so extensively determined by the demands of the operating system and of the applications program to which it is to be linked through ADAPTER or OSCAR, it has little importance in the overall picture of similarity.

As to the so-called high-level structure, as reflected in the organization chart, the court accepts Dr. Davis's evaluation that it was not important, because it was so simple and obvious to anyone exposed to the operation of the program.

Taking an overall view of "similarity", Dr. Davis attempted to quantify the relative importance of the various factors of similarity on which CA relied. He evaluated them as follows:

The list of services, as viewed by Dr. Davis and accepted by the court, is minuscule in importance and, even when linked with the organization chart, does not present sufficient evidence of substantial similarity to warrant a finding of infringement.

In sum on this point, while OSCAR 3.4 included approximately 30 percent of verbatim copying of ADAPTER's code, when Altai rewrote the program into version 3.5, it eliminated the offending sections of copied code. The method it used for the rewriting process was, as Dr. Davis testified, a reasonable method. As Dr. Davis further testified, Altai's cleanup effort "was clearly what I would describe as--I don't want to trip over legal terms, a good faith effort to correct something that was wrong."

The court finds and concludes that OSCAR 3.5 was not substantially similar to CA's ADAPTER program, that it was not copied from ADAPTER, and that it did not infringe CA's copyright on ADAPTER as contained in any of the registrations for CA-SCHEDULER.

B. Misappropriation of Trade Secrets

On the first day of trial, Altai conceded that they would not dispute the merits of CA's misappropriation of trade secrets claim insofar as they were based on Altai's use of the ADAPTER source code taken from CA by Arney. Therefore, in regard to CA's trade secrets claim, the court will address only the following issues: Does the federal copyright law preempt state trade secret law? Which state's choice of law principles apply? Which state's substantive law applies? If Texas law applies, is CA's claim barred by the Texas statute of limitations? These issues are discussed *seriatim*.

*563 1. Preemption

a. Law of the case?

Altai contends that [§ 301\(a\)](#) of the copyright act preempts CA's claim for misappropriation of trade secrets. CA's initial line of response is that Judge Mishler's ruling of October 13, 1989, denying Altai's motion for summary judgment on this ground, is the law of the case. In that memorandum order, Judge Mishler held: "The elements of the tort of appropriation of trade secrets through the breach of contract or confidence by an employee are not the same as the elements of a claim of copyright infringement".

[\[11\]\[12\]\[13\]\[14\]](#) Generally, when a court has ruled on an issue, that decision should be adhered to by that court in subsequent stages of that same case. [Arizona v. California](#), 460 U.S. 605, 618, 103 S.Ct. 1382, 1391, 75 L.Ed.2d 318 (1983). But "[l]aw of the case [only] directs a court's discretion, it does not limit the tribunal's power." *Id.* That discretion is informed, principally, by the concern that disregard of an earlier ruling not be allowed to prejudice the party seeking to benefit under the doctrine. [United States v. Uccio](#), 940 F.2d 753, 758 (2d Cir.1991); [United States v. Birney](#), 686 F.2d 102, 107 (2d Cir.1982). "Prejudice" in this regard does not mean "harm"; "rather, it refers to a lack of sufficiency of notice" or a lack of sufficient "opportunity to prepare armed with the knowledge that [the prior ruling is not deemed controlling]." [Birney](#), 686 F.2d at 107; see [Uccio](#), 940 F.2d at 758. Both parties briefed the preemption issue in pre-and post-

trial briefs; both parties treated the issue as one which was "in play". There can not possibly be any prejudice to CA by reconsidering Judge Mishler's preemption ruling.

[\[15\]](#) Additionally, Judge Mishler did not have the benefit of a full development of the facts. His prior ruling was based on a facial analysis of the torts of misappropriation of trade secrets and of copyright infringement; our reconsideration of the issue has the benefit of a full development of the facts of the case as developed at trial. Since we are convinced that an uncorrectable ruling of no facial preemption would be "clearly erroneous", see [Arizona v. California](#), 460 U.S. at 618 n. 8, 103 S.Ct. at 1391 n. 8, we move to a consideration of preemption based on the facts developed at trial.

b. Preemption analysis as applied to the facts

[\[16\]](#) [Section 301\(a\)](#) expressly preempts "all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by [section 106](#)" when the work of authorship in which rights are claimed falls "within the subject matter of copyright as specified by [sections 102](#) and [103](#)" of the copyright act. [17 U.S.C. § 301\(a\)](#).

There is little dispute that ADAPTER falls "within the subject matter of copyright". It is a computer program, and as such is copyrightable. See [17 U.S.C. § 101](#). Thus, the court needs only to determine whether CA's trade secrets claim is "equivalent" to the exclusive rights of copyright as enumerated in [§ 106](#) of the copyright act.

[\[17\]](#) [Section 106](#) gives the copyright owner the exclusive right to (1) reproduce the work, (2) prepare derivative works based on the work, (3) distribute copies of the work to the public by sale or other transfer of ownership, and, in the case of certain artistic works, (4) perform the work publicly, and (5) display the work publicly. [17 U.S.C. § 106\(1\)-\(5\)](#). It is clear that a right "equivalent to" copyright is one which is infringed by the act of reproduction, performance, distribution, or display. 1 *Nimmer on Copyright* § 1.01[B][1], at 1-13. See also [Harper & Row Publishers, Inc. v. Nation Enterprises](#), 723 F.2d 195, 200 (2d Cir.1983), *rev'd on other grounds*, 471 U.S. 539, 105 S.Ct. 2218, 85 L.Ed.2d 588 (1985).

CA's second amended complaint contains the following two paragraphs:

57. By reason of the facts stated in paragraph 39 and by copying from CA-SCHEDULER into ZEKE, ZACK and ZEBB the various elements stated in paragraphs

39-51, 54 and 55, defendant *564 Altai has infringed [CA's] copyright in CA-SCHEDULER.

73. Defendant's incorporation into its ZEKE, ZACK and ZEBB programs of the various elements contained in the ADAPTER component of [CA's] CA-SCHEDULER program as set out in paragraphs 39-51, 54 and 55 constitutes the willful misappropriation of the proprietary property and trade secrets of plaintiff [CA].

Thus, CA's complaint states that the very same act--copying the various elements of the ADAPTER component of CA-SCHEDULER into ZEKE, ZACK, and ZEBB--is alleged to be both an infringement of copyright and a misappropriation of trade secrets. At trial, it became apparent that CA's trade secrets claim was based on its evidence that Altai had copied ADAPTER into Altai's OSCAR program.

As the second circuit said in *Harper & Row*, "When a right defined by state law may be abridged by an act which, in and of itself, would infringe one of the exclusive rights [contained in [§ 106](#)], the state law in question must be deemed preempted." *Id.*, [723 F.2d at 200](#). CA's trade secrets claim, therefore, based as it is upon Altai's copying of CA's ADAPTER program, must be deemed preempted, and the second count of its complaint must be dismissed.

[\[18\]](#) CA argues, correctly, that both commentary and caselaw support the proposition that "a computer program can be copyrighted and still maintain its trade secret status." CA post-trial brief at 17. CA further argues, however, that since the tort of misappropriation of trade secrets requires proof of elements (*e.g.*, a confidential relationship) not required to prove a copyright claim, there can be no preemption.

CA's arguments embrace only a facial comparison of the torts of misappropriation and copyright infringement--the same limited analysis available to Judge Mishler when he decided the summary judgment motion. In making such a limited comparison, CA misses the point both of *Harper & Row* and of [§ 301](#). Merely lining up the elements of the two claims and identifying a difference will not suffice to avoid preemption. Rather, the two claims must be *qualitatively* different. The gravamen of CA's trade secrets claim as proved at trial is that Altai, without authorization, copied ADAPTER into its ZEKE, ZACK, and ZEBB programs. CA's position is that the same act which allegedly constituted a misappropriation of trade secrets also infringed their copyright. Preemption is therefore required, because "the right they seek to protect

[via the trade secrets claim] is coextensive with an exclusive right already safeguarded by the Act--namely, control over reproduction and derivative use of copyrighted material." *Harper & Row*, [723 F.2d at 201](#).

There are, undoubtedly, many differences between copyright and trade secret law: "Trade secret law protects content irrespective of form of expression; copyright law protects form of expression but not underlying ideas." 1 R. Milgrim, *Milgrim on Trade Secrets* § 2.06A[3], at 2-146 (1991). Similarly, trade secret law may be enforced only against defendants having a special relationship to the plaintiff, while copyright law may be enforced against the world. Compare [Restatement of Torts § 757](#) with [17 U.S.C. § 106](#). Further, misappropriation of trade secrets may take place by *acquisition, disclosure* or *use* of the secret; copyright infringement may only take place by certain unauthorized *uses* of copyrighted works. Compare Rev. [Uniform Trade Secrets Act § 1\(2\)](#) with [17 U.S.C. §§ 106-118, 501\(a\)](#).

However, the alleged trade secret--ADAPTER--is the same entity in which CA alleges a copyright. While the generic elements of a trade secret and of a copyrightable work differ, the tort of misappropriation as particularly alleged and proved here and the infringement of CA's copyright boil down to the same thing--a right of action for the unauthorized reproduction of, and preparation of derivative works based on, ADAPTER. Merely because the elements of a "trade secret" and a "copyrightable work" are different does not avoid preemption. [Section 301](#) instructs the court to compare "rights"--and the *565 right to be free from trade secret misappropriation through "use", and the right to exclusive reproduction and distribution of a copyrighted work are not distinguishable. The trade secret rights in this case are "equivalent to" the exclusive rights granted to copyright owners under [§ 106](#), and are therefore preempted by federal law. See 1 R. Milgrim, *Milgrim on Trade Secrets* § 2.06A [4], at 2-150 ("Attention must be paid in each case to determine what plaintiff seeks to protect, the theories in which the matter is thought to be protected and the rights sought to be enforced."); *Harvey Cartoons v. Columbia Pictures Industries, Inc.*, 645 F.Supp. 1564, 1573 (S.D.N.Y.1986). Cf. *Warner Bros., Inc. v. American Broadcasting Cos.*, [720 F.2d 231, 247 \(2d Cir.1983\)](#) ("state law claims that rely on the misappropriation branch of unfair competition are preempted").

Were CA's allegations premised on a theory of illegal *acquisition* of a trade secret, a charge that might have

been alleged against Arney, who is not a defendant in this case, the preemption analysis might be different, for there seems to be no corresponding right guaranteed to copyright owners by [§ 106](#) of the copyright act. But this is not such a case. Rather, CA has proceeded solely against Altai, and has done so on a theory that the misappropriation took place by Altai's *use* of ADAPTER--the same theory as the copyright infringement count. See Copyright Law Revision, H.R.Rep. No. 1476, 94th Cong., 2d Sess. 132, reprinted in 1976 U.S.Code Cong. & Admin.News 5659, 5748 (" 'Misappropriation' is not necessarily synonymous with copyright infringement, and thus a cause of action labeled as 'misappropriation' is not preempted if it is in fact based neither on a right within the general scope of copyright as specified by [section 106](#) nor on a right equivalent thereto.") (emphasis added).

