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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

OAKLAND DIVISION

ORACLE USA, INC., et al.,

Plaintiffs,

v.

SAP AG, et al.,

Defendants.

Case No. 07-CV-1658 PJH (EDL)

DEFENDANTS' NOTICE OF MOTION AND MOTION TO EXCLUDE EXPERT TESTIMONY OF PAUL C. PINTO

Date: September 30, 2010
Time: 2:30 p.m.
Courtroom: 3, 3rd Floor
Judge: Hon. Phyllis J. Hamilton

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

TABLE OF AUTHORITIES
(continued)

Page(s)

Statutes

NOTICE OF MOTION

PLEASE TAKE NOTICE THAT on September 30, 2010 at 2:30 p.m., or as soon thereafter as this matter may be heard by the Honorable Phyllis J. Hamilton, 1301 Clay Street, Oakland, California, Courtroom 3, Defendants SAP AG, SAP America, Inc. and TomorrowNow, Inc. ("Defendants") will bring this motion to exclude the expert testimony of Paul C. Pinto, pursuant to Civil Local Rules 7-2–7-5 and Rule 702 of the Federal Rules of Evidence, against Plaintiffs Oracle USA, Inc., Oracle International Corp., and Siebel Systems, Inc. ("Plaintiffs").[1] This motion is based on the Memorandum of Points and Authorities herein, the Declaration of Tharan Gregory Lanier and all exhibits attached to that declaration.

RELIEF REQUESTED

An Order pursuant to Rule 702 of the Federal Rules of Evidence ("Rule 702") excluding the expert testimony of Paul C. Pinto.

MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION AND ISSUES PRESENTED

On August 17, 2010, this Court held that Plaintiffs may not seek damages in the form of "saved development costs" for any cause of action in this case. *See* D.I. 762 (8/17/10 Order) at 18-23. Accordingly, the "expert" opinions of Paul C. Pinto, whom Plaintiffs designated solely to "analyze, calculate, and testify to the costs associated with software product development," are entirely irrelevant and his testimony should be excluded. S*ee* Declaration of Tharan Gregory Lanier in Support of Defendants' Motion to Exclude Expert Testimony of Paul C. Pinto ("Lanier Decl.") ¶ 1, Ex. 1 (Pls.' Supp. Expert Disclosures) at 3. Pinto's opinions relate *exclusively* to alleged "saved development costs" damages (s*ee infra* Section III), and therefore, all of his opinions have been mooted by this Court's Order. *See* D.I. 762 (8/17/10 Order) at 18-23.

In addition to being irrelevant, Pinto's opinions are critically flawed because Pinto is not qualified to opine on the topics contained in his report and his approach is unreliable. Pinto claims to use "two industry-accepted and reliable methodologies known as Function Point Analysis and COCOMO" to "estimate what it would have cost [Defendants] to independently

[1] Oracle EMEA Ltd. is no longer a plaintiff in this case. D.I. 762 (8/17/10 Order) at 25.

develop" certain PeopleSoft, J.D. Edwards EnterpriseOne, J.D. Edwards World and Siebel software suites. Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 1-2. However, in light of his lack of training, certification or relevant experience, Pinto is unqualified to render such opinions. Indeed, at his deposition, Pinto was unable to even recognize basic precepts and equations related to both models. *See infra* Section IV. As a result of his lack of expertise, Pinto's methodology is completely unreliable. Specifically, he: (1) utilizes an outdated version of COCOMO; (2) uses a technique called "backfiring" that is unreliable and has an admittedly high error rate; (3) employs a series of steps cobbled together for this litigation in lieu of methodologies approved by standard-setting bodies; (4) fails to count the code for two of the four software products at issue, instead improperly extrapolating his results from the other two products to develop unfounded estimates; and (5) relies upon destroyed evidence, without which the Court cannot make a proper determination regarding the accuracy and reliability of Pinto's opinions. For all of these reasons, Pinto should be excluded from providing expert testimony in this case.

II. LEGAL STANDARD

Rule 702 "permits experts qualified by 'knowledge, experience, skill, expertise, training, or education' to testify 'in the form of an opinion or otherwise' based on 'scientific, technical, or other specialized knowledge' if that knowledge will 'assist the trier of fact to understand the evidence or to determine a fact in issue.'" *Salinas v. Amteck of Ky., Inc.*, 682 F. Supp. 2d 1022, 1029 (N.D. Cal. 2010) (Hamilton, J.) (quoting Fed. R. Evid. 702). The proponent of expert testimony bears the burden of establishing "by a preponderance of the evidence that the admissibility requirements are met." *Id.*; *see also Pierson v. Ford Motor Co.*, No. C 06-6503 PJH, 2009 U.S. Dist. LEXIS 65297, at *7 (N.D. Cal. Apr. 16, 2009) (Hamilton, J.); *Redfoot v. B.F. Ascher & Co.*, No. C 05-2045 PJH, 2007 U.S. Dist. LEXIS 40002, at *11 (N.D. Cal. June 1, 2007) (Hamilton, J.). The trial court must act as a "gatekeeper" to ensure that expert testimony is both "reliable" and "relevant to the task at hand." *Salinas*, 682 F. Supp. 2d at 1029-30 (quoting *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993)); *see also Pierson*, 2009 U.S. Dist. LEXIS 65297, at *7; *Redfoot*, 2007 U.S. Dist. LEXIS 40002, at *11-12. In determining the reliability of expert testimony, courts will consider, *inter alia*, "the existence and maintenance of

standards controlling the technique's operation" and any "error rate" for that technique. *Daubert*, 509 U.S. at 594; *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999).

