No.

IN THE

Supreme Court of the United States

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WORLD PROGRAMMING LIMITED,

Petitioner,

v.

SAS INSTITUTE, INC.,

Respondent.

———

**On Petition for a Writ of Certiorari
to the United States Court of Appeals
for the Fourth Circuit**

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PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. Whether federal or state law governs the respect that must be accorded to the judgment of a foreign court in diversity cases.

2. Whether a district court's decision on the merits of a claim becomes moot, and must be vacated, if the court of appeals determines that the plaintiff has not proven entitlement to the only remaining relief sought in connection with that claim.

PARTIES TO THE PROCEEDINGS BELOW

All parties to the proceedings below are named in the caption.

CORPORATE DISCLOSURE STATEMENT

Pursuant to this Court's Rule 29.6, World Programming Limited states that it has no parent corporation. World Programming Limited further states that no publicly held company owns 10% or more of its stock.

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World Programming Limited respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Fourth Circuit in this case.

OPINIONS BELOW

The opinion of the court of appeals (App., *infra*, 1a-31a) is reported at 874 F.3d 370 (4th Cir. 2017). The district court's opinion on summary judgment (App., *infra*, 32a-80a) is reported at 64 F. Supp. 3d 755 (E.D.N.C. 2014); the district court's modification of its summary judgment (App., *infra*, 81a-101a) is unreported.

STATEMENT OF JURISDICTION

The court of appeals entered judgment on October 24, 2017, App., *infra*, 2a, and denied rehearing and rehearing en banc on November 21, 2017, App., *infra*, 102a-103a.

On February 6, 2018, the Chief Justice extended the time for filing a petition for a writ of certiorari to and including April 20, 2018. This Court has jurisdiction under 28 U.S.C. § 1254(1).

CONSTITUTIONAL AND
TREATY PROVISIONS INVOLVED

Relevant portions of the U.S. Constitution, the Berne Convention for the Protection of Literary and Artistic Works, S. Treaty Doc. 99-27 (July 24, 1971), and United Kingdom and European Union laws are set forth in the appendix. App., *infra*, 104a-116a.

PRELIMINARY STATEMENT

The decision below denied preclusive effect to a United Kingdom judgment that upheld conduct undertaken *in the United Kingdom*, by a *United Kingdom company*, deeming that conduct protected as a matter of public policy *under United Kingdom and European Union* law. The court of appeals did not suggest that the U.K. court's judgment somehow offended this Nation's "fundamental notions" of decency and justice. No such suggestion could be made: At least one court of appeals has held that *federal copyright law* protects the same conduct, preempting contrary state law. The court of appeals likewise did not suggest any unfairness in the U.K. proceedings. To the contrary, the plaintiff chose to sue in the U.K. first, before filing this later action in federal court. The United Kingdom's courts simply rejected the plaintiff's claims and entered judgment for the defendant.

Confronted by that U.K. judgment, the Fourth Circuit refused it respect because North Carolina courts had different policy preferences. Petitioner then was subjected not merely to a damages award for U.K. conduct, protected by U.K. law, despite a U.K. judgment so holding.

It was also subjected to *treble damages of over $79 million* for that conduct. And it was precluded from presenting evidence that it had relied in good faith on the protections of U.K. and E.U. law.

That result does not merely defy common sense and natural justice; it also deepens an important conflict in the circuits. Under the federal "comity" approach this Court announced in *Hilton* v. *Guyot*, 159 U.S. 113 (1895)—followed in the D.C. Circuit and uniformly endorsed by commentators for all cases—federal law requires respect for foreign-court judgments unless they are manifestly contrary to our Nation's fundamental values. By contrast, under the decision below and those of other circuits, foreign judgments can be refused recognition in diversity suits under less demanding *state-law* standards. The conflict is important. The disregard of foreign judgments implicates federal-relations concerns and threatens respect for U.S. judgments abroad.

Here, the federal interest in respecting the U.K. judgment is acute. The Berne Convention for the Protection of Literary and Artistic Works, a treaty joined by the U.S., ensures all plaintiffs—including the plaintiff here—*equal* treatment under U.K. copyright law. The decision below refuses to respect the judgment that resulted from treating the plaintiff equally in its U.K. suit under U.K. copyright law, as the Berne Convention requires.

The decision below also departs from this Court's mootness standards. The district court held that the defendant was not liable for copyright infringement under substantive U.S. law. The Fourth Circuit agreed that the plaintiff could not prevail, but on the ground that it had not shown an entitlement to the only relief sought. Rather than affirm on that alternative ground, the Fourth Circuit vacated the district court's decision as "moot."

That defies this Court's admonition not to "confuse[] mootness with the merits," *Chafin* v. *Chafin*, 568 U.S. 165, 174 (2013), and places the Fourth Circuit at odds with other courts of appeals.

STATEMENT

This case concerns the respect that must be accorded to the judgments of foreign courts—here, a final judgment of the United Kingdom's High Court of Justice. It also concerns whether a claim becomes moot merely because the plaintiff fails to prove entitlement to relief.

I. LEGAL FRAMEWORK

A. Federal Recognition Principles

This Court established the federal standard for recognizing the judgments of foreign courts over a century ago in *Hilton* v. *Guyot*, 159 U.S. 113 (1895). Under *Hilton*, foreign judgments are generally recognized and accorded claim-preclusive effect in U.S. courts as a matter of "comity." 159 U.S. at 163-164. Weighty considerations support affording foreign judgments respect. Comity for the judgments of foreign courts is an international norm. *Id.* at 227. And the failure to respect foreign judgments invites reciprocal refusal to respect the judgments of this Nation's courts. *Id.* at 227-228.

Comity, however, is not an "absolute obligation." *Hilton*, 159 U.S. at 163-164. It does not require our courts to cast aside norms fundamental to our Nation. Consequently, under *Hilton*, courts may refuse comity in the limited circumstances where the judgment is "contrary to the policy or prejudicial to the interests of the state." *Id.* at 233.[1]

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[1] That narrow exception does not apply to state-court judgments. There is no "'public policy exception' to the full faith and credit" obligation imposed by Article IV, §1 of the U.S. Constitution. *Baker* v.

That exception is extraordinarily narrow: It reaches only foreign judgments that are "'repugnant to fundamental notions of what is decent and just in the State where enforcement is sought.'" *De Csepel* v. *Republic of Hungary*, 714 F.3d 591, 606 (D.C. Cir. 2013) (quoting *Tahan* v. *Hodgson*, 662 F.2d 862, 864 (D.C. Cir. 1981)); see Restatement (Third) of Foreign Relations Law § 482(2)(D) cmt. f (1987). The judgment must contravene a "'principle fundamental to our system of constitutional democracy,'" *Telnikoff* v. *Matusevitch*, 702 A.2d 230, 250 (Md. 1997)—for example, judgments applying "racial laws" that deny individuals rights based on the color of their skin, Restatement, *supra*, § 482 n.1.

Since *Hilton*, the narrow public-policy exception has been incorporated in myriad treaties. See, *e.g.*, Hague Convention on Choice of Court Agreements, 44 I.L.M. 1294, 1296 (2005) (the "Hague Convention"); Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters art. 27(1), 1972 O.J. (L 299) (the "Brussels Convention"). For example, signatories to the Brussels Convention may invoke the public-policy exception to refuse recognition only if recognition would cause a "manifest breach" of an "essential" law or a "fundamental" right. Case C-7/98, *Krombach* v. *Bamberski*, 2000 E.C.R. I-01935, point 37; see also Hague Convention art. 9(e).

Gen. Motors Corp., 522 U.S. 222, 223 (1998). Foreign judgments cannot claim the benefit of the Full Faith and Credit Clause. *Aetna Life Ins. Co.* v. *Tremblay*, 223 U.S. 185, 190 (1912). Nor are they covered by the federal full-faith-and-credit statute, which applies only to judgments of "State[s]," "Territor[ies]," and "Possessions of the United States." 28 U.S.C. § 1738.

B. State Authorities on the Preclusive Effect of Foreign Judgments

Notwithstanding *Hilton*, state courts (and federal courts exercising diversity and supplemental jurisdiction) have followed divergent paths. Some States follow *Hilton*. Ronald A. Brand, *Recognition and Enforcement of Foreign Judgments* 6 (Fed. Jud. Ctr. 2012). Others have implemented statutes addressing foreign judgments, ordinarily patterned on one of two uniform laws—the 1962 Uniform Foreign Money-Judgments Recognition Act or the 2005 Uniform Foreign-Country Money Judgments Recognition Act. *Id.* at 5. Like *Hilton*, the uniform acts allow courts to refuse recognition to foreign judgments that are "repugnant to" the forum State's "public policy." Unif. Foreign-Country Money Judgments Recognition Act §4(b)(3) (Unif. Law. Comm'n 2005); Unif. Foreign Money-Judgments Recognition Act §4(b)(3) (Unif. Law Comm'n 1962).

Nonetheless, each State applies its own standards when deciding whether repugnancy exists. Interpretations of the public-policy exception "vary drastically," even among "states with the same black-letter law." Darren J. Robinson, *U.S. Enforcement of Foreign Judgments, Libel Tourism, and the SPEECH Act: Protecting Speech or Discouraging Foreign Legal Cooperation?*, 21 Transnat'l L. & Contemp. Probs. 911, 931 (2013); see generally John B. Bellinger, III & R. Reeves Anderson, *Tort Tourism: The Case for a Federal Law on Foreign Judgment Recognition*, 54 Va. J. Int'l L. 501, 518-520 (2014).

C. The Berne Convention's National-Treatment Principle

Especially in intellectual-property cases, treaty obligations bear strongly on the respect owed to the judgments

of foreign courts. For example, the United States is a party to the Berne Convention, the "principal accord governing international copyright relations." *Golan* v. *Holder*, 565 U.S. 302, 306-307 (2012); see Berne Convention for the Protection of Literary and Artistic Works, S. Treaty Doc. 99-27 (July 24, 1971). By joining Berne, the United States covenanted that "[a]uthors shall enjoy * * * in countries * * * other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals," S. Treaty Doc. 99-27 art. 5(1)—a principle known as "National Treatment," H.R. Rep. 100-609, at 12 (1988).

The principle of national treatment means, for example, that a U.S. resident suing in the U.K. is treated no differently than a U.K. resident would be. National treatment implements three of Berne's key goals: ending "discrimination in rights between domestic and foreign authors," H.R. Rep. 100-609, at 12 (1988); "promot[ing] * * * uniform international legislation for the protection of literary and artistic works," *ibid.*; and "secur[ing] the highest available level of multilateral copyright protection for U.S. artists, authors and other creators," S. Rep. 100-352, at 2 (1988).

II. PROCEEDINGS BELOW

This case arises from plaintiff's efforts to enforce a "clickwrap" contract that purported to prohibit purchasers from studying, observing, and testing its software, instead limiting use to "non-production purposes only." Such prohibitions are unenforceable under U.K. and E.U. law (as well as under U.S. law in the Fifth Circuit). Rather, U.K. and E.U. law specifically authorize using software the way the defendant did here—*i.e.*, to observe, study, and test that software to understand its underlying ideas and principles. Plaintiff sued defendant twice

over its conduct—first in the U.K., and then in this action in the Eastern District of North Carolina. App., *infra*, 4a.

A. The Initial U.K. Lawsuit and Resulting Judgment Against SAS Institute

Plaintiff SAS Institute, a North Carolina company, produces statistical software known as the "SAS System." App., *infra*, 3a. Users operate the SAS System by writing instructions in the SAS programming language. *Ibid.* Petitioner World Programming Limited ("WPL") is a U.K. software company. *Ibid.* It sought to compete with SAS Institute by offering software that could run programs written in the SAS language. *Id.* at 3a-4a.

WPL purchased a version of the SAS System in the U.K. to study its functionality and learn the SAS programming language. App., *infra*, 4a. WPL's observation and testing took place in the U.K. *Ibid.* There is no dispute that, under U.K. and E.U. law, such observation and study is lawful, and contractual terms restricting such acts are null and void. See *id.* at 208a; Council Directive 2001/29/EEC, ¶ 50, 2001 O.J. (L 167/10) (EC); Council Directive 91/250/EEC, art. 5(3), 1991 O.J. (L 122/42) (EC); Copyright, Designs and Patents Act 1988, c. 48, §§ 50BA(1), 296A(1)(c) (U.K.).

The copies of the SAS System purchased by WPL were subject to a "clickwrap" license that purported to prohibit "'reverse engineering'" and limited the software's use to "'non-production purposes.'" App., *infra*, 3a. While WPL was required to agree to that license before installing the SAS System, it also knew that E.U. and U.K. law permitted use of software for observation, study, and testing regardless of contrary contractual restrictions. See *id.* at 3a, 5a; Copyright, Designs and Patents Act 1988, *supra*, §§ 50BA, 296A(1)(c).

In 2009, SAS Institute sued WPL in the U.K. High Court of Justice. It alleged that WPL breached the click-wrap license and that WPL's software infringed SAS Institute's copyrights in the SAS System and SAS instruction manuals. App., *infra*, 5a. While the licenses purported to be "governed by the laws of the state of North Carolina and the USA," the parties agreed "that there was no difference between those laws and English law." *Id.* at 205a.

In 2013, the High Court of Justice entered judgment for WPL. App., *infra*, 5a. Rejecting SAS Institute's copyright claims, it held that "copyright in a computer program does not protect" either "programming languages," such as the SAS language, or "the functionality of the program[]" from being copied. *Id.* at 136a-138a. Thus, even though WPL may have replicated some of the SAS System's functionality, functionality is "not protected by the copyright in the program." *Id.* at 150a. The High Court also found that "none of WPL's acts complained of was a breach of contract" because WPL's study of the SAS System was lawful despite any clickwrap license purportedly barring such conduct. *Id.* at 153a-154a.

SAS Institute appealed the breach-of-contract claim, App., *infra*, 165a, and the U.K. Court of Appeal affirmed in November 2013, *id.* at 163a-213a. The contractual prohibition, the court held, was "invalid to the extent that it prohibits the observation, study or testing of the functioning of the program in order to determine the ideas and principles underlying it." *Id.* at 209a. The court also rejected SAS Institute's claim that WPL's software infringed its copyright in the SAS System manuals. *Id.* at 196a-197a. The software functionality described in those manuals, it held, "does not count as a form of expression" protected by copyright. *Ibid.*

The Supreme Court of the United Kingdom denied review on July 9, 2014. App., *infra*, 5a-6a.

B. Proceedings Before the District Court

After filing the U.K. action, SAS Institute filed this suit, pressing the same claims. App., *infra*, 6a. SAS Institute added claims for fraudulent inducement and violation of North Carolina's Unfair and Deceptive Trade Practices Act ("UDTPA"), N.C. Gen. Stat. § 75-1.1 *et seq*. App., *infra*, 6a.[2]

In September 2014, the district court granted summary judgment to SAS Institute on its contract claim, holding that WPL had breached the "clickwrap" license. App., *infra*, 62a; see also *id.* at 81a-101a. The court granted summary judgment to WPL on SAS Institute's copyright claim, finding that SAS Institute had improperly sought "to copyright the idea of a program which interprets and compiles the SAS Language." *Id.* at 66a.

The district court declined to give the prior U.K. judgment claim-preclusive effect for SAS Institute's contract and copyright claims. App., *infra*, 49a. WPL argued that the U.S. and U.K. proceedings were identical in terms of the claims sued upon, documents exchanged, witnesses relied upon, and arguments made. C.A. J.A. 9225. In a footnote, the district court asserted that WPL had "only contended that the U.K. judgment should have issue preclusive effect, and has not raised the defense of res judicata." App., *infra*, 51a n.9.

The case proceeded to trial. App., *infra*, 6a-7a. Ruling *in limine*, the court prevented WPL from presenting evidence that it knew of, and relied on, the fact that its ob-

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[2] SAS Institute also alleged various tortious-interference claims. App, *infra*, 6a. The district court dismissed those claims, *id.* at 74a, and they are no longer at issue.

servation, study, and testing of the SAS System were permitted by U.K. law. *Id.* at 7a.

The jury—which heard nothing about WPL's reliance on U.K. and E.U. law—found WPL liable for fraudulent inducement and for violating the UDTPA, awarding $26,376,635 in compensatory damages and $3,000,000 in punitive damages. App., *infra*, 7a. It awarded $26,376,635 in contract damages. *Ibid.* Under the UDTPA, the compensatory damages award was trebled to $79,129,905. SAS Institute elected that award over the overlapping fraudulent-inducement and contract claims. *Ibid.* The court denied SAS Institute's request for an injunction. *Ibid.*

C. Proceedings Before the Court of Appeals

The Fourth Circuit affirmed in part and vacated in part. App., *infra*, 1a-31a.

1. The court of appeals rejected WPL's argument that claim preclusion barred SAS Institute's suit. App., *infra*, 7a-12a. The court declined to address SAS Institute's argument that the issue was waived, turning to the merits instead. *Id.* at 7a-8a. Applying North Carolina preclusion principles, the court of appeals held that the U.K. judgment would be denied preclusive effect because it was contrary to North Carolina policy. *Id.* at 9a-12a.

The court of appeals did not suggest that the policies behind the U.K. decision—or the decision's invalidation of the clickwrap prohibitions on observing and studying the SAS System—were so repugnant to fundamental U.S. values as to meet *Hilton*'s narrow public-policy exception. Nor did the court suggest that the U.K. proceedings were in any respect unfair: SAS Institute itself had chosen to initiate proceedings in the U.K. High Court of Justice.

Instead, the Fourth Circuit declined to respect the U.K. judgment because "North Carolina courts" are "more protective of the sanctity of contract" than U.K. and E.U. law. App., *infra*, 11a (citing *Bueltel* v. *Lumber Mut. Ins. Co.*, 518 S.E.2d 205, 209 (N.C. Ct. App. 1999)). Granting preclusive effect to the U.K. judgment, the court of appeals held, "would frustrate these policy goals by barring a North Carolina company from vindicating its rights under North Carolina law on the basis of the E.U.'s contrary policies." *Id.* at 11a.

The court also held that the district court was within its discretion to exclude evidence that WPL (correctly) believed its conduct lawful under U.K. law. App., *infra*, 20a. Relying on North Carolina law, the court of appeals also affirmed the grant of summary judgment on SAS Institute's breach-of-contract claim. *Id.* at 12a-19a.[3] And it affirmed the district court's decision denying SAS Institute an injunction on its contract claim. *Id.* at 29a-30a.

2. The Fourth Circuit rejected SAS Institute's appeal of its copyright claim. App., *infra*, 30a-31a. The district court had found no infringement. *Id.* at 21a. The Fourth Circuit, however, ruled that SAS Institute was not entitled to an injunction, the only relief SAS Institute still sought on that claim. *Id.* at 30a-31a. The nature of the claim made injunctive relief inappropriate. *Ibid.* SAS Institute, moreover, had failed to satisfy the traditional, four-factor test for equitable relief. *Id.* at 29a-30a.

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[3] In finding breach of the clickwrap license, the Fourth Circuit did not suggest that WPL recreated or decompiled SAS Institute's source code. App., *infra*, 16a. Instead, it read the license prohibitions expansively to preclude WPL's "analy[sis] [of] the Learning Edition to learn how it worked," *ibid.*—precisely the "observation, study or testing" protected by U.K. and E.U. law, see p. 9, *supra*.

Rather than affirm on that alternative ground, the court of appeals vacated the district court's ruling in favor of WPL as moot. App., *infra*, 30a-31a. The "only relief [SAS Institute] seeks from the copyright claim that it has not already received from its other claims is an injunction." *Id.* at 30a. Because SAS Institute was not entitled to that relief, the Fourth Circuit held that the copyright claim could not have any "practical effect" on the case's outcome and was therefore "moot." *Id.* at 31a.

3. The court of appeals denied rehearing and rehearing en banc. App., *infra*, 102a-103a.

REASONS FOR GRANTING THE PETITION

The decision below exacerbates a circuit conflict regarding when respect must be accorded to foreign judgments and the law governing that determination. It has serious implications for foreign relations and the reciprocal treatment that will be accorded to judgments of this Nation's courts. And it arises in an area—copyright law—bristling with federal interests. The decision's mootness ruling also contravenes the decisions of this Court and other courts of appeals.

I. REVIEW IS WARRANTED TO RESOLVE WHETHER FEDERAL COMITY PRINCIPLES GOVERN THE RESPECT ACCORDED TO FOREIGN JUDGMENTS

In *Hilton* v. *Guyot*, 159 U.S. 113 (1895), this Court established the federal standard governing the respect accorded to foreign judgments. Although that case arose under diversity jurisdiction, courts now agree that *Hilton* governs in federal-question cases, providing a uniform federal rule. Under *Hilton*, foreign judgments must be respected unless they contravene basic principles of decency and morality (*e.g.*, judgments applying racial laws).

Following *Erie Railroad Co.* v. *Tompkins*, 304 U.S. 64 (1938), however, the courts have fractured on *Hilton*'s—and federal law's—role in diversity- and supplemental-jurisdiction cases. The D.C. Circuit applies federal law. But many other courts have ruled that forum-state law controls. That practice has the potential to seriously damage federal interests: State law often is less respectful of foreign judgments and more prone to create international tensions. Recognizing as much, the leading treatises and commentators, as well as courts that apply state law, have urged abandoning that practice. In Wright & Miller's words, the "practice * * * deserves reconsideration." C. Wright *et al.*, *Federal Practice & Procedure* § 4473 (2d ed. 2017).

A. The Courts of Appeals Are Divided

1. At least four courts of appeals apply state rather than federal law when determining whether to accord preclusive effect to a foreign country's judgment in diversity cases. See *Trikona Advisers Ltd.* v. *Chugh*, 846 F.3d 22, 34 (2d Cir. 2017) ("In a diversity action, state substantive law governs * * * comity principles."); *Phillips USA, Inc.* v. *Allflex USA, Inc.*, 77 F.3d 354, 359 (10th Cir. 1996) ("'[I]t is state, not federal, law that governs the effect to be given foreign judgments.'"); *Success Motivation Inst. of Japan Ltd.* v. *Success Motivation Inst. Inc.*, 966 F.2d 1007, 1009-1010 (5th Cir. 1992) ("preclusive effect of" foreign judgment "should be determined under Texas law"). Some courts have adopted that approach in the supplemental-jurisdiction context as well. See *Seetransport Wiking Trader Schiffarhtsgesellschaft MBH & Co., Kommanditgesellschaft* v. *Navimpex*

Centrala Navala, 989 F.2d 572, 583 (2d Cir. 1993); C. Wright *et al.*, *supra*, § 4473.[4]

In the decision below, the Fourth Circuit followed that same approach. Invoking its earlier decision in *Jaffe* v. *Accredited Surety & Casualty Co.*, 294 F.3d 584, 591 (4th Cir. 2012), it applied North Carolina law to refuse res judicata effect to a U.K. judgment, from an action the plaintiff filed in the U.K., regarding U.K. conduct. The court of appeals did not ask whether the U.K. judgment was "'repugnant to fundamental notions of what is decent and just,'" as would be required to refuse recognition under *Hilton*. *De Csepel* v. *Republic of Hungary*, 714 F.3d 591, 606 (D.C. Cir. 2013) (quoting *Tahan* v. *Hodgson*, 622 F.2d 862, 864 (D.C. Cir. 1981)). Instead, it was enough that North Carolina and the U.K. had different policy preferences. In the U.K. proceeding, the U.K. courts held that the licenses' prohibition on the observation, study, or testing of software was void. App., *infra*, 11a. The Fourth Circuit refused to respect the resulting final judgment because "North Carolina * * * is more protective of the sanctity of contract." *Ibid.* The Fourth Circuit found that "conflict" sufficient under North Carolina law to deny the U.K. judgment preclusive effect. *Ibid.*

Departure from the federal *Hilton* standard regularly produces disparate outcomes. *Hilton*'s narrow exception

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[4] Courts often apply state law when deciding whether to recognize a foreign judgment at all. See, *e.g.*, *Midbrook Flowerbulbs Holland B.V.* v. *Holland Am. Bulb Farms, Inc.*, 874 F.3d 604, 615 n.12 (9th Cir. 2017); *Saskatchewan Mut. Ins. Co.* v. *CE Design, Ltd.*, 865 F.3d 537, 541 (7th Cir. 2017); *Derr* v. *Swarek*, 766 F.3d 430, 436 (5th Cir. 2014); *Turner Entm't Co.* v. *Degeto Film GmbH*, 25 F.3d 1512, 1520 (11th Cir. 1994); *Guinness PLC* v. *Ward*, 955 F.2d 875, 883 (4th Cir. 1992); see also *Shen* v. *Leo A. Daly Co.*, 222 F.3d 472, 476 (8th Cir. 2000).

allows comity to be refused only in the narrowest of circumstances—where the foreign judgment is contrary to fundamental values of decency and morality, *Tahan*, 662 F.2d at 864; pp. 4-5, *supra*.[5] But state-law standards, like the one employed below, often deny comity on grounds well short of moral repugnancy. See, *e.g.*, *Derr* v. *Swarek*, 766 F.3d 430, 434-435, 442 (5th Cir. 2014) (refusing comity because the German court issued declaratory judgment on a claim that a party had dismissed with prejudice); *Maxwell Schuman & Co.* v. *Edwards*, 663 S.E.2d 329, 332 (N.C. Ct. App. 2008) (refusing comity to Canadian judgment based on contingency-fee contract in child-custody case where North Carolina policy deems such contracts to "conflict with promoting the best interests of children"); *Cantrade Privatbank AG Zurich* v. *Bangkok Pub. Co.*, 681 N.Y.S.2d 21, 22 (N.Y. App. Div. 1998) (refusing to enforce Thai injunction against payment under letter of credit as "contrary to New York's strong public policy in favor of enforcing letter of credit agreements"); see also *Kelly* v. *First Astri Corp.*, 72 Cal. App. 4th 462, 489 (1999) (refusing comity to tribal-court judgment for gambling debts because of California's "strong policy against judicial resolution of civil claims arising out of gambling contracts").

This case exemplifies the difference. The Fourth Circuit refused to recognize the U.K. judgment because "'it

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[5] Public-policy exceptions found in international treaties, such as the Convention on the Recognition and Enforcement of Foreign Arbitral Awards art. V(2)(b), June 10, 1958, 21 U.S.T. 2519, embody the same restrictive standard. See, *e.g.*, *Thai-Lao Lignite (Thailand) Co.* v. *Gov't of Lao People's Democratic Republic*, 864 F.3d 172, 186 (2d Cir. 2017) (arbitral awards are enforceable unless contrary to "fundamental notions of what is decent and just"); *TermoRio S.A. E.S.P.* v. *Electranta S.P.*, 487 F.3d 928, 938-939 (D.C. Cir. 2007) (similar).

conflicts with the public policy'" of North Carolina. App., *infra*, 11a (quoting *Jaffe*, 294 F.3d at 591-592). But there is no conceivable argument that the U.K. judgment is anathema to fundamental American values. The E.U. and U.K. decline to enforce contracts prohibiting the study and observation of software because copyright law protects *only* the "*expression* in any form of a computer program," not functionality; as a result, contracts purportedly prohibiting the study of how software functions cross the line from protecting expression into protecting the unprotectable "*[i]deas* and principles which underlie any element of a computer program." Council Directive 91/250/EEC, *supra*, art. 1(2) (emphasis added).

Far from disagreeing, *U.S.* law draws precisely the same "idea/expression dichotomy." *Golan* v. *Holder*, 565 U.S. 302, 328-329 (2012). Under U.S. copyright law, protection is reserved for "expression," while "every idea, theory, and fact in a copyrighted work" is unprotected and "available for public exploitation." *Eldred* v. *Ashcroft*, 537 U.S. 186, 219 (2003). Indeed, the same distinction between protectable "expressions" and unprotectable "ideas" is drawn in treaties which the U.S., U.K., and E.U. have all joined. World Intellectual Property Organization Copyright Treaty art. 2, Apr. 12, 1997, S. Treaty Doc. 105-17, at 6; Agreement on Trade-Related Aspects of Intellectual Property Rights art. 9(2), Apr. 15, 1994, 33 I.L.M. 1197, 1201.

Accordingly, *U.S.* law imposes the same restrictions as U.K. law: As explained in greater detail (at pp. 26-27, *infra*), observing and studying software functionality is protected by the U.S. Copyright Act's fair-use doctrine. Accordingly, the Fifth Circuit has held that contractual prohibitions on such conduct are preempted. *Vault Corp.* v. *Quaid Software Ltd.*, 847 F.2d 255, 270 (5th Cir. 1988);

pp. 26-27, *infra.* Where U.S. courts impose the same rule as U.K. and E.U. law—in service of the same policy objective—U.K. law cannot be repugnant to fundamental notions of decency and morality.

2. In contrast to the Fourth Circuit, the D.C. Circuit applies *federal* comity principles when evaluating the respect that should be accorded to foreign judgments. *Tahan*, 662 F.2d at 864. In *Tahan*, a diversity case, the plaintiff obtained an Israeli default judgment against the defendant. *Id.* at 863. Applying *Hilton*, the D.C. Circuit enforced that judgment as a matter of comity. *Id.* at 864-868. In particular, the court applied federal law to determine whether to require reciprocity from the foreign country before enforcing that country's judgments. *Id.* at 868 & n.24. As the court noted, given the federal interest in foreign affairs, "notwithstanding *Erie* * * * the issue seems to be national rather than state." *Id.* at 868.

While *Tahan* reflects the minority view, it has found broad support—even in courts that apply the contrary rule. See *Guinness PLC* v. *Ward*, 955 F.2d 875, 883 (4th Cir. 1992) ("[S]ound reasons exist in this area of the law for the creation of federal law applicable to federal and state courts alike."); *Banque Libanaise Pour Le Commerce* v. *Khreich*, 915 F.2d 1000, 1003 n.1 (5th Cir. 1990) (noting courts' and commentators' support for a federal rule); *Her Majesty the Queen in Right of the Province of British Columbia* v. *Gilbertson*, 597 F.2d 1161, 1163 (9th Cir. 1979) (similar).

Recognizing the conflict, leading treatises and commentators almost universally side with the D.C. Circuit, urging that federal law—and *Hilton* in particular—should control in diversity-jurisdiction cases. As Wright & Miller observes:

> The practice of relying on state law outside of federal-question cases deserves reconsideration. * * * It is intrinsically awkward to confront foreign judgments with the potentially divergent law of fifty states and federal courts, and recognition of foreign judgments at least touches concerns of foreign relations in which the national government has paramount interests.