CA's trade secrets claim against Altai is equivalent, nay identical, to the claim of infringement of the exclusive rights of reproduction and distribution, both of which are "within the general scope of copyright as specified by [section 106](#)." Once the work at issue became a copyrightable "work of authorship", all claims concerning copying became governed, exclusively, by federal law. The interpretation of [§ 301](#) offered by CA, on the other hand, "would run directly afoul of one of the Act's central purposes, to 'avoid the development of any vague borderline areas between State and Federal protection.'" [Harper & Row, 723 F.2d at 200](#) (quoting H.R.Rep. No. 1476, supra, at 130, 1976 U.S.Code Cong. & Admin.News at 5746).

Thus CA--which is the master of its own case--has pleaded and proven facts which establish that one act constituted both copyright infringement and misappropriation of trade secrets. The act of misappropriation relied on--copying ADAPTER into OSCAR 3.4--in and of itself, also infringed CA's copyright. Under [Harper & Row](#) and [§ 301](#) of the copyright act, CA's trade secrets claim is preempted by federal copyright law, and must be dismissed.

It may seem anomalous that, with respect to OSCAR 3.5, the revised, post-suit version of the program, CA has no cause of action for copyright infringement, and fails as well on its trade secrets claim because of federal preemption by the copyright law. If preemption were a doctrine designed only to prevent double recovery, this would be a valid concern. But [§ 301](#) of the copyright act represents congress's determination, expressed through the authority of the supremacy clause, that copyright law be subject to

uniform national laws.

If there is to be any right of action for CA, congress has said, it has to come under the copyright act, or not at all. "It is clear that failure to meet the required standards for federal [copyright] protection will not negate federal preemption." 1 *Nimmer on Copyright* § 1.01[B], at 1-22.2. Otherwise, failure to comply with the strictures of the copyright act would expand the scope of state protection, *id.*, see also [Mayer v. Josiah Wedgwood & Sons, Ltd., 601 F.Supp. 1523, 1532 n. 15 \(S.D.N.Y.1985\)](#), and this would be contrary to congress's intent. See H.R.Rep. No. 1476, supra, at 131. CA "cannot achieve by [a trade secrets] claim what it failed to achieve under its copyright claim". *566 [Durham Industries, Inc. v. Tomy Corp., 630 F.2d 905, 918 \(2d Cir.1980\)](#).

2. Choice of Law

Even though our preemption ruling eliminates the trade secret issues from the case, we think it advisable to consider briefly the choice of law and statute of limitations questions.

a. Which State's Principles?

This action was originally commenced in the district of New Jersey, and transferred to the eastern district of New York pursuant to [28 U.S.C. § 1404\(a\)](#). In these circumstances, "the transferee court must follow the choice of law rules that prevailed in the transferor court." [Ferens v. John Deere Co., 494 U.S. 516, 110 S.Ct. 1274, 1277, 108 L.Ed.2d 443 \(1990\)](#) (rule applies when plaintiff moves for transfer); compare [Van Dusen v. Barrack, 376 U.S. 612, 84 S.Ct. 805, 11 L.Ed.2d 945 \(1964\)](#) (same rule when defendant initiates transfer). Since a transfer under [§ 1404\(a\)](#) is only a change of courthouses, and not a change of law, we are obliged to apply New Jersey's conflict of laws principles. There is no dispute between the parties that New Jersey's choice of law principles apply.

b. Which State's Substantive Law?

Similarly, there is no dispute over what choice of law principles New Jersey courts would apply. New Jersey applies a "governmental interest" approach for deciding choice of law issues. See, e.g., [Rose v. Port of New York Authority, 61 N.J. 129, 139-40, 293 A.2d 371, 376 \(1972\)](#) (abandoning traditional rule of *lex loci delictus* in favor of the law "having the most significant relationship and closest contacts with the occurrence and the parties"). CA maintains that the "governmental interest" test points to the application of New York law; Altai argues that Texas

law should control.

This dispute is relevant only because Altai argues that the Texas statute of limitations would bar CA's trade secret claim, since, according to Altai, Texas does not recognize the "discovery rule" in determining when a cause of action for trade secrets would accrue. The court notes that it would in fact apply Texas law, because the most significant relationship and closest contacts with the occurrence and with the parties is with Texas. However, in light of the following discussion of Texas statute of limitations law, the choice of law is irrelevant; for the result would be the same under either New York or Texas law.

c. Is the Texas Statute of Limitations a Bar?

[19] New York's limitations period is three years; under New York law, therefore, the action would be timely, and Altai concedes this. Altai argues that under Texas law, the applicable (two-year) statute of limitations would bar CA's claim. Specifically, Altai argues that Texas does not endorse the "discovery rule", and a Texas court would consider CA's trade secret claims to be time-barred. Were it necessary to reach this issue, the court would reject Altai's argument. Texas courts are moving toward the adoption of the discovery rule in all cases where "it is difficult for the injured party to learn of the negligent act or omission." Willis v. Maverick, 760 S.W.2d 642, 644 (Tex.1988).

In fact, the Supreme Court of Texas has held that the discovery rule for accrual of a medical malpractice claim is a state constitutional imperative. In Nelson v. Krusen, 678 S.W.2d 918 (Tex.1984), the Supreme Court of Texas noted that the "open courts" provision of the Texas Constitution means that "the legislature has no power to make a remedy by due course of law contingent on an impossible condition." *Id.* at 921. The "impossible condition" of *Nelson* refers to "cutting off a cause of action before the party knows, or reasonably should know, that he is injured." *Id.* at 922.

Since Altai has stipulated that--prior to August 1988--CA had not discovered, and could not have discovered in the exercise of reasonable care, that Altai had misappropriated CA's trade secrets, the court, absent preemption, would have to consider what relief to CA was appropriate under the trade secrets law of Texas. In view of the federal preemption of the claim, however, *567 it is not necessary to address the merits of CA's trade secrets claim.

C. Damages

We turn now to a consideration of the damages to be awarded for Altai's conceded infringement of CA's copyright in CA-SCHEDULER 2.1. The only infringement established was that some of the ADAPTER portion of SCHEDULER was copied by Arney and became some of the OSCAR portion of Altai's ZEKE, later to be included in both ZACK and ZEBB.

OSCAR was originally introduced by Altai in the spring of 1984 as part of its ZEKE/VSE program. Next, an MVS version of ZEKE was developed and marketed, also using OSCAR 3.4. Then ZACK and ZEBB incorporated OSCAR and were marketed. After this lawsuit was commenced in August of 1988, Altai set about rewriting OSCAR into a non-infringing version 3.5. By July 1989 Altai had abandoned any use of OSCAR 3.4 and had fully replaced it with version 3.5 by providing all of its customers with the updated version. Our task, therefore, is to determine the damages that are to be awarded to CA as a result of Altai's infringing use of OSCAR 3.4 during the roughly five-year period from Spring 1984 to July 1989.

17 U.S.C. § 504 provides that an infringer of copyright is liable for "the copyright owner's actual damages and any additional profits of the infringer, as provided by subsection (b)". Subsection (b), entitled "Actual Damages and Profits", provides:

The copyright owner is entitled to recover the actual damages suffered by him or her as a result of the infringement, and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages. In establishing the infringer's profits, the copyright owner is required to present proof only of the infringer's gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work.

This section thus authorizes CA to recover for CA's "actual damages" plus Altai's profits. Not surprisingly, the parties do not agree as to how this section of the act should be applied to the circumstances of this case. Most of the damage evidence was presented by expert witnesses on each side.

1. CA's View of Damages

CA's expert, Dr. Robert J. Larner, an economist and vice-president of Charles River Associates, a research and consulting firm headquartered in Boston, Massachusetts, ex-

pressed two views of damages, one based on the assumption that the infringement was cured as of July 31, 1991, the other based on the assumption of a cure date of January 31, 1989. For purposes of the present discussion we

Actual damages (before taxes)
Altai's profits
Altai's enhanced good will

\$5,433,546
6,890,689
1,583,563

Each of these items requires some explanation. To arrive at CA's actual damages, Larner determined the number of infringing units sold by Altai, then multiplied that quantity by the prices at which CA was selling its competing programs to produce the assumed additional revenue that CA would have received if it had made all of the Altai transactions. From that figure, Larner subtracted estimated incremental costs to CA had it made the additional sales, yielding the incremental profit that CA would have realized if it had made all of the Altai transactions.

Recognizing that CA would not have made all of the Altai transactions, Larner looked to market-share data supplied from an outside source, and then concluded that CA's actual damages represented the incremental revenues multiplied by CA's market share percentage. These calculations for the full period produced the actual damage figure of \$5,433,546.

For Altai's profits, the second aspect of damages allowed by the statute, Larner turned to that portion of the market share *568 that CA did not have and calculated Altai's total related revenues for the period. He did this for each year and for each of the Altai products. As permitted by the statute, he did not take into account Altai's expenses that related to those revenues, but instead left that calculation for Altai to prove. Larner's total figure for Altai's "profit" was \$6,890,689.

Larner also included a figure for enhanced good will, which, for the relevant period, he calculated to be \$1,583,563.

Larner's total damage figure was \$13,907,798.

2. Altai's View of Damages

Altai's damage estimates were made by Burton Grad, president of Burton Grad Associates, Inc. of Tarrytown, New York, a firm that serves as consultants to computer software and services companies. Grad calculated his damages based on a slightly different time period than

shall refer only to the calculations relating to January 31, 1989. Dr. Larner calculated CA's damages as follows:

that used by Larner. Grad adopted Altai's fiscal years and calculated damages for those years ending July 31, 1986, 1987, 1988 and 1989. Thus, his figures begin a few months later than Larner's, and they end six months later. Because no precise reliance is placed by the court on either set of figures, this slight discrepancy in time periods is of no significance for our analysis.

As to actual damages claimed by CA, Grad concludes that there are none because, as he states: "There is no evidence that CA lost any sales as a result of Altai's use of OSCAR. Thus, CA should not be awarded any actual damages."

As to Altai's profits from the infringement, Grad sets forth two factors: (1) the money Altai saved in developing OSCAR through the infringement, which for the four year period he calculated to be \$38,000, plus (2) extra profits Altai earned by being able to deliver ZEKE/MVS into the market place three months earlier, which in his "case 1" example he calculated as \$47,000. This produced a total damage of \$85,000, which Grad then converted to a present worth of \$115,000. He made a further calculation by deducting taxes, but for ease of comparison, the court will consider only pre-tax, rather than after-tax damages. Grad also made a separate calculation of damages, using somewhat different assumptions; it produced a still lower estimate of damage at \$39,000, but there is no need to discuss it here.

As to the lost good will postulated by Larner, Grad took the position that Larner "failed to demonstrate that Altai's good will has been enhanced as a result of Altai's use of OSCAR. Therefore, CA is entitled to no damages for enhanced good will."

Thus, we have two expert witnesses, both ostensibly qualified, and both undoubtedly very well-paid for their opinions. They begin with the same raw data, the sales revenues and expenses for the two companies' competing products plus the market-share information. One expert determines damages to be \$13,000,000, while the other finds the damages to be \$115,000 (less than 1 percent of

the higher amount).

It should not be surprising that the court is not persuaded by either of these "expert" opinions. There are many flaws in both, as pointed out through each opinion's criticism of the other, and through the further expert testimony of Dr. Frederick R. Warren-Boulton, an economist and senior vice-president of ICF Consulting Associates of Washington, DC, called by Altai. Other criticisms of the two damage appraisals are contained in the cross-examination of the expert witnesses as well as in the respective parties' post-trial memoranda. For present purposes it will suffice to indicate simply some of the shortcomings of each opinion.