III. PINTO'S OPINIONS ARE IRRELEVANT BECAUSE THE COURT HAS HELD THAT PLAINTIFFS MAY NOT RECOVER SAVED DEVELOPMENT COSTS

This Court prohibited Plaintiffs from seeking "saved development costs" damages in this case, in any form, for any cause of action. *See* D.I. 762 (8/17/10 Order) at 18-23. Therefore, Pinto's opinions should be excluded in their entirety as irrelevant.[2] *See* Fed. R. Evid. 402, 702.

To be admissible, expert opinions must be relevant. *See Daubert*, 509 U.S. at 591. Rule 702 "requires that the evidence or testimony 'assist the trier of fact to understand the evidence or to determine a fact in issue.' This condition goes primarily to relevance." *Id*. Because saved development costs are not available here, expert opinion would not "assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702; *see also Daubert*, 509 U.S. at 591. Pinto's opinions, as disclosed by Plaintiffs in their expert disclosures and in his expert report, exclusively concern alleged "saved development costs" damages. *See* Lanier Decl. ¶¶ 1-2, 4, Ex. 1 (Pls.' Supp. Expert Disclosures) at 3 ("Mr. Pinto will analyze, calculate, and testify to the costs associated with software product development."); Ex. 2 (Pinto Report) at 1 (Pinto purports to "estimate what it would have cost [Defendants] to independently develop" certain software suites); *see also* Ex. 4 (Pinto Tr.) at 25:4-10 ("I was asked to opine on the avoided development costs associated with a set of products."). Because Pinto's opinions purport to estimate saved development costs, they should be precluded in their entirety as irrelevant.

IV. PINTO IS NOT QUALIFIED TO RENDER HIS PURPORTED EXPERT OPINIONS

Even were Pinto's opinions not moot, Pinto lacks the requisite "knowledge, skill,

[2] Additionally, Plaintiffs' damages expert, Paul K. Meyer uses Pinto's "saved development costs" calculations to measure "unjust enrichment/restitution" damages and as support for his "cost approach" to calculating "value of use" damages for alleged copyright infringement. *See* Lanier Decl. ¶ 3, Ex. 3 (Expert Report of Paul K. Meyer) ¶¶ 15, 274-75 (unjust enrichment/restitution), 150-53, 228-29 (value of use). Because the Court's Order precludes Plaintiffs from seeking "saved development costs" for unjust enrichment/restitution or copyright infringement, Meyer's opinions relying on Pinto's "saved development costs" estimates or otherwise purporting to calculate "what it would have cost Defendants to replicate the Oracle software" should be excluded. D.I. 762 (8/17/10 Order).

experience, training, or education" to be sufficiently "qualified" as an expert in either Function Point Analysis ("FPA") or the Constructive Cost Model ("COCOMO") methodologies of software sizing/estimating.[3] Fed. R. Evid. 702; *see also Sega Enters. Ltd. v. MAPHIA*, 948 F. Supp. 923, 929 (N.D. Cal. 1996) (holding exclusion of expert testimony justified where foundational facts demonstrating qualification not established) (citing *LuMetta v. U.S. Robotics*, 824 F.2d 768, 771 (9th Cir. 1987)). Pinto's lack of expertise is evidenced most clearly by his curriculum vitae, his own admissions and his inability to answer basic questions regarding FPA and COCOMO.

FPA was developed in the 1970s at IBM as a method to estimate the "functional size" of software. *See* Lanier Decl. ¶ 6, Ex. 6 (*Function Point Analysis: Measurement Practices for Successful Software Projects*) at xv. When properly derived, functional size can be used to estimate the time and cost to develop a given software application. *See id*. at xxiii. Standards for FPA are developed and published by the International Function Points User Group ("IFPUG"). *See, e.g.*, Lanier Decl. ¶¶ 2, 13, Ex. 2 (Pinto Report) at 8, 11; Ex. 13 (ORCLX-PIN-000007, *The Function Point Counting Practices Manual*, Release 4.2) at Cover Page (published by IFPUG). Similarly, COCOMO is an algorithmic model that determines an estimated size of a software program based on the number of source lines of code ("SLOC") found in that program. The COCOMO model was originally published in 1981 by Barry Boehm and is updated and maintained by the USC Center for Systems and Software Engineering. *See generally* Lanier Decl. ¶ 7, Ex. 7 (USC Center for Systems and Software Engineering Home Page). The COCOMO algorithm utilizes "cost drivers" and "scale drivers" that have been updated and calibrated over time as the Center has been able to collect more data points and engage in further research. *See id*. The most recent and up-to-date version of COCOMO is COCOMO II.2000, as published in *Software Cost Estimation With COCOMO II* (Prentice Hall, July 2000).