C. Wright *et al.*, *supra*, § 4473.

Commentators "overwhelmingly agree" that federal law should govern the recognition of foreign judgments. Jack L. Goldsmith, *Federal Courts, Foreign Affairs, and Federalism*, 83 Va. L. Rev. 1617, 1635 (1997); see, *e.g.*, Louis Henkin, *Foreign Affairs and the U.S. Constitution* 139 (2d ed. 1996); Ronald A. Brand, *Enforcement of Foreign Money-Judgments in the United States: In Search of Uniformity and International Acceptance*, 67 Notre Dame L. Rev. 253, 318 (1991); Robert C. Casad, *Issue Preclusion and Foreign Country Judgments: Whose Law?*, 70 Iowa L. Rev. 53, 79-80 (1984); see also Ruth Bader Ginsburg, *Recognition and Enforcement of Foreign Civil Judgments: A Summary View of the Situation in the United States*, 4 Int'l Law. 720, 733 (1970) (noting that recognition of foreign judgments is "susceptible [to] 'federalization' because of its close association with foreign relations").

3. The Third Circuit is internally divided. That court has held that state preclusion principles apply to a foreign judgment in diversity cases. See *Somportex Ltd.* v. *Phila. Chewing Gum Corp.*, 453 F.2d 435, 440 (3d Cir. 1971). But a later decision applies *Hilton*'s federal standard. See *Gross* v. *German Found. Indus. Initiative*, 456 F.3d 363, 392 (3d Cir. 2006). And still another decision—addressing the enforceability of a sister-state judg-

ment—declares that courts, when deciding which preclusion rules apply, should "weigh the significance and substantive character of the state preclusion rule," together with the risk of "forum-shopping," "against the importance of the federal interests" at stake. *Paramount Aviation Corp.* v. *Agusta*, 178 F.3d 132, 138 (3d Cir. 1999).[6] That approach would require application of federal law here in light of the acute federal interests. As explained below, the U.K. High Court's judgment relates to the United States' membership in the Berne Convention and the "national treatment" principle that Berne requires. See pp. 23-24, *infra*.

B. The Issue Is Important

The issue is critically important. Refusing to respect foreign judgments can jeopardize foreign relations. It threatens the respect accorded to judgments of U.S. courts abroad. And it implicates federal obligations under international treaties.

1. There can be little doubt that the treatment of foreign judgments in U.S. courts has serious foreign policy implications. For one thing, failure to respect foreign judgments here threatens reciprocal disregard of our judgments abroad. That "reciprocal mode" of treatment pre-dates even *Hilton*. 159 U.S. at 192. "Nor can much comity be asked for the judgments" of any "nation, which * * * pays no respect to those of other countries." *Id.* at 192 (quoting *Burnham* v. *Webster*, 4 F. Cas. 781, 783 (1846)). That risk remains today: If U.S. courts refuse to respect foreign judgments, foreign countries will refuse

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[6] The First Circuit has explicitly reserved whether state or federal law governs the respect accorded to foreign judgments in diversity cases. *Evans Cabinet Corp.* v. *Kitchen Int'l, Inc.*, 593 F.3d 135, 140-142 (1st Cir. 2010). It has recognized, however, the broad support for "application of a uniform federal body of law." *Ibid.*

to respect U.S. judgments in turn. See Anne-Marie Kim, *The Inter-American Convention and Additional Protocol on Letters Rogatory: The Hague Service Convention's "Country Cousins"?*, 36 Colum. J. Transnat'l L. 687, 720 (1998).

More broadly, the potential impact on foreign relations makes the treatment of foreign judgments a matter of national, not local, concern. Foreign relations are the exclusive province of the federal government. "Power over external affairs is not shared by the States; it is vested in the national government exclusively." *United States* v. *Pink*, 315 U.S. 203, 233 (1942); see also *Arizona* v. *United States*, 567 U.S. 387, 394-395 (2012). An "exercise of state power that touches on foreign relations must yield to the National Government's policy, given the 'concern for uniformity in this country's dealings with foreign nations' that animated the Constitution's allocation of the foreign relations power to the National Government in the first place." *Am. Ins. Ass'n* v. *Garamendi*, 539 U.S. 396, 413 (2003) (quoting *Banco Nacional de Cuba* v. *Sabbatino*, 376 U.S. 398, 427 n.25 (1964)); see also *Crosby* v. *Nat'l Foreign Trade Council*, 530 U.S. 363, 381-382 n.16 (2000); *The Federalist No. 42*, at 264 (James Madison) (C. Rossiter ed., 1961) ("If we are to be one nation in any respect, it clearly ought to be in respect to other nations."). Allowing each State to treat foreign judgments however it wishes invites unnecessary conflict with foreign powers and undermines national control over foreign affairs. That impact by itself calls for this Court's intervention. See *Christopher* v. *Harbury*, 536 U.S. 403, 412 (2002) ("grant[ing] certiorari * * * because of the importance of this issue to the Government in its conduct of the Nation's foreign affairs").

In *Sabbatino*, this Court held that federal common law governs the application of the "act of state" doctrine in diversity cases. 376 U.S. at 421-425. Not only were "the problems involved" of a "uniquely federal" nature, but the federal interest in foreign relations mandated a uniform federal rule as well. *Id.* at 424. "If federal authority * * * orders the field of judicial competence in this area for the federal courts, and the state courts are left free to formulate their own rules, the purposes behind the doctrine could be as effectively undermined as if there had been no federal pronouncement on the subject." *Ibid.* Nor did *Erie* dictate a different outcome: Because "rules of international law should not be left to divergent and perhaps parochial state interpretations," the act of state doctrine "must be treated exclusively as an aspect of federal law." *Id*. at 425.

Since *Sabbatino*, this Court has repeatedly applied federal common law to "interstate and international disputes implicating * * * our relations with foreign nations." *Tex. Indus., Inc.* v. *Radcliff Materials, Inc.*, 451 U.S. 630, 641 & n.13 (1981) (collecting cases). The Court, for example, has displaced state laws that intrude on foreign relations, even where no federal law expressly calls for preemption. *Garamendi*, 539 U.S. at 400 (preempting state insurance laws); *Zschernig* v. *Miller*, 389 U.S. 429 (1968) (preempting state probate laws). Federal law likewise should govern—or at least set minimum standards for—the important foreign-relations issues implicated when courts consider whether to honor the judgment of a foreign sovereign's courts, particularly given the settled international norms bearing on the issue.[7] If such mat-

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[7] The "uniquely federal interests" in relations with tribal sovereigns similarly require applying *Hilton*'s federal-law standard in connection with tribal-court judgments. *Wilson* v. *Marchington*, 127 F.3d

ters are instead to be left to the vagaries of state law, the decision to impose that approach should be made by this Court, not divided lower courts.

2.   The Berne Convention, moreover, makes the federal concerns paramount here. The Berne Convention requires "national treatment," *i.e.*, that a signatory's courts afford foreign citizens the same copyright protection offered the country's own nationals. 5 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 17.01 (Matthew Bender rev. ed.); pp. 6-7, *supra*. Consequently, when SAS Institute chose to sue WPL for allegedly infringing conduct that took place in the U.K., the U.K. court applied uniform U.K. law to hold that WPL was not liable. See pp. 8-10, *supra*.

The Fourth Circuit, however, cast aside that judgment. "Granting the U.K. judgment preclusive effect," the court declared, "would frustrate" state policy "by barring a North Carolina company from vindicating its rights under North Carolina law on the basis of the E.U.'s contrary policies." App., *infra*, 11a. That holding does not merely disagree with U.K. and E.U. law; it also disagrees with the Berne Convention. When "a North Carolina company" like SAS Institute chooses to sue in the U.K. for conduct in the U.K., the Berne Convention bestows on that company only those rights that U.K. copyright law bestows on U.K. nationals. Thus, under the Convention, U.K. courts apply U.K. law to U.K. conduct regardless of the plaintiff. For North Carolina law to disregard the resulting U.K. judgment undermines the U.S. commitment to Berne's principles.

805, 807-808 (9th Cir. 1997). The federal interest in respecting foreign-court judgments is no less powerful.

Before the Berne Convention, the U.S. confronted significant barriers to the protection of U.S. copyrighted works. For example, U.S. registration requirements often caused works with foreign copyrights to fall into the public domain here. *Golan*, 565 U.S. at 308-314. As a result, foreign countries "balked at protecting U.S. works, copyrighted here" until "the United States reciprocated with respect to their authors' works." *Id.* at 311-312. Reciprocity concerns animated U.S. entry into the Berne Convention. See S. Rep. 100-352, at 2 (1988) (one goal of U.S. accession was to "secure the highest available level of multilateral copyright protection for U.S. artists"). The decision below thus refuses to respect a foreign judgment in a context where reciprocity concerns are at their apogee.

C. This Case Illustrates the Unacceptable Risks Created by the Majority View

The decision below does not merely decline to accord respect to the judgment of the U.K. High Court of Justice. It does so for conduct undertaken *in the U.K.*, by a *U.K.* company, which was entitled to engage in that conduct under *U.K.* law. All the critical conduct giving rise to liability—the purchase of software, the "click" agreeing to the clickwrap license, the study of the software's operation, and the development of a competing product—occurred *in the U.K.* The Fourth Circuit nonetheless held that North Carolina public policy warranted refusing the U.K. judgment preclusive effect in favor of a second lawsuit under North Carolina law.

1. That result defies not just ordinary comity principles but traditional notions of national sovereignty as well. Even *within* our federal system, States cannot apply their laws to regulate "'commerce that takes place wholly outside of the State's borders, whether or not the

commerce has effects within the State.'" *Healy* v. *Beer Inst.*, 491 U.S. 324, 336 (1989); see also *Brown-Forman Distillers Corp.* v. *N.Y. State Liquor Auth.*, 476 U.S. 573, 582 (1986). Under basic "principles of state sovereignty and comity," one "State may not impose economic sanctions on violators of its laws with the intent of changing the tortfeasors' lawful conduct in other States." *BMW of N. Am., Inc.* v. *Gore*, 517 U.S. 559, 572 (1996). Thus, States cannot use liability to impose their "own policy choice on neighboring States." *Id.* at 571. If North Carolina may not use its tort laws to regulate conduct in other States, it likewise cannot regulate conduct in another country, much less do so in contravention of the final judgment of that country's courts and of U.S. treaty obligations. Cf. *Nat'l Foreign Trade Council* v. *Natsios*, 181 F.3d 38, 69 (1st Cir. 1999), aff'd sub nom. *Crosby* v. *Nat'l Foreign Trade Council*, 530 U.S. 363 (2000). By refusing to respect the U.K. High Court's judgment here, the Fourth Circuit imposed North Carolina standards on a U.K. company, for conduct in the U.K., that is protected as a matter of public policy by U.K. law.

The Fourth Circuit's decision, moreover, approves a *punitive* treble damages award for that conduct. See *Vt. Agency of Nat. Res.* v. *United States ex rel. Stevens*, 529 U.S. 765, 784 (2000) (treble damages are "essentially punitive"). And it approved *in limine* rulings that prevented WPL from showing that it relied, in good faith, on U.K. law authorizing its U.K. conduct—reliance that was later vindicated by the U.K courts. See pp. 8-10, *supra.* It is a grave affront to U.K. sovereignty to disregard the judgments of its courts. Imposing punitive liability for the same U.K. conduct, when U.K. courts have declared the conduct protected, while refusing even to consider

good-faith reliance, pushes the affront from grave to intolerable.

2. The insignificance of the state interest here aggravates the affront further still. The Fourth Circuit invoked North Carolina's interest in ensuring "the sanctity of contract." App., *infra*, 11a. But the contract provisions at issue here are of dubious validity under *federal* copyright law. As this Court has long recognized, Congress intended "national uniformity in * * * copyright law[ ]." *Sears, Roebuck & Co.* v. *Stiffel Co.*, 376 U.S. 225, 231 n.7 (1964); see also *Bonito Boats, Inc.* v. *Thunder Craft Boats, Inc.*, 489 U.S. 141, 162 (1989). State laws that conflict with the Copyright Act are thus preempted. See *Sears*, 376 U.S. at 229 (where "state law touches upon the area of [the copyright and patent statutes], it is 'familiar doctrine' that the federal policy 'may not be set at naught, or its benefits denied' by state law"); see also *Bonito Boats*, 489 U.S. at 143-144.

The observation, study, and testing of computer software to discern the underlying ideas is a protected "fair use" that furthers copyright's basic goal of promoting creativity for the public good. See *Sony Comput. Entm't, Inc.* v. *Connectix Corp.*, 203 F.3d 596, 602-608 (9th Cir. 2000) (citing *Sony Corp. of Am.* v. *Universal City Studios, Inc.*, 464 U.S. 417, 432 (1984)); *Bateman* v. *Mnemonics, Inc.*, 79 F.3d 1532, 1539 n.18 (11th Cir. 1996); *Atari Games Corp.* v. *Nintendo of Am. Inc.*, 975 F.2d 832, 843 (Fed. Cir. 1992) ("[R]everse engineering object code to discern the unprotectable ideas in a computer program is a fair use."). Accordingly, the Fifth Circuit has held that state statutes "permit[ting] a software producer to prohibit the adaptation of its licensed computer program by decompilation or disassembly" are preempted because they "conflict[ ] with the rights of computer program

owners under" the Copyright Act. *Vault Corp.*, 847 F.2d at 270; see also *Bowers* v. *Baystate Techs., Inc.*, 320 F.3d 1317, 1338 (Fed. Cir. 2003) (Dyk, J., dissenting) (because "*Vault* states the correct rule," any "state law authorizing shrinkwrap licenses that prohibit reverse engineering is preempted").

That rule is no different from the one the U.K. courts applied here. See p. 9, *supra*. North Carolina has no legitimate interest in defying federal copyright principles. It has no greater interest in defying the same principles when they are embodied in both federal and foreign law. If the Fourth Circuit had a different view of the demands of federal law, that would only reinforce the need for this Court's review: The courts are divided on the extent to which federal copyright law preempts state-law prohibitions on observing or testing software functionality. Compare *Bowers*, 320 F.3d at 1323 (upholding state prohibitions), with *Vault*, 847 F.2d at 270 (holding such prohibitions preempted), and *Bowers*, 320 F.3d at 1335-1338 (Dyk, J., dissenting) (agreeing with *Vault*). To the extent this case implicates an additional circuit conflict, that weighs in favor of review.

In any event, the fact that at least one circuit (and a leading jurist in another circuit) has concluded that U.S. copyright law preempts and invalidates shrinkwrap contracts like the one at issue—just as U.K. and E.U. law did—fatally undermines any argument that the U.K. court's decision is contrary to American concepts of decency and morality. Review is warranted.

II. THE COURT OF APPEALS' MOOTNESS RULING WARRANTS REVIEW AS WELL

The Fourth Circuit's mootness decision also warrants review. It is settled law that the "legal availability" of a remedy is a merits question that is "not pertinent to the

mootness inquiry." *Chafin* v. *Chafin*, 568 U.S. 165, 174 (2013). Yet the Fourth Circuit vacated the district court's copyright-infringement ruling as moot based on SAS Institute's failure to prove it was entitled to the relief it sought. App., *infra*, 30a-31a. That ruling defies this Court's precedents, creates tension with other circuits, and undermines important principles of judicial economy and finality.

A. Entitlement to Relief Concerns the Merits, Not Mootness

Mootness is grounded in Article III's command that the federal courts hear only "Cases" and "Controversies." U.S. Const. art. III, §2, cl. 1; *Chafin*, 568 U.S. at 171-172. Because a "Case" or "Controvers[y]" does not exist unless both sides have a "personal stake" in the outcome, a suit becomes moot "'when the issues presented are no longer "live" or the parties lack a legally cognizable interest in the outcome.'" *Chafin*, 568 U.S. at 171-172 (quoting *Already LLC* v. *Nike, Inc.*, 568 U.S. 85, 91 (2013)). "'As long as the parties have a concrete interest, however small, in the outcome of the litigation, the case is not moot.'" *Ibid.* A case "'becomes moot only when it is *impossible* for a court to grant any effectual relief whatever to the prevailing party.'" *Ibid.* (emphasis added).

Relief does not become *impossible* simply because, given the facts, it is *not available* to the party seeking it. As this Court has warned, the contrary approach "confuses mootness with the merits." *Chafin*, 568 U.S. at 174. Rather, the "legal availability of a certain kind of relief"—and any party's "prospects of success" in getting that relief—are not relevant to whether there is a "case or controversy" sufficient to support jurisdiction. *Ibid.*

This Court has thus consistently refused to find a case moot simply because the plaintiff was not entitled to a certain remedy. *Chafin*, for example, involved an appeal from a child-custody dispute under the Hague Convention on the Civil Aspects of International Child Abduction. 568 U.S. at 168. The district court had ordered the child returned to Scotland with her mother. *Id.* at 171. After the court denied a stay pending appeal, the mother took the child to Scotland. *Ibid.* The mother argued that the ensuing appeal was moot because the district court could not order the child's return to the U.S. *Id.* at 174. This Court rejected that argument. *Ibid.* Whether the district court could order the child's return, it explained, was a merits question about "the meaning of the Convention and the legal availability of a certain kind of relief." *Ibid.* And the father's "claim for re-return [could not] be dismissed as so implausible that it is insufficient to preserve jurisdiction." *Ibid.* (citing *Steel Co.* v. *Citizens for a Better Env't*, 523 U.S. 83, 89 (1998)). Nor did any "law of physics prevent[]" the child's return. *Id.* at 175. The Court therefore held that the father's "prospects of success [we]re * * * not pertinent to the mootness inquiry." *Id.* at 174.

This Court has applied that principle repeatedly. See, *e.g.*, *Powell* v. *McCormack*, 395 U.S. 486, 500 (1969) (rejecting argument that case was moot because district court cannot award backpay, as that argument "confuse[d] mootness with whether [the plaintiff] has established a right to recover"); *Decker* v. *Nw. Envtl. Defense Ctr.*, 568 U.S. 597, 610 (2013) (possibility that a party's "arguments lack merit, or that the relief it seeks is not warranted * * * does not make the case[] moot"); see also *Monsanto Co.* v. *Geertson Seed Farms*, 561 U.S. 139, 151 n.1 (2010) ("[W]hether petitioners are entitled to the re-

lief that they seek goes to the merits, not to standing.");
Steel Co., 523 U.S. at 92 ("scope" of statutory cause of action "goes to the merits and not to statutory standing");
Bell v. *Hood*, 327 U.S. 678, 683-684 (1946).

B. The Fourth Circuit's Decision Conflates Mootness with the Merits

The decision below flouts that principle. The district court held that SAS Institute's copyright-infringement claim failed on the merits. App., *infra*, 66a. On appeal, an injunction was the "only relief" SAS Institute sought on the copyright claim "that it ha[d] not already received from its other claims." *Id.* at 30a. The court of appeals concluded SAS Institute was not entitled to an injunction: "[T]he traditional equitable factors weigh against the issuance of injunctive relief." *Id.* at 29a-30a. But the court of appeals did not affirm on that alternative ground. Instead, because SAS Institute failed to prove entitlement to the only relief it sought, the court *vacated* the district court's copyright ruling as "moot." *Id.* at 30a-31a.

That repeats the confusion between the merits and mootness this Court condemned in *Chafin*. See 568 U.S. at 174. The Fourth Circuit explicitly reached the merits when it concluded that SAS Institute was not entitled to an injunction. App., *infra*, 30a-31a. No one suggested that SAS Institute's claim to an injunction was "so implausible that it [was] insufficient to preserve jurisdiction." *Chafin*, 568 U.S. at 174 (citing *Steel Co.*, 523 U.S. at 89). No "law of physics" precluded that remedy. *Id.* at 175. Nor was it "'*impossible* for a court to grant any effectual relief.'" *Id.* at 172 (emphasis added). The court's ruling on the merits of an injunction thus did not moot the copyright controversy—it *decided* the controversy. The "legal availability" of a remedy is "not pertinent to

the mootness inquiry." *Id.* at 174. The decision below cannot be reconciled with that principle.

C. The Fourth Circuit's Decision Conflicts with the Decisions of Other Circuits

The decision below also creates a conflict with the decisions of other courts of appeals. For example, in *United States* v. *Serrapio*, 754 F.3d 1312 (11th Cir. 2014), the Eleventh Circuit rejected a claim of mootness almost indistinguishable from the one here. The defendant sought to challenge a term of home commitment that he had already served. *Id.* at 1315. The court of appeals ruled that the challenge was not moot because he could seek a refund of the costs he paid for his confinement. *Id.* at 1318. Even if the district court "ultimately lacked the authority to order such a refund," it explained, "that would not render th[at] portion of the appeal moot, for the legal availability of relief goes to the merits, and not to mootness." *Ibid.* (citing *Chafin*, 568 U.S. at 174). The Fourth Circuit's decision in this case would compel the contrary result: Because the court could not order any relief that affected the parties—a retroactive refund being unavailable—the case would have been moot. App., *infra*, 30a-31a.

The Ninth Circuit expressly refuses to "weigh[ ] the equities of any particular remedy" as part of the mootness analysis. *Tinoqui-Chalola Council of Kitanemuk & Yowlumne Tejon Indians* v. *U.S. Dep't of Energy*, 232 F.3d 1300, 1305 (9th Cir. 2000). In *Tinoqui-Chalola*, the defendants argued that a contractual rescission suit was "moot because the status quo [could not] be restored" by rescission. *Id.* at 1304-1305. The court rejected that argument: Any difficulties in effecting rescission, it held, were "more appropriately considered when weighing the equities of any particular remedy" on the merits. *Id.* at

1305. Here, the Fourth Circuit did the opposite: It weighed the equities to deny SAS Institute an injunction, App., *infra*, 28a-30a, but then held that its failure to prove entitlement to an injunction went to jurisdiction—mootness—rather than the merits, *id.* at 30a-31a.

The Second Circuit likewise has rejected the approach adopted by the Fourth Circuit here. In *Chevron Corp.* v. *Donzinger*, 833 F.3d 74 (2d Cir. 2016), the plaintiff, who pressed claims under the Racketeer Influenced and Corrupt Organizations Act, sought only equitable relief on appeal. *Id.* at 126-127. Arguing that RICO did not authorize equitable relief, the defendant asserted that the claim was moot. *Ibid.* The Second Circuit disagreed: "[M]ootness based on a challenge to 'the legal availability of a certain kind of relief * * * confuses mootness with the merits.'" *Ibid.*

D. The Issue Is Important and Recurring

The proper scope of mootness doctrine, like other questions about the scope of the Article III power, is an important issue on which this Court has repeatedly granted review. See, *e.g.*, *Wirtz* v. *Local 153, Glass Bottle Blowers Ass'n*, 389 U.S. 463, 467 (1968); *Exec. Jet Aviation, Inc.* v. *City of Cleveland*, 409 U.S. 249, 252 (1972). The confusion between mootness and the merits is also recurring—and will continue to recur absent review. See, *e.g.*, *Wolfe* v. *Johnson*, 565 F.3d 140, 162 n.31 (4th Cir. 2009) (dismissing claim based on procedural error as "moot" because the court determined that the plaintiff lost on the merits).

That confusion has significant consequences, depriving litigants and the public of hard-earned rulings that would otherwise finally settle legal disputes. Finality is especially crucial in the context of intellectual property. Cf. *Cardinal Chem. Co.* v. *Morton Int'l, Inc.*, 508 U.S. 83,

100 (1993) (noting "strong public interest in the finality of judgments in patent litigation"). In vacating the district court's ruling that WPL had not infringed SAS Institute's copyright, App., *infra*, 6a, the Fourth Circuit potentially exposed WPL—and any other person that might offer software running SAS-language programs—to future suit by SAS Institute. That result risks duplicative litigation of a hard-fought issue that is crucial to WPL and other competitors. See *Cardinal Chem.*, 508 U.S. at 99-100 ("A company once charged with [patent] infringement must remain concerned about the risk of similar charges * * * in the future.").

Finally, the Fourth Circuit's erroneous approach harms the public interest. "'Judicial precedents are presumptively correct and valuable to the legal community as a whole.'" *U.S. Bancorp Mortg. Co.* v. *Bonner Mall P'ship*, 513 U.S. 18, 26 (1994). But the Fourth Circuit's reasoning results in the vacatur of otherwise valuable district-court decisions when the courts of appeals agree with the results on other grounds. "Because of the importance of the issue and the novel view of" mootness adopted by the Fourth Circuit, review of the Fourth Circuit's mootness ruling is warranted as well. *Clapper* v. *Amnesty Int'l USA*, 568 U.S. 398, 408 (2013).

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted.

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APRIL 2018

APPENDIX

APPENDIX A
UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT
<u>PUBLISHED</u>

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No. 16-1808

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SAS INSTITUTE, INC.,
Plaintiff-Appellant,

v.

WORLD PROGRAMMING LIMITED,
Defendant-Appellee,

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THE MATHWORKS, INC.; BSA THE SOFTWARE ALLIANCE,
Amici Supporting Appellant,

ELECTRONIC FRONTIER FOUNDATION; COMPUTER &
COMMUNICATIONS INDUSTRY ASSOCIATION; INTERNET
ASSOCIATION; ENGINE ADVOCACY,
Amici Supporting Appellee,

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No. 16-1857

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SAS INSTITUTE, INC.,
Plaintiff-Appellee,

v.

WORLD PROGRAMMING LIMITED,
Defendant-Appellant,

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(1a)

THE MATHWORKS, INC.; BSA THE SOFTWARE ALLIANCE,
Amici Supporting Appellee,

ELECTRONIC FRONTIER FOUNDATION; COMPUTER &
COMMUNICATIONS INDUSTRY ASSOCIATION; INTERNET
ASSOCIATION; ENGINE ADVOCACY,
Amici Supporting Appellant.

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Appeals from the United States District Court
for the Eastern District of North Carolina, at Raleigh.
Louise W. Flanagan, District Judge.
(5:10-cv-00025-FL)

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OPINION

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Argued: September 15, 2017
Decided: October 24, 2017

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Before WILKINSON, DUNCAN, and THACKER,
Circuit Judges.

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Affirmed in part, and vacated and remanded in part by
published opinion. Judge Wilkinson wrote the opinion, in
which Judge Duncan and Judge Thacker joined.

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WILKINSON, Circuit Judge:

SAS Institute (SAS) and World Programming Limited
(WPL) are competitors in the market for statistical a-
nalysis software. SAS alleges that WPL breached a li-
cense agreement for SAS software and violated copy-
rights on that software. We agree with the district court

that the contractual terms at issue are unambiguous and that SAS has shown that WPL violated those terms. We thus affirm the district court's judgment finding WPL liable for breach of the license agreement. With respect to the district court's ruling on the copyright claim, we vacate that portion of the district court's judgment and remand with instructions to dismiss it as moot.

I.

This case arises out of competition in the market for software used to manage and analyze large and complex datasets. SAS, a North Carolina company, sells an integrated system of business software collectively known as the "SAS System." Users operate the SAS System by writing instructions, or SAS programs, in a computer programming language known as the SAS language. While anyone can write a SAS program, software such as the SAS System is required to make a SAS program function. SAS licenses its full suite of software to both individuals and corporations, and has also offered the SAS Learning Edition, which is a lower-cost version of the SAS System marketed as an educational tool to enable students to learn the SAS language. The Learning Edition provides the same general functionality as the full SAS System, but is programmed to process only a limited amount of data. To complete installation of the Learning Edition, a user must click "Yes" to indicate agreement with the terms of the license. As discussed in more detail below, these terms include a prohibition on "reverse engineering," as well as a restriction requiring use only for "non-production purposes."

WPL is a United Kingdom company formed to develop statistical reporting software. Shortly after its formation, WPL identified what it saw as a market opportunity to compete with SAS by selling software capable of

running SAS language programs. While developing this competing software, now marketed as the World Programming System (WPS), WPL acquired several copies of the SAS Learning Edition, including two copies in 2003, one in 2005, two in 2007, and seven in 2009. Developers at WPL ran SAS programs through both the Learning Edition and WPS, and then modified WPS's code to make the two achieve more similar outputs. Several former SAS customers have replaced their SAS System software with WPS. Learning Edition licenses expire after four years, so none of the copies that WPL purchased are still functional.

In September 2009 and January 2010, respectively, SAS filed lawsuits against WPL in the U.K. and in the Eastern District of North Carolina. In the U.K. litigation, SAS asserted claims for copyright infringement and breach of the Learning Edition license agreement. The U.S. suit also contained claims for copyright infringement and breach of the license agreement, but additionally asserted claims for fraudulent inducement, tortious interference with contract, tortious interference with prospective business advantage, and violation of the North Carolina Unfair and Deceptive Trade Practices Act (UDTPA). The U.S. litigation was initially dismissed for *forum non conveniens* in March 2011, but that dismissal was reversed by this court in February 2012 and the case was remanded to the district court. See *SAS Institute, Inc.* v. *World Programming Ltd.*, 468 F. App'x 264, 264-65 (4th Cir. 2012) (per curiam).

In July 2010, the U.K. High Court rendered an interim judgment on SAS's claims. However, the U.K. High Court concluded that the case turned on interpretation of several provisions of E.U. law, including Council Directive 91/250/EEC and Directive 2001/29/EC (collectively

"E.U. Software Directive"), both relating to the legal protection of computer programs. The U.K. High Court referred its interpretive questions to the Court of Justice of the European Union (CJEU). The CJEU ruled that under the E.U. Software Directive "neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions" are copyright protected, and that "a licensee is entitled . . . to determine the ideas and principles which underlie any element of the program" if he does so while he "carries out acts covered by that license and acts of loading and running necessary for use of the computer program." J.A. 8887-88. However, the CJEU also ruled that "reproduction, in a computer program or a user manual for that program, of certain elements described in the user manual for another computer program protected by copyright is capable of constituting an infringement of the copyright in the latter manual." J.A. 8888.

Based on the CJEU ruling, the U.K. High Court entered a final ruling for WPL on all claims except for copyright infringement of the SAS manuals. The U.K. High Court determined that, to the extent WPS reproduced the SAS System, it reproduced only aspects of the program that are not protected by U.K. copyright law. The U.K. High Court's ruling on SAS's breach of contract claims relied on the mandatory nature of the E.U. Software Directive, as parties to a contract may not contravene the Directive by agreement. Thus, because WPL's behavior was explicitly protected by the Directive, SAS could not enforce any contractual provisions that prohibited it. The Court of Appeal of England and Wales affirmed the U.K. High Court's ruling, and it became final

when the Supreme Court of the U.K. refused SAS's request to appeal the judgment further on July 9, 2014.