3. Defects in CA's View

a. CA's Actual Damages

[20] Larner's approach assumes that CA would have sold its percentage market share of Altai's infringing sales. This assumption, however, fails to take into account a critical factor: price. CA sells a much more expensive product than did Altai. Compare [*Stevens Linen Assocs., Inc. v. Mastercraft Corp.*, 656 F.2d 11, 14-15 \(2d Cir.1981\)](#). Direct price comparisons between *569 Altai and CA are difficult because of the variety of methods of selling and of the variation in the competing products themselves. Compare *id.* The evidence indicates, however, that CA's prices exceeded Altai's by between 20 and 50 percent. The Grad survey indicates that with many of Altai's customers, price was a substantial factor in determining to buy from Altai as opposed to CA.

CA's share of the market, derived from historic sales, indicates that segment of the market that was willing to pay the higher prices charged by CA. There is nothing, however, to support the assumption that Altai's customers, many of whom prefer a cheaper product, would have gone to CA in anything near the proportion that CA was able to select from the overall market.

CA's expert's opinion compounds the "price" problem when it assumes that all of the Altai sales it would have received would generate revenues, not at Altai's price level, but at CA's price levels. Thus, not only does CA's expert exaggerate the quantity by this assumption, but he inflates the hypothetical sales price as well.

[21] Still another flaw in Larner's opinion is his basic assumption that but-for the infringement, Altai would have marketed no competing product. This flies in the

face of the fact that before OSCAR 3.4 was developed, Altai was producing ZEKE/VSE and selling it in competition with CA's SCHEDULER, and that MVS versions of ZEKE, ZACK, and ZEBB could readily have been developed. ZEKE preceded SCHEDULER into the market, and the market-share data show that in 1985 ZEKE/VSE was an established competitor of CA-SCHEDULER/VSE; indeed, as of the end of 1984, ZEKE/VSE had 58 surveyed sites installed as opposed to only 40 for CA-SCHEDULER/VSE.

CA's treatment of its costs is equally unconvincing. It postulates only what it calls "incremental expenses" so that, for example, on a one-year lease of ZEKE/MVS, which brought Altai \$7,500 (exhibit B of Larner's opinion, item 312), and for which CA postulates it would have received \$15,602 (exhibit C of Larner opinion revised 3/27/90, line 1 for 1986), CA would have incurred costs of only \$129.84 (exhibit D of Larner opinion--total for CA SCHEDULER/MVS) plus a sales commission.

Notwithstanding the expert's paid opinion, the real world just doesn't work that way. During pretrial, CA strenuously resisted Altai's attempts to obtain cost data for analysis by Altai. Such basic data was not even provided to Larner, its own expert. Grad testified, credibly, relying only on his general industry background and experience in estimating incremental costs, that it is more consistent with industry norm to assume that variable costs of greater than 50 percent of sales would inevitably be incurred.

Taking another point of view, the court perceives a related defect in Larner's opinion, which seems to ignore the causation requirement in the statute. Actual damages must have been suffered by the copyright owner "as a result of the infringement". Similarly, profits of the infringer, to be recoverable, must be "attributable to the infringement".

The picture is further complicated by the fact that the infringed component, ADAPTER, has relatively little sales appeal for customers. Many customers are totally unaware of its presence. Most customers who are aware of the presence of ADAPTER or OSCAR in their programs regard it simply as a means for making the application program work on their particular computer with their particular operating systems.

For some customers, however, having ADAPTER or OSCAR provides an immediate advantage in being able to use in the same office computers having different oper-

ating systems. For a few, the problem of "migration" (upgrading a computer system by acquiring a more sophisticated operating system) makes ADAPTER or OSCAR attractive. Migration was of relatively minor significance, however, because it was established at trial that of the roughly 700 locations at which Altai maintained computer programs over the years, only approximately 25 had "migrated". Thus, although CA attempts to establish that ADAPTER *570 or OSCAR are the very heart of the applications programs in which they are installed, implying that without that link to the operating systems there would be nothing else, the facts show that CA's emphasis on the importance of ADAPTER was greatly exaggerated.

Still another problem with CA's calculation of damages is CA's claim that Altai's use of OSCAR 3.4 in, e.g., ZACK/MVS, somehow caused damage to CA's OPERA/MVS, which did not even use ADAPTER. In a theoretical sense, perhaps, if OSCAR were as indispensable to ZACK, as ADAPTER is claimed to be to CASCHEDULER, then without OSCAR, ZACK would not exist. But in a practical sense, CA's competitive product OPERA/MVS does exist without ADAPTER, and there is no reason to believe that ZACK could not do likewise.

On a more general level, CA claims to have been caused actual damages in excess of \$5,000,000 during the infringing period, yet during this period its market share in the relevant products increased, its revenues and profits increased dramatically, and there is no evidence that CA lost a single sale to Altai because of the presence of OSCAR 3.4 as a component in the Altai programs. CA did present evidence of three sales lost to Altai, but none of those lost sales could be attributed to the presence of OSCAR. Moreover, as against CA's total revenues for, say, 1987 (\$452,000,000), Altai's revenues of \$2,600,000 seem almost insignificant.

b. Altai's Profits from OSCAR 3.4

[22] The fundamental defect in CA's estimates of Altai's profits is CA's assumption that Altai's complete revenues on sales of products can be equated with profit attributable to one component of those products. In the background is the same assumption that infected CA's actual damage analysis: that OSCAR was essential to the Altai products and that without it, no sales would have been made. As indicated above, the court rejects that assumption.

[23] A sounder approach would be to allocate a fair pro-

portion of the profit on a particular sale to the presence of the infringing OSCAR 3.4. See [Big Seven Music Corp. v. Lennon](#), 554 F.2d 504, 509 (2d Cir.1977) ("damages may be recovered only if there is a necessary, immediate and direct causal connection between the wrongdoing and the damages"). This is particularly appropriate in the context of this case because with most customers, the presence of OSCAR was not a factor in their decision to purchase. Cf. [Cream Records, Inc. v. Jos. Schlitz Brewing Co.](#), 754 F.2d 826, 828-29 (9th Cir.1985).

CA's calculation of Altai's revenues include not only the revenues received for each of its products during the four fiscal years, but also estimated future revenues, which are now irrelevant in light of the court's finding that OSCAR 3.5 cured the infringement.

CA made no calculation as to Altai's expenses, and they were not required to do so, because the statute places the burden of establishing expenses on Altai. Those expenses, however, were substantial, and are analyzed in the written testimony of Altai's expert, Grad. They will be discussed in that context.

c. Altai's Enhanced Good Will

[24] The fundamental defect in CA's calculation of Altai's "enhanced" good will is, simply, that CA did not prove the existence of such good will. A proper measure of its value would have been to compare pre-infringement value with post-infringement value and to allow the difference. But CA presented *no* evidence of the pre-infringement value of Altai's good will. Furthermore, at least part of CA's good will calculation rested upon revenues for a program, Z/CAT2, which did not use OSCAR and which was not connected by the evidence to the OSCAR-using products of Altai or to the customers who use those products. In short, CA's claim, based on a postulated increase in Altai's good will, fails.

4. Defects in Altai's View

a. CA's Actual Damages

[25] Grad would allow CA no actual damages because "there is no evidence that *571 CA lost any sales as a result of Altai's use of OSCAR." The lack of specific evidence is correct, but the fact that some damage occurred must also be recognized. CA, of course, is the giant of the computer software industry. Although minuscule in comparison to CA, Altai was nevertheless a significant competitor with certain of CA's products. When it copied ADAPTER, Altai was able to place in the marketplace

a product which it viewed as being more useful than the same product would have been without OSCAR 3.4. Altai's products met with some commercial success, and it defies reason and common sense to assume that its competition using the infringing OSCAR did not cause CA to lose some sales and profits to Altai as a result of the infringement. CA's loss was, of course, not the grossly-exaggerated amount postulated in the Lerner opinion, but its damage from this factor cannot be totally disregarded.

b. *Altai's Profits from OSCAR 3.4*

[26] A basic flaw of the Grad opinion on Altai's profits is that it simply disregards the statute. Grad works from a premise of a hypothetical, infringement-free world and concludes that Altai's profits are represented by the money saved through developing OSCAR by infringement rather than by independent research, plus extra profits earned because Altai could deliver ZEKE/MVS into the marketplace three months earlier. This approach simply ignores the statutory purpose of the profits factor of damages, which is to deprive the infringer of any extra benefits it receives that are attributable to the forbidden conduct.

Altai's own figures indicate a pre-tax profit of \$260,000 over the four fiscal years in question. Since most of this is attributable to products having OSCAR 3.4 as a component, some portion of it, at least, must be recognized as being attributable to the infringement.

The statute places the burden on the infringer to show its expenses. Altai has met that burden with a fairly extensive cost analysis for each of the products broken down by various categories, all as set forth in exhibits attached to Grad's testimony. As part of that analysis, Grad concludes that during the four-year period, total revenues from the relevant products equalled \$13,311,000, applicable costs equalled \$13,051,000, leaving a total profit for the 4 years of \$260,000 (exhibit E to Grad testimony).

Grad does not recognize that profit figure, however, as a factor in CA's recovery. Instead, he develops two other theories of "what might have been". In addition to ignoring the statute, this approach is far too speculative to be relied upon.

c. *Altai's Enhanced Good Will*

As previously indicated, Grad rejects this element of damages for the reason that CA failed to prove either any change in good will that may have occurred during the period, or even the existence of any good will. See 3

Nimmer on Copyright § 14.02[B], at 14-18 to 14-19. The court agrees with that conclusion.

5. Evaluation and Conclusion as to Damages

[27] As indicated earlier, the court did not find either party's damage analysis very helpful. The highlighted items represent only some of the flaws; others are discussed in the briefs and testimony. Despite the skewed analyses on both sides, the court must reach a decision on damages, and to that task we now turn. Although the fact of damage has been established, a precise calculation of CA's actual damages is not possible. The court, therefore, can only make a "just and reasonable inference" as to the amount of damages. *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563, 51 S.Ct. 248, 250, 75 L.Ed. 544 (1931); see 3 *Nimmer on Copyright* § 14.02 [A], at 14-11 to 14-12 ("courts will make the best possible appraisal of value").

[28] Copying of ADAPTER has been admitted. Approximately 30 percent of the lines of code in OSCAR 3.4 were copied directly from ADAPTER. The significance or the value of the copied material is not necessarily measured by counting lines of *572 code; their qualitative value should also be taken into account. The court finds that one-third of the value of OSCAR 3.4 should be attributed to the infringed portion.

There was a great dispute over the significance or value that OSCAR 3.4, in turn, contributed to the Altai products, ZEKE, ZACK, and ZEBB. Without OSCAR those products could have been, and undoubtedly would have been, produced with direct connections to the relevant operating systems. But the fact remains that they were in fact produced using the infringing OSCAR 3.4. Customers generally were not particularly interested in the advantages that OSCAR provided, but in fact OSCAR did contribute some value in terms of permitting different operating systems to use the program in the same office and in permitting a customer to upgrade to more complicated systems without changing programs. The court finds that a fair evaluation of the significance of OSCAR 3.4 in the Altai products is one-third of the total value. Thus, the infringing portion to be attributed to the end product is one-third times one-third, or one-ninth of the products sold. This fraction may fairly be used to calculate CA's actual damage.