Pinto does not have a background in software valuation; his background is in software consultancy. He has provided "management consulting services" and "focused on implementing,

[3] Pinto is also not qualified to opine on the now-excluded "saved development costs" measure of damages. *See, e.g.*, Lanier Decl. ¶¶ 2, 4, Ex. 4 (Pinto Tr.) at 86:13-25 (Pinto has never provided testimony on "avoided development costs"); Ex. 2 (Pinto Report) at 1-2, Appendix A (showing a background in management and consulting, not valuation).

upgrading, customizing and supporting" software. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 1-2. Moreover, Pinto has never provided expert testimony on the estimated size or value of a software product. *See id.* at 4 (listing source code comparisons as his only expert testimony).

Pinto's Curriculum Vitae does not list any specific training in or experience with FPA or COCOMO. *See* Lanier Decl. ¶ 5, Ex. 5 (Appendix A to the Pinto Report). Pinto has not published any articles on FPA, COCOMO or the sizing of software. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 4 (stating that Pinto has not published anything in the last 10 years). Pinto's only training regarding FPA or COCOMO consisted of a few one- or two-day courses, several years ago. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 75:20-76:21, 77:5-22. Also, Pinto was not a member of any peer organizations related to software estimation until he joined IFPUG in April of this year, months after he submitted his report, and only after Defendants challenged his qualifications in their rebuttal expert report. *See id.* at 103:6-21.

Pinto's lack of experience with FPA analysis bears directly on his qualification to provide an expert opinion because only certified specialists have the requisite expertise to conduct an FPA analysis. IFPUG trains and certifies individuals to become Certified Function Point Specialists, which certification is only granted once an individual has taken and passed the Certified Function Point Specialist Exam. *See* Lanier Decl. ¶ 8, Ex. 8 (IFPUG Website: Certification). Although Pinto purports to use FPA in his analysis (which he does not, as discussed below), he is not a trained and certified function point counter and admits he is not an expert in FPA, as maintained by IFPUG. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 53:2-10, 219:6-20.

Indeed, because Pinto does not have the requisite FPA training and is not certified, he hired an undisclosed Certified Function Point Specialist, Stephen Neuendorf, to perform function point counts for his sur-rebuttal analysis. *See id.* at 51:5-52:16, 53:11-25. Pinto, however, does not have the knowledge and expertise to verify the accuracy of Neuendorf's opinions and conclusions (who was never disclosed as an expert in this case). Rather, Pinto merely adopts the improper opinions of this undisclosed expert, admitting he does not "have an independent view on whether [the estimate is] accurate or not." *See id.* at 69:11-24.[4]

[4] Defendants have separately moved to exclude these improper opinions by Neuendorf, an undisclosed expert. *See* D.I. 728 (Defs.' Mots. in Limine) at 14-15.

Most tellingly, Pinto was unable to answer basic questions about both FPA and COCOMO at his deposition. *See, e.g.*, *id.* at 66:17-67:3, 215:7-217:7, 219:21-221:9, 231:11-236:7, 237:20-239:4, 302:15-304:7 (demonstrating an inability to recognize basic functional characteristics for FPA or the underlying equations and variables used in the COCOMO model). For example, when asked to identify three of the basic equations used in a COCOMO analysis, Pinto was unable to do so:

> Q. With respect to the page that has Eq. 1 on it, are you familiar with that equation?
>
> A. I am not.
>
> Q. Do you know offhand what this equation would be used to calculation (sic)?
>
> A. I assume the PM stands for person-months.
>
> Q. And the NS?
>
> A. I don't know.
>
> Q. Do you know what the A stands for there?
>
> A. No.
>
> Q. How about the EM?
>
> A. Again, no.
>
> Q. Okay. On the next page, equation two, what is your understanding of what TDEV and then in subscript NS means?
>
> A. Yeah, I don't -- I don't recognize it.
>
> Q. The equation you don't recognize or that particular parameter?
>
> A. The equation or the parameter.
>
> Q. Okay. So do you know offhand what the C is in that equation?
>
> A. No, I do not.
>
> Q. And the SF?
>
> A. Also I did not.
>
> Q. Okay. And then on page 3 of that document, 2059, it says TDEV equals then square brackets C times, et cetera.
>
> A. I see that.
>
> Q. Do you know what the SCED percent divided by 100 means?

A. No.

Q. And do you know what that equation would be used to calculate?

A. I do not.

Lanier Decl. ¶¶ 4, 9-10, Ex. 4 (Pinto Tr.) at 302:15-304:7; Ex. 9 (Defs.' Dep. Ex. 2059) (including the three COCOMO equations discussed above); Ex. 10 (Defs.' Dep. Ex. 2060, *COCOMO II Model Definition Manual*) at 1, 41 (demonstrating that the three equations Pinto was unable to identify are used in the COCOMO model).