In the U.S. litigation, SAS filed a motion on April 14, 2014, for partial summary judgment on its claims for breach of contract and tortious interference with contract. That same day, WPS filed a motion for summary judgment on all of SAS's claims. Each motion was granted in part and denied in part. The district court granted summary judgment to SAS on the question of liability for breach of the license agreement, but granted summary judgment to WPL on SAS's claims for copyright infringement of the SAS System, tortious interference with contract, and tortious interference with prospective economic advantage. The district court did not grant summary judgment on SAS's claims for copyright infringement of the SAS manuals,[1] breach of contract, fraudulent inducement, or UDPTA violations. See *SAS Institute Inc.* v. *World Programming Ltd.*, 64 F. Supp. 3d 755, 783 (E.D.N.C. 2014).

WPL moved for reconsideration of the district court's ruling on the breach of contract issue, but its motion was denied. However, on its own motion, the district court later set aside and corrected portions of its earlier summary judgment rulings. Specifically, the district court set aside portions of its earlier ruling granting certain of the U.K. High Court's findings preclusive effect. Nonetheless, the district court ruled that SAS was still entitled to summary judgment on its breach of contract claim.

The case proceeded to trial on SAS's claims for fraudulent inducement and UDTPA violations, as well as for the calculation of damages from WPL's breach of contract.

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[1] The parties later stipulated to the dismissal of SAS's claim for copyright infringement of the SAS manuals.

The jury found damages in the amount of $26,376,635 for the breach of contract, and also found WPL liable for fraudulent inducement and UDPTA violations, resulting in the same damages. The jury also awarded SAS $3,000,000 in punitive damages based on the fraudulent inducement finding. Under UDTPA, the compensatory damages award of $26,376,635 was trebled. SAS had the option to elect either the trebling of damages or the $3,000,000 punitive damages award, and could not recover both. Thus, the total damages awarded to SAS after trebling was $79,129,905. SAS also sought an injunction, which the district court denied. WPL sought attorney's fees under 17 U.S.C. § 505 as a prevailing party on the copyright issue, but this motion was denied.

Both parties appealed. WPL appeals the district court's holding that the U.K. litigation did not preclude the U.S. suit, the grant of summary judgment on the breach of contract issue, certain evidentiary rulings made below, the amount of the damages, and the district court's denial of attorney's fees on the copyright claim. SAS appeals the district court's denial of injunctive relief and the district court's copyright ruling. For the reasons that follow, all of WPL's appeals fail, and we affirm those portions of the district court's judgment. SAS also fails to demonstrate that it is entitled to injunctive relief, and we affirm the district court's ruling on this issue. Finally, the district court's ruling on the copyright claim is vacated as moot. We address each of these issues in turn.

II.

Preliminarily, WPL contends that the proceedings below never should have moved forward, as this action was barred by res judicata due to the U.K. litigation. The district court concluded that this argument was waived by WPL. And indeed, "res judicata [is] an affirmative de-

fense ordinarily lost if not timely raised." *Arizona* v. *California*, 530 U.S. 392, 410 (2000). The parties offer competing characterizations of WPL's arguments below related to claim preclusion and issue preclusion in the course of disputing whether the res judicata issue is properly before us. However, it is unnecessary for us to determine whether WPL sufficiently preserved this issue, as res judicata did not bar this case in any event.

The doctrine of res judicata, or claim preclusion, applies when three elements are satisfied. "[T]here must be: (1) a final judgment on the merits in a prior suit; (2) an identity of the cause of action in both the earlier and the later suit; and (3) an identity of parties or their privies in the two suits." *Pueschel* v. *United States*, 369 F.3d 345, 354-55 (4th Cir. 2004). As this court has emphasized, however, claim preclusion and issue preclusion are "practical" doctrines. See, *e.g.*, *Providence Hall Associates Ltd. Partnership* v. *Wells Fargo Bank, N.A.*, 816 F.3d 273, 276 (4th Cir. 2016). Res judicata is ultimately governed by whether the present case has already been decided, and whether the party has previously had a fair shot with respect to the claims raised in the present action. Where it applies, res judicata serves crucial functions in our legal system. The doctrine prevents litigants from being forced through the system twice, which would prolong the disruption in their lives and drive up unnecessary expense. It also conserves judicial resources and minimizes the risk of undermining the authority of judicial decisions by preventing inconsistent judgments. *Montana* v. *United States*, 440 U.S. 147, 153-54 (1979). We therefore must closely examine any allegedly preclusive litigation to determine whether those interests would be served.

It is undisputed that the U.K. litigation produced a final judgment on the merits, and that the parties in that suit are identical to those in the present action. The applicability of res judicata thus turns, and ultimately falters, on the second element, the identity of the cause of action. "No simple test exists to determine whether causes of action are identical" in the res judicata analysis, "and each case must be determined separately within the conceptual framework of the doctrine." *Pittston Co.* v. *United States*, 199 F.3d 694, 704 (4th Cir. 1999) (citing *Aliff* v. *Joy Mfg. Co.*, 914 F.2d 39, 43 (4th Cir. 1990)). The conceptual framework we operate under is a transactional one, as we ask "whether the claim presented in the new litigation 'arises out of the same transaction or series of transactions as the claim resolved by the prior judgment'" and whether "the claims could have been brought in the earlier action." *Laurel Sand & Gravel, Inc.* v. *Wilson*, 519 F.3d 156, 162 (4th Cir. 2008) (quoting *Pittston Co.*, 199 F.3d at 704; *Tahoe-Sierra Pres. Council, Inc.* v. *Tahoe Regional Planning Agency*, 322 F.3d 1064, 1078 (9th Cir. 2003)).

This standard has not been met here. The many legal and factual differences between the U.K. litigation and the present suit mean that applying res judicata would have the practical effect of preventing SAS from having its claims heard in any adequate forum. Applying res judicata in such a mechanical manner based on facial similarities between the two suits would also undermine United States and North Carolina policies in favor of the policies of the U.K. and European Union, a result res judicata has not been held to require. See *Jaffe* v. *Accredited Surety and Casualty Co., Inc.*, 294 F.3d 584, 591 (4th Cir. 2002).

SAS's claims in both lawsuits revolve around WPL's acquisition of the Learning Edition, creation of a competitor product, and sales of that competing product. It is here that the similarities between the actions end, however, and WPL has not shown that SAS could have chosen to pursue the claims ultimately adjudicated in the U.S. in the U.K. instead.

The U.S. suit alleged violations of U.S. copyright, which WPL has not established could have been litigated in U.K. courts. Similarly, the U.S. suit focused only on sales of WPS within the United States, and WPL has not established that SAS could have recovered for these sales in the U.K. Ultimately, "[t]he fact that two suits involve challenges to very similar courses of conduct does not matter." *Ohio Valley Environmental Coalition* v. *Aracoma Coal Co.*, 556 F.3d 177, 211 (4th Cir. 2009). The copyright claims, then, which were based on the copyright laws of different countries and on different sets of sales transactions, were not barred by res judicata.

For those aspects of the suits that were most similar, the breach of contract actions, it is clear that the U.K. was not, in fact, an adequate forum. The parties agreed to be governed by North Carolina law. Nonetheless, the U.K. courts were bound to, and ultimately did, declare portions of the contract unenforceable based on E.U. law. SAS's claims for fraudulent inducement and UDTPA violations, which were brought only in the U.S. action, could not have been adequately addressed in the U.K. due to the same aspects of E.U. law, based on WPL's own understanding of that law. Even if these claims would present close res judicata questions had the first litigation been in another U.S. jurisdiction, the question is less close when the allegedly preclusive judgment is from a foreign jurisdiction. As this court has recognized, while

"neither a state nor a federal court can refuse to give full faith and credit to the judgment of a state court because of disagreement with the public policy basis for that decision," courts may "refuse . . . to recognize a *foreign* judgment on the ground that it conflicts with the public policy of [the] state." *Jaffe*, 294 F.3d at 591-92.

North Carolina public policy and E.U. public policy are in clear conflict in this case. The E.U. Directive that was dispositive of the contract claims in the U.K. litigation has no equivalent in North Carolina. Instead, the United States has taken an approach that is more protective of intellectual property, and North Carolina courts have taken an approach that is more protective of the sanctity of contract, including broad deference to the parties to elect the governing law. See, *e.g.*, *Bueltel* v. *Lumber Mut. Ins. Co.*, 518 S.E.2d 205, 209 (N.C. Ct. App. 1999). Granting the U.K. judgment preclusive effect would frustrate these policy goals by barring a North Carolina company from vindicating its rights under North Carolina law on the basis of the E.U.'s contrary policies. No principle of international comity requires this outcome.

For similar reasons, WPL's arguments based on issue preclusion are unavailing. Issue preclusion applies only when "the issues in each action [are] identical, and issues are not identical when the legal standards governing their resolution are significantly different." *Computer Associates Int'l, Inc.* v. *Altai, Inc.*, 126 F.3d 365, 371 (2d Cir. 1997). The issues involved in this case are by no means identical to those litigated in the U.K., because the U.K. breach of contract ruling was based entirely on the E.U. Software Directive, a governing law inapplicable in this action and significantly different from U.S. and

North Carolina law.[2] These legal differences prevent issue preclusion here.

In sum, both claim preclusion and issue preclusion are inapplicable in this case, and we turn to the merits.

III.

WPL asks us to reverse the district court's grant of summary judgment on SAS's breach of contract claims. We review this question de novo, *Seabulk Offshore, Ltd.* v. *American Home Assur. Co.*, 377 F.3d 408, 418 (4th Cir. 2004), and affirm the district court's judgment.

At summary judgment, the parties did not dispute that the license agreement is a valid contract between WPL and SAS. Nor was WPL's actual conduct in dispute at this stage. Instead, WPL argues that summary judgment was inappropriate because the contractual terms "reverse engineering" and "non-production," both critical to the breach of contract holding, are ambiguous. Summary judgment is appropriate in breach of contract cases "when the contract in question is unambiguous or when an ambiguity can be definitively resolved by reference to extrinsic evidence." *Washington Metropolitan Area Transit Authority* v. *Potomac Investment Properties, Inc.*, 476 F.3d 231, 235 (4th Cir. 2007). For the reasons explained below, there is no ambiguity here.

The district court found WPL liable for breach of contract on the basis of two distinct violations of the license agreement, specifically violations of the term prohibiting "reverse engineering" and the term restricting use to

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[2] WPL argues that we should apply U.K. law to certain contract questions, WPL's Opening/Response Br. 67-68, but we are unpersuaded. North Carolina courts generally give effect to the parties' choice of law, with only narrow exceptions not applicable here, as explained by the district court. J.A. 1332-33.

"non-production purposes." The purported ambiguities WPL identifies in these terms do not survive an examination of the record in this case.

The parties agreed their contract would be governed by North Carolina law, and North Carolina courts do not find ambiguity in contractual language simply because the parties dispute its meaning. *Wachovia Bank & Trust Co.* v. *Westchester Fire Ins. Co.*, 172 S.E.2d 518, 522 (N.C. 1970). Instead, North Carolina courts first apply ordinary principles of contract interpretation to resolve disputes if possible. See *id.* Among these principles is that "nontechnical words are to be given a meaning consistent with the sense in which they are used in ordinary speech, unless the context clearly requires otherwise." *Id.* Courts may resort to dictionaries to identify "the common and ordinary meaning of words and phrases." *Marcuson* v. *Clifton*, 571 S.E.2d 599, 601 (N.C. Ct. App. 2002) (quoting *State* v. *Martin*, 173 S.E.2d 47, 48 (N.C. Ct. App. 1970)). Importantly, meaning "is derived not from a particular contractual term but from the contract as a whole." *State* v. *Philip Morris USA Inc.*, 618 S.E.2d 219, 225 (N.C. 2005). With these principles in mind, the unambiguous meanings of the terms at issue quickly become apparent.

A.

We begin with the reverse engineering prohibition, which provides that "Customer may not reverse assemble, reverse engineer, or decompile the Software or otherwise attempt to recreate the Source Code, except to the extent applicable laws specifically prohibit such restriction." J.A. 9081. WPL argues that the phrase has a narrow meaning, restricting only "decompiling or otherwise accessing and recreating the source code of a program." WPL Opening/Response Br. 63. By contrast,

SAS favors a broader interpretation that would encompass any attempt "to analyze a product to learn the details of its design, construction, or production in order to produce a copy or improved version." SAS Response/ Reply Br. 25.

The district court was correct to note that the phrase's meaning is "not self-evident" in isolation. J.A. 1481. Consistent with North Carolina law, the district court then turned to dictionary definitions and to the contract as a whole to determine the ordinary meaning of the phrase. According to the Oxford English Dictionary, to reverse engineer is to "examine (a product) in order to determine its construction, composition, or operation, typically with a view to manufacturing a similar product." J.A. 1481-82 (quoting an Oxford English Dictionary definition of "reverse engineer"). A Merriam-Webster definition similarly provides that to reverse engineer is "to study the parts of (something) to see how it was made and how it works so that you can make something that is like it." J.A. 1482 (quoting a Merriam-Webster definition of "reverse engineer"). Each of these definitions is more consistent with the broad understanding offered by SAS than the narrower interpretation preferred by WPL. WPL has not pointed to, and we have not discovered, any technical dictionaries that reveal a narrower meaning specific to the software context. In fact, WPL's narrower interpretation of "reverse engineering" does not find support in a paper written explicitly to define the practice in the software context. Elliot J. Chikofsky and James H. Cross II, *Reverse Engineering and Design Recovery: A Taxonomy*, IEEE Software 13, 15 (Jan. 1990) ("Reverse engineering is the process of analyzing a subject system to identify the system's components and their

interrelationships and create representations of the system in another form or at a higher level of abstraction.").

The broader interpretation offered by SAS also better complies with the requirement of North Carolina contract interpretation to give effect to every word of a contract, if possible. See *Marcuson*, 571 S.E.2d at 601 (noting the goal of "giving effect to each [clause and word] whenever possible") (quoting *Marcoin, Inc.* v. *McDaniel*, 320 S.E.2d 892, 897 (N.C. Ct. App. 1984)). The reverse engineering prohibition is paired with prohibitions on "reverse assembl[ing]" and "decompil[ing]." J.A. 9081. Yet WPL's narrow construction of the reverse engineering prohibition would affect only those who reverse engineered the software by decompiling and reverse assembling it. It would thus make the phrase "reverse engineer" entirely redundant. With the plain meaning of the phrase avoiding this redundancy, we decline to adopt a narrower interpretation that renders the phrase inert.

WPL skips over these traditional tools of contract interpretation, instead relying on extrinsic evidence that it claims shows ambiguity. This approach is incorrect. North Carolina contract law turns to extrinsic evidence only after the contract is found to be ambiguous. See, *e.g.*, *Cleveland Const., Inc.* v. *Ellis-Don Const., Inc.*, 709 S.E.2d 512, 522 (N.C. Ct. App. 2011) (noting that where a contract is unambiguous, "the court is limited to an interpretation in keeping with the express language of the document and without considering parol evidence" (quotation marks omitted)). Where, as here, the contractual terms are unambiguous, the analysis comes to an end, and summary judgment is appropriate. *Inland American Winston Hotels, Inc.* v. *Crockett*, 712 S.E.2d 366, 369 (N.C. Ct. App. 2011) (noting that "[e]xtrinsic evidence may be consulted when the plain language of the contract

is ambiguous," but declining to consider extrinsic evidence after using dictionary definitions to find the terms unambiguous).

Even were we to reach the extrinsic evidence, however, WPL has not raised a triable issue of fact on the meaning of this phrase. The extrinsic evidence WPL provided demonstrated only that software *can be* reverse engineered through the means WPL describes. For example, WPL pointed to the testimony of SAS's CEO, who agreed that it is "very common" for the term reverse engineering to be used to refer to the conduct WPL describes. WPL Opening/Response Br. 65 n. 19 (quoting J.A. 2082). Similarly, WPL noted that another SAS witness stated that reverse engineering "can be a lot of different things," including "looking at the source code" of a piece of software. *Id.* (quoting J.A. 2599-2600) (emphasis omitted). But none of this evidence undermines the district court's interpretation of the contract. That the type of reverse engineering described by WPL is possible, or even common, does nothing to suggest that no other type of reverse engineering is possible.

It is clear that WPL violated the unambiguous reverse engineering prohibition. By all accounts, WPL analyzed the Learning Edition to learn how it worked in order to better recreate its functionality in its own products. That WPL did not access the Learning Edition's source code is simply insufficient to overcome the ample evidence that WPL analyzed the broader "design" of the Learning Edition. WPL thus used the Learning Edition in precisely the way the reverse engineering clause prohibited.

Because this restriction is unambiguous, and WPL's undisputed conduct violated it, the district court correctly granted summary judgment to SAS on this basis.

B.

The "non-production purposes" limitation provides a similarly unambiguous ground on which to find WPL liable for breach of contract. Under this provision, WPL, like all licensees of the SAS Learning Edition, agreed to use the Learning Edition for "non-production purposes only." J.A. 9081. As with the reverse engineering prohibition, ordinary principles of contract interpretation reveal just one, unambiguous meaning of this phrase, which WPL's admitted conduct violated. Specifically, we agree with the district court's interpretation of this clause to forbid "the creation or manufacture of commercial goods." J.A. 1505.

WPL again attempts to create ambiguity by offering a purportedly technical definition of "production" as used in the software industry. Of course, contracts may contain technical terms, and courts in North Carolina are bound to construe terms according to their technical meanings if "it is clear that the parties intended the words to have a specific technical meaning." *Allstate Ins. Co.* v. *Runyon Chatterton*, 518 S.E.2d 814, 816-17 (N.C. Ct. App. 1999). Merely asserting that a term has a technical meaning is insufficient to defeat summary judgment, however, particularly in light of the fact that "the ordinary meaning of a term is the preferred construction." *Id.* at 817. This would be especially true where the agreement is a consumer contract for a product marketed as an educational tool.

WPL asserts that, "[i]n software parlance, 'production' refers to a type of environment." J.A. 9241. Within that parlance, WPL claims, "[a] 'development environment' is one where a programmer can securely develop software and test it, whereas a 'production environment' is generally one where the software is accessible by the public or

is being used to run a business." J.A. 9241. However, if "production" was meant to reference some type of "environment," the phrasing of the restriction was bizarre. Nowhere does the agreement even use the word "environment." As the district court pointed out, the more direct phrase "use in a development environment" would have been utilized if WPL's favored meaning had been intended. J.A. 1506. The evidence provided by WPL, then, does little to support its preferred interpretation, and in fact undermines it.

Turning to the ordinary meaning of the phrase "non-production purposes," then, the narrow interpretation preferred by WPL is untenable. Relying again on dictionary definitions, the district court noted that the Oxford English Dictionary offers definitions for "production" including "[t]he action or an act of producing, making, or causing anything; generation or creation *of* something; the fact or condition of being produced" and "the manufacture of goods for sale and consumption." J.A. 1504 (quoting an Oxford English Dictionary definition of "production"). Merriam-Webster's definition of production is similar: "the act or process of producing" or "the creation of utility; *esp*: the making of goods available for use." *Merriam-Webster's Collegiate Dictionary*, "production" (11th ed. 2011).

SAS's explanation of the non-production purposes limitation is closely related to these dictionary definitions and indeed is nearly identical to one of the Oxford English Dictionary definitions that the district court identified. By contrast, WPL's preferred interpretation is entirely divorced from the ordinary meaning of the words used.

Under ordinary principles of North Carolina contract interpretation, then, the agreement must be understood

to unambiguously prohibit WPL's conduct. WPL's use of
the Learning Edition cannot be reasonably described as
use for "non-production purposes." To the contrary,
WPL used the Learning Edition specifically to produce a
competing product. The type of "environment" in which
WPL performed this production is beside the point; the
purpose of WPL's activity was the creation of a commer-
cial product. The non-production purposes limitation
therefore provides an independent basis to find WPL lia-
ble for breach of the license agreement.[3]

IV.

WPL also contends that the district court erred in two
of its evidentiary decisions. Evidentiary rulings "will not
be disturbed absent a clear abuse of discretion." *United
States* v. *Russell*, 971 F.2d 1098, 1104 (4th Cir. 1992). "A
district court abuses its discretion if it relies on an error
of law or a clearly erroneous factual finding." *Equal Em-
ployment Opportunity Commission* v. *Freeman*, 778
F.3d 463, 466 (4th Cir. 2015). No such abuse of discretion
occurred here.

WPL first complains about the district court's decision
to exclude relevant evidence regarding the U.K. litigation

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[3] In addition to challenging the merits of the breach of contract hold-
ing, WPL also challenged the jury's damages award. We need not
decide whether UCC's Article 2 restrictions on consequential dam-
ages apply here, because WPL has not persuaded us that any dam-
ages awarded were consequential damages from the sale of goods as
opposed to direct damages. Direct damages, also known as general
damages, "are such as might accrue to any person similarly injured,"
while consequential (or special) damages "are such as did in fact ac-
crue to the particular individual by reason of the particular circum-
stances of the case." *Penner* v. *Elliott*, 33 S.E.2d 124, 126 (N.C.
1945) (quoting Black's Law Dictionary). Any person injured by
breach of a reverse engineering or non-production purposes prohibi-
tion would likely suffer lost profits like those awarded to SAS here.

and the E.U. Software Directive. WPL contends that the U.K. litigation and the E.U. Software Directive were relevant to its defense because they "tend to diminish the willful or wanton nature of its conduct." J.A. 13054. The district court disagreed, because the litigation matters WPL sought to introduce occurred long after the relevant conduct, and thus did not address WPL's state of mind at that time. This decision was well within the "wide discretion" afforded to such rulings. *Russell*, 971 F.2d at 1105.

WPL next argues that the district court erred by permitting Dr. James Storer to testify as an expert for SAS and by permitting him to testify more broadly than his technical expertise warranted. Rule 702 of the Federal Rules of Evidence provides that expert testimony "is admissible if it 'rests on a reliable foundation and is relevant.'" *Freeman*, 778 F.3d at 466 (quoting *Westberry* v. *Gislaved Gummi AB*, 178 F.3d 257, 260 (4th Cir. 1999)). In applying this standard, the district court "possesses broad latitude to take into account any factors bearing on validity that the court finds to be useful." *Id.* (quotation marks omitted).

Storer, a professor of computer science at Brandeis University, was invited to testify by SAS on the question of whether and when the World Programming System could have been developed without use of the Learning Edition. Storer relied on his experience to inform his testimony, rather than any particular scientific method. The district court concluded that Storer's education and experience in software development qualified him as an expert in this matter. Further, the district court concluded that Storer's testimony would be helpful, because his explanations of the contents of technical documents and his opinion as to the practicality of developing WPS would

help the jury understand the evidence. All of these conclusions were well within the district court's discretion based on the evidence before it. Accordingly, we will not disturb them.

V.

Turning to SAS's claims on appeal, SAS seeks an injunction on the basis of the breach of contract and fraud claims it prevailed on below. Failing that, SAS asks us to overturn the district court's decision that there was ultimately no copyright infringement on the part of WPL, so that SAS can return to the district court to seek the same injunction based on that claim. If, however, we grant SAS the injunction it seeks on its breach of contract claim, SAS asks us to vacate the district court's copyright holding as moot.

We review the district court's denial of a permanent injunction for abuse of discretion. *eBay Inc.* v. *MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006). A district court abuses its discretion when it "relies on incorrect legal conclusions or clearly erroneous findings of fact," *Huskey* v. *Ethicon, Inc.*, 848 F.3d 151, 158 (4th Cir. 2017), or otherwise acts "arbitrarily or irrationally" in its ruling, *Smith* v. *Baltimore City Police Dep't*, 840 F.3d 193, 200 (4th Cir. 2016).

A.

An injunction is an equitable remedy that "does not follow from success on the merits as a matter of course." *Winter* v. *Natural Resources Defense Council, Inc.*, 555 U.S. 7, 32 (2008). A traditional equitable analysis requires a plaintiff to demonstrate:

> (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that in-

jury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

eBay, 547 U.S. at 391. Whether under SAS's state-law claims or its copyright claims, the decision of whether to grant an injunction will ultimately be based on the same equitable factors.

Satisfying these four factors is a high bar, as it should be. As the Supreme Court has emphasized and the district court acknowledged, "[a]n injunction is a drastic and extraordinary remedy," *Monsanto Co.* v. *Geertson Seed Farms*, 561 U.S. 139, 165 (2010), and it should be granted only where "essential in order effectually to protect property rights against injuries otherwise irremediable," *Weinberger* v. *Romero-Barcelo*, 456 U.S. 305, 312 (1982) (quoting *Cavanaugh* v. *Looney*, 248 U.S. 453, 456 (1919)).

Injunctive relief is not casually granted because of its prospective character. See *Winter*, 555 U.S. at 24. Injunctions by their nature attempt to anticipate the future, but the future sometimes declines stubbornly to be prophesied. Injunctive relief may be particularly treacherous in the area of copyrights and other laws touching on expression, as enjoining future expressive conduct can edge toward imposing a prior restraint. See *Nebraska Press Ass'n* v. *Stuart*, 427 U.S. 539, 556-70 (1976); *Alexander* v. *United States*, 509 U.S. 544, 550 (1993). While enjoining copyright violations may not itself violate the First Amendment, the risk of overbroad injunctions and the Constitution's clear concern for expressive freedom recommend prudence in this area.

Beyond these prudential concerns, practical concerns also require that plaintiffs meet a heavy burden before

being granted injunctive relief. In many cases, as in this one, an injunction risks awarding more relief than is merited. This risk may be particularly acute when injunctive relief is combined with monetary relief, as SAS asks here. See *Minnesota Mining & Mfg. Co.* v. *Pribyl*, 259 F.3d 587, 607-10 (7th Cir. 2001); *Forster* v. *Boss*, 97 F.3d 1127, 1129-30 (8th Cir. 1996). While injunctions and monetary damages do serve different purposes, the lines between these purposes can be blurry. For instance, large monetary damages can often serve not only as compensation for past harms, but also as a deterrent against future unlawful behavior. See *Friends of the Earth, Inc.* v. *Laidlaw Environmental Services (TOC), Inc.*, 528 U.S. 167, 192-93 (2000). In this case, SAS's award of over $79 million is already going to catch WPL's attention in any future calculation of risk irrespective of an injunction. Meanwhile, the absence of injunctive relief will still allow the parties to modify their behavior or make new contracts to address future changes in circumstances.

The district court provided a thorough discussion of its application of these traditional principles. See J.A. 5137-53. SAS asserts that the district court applied a "categorical" approach by discussing the distinction between infringement and non-infringement injuries. SAS is, of course, correct that any categorical approach to injunctive relief is flawed, as the determination of whether to grant equitable relief does not turn on the type of wrongdoing at issue. We cannot agree with SAS that the district court applied such a categorical approach, however. Instead, it is clear from that court's discussion that injunctive relief was generally not warranted.

1.

An initial bar to relief stems from SAS's failure to demonstrate an irreparable injury from WPL's actions.

While irreparable harm is only one of the four factors courts must consider in determining whether to grant injunctions, the Supreme Court has made clear that, regardless of the other factors, "[t]he equitable remedy [of an injunction] is unavailable absent a showing of irreparable injury." *City of Los Angeles* v. *Lyons*, 461 U.S. 95, 111 (1983).

As the district court stated, SAS has failed to demonstrate irreparable injury in this case. The jury awarded $26,376,635 to SAS, and these damages were trebled under North Carolina law to $79,129,905. The jury's damages award was based in part on testimony provided by SAS's expert that SAS had suffered a total of only $13,500,245 in lost profits by the time of trial. The balance of the $26 million dollar award, over $12 million at least, was therefore based on SAS's expected damages after trial. The fact that SAS already asked for and received these future damages undermines its claim of irreparable injury moving forward.

The district court also noted that SAS's claims of difficult-to-calculate damages in the form of lost business relationships, market share, and goodwill were largely unsupported by evidence. See J.A. 5142-43. Before this court, SAS has pointed to no evidence that the district court may have overlooked. Instead, SAS focuses on the losses it suffered before trial and the future damages it has already received, suggesting that these losses make future irreparable harm more than speculative. Both the Supreme Court and this court have emphasized, however, that the existence of past harm is far from dispositive on the question of irreparable future harm. See, *e.g.*, *Lyons*, 461 U.S. at 111; *Beck* v. *McDonald*, 848 F.3d 262, 277-78 (4th Cir. 2017); *Simmons* v. *Poe*, 47 F.3d 1370, 1382 (4th Cir. 1995). Rather than supporting a finding of

irreparable harm, the future damages SAS has already received point to an injury that has already been redressed.

2.

SAS further argues that monetary damages are inadequate because of potential difficulties in collecting them. Collectability concerns may support the issuing of an injunction under certain circumstances. For example, preliminary injunctions are sometimes used to ensure that assets currently held by the defendant, but likely to become unavailable before damages can be collected, will remain available following trial. See *Hughes Network Systems, Inc.* v. *InterDigital Communications Corp.*, 17 F.3d 691, 694 (4th Cir. 1994) (discussing the "narrow" circumstances in which preliminary injunctions may be offered "to preserve the plaintiff's opportunity to receive an award of money damages at judgment"). In that situation, equity may require that defendants not be allowed to disburse their assets before a final judgment can be rendered. This is, however, precisely the opposite of the situation at hand: as the district court noted, the injunction SAS seeks would have "a significant negative financial impact on WPL's sales." J.A. 5149. The injunction therefore would frustrate, rather than facilitate, WPL's ability to pay damages.

Injunctions have also sometimes been deemed appropriate based on barriers to collectability after judgment, see, *e.g.*, *Brenntag Int'l Chemicals, Inc.* v. *Bank of India*, 175 F.3d 245, 249-50 (2d Cir. 1999), but SAS has offered only vague concerns on this front. It has tendered little but speculation regarding both WPL's financial status and the U.K.'s unwillingness to enforce portions of its damages award. To the extent SAS alleges that WPL's financial situation will prevent the payment of damages,

it has offered, as the trial court noted, no "detailed and meaningful information about [WPL's] financial condition." J.A. 5144-45. Further, SAS also "failed to satisfy its burden" to demonstrate the impossibility of enforcing its judgment in the U.K., instead offering evidence that lacked "the sort of specificity" that could sway the court. J.A. 5145. There would have to be a stronger evidentiary foundation in this action to justify the strong medicine of injunctive relief.