The one-ninth factor cannot, however, fairly be applied to all of the sales, or even to CA's market percentage of

those sales, because as we have seen, CA sold at considerably higher prices than did Altai.

CA estimated its actual pre-tax damages at approximately \$3,500,000. Three adjustments to that figure are appropriate. First, to allow for the loss in sales that would be caused by CA's higher price levels and Altai's competition with non-infringing products, \$500,000 should be deducted.

Second, a more reasonable cost figure should be allowed to reflect the realistic costs, rather than the nominal, variable costs allowed in CA's computation. \$500,000 (approximately 17 percent) is a reasonable additional cost allowance, based on the evidence. That would leave a figure of \$2,500,000, which represents the net revenues to CA from the sales it would have picked up from Altai.

For the third adjustment, we multiply the net revenues of \$2,500,000 by one-ninth, representing the portion of the Altai programs found to be attributable to the infringement, which leaves \$277,777 as a just and reasonable inference of CA's actual damages resulting from the infringement.

[29] Turning to the profits gained by Altai from the sales of ZEKE, ZACK, and ZEBB over the four year period, the court accepts the figure of \$260,000 indicated by Grad in exhibit E of his opinion at page 5. However, for reasons already indicated, only a portion--the court finds one-third--of those profits "are attributable to the infringement". That one-third amounts to \$86,667, representing the profits of Altai that are recoverable by CA. Adding the profits (\$86,667) to the actual damages of \$277,777, yields total damages resulting from Altai's infringement of CA's ADAPTER program through its use of OSCAR 3.4 of \$364,444.

6. Interest

CA should recover pre-judgment interest on the \$364,444. For ease of computation the court directs that interest shall be calculated by the clerk at the usual rate from June 1, 1987, approximately the middle date of the infringement period.

D. Housekeeping Matters

In addition to the foregoing discussion, there remain a few additional, "housekeeping", matters to clean up.

1. Punitive Damages

In light of the above discussion and conclusions, the court sees no basis for punitive damages against Altai.

2. Attorney's Fees

a. OSCAR 3.4

[30] Under [§ 412](#) of the copyright act, CA may not be awarded statutory damages or attorney's fees as provided in [§ 505](#), because the alleged infringement of ADAPTER by OSCAR 3.4 commenced before the effective date of its registration. ADAPTER was registered, as discussed *573 above, as part of CA-SCHEDULER, in August 1988--well after the infringement by OSCAR 3.4 began. The statute thus bars CA's recovery of attorney's fees for the conceded infringement by OSCAR 3.4.

b. OSCAR 3.5

[31] The court has found that OSCAR 3.5 did not infringe CA's copyright in ADAPTER. [Section 505](#) of the copyright act provides, in part: "[T]he court may * * * award a reasonable attorney's fee to the prevailing party as part of the costs." [17 U.S.C. § 505](#). Such an award rests largely within the court's discretionary power, *see, e.g., Peter Pan Fabrics, Inc. v. Jobela Fabrics, Inc.*, [329 F.2d 194 \(2d Cir.1964\)](#), and since CA did not prevail in regard to infringement by OSCAR 3.5, the court does not award attorney's fees on that part of the claim. As to Altai, the court sees no compelling reason to shift any portion of its attorney's fees to CA. Accordingly, no attorney's fees shall be awarded to either party.

3. Fees of Dr. Davis

[32] When the court, pursuant to [Fed.R.Evid. 706](#), appointed its own expert, with the agreement of counsel for both sides, it provided that each side in the first instance should pay one-half the fee of Dr. Davis, with the final burden of his fee to be fixed as part of the costs upon entry of the judgment. Costs ultimately lie in the discretion of the court.

With respect to Dr. Davis's fee, the need for his testimony was initially caused by Altai and its infringement of the ADAPTER program, because that infringement produced this lawsuit. The principal issue that remained to be tried, however, related to whether or not OSCAR 3.5 infringed, and on that issue Altai has prevailed. Consid-

ering all the factors surrounding this litigation and the testimony of Dr. Davis, including the court's need for that testimony and its impact on the case, the court finds that a fair allocation of his fees would be to leave the parties where they now stand, *i.e.*, with each side having paid one-half of his fees and neither side entitled to any further reimbursement from the other.

4. Costs

Pursuant to [Fed.R.Civ.P. 54\(d\)](#) the court directs that no costs shall be awarded to either party.

5. The French Motion

After this case had been submitted for decision, CA renewed a motion made before trial to modify the confidentiality order entered during the discovery process of this action by removing therefrom certain "confidential" materials that CA wished to use in the prosecution of an action against Altai that was pending in France. In connection with that motion the parties submitted to the court a series of papers which ultimately stacked up to a height of approximately five inches.

After due deliberation, the court denies the motion.

6. Exhibits

Counsel may pick up from chambers their own exhibits, as well as those documents submitted and marked as the court's exhibits, except for those court exhibits, obviously not confidential, that the court has docketed in the clerk's office. Counsel will, of course, be responsible for preserving those exhibits for use in the event of an appeal. Any exhibits not picked up by September 16, 1991, will be destroyed.

IV. CONCLUSION

The clerk is directed to enter judgment in favor of plaintiff Computer Associates International, Inc. and against Altai, Inc. in the sum of \$364,444, plus interest to be calculated on that sum from June 1, 1987.

SO ORDERED.

775 F.Supp. 544, 1991 Copr.L.Dec. P 26,783, 20 U.S.P.Q.2d 1641

END OF DOCUMENT

EXHIBIT M

 United States Court of Appeals,
 Ninth Circuit.
 APPLE COMPUTER, INC., a California corporation,
 Plaintiff-Appellee,
 v.
 MICROSOFT CORPORATION, a Delaware corpo-
 ration, Defendant-Appellant.
 APPLE COMPUTER, INC., a California corporation,
 Plaintiff-Appellee,
 v.
 MICROSOFT CORPORATION, a Delaware corpo-
 ration, Defendant,
 and
 Hewlett-Packard Co., Defendant-Appellant.
 APPLE COMPUTER, INC., Plaintiff-Appellant,
 v.
 MICROSOFT CORPORATION, a Delaware corpo-
 ration; Hewlett-Packard Co., a
 California corporation, Defendants-Appellees.
Nos. 93-16867, 93-16869 and 93-16883.

Argued and Submitted July 11, 1994.
 Decided Sept. 19, 1994.

Computer manufacturer brought copyright infringe-
 ment action against competitors, alleging competitors
 had infringed its graphical user interface (GUI). The
 United States District Court for the Northern District
 of California, [Vaughn R. Walker](#), J., entered judg-
 ment in favor of competitors, [821 F.Supp. 616](#), [709](#)
[F.Supp. 925](#), [717 F.Supp. 1428](#), [759 F.Supp. 1444](#),
[779 F.Supp. 133](#), [799 F.Supp. 1006](#), and manufac-
 turer appealed. The Court of Appeals, [Rymer](#), Cir-
 cuit Judge, held that: (1) licensing agreement gave
 competitor right to transfer individual elements or
 design features using its "Windows" program; (2) in
 determining whether manufacturer's GUI was in-
 fringed, district court properly compared works for
 virtual identity, rather than substantial similarity; and
 (3) remand was required to determine whether com-
 petitors were entitled to award of attorneys' fees.

Affirmed in part, reversed and remanded in part.

West Headnotes

[\[1\]](#) Copyrights and Intellectual Property 48

[99k48 Most Cited Cases](#)

Agreement licensing right to use visual displays gen-
 erated by computer manufacturer's graphical user
 interface (GUI) programs, which appeared as deriva-
 tive works in competitor's "Windows" interface, gave
 competitor right to transfer elements or design fea-
 tures used in "Windows"; agreement authorized com-
 petitor to use "these derivative works," which could
 only refer to competitor's acknowledgement that
 "visual displays" generated by its interface were deri-
 vative works of visual displays generated by manu-
 facturer's programs.

[\[2\]](#) Copyrights and Intellectual Property 51

[99k51 Most Cited Cases](#)

Where accused works include both licensed and unli-
 censed features, copyright infringement will depend
 on whether unlicensed features are entitled to protec-
 tion.

[\[3\]](#) Copyrights and Intellectual Property

83(1)

[99k83\(1\) Most Cited Cases](#)

Computer manufacturer was required to prove the
 competitors copied unlicensed protected expression
 when they produced graphical user interfaces that
 were similar to manufacturer's interfaces after district
 court found that licensing agreement provided partial
 defense to manufacturer's infringement claims.


[\[4\]](#) Copyrights and Intellectual Property

53(1)

[99k53\(1\) Most Cited Cases](#)

In determining whether computer manufacturer's
 competitors infringed manufacturer's copyrighted
 graphical user interface (GUI) when they produced
 similar interface, works were required to be com-
 pared for virtual identity, rather than substantial simi-
 larity, where manufacturer licensed right to copy al-
 most all of its visual displays; considering license and
 limited number of ways that basic ideas of manufac-
 turer's GUI could be expressed differently, only
 "thin" protection against virtually identical copying
 was appropriate.

[\[5\]](#) Copyrights and Intellectual Property

83(3.1)

[99k83\(3.1\) Most Cited Cases](#)

Copying may be shown by circumstantial evidence of access and substantial similarity of both general ideas and expression between copyrighted work and allegedly infringing work.

[6] Copyrights and Intellectual Property 10.4
[99k10.4 Most Cited Cases](#)

Because only those elements of work that are protectable and used without author's permission can be compared when it comes to ultimate question of illicit copying, Court of Appeals uses analytic dissection to determine scope of copyright protection before works are considered as a whole.

[7] Copyrights and Intellectual Property 88
[99k88 Most Cited Cases](#)


Trial court acted within its case management discretion when it asked computer manufacturer for list of particular features in its works which were similar to features found in competitor's graphical user interface (GUI) so that it could determine which elements of manufacturer's works were protectable in copyright infringement action.

[8] Copyrights and Intellectual Property 10.4
[99k10.4 Most Cited Cases](#)

Ideas embodied in computer manufacturer's graphical user interface (GUI), including use of Windows to display multiple images on computer screen and to facilitate user interaction, manipulation of icons to convey instructions and to control operation of computer, use of menus to store information or computer functions and opening and closing of objects as means of retrieving transferring and storing information, were not entitled to copyright protection. [17 U.S.C.A. § 102\(b\)](#).


[9] Copyrights and Intellectual Property 4.5
[99k4.5 Most Cited Cases](#)

When idea and its expression are indistinguishable, or merged, expression will only be protected against nearly identical copying.


[10] Copyrights and Intellectual Property 12(2)
[99k12\(2\) Most Cited Cases](#)

Under doctrine of "scenes a faire," when similar features are, as practical matter, indispensable, or at least standard, in treatment of given idea, they are treated


like ideas and are therefore not protected by copyright. [17 U.S.C.A. § 102\(b\)](#).

[11] Copyrights and Intellectual Property 12(2)
[99k12\(2\) Most Cited Cases](#)

Doctrine of scenes a faire limited scope of copyright protection of computer manufacturer's graphical user interface (GUI); environmental and economic factors limited range of possible expression in GUIs. [17 U.S.C.A. § 102\(b\)](#).