Accordingly, Pinto is not "qualified" to provide expert testimony as required by Rule 702 and should be excluded. *See* Fed. R. Evid. 702; *Salinas*, 682 F. Supp. 2d at 1030 ("expert" witness not qualified to opine on formation or design of warning or safety labels where there was no indication that he was a warnings expert, a human factors expert, or a licensed engineer); *United States v. Chang*, 207 F.3d 1169, 1172-73 (9th Cir. 2000) (excluding an international finance expert from testifying as to the authenticity of a "Certificate of Payback Balance" due to lack of proper qualifications in that specific area); *United States v. Jones*, 24 F.3d 1177, 1179-80 (9th Cir. 1994) (affirming exclusion of expert where, *inter alia*, he lacked sufficient training and had not authored articles on the subject of his testimony).

V. PINTO'S METHODOLOGY IS UNRELIABLE

Pinto's opinions are unreliable because his methodologies are unreliable. Specifically, Pinto: (1) utilizes an outdated version of COCOMO; (2) uses an unapproved technique called "backfiring" that has an admittedly high error rate; (3) employs a so-called FPA analysis, which is actually a series of unverified steps cobbled together for this litigation, in lieu of an approved FPA approach; (4) improperly extrapolates his results for two of the four software products at issue to develop unfounded results for the other products, which he never actually analyzed; and (5) relies upon destroyed evidence.

A. Pinto Uses an Outdated and Superseded COCOMO II Model.

Pinto's opinions are not reliable because he uses an outdated model for his COCOMO analysis. *See* Fed. R. Evid. 702; *Salinas*, 682 F. Supp. 2d at 1029-30 (court must determine "whether the testimony is reliable and trustworthy"). Courts may determine reliability of expert

testimony by referring to "the existence and maintenance of standards controlling the technique's operation." *Daubert*, 509 U.S. at 594 ; *see also Kumho Tire*, 526 U.S. at 150. This means that an expert's testimony may be found reliable where that expert applies a technique that has been maintained, but not if he or she uses an outdated version. *See Daubert*, 509 U.S. at 594; *IMA N. Am., Inc. v. Maryln Nutraceuticals, Inc.*, No. CV-06-344-PHX-LOA, 2008 U.S. Dist. LEXIS 109623, at *10 (D. Ariz. Oct. 17, 2008) (finding that experts must show they have followed a method "as it is practiced by (at least) a recognized minority of scientists in their field" (quoting *Clausen v. M/V New Carissa*, 339 F.3d 1049, 1056 (9th Cir. 2003))).

Pinto claims to use the COCOMO technique, which is updated and maintained by the USC Center for Systems and Software Engineering. *See* Lanier Decl. ¶¶ 2, 7, Ex. 2 (Pinto Report) at 9; Ex. 7 (USC Center for Systems and Software Engineering Home Page). Though COCOMO has "standards controlling" its operation, Pinto did not properly follow those standards as they have been maintained. *Daubert*, 509 U.S. at 594. Instead, Pinto erroneously relied on an *outdated* version of COCOMO (known as COCOMO II.1997). *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 16:5-13, 111:1-3. The current model, COCOMO II.2000, includes the most up-to-date data set and cost and scale drivers, and was published in *Software Cost Estimation With COCOMO II* (Prentice Hall, July 2000). It supersedes COCOMO II.1997 and provides more reliable results. *See* Lanier Decl. ¶ 11, Ex. 11 (*Software Cost Estimation With COCOMO II* (Prentice Hall, July 2000)) at 141-42 (comparing COCOMO II.1997 to COCOMO II.2000 and determining that COCOMO II.2000 was a "robust estimation model" with the strongest results). Pinto admits that he is not aware of any publications that would support his departure from the published, up-to-date COCOMO II.2000 model. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 114:9-14.

B. Pinto's Use of Backfiring Is Unreliable.

Pinto's opinions are not reliable because he uses an inappropriate and unreliable method known as "backfiring" in his purported FPA analysis. Courts may consider a technique's "error rate" and whether there are "standards controlling the technique's operation" when determining reliability of expert testimony. *Daubert*, 509 U.S. at 594; *Kumho Tire*, 526 U.S. at 149-150.

Pinto claims to use FPA as approved by the standards setting body IFPUG. *See* Lanier

Decl. ¶ 2, Ex. 2 (Pinto Report) at 8 ("The method of Function Point Analysis . . . *is actively maintained by the International Function Point Users Group ("IFPUG")* as part of its Functional Size Measurement Method . . . I chose to use Function Point Analysis for this assessment because it is recognized by the International Standards Organization ("ISO") as a valid method for assessing the size of a software product and for deriving the associated cost of product development.") (emphasis added); *see also id*. at 11 (stating that he "carefully selected" FPA as endorsed by IFPUG and citing the IFPUG Manual for FPA). Contrary to the statements in Pinto's Report, Pinto does *not* use FPA as maintained by IFPUG and approved by the ISO; rather, he uses a less reliable "backfiring" method to determine his function point counts. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 17. Because "backfiring" is not FPA as set out by IFPUG (the group that Pinto acknowledges controls and maintains the FPA method) and is unreliable, Pinto should be prohibited from providing expert opinions related to his backfiring approach.