SAS's contentions regarding the potential difficulty of collecting trebled damages in the U.K. also misses the mark for another reason. SAS argued below that monetary damages may be insufficient not only when "wholly ineffectual" but also when "seriously deficient as a remedy for the harm suffered." J.A. 13080 (quoting *Roland Machinery Co.* v. *Dresser Industries, Inc.*, 749 F.2d 380, 386 (7th Cir. 1984)). Receiving the full value of the compensatory damages award, but not the punitive damages award, is not at all "deficient" as a remedy for SAS's injuries. To the contrary, the compensatory damages award reflects the jury's attempt to place SAS "in the same position [it] would have occupied if there had been no breach of the contract," including "fair compensation . . . for any economic injury to SAS Institute that was directly and proximately caused by the breach of contract." J.A. 4733-34. Any additional punitive damages received by SAS serve not a remedial purpose as to SAS but, as the name implies, a punitive purpose as to WPL.

Finally, it bears emphasis that SAS has not left the court system penniless. It has received an award of $79,129,905, an award that on appeal it has fought hard to defend. To hold that the possessor of a $79 million judgment has received an inadequate remedy would be aston-

ishing in the absence of firm evidence of that judgment's illusory character, which was not presented here.

3.

The balance of hardships in this case also militates against an injunction. SAS is the world's largest privately-held software company. By contrast, SAS itself contends that WPL will already face significant hardship based on the monetary damages it owes. Given that WPL has only a single product—WPS—the district court's statement that "granting the requested injunction would likely be ruinous for WPL" seems almost self-evident. J.A. 5149.

Apparently acquiescing in these facts, SAS leans heavily on its argument that the hardship to WPL simply "should not be considered." SAS Opening Br. 43. Adopting SAS's preferred approach, however, would run directly contrary to the Supreme Court's articulation of this factor in *eBay*. In that case, the Court explicitly directed that, even in cases involving clear wrongdoing, such as ongoing patent infringement, courts must "consider[ ] the balance of hardships between the plaintiff and defendant." *eBay*, 547 U.S. at 391-92. It is impossible to square this directive with the idea that hardship to the losing party should simply be ignored.

4.

The final factor, the public interest, does not save SAS's request for an injunction. Weighing against the injunction are concrete harms to WPL's existing customers in the United States. These customers would have to expend significant time and money to replace their existing WPS systems, either now or in the near future. Direct effects on innocent third parties have frequently grounded courts' denials of injunctions. See, *e.g.*, *Hispanic Affairs Project* v. *Perez*, 141 F. Supp. 3d 60, 74 (D.D.C.

2015); *Fractus, S.A.* v. *Samsung Elecs. Co., Ltd.*, 876
F. Supp. 2d 802, 854 (E.D. Tex. 2012); *Machlett Labora-
tories, Inc.* v. *Techny Industries, Inc.*, 665 F.2d 795, 798
(7th Cir. 1981). This is especially so where the public in-
terests weighing in favor of an injunction rely on broad,
abstract rule of law concerns. While these interests are
certainly legitimate, the award of compensatory and pu-
nitive damages in this case already serves them well.
Were we to hold that these broad principles were suffi-
cient to defeat more concrete harms to innocent third
parties, the public interest factor would weigh in favor of
an injunction in nearly every case. We are unwilling to
render this factor meaningless, and we find that it weighs
against an injunction.

5.

SAS contends that even if it is not entitled to an injunc-
tion on the basis of its breach of contract claims, it should
receive an injunction on the basis of its copyright claim.

We disagree. To begin, it is far from certain that the
district court made an error of law by granting summary
judgment to WPL on SAS's copyright claim. The area of
software copyrights is a murky one, and federal courts
have struggled with it for decades. See, *e.g.*, *Lexmark
Int'l, Inc.* v. *Static Control Components, Inc.*, 387 F.3d
522, 535 (6th Cir. 2004) ("[T]he task of separating expres-
sion from idea in [the software] setting is a vexing one.");
Computer Associates Int'l, Inc. v. *Altai, Inc.*, 982 F.2d
693, 704 (2d Cir. 1992) ("The essentially utilitarian nature
of a computer program further complicates the task of
distilling its idea from its expression."); *Sega Enterprises
Ltd.* v. *Accolade, Inc.*, 977 F.2d 1510, 1524 (9th Cir. 1992)
("Computer programs pose unique problems for the ap-
plication of the 'idea/expression distinction' that deter-
mines the extent of copyright protection.").

In the case before us, the parties offer competing visions of what the SAS System is and, at a more basic level, where the line between functionality and creativity should be drawn in software copyrights. SAS cites the long tradition of extending copyright protection to even the bare minimum of creative expression, and points to what it describes as the "careful, creative selection among many alternatives" made by its developers. SAS Opening Br. 52. On the other hand, WPL points to the longstanding doctrine that copyright does not cover the functional aspects even of creative works, and insists that WPS recreates only the functionality of the SAS System. WPL Opening/Response Br. 33-39, 44-47. Their dispute thus goes to the very heart of the difficulty in drawing the line between protected and unprotected expression in the software context.

Additionally, even if there was infringement here, it would not follow as a matter of course that SAS should receive an injunction. The Supreme Court has "consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a copyright has been infringed." *eBay Inc.* v. *MercExchange, L.L.C.*, 547 U.S. 388, 392-93 (2006) (citing *New York Times Co.* v. *Tasini*, 533 U.S. 483, 505 (2001); *Campbell* v. *Acuff-Rose Music, Inc.*, 510 U.S. 569, 578, n. 10 (1994); *Dun* v. *Lumbermen's Credit Ass'n.*, 209 U.S. 20, 23-24 (1908)). Instead, the "familiar principles" of equity "apply with equal force to disputes arising" from intellectual property violations. *Id.* at 391-92. And as Justice Kennedy noted, the "vagueness and suspect validity" of an intellectual property right "may affect the calculus under the four-factor test." *eBay*, 547 U.S. at 397 (Kennedy, J., concurring). Given how strongly the traditional equitable factors

weigh against the issuance of injunctive relief in this case, it is hard to conceive how the outcome of what is a close copyright claim would lead to SAS receiving such relief.

B.

We must address finally the continued justiciability of the copyright claim. While the issue of mootness was not raised by the parties in this context, we must always satisfy ourselves of the existence of a live dispute at the outset of our analysis. See *Suarez Corp. Industries* v. *McGraw*, 125 F.3d 222, 228 (4th Cir. 1997). To justify federal jurisdiction, a live dispute must exist at every stage of the litigation, including on appeal. *Catawba Riverkeeper Foundation* v. *North Carolina Dep't of Transportation*, 843 F.3d 583, 588 (4th Cir. 2016).

A claim is moot when "the parties lack a legally cognizable interest in the outcome." *City of Erie* v. *Pap's A.M.*, 529 U.S. 277, 287 (2000) (quoting *County of Los Angeles* v. *Davis*, 440 U.S. 625, 631 (1979)). One such circumstance is when "there is no effective relief available in federal court that [the plaintiff] has not already received." *Friedman's, Inc.* v. *Dunlap*, 290 F.3d 191, 197 (4th Cir. 2002). When a claim is moot, any judicial resolution would be effectively advisory, and therefore impermissible. The justifications for this doctrine are particularly apparent where, as here, the parties ask us to resolve a difficult question of law in a rapidly evolving context, such as software copyrights.

SAS has made clear, both in its briefs and at oral argument, that the only relief it seeks from the copyright claim that it has not already received from its other claims is an injunction. As detailed above, however, SAS would not receive the injunction it seeks even were it to prevail on its copyright claim. Thus, the legal resolution of the copyright question would have no effect on the re-

lief afforded the parties. "[A]lthough the parties may desire that we 'render an opinion to satisfy their demand for vindication or curiosity about who's in the right and who's in the wrong,'" that is insufficient to justify federal judicial resolution. *Norfolk Southern Ry. Co.* v. *City of Alexandria*, 608 F.3d 150, 161 (4th Cir. 2010) (quoting *Wyoming* v. *U.S. Dep't of Interior*, 587 F.3d 1245, 1250 (10th Cir. 2009)). Absent a practical effect on the outcome of this case, the copyright claim is moot.

"The customary practice when a case is rendered moot on appeal is to vacate the moot aspects of the lower court's judgment." *Id.* We thus vacate the district court's ruling on the now-moot copyright issue, with the result that the claim should be dismissed on remand.[4]

VI.

In sum, our decision today leaves this case where the district court left it, as a breach of contract case. The district court was not wrong to place the license agreement front and center here. That contract was formed between the parties, grounding the dispute in a concrete interaction. A contract does not always accompany a copyright infringement claim. And symmetrically, a breach of contract is not by itself a tort or copyright violation, and breach of the agreement does not invariably bring these other areas of law and their accompanying remedies into play. Accordingly, and for the reasons herein expressed, the judgment of the district court is

AFFIRMED IN PART, AND VACATED AND REMANDED IN PART.

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[4] Because we vacate the district court's copyright ruling, there is no longer a basis for WPL to seek to recover attorney's fees under 17 U.S.C. § 505, as WPL is no longer a prevailing party on the copyright issue.

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF
NORTH CAROLINA
WESTERN DIVISION

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No. 5:10-CV-25-FL

————

SAS INSTITUTE INC.,
Plaintiff,

v.

WORLD PROGRAMMING LIMITED,
Defendant.

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ORDER[1]

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This matter comes before the court on plaintiff's motion for partial summary judgment (DE 211) and defendant's motion for summary judgment (DE 220). These motions have been fully briefed and issues raised are ripe for ruling. For the reasons that follow, each motion is granted in part and denied in part.

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[1] Where discovery was conducted pursuant to a consent protective order and stipulation of confidentiality, certain filings on which the parties rely in furtherance of their motions were sealed. Within fourteen (14) days, the parties jointly shall return to the court by U.S. Mail, addressed to the case manager, a copy of this order marked to reflect any perceived necessary redactions. Upon the court's inspection and approval, a redacted copy of this sealed order will be made a part of the public record.

STATEMENT OF THE CASE

Plaintiff is a North Carolina corporation that produces software products. Defendant is a competing software company, incorporated under the laws of England and Wales. On September 14, 2009, plaintiff filed a lawsuit in the United Kingdom ("U.K.") against defendant arising out of defendant's creation of a competing software product, asserting claims for copyright infringement and breach of a licensing agreement. That suit was filed in the Chancery Division of the High Court of Justice ("U.K. court").[2]

On January 19, 2010, plaintiff initiated the instant suit. The complaint before this court, premised on many of the same facts as the U.K. litigation, includes claims for copyright infringement and breach of the same licensing agreement. In addition, plaintiff added claims for tortious interference with contract, tortious interference with prospective business advantage, and violation of the North Carolina Unfair and Deceptive Trade Practices Act ("UDPTA"), N.C. Gen. Stat. § 75-1.1. On March 17, 2010, defendant filed a motion to dismiss the action for lack of personal jurisdiction pursuant to Rule 12(b)(2), for failure to state a claim upon which relief can be granted pursuant to Rule 12(b)(6), and for *forum non conveniens*, or, in the alternative a motion to transfer venue. By order entered March 18, 2011, the court granted the motion to dismiss for *forum non conveniens*, and did not reach other arguments raised for dismissal. Plaintiff appealed and, in a decision issued February 16, 2012, the Fourth Circuit Court of Appeals reversed and remanded.

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[2] This court previously has stated that this litigation in the U.K. was initiated on October 19, 2009. Documents from this litigation, however, state that it was commenced September 14, 2009.

On March 23, 2012, defendant resubmitted its motion to dismiss seeking all the same relief as in its prior motion to dismiss, excepting dismissal for *forum non conveniens*, and also requesting abstention or a stay pending completion of the U.K. litigation. On June 6, 2012, defendant filed a notice that it was withdrawing all grounds for its motion except for failure to state a claim or change of venue. At hearing held on the motion June 7, 2012, defendant withdrew its request for a change of venue. On October 18, 2012, Magistrate Judge James E. Gates entered [a] memorandum and recommendation ("M&R") recommending that defendant's motion to dismiss be denied. The court entered [an] order adopting the M&R on November 19, 2012.

On May 7, 2013, plaintiff filed a motion to amend its complaint, seeking to add a claim that defendant obtained licenses to use certain of plaintiff's software products by fraud. The court granted the motion by order entered August 8, 2013. Plaintiff filed its amended complaint on August 14, 2013.

Meanwhile, the U.K. litigation proceeded somewhat more expeditiously. After a full trial, the U.K. court issued an interim judgment ("U.K. interim judgment") on July 23, 2010. The court made numerous findings of fact, as well as provisional holdings, but concluded that resolution of the case depended upon important issues of interpretation of European Union law, more specifically, various articles of Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs ("Directive 91/250/EEC")[3] and Directive 2001/29/EC of the

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[3] In its interim judgment, the U.K. court noted that Directive 91/250/EEC had been replaced by "a codified . . . version, European Parliament and Council Directive 2009/24/EC of 23 April 2009." The U.K. court further noted, however, that "the original version was in

European Parliament and of the Council of 22 May 2001 ("Directive 2001/29/EC") (collectively "European Directives"). Thus, by order entered July 28, 2010, the U.K. court referred certain questions regarding the interpretation of these articles to the Court of Justice of the European Union ("CJEU"). The CJEU ruled upon these questions [on] May 2, 2012. As relevant here, as quoted by the U.K. court in its final judgment ("U.K. judgment") the CJEU held that under various articles of the European Directives:

> [N]either the functionality of a computer program, nor the programming language and the format of the data files used in a computer program in order to exploit certain of its functions . . . are . . . protected by copyright in computer programs . . . .
>
> . . .
>
> [A] licensee is entitled to determine the ideas and principles which underlie any element of the computer program if he does so while performing any acts of loading, displaying, running, transmitting or storing that program which he is entitled to do.
>
> . . .
>
> [T]he reproduction, in a computer program or a user manual for that program, of certain elements described in the user manual for another computer program protected by copyright is capable of constituting an infringement of the copyright in the latter manual . . . .

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force at the time of most of the alleged infringing activity by [defendant]" and that "there is no relevant difference of substance between the two versions." U.K. interim judgment ¶ 155.

U.K. judgment ¶¶ 10.46, 12.54, 14.70 (quoting the CJEU ruling).

Based upon the CJEU's rulings, on January 25, 2013, the U.K. court entered its final judgment adopting its interim judgment and finding for defendants on all claims but for infringement of the SAS manuals pursuant to the dictates of the European Directives. Plaintiff appealed portions of the U.K. judgment, all of which were affirmed by the Court of Appeal. On July 9, 2014, the Supreme Court of the United Kingdom denied plaintiff's request to appeal.

On April 14, 2014, plaintiff filed its motion for partial summary judgment on its claims for breach of contract and tortious interference with contract. That same day, defendant filed its motion for summary judgment on all claims.

STATEMENT OF UNDISPUTED FACTS

A. Plaintiff and the SAS System

Plaintiff is the world's largest privately-held software company. Patricia Brown April 14, 2014, Decl. ("Brown I Decl.") ¶ 2. Plaintiff creates an integrated suite of business software products which are known as the "SAS System." *Id.* The SAS System allows users to perform a variety of data access, management, analysis, and presentation tasks. *Id.* The core component of the SAS System is known as "Base SAS" or "BASE/SAS," but the SAS System includes other separate components that users may separately license and install and which provide additional capabilities. *Id.*

Computer programs are made up of lines of text written in a computer language, called the "source code" of that program. Source code cannot be read directly by computers, which can only read what is known as "ma-

chine code." Thus, in order for a program to run on a computer, that program must be translated through a different program serving as a compiler or interpreter of computer language. Very basically, a compiler is a program that translates source code into machine code readable by a computer. An interpreter is a program that translates the source code of a program and directs the execution of that code. See Def.'s Ex. 1, Nell Dale & John Lewis, *Computer Science Illuminated* 295-97 (5th ed. 2013).

The SAS System can be run on various kinds of computers ranging from personal computers to mainframe computers. *Id.* ¶3. SAS System users can access, manage, and analyze data by writing programs in a programming language developed by plaintiff known as the "SAS Language." *Id.* These programs can be run through the SAS System and thereby perform certain tasks known as "SAS Procedures." *Id.* Thus, among other things, the SAS System is a combination of compilers and interpreters for SAS Language programs.[4] See Def.'s Ex. 59, Richard Langston January 9, 2014, Dep. ("Langston I Dep.") 12:17-22.[5]

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[4] In responding to defendant's motion for summary judgment, plaintiff has introduced certain evidence to the effect that its software is not a compiler/interpreter of the SAS Language. For reasons discussed in section D.2. of the court's discussion, *infra*, the court finds that this evidence is insufficient to create a genuine factual issue.

[5] Citations to defendant's exhibits 1-53 refer to the exhibits to the declaration of Dennis O. Cohen ("Cohen") submitted in connection with defendant's memorandum in support of summary judgment. Citations to defendant's exhibits 54-58 refer to exhibits to the declaration of Cohen submitted in connection with defendant's response in opposition to plaintiff's motion for partial summary judgment. Citations to defendant's exhibits 59-61 refer to the exhibits to the decla-

The idea of the SAS Language was conceived in 1964 by Anthony J. Barr ("Barr"). Barr Aff. ¶¶6-7. He began to develop this language in 1966 while working at North Carolina State University ("N.C. State"). *Id.* ¶9. The SAS Language is a high-level computer language used by thousands of institutions around the world. *Id.* ¶16. Thousands of users write programs in the SAS Language. Def.'s Ex. 2, Langston I Dep. 26:8-9. Anyone can write a program in the SAS Language, and it is undisputed that no license is needed to do so. *Id.* at 32:8-18; see also Def.'s Ex. 41, Michael Creech Dep. 179:12-17.

Concurrent with his creation of the SAS Language, Barr created a compiler/interpreter for the language. Barr Aff. ¶¶9, 12. This compiler/interpeter is a program separate from any SAS Language program. *Id.* ¶¶9-10, 12. The source code for the compiler/interpreter was written in the computer language of IBM/360 assembler. *Id.* ¶10. James Goodnight ("Goodnight"), and John Sall ("Sall"), who were colleagues of Barr at N.C. State, joined in developing the SAS compiler/interpreter in 1968 and 1969, respectively. *Id.* ¶14. This group first distributed an early version of their program to various universities in 1968. *Id.* ¶15.

In 1972, Barr, Goodnight, and Sall finished a commercial version of their SAS compiler/interpreter they called "SAS72." Barr Aff. ¶19. The group decided to rewrite a new version of the SAS compiler/interpreter, which was completed in 1976, and called "SAS76." *Id.* ¶23. Jane Helwig ("Helwig"), who joined the group in 1973 or 1974, * * * wrote a new SAS manual. *Id.* ¶24. Because the program was becoming popular, the expanded group de-

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ration of Cohen submitted in connection with defendant's reply in support of its motion for summary judgment.

cided to leave N.C. State and found a for-profit company to market the compiler/interpreter. *Id.* ¶25. This company, the SAS Institute—plaintiff in this action—was incorporated in 1976. *Id.* ¶26. Barr left the company in 1979, and Goodnight took control. *Id.* ¶¶29-31.

Plaintiff continued updating and expanding the capabilities of its software to allow SAS Language programers to write more complex programs in the SAS Language. Langston I Dep. at 30:16-32:7.[6] Plaintiff has packaged many of these capabilities in different individual components which make up the "SAS System." Plaintiff has also rewritten the source code for the SAS System—which is now written mainly in the programming language known as "C", with very small portions written in programming languages called "Assembler" and "Java." Def.'s Ex. 2, Langston I Dep. 9:17-10:2.

Plaintiff does not sell the SAS System to users, but sells licenses to use the SAS System or components thereof for set periods of time. Brown I Decl. ¶6; Barr Aff. ¶22. Plaintiff registers versions of its software with the United States Copyright Office, and maintains its source code as a trade secret. Brown I Decl. ¶6. Plaintiff also sells or provides its users with numerous manuals that it registers with the United States Copyright Office. *Id.* ¶7.

Plaintiff also has created a version of its software called SAS Learning Edition to help individuals learn how to program in the SAS Language. Brown I Decl. ¶8. SAS Learning Edition is registered with the United States Copyright Office. *Id.* It contains a full version of the

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[6] Defendant has provided the full text of this deposition in hard copy to the court, but does not appear to have filed this portion of that deposition electronically.

SAS System for use on a personal computer. *Id.* SAS Learning Edition, however, is programmed so that it can only work with data sets of 1,500 records or less—much smaller than a typical user's data sets. *Id.*

Plaintiff created a license agreement that prevented SAS Learning Edition from being installed on any personal computer unless an individual agreed to a set of restrictions. *Id.* ¶ 9. An individual installing SAS Learning Edition encounters "screens" which provide the terms of the SAS Learning Edition license agreement. See Pl.'s Ex. 58, SAS Learning Edition license agreements. That individual must click on a "Yes" button, indicating his or her agreement to the term to proceed. *Id.* at 3. The individual is prompted to click on the "No" button if they do not agree to the terms of the SAS Learning Edition license agreement and would like to return the software for a refund. *Id.*

B. Defendant and the Development of WPS

Defendant was formed in 2002 by Sam Manning ("Manning"), Peter Quarendon, Tom Quarendon and Martin Jupp ("Jupp"). Def.'s Ex. 4, Peter Quarendon Statement ¶ 16. Peter Quarendon had previously worked at International Business Machines ("IBM") where he had become familiar with the SAS System. Oliver Robinson ("Robinson") joined defendant in September 2002, and became a director and its operational manager. Def.'s Ex. 12, Robinson Statement ¶¶ 1, 12.

In 2003, defendant began to focus its efforts on creating a SAS Language interpreter/compiler to compete with the SAS System. *Id.* ¶ 22. Defendant called its software the "World Programming System" or "WPS." Defendant created the early versions of WPS using the programming language of Java. Def.'s Ex. 4, Peter Quar-

endon Statement ¶ 32. However, in early 2005, defendant made the decision to entirely rewrite WPS using a programming language called "C++" so as to speed up WPS's processing times and so that WPS could be run on mainframe computers. Def.'s Ex. 13, Tom Quarendon Statement ¶ 65. It took defendant approximately one year to rewrite WPS in C++. *Id.*

Defendant wanted WPS to enable SAS Language programmers to be able to run "programs written in the language of SAS . . . without any products from SAS Institute." Pl.'s Ex. 15, Presentation to BMW, at 26660.[7] Defendant marketed WPS as providing both data and reports that "compare exactly" to the SAS System. Pl.'s Ex 26, CA World 08 Presentation, at 18250. In a document entitled "World Programming System—IBM Technical Evaluation" and further entitled "3rd Party Dependencies" ("3rd Party Dependencies"), defendant described the WPS development in a bullet list, quoted below:

- Read SAS documentation for the relevant area of functionality
- Build prototype functionality
- Debug basic functionality
- Compare operation with SAS Learning Edition functionality where possible
- Produce regression tests
- Release to beta testing
- Collect feedback from beta program
- Modify functionality as required
- Release GA functionality

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[7] Citations to plaintiff's exhibits refer to exhibits 3.a. to 3.ooo. to the declaration of Pressly Millen submitted in connection with plaintiff's memorandum in support of partial summary judgment.

Pl.'s Ex. 190, 3rd Party Dependencies, at 63722.

Thus, defendant's first stage of development was to review SAS manuals obtained from plaintiff's website. Pressly Millen April 14, 2014, Decl. ("Millen I Decl.") Ex. 2.f., Tom Quarendon Dep. 118:5-23. These manuals described the intended behavior of SAS Language elements. Def.'s Ex. 14, Kevin Weekes Statement ¶21. The manuals, however, "often did not provide all of the detail necessary [for defendant] to fully understand how a given [SAS] language element was intended to behave." Millen I Decl. Ex. 2.f., Tom Quarendon Dep. 203:12-16. Thus, defendant also used SAS Learning Edition to develop WPS.

1. *Defendant's Use of SAS Learning Edition*

Defendant acquired two copies of SAS Learning Edition in 2003. It acquired * * * another copy in 2005, two more copies in 2007, and seven more in 2009. Am. Compl. ¶25. Each copy of SAS Learning Edition had an expiration date after which the software would no longer function. Def.'s Ex. 16, Robinson Dep. 303:10-17. The individual installing SAS Learning Edition would be presented with the SAS Learning Edition license agreement and required to agree to its terms as part of the installation thereof.

Among other things, the SAS Learning Edition license agreement provided that:

> By clicking on the "Accept" button, the individual licensing the Software ("Customer") agrees to these terms, and SAS Institute, Inc. ("SAS") will authorize Customer to use the SAS Learning Edition Software ("Software") in accordance with the terms and conditions of this Agreement.
>
> . . .

In exchange for Customer's payment of all applicable fees and compliance with all of the terms and conditions of this Agreement, SAS hereby grants Customer a nonassignable, nontransferable and nonexclusive license to use the Software on one (1) workstation at a time, for Customer's non-production purposes only.[8]

. . .

Source code from which the Software object code is derived ("Source Code") is a SAS trade secret. Customer may not reverse assemble, reverse engineer, or decompile the Software or otherwise attempt to recreate the Source Code, except to the extent applicable laws specifically prohibit such restriction.

. . .

This Agreement shall be governed by and construed in accordance with the laws of the State of North Carolina and of the United States of America. The parties expressly exclude the application of the United Nations Convention on Contracts for the International Sale of Goods to this Agreement.

Def.'s Ex. 43, Langston I Dep. Def.'s Exs. 3-6 at Ex. 3 §§ 1.1, 1.3, 2, 9.

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[8] In certain versions of SAS Learning Edition this sentence of the SAS Learning Edition license agreement stated that "SAS hereby grants Customer a nonassignable, nontransferable and nonexclusive license to use the Software on one (1) workstation at a time, for Customer's *self-training* non-production purposes only." Pl.'s Ex. 58, SAS Learning Edition license agreements at 3. Thus, certain versions of the SAS Learning Edition license agreement included the words "self-training" and others did not.

Many times, the installer of SAS Learning Edition was not the user. Millen I Decl. Ex.2.b., Robinson Dep. 279:14-21. Defendant used SAS Learning Edition "to compare behaviour and output to that of WPS." Pl.'s Ex. 190, 3rd Party Dependencies, at 63693. In other words, "[o]nce the initial prototyping of the relevant function has been completed then the behaviour is compared with SAS in terms of generating output. Snippets of SAS Language code are fed through SAS Learning Edition and WPS repeatedly until the results compare adequately." *Id.* at 63724. Thus, defendant wrote that "[w]here there are inconsistencies, and those inconsistences are determined not to be bugs in SAS, then the behaviour is matched in WPS whenever possible." *Id.* at 63693. In this manner, WPS was designed to emulate even the idiosyncracies of the SAS System. Millen I Decl. Ex. 4.c., Steve Bagshaw Witness Statement ¶ 120.

2. *Defendant's Attempts to License the SAS System*

Defendant also attempted to obtain a license to the full SAS System. In August of 2003 Manning emailed plaintiff stating that defendant would like to license a single copy of the base version of the SAS System—BASE/SAS—for a personal computer. Pl.'s Ex. 48, August 19, 2003, email from Robinson to Manning. An employee of plaintiff responded that defendant needed to provide more details of "what it is you are wanting to use SAS software for and also more details of the nature of your business." *Id.* Manning responded, stating that defendant had a client that used SAS that wanted a program "for the allocation of cars to repair outlets." Pl.'s Ex. 50, August 20, 2003 email from Manning. Manning also stated that defendant developed business intelligence software that was "nowhere as broad and cleaver [sic] as

SAS." *Id.* Plaintiff provided defendant with a quote that Manning viewed as "a nice way to say no." *Id.*

In April 2008, defendant again sought to obtain a license for the SAS System through [a] SAS U.K. reseller, Amadeus Software, as testified to by Sonia Sparkes ("Sparkes"), the Senior Contracts Officer for SAS Software Limited, which is plaintiff's U.K. subsidiary. See Def.'s Ex. 21, Sparkes Statement, ¶1; Def.'s Ex. 22, Sparkes Statement Ex. SS-1 at 1. Plaintiff sent defendant an email on April 22, 2008, including a Master License Agreement ("MLA"). *Id.* at 4. Robinson signed the MLA and returned it to plaintiff. Millen I Decl. Ex. 2.b., Robinson Dep. 253:24-25. Robinson testified that he could not recall whether he or another individual working for defendant reviewed the MLA, but that "someone at World Programming should have" because it was defendant's practice to "review any legal agreement we enter into." *Id.* at 260:7-17.

In response to a telephone inquiry by Sparkes, Robinson stated that defendant wanted to license plaintiff's software so as to "check SAS syntax." Def.'s Ex. 22, Sparkes Statement Ex. SS-1 at 10. On May 23, 2008, Sparkes emailed Robinson, and confirmed that plaintiff would not enter into a license agreement with defendant for use of the SAS System and would not countersign the MLA. *Id.* at 14. Because Robinson had indicated defendant wanted to license the SAS System to "check SAS Syntax," Sparkes further referred him "to the many resources on the market which document SAS Syntax and which are readily available through sellers such as Amazon.com." *Id.*

3. *Defendant's Relationship with CA Technologies*

In 2003, defendant was contacted by a company called CA Technologies ("CA") (at the time named as CA, Inc.). Def.'s Ex. 6, Charles Waselewski ("Waselewski") Dep. 51:2-18. CA sold [a] software product called MICS that ran on the SAS System. *Id.* at 54:15-16. MICS is a large, complicated program that is run on a mainframe computer. *Id.* at 68:9-69:22.

CA was interested in WPS as a less expensive alternative to the SAS System so as to be able to provide MICS at a lower cost to its customers. *Id.* at 55:3-11. CA, along with their consultant, Steve Bagshaw ("Bagshaw"), who would also become a consultant for defendant, worked with defendant over the next several years to create a version of WPS that could run MICS. *Id.* at 68:9-69:9; Millen I Decl. Ex. 2.c., Robinson Dep. 47:7-17. CA and defendant called this effort "Project X." Pl.'s Ex. 8, September 8, 2004, email from Bagshaw to Bill Sherman.

At the outset of this project, WPS could not be run on a mainframe computer. Def.'s Ex. 6, Waselewski Dep. 51:14-15; see also Def.'s Ex. 13 T. Quarendon Statement ¶ 65. The development of a version of WPS that could run MICS on a mainframe began as a lengthy, iterative process in which CA would attempt to run MICS with WPS, and then report bugs and issues encountered to defendant, and defendant would send fixes, and the process would repeat. *Id.* at 68:9-69:22.

In early 2008, CA gave defendant access to the SAS System on CA's mainframe in an attempt to speed up the process. See Pl.'s Ex. 17, January 4, 2008 email from Robinson to Bagshaw. Later, in May of 2008, plaintiff again requested, and CA granted, access to CA's SAS

System (perhaps because their previous access had lapsed). Pl.'s Ex. 18, May 15, 2008 email from Manning to Timothy Hoffman; Def.'s Ex. 6, Waselewski Dep. 143:16-144:18.