[12] Copyrights and Intellectual Property 12(1)
[99k12\(1\) Most Cited Cases](#)

Copyright protection extends only to those components of word that are original to author, although original selection arrangement of otherwise uncopyrightable components may be protectable.

[13] Copyrights and Intellectual Property 10.4
[99k10.4 Most Cited Cases](#)


Graphical user interface audiovisual works are subject to same process of analytical dissection as are other works.

[14] Copyrights and Intellectual Property 51
[99k51 Most Cited Cases](#)


Party claiming copyright infringement may place no reliance upon any similarity in expression resulting from unprotectable elements.

[15] Copyrights and Intellectual Property 51
[99k51 Most Cited Cases](#)

Unprotectable elements have to be identified, or filtered, before works can be considered as a whole in copyright infringement action.

[16] Copyrights and Intellectual Property 67.3
[99k67.3 Most Cited Cases](#)

In determining whether computer manufacturer's graphical user interface was infringed, district court properly identified sources of similarity in manufacturer's interface and competitor's interface, determined which were licensed, distinguish ideas from expression, and decided scope of manufacturer's copyright by dissecting unauthorized expression and filtering out unprotectable elements.

[17] Copyrights and Intellectual Property 67.3

[99k67.3 Most Cited Cases](#)

Computer manufacturer that held copyright for both graphical user interface (GUI) and derivative work could base claim of copyright infringement on both works. [17 U.S.C.A. § 103\(d\)](#).

[18] Copyrights and Intellectual Property 76

[99k76 Most Cited Cases](#)

If copyright owner of derivative work is exclusive licensee of certain rights in underlined work, he or she is treated as copyright owner of underlying work for purpose of exercising those rights; owner can therefore sue for copyright of material that appears in both derivative work and underlying work. [17 U.S.C.A. § 103\(d\)](#).

[19] Federal Courts 895

[170Bk895 Most Cited Cases](#)

District court's error in dismissing derivative work as work in suit in computer manufacturer's action for infringement of its copyrighted graphical user interface (GUI) did not deprive manufacturer of opportunity to fairly

present its case, where district court allowed manufacturer to present its case using derivative work throughout summary judgment proceedings, and found no material difference between the two works in entering summary judgment for competitor.

[20] Federal Courts 940

[170Bk940 Most Cited Cases](#)

Remand was required to determine whether defendants who prevailed in copyright infringement action were entitled to award of attorney's fees, where court had ruled, based on subsequently overruled precedent, that it did not have discretion to award fees to prevailing defendants unless action was frivolous or in bad faith. [17 U.S.C.A. § 505](#).

*1437 [Jack E. Brown](#), Brown & Bain, Phoenix, AZ, for plaintiff-appellee-cross-appellant.

[David T. McDonald](#), McDonald & Quackenbush, Seattle, WA, for defendant-appellant-cross-appellee Microsoft Corp.

[Jonathan A. Marshall](#), Pennie & Edmonds, New York City, for defendant-appellant-cross-appellee

Hewlett-Packard Co.

*1438 Appeals from the United States District Court for the Northern District of California.

Before: [FERNANDEZ](#), [RYMER](#), and T.G. NELSON, Circuit Judges.

[RYMER](#), Circuit Judge:

Lisa and Macintosh are Apple computers. Each has a graphical user interface ("GUI") which Apple Computer, Inc. registered for copyright as an audiovisual work. Both GUIs were developed as a user-friendly way for ordinary mortals to communicate with the Apple computer; the Lisa Desktop and the Macintosh Finder [\[FN1\]](#) are based on a desktop metaphor with windows, icons and pull-down menus which can be manipulated on the screen with a handheld device called a mouse. When Microsoft Corporation released Windows 1.0, having a similar GUI, Apple complained. As a result, the two agreed to a license giving Microsoft the right to use and sublicense derivative works generated by Windows 1.0 in present and future products. Microsoft released Windows 2.03 and later, Windows 3.0; its licensee, Hewlett-Packard Company (HP), introduced NewWave 1.0 and later, NewWave 3.0, which run in conjunction with Windows to make IBM-compatible computers easier to use. Apple believed that these versions exceed the license, make Windows more "Mac-like," and infringe its copyright. This action followed.

[\[FN1\]](#). The Macintosh Finder is registered as a derivative work of the Lisa Desktop. Although the district court dismissed the Finder as a work in suit, the Macintosh interface has been referred to interchangeably with the Lisa during the course of this litigation.

In a series of published rulings, [\[FN2\]](#) the district court construed the agreement to license visual displays in the Windows 1.0 interface, not the interface itself; determined that all visual displays in Windows 2.03 and 3.0 were in Windows 1.0 except for the use of overlapping windows [\[FN3\]](#) and some changes in the appearance and manipulation of icons; dissected the Macintosh, Windows and NewWave interfaces based on a list of similarities submitted by Apple to

decide which are protectable; and applied the limiting doctrines of originality, functionality, standardization, *scenes a faire* and merger to find no copying of protectable elements in Windows 2.03 or 3.0, and to limit the scope of copyright protection to a handful of individual elements in NewWave. [\[FN4\]](#) The court then held that those elements in NewWave would be compared with their equivalent Apple elements for substantial similarity, and that the NewWave and Windows 2.03 and 3.0 works as a whole would be compared with Apple's works for virtual identity. When Apple declined to oppose motions for summary judgment of noninfringement for lack of virtual identity, however, judgments in favor of Microsoft and HP were entered.

[FN2.](#) [Apple Computer, Inc. v. Microsoft Corp.](#), 709 F.Supp. 925 (N.D.Cal.1989) (*Apple I*); [Apple Computer, Inc. v. Microsoft Corp.](#), 717 F.Supp. 1428 (N.D.Cal.1989) (*Apple II*); [Apple Computer, Inc. v. Microsoft Corp.](#), 759 F.Supp. 1444 (N.D.Cal.1991) (*Apple III*); [Apple Computer, Inc. v. Microsoft Corp.](#), 779 F.Supp. 133 (N.D.Cal.1991) (*Apple IV*); [Apple Computer, Inc. v. Microsoft Corp.](#), 799 F.Supp. 1006 (N.D.Cal.1992) (*Apple V*); [Apple Computer, Inc. v. Microsoft Corp.](#), 821 F.Supp. 616 (N.D.Cal.1993) (*Apple VI*).

The first two published opinions were rendered by Hon. William S. Schwarzer; after his appointment as Director of the Federal Judicial Center, this matter was reassigned to the calendar of Hon. Vaughn R. Walker. Our treatment of facts throughout is truncated because the district court's is so extensive.

[FN3.](#) Windows 1.0 had a tiled windowing system in which the windows were connected together in a fixed pattern such that all open windows were simultaneously visible. An overlapping system allows windows to be stacked on top of one another and moved around the screen individually.

[FN4.](#) These items relate to the "zooming rectangle" animation associated with the opening or closing of an icon into a window, the "dimming" of a folder icon that has been opened into a window, and the use of a trash

can icon to depict the discard function. Each appears in both versions 1.0 and 3.0 of NewWave, but none is in any version of Windows.

Apple asks us to reverse because of two fundamental errors in the district court's reasoning. [\[FN5\]](#) First, Apple argues that the court *1439 should not have allowed the license for Windows 1.0 to serve as a partial defense. Second, Apple contends that the court went astray by dissecting Apple's works so as to eliminate unprotectable and licensed elements from comparison with Windows 2.03, 3.0 and NewWave as a whole, incorrectly leading it to adopt a standard of virtual identity instead of substantial similarity. We disagree.

[FN5.](#) Although it does not concede that limiting doctrines were correctly applied to each alleged similarity, Apple does not ask us to review the many discrete decisions reflected in the district court's published opinions. We have done so only to the extent of being satisfied that none makes a difference to the outcome, because we agree that the appeal turns on whether the district court's *approach* was correct.

The district court's approach was on target. In so holding, we readily acknowledge how much more complex and difficult its task was than ours. The district court had to grapple with graphical user interfaces in the first instance--and for the first time, with a claim of copying a computer program's artistic look as an audiovisual work instead of program codes registered as a literary work. In this case there is also the unusual, added complexity of a license that arguably covers some or most of the allegedly infringing works. The district court therefore had to cut new paths as it went along; we have the luxury of looking at the case at the end of the trip. From this vantage point, it is clear that treatment of Apple's GUIs, whose visual displays are licensed to a great degree and which are a tool for the user to access various functions of a computer in an aesthetically and ergonomically pleasing way, follows naturally from a long line of copyright decisions which recognizes that works cannot be substantially similar where analytic dissection demonstrates that similarities in expression are either authorized, or arise from the use of common ideas or their logical extensions.

We therefore hold:

(1) Because there was an agreement by which Apple licensed the right to make certain derivative works, the district court properly started with the license to determine what Microsoft was permitted to copy. Infringement cannot be founded on a licensed similarity. We read Microsoft's license as the district court did, to cover visual displays--not the Windows 1.0 interface itself. That being so, the court correctly decided first to identify which visual displays in Windows 2.03, 3.0 and NewWave are licensed and which are not.

(2) The district court then properly proceeded to distinguish ideas from expression, and to "dissect" unlicensed elements in order to determine whether the remaining similarities lack originality, flow naturally from basic ideas, or are one of the few ways in which a particular idea can be expressed given the constraints of the computer environment. Dissection is not inappropriate even though GUIs are thought of as the "look and feel" of a computer, because copyright protection extends only to protectable elements of expression.

(3) Having found that the similarities in Windows 2.03 and 3.0 consist only of unprotectable or licensed elements, and that the similarities between protectable elements in Apple's works and NewWave are de minimis, [\[FN6\]](#) the district court did not err by concluding that, to the extent there is creative expression left in how the works are put together, as a whole they can receive only limited protection. When the range of protectable and unauthorized expression is narrow, the appropriate standard for illicit copying is virtual identity. For these reasons, the GUIs in Windows 2.03, 3.0 and NewWave cannot be compared for substantial similarity with the Macintosh interface as a whole. Instead, as the district court held, the works must be compared for virtual identity. [\[FN7\]](#)

[FN6.](#) The court's order that the four individual similarities in NewWave were to be compared at trial with their "equivalents" in Apple's works for substantial similarity, [Apple VI, 821 F.Supp. at 631](#), is not an issue on appeal. Apple does not assert infringement as to any of these elements individually, and we therefore assume that it did not

oppose entry of judgment on this basis. In any event, as the district court held, [id. at 623-25](#), these similarities do not comprise a core of protectable and unlicensed similarities substantial enough to warrant a finding of illicit copying under a standard of substantial similarity. See, e.g., [Data East USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 \(9th Cir.1988\)](#) (one remaining similar feature was "inconsequential"); [See v. Durang, 711 F.2d 141, 143 \(9th Cir.1983\)](#) (per curiam) (five remaining similarities insufficient to convince trier of fact that works were substantially similar).

[FN7.](#) Since Apple contests only the legal standard of virtual identity, we do not consider whether summary judgment was appropriately entered on the merits under that standard.

***1440** Apple also challenges dismissal of the Macintosh Finder as a work in suit. Although we agree that the Finder, which is registered as a derivative work of the Lisa Desktop, should not have been dismissed as a work in suit because the underlying copyright on the Lisa has not expired, Apple's non-opposition to judgment as to the Lisa applies to the Finder as well. The Macintosh Finder is not incrementally different from the Lisa Desktop in any respect material to Apple's claims of infringement. There is accordingly no basis in the record for reversal on account of the erroneous dismissal of the Finder.