"Backfiring" is a process whereby a SLOC count is converted into a function point count, using a mathematical conversion table. As a result of "backfiring," one can roughly estimate the number of function points in a given software program. *See, e.g.*, Lanier Decl. ¶¶ 2, 12, Ex. 2 (Pinto Report) at 19; Ex. 12 (ORCLX-PIN-000019) at 3. However, backfiring is not recognized by IFPUG as a step in FPA, as Pinto himself admits. *See* Lanier Decl. ¶¶ 4, 13, Ex. 4 (Pinto Tr.) at 221:17-23 (stating "[i]t's my understanding as reported that IFPUG does not sanction backfiring"), 212:12-17 (stating that he "know[s] of no certified function point [counters] who perform backfiring"); Ex. 13 (ORCLX-PIN-000007, *The Function Point Counting Practices Manual*, Release 4.2) (failing to include any mention of the step of "backfiring" SLOC to function points). And Pinto is unable to point to any standard-setting bodies or trade profession groups—like the ISO or IFPUG—controlling his backfiring technique. *See, e.g.*, Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 221:17-23; *see also Whisnant v. United States*, No. C03-5121, 2006 U.S. Dist. LEXIS 76321, at *10-11 (W.D. Wash. Oct. 5, 2006) (excluding expert testimony where expert's methods were contrary to method guidelines published by the leading professional organization).

Aside from the fact that backfiring is not FPA, it is an unreliable technique. The error rate of a given technique should be considered in the Court's reliability analysis (*see Daubert*, 509

U.S. at 594; *Kumho Tire*, 526 U.S. at 149-50), and courts have found percentage error rates in the low 20's to be "poor." *United States v. Birdsbill*, 243 F. Supp. 2d 1128, 1135 (D. Mont. 2003). Notably, the backfiring conversion tables on which Pinto relies detail an error rate of plus or minus 25% for backfiring. *See* Lanier Decl. ¶ 12, Ex. 12 (ORCLX-PIN-000019) at 4. Further, these tables—Pinto's own source—explicitly state that backfiring "is (on average) significantly less accurate than normal function point counting." *Id*. at 3.

C. Pinto's 10-Step Process for FPA Is Unreliable.

Pinto's opinions are not reliable because Pinto uses an unreliable "10-Step Process" for his alleged FPA. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 14 ("Ten-Step Analysis to Determine the Cost of Development Using Function Point"). In his report, Pinto states that he "authored" the 10-Step Process and it was "specifically written and tailored for this case." *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 202:17-203:1, 176:7-14. Pinto admits that he has neither shown his 10-Step Process to a certified function point specialist, nor does he know of a certified function point specialist who uses his 10-Step Process. *See id*. at 57:14-20, 61:2-9. Moreover, Pinto states that he is unaware whether IFPUG, the International Software Benchmarking Standards Group or any other standards setting organization have approved his 10-Step Process. *Id*. at 176:24-177:18. Nor has he seen this process published in a peer reviewed journal. *Id*. at 177:25-178:1. Nor is there any way to be "certified" in his 10-Step Process. *Id*. at 212:18-21.

In contrast to Pinto's 10-Step Process, the IFPUG Method for counting function points *is* ISO certified. *See, e.g.*, Lanier Decl. ¶ 14, Ex. 14 (ORCLX-PIN-000009) at viii. Rather than use these approved steps, however, Pinto adds steps, such as separately estimating the cost of producing millions of pages of PeopleSoft and JD Edwards support and user documentation, and the translation and localization of all of this user documentation into 21 different languages. Even assuming that the use of these non-IFPUG related steps was appropriate, Pinto's application of these steps is overbroad and illogical, further undermining his methodology.

For example, Pinto admits that measuring the functional size of a program in accordance with the IFPUG method already takes into account the costs of creating a certain level of documentation. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 260:25-261:4 ("Q. But you do agree,

though, that at least some of the technical and user documentation is accounted for during the typical software development life cycle. A. Yes."). However, Pinto does not take steps in his analysis to make sure that documentation is not double counted. *See, e.g.*, Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 20-21, 25 (contradictorily stating that no documentation is included in the software development cycle, purportedly justifying why Pinto measures it completely separately).

Similarly, Pinto estimates a cost to translate and localize *all* of those millions of pages of user documentation into 21 different languages, with no regard to whether such a translation is logical or appropriate for every piece of documentation. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 28. For example, although it seems intuitive that the documentation software specifically localized and intended for one country, such as Global Payroll for Brazil, need not be translated into languages other than Portugeuse, Pinto's analysis included the cost of performing this unnecessary translation.[5] This overbroad and ham-fisted application of certain of Pinto's non-IFPUG approved steps further undermines the reliability of his 10-Step Process.

D. Pinto Improperly Extrapolates from His Analysis of J.D. Edwards EnterpriseOne and PeopleSoft Software to Develop Unfounded Estimates of the Value of the J.D. Edwards World and Siebel Software Suites.