Defendant wanted to run MICS on CA's copy of the SAS System and compare the operations and output of MICS with the SAS System to that of MICS with WPS to identify the differences in output, and revise WPS accordingly. Def.'s Ex. 18, Bagshaw Statement, ¶61; Waselewski Dep. 209:10-17. CA's MLA with plaintiff, however, provided that CA would not "provide or otherwise make available any licensed IPP [SAS Institute Program Products] in any form to any person other than [CA's] personnel." Def.'s Ex. 50, Waselewski Dep. Def.'s Ex. 25, ¶7.

Plaintiff's general counsel contacted CA's general counsel via email on August 25, 2010, stating that CA violated its license agreement with plaintiff by giving defendant access to its SAS System. See Def.'s Ex. 19, Waselewski Dep. Def.'s Ex. 22. Plaintiff and CA subsequently executed an agreement whereby, *inter alia*, CA agreed to terminate its relationship with defendant. See Def.'s Ex. 20, Waselewski Dep. Def.'s Ex. 23.

In addition to work on Project X, defendant also did work for other customers on CA's mainframe. In one instance, one of defendant's customers, named SDDK, reported an issue regarding certain missing information in WPS. Pl.'s Ex. 44, January 23, 2009, Bug Report, 199. While working on this issue, Bagshaw stated "I will check this out on Monday on the CA System to verify SAS and WPS behaviour is the same." *Id*. at 204. Shortly thereafter Bagshaw used the CA system to test the output of both SAS and WPS and he reported back these results. *Id*.; Millen I Decl. Ex. 3.f., Tom Quarendon Dep. 94:3-12.

4. *Defendant's Product Is Used In the United States*

Defendant has a reseller located here in the United States, Minequest, and defendant's software has been licensed to entities in the United States, such as General Motors. See Pl.'s Ex. 187, November 18, 2009, Bug Report.

COURT'S DISCUSSION

A. Standard of Review

Summary judgment is appropriate where "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). This standard is met when "a reasonable jury could reach only one conclusion based on the evidence," or when "the verdict in favor of the non-moving party would necessarily be based on speculation." *Myrick* v. *Prime Ins. Syndicate, Inc.*, 395 F.3d 485, 489 (4th Cir. 2005). On the other hand, when "the evidence as a whole is susceptible of more than one reasonable inference, a jury issue is created," and summary judgment should be denied. *Id.* at 489-90.

Summary judgment is not a vehicle for the court to weigh the evidence and determine the truth of the matter, but rather contemplates whether a genuine issue exists for trial. *Anderson* v. *Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). Similarly, credibility determinations are jury functions, not those of a judge. *Id.* at 255. In making this determination, the court must view the inferences drawn from the underlying facts in the light most favorable to the nonmoving party. *United States* v. *Diebold, Inc.*, 369 U.S. 654, 655 (1962). Nevertheless, such inferences "must still be within the range of reasonable probability" and the court should issue summary judgment "when the necessary inference is so tenuous

that it rests merely upon speculation and conjecture." *Lovelace* v. *Sherwin-Williams Co.*, 681 F.2d 230, 241 (4th Cir. 1982) (quoting *Ford Motor Co.* v. *McDavid*, 259 F.2d 261 (4th Cir. 1958)). Only disputes between the parties over facts that might affect the outcome of the case properly preclude the entry of summary judgment. *Anderson*, 477 U.S. at 247-48. Accordingly, the court must examine the materiality and the genuineness of the alleged fact issues in ruling on a motion. *Id*. at 248-49.

It is well-established that the party seeking summary judgment bears the initial burden of demonstrating the absence of any genuine issue of material fact. *Celotex Corp.* v. *Catrett*, 477 U.S. 317, 323 (1986). Once the moving party has met its burden, the nonmoving party then must affirmatively demonstrate with specific evidence that there exists a genuine issue of material fact requiring trial. *Matsushita Elec. Indus. Co. Ltd.* v. *Zenith Radio Corp.*, 475 U.S. 574, 586-87 (1986).

B. Principles of Comity

Plaintiff has pursued litigation against defendant in the U.K. where a final decision has been entered and affirmed on appeal. An issue that looms large over the instant motions is the impact of that final decision on this case.

In particular, defendant argues that the U.K. judgment has preclusive effect on several issues, based on principles of comity in combination with the doctrine of collateral estoppel. Plaintiff also contends that the U.K. judgment has a preclusive effect—albeit on a more limited set of issues—based on comity and collateral estoppel. Therefore, at the outset, the court notes various applicable principles regarding the effect of a foreign judgment.

"Neither the full faith and credit statute, nor the Full Faith and Credit Clause of the Constitution, applies to judgments issued from foreign countries." *Jaffe* v. *Accredited Sur. & Cas. Co.*, 294 F.3d 584, 591 (4th Cir. 2002). Thus, "[t]he effect to be given foreign judgments has therefore historically been determined by more flexible principles of comity." *Guinness PLC* v. *Ward*, 955 F.2d 875, 883 (4th Cir. 1992). Comity

> is neither a matter of absolute obligation, on the one hand, nor of mere courtesy and good will, upon the other. But it is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due regard both to international duty and convenience, and to the rights of its own citizens, or of other persons who are under the protection of its laws.

Hilton v. *Guyot*, 159 U.S. 113, 163-64 (1895). In determining whether to extend comity, the fundamental question is whether the foreign "proceedings were sufficiently analogous to our fundamental concepts of justice." *In re Enercons Virginia, Inc.*, 812 F.2d 1469, 1473 (4th Cir. 1987). However, it is clear that "a state can refuse . . . to recognize a foreign judgment on the ground that it conflicts with the public policy of that state." *Jaffe*, 294 F.3d at 591 (4th Cir. 2002). "Additionally, 'comity is an affirmative defense' and therefore the party seeking to have a U.S. court extend comity bears the burden of proving that comity is appropriate." *In re Travelstead*, 227 B.R. 638, 656 (D. Md. 1998) (citing *Allstate Life Ins. Co.* v. *Linter Grp. Ltd.*, 994 F.2d 996, 999 (2d Cir. 1993)).

Although the parties do not cite, nor has the court found, any Fourth Circuit decision squarely addressing the standard for determining the preclusive effect of a foreign judgment on an issue in a separate action in the

United States, other courts have had opportunity to do so. Several federal courts have permitted use of foreign judgments to preclude litigation on an issue if the requirements of both comity and collateral estoppel are satisfied. See *Diorinou* v. *Mezitis*, 237 F.3d 133, 140 (2d Cir. 2001); *Phillips USA, Inc.* v. *Allflex USA, Inc.*, 77 F.3d 354, 361 (10th Cir. 1996); *Pony Express Records, Inc.* v. *Springsteen*, 163 F. Supp. 2d 465, 473 (D.N.J. 2001).

> Of course, in order to apply the doctrine of collateral estoppel, the court must determine that the issue in the pending litigation is identical to the issue in the previous litigation. One way in which two issues may be distinct is if they present mixed questions of fact and law, and the legal standard under which the original court decided the issue [was] a different legal standard than the standard applicable in the present litigation.

Pony Express Records, 163 F. Supp. 2d at 473 (citing Wright, Miller & Cooper, Federal Practice and Procedure: Jurisdiction § 4417).[9] With these principles in mind, the court turns to the parties' motions.

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[9] Federal courts have also held that recognized foreign judgments may have res judicata effect. See, *e.g.*, *Phillips USA*, 77 F.3d at 359-61. Defendant has only contended that the U.K. judgment should have issue preclusive effect, and has not raised the defense of res judicata. Because "res judicata [is] an affirmative defense ordinarily lost if not timely raised," and defendant has had ample time to raise this defense, the court considers only the issue preclusive effect of the U.K. judgment. *Arizona* v. *California*, 530 U.S. 392, 410 (2000).

C. Motions for Summary Judgment

1. *Breach of Contract*

Both parties contend that they are entitled to summary judgment on plaintiff's claim for breach of contract based on defendant's alleged breach[ ] of the SAS Learning Edition license agreement. Plaintiff contends that the undisputed evidence shows that defendant violated this agreement in four ways: 1) by making corporate use of SAS Learning Edition; 2) by permitting users other than the individual customer who actually installed SAS Learning Edition to use it; 3) by using SAS Learning Edition for production purposes—specifically, creation of a competing software product; and 4) by reverse engineering SAS Learning Edition in order to create WPS.

A claim for breach of contract requires a plaintiff to show "the existence of a contract between plaintiff and defendant, the specific provisions breached, [t]he facts constituting the breach, and ... damages resulting to plaintiff from such breach." *Cantrell* v. *Woodhill Enterprises, Inc.*, 273 N.C. 490, 497, 160 S.E.2d 476, 481 (1968); see also *Morgan's Ferry Prods., LLC* v. *Rudd*, 18 F. App'x 111, 112 (4th Cir. 2001) ("Under North Carolina law, a breach of contract claim must allege that a valid contract existed between the parties, state that defendant breached the terms thereof, explain the facts constituting the breach, and specify the damages resulting from such breach.").

The U.K. court was presented with a substantially similar claim by plaintiff, who there asserted that defendant's actions violated the SAS Learning Edition license agreement by allowing more than one employee to use copies of the software and by using said software for purposes extending beyond the scope of the license. See U.K. judgment ¶56. Both parties contend that the U.K.

court's judgment necessitates a finding in their favor on this claim.

The U.K. court held that the SAS Learning Edition license "only extended to use by the Customer, that is to say, the individual employee who clicked on the 'yes' button when installing the Learning Edition." U.K. judgment ¶58. It also found that more than one employee used "the same copy of the Learning Edition" and that such additional use "was outside the scope of the license." *Id.* Finally, it determined that defendant used SAS Learning Edition "to ascertain details of the operation of the SAS System . . . to compare the performance of WPS with that of the Learning Edition in order to improve the relative performance of WPS . . . to test WPS" and other such uses that were "outside the scope of the licence" and that such purposes fell outside the scope of the SAS Learning Edition license agreement's directive that the software be used for non-production purposes. U.K. interim judgment ¶289.

Nevertheless, the U.K. court looked to the European Directives and found that Article 5(3) of Directive 91/250/EEC protected defendant's use of SAS Learning Edition. U.K. judgment ¶79. Article 5(3) provides that "[t]he person having a right to use a copy of a computer program shall be entitled, without the authorisation of the rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do." Directive 91/250/EEC, art. 5(3).

The U.K. court then turned to Article 9(1) of Directive 91/250/EEC, which provides, in relevant part, that "[a]ny contractual provisions contrary to Article 6 or to the ex-

ceptions provided for in Article 5(2) and (3) shall be null and void." The U.K. court held that Article 9(1) "renders null and void any contractual restrictions contrary to Article 5(3)." *Id.* ¶ 61. It further held that to the extent that defendant's "use was contrary to the licence terms they are null and void by virtue of Article 9(1), with the result that none of [defendant's] acts complained of was a breach of contract." *Id.* ¶ 79.

Defendant contends that all of the findings and conclusions of the U.K. court, including the finding that "none of [defendant's] acts complained of was a breach of contract" are preclusive, and thus plaintiff's motion must fail, and it must be granted summary judgment. Plaintiff contends that only the U.K. court's findings of fact and conclusions as to matters of construction of the contractual terms are binding. Neither party disputes that the findings of fact as to the actions by defendant by the U.K. court are entitled to a preclusive effect.[10] Additionally, the parties agree that this court should defer to the U.K. court's conclusions of law with respect to its construction of the terms of the SAS Learning Edition license agreement.

The court finds that the U.K. court's findings of fact do not conflict with the facts as set forth above by this court. Accordingly, the court need not consider further whether these findings of fact are preclusive. The court further concludes that under the principles of comity and standards of collateral estoppel the U.K. court's construction of the SAS Learning Agreement license terms are preclusive.

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[10] Although defendant vigorously disputes many of the U.K. court's characterizations of those actions as beyond the scope of the SAS Learning Edition license agreement as written.

As an initial matter, there is no suggestion the proceedings were not "sufficiently analogous to our fundamental concepts of justice." *In re Enercons Virginia, Inc.*, 812 F.2d 1469, 1473 (4th Cir. 1987). Numerous courts have found that English courts are procedurally proper fora. See, *e.g.*, *M/S Bremen* v. *Zapata Off-Shore Co.*, 407 U.S. 1, 12 (1972) ("Plainly, the courts of England meet the standards of neutrality and long experience in admiralty litigation."); *Haynsworth* v. *The Corp.*, 121 F.3d 956, 967 (5th Cir. 1997) ("American courts repeatedly have recognized [English courts] to be fair and impartial."); *Roby* v. *Corp. of Lloyd's*, 996 F.2d 1353, 1363 (2d Cir. 1993); *Riley* v. *Kingsley Underwriting Agencies, Ltd.*, 969 F.2d 953, 958 (10th Cir. 1992). Indeed, the Seventh Circuit, speaking of the English courts stated that "[a]ny suggestion that this system of courts does not provide impartial tribunals or procedures compatible with the requirements of due process of law borders on the risible." *Soc'y of Lloyd's* v. *Ashenden*, 233 F.3d 473, 476 (7th Cir. 2000) (internal quotations omitted). There is no suggestion that the U.K. court's construction of the license terms is somehow contrary to the public policy of North Carolina.

Moreover, the U.K. court's construction of the terms of the license agreement satisfies the requirements of collateral estoppel. The Fourth Circuit has instructed that

> [a] party seeking to rely on the doctrine of collateral estoppel is obliged to establish five elements: (1) that the issue sought to be precluded is identical to one previously litigated (element one); (2) that the issue was actually determined in the prior proceeding (element two); (3) that the issue's determination was a critical and necessary part of the decision in the prior proceeding (element three); (4) that the prior judgment is final and valid (element four); and

(5) that the party against whom collateral estoppel is asserted had a full and fair opportunity to litigate the issue in the previous forum (element five).

Collins v. *Pond Creek Mining Co.*, 468 F.3d 213, 217 (4th Cir. 2006).[11] In the U.K. litigation, the U.K. court construed the terms of the very same license agreement, and the parties agreed that the terms of the agreement would not have a different meaning under English law than under North Carolina law. See Def.'s Ex. 58, Claimant's Resp. To Def.'s Request for Further Information No. 9 ("[Plaintiff] does not intend to contend that the Agreement, when construed in accordance with the laws of the State of North Carolina has a different meaning (at least insofar as relevant to this case) than the meaning which the Agreement would have if construed in accordance with the laws of England and Wales."); U.K. interim judgment ¶274 ("All the versions of the licence terms are governed by the law of the State of North Carolina. There is no evidence of North Carolina law, and it is

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[11] The court is aware that "[i]n determining the preclusive effect of a state-court judgment, the federal courts must, as a matter of full faith and credit, apply the forum state's law of collateral estoppel." *In re McNallen*, 62 F.3d 619, 624 (4th Cir. 1995). To the extent this principle would extend to applying foreign law of collateral estoppel to foreign judgments, no evidence regarding principles of collateral estoppel under English law has been presented. To the extent that the proper standard for collateral estoppel in this case is the standard applied by North Carolina, the court concludes that such requirements are met. In North Carolina, the requirements for collateral estoppel are "(1) the issues must be the same as those involved in the prior action, (2) the issues must have been raised and actually litigated in the prior action, (3) the issues must have been material and relevant to the disposition of the prior action, and (4) the determination of the issues in the prior action must have been necessary and essential to the resulting judgment." *State* v. *Summers*, 351 N.C. 620, 623 (2000) (citations omitted).

common ground that I should assume that it is no different from English law so far as is relevant to this case.").

The U.K. court also actually decided issues of contractual construction, determining that "on a true construction of the licence terms, the licence only extended to use by the Customer, that is to say, the individual employee who clicked on the 'yes' button when installing the Learning Edition." U.K. judgment ¶58. The U.K. court further held that the restriction of use of SAS Learning Edition to "non-production purposes" meant that "the Customer must not use the Learning Edition to produce anything, but only to learn about the SAS Language, how to write SAS scripts and how to use the SAS System." U.K. interim judgment ¶286. Thus, the U.K. court held that defendant's actions "fell outside the scope of the licence." U.K. judgment ¶73. These determinations regarding the contractual terms were critical to the U.K. judgment, which is indisputably a final judgment that was made after a full opportunity to litigate.

In light of the foregoing, these above determinations made by the U.K. court should be afforded preclusive effect on issues in this litigation. Under the doctrines of comity and collateral estoppel, defendant is precluded from arguing otherwise. Thus, it is undisputed that there was a contract between plaintiff and defendant, and it is preclusively established that by its actions in using SAS Learning Edition to produce WPS, and by allowing other employees than the installer of SAS Learning Edition to use that software specific terms of the agreement were breached. Finally, it is undisputed that defendant successfully created a competing product to the detriment of plaintiff as a result of its breach.

As noted above, however, the U.K. court[s] also held that defendant's "use of the Learning Edition was within

Article 5(3) [of Directive 91/250/EEC], and to the extent that such use was contrary to the licence terms they are null and void by virtue of Article 9(1), with the result that none of [defendant's] acts complained of was a breach of contract." U.K. judgment ¶79. Defendant contends that this conclusion is also entitled to preclusive effect. Plaintiff, by contrast, asserts that this holding is not preclusive as the case at bar presents a different issue than the one previously litigated in the U.K. where English law is substantially different from North Carolina law on this issue.[12]

"For collateral estoppel to apply, the issues in each action must be identical, and issues are not identical when the legal standards governing their resolution are significantly different." *Computer Associates Int'l, Inc.* v. *Altai, Inc.*, 126 F.3d 365, 371 (2d Cir. 1997) (analyzing whether its holding regarding copyright infringement precluded plaintiff from pursuing a claim regarding its French copyright in French courts); see also *Alphin* v. *F.A.A.*, No. 89-2405, 1990 WL 52830[, at] *2 (4th Cir. April 13, 1990) (finding no collateral estoppel where, "[a]lthough the issues arose out of the same facts, the legal standards in each case are quite different"); cf. *Leo Feist, Inc.* v. *Debmar Pub. Co.*, 232 F. Supp. 623, 624

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[12] Defendant argues that plaintiff should be judicially estopped from arguing that this holding is not preclusive where plaintiff stated in the U.K. litigation that it did not contend that the SAS Learning Edition license agreement had a different meaning when construed in accordance with the laws of North Carolina than it does when construed in accordance with English law. This argument is without merit. Plaintiff does not now argue that the SAS Learning Edition license agreement has a different meaning when construed under North Carolina law as it does when construed under English law. Plaintiff only argues that the European Directives do not apply to the terms as construed to nullify certain of those terms.

(E.D. Pa. 1964) (granting issue preclusive effect to an English judgment where "the English court applied legal principles which, if different at all, are only very slightly different from those which would be applied in an American court").

In this case, the U.K. court arrived at its ultimate conclusion based upon the dictates of the European Directives. Defendants have filed the opinion of Simon Thorley stating that "Articles 5(3) and 9 . . . are mandatory provisions of EU and English Law." Def.'s Ex. 57, Simon Thorley Op. ¶13. He goes on to state that these "mandatory provisions . . . cannot be affected or avoided by the fact that the proper law of the contract is other than English Law." *Id.* ¶18. There is no suggestion, however, that courts in North Carolina are bound by these mandatory provisions of European Union and English law.

Thus, this court is presented with a choice of law question. If English law governs interpretation of this contract, the issues presented are the same as those decided by the U.K. court. If, however, North Carolina law governs, the issues presented are not the same where a North Carolina court would be under no obligation to apply the European Directives to nullify those parts of the SAS Learning Edition license agreement the U.K. court found would have been breached by defendant's actions.

North Carolina choice of law governs in this case. See *In re Merritt Dredging Co., Inc.*, 839 F.2d 203, 205 (4th Cir. 1988) (in a diversity action a federal court applies the choice of law rules of the state in which it sits). It is generally the case in North Carolina that "where parties to a contract have agreed that a given jurisdiction's substantive law shall govern the interpretation of the contract, such a contractual provision will be given effect." *Tanglewood Land Co.* v. *Byrd*, 299 N.C. 260, 262 (1980).

However, North Carolina courts may refuse to give effect to a choice of law clause where

> (a) the chosen state has no substantial relationship to the parties or the transaction and there is no other reasonable basis for the parties' choice,
>
> or
>
> (b) application of the law of the chosen state would be contrary to a fundamental policy of a state which has a materially greater interest than the chosen state in the determination of the particular issue and which . . . would be the state of the applicable law in the absence of an effective choice of law by the parties.

Broadway & Seymour, Inc. v. *Wyatt*, No. 91-2345, 1991 WL 179084, at *3 (4th Cir. Oct. 28, 1991) (quoting Rest. (2d) of Conflict of Laws § 187(2) (1971)); see also *Behr* v. *Behr*, 46 N.C. App. 694, 696 (1980) ("The parties' choice of law is generally binding on the interpreting court as long as they had a reasonable basis for their choice and the law of the chosen State does not violate a fundamental policy of the state of otherwise applicable law.").

In this case, North Carolina has a substantial relationship to the parties and the transaction where plaintiff is a North Carolina company. Thus, the first exception to application of the choice of law clause is inapplicable. Turning to the second, the North Carolina Supreme Court has instructed that in order to

> render foreign law unenforceable as contrary to public policy, it must violate some prevalent conception of good morals or fundamental principle of natural justice or involve injustice to the people of the forum state. This public policy exception has generally been applied in cases such as those involving

prohibited marriages, wagers, lotteries, racing, gaming, and the sale of liquor.

Boudreau v. *Baughman*, 322 N.C. 331, 342 (1988). Thus, even assuming *arguendo* that the U.K. has a materially greater interest than North Carolina in determination of this issue, application of North Carolina law would not violate a fundamental policy of the U.K. Based on the foregoing, the court determines that the applicable law in this matter is North Carolina law, pursuant to the SAS Learning Edition license agreement.

Where North Carolina law significantly differs from English law on the question of the validity of the contractual provisions purportedly breached, the court finds that this determination by the U.K. court is not entitled to preclusive effect. See *Zeevi Holdings Ltd.* v. *Republic of Bulgaria*, 494 F. App'x 110, 114-15 (2d. Cir 2012) (holding that collateral estoppel did not apply where an Israeli court's construction of a contract was informed by a principle of Israeli law that was not applicable in the American litigation). Indeed, defendant itself contends that comity "is intended to address . . . circumstances . . . where the facts are the same (as Plaintiff concedes) *and the applicable law is similar in all respects relevant to the legal inquiry*." Def.'s Reply Supp. Mot. for Summary Judgment at 3 (emphasis added).

In sum, the court is not bound by the U.K. court's conclusion that European Union law rendered contractual provisions void. As discussed above, however, this court is bound by the determination of the U.K. court that defendant's use of SAS Learning Edition fell outside the scope of its license. See U.K. judgment ¶¶58, 73. Accordingly, the undisputed facts and preclusive conclusions of the U.K. court establish a contract between the parties that was breached by defendant, causing damage

to the plaintiff. See *Cantrell*, 273 N.C. at 497. Therefore, summary judgment will be granted for plaintiff, and denied for defendant on plaintiff's claim for breach of contract.[13]

> 2. *Copyright Infringement*
>> a. Comity and Copyright Infringement

As with plaintiff's claim for breach of contract, defendant contends that, consistent with the principles of comity and collateral estoppel, this court should enter judgment as a matter of law in its favor on plaintiff's claim for copyright infringement of the SAS System, and dismiss plaintiff's claim for copyright infringement of the SAS manuals. "As a general matter, the Copyright Act is considered to have no extraterritorial reach." *Tire Eng'g & Distribution, LLC* v. *Shandong Linglong Rubber Co.*, 682 F.3d 292, 306 (4th Cir. 2012). Thus, plaintiff is here

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[13] It does not appear that plaintiff specifically raised the SAS Learning Edition license agreement's prohibition on reverse engineering in the U.K. litigation. Although the court has already determined that it is preclusively established that defendant violated the SAS Learning Edition license agreement in other ways, defendant's conduct also constituted reverse engineering in violation of that license agreement. See *Kewanee Oil Co.* v. *Bicron Corp.*, 416 U.S. 470, 475 (1974) (reverse engineering is "starting with a known product and working backward to divine the process which aided in its development or manufacture".); *Decision Insights, Inc.* v. *Sentia Group, Inc.*, 311 F. App'x 586, 590 n.15 (4th Cir. 2009) ("The term 'reverse engineer' means 'to analyze a product to try to figure out its components, construction, inner workings, often with the intent of creating something similar." (quoting Webster's New Millennium Dictionary of English (Preview ed. 2008), available at http://www.dictionary.com)).

complaining of acts of infringement that occurred in the United States.[14]

As discussed previously, because "issues are not identical when the legal standards governing their resolution are significantly different," *Altai*, 126 F.3d at 371, collateral estoppel cannot apply unless English copyright law in this area is not significantly different from American law. Defendant, however, has failed to demonstrate that English law is sufficiently similar. As with plaintiff's claim for breach of contract, the U.K. court reached many of its conclusions based upon the dictates of the European Directives, see U.K. judgment ¶¶ 15-48, and defendant has failed to demonstrate that this law is not significantly different from American law.

b. Copyright Infringement of the SAS System

Defendant contends that it is entitled to judgment as a matter of law that it did not infringe plaintiff's copyrights in its software products, the SAS System and SAS Learning Edition. To succeed on a copyright infringement claim, a plaintiff generally must show two things: 1) plaintiff owned a valid copyright in the product at issue, and 2) defendant copied constituent parts of the product that are copyrightable. *Darden* v. *Peters*, 488 F.3d 277, 285 (4th Cir. 2007). Neither party disputes that plaintiff holds valid copyrights in its software products. Rather, the parties disagree as to whether there is a genuine issue of material fact that defendant copied constituent

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[14] Defendant asserts that plaintiff has failed to introduce any evidence of infringement occurring in the United States. This assertion is untrue. Plaintiff has introduced evidence in which defendant's United States reseller states that General Motors had taken out a trial license of WPS. See Pl.'s Ex. 187, November 18, 2009 Bug Report.

parts thereof that are copyrightable. Defendant further asserts that even if it reproduced copyrightable elements of plaintiff's software, its actions were permissible under the doctrines of fair use and misuse of copyright.

"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." 17 U.S.C. § 102(a). However, "[i]n 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." 17 U.S.C. § 102(b). "If there is only one way to express the idea, 'idea' and 'expression' merge and there is no copyrightable material." *M. Kramer Mfg. Co.* v. *Andrews*, 783 F.2d 421, 436 (4th Cir. 1986). Accordingly, computer programs properly may be the subject of copyright protection only when other programs can be made which perform the same function. *Id.*

In this case, plaintiff asserts that defendant has infringed its copyrights in plaintiff's software by using certain software language functions and by copying the resulting output formats that are produced when a user runs those language functions through the SAS System.

The software language functions that plaintiff contends defendant infringed are made up of various functions, routines, statements, formats, engines, macros, procedures, and options. See Def.'s Ex. 5, Langston February 11, 2014, Dep. ("Langston II Dep.") 7:5-43:21; see also Patricia Brown May 19, 2014, Decl. Ex. C. Plaintiff, through its Rule 30(b)(6) designee Langston, testified that these types of software language functions allegedly

infringed are elements of the SAS Language used by programmers who program in the SAS Language.[15] Def.'s Ex. 5, Langston II Dep. 8:9-9:2, 10:12-16, 11:25-12:4, 14:3-7, 15:23-16:1, 16:25-17:2, 18:13-25, 22:7-13, 24:2-7, 25:13-26:5, 27:17-20, 30:13-21, 33:2-9, 35:11-16, 36:13-16, 37:12-14, 39:9-12, 40:15-19, 41:15-18, 42:19-22, 44:9-14. Plaintiff therefore contends that defendant's use of these terms from the SAS Language infringes its copyrights.

It is undisputed however, that "thousands of users . . . write programs in the language of SAS." Def.'s Ex. 2, Langston I Dep. 26:8-9. Indeed, plaintiff has testified that anyone can write a program in the SAS Language, and that no license is needed to do so. *Id.* at 32:8-18; see also Def.'s Ex. 41, Creech Dep. 179:12-17. Thus, where anyone may use these terms, defendant's use thereof does not constitute infringement. See *Oracle Am., Inc.* v. *Google Inc.*, 750 F.3d 1339, 1353, 1368 (Fed. Cir. 2014) ("It is undisputed that the Java programming language is open and free for anyone to use. . . . Thus, Oracle concedes that Google and others could employ the Java language—much like anyone could employ the English lan-

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[15] Defendant appears to move, in its memorandum in support of its motion for summary judgment, to exclude consideration of exhibit C to Brown's May 19, 2014, declaration on the grounds that this document was untimely disclosed. Where all of the functions listed on this document are also functions, routines, statements, formats, engines, macros, procedures, and options, and therefore are elements of the SAS Language, the court finds that consideration of this document does not affect the outcome of this motion, and therefore denies without prejudice any motion to exclude by defendant. Should defendant have cause to resubmit its motion at a later stage in these proceedings, it may do so.

guage to write a paragraph without violating the copyrights of other English language writers.").[16]

Plaintiff also asserts that where the resultant output of running these elements of the SAS Language in both parties' software is similar, defendant has infringed also on the output formats of the SAS System. Insofar as these outputs are similar, however, this only serves to establish that when defendant's software compiles and interprets SAS Language programs input by users, it does so properly.

In essence, by asking the court to find that defendant's software infringes its copyright through its processing of elements the SAS Language, plaintiff seeks to copyright the idea of a program which interprets and compiles the SAS Language—a language anyone may use without a license. However, copyright law provides no protection to ideas. See 17 U.S.C. § 102(b) ("In no case does copyright protection for an original work of authorship extend to any idea . . . ."); *Feist Publ'ns, Inc.* v. *Rural Tel. Serv. Co.*, 499 U.S. 340, 344-45 (1991) ("The most fundamental axiom of copyright law is that no author may copyright his ideas . . . ." (internal quotations and alteration omitted)).

It is undisputed that the parties' programs implement the idea of an SAS Language in different ways as their programs are not written in the same programming languages. See Def.'s Ex. 2, Langston I Dep. 9:17-10:2 (SAS System is written in the language of C, and certain small

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[16] Defendant contends that programming languages as such are not copyrightable. In this case, where the court finds that the SAS Language, like Java, is open to use, it need not reach the issue of whether the creator of a programming language could ever restrict its use by copyright.

portions in the languages of Assembler and Java); Def.'s Ex. 4, Peter Quarendon Statement ¶32 (WPS originally written in Java); Def.'s Ex. 13, Thomas Quarendon Statement ¶65 (WPS code was rewritten in the language of C++ beginning in early 2005). Thus, the court finds that, on this record, there is no genuine issue of material fact that defendant has not infringed plaintiff's software copyrights.[17] In light of this determination, the court need not reach defendant's arguments regarding fair use and misuse of copyright.