Finally, Microsoft and HP cross-appeal denial of their requests for attorney's fees. Since the district court's decision, the Supreme Court has conferred greater discretion to award fees to prevailing defendants than our law previously acknowledged. [Fogerty v. Fantasy, Inc., 510 U.S. 517, 114 S.Ct. 1023, 127 L.Ed.2d 455 \(1994\)](#). Therefore, we remand so that the district court may reconsider this issue in light of *Fogerty*.

I

[\[1\]](#) Analysis of Apple's infringement claims must start with an agreement signed in 1985 by Apple and Microsoft, which resolved a dispute about visual displays generated by Microsoft software products. The 1985 Agreement licensed the right to use the

(Cite as: 35 F.3d 1435)

visual displays generated by Apple's Lisa and Macintosh graphic user interface programs which appeared as derivative works in Windows 1.0. [\[FN8\]](#) As a result, to the extent that later versions of Windows and NewWave use the visual displays in Windows 1.0 (which came from Apple), that use is authorized.

[FN8.](#) In the Agreement, Microsoft acknowledged "that the visual displays in [Windows 1.0] are derivative works of the visual displays generated by Apple's Lisa and Macintosh graphic user interface programs." Apple granted Microsoft a nonexclusive, royalty-free, nontransferable license "to use these derivative works in present and future software programs and to license them" to third parties for use in new software programs. Microsoft, in turn, granted Apple a similar license "to use any new visual displays created by Microsoft" during the next five years as part of its Windows retail software products; Apple waived any copyright, patent, trade secret or other claim against Windows 1.0; Microsoft agreed to delay the release of any versions of its Excel spreadsheet program that would run on computers other than the Macintosh; and Microsoft agreed to release an enhanced version of Microsoft Word (a word processing program) for the Macintosh.

Apple's appeal turns on whether the Agreement, properly construed, gives Microsoft the right to transfer individual elements or design features used in Windows 1.0. Apple particularly objects to any interpretation that would permit later Windows products to look more like the Macintosh than Windows 1.0 looked.

The plain language of the Agreement disposes of Apple's argument. It licenses Microsoft to use "these derivative works." "These derivative works" can only refer to Microsoft's acknowledgment that the "visual displays" generated by Windows 1.0 "are derivative works of the visual displays generated by Apple's Lisa and Macintosh graphic user interface programs." As the district court explained:

Had it been the parties' intent to limit the license to the Windows 1.0 interface, they would have known how to say so. Instead, the "derivative works" covered by the license are identified as the "visual

displays" in the Windows 1.0 interface, not the interface itself. And there is nothing in the 1985 Agreement that indicates that it was intended as a product license restricting Microsoft and its licensees to the use of the Windows 1.0 interface as a whole.

[Apple II, 717 F.Supp. at 1430-31.](#)

Apple contends that the term "visual displays" is ambiguous and can reasonably be construed (against Microsoft, as drafter) to distinguish audiovisual copyrights protecting visual works from literary copyrights protecting programs, and to cover use of so much of Apple's visual copyrights as were used in Windows 1.0 but no more. This argument fails because Apple tried to limit Microsoft's license to Windows 1.0 as a whole--but did not succeed. Apple's first draft included language providing that "at no time shall this grant extend to any appearance, look, feel, visual feature or operation other than that incorporated in Microsoft Windows." Microsoft, however, rejected this limitation. Thus, the parties had already ***1441** staked out their positions by the time Microsoft produced the final draft. Accordingly, there is no basis for construing the Agreement to grant the narrow license Apple bargained for but gave up.

Apple relies on statements by various Microsoft employees in support of its ambiguity argument. These are unavailing because the Agreement has an integration clause which precludes contradicting its terms by collateral understandings. [Hayter Trucking, Inc. v. Shell Western E & P, Inc., 18 Cal.App.4th 1, 14, 22 Cal.Rptr.2d 229 \(1993\).](#) In any event, testimony by the two employees who opined that the phrase "visual displays" is ambiguous lacks force because both are engineers who took no part in negotiating the 1985 Agreement. Likewise, an internal Microsoft memorandum by Bill Gates, which states that Microsoft must "be careful not to take additional things from apple screens when we make enhancements--everything we do today is fine," raises no triable issue as it is consistent with Gates's understanding that the license was for individual displays, not the interface as a whole, and with testimony by Apple's chief negotiator that Apple's license from Microsoft gave Apple the right to incorporate into the Macintosh interface any "new visual feature" developed by Microsoft for Windows.

(Cite as: 35 F.3d 1435)

Apple's further contention that the district court's interpretation of the Agreement must be wrong because it would be unreasonable to suppose that Apple knowingly gave away its most valuable technological asset ignores the fact that Apple itself received valuable consideration under the Agreement: the right to use and license any new displays created by Microsoft within five years, together with Microsoft's promises to delay release of an IBM-compatible version of Excel and to release an improved version of Microsoft Word for the Macintosh. Under these circumstances, the district court properly concluded that the Agreement is not reasonably susceptible to Apple's interpretation. [\[FN9\]](#)

[\[FN9\]](#). For the same reasons, the district court did not abuse its discretion in denying Apple's motion for leave to amend to add claims for breach of contract, rescission and unfair competition. See [Allen v. City of Beverly Hills](#), 911 F.2d 367, 373 (9th Cir.1990). The proposed amendment would have been futile because the claims that Apple sought to add are based on its allegation that during the negotiation of the 1985 Agreement, Microsoft promised it would not make future versions of Windows any more similar in appearance to the Macintosh.

II

Apple also appeals denial of its own motion for partial summary judgment that the works, viewed overall as they are viewed by users, are unlicensed derivative works substantially similar to Apple's works. Our resolution of its argument for reversal of judgments in favor of Microsoft and HP essentially disposes of this issue.

[\[2\]\[3\]](#) Apple raises one additional point, however, which we address here because Apple treats it as connected to its motion. The argument is that even if the 1985 Agreement does confer a partial license to use visual displays, Microsoft and HP exceeded its scope and therefore infringed Apple's copyrights. See, e.g., [S.O.S., Inc. v. Payday, Inc.](#), 886 F.2d 1081, 1087 (9th Cir.1989) ("A licensee infringes the owner's copyright if its use exceeds the scope of its license."). The cases on which Apple relies, however, merely establish that the breach of a prohibition in the license agreement can lead to a finding of infringement. See, e.g., [id.](#) at 1088-89 (license granted

only right to *use* copyrighted computer program; licensee exceeded scope of license by preparing modified version of program without licensor's permission); [Frank Music Corp. v. Metro-Goldwyn-Mayer, Inc.](#), 772 F.2d 505, 511-12 (9th Cir.1985) (license explicitly excluded performance of songs in manner performed by licensee). Where, as here, the accused works include both licensed and unlicensed features, infringement will depend on whether the unlicensed features are entitled to protection. Cf. [Data East USA, Inc. v. Epyx, Inc.](#), 862 F.2d 204, 208 (9th Cir.1988) (substantial similarity of unprotected expression does not support finding of infringement). Finally, contrary to Apple's suggestion, by concluding that the 1985 Agreement provides a partial defense, the district court did not preclude Apple from prevailing on its infringement claims; the court merely required Apple to prove that Microsoft and HP copied unlicensed, *protected* expression. See [*1442 S.O.S.](#), 886 F.2d at 1089 & n. 11 (remanding for district court to determine whether licensee's unauthorized uses infringed licensor's copyright). We see no error in the court's ruling.

III

[\[4\]](#) Apple makes a number of related arguments challenging the district court's copyright analysis. It contends that the district court deprived its works of meaningful protection by dissecting them into individual elements and viewing each element in isolation. Because the Macintosh GUI is a dynamic audiovisual work, Apple argues that the "total concept and feel" of its works-- that is, the selection and arrangement of related images and their animation-- must be compared with that of the Windows and NewWave GUIs for substantial similarity. Apple further asserts that in this case, the court had no occasion to dissect its works into discrete elements because Microsoft and HP virtually mimicked the composition, organization, arrangement and dynamics of the Macintosh interface, as shown by striking similarities in the animation of overlapping windows and the design, layout and animation of icons. Apple also argues that even if dissection were appropriate, the district court should not have eliminated from jury consideration those elements that are either licensed or unprotected by copyright. Though stated somewhat differently, all of these contentions boil down to the same thing: Apple wants an *overall comparison* of its works to the accused works for *substantial similarity* rather than virtual identity. [\[FN10\]](#)

[FN10](#). Apple also argues that the court erred by ruling that its audiovisual works are functional rather than aesthetic; that creative works are not copyrightable when they serve a functional purpose; and that Apple's works are "useful articles" or "compilations" under [17 U.S.C. § 101](#). We do not address these arguments specifically, because we do not read the district court's opinions as so holding. Rather, in the process of considering the scope of Apple's copyright the court took into account the functional aspects of graphical user interfaces and the analogous range of protection available for compilations. As we shall explain, this was not improper.

The fact that Apple *licensed* the right to copy almost all of its visual displays fundamentally affects the outcome of its infringement claims. Authorized copying accounts for more than 90% of the allegedly infringing features in Windows 2.03 and 3.0, and two-thirds of the features in NewWave. More than that, the 1985 Agreement and negotiations leading up to Microsoft's license left Apple no right to complain that selection and arrangement of *licensed* elements make the interface as a whole look more "Mac-like" than Windows 1.0.

Thus, we do not start at ground zero in resolving Apple's claims of infringement. Rather, considering the license and the limited number of ways that the basic ideas of the Apple GUI can be expressed differently, we conclude that only "thin" protection, against virtually identical copying, is appropriate. Apple's appeal, which depends on comparing its interface as a whole for substantial similarity, must therefore fail.

[\[5\]](#) To prevail, Apple must show ownership of a valid copyright in the Macintosh GUI and that Microsoft and HP copied unlicensed, protected elements of its copyrighted audiovisual works. [Brown Bag Software v. Symantec Corp.](#), 960 F.2d 1465, 1472 (9th Cir.), *cert. denied*, 506 U.S. 869, 113 S.Ct. 198, 121 L.Ed.2d 141 (1992). Copying may be shown by circumstantial evidence of access and substantial similarity of both the general ideas and expression between the copyrighted work and the allegedly infringing work. *Id.*

[\[6\]](#) We have traditionally determined whether copying sufficient to constitute infringement has taken place under a two-part test having "extrinsic" and "intrinsic" components. As originally adopted in [Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.](#), 562 F.2d 1157, 1164 (9th Cir.1977), the extrinsic prong was a test for similarity of ideas based on external criteria; analytic dissection and expert testimony could be used, if helpful. The intrinsic prong was a test for similarity of expression from the standpoint of the ordinary reasonable observer, with no expert assistance. *Id.* As it has evolved, however, the extrinsic test now objectively considers whether there are substantial similarities in *both* ideas and expression, whereas the intrinsic test continues to measure expression subjectively. [Brown Bag](#), 960 F.2d at 1475; [*1443 Shaw v. Lindheim](#), 919 F.2d 1353, 1357 (9th Cir.1990). Because only those elements of a work that are protectable and used without the author's permission can be compared when it comes to the ultimate question of illicit copying, we use analytic dissection to determine the scope of copyright protection before works are considered "as a whole." *See, e.g.*, [Brown Bag](#), 960 F.2d at 1475-76 (explaining that purpose of analytic dissection is to define scope of copyright protection); [Pasillas v. McDonald's Corp.](#), 927 F.2d 440, 443 (9th Cir.1991) (copyright holder cannot rely on standard elements to show substantial similarity of expression); [Harper House, Inc. v. Thomas Nelson, Inc.](#), 889 F.2d 197, 207-08 (9th Cir.1989) (trier of fact cannot base infringement decision on unprotectable aspects of plaintiff's work).