Pinto's opinions are not reliable because he improperly and inexplicably extrapolates his results for the J.D. Edwards EnterpriseOne and PeopleSoft software suites to develop unfounded estimates for the J.D. Edwards World and Siebel software suites. "[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *see also In re: Bextra and Celebrex Mktg. Sales Practices and Prod. Liab. Litig.*, 524 F. Supp. 2d 1166, 1180 (N.D. Cal. 2007) (extrapolating effects of a drug at one dosage to another based solely on expert's "judgment" was unreliable, rendering opinion inadmissible). In determining the reliability of extrapolation, courts must consider whether an

[5] Pinto purported to estimate a development cost for PeopleSoft HRMS 8.8, including documentation and translation costs. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 2. Plaintiffs identified Global Payroll for Brazil as a component of PeopleSoft HRMS 8.8. *See* Lanier Decl. ¶ 15, Ex. 15 (Pls.' Fifth Am. and Seventh Supp. Resp. to Defs.' Interrog. No. 13) at 13.

expert "unjustifiably extrapolated from an accepted premise to an unfounded conclusion." *Salinas*, 682 F. Supp. 2d at 1030.

In this case, Pinto extracted, sorted, stratified and counted the SLOC of the J.D. Edwards EnterpriseOne and PeopleSoft software suites, and these SLOC counts form the basis of his opinions; he uses the SLOC counts as inputs in both his FPA and COCOMO analyses. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 12, 14-17 (stating that his SLOC counts were "the foundation for estimating software size and ultimately deriving the total cost of development"), 17-20, 36-43 (SLOC used as inputs in Pinto's FPA and COCOMO estimates). Significantly, Pinto admits that his FPA and COCOMO estimates would be incorrect if his SLOC counts were incorrect. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 293:11-18. However, Pinto did not actually count the SLOC for the J.D. Edwards World or Siebel software suites; nor did he purport to do any sort of FPA—even the Pinto-created 10-Step Process—on either of these products. *See id*. at 188:3-8, 293:5-10. Rather, Pinto extrapolates estimated SLOC counts for each of these two programs based on his SLOC counts for J.D. Edwards EnterpriseOne and PeopleSoft, using these counts to develop purported COCOMO estimates. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 39-43. In both instances in which Pinto extrapolates from a SLOC count for one software suite to a SLOC count for a different software product, without actually counting the lines of code, the "analytical gap" is too great to be justifiable.

J.D. Edwards World: Pinto assumes that J.D. Edwards World (which he did not count) has the exact "same number of SLOC as J.D. Edwards EnterpriseOne." *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 39. However, as Pinto admits, J.D. Edwards World was written in a completely different software programming language than J.D. Edwards EnterpriseOne. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 284:5-16. Because the languages are completely different with different properties, it would be inappropriate to assume a one-to-one correlation between the numbers of SLOC in each software suite. *See* Lanier Decl. ¶ 11, Ex. 11 (*Software Cost Estimation With COCOMO II* (Prentice Hall, July 2000)) at 15 ("Defining a line of code is difficult because of *conceptual differences* involved in accounting for executable statements and data declarations in *different languages*. *Difficulties arise when trying to define consistent*

measures across different programming languages.") (emphasis added). Indeed, Pinto provides no justification for this analytical leap, other than that the products have "similar functionality." *See* Lanier Decl. ¶¶ 2, 4, Ex. 2 (Pinto Report) at 39; Ex. 4 (Pinto Tr.) at 284:5-12.

Siebel: Similarly, and even more egregiously, Pinto extrapolates from his PeopleSoft counts to determine a SLOC count for Siebel. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 286:11-18 (indicating that "with respect to Siebel, [Pinto] also did not conduct a function point analysis for the Siebel code and [ ] developed an SLOC count by analogy" to PeopleSoft CRM.). Not only were the PeopleSoft and Siebel suites of products written in different source code languages, the products were developed by *different companies*. *See, e.g.*, *id*. at 286:22-23 (noting that "PeopleSoft CRM and Seibel competed heads up in the market"). Pinto offers little justification for his extrapolation from one to another unrelated software suites, other than that they were both the same *type* of products—that is software used for Customer Relationship Management ("CRM"). *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 41 (asserting that his Siebel analysis was based on the assumption that attributes of the Siebel product could be extrapolated from attributes of the PeopleSoft CRM product because the products were "built in similar technologies" and "PeopleSoft CRM was acknowledged as a competitor to Siebel" in the CRM market).

In an attempt to make his extrapolation between these two unrelated products seem more reliable, Pinto compares the number of tables—not lines of code, the actual input to a COCOMO analysis—purportedly contained in each product, and adjusts the SLOC count he used for his Siebel estimate accordingly. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 41 (noting that Siebel had "79.4%" more tables than PeopleSoft CRM). However, this approach provides only a veneer of reliability, as Pinto admits that it was merely a "thumbnail" estimate, that he "can't comment on an accuracy" rating for this type of extrapolation, and that it is a more simplistic means of sizing. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 289:19-23. Using precise-sounding numbers, like 79.4, does not an accurate estimate make.