Plaintiff endeavors to resist this conclusion by arguing that this case is on all fours with the *Oracle* decision, wherein the court held that copying short portions of source code by the defendant in that case constituted copyright infringement, and by arguing that its software is not a compiler/interpreter for SAS Language programs. In its recent decision in *Oracle*, the federal circuit held that Google Inc. ("Google") infringed the copyrights of Oracle America, Inc. ("Oracle") in 37 packages of computer source code called "API packages." *Oracle Am.*, 750 F.3d at 1347-48. In essence, each of these API packages contained a number of prewritten programs, written in the language of Java, that were arranged in a distinct taxonomy. *Id.* at 1348-49. Each package contained two types of source code: "declaring code" and "implementing code." *Id.* at 1349. A programmer wishing to incorporate

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[17] In support of its assertion that defendant has infringed its copyright, plaintiff has filed the affidavit of Dr. James Gentle purporting to compare certain outputs of the SAS System to WPS. For various reasons, defendant asserts that this affidavit is inadmissible and, in its reply moves to strike the affidavit. Where the court finds that consideration of this affidavit is not necessary to its conclusion, it denies this motion as moot. Should plaintiff wish to rely upon this affidavit at a later stage in these proceedings, defendant may resubmit its motion to strike or exclude the same at that time.

the function of one or more of these programs into a program that (s)he was creating could do so by using a short bit of "declaring code," which would command the computer to execute one of these specific prewritten programs. *Id.* The code that the identified program used to carry out its function was termed "implementing code." These program packages were copyrighted by Oracle, which licensed these packages under various terms. *Id.* at 1350.

Google wanted to use these API packages in its Android software platform for mobile devices; however, negotiations to license the packages from Oracle reached an impasse. *Id.* at 1350. Because Google believed that "Java application programmers would want to find the same 37 sets of functionalities in the new Android system callable by the same names as used in Java," it "copied the declaring source code from the 37 Java API Packages verbatim, inserting that code into parts of its Android software. In doing so, Google copied the elaborately organized taxonomy . . . the overall system of organized names—covering 37 packages" and the organization of the numerous programs within these packages. *Id.* at 1350-51. Google did, however, write its own implementing code for nearly all of these programs. *Id.* at 1351. Although the court noted that the Java programming language was free for anyone to use, see *id.* at 1353, 1368, it found that by copying the declaring code for these programs, and the structure, sequence, and organization of these programs, Google infringed Oracle's copyright. *Id.* at 1359.

Plaintiff contends that certain SAS Language elements that can be run through both its software and defendant's software are analogous to the declaring code at issue in *Oracle*. This analogy does not hold. The declaring code

at issue in *Oracle* was not an element of the open-to-use Java language itself. Rather, it was a short string of Java code that called a prewritten Java program. Or, as the *Oracle* court analogized, a piece of declaring code was similar to an opening phrase in Charles Dickens' *A Tale of Two Cities*, whereas the Java language itself is like the English language. *Id.* at 1363, 1368. To borrow that analogy, in this case, the elements of the SAS Language are more analogous to words of the English language. There is no evidence that defendant has copied specific strings of SAS Language, or specific strings of source code from plaintiff's software, only that its software can function with these SAS Language elements.

Plaintiff, in response to defendants' motion, introduces the affidavit of one of its employees, Alan Richard Eaton ("Eaton"), a software developer. Eaton asserts that it is incorrect to refer to the SAS System as an interpreter/compiler. See Eaton Aff. ¶¶ 10-11. Plaintiff, relying on this affidavit, would characterize certain procedures (referred to as "PROCS") and their accompanying PROC statements invoking these procedures as "inputs" into the SAS System which then produces certain outputs, rather than as elements of the SAS Language that are interpreted or compiled by the SAS System. See *id.* ¶¶ 12-13. Thus, plaintiff asserts that by using these same "inputs," defendant infringes plaintiff's software copyrights.

The Fourth Circuit has instructed that a party "cannot thwart the purposes of Rule 56 by creating issues of fact through affidavits that contradict its own depositions." *Military Servs. Realty, Inc.* v. *Realty Consultants of Virginia, Ltd.*, 823 F.2d 829, 832 (4th Cir. 1987). The Eaton affidavit, insofar as it asserts that plaintiff's software is not an interpreter/compiler of the SAS Language, contradicts plaintiff's prior Rule 30(b)(6) testimony, through

Langston, that the SAS System is "a combination of compilers and what is referred to as interpreters," Def.'s Ex. 59, Langston I Dep. 12:8-10. Thus, plaintiff cannot create [a] genuine factual issue on this matter by contradicting its own prior deposition testimony through the Eaton affidavit.[18]

In sum, the court finds that defendant is entitled to judgment as a matter of law as to plaintiff's software copyright claim where defendant's use of the terms of the SAS Language does not infringe any of plaintiff's software copyrights.

c. Copyright Infringement of the SAS Manuals

Defendant next moves for summary judgment on plaintiff's claim for infringement of plaintiff's manuals. Defendant notes that in accordance with the judgment against it on this claim in the U.K. litigation, it has removed all copies of its manuals not only from its U.K. customers as ordered by the U.K. court, but from all customers worldwide. Manning Aff. ¶3. Defendant also notes that the U.K. court ordered that an inquiry as to damages resulting from the infringement it found be conducted. See Def.'s Ex. 52, U.K. Court Feb. 13, 2013, Order ¶3. Defendant asserts that because it has now withdrawn all of the infringing manuals and damages will be assessed as a result of the U.K. litigation, any relief

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[18] The court notes that plaintiff testified that the SAS System was more than a compiler and an interpreter. See Def.'s Ex. 59, Langston I Dep. 12:17-22 ("Q: Is the SAS system anything other than a compiler and an interpreter? A: Yes. Q: What else does it do? A: It establishes an environment for users such as Display Manager, Enterprise Guide."). No evidence has been introduced, indicating that defendant's software infringes plaintiff's software in its additional functions.

granted by this court on this claim would constitute a double recovery.

As plaintiff points out however, there is no indication that the damages to be awarded to it as a result of the U.K. litigation will encompass any infringement in the United States of the manuals.[19] Accordingly, defendant's motion for summary judgment as to this claim is denied.

3. *Tortious Interference with Contract*

Both parties move for summary judgment on plaintiff's claim that defendant tortuously interfered with license agreements between plaintiff and its customers.

> The elements of tortious interference with contract are: (1) a valid contract between the plaintiff and a third person which confers upon the plaintiff a contractual right against a third person; (2) defendant knows of the contract; (3) the defendant intentionally induces the third person not to perform the contract; (4) and in doing so acts without justification; (5) resulting in actual damage to the plaintiff.

Embree Const. Grp., Inc. v. *Rafcor, Inc.*, 330 N.C. 487, 498 (1992) (internal quotations omitted). A defendant has knowledge of a plaintiff's contract with a third party for purposes of this tort if defendant "knows the facts which

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[19] Plaintiff points out that [in] 2009, the Court of Appeal (Civil Division) of the High Court of Justice in the United Kingdom held that claims for infringement of U.S. copyrights were non-justiciable. See *Argus Media Ltd.* v. *Tradition Fin. Servs. Inc.*, No. 09 CIV. 7966 (HB), 2009 WL 5125113, at *5 (S.D.N.Y. Dec. 29, 2009) (citing *Lucasfilm Limited* v. *Ainsworth*, [2009] EWCA Civ. 1328 at ¶174). Although the U.K. Supreme Court reversed this holding, it did so on July 27, 2011, which was after the U.K. judgment in this case was entered. *Lucasfilm Limited* v. *Ainsworth* [2011] UKSC 39.

give rise to plaintiff's contractual right against" the third party. *Childress* v. *Abeles*, 240 N.C. 667, 674 (1954).

To determine whether a defendant's interference is justified, courts consider "the circumstances surrounding the interference, the [defendant's] motive or conduct, the interests sought to be advanced, the social interest in protecting the freedom of action of the [defendant] and the contractual interests of the other party." *Peoples Sec. Life Ins. Co.* v. *Hooks*, 322 N.C. 216, 220-21 (1988). "If the defendant's only motive is a malicious wish to injure the plaintiff, his actions are not justified." *Id.* at 221. On the other hand, "[g]enerally speaking, interference with contract is justified if it is motivated by a legitimate business purpose, as when the plaintiff and the defendant, an outsider, are competitors." *Embree Const. Grp., Inc.* v. *Rafcor, Inc.*, 330 N.C. 487, 498 (1992); see also *Peoples Sec. Life. Ins.*, 322 N.C. at 221 ("[C]ompetition in business constitutes justifiable interference in another's business relations and is not actionable so long as it is carried on in furtherance of one's own interests and by means that are lawful.").

The basis for plaintiff's tortious interference claim is defendant's access to the SAS System on CA's mainframe. Defendant contends that 1) plaintiff has failed to proffer sufficient evidence that defendant knew of the contract between plaintiff and CA; 2) plaintiff has failed to proffer sufficient evidence that defendant induced CA not to perform CA's contractual obligations; and 3) defendant was justified in any interference that may have occurred. Because the court agrees that defendant's actions were justified, it does not reach defendant's other arguments.

The undisputed evidence shows that CA had a SAS Language program—MICS—which was dependent on

the SAS System to run. Def.'s Ex. 6, Waselewski Dep. 55:3-11. Defendant began working with CA with the goal of developing WPS into a program upon which MICS also could be run. Millen I Decl. Ex. 2.d., Waselewski Dep. 221:8-17. It further shows that at some point during this effort, defendant's personnel were given access to the SAS System on CA's mainframe. *Id.* at 233:1-13.

This access by defendant was a violation of CA's license agreement with plaintiff. See Def.'s Ex. 50, CA SAS System MLA, ¶7. Nevertheless, even assuming, *arguendo*, that defendant knew of the relevant contractual provision forbidding CA to grant it access, and assuming further that defendant induced CA to grant it access, the court finds that there is no genuine issue of material fact that it was justified in doing so. Based on the undisputed facts in the record, defendant was motivated by a "legitimate business purpose," namely, the development of a product to compete with the SAS System. *Embree Const. Grp.*, 330 N.C. at 498; see also *Peoples Sec. Life. Ins.*, 322 N.C. at 221.

Plaintiff argues that defendant's interference is not justified, arguing that not all acts of competition or of seeking a business advantage are justified, citing to *Static Control Components, Inc.* v. *Darkprint Imaging, Inc.*, 200 F. Supp. 2d 541 (M.D.N.C. 2002). In that case, defendant hired away one of plaintiff's employees, Hulse, thus causing Hulse to breach a non-competition agreement with plaintiff. *Id.* at 543. Plaintiff sued, claiming, *inter alia*, tortious interference with contract, and defendant moved for summary judgment. *Id.* The court denied defendant's motion for summary judgment as to tortious interference, based in part upon evidence that defendant hired Hulse in order to misappropriate plaintiff's trade secrets that Hulse knew. *Id.* at 547.

The court in *Static Control* decided that interference with a contract is not justified where the aim of that interference is itself improper. *Id.*; see also *Childress* v. *Abeles*, 240 N.C. 667, 675 (1954) (a defendant is not justified in inducing a breach of contract if "he has no sufficient lawful reason for his conduct" (emphasis added)). Thus, if in the case at bar, defendant induced CA to breach its contract with plaintiff so as to infringe [plaintiff's] copyright, its actions would not be justified. Where, however, the court has found that plaintiff has failed to proffer sufficient evidence of any infringement in its software by defendant, it follows that any interference by defendant was justified by its legitimate aim of creating * * * a non-infringing competing product. Thus, defendant is entitled to judgment as a matter of law on this count. Plaintiff's motion for summary judgment must be denied and defendant's motion for summary judgment must be granted.

4. *Tortious Interference with Prospective Economic Advantage*

Defendant next argues that plaintiff has not proffered evidence sufficient to maintain a claim for tortious interference with prospective economic advantage. The elements of this claim that plaintiff must show include: 1) a valid contract would have existed between plaintiff and a third party but for defendant's conduct; 2) defendant maliciously induced the third party to not enter into the contract; and 3) defendant thereby proximately caused plaintiff to suffer actual damages. *Cobra Capital, LLC* v. *RF Nitro Commc'ns, Inc.*, 266 F. Supp. 2d 432, 439 (M.D.N.C. 2003) (citing *Spartan Equip. Co.* v. *Air Placement Equip. Co.*, 263 N.C. 549, 559, 140 S.E.2d 3 (1965)). A plaintiff must further show that the defendant acted

"for a reason not reasonably related to the protection of a legitimate business interest." *Id.*

Defendant does not argue that valid contracts did not exist between plaintiff and various third parties, nor does it contend that its conduct did not cause plaintiff damages. Rather defendant argues that its conduct was not malicious and was for a legitimate business purpose. Where the court has determined that defendant acted for legitimate business purposes, the court grants defendant's motion for summary judgment as to this claim.

5. *Fraudulent Inducement*

Defendant also maintains that it is entitled to judgment as a matter of law on plaintiff's claim that defendant fraudulently obtained access to SAS Learning Edition. The well-established elements of fraud in North Carolina are "'(1) [f]alse representation or concealment of a material fact, (2) reasonably calculated to deceive, (3) made with intent to deceive, (4) which does in fact deceive, (5) resulting in damage to the injured party.'" *Forbis* v. *Neal*, 361 N.C. 519, 526 (2007) (quoting *Ragsdale* v. *Kennedy*, 286 N.C. 130, 138 (1974)). Although a promissory misrepresentation generally cannot support a claim for fraud, "[a] promissory misrepresentation may constitute actionable fraud when it is made with intent to deceive the promisee, and the promisor, at the time of making it, has no intent to comply." *Johnson* v. *Phoenix Mut. Life Ins. Co.*, 300 N.C. 247, 255 (1980), abrogated on other grounds by *Myers & Chapman, Inc.* v. *Thomas G. Evans, Inc.*, 323 N.C. 559, 569 (1988).

In this case, defendant has admitted that it acquired copies of SAS Learning Edition in 2003, 2005, 2007, and 2009. Answer to Am. Compl. ¶25. Defendant further admitted that "each time a version of the SAS Learning

Edition was installed, the employee that conducted the installation accepted any necessary terms that were presented for acceptance at the time of the installation." *Id.* Those terms restricted the use of SAS Learning Edition to the individual customer actually installing the software [for] learning purposes, and forbade reverse engineering the product or using it for production purposes. See Def.'s Ex. 43, Langston I Dep. Def.'s Exs. 3-6 at Ex. 3 §§ 1.1, 1.3, 2.

The court has determined that there is no genuine issue of material fact that defendant's use of SAS Learning Edition breached the terms of the license agreements governing the use of SAS Learning Edition where the U.K. court's preclusive construction of that license agreement's terms establishes that defendant used SAS Learning Edition in various ways that were forbidden by the license agreement. See U.K. judgment ¶ 58; U.K. interim judgment ¶ 289.

Plaintiff has also proffered evidence of defendant's repeated misuse of SAS Learning Edition after repeatedly signing license agreements to the contrary, including the fact that defendant compared the operation of SAS Learning Edition to that of WPS, going so far as to call SAS Learning Edition a "dependency," upon which the creation of WPS relied. See Pl.'s Ex. 190, WPS 3rd Party Dependencies, at 63693, 63722; see also Pl.'s Ex. 35 at 51 (defendant used SAS Learning Edition to determine the source of macros in the SAS System); Pl.'s Ex. 40 (defendant experimented with SAS Learning Edition so as to understand issues with WPS). As set forth by this court in its order allowing plaintiff to amend to add this claim, this evidence

> provide[s] support for the element that defendant acted with intent to deceive plaintiff by purportedly

showing that, despite its representations to plaintiff
that it would adhere to the terms of the license for
the Learning Edition software, it used the software
for its own commercial purposes in a sophisticated,
organized manner; the element that defendant did
in fact deceive plaintiff by purportedly showing that
defendant actually used the Learning Edition soft-
ware in a manner prohibited by the license for it;
and the element of damages by purportedly show-
ing that defendant was able to develop software
that competes with plaintiff's software as a result of
its alleged misrepresentations that it would adhere
to the license for the Learning Edition software.

SAS Inst. Inc. v. *World Programming Ltd.*, No. 5:10-CV-
25-FL, slip op. at 9-10 (E.D.N.C. Aug. 7, 2013).

Defendant, however, asserts that plaintiff has not prof-
fered sufficient evidence for this claim, contending that
the record shows that plaintiff knew defendant was a pro-
gramming company intending to create a competing
product but referred defendant to SAS Learning Edition
anyway. Defendant points to a May 2008 exchange be-
tween Sparkes, the Senior Contracts Officer for plain-
tiff's U.K. subsidiary, and Robinson, defendant's opera-
tional manager. Sparkes, after discovering that defend-
ant was a competitor of plaintiff, informed Robinson dur-
ing a May 13, 2008, telephone conversation that plaintiff
would not license the SAS System to defendant. See
Def.'s Ex. 21, Sparkes Statement ¶¶13-14. On May 23,
2008, Sparkes emailed Robinson, and confirmed that
plaintiff would not enter into a license agreement with
defendant for use of the SAS System. Because Robinson
had indicated defendant wanted to license the SAS Sys-
tem to "check SAS Syntax," Sparkes further referred
him "to the many resources on the market which docu-

ment SAS Syntax and which are readily available through sellers such as Amazon.com." Def.'s Ex. 22 Sparkes Statement Ex. SS-1 at 14.

This exchange does not support defendant's motion. The fact that Sparkes referred defendant to resources on Amazon.com despite knowing defendant was plaintiff's competitor, in no way demonstrates that defendant, after obtaining SAS Learning Edition, did not state that it would abide by the terms of the license agreement while fully intending not to do so, nor does it show that plaintiff did not rely on that statement. Based on the foregoing, defendant's motion for summary judgment as to plaintiff's claim for fraudulent inducement is denied.

6. *Unfair and Deceptive Trade Practices*

Finally, defendant moves for summary judgment on plaintiff's claim for violations of the UDTPA.

To establish a violation of the UDTPA, plaintiff must establish "(1) an unfair or deceptive act or practice, (2) in or affecting commerce, and (3) which proximately caused injury to plaintiffs." *Walker* v. *Fleetwood Homes of N. Carolina, Inc.*, 362 N.C. 63, 71-72 (2007). "A practice is unfair when it offends established public policy as well as when the practice is immoral, unethical, oppressive, unscrupulous, or substantially injurious to consumers. A practice is deceptive if it has the capacity or tendency to deceive." *Id.* at 72 (quoting *Marshall* v. *Miller*, 302 N.C. 539, 548 (1981)). It is settled law in North Carolina that "a plaintiff who proves fraud thereby establishes that unfair or deceptive acts have occurred." *Bhatti* v. *Buckland*, 328 N.C. 240, 243 (1991). In this case the court has found there are genuine issues of material fact with respect to plaintiff's claim for fraudulent inducement; thus,

the court denies defendant's motion for summary judgment as to plaintiff's claim under the UDPTA.[20]

CONCLUSION

For the reasons given the court GRANTS IN PART and DENIES IN PART plaintiff's motion for partial summary judgment (DE 211). Plaintiff's motion is GRANTED as to its claim for breach of contract and DENIED as to its claim for tortious interference with contract. The court also GRANTS IN PART and DENIES IN PART defendant's motion for summary judgment (DE 220). Defendant's motion is GRANTED as to plaintiff's claims for copyright infringement of the SAS System, tortious interference with contract, and tortious interference with prospective economic advantage, and DENIED as to plaintiff's claims for copyright infringement of the SAS manuals, breach of contract, fraudulent inducement, and for unfair and deceptive trade practices.

The parties are DIRECTED to confer within twenty-one (21) days and make joint report to the court as to estimated trial length, alternative suggested trial date settings, suggested alternative dispute resolution techniques to be employed prior to trial in attempt to resolve remaining issues as between the parties, and any other

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[20] Plaintiff raises as a separate ground for denial of defendant's motion for judgment on this claim its assertion that defendant falsely categorized itself as in the "financial services" industry when registering on plaintiff's website in order to obtain access to certain SAS manuals. However, plaintiff introduced no evidence that it relied on this statement to its detriment. North Carolina law is clear that "a claim under section 75-1.1 stemming from an alleged misrepresentation does indeed require a plaintiff to demonstrate reliance on the misrepresentation in order to show the necessary proximate cause." *Bumpers* v. *Cmty. Bank of N. Virginia*, 747 S.E.2d 220, 226 (N.C. 2013).

matter bearing on the parties' pretrial and trial preparations. The parties are reminded that within fourteen (14) days, they jointly shall return to the court by U.S. Mail, addressed to the case manager, a copy of this order now sealed, marked to reflect redactions perceived necessary.

SO ORDERED, this the 29th day of September, 2014.

/s/Louise W. Flanagan

LOUISE W. FLANAGAN

United States District Judge

APPENDIX C
IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF
NORTH CAROLINA
WESTERN DIVISION

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No. 5:10-CV-25-FL

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SAS INSTITUTE INC.,
Plaintiff,

v.

WORLD PROGRAMMING LIMITED,
Defendant.

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ORDER

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This matter comes before the court on its own initiative to set aside and correct certain rulings made in the court's order on summary judgment, entered September 29, 2014, (DE 296), and the court's order on defendant's motion for reconsideration, entered July 1, 2015. (DE 380). For reasons stated more specifically below, defendant is entitled to summary judgment on plaintiff's breach of the SAS Learning Edition ("SAS LE") license agreement claim (Count III) inasmuch as plaintiff grounds its claim on the construction of the term "Customer." However, insofar as that claim is grounded on defendant's violation of the license agreement's restriction of use of SAS LE to "non-production purposes," plaintiff is entitled to summary judgment.

BACKGROUND

This matter has a lengthy procedural and factual history, familiar to the parties and discussed extensively in the court's prior orders. What is not so clear is a full understanding of the related proceeding that occurred in the United Kingdom (sometimes the "U.K. Litigation") around which this decision to revisit prior orders [re]-volves.[1] The court more fully describes the related proceeding below before turning its attention back to this case.

A. The U.K. Litigation

Plaintiff filed suit in the United Kingdom on September 14, 2009, alleging breach of the SAS LE license agreement. As discerned from the documents in evidence produced from the U.K. Litigation, plaintiff contended defendant breached the SAS LE license agreement in three ways:

> 1. Using SAS LE without a valid license, because the employee who installed SAS LE, not defendant, was the "Customer," and thus any use of SAS LE by defendant for development of its competing WPS product necessarily was outside the scope of the SAS LE license agreement;
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> 2. Even if defendant was the "Customer," it violated the SAS LE license agreement's "multi-user prohibition" by allowing its employees unfettered use of the SAS LE program. Plaintiff contends the "multi-user prohibition" required defendant to restrict use of SAS LE to the in-

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[1] The necessity of an order grappling with these difficult issues became clear only upon the court's consideration of the parties' *Daubert* motions now pending. (DE 329, 337, 347).

dividual employees who had installed the program.

3. Defendant violated the SAS LE license agreement's restriction on use to "non-production purposes," where defendant used SAS LE for the commercial purpose of creating WPS, a competing software product.

On July 23, 2010, the United Kingdom's High Court of Justice, ("U.K. High Court"), entered an interim judgment. First, that court determined that under common law principles defendant violated the SAS LE license agreement in all ways asserted by plaintiff. The court first determined that the term "Customer" referred to the individual who had installed the program, not defendant. (U.K. High Court Interim Judgment, DE 320-1 ¶282) ("The introductory section explicitly defines the Customer as being the individual who clicks the 'yes' button and thereby accepts the terms."). The U.K. High Court then determined that defendant was vicariously liable for its employees' conduct because they had installed SAS LE on defendant's behalf. (*Id.* ¶283). Accordingly, the court determined that defendant violated the SAS LE license agreement when it made use of SAS LE for its own purposes, despite not being the "Customer," and that defendant violated the "multi-user prohibition" by allowing use of SAS LE by employees who were not "Customers." (*Id.* ¶¶282-83, 287-88).

In addition, the U.K. High Court determined defendant breached the SAS LE license agreement by using the program for "production purposes." The U.K. High Court focused on the language of the SAS LE license agreement limiting use of the program to the "Customer's non-production purposes only," (SAS LE License Agreements, at 2) (reflecting a change in the SAS LE license

agreement for SAS LE version 4.1), or the "Customer's own self-training non-production purposes only," (*id.* at 5, 8) (reflecting the language used in the SAS LE license agreement for all other versions of SAS LE). Interpreting that language, the U.K. High Court determined that "the Customer [may] not use the Learning Edition to produce anything, but only to learn about the SAS Language, how to write SAS scripts and how to use the SAS system." (U.K. High Court Interim Judgment ¶286). Relying on its construction of those terms, the U.K. High Court concluded defendant had made "production use" of SAS LE, in contravention of the SAS LE license agreement. (*Id.* ¶¶287-89).

Nevertheless, for reasons explained more fully below, the U.K. High Court provisionally held for defendant, grounding its decision in unique principles of European Union law. (U.K. High Court Interim Judgment ¶315). The U.K. High Court's interim judgment relied heavily on European Union Coun[cil] Directive 91/250/EEC addressing the legal protection of computer programs (the "Software Directive"). (*Id.* ¶¶291-314). However, the U.K. High Court determined that the proper interpretation of the Software Directive was not clear and that it was "necessary to seek the guidance of the [Court of Justice of the European Union]," ("CJEU"), on its proper interpretation. (U.K. High Court Interim Judgment ¶310). In pertinent part, the Software Directive states that:

> [Any] person having a right to use a copy of a computer program shall be entitled, without the authorization of the [persons who have created the program], to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts

of loading, displaying, running, transmitting, or
storing the program which he is entitled to do.

Coun[cil] Directive 91/250/EEC Article 5(3). In addition,
the Software Directive provides that "[a]ny contractual
provision contrary to . . . Article [5(3)] shall be null and
void." *Id.* Article 9(1).

On November 29, 2011, the CJEU rendered its judg-
ment on proper interpretation of the Software Directive.
That judgment was consistent with the U.K. High
Court's interpretation of the Software Directive.

On January 25, 2013, the U.K. High Court entered its
final judgment, reiterating and clarifying the grounds for
its interim ruling, and affirming itself. As relevant to the
instant discussion, the court first confirmed its previous
definition of "Customer," stating that use of SAS LE was
confined to the "individual employee" who physically in-
stalled SAS LE. (U.K. High Court Final Judgment ¶ 58).
However, the court held that Article 5(3) of the Software
Directive rendered that definition superfluous. The U.K.
High Court held that notwithstanding its construction of
the term "Customer," Article 5(3) afforded defendant an
absolute right to study, observe, or test SAS LE because
the individual "Customers," *i.e.* defendant's employees,
installed SAS LE on defendant's behalf. (U.K. High
Court Final Judgment ¶ 60).

In addition, the U.K. High Court held that Article 5(3)
in conjunction with Article 9(1) obviated its finding that
defendant violated the "multi-user prohibition." Because
Article 5(3) gave defendant an absolute right to study,
observe, or test SAS LE, defendant had the right to do so
through *any* of its employees, not just the individuals
properly fitting within the scope of the term "Customer."
(*Id.* ¶¶ 60-61). Thus, plaintiff's attempt to abrogate that

right by restricting defendant's power to observe, study, or test the program to only those employees who also were the "Customer" under the SAS LE license agreement was invalid under Article 9(1), because it was contrary to the right granted under Article 5(3). (*Id.* ¶61).

Finally, the court held plaintiff could not sustain its breach of the SAS LE license agreement claim grounded in defendant's "production" use of SAS LE, because defendant's conduct was protected by Article 5(3). The U.K. High Court observed that Article 5(3) gave defendant the right to study, observe, or test SAS LE. (*Id.* ¶¶64-66). Further, that court held that the right conferred by Article 5(3) was absolute, and was unaffected by defendant's purpose to create a competing software product. (*Id.*). Accordingly, the court concluded that, because the SAS LE license agreement purportedly restricted use to "non-production purposes," that provision was invalid to the extent it conflicted with Article 5(3) of the Software Directive. (*Id.* ¶¶64-76).

Thereafter, the parties took cross-appeals to the Court of Appeal of England and Wales ("U.K. Court of Appeal"). Although defendant secured the dismissal of plaintiff's breach of license claim, it appealed the U.K. High Court's original construction of the SAS LE license agreement, which, as interpreted by the U.K. High Court, would have resulted in judgment for plaintiff if not for overriding principles of European Union law. Plaintiff appealed the U.K. High Court's dismissal of plaintiff's breach of license agreement claim under European Union law.

On November 3, 2013, the U.K. Court of Appeal modified and affirmed the U.K. High Court's final judgment. The court disagreed with the U.K. High Court's construction of the term "Customer," and consequently its

application of that term in concluding defendant's conduct violated the "multi-user prohibition" under U.K. law. (U.K. Court of Appeal Judgment, DE 320-3, ¶¶103-08). The U.K. Court of Appeal held that defendant, not the individual who physically installed the software, was the "Customer," and as long as only one employee at a time used a single installation of SAS LE on a single computer, there was no violation of the "multi-user prohibition." (*Id.*). The court observed that, once the term "Customer" properly was constructed, there was no need to rely on Article 9(1) of the Software Directive to arrive at the correct conclusion. (*Id.* ¶108).

However, the U.K. Court of Appeal affirmed the U.K. High Court's holding that Articles 5(3) and 9(1) of the Software Directive nullified the SAS LE license agreement's "non-production" purposes restriction to the extent the license agreement conflicted with those Articles. (*Id.* ¶¶101-02). The court expressly stated that it expressed "no opinion" as to whether the U.K. High Court correctly constructed the phrase "non-production purposes" under U.K. law. (*Id.* ¶102).