Although this litigation has raised difficult and interesting issues about the scope of copyright protection for a graphical user interface, resolving this appeal is a matter of applying well-settled principles. In this, as in other cases, the steps we find helpful to follow are these:

(1) The plaintiff must identify the *source(s)* of the alleged similarity between his work and the defendant's work.

(2) Using analytic dissection, and, if necessary, expert testimony, the court must determine whether any of the allegedly similar features are protected by copyright. Where, as in this case, a license agreement is involved, the court must also determine which features the defendant was authorized to

copy. Once the scope of the license is determined, unprotectable ideas must be separated from potentially protectable expression; to that expression, the court must then apply the relevant limiting doctrines in the context of the particular medium involved, through the eyes of the ordinary consumer of that product.

(3) Having dissected the alleged similarities and considered the range of possible expression, the court must define the scope of the plaintiff's copyright--that is, decide whether the work is entitled to "broad" or "thin" protection. Depending on the degree of protection, the court must set the appropriate standard for a subjective comparison of the works to determine whether, as a whole, they are sufficiently similar to support a finding of illicit copying.

A

[7] Like the plaintiff in *Brown Bag*, in this case, Apple identified the sources of alleged similarity by submitting a list of particular features in its works which are similar to features found in Windows 2.03, 3.0 and NewWave. Apple's suggestion that its arm was twisted to provide this list of similarities and that it was somehow inappropriate for the district court to ask for a list and to rely on it, instead of considering the works as a whole, is misplaced. The court had the benefit of numerous videotapes and demonstrations of the GUIs "as a whole." The district court was nevertheless obliged to identify similarities, determine their source, and decide which elements are protectable. It was thus well within the court's case management discretion to ask for a list from Apple.

B

It is not easy to distinguish expression from ideas, particularly in a new medium. However, it must be done, as the district court did in this case. *Baker v. Selden*, 101 U.S. 99, 25 L.Ed. 841 (1879). [FN11] As we recognized long ago in the case of competing jeweled bee pins, similarities derived from the use of common ideas cannot be protected; otherwise, the first to come up with an idea will corner the market. *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir.1971). Apple cannot get patent-like protection for the idea of a graphical user interface, or the idea of a desktop metaphor which concededly came from Xerox. It can, and did, put those ideas together creatively with animation, overlapping windows, and well-designed icons; but it

licensed the visual displays which resulted.

FN11. 17 U.S.C. § 102(b) codifies this principle, denying copyright protection "to any idea, procedure, process, system, method of operation, concept, principle, or discovery."

[8] The district court found that there are five other basic ideas embodied in the desktop metaphor: use of windows to display multiple images on the computer screen and *1444 to facilitate user interaction with the information contained in the windows; iconic representation of familiar objects from the office environment; manipulation of icons to convey instructions and to control operation of the computer; use of menus to store information or computer functions in a place that is convenient to reach, but saves screen space for other images; and opening and closing of objects as a means of retrieving, transferring and storing information. *Apple V*, 799 F.Supp. at 1026. No copyright protection inheres in these ideas. Therefore, substantial similarity of expression in unlicensed elements cannot be based on the fact that the Lisa, the Finder, Windows 2.03, 3.0 and NewWave all have windows, icons representing familiar objects from the office environment that describe functions being performed and that can be moved around the screen to tell the computer what to do, menus which give easy access to information or functions without using space on the screen, or objects that open and close.

[9] Well-recognized precepts guide the process of analytic dissection. First, when an idea and its expression are indistinguishable, or "merged," the expression will only be protected against nearly identical copying. *Krofft*, 562 F.2d at 1167-68; *Kalpakian*, 446 F.2d at 742. For example, in this case, the idea of an icon in a desktop metaphor representing a document stored in a computer program can only be expressed in so many ways. An iconic image shaped like a page is an obvious choice.

[10] The doctrine of *scenes a faire* is closely related. As we explained in *Frybarger v. International Business Machines Corp.*, 812 F.2d 525 (9th Cir.1987), when similar features in a videogame are " 'as a practical matter indispensable, or at least standard, in the treatment of a given [idea],' " they are treated like ideas and are therefore not protected by copyright. *Id.* at 530 (quoting *Atari, Inc. v. North Am.*

[Philips Consumer Elecs. Corp.](#), 672 F.2d 607, 616 (7th Cir.), cert. denied, 459 U.S. 880, 103 S.Ct. 176, 74 L.Ed.2d 145 (1982)). Furthermore, as *Frybarger* holds, "the mere indispensable expression of these ideas, based on the technical requirements of the videogame medium, may be protected only against virtually identical copying." *Id.*; see also [Data East](#), 862 F.2d at 209 (visual displays of karate match conducted by two combatants, one of whom wears red shorts and the other white as in the sport, and who use the same moves, are supervised by a referee and are scored alike as in the sport, are inherent in the sport of karate itself and as such are unprotectable). In this case, for example, use of overlapping windows inheres in the idea of windows. A programmer has only two options for displaying more than one window at a time: either a tiled system, or an overlapping system. As demonstrated by Microsoft's *scenes a faire* video, overlapping windows have been the clear preference in graphic interfaces. Accordingly, protectable substantial similarity cannot be based on the mere use of overlapping windows, although, of course, Apple's *particular expression* may be protected.

[11] Apple suggests that *scenes a faire* should not limit the scope of its audiovisual copyright, or at least that the interactive character of GUIs and their functional purpose should not outweigh their artistry. While user participation may not negate copyrightability of an audiovisual work, see, e.g., [Midway Mfg. Co. v. Artic Int'l, Inc.](#), 704 F.2d 1009, 1011-12 (7th Cir.), cert. denied, 464 U.S. 823, 104 S.Ct. 90, 78 L.Ed.2d 98 (1983); [Stern Elecs., Inc. v. Kaufman](#), 669 F.2d 852, 856 (2d Cir.1982), the district court did not deny protection to any aspect of Apple's works on this basis. In any event, unlike purely artistic works such as novels and plays, graphical user interfaces generated by computer programs are partly artistic and partly functional. They are a tool to facilitate communication between the user and the computer; GUIs do graphically what a character-based interface, which requires a user to type in alphanumeric commands, does manually. Thus, the delete function is engaged by moving an icon on top of a trash can instead of hitting a "delete" key. In Apple's GUI, the ability to move icons to any part of the screen exemplifies an essentially functional process, indispensable to the idea of manipulating icons by a mouse.

To the extent that GUIs are artistic, there is no dispute that creativity in user interfaces is constrained by the power and speed of the *1445 computer. See [Manufacturers Technologies, Inc. v. Cams, Inc.](#), 706 F.Supp. 984, 994-95 (D.Conn.1989) (denying protection to formatting style of plaintiff's screen displays because of constraints on viable options available to programmers). For example, hardware constraints limit the number of ways to depict visually the movement of a window on the screen; because many computers do not have enough power to show the entire contents of the window as it is being moved, the illusion of movement must be shown by using the outline of a window or some similar feature. Design alternatives are further limited by the GUI's purpose of making interaction between the user and the computer more "user-friendly." These, and similar environmental and ergonomic factors which limit the range of possible expression in GUIs, properly inform the scope of copyright protection.

[12] Originality is another doctrine which limits the scope of protection. As the Supreme Court recently made clear, protection extends only to those components of a work that are original to the author, although original selection and arrangement of otherwise uncopyrightable components may be protectable. [Feist Publications, Inc. v. Rural Tel. Serv. Co.](#), 499 U.S. 340, 348-51, 111 S.Ct. 1282, 1289-91, 113 L.Ed.2d 358 (1991). Apple's argument that components should not be tested for originality because its interface as a whole meets the test, see [Roth Greeting Cards v. United Card Co.](#), 429 F.2d 1106, 1109 (9th Cir.1970) ("[T]he originality necessary to support a copyright merely calls for independent creation, not novelty."), is therefore misplaced. Beyond that, Apple admits that it borrowed heavily from the iconic treatments in the Xerox Star and an IBM Pictureworld research report but disputes several of the district court's individual determinations. For instance, Apple claims that its file folder and page icon designs are original. Even if they are, these particular icons add so little to the mix of protectable material that the outcome could not reasonably be affected.

In sum, the district court's analytic dissection was appropriately conducted under the extrinsic portion of our test for whether sufficient copying to constitute infringement has taken place. We are not persuaded to the contrary by Apple's arguments that the district court shouldn't have dissected at all, or dis-

sected too much; that it "filtered out" unprotectable and licensed elements instead of viewing the Macintosh interface as a whole; and that it should have recognized protectability of arrangements and the "total concept and feel" of the works under a substantial similarity standard.

[13] First, graphical user interface audiovisual works are subject to the same process of analytical dissection as are other works. We have dissected videogames, which are audiovisual works and therefore closely analogous, *see, e.g., Data East, 862 F.2d at 208-09* (performing analytic dissection of similarities to determine whether similarities resulted from unprotectable expression); *Frybarger, 812 F.2d at 529-30* (district court correctly concluded that similar features in videogames were unprotectable ideas and that no reasonable jury could find expressive elements substantially similar), and we have dissected nonliteral elements of computer programs, which are somewhat analogous, *see, e.g., Brown Bag, 960 F.2d at 1475-77* (rejecting argument similar to Apple's about propriety of analytic dissection of computer program components such as screens, menus and keystrokes); *Johnson Controls, Inc. v. Phoenix Control Sys., Inc., 886 F.2d 1173, 1176 (9th Cir.1989)* (noting special master's detailed analysis of similarities). Other courts perform the same analysis, although articulated differently. *See, e.g., Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 706-11 (2d Cir.1992)* (adopting "abstraction-filtration-comparison" test for analyzing nonliteral structure of computer program, relying in part on our own approach); *Gates Rubber Co. v. Bando Chem. Indus., 9 F.3d 823, 834, 841 (10th Cir.1993)* (adopting *Altai* test, but suggesting that comparison of works as a whole may be appropriate as preliminary step before filtering out unprotected elements); *Engineering Dynamics, Inc. v. Structural Software, Inc., 26 F.3d 1335, 1342-43 (5th Cir.1994)* (adopting *Gates Rubber/Altai* test to analyze scope of copyright protection for user interface, input formats and output reports); *Lotus Dev. Corp. v. Borland Int'l, Inc., 788 F.Supp. 78, 90, 93 (D.Mass.1992)* (describing similar three-part *1446 test); *cf. Whelan Assocs. v. Jaslow Dental Lab., Inc., 797 F.2d 1222, 1236 (3d Cir.1986)* (defining idea of utilitarian work as its purpose or function, and everything not necessary to that purpose as expression), *cert. denied, 479 U.S. 1031, 107 S.Ct. 877, 93 L.Ed.2d 831 (1987)*.