Moreover, Pinto does not even verify the data he used to justify this extrapolation, as he did not have access to the software to count the tables; rather, the number of tables was orally told to him by two Oracle employees. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 287:21-288:20. Such

an approach is not reliable. *See, e.g., Lava Trading, Inc. v. Hartford Fire Ins. Co.*, No. 03 Civ 7037 (PKC)(MDH), 2005 U.S. Dist. LEXIS 4566, at *33, *48-49 (S.D.N.Y. Feb. 14, 2005) (finding expert opinion inadmissible because it was based on, *inter alia*, data orally supplied by client); *Democratic Party Wash. State v. Reed*, No. C00-5419FDB, 2002 U.S. Dist. LEXIS 27921, at *33 (W.D. Wash. Mar. 27, 2002) (expert testimony unreliable in part because expert "merely accepted the definition" of relevant data to be counted that was given to him by plaintiffs).

E. Pinto's Bases His Opinions on Destroyed Evidence.

Pinto failed to disclose, and in fact destroyed, data forming the basis of his opinions. The destruction of the undisclosed data makes it impossible for this failure to be redressed and renders his opinions unreliable and inadmissible. Plaintiffs' attempt to justify this destruction as consistent with a data retention policy is unavailing.

Rule 702 imposes a "gatekeeping" function on trial judges to ensure that an expert's testimony "both rests on a reliable foundation and is relevant to the task at hand." *Daubert*, 509 U.S. at 597; *see also United States v. Mirama Enters., Inc.*, No. 00-CV-2269-K (LAB), 2002 WL 34364408, at *1 (S.D. Cal. June 17, 2002) ("Federal Rule of Evidence 702 governs the admission of expert witness testimony and provides that to be admissible, expert testimony must assist the trier of fact and (1) be based upon *sufficient data* . . . .") (emphasis added). In furtherance of this gatekeeping function, Rule 26(a)(2)(B) requires expert witnesses to issue a written report that must contain, among other things, "the data or other information considered by the witness in forming [their opinions]." Fed. R. Civ. P. 26(a)(2)(B)(ii). Moreover, the parties agreed and this Court ordered that all "documents on which experts *intend to rely* or that *form the basis for any part of that expert's opinion*" are discoverable, including "notes, drafts or other types of preliminary work by . . . experts" if that "preliminary work" is relied upon by the expert or forms the basis of any part of the expert's opinion. D.I. 275 (2/11/09 Order) at ¶¶ c, d (emphasis added).

Accordingly, courts exclude the testimony of experts who rely on undisclosed data that is thereafter destroyed and unavailable for examination. *See Unigard Sec. Ins. Co. v. Lakewood Eng'g and Mfg. Corp.*, 982 F.2d 363, 368 (9th Cir. 1992) (upholding exclusion of an expert that relied on evidence that could not be examined by opposing party's expert due to destruction);

Fidelity Nat'l Title Ins. Co. of N.Y. v. Intercounty Nat'l Title Ins. Co., 412 F.3d 745, 751 (7th Cir. 2005) (holding that expert could not base opinion on interview notes that were destroyed and thus unavailable to opposing party); *Barker v. Bledsoe*, 85 F.R.D. 545, 549 (W.D. Okla. 1979) (prohibiting plaintiff from introducing expert evidence based on autopsy where body had been destroyed and defendant's expert was thus unable to conduct autopsy). Even if the data was destroyed in accordance with a document retention policy, the duty to disclose such data is not relieved. *See Trigon Ins. Co. v. United States*, 204 F.R.D. 277, 289 (E.D. Va. 2001) (holding that document retention policies do not "trump the Federal Rules of Civil Procedure"); *Fidelity Nat'l Title*, 412 F.3d at 750-51 (rejecting as "frivolous" argument that "because the notes were discarded pursuant to [the expert's] 'document retention' (*i.e.* document destruction) policy, there was no violation of Rule 26").

Pinto failed to disclose data that he considered in rendering his opinion. This data was destroyed before Defendants or the Court could examine it. In performing his analysis, Pinto first extracted the source code for the PeopleSoft and J.D. Edwards EnterpriseOne software he intended to value. *See* Lanier Decl. ¶ 2, Ex. 2 (Pinto Report) at 12. This extracted, sorted and stratified code forms the basis of all of Pinto's estimates, as Pinto used it to then count the number of source lines of code to determine the "SLOC" counts inputted into both his purported FPA and COCOMO analyses. *See id.* at 14-17 (stating on page 16 that Pinto's SLOC counts were "the foundation for estimating software size and ultimately deriving the total cost of development"), 17-20, 36-43. When Plaintiffs served Pinto's expert report on November 16, 2009, they did not provide to Defendants extracted source code underlying Pinto's SLOC counts. Defendants thereafter requested from Plaintiffs the "complete source code" of the software products Pinto analyzed. *See* Lanier Decl. ¶ 16, Ex. 16 (2/8/10 e-mail from Jeffrey Butler to Geoffrey Howard). Plaintiffs never provided the complete source code—the data Pinto had extracted.[6]

[6] Plaintiffs responded to Defendants' request that the "ISO" files for some of the software products analyzed by Pinto had previously been produced to Defendants on CDs, from which Pinto had allegedly "accessed and analyzed the source code using a standard Personal Computer and text editor." *See* Lanier Decl. ¶ 17, Ex. 17 (2/9/10 e-mail from Amy Donnelly to Jeffrey Butler). These "ISO" files are not "source code," and they are not what Pinto counted. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 36:24-37:3 ("This was a significant piece of work. To go through and count the lines of code, even -- *even to sort out the ISO files to get at the source code and then to go ahead and count the lines of code*.") (emphasis added).