B. The Instant Matter

Plaintiff initiated this suit on January 19, 2010, asserting, among others, a common law claim for breach of contract, which became in April 2014 the subject of competing motions for summary judgment. (DE 211, DE 220).[2]

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[2] Much earlier, on March 17, 2010, defendant filed a motion to dismiss for lack of personal jurisdiction and failure to state a claim on which relief can be granted, pursuant to Federal Rules of Civil Procedure 12(b)(2) and 12(b)(6). In the alternative, defendant moved for dismissal under the doctrine of *forum non conveniens*, or change of venue, pursuant to 28 U.S.C. § 1404. (DE 11). On March 14, 2011, after conduct of jurisdictional discovery, the court entered [an] order granting defendant's motion to dismiss under the doctrine of *forum*

Plaintiff contended defendant breached the SAS LE license agreement in four ways, three of which were at issue in the U.K. Litigation:

1. Defendant violated the SAS LE license agreement by using the program. The SAS LE license agreement restricts use of the program to the "Customer," defined in the agreement as "the individual licensing the [software.]" (SAS LE License Agreements, DE 229, at 2, 5, 8, 11). Plaintiff argues defendant was not the "Customer," but, rather, that the individual employee who installed the SAS LE program properly was considered the "Customer."

2. Even if defendant was the "Customer," it violated the SAS LE license agreement's "multi-user prohibition" by allowing its employees unfettered use of the SAS LE program. Plaintiff contends the "multi-user prohibition" required defendant to restrict use of SAS LE to the individual employees who had installed the program.

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non conveniens. On April 14, 2011, plaintiff filed a motion for reconsideration of the court's judgment granting defendant's motion to dismiss, pursuant to Federal Rule of Civil Procedure 59(e), which was denied. Plaintiff subsequently appealed the court's order granting defendant's motion to dismiss to the United States Court of Appeals for the Fourth Circuit which on February 16, 2012, issued an opinion vacating this court's judgment and remanding the case for further proceedings. *SAS Inst., Inc.* v. *World Programming Ltd.*, 468 F. App'x 264 (4th Cir. 2012). On remand, defendant resubmitted its prior motion to dismiss or in the alternative to transfer venue, omitting a request for dismissal under the doctrine of *forum non conveniens.* After further jurisdictional discovery, the court entered [an] order denying defendant's motion to dismiss. Motions for summary judgment followed, after a contentious period of additional discovery.

3. Defendant had violated the SAS LE license a-
   greement's restriction on use to "non-produc-
   tion purposes," where defendant used SAS LE
   for the commercial purpose of creating WPS, a
   competing software product.

4. Finally, defendant "reverse engineered" SAS
   LE to create WPS.

In addition, plaintiff raised the issue of collateral estop-
pel, with reference to the U.K. Litigation. Plaintiff rep-
resented that in that parallel proceeding fully litigated in
the United Kingdom and described at length above, the
trial court had decided certain issues supportive of plain-
tiff's first three contentions, which required this court to
find that defendant had breached the SAS LE license
agreement. (Pl.'s Partial Summ. J. Br., DE 212, at 50).

In support of its competing motion for summary judg-
ment, defendant contended it had not used SAS LE for
"production purposes," and was entitled to summary
judgment on that point. Defendant also raised the issue
of collateral estoppel, arguing that it had secured a dis-
missal of plaintiff's breach of license agreement claim in
the United Kingdom by virtue of special ten[ets] of Eu-
ropean Union law. It contended that this court should
give those special tenants of European Union law preclu-
sive effect. (Def.'s Summ. J. Br., DE 226, at 20-27).

The undersigned entered summary judgment in favor
of plaintiff on all four grounds at issue. In doing so, the
court relied heavily on the parties' interpretation of the
U.K. Litigation, which, with benefit of hindsight, failed to
acknowledge any meaningful distinction between the rea-
soning employed by the U.K. High Court and the U.K.
Court of Appeal. Accordingly, the court gave preclusive
effect to the U.K. High Court's construction of the SAS
LE license agreement, without deference to that court's

ultimate conclusion or the judgment of the U.K. Court of Appeal.[3]

Thereafter, on March 2, 2015, defendant filed a motion for reconsideration. In its motion, defendant argued the court erroneously gave preclusive effect to reversed or vacated portions of the U.K. High Court's final judgment in granting summary judgment in favor of plaintiff on its breach of the SAS LE license agreement claim. On July 1, 2015, the court entered [an] order denying defendant's motion for reconsideration. In denying defendant's motion, the court extensively relied on the SAS LE license agreement's prohibition on "reverse engineering." The court concluded that, even if it had erred in other relevant respects, there was no need to reconsider the court's grant of summary judgment in plaintiff's favor where defendant was not entitled to summary judgment on all grounds. Upon further consideration of the U.K. litigation, the parties' arguments as supplemented with briefing on their *Daubert* motions, and the applicable law, the court amends its order on summary judgment and its order on motion for reconsideration as set out below, to correct certain errors.

COURT'S DISCUSSION

A. Issues Concerning Comity and Collateral Estoppel

The court applied principles of comity and collateral estoppel to give preclusive effect to the U.K. High Court's Interim and Final Judgments. In so doing, the court adopted the U.K. High Court's construction of the SAS

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[3] The court also held for plaintiff on the ground that defendant had "reverse engineered" SAS LE. *SAS Inst.*, 64 F. Supp. 3d at 774 n.13. However, that holding, not at issue here, was not tied to the decision of the U.K. High Court. See *id.*

LE license agreement. In this respect, the court erred. For the reasons that follow, the court disclaims further reliance on the determinations of the U.K. High Court.

The instant litigation has tested the bounds of Federal Rule of Civil Procedure 1, which calls for the "just, speedy, and inexpensive determination of every action and proceeding." Fed. R. Civ. P. 1. The U.K. proceedings have complicated this matter for both the parties and the court. The parties have compounded that difficulty with briefing that obfuscated the outcome of the U.K. litigation.

In their respective motions for summary judgment, (DE 211 & 220), both parties demanded application of collateral estoppel to plaintiff's breach of the SAS LE license agreement claim, each seeking to preclude the other from litigating that issue. On one hand, plaintiff's motion for partial summary judgment advanced a "facts" oriented analysis in an attempt to persuade the court to ignore the *outcome* of the U.K. litigation and instead focus on the U.K. High Court's construction of the SAS LE license agreement. On the other hand, defendant's motion advocated for a "results" oriented analysis, which would have the court eschew an analysis of the *legal principles* underlying the U.K. High Court's ultimate result and instead focus only on the outcome of that case. Initially, the court accepted plaintiff's theory as correct. However, upon further consideration it has become clear that neither the parties nor the court faithfully applied the principles of collateral estoppel as the Fourth Circuit and North Carolina Supreme Court have instructed.

Before turning to the doctrine of collateral estoppel, the court first recounts the important and familiar doctrine of comity. Recognition of a foreign judgment is determined by the flexible principles of comity. See *Guin-*

ness PLC v. *Ward*, 955 F.2d 875, 883 (4th Cir. 1992); see also *SAS Inst., Inc.* v. *World Programming Ltd.*, 64 F. Supp. 3d 755, 768 (E.D.N.C. 2014). Comity "is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation." *Hilton* v. *Guyot*, 159 U.S. 113, 163-64 (1895). Determinations of whether or not to recognize the judgment of a foreign state turn on whether the foreign proceedings were "sufficiently analogous to our fundamental concepts of justice." *Banca Emiliana* v. *Farinacci* (*In re Entercons Va., Inc.*), 812 F.2d 1469, 1473 (4th Cir. 1987). With regard to that fundamental inquiry, the U.K. proceedings were sufficiently analogous to those that could have been had here. *SAS Inst.*, 64 F. Supp. 3d at 770-71.

Where, as here, the court has recognized a foreign judgment, the court next must analyze the foreign judgment through the lens of collateral estoppel to determine that judgment's preclusive effect. In North Carolina, collateral estoppel bars the re-litigation of an issue previously decided, where the instant case raises an issue that: 1) is the same as one involved in a prior action; 2) was raised and actually litigated in the prior action; 3) was material and relevant to the disposition of the prior action; and 4) was "necessary and essential to the resulting judgment" in the prior action. *Sartin* v. *Macik*, 535 F.3d 284, 288 (4th Cir. 2008) (citing *North Carolina* v. *Summers*, 351 N.C. 620, 622 (2000)); see also *Collins* v. *Pond Creek Mining Co.*, 468 F.3d 213, 217 (4th Cir. 2006). In its order on summary judgment, the court erroneously applied the fourth element of the collateral estoppel inquiry; the U.K. High Court's construction of the SAS LE license agreement was not "necessary" to that court's ultimate decision.

The Fourth Circuit has counseled against a broad interpretation of necessity. See *In re Microsoft Corp. Antitrust Litig.*, 355 F.3d 322, 325-28 (4th Cir. 2004). Rather, an issue is "necessarily" litigated in a previous case only where the issue in question is "essential" to that case's outcome. See, *e.g.*, *Microsoft*, 355 F.3d at 327; *Polk* v. *Montgomery Cnty., Md.*, 782 F.2d 1196, 1201 (4th Cir. 1986) (defining the "necessity" prong as "necessary, material, and essential"); *C.B. Marchant Co* v. *Eastern Foods, Inc.*, 756 F.2d 317, 319 (4th Cir. 1985) (describing the "necessity" prong as "necessary and essential"); see also Restatement (Second) of Judgments §27 & cmt. h (1982) (using "essential to the judgment," meaning that the judgment must be "dependent upon the determination[]").

The U.K. High Court's construction of the SAS LE license agreement was hardly "necessary" or "essential" to its ultimate conclusion. A close reading of the U.K. High Court's Final Judgment shows that construction of the license agreement was superfluous in light of its application of Articles 5(3) and 9(1) of the Software Directive. There was no need for that court to determine whether defendant breached the terms of the SAS LE license agreement to conclude that defendant's conduct ultimately was protected by European Union law. Accordingly, it was error to give the U.K. High Court's construction of the SAS LE license agreement preclusive effect. The court will set aside its summary judgment order inasmuch as it rested on the court's erroneous application of the doctrine of collateral estoppel.

In its order on defendant's motion to reconsider, the court recognized that the U.K. Court of Appeal had reversed the U.K. High Court in numerous respects. Nevertheless, the court did not specify the impact that rever-

sal had on this proceeding. As discussed above, the reversal itself should have had no effect on these proceedings, where the court erred in giving preclusive effect to unnecessary determinations made by the U.K. High Court.

Both parties contend principles of comity and collateral estoppel compel judgment in their favor on plaintiff's breach of the SAS LE license agreement claim. As discussed at length above, the U.K. litigation is entitled to recognition by this court. Further, upon review of the judgment of the U.K. Court of Appeal, the court concludes that [the] court's construction of the term "Customer" is entitled to preclusive effect. Based on that construction, plaintiff is collaterally estopped from litigating its breach of the SAS LE license agreement claim inasmuch as plaintiff argues defendant was not the "Customer." In addition, plaintiff is collaterally estopped from arguing that defendant violated [the] "multi-user prohibition" by granting various employees access to SAS LE, so long as two or more employees did not use a single installation of SAS LE simultaneously.

With respect to the U.K. Court of Appeal's decision, the four elements of collateral estoppel clearly are met. The parties between this litigation and the parallel U.K. litigation are identical. The definition of the term "Customer" was raised and actually litigated in the prior action, as evidenced by the judgment of the U.K. Court of Appeal. Construction of the term "Customer" was "material and relevant" to the disposition of the U.K. litigation, where it resulted in judgment in defendant's favor on two of the three grounds advanced in support of plaintiff's breach of the SAS LE license agreement claim.

Finally, construction of the term "Customer" was necessary and essential to the U.K. Court of Appeal's ulti-

mate judgment. Although the U.K. High Court had relied on Articles 5(3) and 9(1) of the Software Directive in disposing of plaintiff's claim insofar as that claim was tied to the definition of the term "Customer," the U.K. Court of Appeal expressly disclaimed reliance on European Union law in rendering the relevant portion of its judgment. Rather, the U.K. Court of Appeal interpreted the contract and held that the term "Customer" referred to defendant, not merely defendant's employees. Because construction of the term "Customer" was necessary and essential to the U.K. Court of Appeal's judgment, and because the other requirements for collateral estoppel are met, defendant is entitled to partial summary judgment in its favor on plaintiff's breach of the SAS LE license agreement claim.

However, collateral estoppel does not apply to the U.K. Court of Appeal's judgment as it relates to plaintiff's claim grounded in defendant's violation of the SAS LE license agreement's restriction on use of SAS LE to "non-production purposes." The U.K. Court of Appeal gave no indication as to whether the U.K. High Court correctly had interpreted the phrase "non-production purposes." Instead, the U.K. Court of Appeal affirmed the U.K. High Court's judgment in favor of defendant relying on Article 5(3) of the Software Directive only. Thus, contrary to defendant's representations in both its motion for summary judgment and motion for reconsideration, construction of the phrase "non-production purposes" was not "necessary and essential" to the U.K. High Court's judgment, where that court granted judgment in favor of defendant relying exclusively on principles of European Union law. As noted in the court's prior order, North Carolina does not recognize any principle of law analogous to Article 5(3) and thus "the court is not bound by

the U.K. [courts'] conclusion that European Union law rendered contractual provisions void." *SAS Inst.*, 64 F. Supp. 3d at 773-74.

B. "Non-Production Purposes"

Where collateral estoppel does not bind this court in its construction of the term "non-production purposes," it remains for the court to decide whether defendant's use of SAS LE violated the SAS LE license agreement's restriction on use of that software to "non-production purposes." For the reasons that follow, the court holds that it did.

To succeed on its breach of the SAS LE license agreement claim, plaintiff must show "the existence of a contract between plaintiff and defendant, the specific provisions breached, [t]he facts constituting the breach, and . . . damages resulting to plaintiff from such breach." *Cantrell* v. *Woodhill Enters., Inc.*, 273 N.C. 490, 497 (1968); see also *Morgan's Ferry Prods., LLC* v. *Rudd*, 18 F. App'x 111, 112 (4th Cir. 2001). If plaintiff can show that there has been a breach, plaintiff is entitled to at least nominal damages. See *Robbins* v. *C.W. Myers Trading Post, Inc.*, 251 N.C. 663, 666 (1960). To survive defendant's motion for summary judgment, plaintiff must provide sufficient evidence in support of all three elements. To survive plaintiff's motion for partial summary judgment, defendant must demonstrate that there is a genuine dispute of material fact as to at least one of the elements.

At this stage of the case, there is no dispute that there was a valid contract between plaintiff and defendant. Further, there is no material dispute as to defendant's actions giving rise to plaintiff's breach of the SAS LE license agreement claim. Indeed, the court previously

found that defendant used SAS LE to assist in the creation of WPS. See *SAS Inst.*, 64 F. Supp. 3d [at] 763-66. Thus, the parties' cross-motions for summary judgment turn on whether defendant's undisputed actions violated the SAS LE license agreement's restriction on use to "non-production purposes."

There are two contractual provisions in dispute. When defendant first acquired SAS LE in 2003, the license agreement contained language restricting use of SAS LE to the "Customer's self-training non production purposes only." (SAS LE License Agreements at 5, 8). In later versions of the SAS LE license agreement, the language was altered slightly to restrict use to the "Customer's non-production purposes only." (*Id.* at 2). These provisions are governed by North Carolina law. (*Id.* at 4, 7, 10, 13); see also *SAS Inst.*, 64 F. Supp. 3d at 773-74. Where North Carolina courts have not interpreted the relevant language in the context of a software contract, the court must turn to North Carolina's principles of contractual interpretation.

Plaintiff contends defendant violated the SAS LE license agreement's restriction to "non-production" use by using SAS LE to assist in the creation of defendant's competing WPS product. Defendant, by contrast, argues that it did not breach the contract because it used SAS LE in a "non-production environment," specifically noting that it used SAS LE in a "development environment." After careful consideration of the parties' arguments, the court concludes that defendant's conduct violated the SAS LE license agreement's restriction on use of the software to "non-production purposes" under both versions of the SAS LE license agreement and grants plaintiff's motion for summary judgment on that issue.

To determine the meaning of "non-production" purposes, the court first must determine what constitutes a "production" purpose. "Production" is defined as "[t]he action or an act of producing, making, or causing anything; generation or creation *of* something; the fact or condition of being produced"; "the manufacture of goods for sale and consumption"; Oxford English Dictionary, "production," available at http://www.oed.com/view/Entry/151994?redirectedFrom=Production (accessed July 18, 2015); or "the process of making or growing something for sale or use." "Production," Merriam-Webster.com, http://www.merriamwebster.com/dictionary/production (accessed July 20, 2015). This definition comports with plaintiff's proffered meaning of the SAS LE license agreement's restriction of use to "non-production purposes" as restricting use to non-commercial purposes.

Although the ordinary meaning also may encompass a broader definition of "production," which includes making *anything* rather than just commercial products, such definition cannot be applied here where it would lead to an absurd result. Courts are to prefer a "fair and customary" definition of the terms in a contract over an "inequitable" one. See *Mgmt. Sys. Assocs., Inc.* v. *McDonnell Douglas Corp.*, 762 F.2d 1161, 1172 (4th Cir. 1985); *DeBruhl* v. *State Highway & Public Works Comm'n*, 245 N.C. 139, 145 (1956) ("All instruments should receive a sensible and reasonable construction, and not such a one as will lead to absurd consequences or unjust results."); *Burwell* v. *Griffin*, 67 N.C. App. 198, 204 (1984). Carried to its logical extreme, such a construction would prohibit anyone from using SAS LE to produce outputs, such as data sets or SAS language programs. Such a broad construction of [the] SAS LE license agreement's restriction on use to "non-production purposes" would undermine

the useful, educational goal of the software, and certainly would undermine the "self-training" aspect of SAS LE provided in earlier versions of the license agreement. (See SAS LE License Agreements at 5, 8). Accordingly, the court prefers the more narrow construction, prohibiting the creation or manufacture of commercial goods.

Finally, the phrase "non-production purposes" is not reasonably susceptible to defendant's proffered interpretation. Defendant attempts to interject an industry definition of the term "production," referring to making business use of the SAS LE, and thus contends that the SAS LE license agreement's restriction on use to "non-production" purposes actually allows "development use" of the software. The court finds it difficult to believe that a technical construction should be given to a "boilerplate" license agreement, (Def.'s Summ. J. Br. at 43), packaged with a software product targeted toward a broad range of consumers trying to learn the SAS language. See *SAS Inst.*, 64 F. Supp. 3d at 765-66 (noting that typically SAS is purchased from plaintiff directly, but that SAS LE may be purchased on Amazon.com); (See also Patricia Brown April 14, 2014, Decl., DE 211-1, ¶8) ("In order to allow individuals to learn how to program in SAS, SAS created a version of its software called the SAS Learning Edition.").[4]

In addition, defendant contends "production" and "development" are exclusive and well established alterna-

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[4] Although not at issue here, the court notes that this same reasoning applies to its construction of the term "reverse engineer," as identified in its order on defendant's motion for reconsideration. In addition to the reasons stated specifically in that order, the term "reverse engineer" is not susceptible to a technical industry-specific interpretation in light of the broad range of consumers at which the boilerplate SAS LE license agreement was targeted.

tives within the software development industry. (See Def.'s Summ. J. Br. at 41-43). Assuming defendant's argument is correct, defendant fails to explain why the SAS LE license agreement contains the phrase "non-production purposes" rather than the phrase "development purposes," where "development" is the well-established industry alternative to "production."

Finally, cases cited by defendant, as well as the testimony of defendant's proffered expert, Kendyl A. Roman, make clear that the distinction between "production" and "development" applies only in the context of server environments, which is not at issue in the SAS LE license agreement. See, *e.g.*, *In re Lear Corp.*, No. 09-14326 ALG, 2012 WL 5193781, at *1, *4-5 (Bankr. S.D.N.Y. Oct. 19, 2012) (discussing development versus production servers); *Trading Techns. Int'l, Inc.* v. *eSpeed, Inc.*, 507 F. Supp. 2d 883 (N.D. Ill. 2007) aff'd 959 F.3d 1340 (Fed. Cir. 2010) (discussing software creating a live or production *environment*); see also (Oracle Waveset 8.1.1 Upgrade Terminology and Concepts, DE 221-44) (defining production *environment* with reference to a location where the Waveset application is available for business use); (Kendyl Roman Dep., DE 384, 126:3-127:18) (discussing distinction between development and production "environments").[5]

In sum, because it is undisputed that defendant used SAS LE to assist in the creation of WPS, a commercially available product, plaintiff is entitled to summary judgment on its breach of the SAS LE license agreement claim grounded in defendant's use of SAS LE for "non-

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[5] Reliance on defendant's proffered expert does not reflect the court's views on the merits of plaintiff's motion to exclude Roman scheduled for hearing July 23, 2015.

production purposes." In view of the nature of the license agreement, as well as the use of the term "non-production" in favor of the well-established industry term "development," the court finds that the contract is not susceptible to defendant's interpretation.

CONCLUSION

Based on the foregoing, the court modifies its summary judgment order, entered September 29, 2014, and order on defendant's motion for reconsideration, entered July 1, 2015. The court erred in giving the U.K. High Court's construction of the SAS LE license agreement preclusive effect, because that court's construction of the license agreement was neither necessary nor essential to the disposition of the case, which rested entirely on ten[ets] of European Union law. Defendant is entitled to summary judgment on plaintiff's breach of the SAS LE license agreement claim insofar as that claim rests on the construction of the term "Consumer" on the grounds of comity and collateral estoppel, because the U.K. Court of Appeal decided that issue. However, plaintiff is entitled to summary judgment on its breach of the SAS LE license agreement claim to the extent that claim is grounded on defendant's violation of the SAS LE's restriction on use to "non-production purposes."

SO ORDERED, this the 21st day of July, 2015.

/s/Louise W. Flanagan

LOUISE W. FLANAGAN
United States District Judge

APPENDIX D
UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

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NO. 16-1808

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SAS INSTITUTE, INC.,
Plaintiff-Appellant,

v.

WORLD PROGRAMMING LIMITED,
Defendant-Appellee,

————

THE MATHWORKS, INC.; BSA THE SOFTWARE ALLIANCE,
Amici Supporting Appellant,

ELECTRONIC FRONTIER FOUNDATION; COMPUTER &
COMMUNICATIONS INDUSTRY ASSOCIATION; INTERNET
ASSOCIATION; ENGINE ADVOCACY,
Amici Supporting Appellee,

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NO. 16-1857

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SAS INSTITUTE, INC.,
Plaintiff-Appellee,

v.

WORLD PROGRAMMING LIMITED,
Defendant-Appellant,

————

(102a)

103a

THE MATHWORKS, INC.; BSA THE SOFTWARE ALLIANCE,
Amici Supporting Appellee,

ELECTRONIC FRONTIER FOUNDATION; COMPUTER &
COMMUNICATIONS INDUSTRY ASSOCIATION; INTERNET
ASSOCIATION; ENGINE ADVOCACY,
Amici Supporting Appellant.

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ORDER

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FILED: November 21, 2017

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The court denies the petition for rehearing and rehearing en banc. No judge requested a poll under Fed. R. App. P. 35 on the petition for rehearing en banc.

Entered at the direction of the panel: Judge Wilkinson, Judge Duncan, and Judge Thacker.

> For the Court
> /s/ Patricia S. Connor, Clerk

APPENDIX E
**RELEVANT CONSTITUTIONAL, TREATY, AND
STATUTORY PROVISIONS**

1. Article I, Section 8, of the United States Constitution provides:

The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

To borrow Money on the credit of the United States;

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

To establish Post Offices and post Roads;

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

To constitute Tribunals inferior to the supreme Court;

To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

To provide and maintain a Navy;

To make Rules for the Government and Regulation of the land and naval Forces;

To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repeal Invasions;

To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of Particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards and other needful Buildings;—And

To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

2.   Article III, Section 2, of the United States Constitution provides:

The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public ministers and Consuls;—to all Cases of admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and Citizens of another State;—between Citizens of different States;—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

3. The Berne Convention for the Protection of Literary and Artistic Works, S. Treaty Doc. 99-27 (July 24, 1971), provides in relevant part:

The countries of the Union, being equally animated by the desire to protect, in as effective and uniform a manner as possible, the rights of authors in their literary and artistic works,

Recognizing the importance of the work of the Revision Conference held at Stockholm in 1967,

Have resolved to revise the Act adopted by the Stockholm Conference, while maintaining without change Articles 1 to 20 and 22 to 26 of that Act.

Consequently, the undersigned Plenipotentiaries, having presented their full powers, recognized as in good and due form, have agreed as follows:

* * * * *

Article 5

(1) Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention.

(2) The enjoyment and the exercise of these rights shall not be subject to any formality; such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work. Consequently, apart from the provisions of this Convention, the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed exclusively by the laws of the country where protection is claimed.

(3) Protection in the country of origin is governed by domestic law. However, when the author is not a national of the country of origin of the work for which he is protected under this Convention, he shall enjoy in that country the same rights as national authors.

(4) The country of origin shall be considered to be:

(*a*) in the case of works first published in a country of the Union, that country; in the case of works published simultaneously in several countries of the Union which grant different terms of protection, the country whose legislation grants the shortest term of protection;

(*b*) in the case of works published simultaneously in a country outside the Union and in a country of the Union, the latter country;

(*c*) in the case of unpublished works or of works first published in a country outside the Union, without simultaneous publication in a country of the Union, the country of the Union of which the author is a national, provided that:

(i) when these are cinematographic works the maker of which has his headquarters or his habitual residence in a country of the Union, the country of origin shall be that country, and

(ii) when these are works of architecture erected in a country of the Union or other artistic works incorporated in a building or other structure located in a country of the Union, the country of origin shall be that country.

4. European Council Directive 91/250/EEC, 1991 O.J. (L. 122/42) (EC), on the legal protection of computer programs, provides in relevant part:

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community and in particular Article 100a thereof,

Having regard to the proposal from the Commission,[1]

In cooperation with the European Parliament,[2]

Having regard to the opinion of the Economic and Social Committee,[3]

* * * * *

HAS ADOPTED THIS DIRECTIVE:

* * * * *

Article 1

Object of protection

1. In accordance with the provisions of this Directive, Member States shall protect computer programs, by copyright, as literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works. For the purposes of this Directive, the term 'computer programs' shall include their preparatory design material.

2. Protection in accordance with this Directive shall

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[1] OJ No C 91, 12. 4. 1989 p. 4; and OJ No C 320, 20. 12. 1990, p. 22.

[2] OJ No C 231, 17. 9. 1990, p. 78; and Decision of 17 April 1991. Yet published in the Official Journal.

[3] OJ No C 329, 30. 12. 1989, p. 4.

apply to the expression in any form of a computer program. Ideas and principles which underlie any element of a computer program, including those which underlie its interfaces, are not protected by copyright under this Directive.

3. A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection.

* * * * *

Article 4

Restricted Acts

Subject to the provisions of Articles 5 and 6, the exclusive rights of the rightholder within the meaning of Article 2, shall include the right to do or to authorize:

(a) the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole. Insofar as loading, displaying, running, transmis[s]ion or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder;

(b) the translation, adaptation, arrangement and any other alteration of a computer program and the reproduction of the results thereof, without prejudice to the rights of the person who alters the program;

(c) any form of distribution to the public, including the rental, of the original computer program or of copies thereof. The first sale in the Community of a copy of a program by the rightholder or with his consent shall exhaust the distribution right within the Community of that copy, with the exception of the right to control further rental of the program or a copy thereof.

Article 5
Exceptions to the restricted acts

1. In the absence of specific contractual provisions, the acts referred to in Article 4 (a) and (b) shall not require authorization by the rightholder where they are necessary for the use of the computer program by the lawful acquirer in accordance with its intended purpose, including for error correction.

2. The making of a back-up copy by a person having a right to use the computer program may not be prevented by contract insofar as it is necessary for that use.

3. The person having a right to use a copy of a computer program shall be entitled, without the authorization of the rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.

* * * * *

Article 9
Continued application of other legal provisions

1. The provisions of this Directive shall be without prejudice to any other legal provisions such as those concerning patent rights, trade-marks, unfair competition, trade secrets, protection of semi-conductor products or the law of contract. Any contractual provisions contrary to Article 6 or to the exceptions provided for in Article 5(2) and (3) shall be null and void.

2. The provisions of this Directive shall apply also to programs created before 1 January 1993 without prejudice to any acts concluded and rights acquired before that date.

5. European Council Directive 2001/29/EEC, 2001 O.J. (L 167/10) (EC), on the harmonization of certain aspects of copyright and related rights in the information society, provides in relevant part:

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Articles 47(2), 55 and 95 thereof,

Having regard to the proposal from the Commission,[1]

Having regard to the opinion of the Economic and Social Committee,[2]

Acting in accordance with the procedure laid down in Article 251 of the Treaty,[3]

Whereas:

* * * * *

(47) Technological development will allow rightholders to make use of technological measures designed to prevent or restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the *sui generis* right in databases. The danger, however, exists that illegal activities might be carried out in order to enable or facilitate the circumvention of the technical protection provided by these measures. In order to avoid fragment-

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[1] OJ C 108, 7.4.1998, p.6 and OJ C 180, 25.6.1999, p. 6.

[2] OJ C 407, 28.12.1998, p. 30.

[3] Opinion of the European Parliament of 10 February 1999 (OJ C 150, 28.5.1999, p. 171), Council Common Position of 28 September 2000 (OJ C 3444, 1.12.2000, p. 1) and Decision of the European Parliament of 14 February 2001 (not yet published in the Official Journal). Council Decision of 9 April 2001.

ed legal approaches that could potentially hinder the functioning of the internal market, there is a need to provide for harmonised legal protection against circumvention of effective technological measures and against provision of devices and products or services to this effect.

(48) Such legal protection should be provided in respect of technological measures that effectively restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the *sui generis* right in databases without, however, preventing the normal operation of electronic equipment and its technological development.

Such legal protection implies no obligation to design devices, products, components or services to correspond to technological measures, so long as such device, product, component or service does not otherwise fall under the prohibition of Article 6. Such legal protection should respect proportionality and should not prohibit those devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. In particular, this protection should not hinder research into cryptography.

(49) The legal protection of technological measures is without prejudice to the application of any national provisions which may prohibit the private possession of devices, products or components for the circumvention of technological measures.

(50) Such a harmonized legal protection does not affect the specific provisions on protection provided for by Directive 91/250/EEC. In particular, it should not apply to the protection of technological measures used in connection with computer programs, which is exclusively addressed in that Directive. It should neither inhibit nor

prevent the development or use of any means of circumventing a technological measure that is necessary to enable acts to be undertaken in accordance with the terms of Article 5(3) or Article 6 of Directive 91/250/EEC. Articles 5 and 6 of that Directive exclusively determine exceptions to the exclusive rights applicable to computer programs.

6. The Copyright, Designs and Patents Act of 1988, c. 48 (U.K.), provides in relevant part:

Section 50BA
Observing, studying and testing of computer programs

 (1) It is not an infringement of copyright for a lawful user of a copy of a computer program to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.