Nor did the district court's dissection run afoul of the enjoinder in such cases as *Johnson Controls, 886 F.2d at 1176*, *Krofft, 562 F.2d at 1167*, and *Roth, 429 F.2d at 1110*, to consider the "total concept and feel" of a work. Here, the court did not inappropriately dissect *dissimilarities*, and so did nothing to distract from subjectively comparing the works as a whole. *See Aliotti v. R. Dakin & Co., 831 F.2d 898, 901 (9th Cir.1987)* (indicating that as the concern of *Krofft*).

[14][15] As we made clear in *Aliotti*, the party claiming infringement may place "no reliance upon any similarity in expression resulting from" unprotectable elements. *Id.* (emphasis added) (similarities between competing stuffed dinosaur toys on account of posture and body design, and being cuddly, stem from the physiognomy of dinosaurs or from the nature of stuffed animals and are thus unprotectable). Otherwise, there would be no point to the extrinsic test, or to distinguishing ideas from expression. In this case, it would also effectively rescind the 1985 Agreement. This does not mean that at the end of the day, when the works are considered under the intrinsic test, they should not be compared as a whole. *See McCulloch v. Albert E. Price, Inc., 823 F.2d 316, 321 (9th Cir.1987)* (contrasting artistic work at issue, where decorative plates were substantially similar in more than the one unprotectable element (text), with factual works which have many unprotectable elements and very little protectable expression). Nor does it mean that infringement cannot be based on original selection and arrangement of unprotected elements. However, the unprotectable elements have to be identified, or filtered, before the works can be considered as a whole. *See Harper House, 889 F.2d at 207-08* (reversing because "total impact and effect" test of jury instruction did not distinguish between protectable and unprotectable material, thereby improperly making it possible for jury to find copying based on unprotected material instead of selection and arrangement); *see also Pasillas, 927 F.2d at 443* (copyright holder could not rely on unprotectable elements to show substantial similarity of expression); *Frybarger, 812 F.2d at 529* (to extent that similarities between works were confined to ideas and general concepts, they were noninfringing).

C

The district court's conclusion that the works as a whole are entitled only to limited protection and should be compared for virtual identity follows from

its analytic dissection. By virtue of the licensing agreement, Microsoft and HP were entitled to use the vast majority of features that Apple claims were copied. Of those that remain, the district court found no unauthorized, protectable similarities of expression in Windows 2.03 and 3.0, and only a handful in NewWave. Thus, any claim of infringement that Apple may have against Microsoft must rest on the copying of Apple's unique selection and arrangement of all of these features. Under *Harper House* and *Frybarger*, there can be no infringement unless the works are virtually identical.

Apple, however, contends that its audiovisual work with animation and icon design cannot be analogized to factual works such as game strategy books, see *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485, 488 (9th Cir.) ("[S]imilarity of expression may have to amount to verbatim reproduction or very close paraphrasing before a factual work will be deemed infringed."), cert. denied, 469 U.S. 1037, 105 S.Ct. 513, 83 L.Ed.2d 403 (1984), accounting systems, see *Selden*, 101 U.S. at 104, 25 L.Ed. 841 (copyright in book describing new accounting system not infringed when defendant copied ledger sheets used in system), or organizers, see *Harper House*, 889 F.2d at 205 (as compilations consisting largely of uncopyrightable elements, plaintiff's organizers entitled only to protection against "bodily appropriation of expression"), which are afforded only "thin" protection because the range of possible expression is narrow. See *Feist*, 499 U.S. at 349, 111 S.Ct. at 1289-90. Rather, it submits that the broader protection accorded artistic works is more appropriate. *1447 See, e.g., *McCulloch*, 823 F.2d at 321 (artistic work like a decorative plate receives broader protection because of endless variations of expression available to artist).

Which end of the continuum a particular work falls on is a call that must be made case by case. We are satisfied that this case is closer to *Frybarger* than to *McCulloch*. See also *Atari Games Corp. v. Oman*, 979 F.2d 242, 245 (D.C.Cir.1992) (analogizing audiovisual work like a videogame to compilation of facts). Accordingly, since Apple did not contest summary judgment under the virtual identity standard on the merits, judgment was properly entered.

Apple also argues that the district court improperly confined the rule in *Shaw*, 919 F.2d at 1361, that if a

work passes the extrinsic test it should go to the jury, to literary works. See *Kouf v. Walt Disney Pictures & Television*, 16 F.3d 1042, 1045-46 (9th Cir.1994) (applying *Shaw's* rule to motion picture screenplay and holding that plaintiff failed to satisfy extrinsic test); *Brown Bag*, 960 F.2d at 1476 (declining to limit *Shaw* as a matter of law to literary works because at least some computer programs are similar to literary works). But see *Pasillas*, 927 F.2d at 442-43 (limiting *Shaw* to literary works and affirming summary judgment on competing "Man in the Moon" masks for lack of substantial similarity of protectable expression). We don't have to resolve whether audiovisual works such as GUIs are more similar to Man in the Moon masks than to scripts, however. Apple could have gone to the jury under a virtual identity standard, but elected not to.

[16] We therefore hold that the district court properly identified the sources of similarity in Windows and NewWave, determined which were licensed, distinguished ideas from expression, and decided the scope of Apple's copyright by dissecting the unauthorized expression and filtering out unprotectable elements. Having correctly found that almost all the similarities spring either from the license or from basic ideas and their obvious expression, it correctly concluded that illicit copying could occur only if the works as a whole are virtually identical.

IV

[17] Apple contends that the district court erred in dismissing the Macintosh Finder as a work in suit. Based on 17 U.S.C. § 103(b), which provides that "[t]he copyright in a ... derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work," the court concluded that Apple could not proceed on the Finder because the Finder is a derivative work of the original Lisa Desktop and all of the unlicensed similarities are covered by the underlying Lisa copyrights.

We agree with Apple that the district court's reading of § 103(b) is too restrictive. Although it relied on *Silverman v. CBS Inc.*, 870 F.2d 40 (2d Cir.), cert. denied, 492 U.S. 907, 109 S.Ct. 3219, 106 L.Ed.2d 569 (1989), we believe that case is distinguishable. In *Silverman*, the underlying works had fallen into the public domain; the court held that the defendant could be liable for infringement only if he copied

some original expression that was added by the derivative works. *Id.* at 49-50; *see also Shaw v. Lindheim*, 809 F.Supp. 1393, 1402 (C.D.Cal.1992) (where underlying work was unregistered, owner of derivative work could not recover for copying of expression contained in original).

In this case, however, Apple is the author and copyright owner of the Lisa Desktop and the Macintosh Finder, both of which are still protected. Apple argues that under these circumstances, § 103(b) does not prevent it from claiming infringement of the Finder, even for copied material that was incorporated from the Lisa. *See, e.g., E.F. Johnson Co. v. Uniden Corp. of Am.*, 623 F.Supp. 1485, 1488, 1492 (D.Minn.1985); *Rand McNally & Co. v. Fleet Management Sys., Inc.*, 591 F.Supp. 726, 733 n. 6 (N.D.Ill.1983).

[18] Because Apple owns the copyrights in both works, it is similarly situated to an exclusive licensee. If the copyright owner of a derivative work is the *exclusive* licensee of certain rights in the underlying work, he is treated as the copyright owner of the underlying work for the purpose of exercising those rights. 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 3.05, at 3-1448 32.2 (1993). He can therefore sue for copying of material that appears in both the derivative work and the underlying work. *Id.*; *see Gamma Audio & Video, Inc. v. Ean-Chea*, 11 F.3d 1106, 1111-12 (1st Cir.1993) (allowing exclusive licensee to base infringement suit on derivative works; because derivative works were unregistered, licensee could recover statutory damages only if defendant's unauthorized rental of derivative works also infringed licensee's rights in underlying works). Like an exclusive licensee, Apple owns the rights in the underlying work on which the Finder is based. It therefore may base its claims on both the Finder and the Lisa.

[19] Nevertheless, we need not reverse. Apple contends that it was deprived of the opportunity fairly to present its case because the Finder is what everyone is familiar with and almost none of the available evidence relates to the Lisa. It concedes, however, that throughout the summary judgment proceedings the district court allowed it to present its case using the Finder. Thus, dismissal of the Finder could only have an effect if the case were to go to trial. By virtue of Apple's non-opposition to judgment on the

works as a whole, we take it that the Lisa is not virtually identical to Windows 2.03, 3.0 or NewWave. As the district court found no material difference between the Lisa and the Finder, there can be no virtual identity as between the accused works and the Finder, either.

V

[20] Both Microsoft and HP challenge the denial of their requests for attorney's fees under 17 U.S.C. § 505. [FN12] At the time of the district court's decision, controlling Ninth Circuit authority held that attorney's fees were not available to a prevailing defendant under § 505 unless the plaintiff's action was frivolous or in bad faith. *Cooling Sys. & Flexibles, Inc. v. Stuart Radiator, Inc.*, 777 F.2d 485, 493 (9th Cir.1985). Since that time, however, the Supreme Court has overruled *Cooling Systems*, holding that "[p]revailing plaintiffs and prevailing defendants are to be treated alike, but attorney's fees are to be awarded to prevailing parties only as a matter of the court's discretion." *Fogerty v. Fantasy, Inc.*, 510 U.S. 517, ---, 114 S.Ct. 1023, 1033, 127 L.Ed.2d 455 (1994). Because the district court now has greater discretion to award attorney's fees to prevailing defendants, we remand Microsoft's and HP's requests for reconsideration in light of the standard announced in *Fogerty*. *See Jackson v. Axton*, 25 F.3d 884, 890 (9th Cir.1994) (remanding attorney's fees issue to district court in light of *Fogerty*).

[FN12. Microsoft also argues that it is entitled to attorney's fees because Apple breached the 1985 Agreement by suing it for copyright infringement. *See Effects Assocs. v. Cohen*, 908 F.2d 555, 559 (9th Cir.1990) (in granting nonexclusive license, copyright holder gives up right to sue licensee for infringement), *cert. denied*, 498 U.S. 1103, 111 S.Ct. 1003, 112 L.Ed.2d 1086 (1991). The district court properly denied Microsoft's motion based on its earlier ruling dismissing Microsoft's counterclaim for breach of contract. As the district court noted, the plain language of the release indicates that Apple agreed not to sue Microsoft only with respect to any rights Apple might assert in Windows 1.0. Nothing in the Agreement suggests that Apple waived its right to sue Microsoft based on a claim to proprietary material in any other Microsoft programs.

Because Apple did not breach the Agreement, Microsoft cannot be awarded attorney's fees on this basis.

Apple argues that despite this change in the law, remand is unnecessary because the district court also made findings that require the denial of attorney's fees under the criteria set forth in [Lieb v. Topstone Industries](#), 788 F.2d 151, 156 (3d Cir.1986). [FN13]

The record does not support this contention. The district court clearly indicated that it might be inclined to award attorney's fees if a finding of bad faith or frivolousness were no longer required, and it invited HP and Microsoft to renew their motions should the law in this circuit change. Remand is therefore appropriate.

[FN13](#). In *Fogerty*, the Supreme Court cited the *Lieb* factors with approval. [510 U.S. at --, 114 S.Ct. at 1033 n. 19](#). This court has already relied on the *Lieb* criteria in setting guidelines for the award of attorney's fees to prevailing plaintiffs. [McCulloch](#), 823 F.2d at 323.

AFFIRMED IN PART; REVERSED AND REMANDED IN PART.

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