Defendants learned for the first time at Pinto's deposition that he used a team of six employees at NIIT Technologies, a company in India, to assist him in the "laborious" task of extracting, sorting, stratifying and counting the source code at issue over the course of nearly six months. *See id.* at 35:16-21, 36:21-37:3, 40:20-42:4. Pinto bases his entire analysis on NIIT's work, having never replicated its results himself, and adopts its findings as his own. *See id.* at 50:15-51:4. Problematically, in November 2009, the same month that Plaintiffs served Pinto's report, NIIT deleted the source code, disassembled the machines on which the source code had been stored and physically destroyed the hard drives, such that the data could not be retrieved. *See id.* at 43:6-44:5, 46:5-17 (stating that NIIT "unequivocally" did not have the extracted source code in its possession, because it had been destroyed). Pinto attempts to justify this destruction as congruent NIIT's "protocol[s]" and "process standards," but such reliance on a document retention policy does not relieve him of his disclosure requirements. *See id.* at 43:11-18; *Trigon Ins. Co.*, 204 F.R.D. at 289. Without this destroyed data, Defendants are unable to test the veracity of Pinto's SLOC counts, and thus, the rest of his analysis.

As stated above, Rule 702 imposes a gatekeeping function on the trial judge to ensure that an expert's testimony "rests on a reliable foundation" and is "based upon sufficient data." *See Daubert*, 509 U.S. at 597; *see also United States v. Mirama*, 2002 WL 34364408, at *1. In addition to prejudicing the defendants, Pinto's destruction of data makes it impossible for the Court to properly perform its "gatekeeping" role and determine whether Pinto bases his opinions on a "reliable foundation" of "sufficient data." Pinto admits that both his FPA and COCOMO estimates would be incorrect if his SLOC counts were incorrect, but without the destroyed data, his SLOC counts cannot be verified. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 293:11-294:6. Further, any opinion formed or testified to by Pinto is so tainted by his analysis of the undisclosed source code count that it would be "totally unrealistic to expect his opinion to be free of conclusions drawn from inadmissible evidence." *Barker*, 85 F.R.D. at 549.

Finally, Plaintiffs have suggested that Defendants do not need the "intermediate" source code Pinto used to generate the SLOC counts in his report. Specifically, in response to Defendants' concerns about Pinto's destruction of evidence, Plaintiffs contended that the

destroyed source code is unnecessary because Pinto "re-extracted" that previously destroyed source code. *See* Lanier Decl. ¶ 18, Ex. 18 (6/23/10 e-mail from Amy Donnelly to Jeffrey Butler). Plaintiffs asserted that re-extraction of the source code took less than three weeks to complete, which first begs the question of why Pinto previously stated that the analyses had been so "laborious" that he had needed the help of a six person team at NIIT *and* why he claimed to be unable to analyze the source code for two of the four programs. *See* Lanier Decl. ¶ 4, Ex. 4 (Pinto Tr.) at 36:10-11, 41:25-42:4, 293:5-10. Moreover, even after Pinto allegedly re-extracted the source code in June of 2010, some six months after Plaintiffs' expert reports were due, Plaintiffs never provided the "re-extracted" code to Defendants. Rather, Plaintiffs implied in their communications to Defendants that Defendants' experts should have to extract the data themselves. *See* Lanier Decl. ¶ 18, Ex. 18 (6/23/10 e-mail from Amy Donnelly to Jeffrey Butler). However, even were the process of recreating this data as simple as Plaintiffs now suggest, the Federal Rules of Civil Procedure and this Court's Order clearly require that an expert attach to his or her report the relevant data on which he or she will rely; it is not Defendants' responsibility to re-extract code in an attempt to generate the data on which an expert has relied, but failed to disclose. *See* Fed. R. Evid. 702; Fed. R. Civ. P. 26(a)(2)(B)(ii). And even if this re-extraction process were feasible, neither Defendants nor the Court could be certain that the newly-extracted code mirrored the code that was so vital to Pinto's analysis—code Defendants *still* have not received.

Today, there is no way to verify, even at the most basic level, whether Pinto properly extracted or counted the SLOC; that data no longer exists. Thus, Pinto's opinion cannot be found reliable and his expert testimony must not be admitted at trial.

VI. CONCLUSION

Pinto's opinions purporting to calculate "saved development costs" are entirely irrelevant. Moreover, Pinto is unqualified to provide expert opinions on the issues detailed in his report and has failed at all levels of his analysis to select or apply reliable methodologies, including by improperly relying on destroyed evidence. For these reasons, the Court should exclude Pinto's testimony in its entirety under Rule 702.

Dated: August 19, 2010

JONES DAY

By: /s/ Tharan Gregory Lanier
Tharan Gregory Lanier

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