 (2) Where an act is permitted under this section, it is irrelevant whether or not there exists any term or condition in an agreement which purports to prohibit or restrict the act (such terms being, by virtue of section 296A, void).

<div align="center">* * * * *</div>

Section 296A
Avoidance of certain terms.

 (1) Where a person has the use of a computer program under an agreement, any term or condition in the agreement shall be void in so far as it purports to prohibit or restrict—

  a. the making of any back up copy of the program which it is necessary for him to have for the purposes of the agreed use;

  b. where the conditions in section 50B(2) are met, the decompiling of the program; or

   c. the observing, studying or testing of the
       functioning of the program in accordance
       with section 50BA.

(2) In this section, decompile, in relation to a com-
    puter program, has the same meaning as in
    section 50B.

APPENDIX F
IN THE HIGH COURT OF JUSTICE
CHANCERY DIVISION

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CASE No. HC09C03293

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DATE: 25 JANUARY 2013

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BEFORE:

THE HON MR JUSTICE ARNOLD

————

BETWEEN:

SAS INSTITUTE, INC.,
Claimant,

-and-

WORLD PROGRAMMING LIMITED,
Defendant.

————

Hearing dates: 14-15 January 2013

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APPROVED JUDGMENT

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

(117a)

MR JUSTICE ARNOLD:

Contents

Introduction

1. The Claimant, SAS Institute Inc ("SAS Institute"), is a developer of analytical software known as SAS (referred to in these proceedings as "the SAS System"). The SAS System is an integrated set of programs which enables users to carry out a wide range of data processing and analysis tasks, and in particular statistical analysis. The core component of the SAS System is Base SAS, which enables users to write and run application programs (also known as "scripts") to manipulate data. Such applications are written in a language known as the SAS Language. The functionality of Base SAS may be extended by the use of additional components, including three which are relevant to these proceedings called SAS/ACCESS, SAS/GRAPH and SAS/STAT (the four components being collectively referred to as "the SAS Components"). The SAS System has been developed over a period of 35 years.

2. Over the years SAS Institute's customers have written, or had written on their behalf, thousands of application programs in the SAS Language. These can range from fairly short and simple programs to large and complex programs which involve many man years of effort to create. Prior to the events giving rise to this dispute, SAS Institute's customers had no alternative to continuing to license use of the necessary components in the SAS System in order to be able to run their existing SAS Language application programs, as well as to create new ones. While there are many other suppliers of analytical software which compete with SAS Institute, a customer who wanted to change over to another supplier's software would be faced with re-writing its existing application programs in a different language.

3. The Defendant, World Programming Ltd ("WPL"), perceived that there would be a market demand for alternative software which would be able to execute application programs written in the SAS Language. WPL therefore created a product called World Programming System or WPS to do this. In developing WPS, WPL sought to emulate much of the functionality of the SAS Components as closely as possible in the sense that, subject to only a few minor exceptions, it tried to ensure that the same inputs would produce the same outputs. This was so as to ensure that WPL's customers' application programs executed in the same manner when run on WPS as on the SAS Components. There is no suggestion that in doing so WPL had access to the source code of the SAS Components or that WPL has copied any of the text of the source code of the SAS Components or that WPL has copied any of the structural design of the source code of the SAS Components. Nevertheless, SAS Institute contends that WPL has both committed a series of infringements of copyright and acted in breach of contract in creating WPS and its accompanying documentation.

4. SAS Institute's principal claims are as follows:

  i. A claim that WPL copied the manuals for the SAS System published by SAS Institute ("the SAS Manuals") when creating WPS and thereby infringed the copyright in the SAS Manuals.

 ii. A claim that, by copying the SAS Manuals when creating WPS, WPL indirectly copied the programs comprising the SAS Components and thereby infringed the copyright in the SAS Components.

iii. A claim that WPL used a version of the SAS System known as the Learning Edition in contravention of the terms of its licences, and thereby both acted in

breach of the relevant contracts and infringed the copyright in the Learning Edition.

iv. A claim that WPL infringed the copyright in the SAS Manuals in creating its own documentation, namely a manual ("the WPS Manual") and some "quick reference" guides ("the WPS Guides").

My first judgment

5. Following a trial in June 2010, I handed down judgment on 23 July 2010 ([2010] EWHC 1829 (Ch), [2011] RPC 1; "my first judgment"). In my first judgment I found the facts (at [1]-[148]), set out the legal context (at [149]-[195]) and then considered each of SAS Institute's claims listed above (at [251]-[267], [196]-[250], [268]-[315] and [316]-[329] respectively). In the case of the fourth claim, I was able to conclude that WPL had infringed the copyrights in the SAS Manuals when creating the WPS Manual, but not when creating the WPS Guides. In the case of the other claims, I concluded that it was necessary to refer certain questions of interpretation of Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs ("the Software Directive") (now codified as Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009) and of European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society ("the Information Society Directive") to the Court of Justice of the European Union for a preliminary ruling. I nevertheless expressed my provisional views both on the issues of law and on how the law should be applied to the facts that I had found. In this judgment I shall take the whole of my first judgment as read.

The reference

6. By order dated 28 July 2010 I referred the following questions to the CJEU:

A. "On the interpretation of Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs and of Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 (codified version):

1. Where a computer program ('the First Program') is protected by copyright as a literary work, is Article 1(2) to be interpreted as meaning that it is not an infringement of the copyright in the First Program for a competitor of the rightholder without access to the source code of the First Program, either directly or via a process such as decompilation of the object code, to create another program ('the Second Program') which replicates the functions of the First Program?

2. Is the answer to question 1 affected by any of the following factors:

(a) the nature and/or extent of the functionality of the First Program;

(b) the nature and/or extent of the skill, judgment and labour which has been expended by the author of the First Program in devising the functionality of the First Program;

(c) the level of detail to which the functionality of the First Program has been reproduced in the Second Program;

(d) if the source code for the Second Program reproduces aspects of the source code of the

First Program to an extent which goes beyond that which was strictly necessary in order to produce the same functionality as the First Program?

3. Where the First Program interprets and executes application programs written by users of the First Program in a programming language devised by the author of the First Program which comprises keywords devised or selected by the author of the First Program and a syntax devised by the author of the First Program, is Article 1(2) to be interpreted as meaning that it is not an infringement of the copyright in the First Program for the Second Program to be written so as to interpret and execute such application programs using the same keywords and the same syntax?

4. Where the First Program reads from and writes to data files in a particular format devised by the author of the First Program, is Article 1(2) to be interpreted as meaning that it is not an infringement of the copyright in the First Program for the Second Program to be written so as to read from and write to data files in the same format?

5. Does it make any difference to the answer to questions 1, 3 and 4 if the author of the Second Program created the Second Program by:

   (a) observing, studying and testing the functioning of the First Program; or

   (b) reading a manual created and published by the author of the First Program which describes the functions of the First Program ('the Manual'); or

(c) both (a) and (b)?

6. Where a person has the right to use a copy of the First Program under a licence, is Article 5(3) to be interpret[ed] as meaning that the licensee is entitled, without the authorisation of the rightholder, to perform acts of loading, running and storing the program in order to observe, test or study the functioning of the First Program so as to determine the ideas and principles which underlie any element of the program, if the licence permits the licensee to perform acts of loading, running and storing the First Program when using it for the particular purpose permitted by the licence, but the acts done in order to observe, study or test the First Program extend outside the scope of the purpose permitted by the licence?

7. Is Article 5(3) to be interpreted as meaning that acts of observing, testing or studying of the functioning of the First Program are to be regarded as being done in order to determine the ideas or principles which underlie any element of the First Program where they are done:

(a) to ascertain the way in which the First Program functions, in particular details which are not described in the Manual, for the purpose of writing the Second Program in the manner referred to in question 1 above;

(b) to ascertain how the First Program interprets and executes statements written in the programming language which it interprets and executes (see question 3 above);

(c) to ascertain the formats of data files which are written to or read by the First Program (see question 4 above);

(d) to compare the performance of the Second Program with the First Program for the purpose of investigating reasons why their performances differ and to improve the performance of the Second Program;

(e) to conduct parallel tests of the First Program and the Second Program in order to compare their outputs in the course of developing the Second Program, in particular by running the same test scripts through both the First Program and the Second Program;

(f) to ascertain the output of the log file generated by the First Program in order to produce a log file which is identical or similar in appearance;

(g) to cause the First Program to output data (in fact, data correlating zip codes to States of the USA) for the purpose of ascertaining whether or not it corresponds with official databases of such data, and if it does not so correspond, to program the Second Program so that it will respond in the same way as the First Program to the same input data.

B. On the interpretation of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society:

8. Where the Manual is protected by copyright as a literary work, is Article 2(a) to be interpreted as

meaning that it is an infringement of the copyright in the Manual for the author of the Second Program to reproduce or substantially reproduce in the Second Program any of the following matters described in the Manual:

(a) the selection of statistical operations which have been implemented in the First Program;.

(b) the mathematical formulae used in the Manual to describe those operations;

(c) the particular commands or combinations of commands by which those operations may be invoked;

(d) the options which the author of the First Program has provide[d] in respect of various commands;

(e) the keywords and syntax recognised by the First Program;

(f) the defaults which the author of the First Program has chosen to implement in the event that a particular command or option is not specified by the user;

(g) the number of iterations which the First Program will perform in certain circumstances?

9. Is Article 2(a) to be interpreted as meaning that it is an infringement of the copyright in the Manual for the author of the Second Program to reproduce or substantially reproduce in a manual describing the Second Program the keywords and syntax recognised by the First Program?"

7. On 18 November 2010 I refused an application by SAS Institute for the wording of the questions to be

amended in a number of respects for the reasons given in a judgment dated 22 November 2010 ([2010] EWHC 3012 (Ch), [2011] FSR 12).

The judgment of the CJEU

8. On 29 November 2011 Advocate General Bot delivered his Opinion on the questions referred ([2012] ECDR 1) and on 2 May 2012 the CJEU gave its judgment in Case C-406/10 ([2012] ECR I-0000, [2012] ECDR 22).

Questions 1-5

9. The Court dealt with these questions together. It interpreted this court as asking "in essence, whether Article 1(2) of [the Software Directive] must be interpreted as meaning that the functionality of a computer program and the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and may, as such, be protected by copyright in computer programs for the purposes of that directive": see [29].

10. Having referred to recital (14), Article 1(1) and 1(2) of the Software Directive, Article 2 of the WIPO Copyright Treaty and Articles 9(2) and 10(1) of TRIPS, the Court went on:

> 35. In a judgment delivered after the reference for a preliminary ruling had been lodged in the present case, the Court interpreted Article 1(2) of Directive 91/1250 as meaning that the object of the protection conferred by that directive is the expression in any form of a computer program, such as the source code and the object code, which permits reproduction in different computer languages (judgment of 22 December 2010 in Case C-393/09 *Bezpečnostní*

softwarová asociace [2010] ECR I-0000, paragraph 35).

36. In accordance with the second phrase of the seventh recital in the preamble to Directive 91/1250, the term 'computer program' also includes preparatory design work leading to the development of a computer program, provided that the nature of the preparatory work is such that a computer program can result from it at a later stage.

37. Thus, the object of protection under Directive 91/250 includes the forms of expression of a computer program and the preparatory design work capable of leading, respectively, to the reproduction or the subsequent creation of such a program (*Bezpečnostní softwarová asociace*, paragraph 37).

38. From this the Court concluded that the source code and the object code of a computer program are forms of expression thereof which, consequently, are entitled to be protected by copyright as computer programs, by virtue of Article 1(2) of Directive 91/250. On the other hand, as regards the graphic user interface, the Court held that such an interface does not enable the reproduction of the computer program, but merely constitutes one element of that program by means of which users make use of the features of that program (*Bezpečnostní softwarová asociace*, paragraphs 34 and 41).

39. On the basis of those considerations, it must be stated that, with regard to the elements of a computer program which are the subject of Questions 1-5, neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to

exploit certain of its functions constitute a form of expression of that program for the purposes of Article 1(2) of Directive 91/250.

40. As the Advocate General states in point 57 of his Opinion, to accept that the functionality of a computer program can be protected by copyright would amount to making it possible to monopolise ideas, to the detriment of technological progress and industrial development.

41. Moreover, point 3.7 of the explanatory memorandum to the Proposal for Directive 91/250 [COM(88) 816] states that the main advantage of protecting computer programs by copyright is that such protection covers only the individual expression of the work and thus leaves other authors the desired latitude to create similar or even identical programs provided that they refrain from copying.

42. With respect to the programming language and the format of data files used in a computer program to interpret and execute application programs written by users and to read and write data in a specific format of data files, these are elements of that program by means of which users exploit certain functions of that program.

43. In that context, it should be made clear that, if a third party were to procure the part of the source code or the object code relating to the programming language or to the format of data files used in a computer program, and if that party were to create, with the aid of that code, similar elements in its own computer program, that conduct would be liable to constitute partial reproduction within the meaning of Article 4(a) of Directive 91/250.

44. As is, however, apparent from the order for reference, WPL did not have access to the source code of SAS Institute's program and did not carry out any decompilation of the object code of that program. By means of observing, studying and testing the behaviour of SAS Institute's program, WPL reproduced the functionality of that program by using the same programming language and the same format of data files.

45. The Court also points out that the finding made in paragraph 39 of the present judgment cannot affect the possibility that the SAS language and the format of SAS Institute's data files might be protected, as works, by copyright under Directive 2001/29 if they are their author's own intellectual creation (see *Bezpečnostní softwarová asociace*, paragraphs 44 to 46).

46. Consequently, the answer to Questions 1-5 is that Article 1(2) of Directive 91/250 must be interpreted as meaning that neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive.

Questions 6 and 7

11. The Court dealt with these questions together. It interpreted this court as asking

> in essence, whether Article 5(3) of [the Software Directive] must be interpreted as meaning that a person who has obtained a copy of a computer program

under a licence is entitled, without the authorisation of the owner of the copyright in that program, to observe, study or test the functioning of that program in order to determine the ideas and principles which underlie any element of the program, in the case where that person carries out acts covered by that licence with a purpose that goes beyond the framework established by the licence.

See [47].

12. The Court answered these questions as follows:

48. In the main proceedings, it is apparent from the order for reference that WPL lawfully purchased copies of the Learning Edition of SAS Institute's program, which were supplied under a "click-through" licence which required the purchaser to accept the terms of the licence before being permitted to access the software. The terms of that licence restricted the licence to non-production purposes. According to the national court, WPL used the various copies of the Learning Edition of SAS Institute's program to perform acts which fall outside the scope of the licence in question.

49. Consequently, the national court raises the question as to whether the purpose of the study or observation of the functioning of a computer program has an effect on whether the person who has obtained the licence may invoke the exception set out in Article 5(3) of Directive 91/250.

50. The Court observes that, from the wording of that provision, it is clear, first, that a licensee is entitled to observe, study or test the functioning of a computer program in order to determine the ideas

and principles which underlie any element of the program.

51. In this respect, Article 5(3) of Directive 91/250 seeks to ensure that the ideas and principles which underlie any element of a computer program are not protected by the owner of the copyright by means of a licensing agreement.

52. That provision is therefore consistent with the basic principle laid down in Article 1(2) of Directive 91/250, pursuant to which protection in accordance with that directive applies to the expression in any form of a computer program and ideas and principles which underlie any element of a computer program are not protected by copyright under that directive.

53. Article 9(1) of Directive 91/250 adds, moreover, that any contractual provisions contrary to the exceptions provided for in Article 5(2) and (3) of that directive are null and void.

54. Secondly, under Article 5(3) of Directive 91/250, a licensee is entitled to determine the ideas and principles which underlie any element of the computer program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing that program which he is entitled to do.

55. It follows that the determination of those ideas and principles may be carried out within the framework of the acts permitted by the licence.

56. In addition, the 18th recital in the preamble to Directive 91/250 states that a person having a right to use a computer program should not be prevented

from performing acts necessary to observe, study or test the functioning of the program, provided that these acts do not infringe the copyright in that program.

57. As the Advocate General states in point 95 of his Opinion, the acts in question are those referred to in Article 4(a) and (b) of Directive 91/250, which sets out the exclusive rights of the rightholder to do or to authorise, and those referred to in Article 5(1) thereof, relating to the acts necessary for the use of the computer program by the lawful acquirer in accordance with its intended purpose, including for error correction.

58. In that latter regard, the 17th recital in the preamble to Directive 91/250 states that the acts of loading and running necessary for that use may not be prohibited by contract.

59. Consequently, the owner of the copyright in a computer program may not prevent, by relying on the licensing agreement, the person who has obtained that licence from determining the ideas and principles which underlie all the elements of that program in the case where that person carries out acts which that licence permits him to perform and the acts of loading and running necessary for the use of the computer program, and on condition that that person does not infringe the exclusive rights of the owner in that program.

60. As regards that latter condition, Article 6(2)(c) of Directive 91/250 relating to decompilation states that decompilation does not permit the information obtained through its application to be used for the development, production or marketing of a comput-

er program substantially similar in its expression, or for any other act which infringes copyright.

61. It must therefore be held that the copyright in a computer program cannot be infringed where, as in the present case, the lawful acquirer of the licence did not have access to the source code of the computer program to which that licence relates, but merely studied, observed and tested that program in order to reproduce its functionality in a second program.

62. In those circumstances, the answer to Questions 6 and 7 is that Article 5(3) of Directive 91/250 must be interpreted as meaning that a person who has obtained a copy of a computer program under a licence is entitled, without the authorisation of the owner of the copyright, to observe, study or test the functioning of that program so as to determine the ideas and principles which underlie any element of the program, in the case where that person carries out acts covered by that licence and acts of loading and running necessary for the use of the computer program, and on condition that that person does not infringe the exclusive rights of the owner of the copyright in that program.

Questions 8 and 9

13. The Court dealt with these questions together. It interpreted this court as asking

> in essence, whether Article 2(a) of [the Information Society Directive] must be interpreted as meaning that the reproduction, in a computer program or a user manual for that program, of certain elements described in the user manual for another computer

program protected by copyright constitutes an infringement of that right in the latter manual.

See [63].

14. It answered these questions as follows:

64. It is apparent from the order for reference that the user manual for SAS Institute's computer program is a protected literary work for the purposes of Directive 2001/29.

65. The Court has already held that the various parts of a work enjoy protection under Article 2(a) of Directive 2001/29, provided that they contain some of the elements which are the expression of the intellectual creation of the author of the work (Case C-5/08 *Infopaq International* [2009] ECR I-6569, paragraph 39).

66. In the present case, the keywords, syntax, commands and combinations of commands, options, defaults and iterations consist of words, figures or mathematical concepts which, considered in isolation, are not, as such, an intellectual creation of the author of the computer program.

67. It is only through the choice, sequence and combination of those words, figures or mathematical concepts that the author may express his creativity in an original manner and achieve a result, namely the user manual for the computer program, which is an intellectual creation (see, to that effect, *Infopaq International*, paragraph 45).

68. It is for the national court to ascertain whether the reproduction of those elements constitutes the reproduction of the expression of the intellectual

creation of the author of the user manual for the computer program at issue in the main proceedings.

69. In this respect, the examination, in the light of Directive 2001/29, of the reproduction of those elements of the user manual for a computer program must be the same with respect to the creation of the user manual for a second program as it is with respect to the creation of that second program.

70. Consequently, in the light of the foregoing considerations, the answer to Questions 8 and 9 is that Article 2(a) of Directive 2001/29 must be interpreted as meaning that the reproduction, in a computer program or a user manual for that program, of certain elements described in the user manual for another computer program protected by copyright is capable of constituting an infringement of the copyright in the latter manual if—this being a matter for the national court to ascertain—that reproduction constitutes the expression of the intellectual creation of the author of the user manual for the computer program protected by copyright.

SAS Institute's claim that WPS infringes the copyrights in the SAS Components

15. In my first judgment I concluded, in summary, as follows:

    i. Although I was not persuaded that Pumfrey J was wrong to conclude in *Navitaire Inc* v *easyJet Airline Co Ltd* [2004] EWHC 1725 (Ch), [2006] RPC 3 that, on the true interpretation of Article 1(2) of the Software Directive, copyright in computer programs does not protect programming languages from being copied, I considered that this was a

question on which guidance from the CJEU was required: see [211]-[218].

ii. Although I was not persuaded that Pumfrey J was wrong to conclude in *Navitaire* that, on the true interpretation of Article 1(2) of the Software Directive, copyright in computer programs does not protect interfaces from being copied where this can be achieved without decompiling the object code, I considered that this was also a question on which guidance from the CJEU was required: see [219]-[227].

iii. Although I was not persuaded that Pumfrey J was wrong to conclude in *Navitaire* that, on the true interpretation of Article 1(2) of the Software Directive, copyright in computer programs does not protect the functionality of the programs from being copied, and although his decision on that point was upheld by the Court of Appeal in *Nova Productions Ltd* v *Mazooma Games Ltd* [2007] EWCA Civ 25, [2007] RPC 25, I considered that this was also a question on which guidance from the CJEU was required: see [228]-[238].

iv. On the assumption that Pumfrey J's interpretation of Article 1(2) of the Software Directive was correct, I held that WPL had not infringed SAS Institute's copyrights in the SAS Components by producing WPS: see [245]-[250]. In particular, I held that, although WPS reproduced elements of the SAS Language, that did not constitute an infringement of the copyrights in the SAS Components because the SAS Language was a programming language ([247]). I also held that, although WPS was able to read and write files in SAS7BDAT data file format, that did not constitute an infringement of the copy-

rights in the SAS Components for two reasons: first, that data file format was an interface and therefore unprotected by the copyrights in the SAS Components; and secondly, there was no evidence that WPS reproduced any part of the SAS source code in that respect ([248]).

16. In my judgment, the CJEU's answer to Questions 1-5 amounts to an endorsement of Pumfrey J's interpretation of Article 1(2) of the Software Directive. In short, copyright in a computer program does not protect either the programming language in which it is written or its interfaces (specifically, its data file formats) or its functionality from being copied. Indeed, counsel for SAS Institute did not submit to the contrary. He nevertheless argued that the Court's judgment required me to reconsider the provisional conclusions reached in my first judgment for a number of reasons which I will address in turn.

SAS Language

17. Counsel for SAS Institute pointed out that the CJEU had held at [45] that its conclusion that neither the functionality of a computer program nor the programming language nor the data file formats constituted a form of expression of the computer program for the purposes of Article 1(2) of the Software Directive "cannot affect the possibility that [the SAS Language and SAS data file formats] might be protected, as works, by copyright under [the Information Society Directive] if they are their author's own intellectual creation." He argued, in summary, that the SAS Language was a work that was its authors' own intellectual creation, albeit that it was fixed in the form of the SAS Components (and the SAS Manuals), and accordingly the SAS Language was protectable under the Information Society Directive even if

it was not a protectable aspect of the SAS Components under the Software Directive. I do not accept this argument for the following reasons.

18. The CJEU referred at [45] to its judgment in Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany* v *Ministerstvo kultury* [2010] ECR I-1397 1 ("*BSA*"). In that case, the Nejvyšší správní soud (the Czech Supreme Administrative Court) had asked whether the graphic user interface (GUI) of a computer program was part of the expression of that computer program for the purposes of Article 1(2) of the Software Directive, and hence protected by the copyright in the program. The CJEU answered that question in the negative at [28]-[42].

19. The Court went on, however, as follows:

43. Nevertheless, even if the national court has limited its question to the interpretation of Article 1(2) of Directive 91/250, such a situation does not prevent the Court from providing the national court with all the elements of interpretation of European Union law which may enable it to rule on the case before it, whether or not reference is made thereto in the question referred (see, to that effect, Case C-392/05 *Alevizos* [2007] ECR I-3505, paragraph 64 and the case-law cited).

44. In that regard, it is appropriate to ascertain whether the graphic user interface of a computer program can be protected by the ordinary law of copyright by virtue of Directive 2001/29.

45. The Court has held that copyright within the meaning of Directive 2001/29 is liable to apply only in relation to a subject-matter which is original in the sense that it is its author's own intellectual crea-

tion (see, to that effect, with regard to Article 2(a) of Directive 2001/29, *Infopaq International*, paragraphs 33 to 37).

46. Consequently, the graphic user interface can, as a work, be protected by copyright if it is its author's own intellectual creation.

47. It is for the national court to ascertain whether that is the case in the dispute before it.

48. When making that assessment, the national court must take account, inter alia, of the specific arrangement or configuration of all the components which form part of the graphic user interface in order to determine which meet the criterion of originality. In that regard, that criterion cannot be met by components of the graphic user interface which are differentiated only by their technical function.

20. As counsel for WPL submitted, that conclusion was not surprising. It is entirely consistent with the conclusion of Pumfrey J in *Navitaire* at [95]-[99] that, even though the interfaces of OpenRes could not be protected by the copyright in OpenRes as a computer program, nevertheless certain of its GUI screens were protected as copyright artistic works. That approach was followed by Kitchin J (as he then was) and the Court of Appeal in *Nova*.

21. Turning to the CJEU's judgment in the present case, counsel for WPL submitted, and I agree, that in [45] the CJEU was merely being careful, consistently with *BSA*, to make it clear that it was not excluding the *possibility* that the SAS Language *might* be protected as a work in its own right. In other words, it was simply identifying that as being a separate question. It was not

purporting to answer that question, which was not before it.

22. Counsel for WPL argued that this was not an issue which arose in the present case. It would only have arisen if SAS Institute had pleaded and proved that the SAS Language was a distinct work which satisfied the necessary criteria for subsistence of copyright. SAS Institute had not pleaded the SAS Language as a distinct copyright work, however. Rather, the pleaded copyright works upon which it had relied were the SAS Components (and the SAS Manuals). SAS Institute's case was that the SAS Language was (or, to be more precise, the main elements of the SAS Language were) a protectable aspect of the SAS Components. It was not open to SAS Institute to rely upon the SAS Language as a copyright work in its own right without an amendment to its Particulars of Claim, and no such amendment should be permitted at this late stage of the proceedings since it would raise new factual and legal issues for investigation.

23. Counsel for SAS Institute argued that it was not necessary for SAS Institute to plead reliance upon the SAS Language as a distinct copyright work, since it had pleaded the fixations in which it was embodied, namely the SAS Components (and the SAS Manuals), and it had alleged reproduction by WPL of the relevant aspects. In the alternative, if permission to amend was required, he submitted that permission should be granted since the only issue which would be raised by the amendment was a legal one which the CJEU had answered. The proposed amendments are set out in a draft Re-Re-Re-Amended Particulars of Claim served by SAS Institute.

24. In my judgment, it is necessary for SAS Institute to plead reliance upon the SAS Language as a distinct copyright work if it wishes to advance such a case. At all

times prior to the judgment of the CJEU, SAS Institute's case was that the copyright works it relied upon were the SAS Components and the SAS Manuals. There was no suggestion that it relied upon the SAS Language as being a copyright work in its own right. The question whether the SAS Language is a copyright work in its own right raises distinct factual and legal issues from the questions of whether the SAS Components and the SAS Manuals are copyright works, which WPL admitted.

25. As to whether SAS Institute should be given permission to amend its Particulars of Claim to raise this contention now, guidance as to the correct approach to late applications to amend statements of case was given by the Court of Appeal in *SwainMason* v *Mills & Reeve LLP* [2011] EWCA Civ 14, [2011] 1 WLR 2735 at [68]-[72]. This is summarised in the statement of Lloyd LJ at [72] that:

> . . . the court is and should be less ready to allow a very late amendment than it used to be in former times, and . . . a heavy onus lies on a party seeking to make a very late amendment to justify it, as regards his own position, that of the other parties to the litigation, and that of other litigants in other cases before the court.

26. In my judgment it would not be justified to permit SAS Institute to amend its Particulars of Claim at this late stage. There has already been a trial, a judgment of mine finding the facts and a judgment of the CJEU ruling upon the key legal issues. Although, as counsel for SAS Institute pointed out, in *L'Oréal SA* v *Bellure NV* [2010] EWCA Civ 535, [2010] RPC 2 the Court of Appeal stated obiter that it would if necessary have permitted an amendment by the claimant at the same procedural stage, it did so because the amendment in question raised

a pure issue of law and because in effect it was responsive to a point which the Court of Appeal had permitted the defendant to raise after trial. In the present case, I agree with counsel for WPL that the proposed amendment would raise new factual and legal issues of considerable difficulty. These would include the following.

27. First, can a programming language such as the SAS Language be a work at all? In the light of a number of recent judgments of the CJEU, it may be arguable that it is not a fatal objection to a claim that copyright subsists in a particular work that the work is not one of the kinds of work listed in section 1(l)(a) of the Copyright, Designs and Patents [Act of] 1988 and defined elsewhere in that Act. Nevertheless, it remains clear that the putative copyright work must be a literary or artistic work within the meaning of Article 2(1) of the Berne Convention: see Case C-5/08 *Infopaq International A/S* v *Danske Dagblades Forening* [2009] ECR I-6569 at [32]-[37]. While the definition of "literary and artistic works" in Article 2(1) is expansive and open-ended, it is not unlimited. For example, it is conventionally understood not to include sound recordings or broadcasts: see Ricketson and Ginsburg, *International Copyright and Neighbouring Rights: The Berne Convention and Beyond* (2nd ed, Oxford University Press, 2007), pp. 505-508, 1205-1208; Goldstein and Hugenholtz, *International Copyright: Principles, Law and Practice* (3rd ed, Oxford University Press, 2012), pp. 106, 158, 188-191; and Ficsor, *Guide to the Copyright and Related Rights Treaties Administered by WIPO* (WIPO, 2003), p. 27. (The 1988 Act confers "copyright" on such subject matter, but as I have explained elsewhere, the right granted is a right in the signal and not in the content, and thus in effect is a neighbouring or related right.) As I explained in my first

judgment at [197], it is now settled that a computer program is a literary work within Article 2(1), but it does not necessarily follow that a programming language is such a work.

28. Two points can be disposed of with relatively little difficulty. The first is that, as counsel for WPL pointed out, SAS Institute's draft amendments do not specify what type of work SAS Institute contends the SAS Language to be. I do not regard that as a fatal objection to the allowability of the amendment. In any event, I find it difficult to conceive that, if it is a work, it can be anything other than a literary work. The real question is whether it is a work at all.

29. The second point is that, as was common ground between counsel, it is important to distinguish between the putative work on the one hand and any particular fixation of the work on the other hand. The United Kingdom, in common with many other countries, takes advantage of Article 2(2) of the Berne Convention and requires fixation as a condition precedent to the subsistence of copyright: see section 3(2) of the 1988 Act. In principle, the technical means by which fixation is achieved is irrelevant. Thus, as discussed above, an artistic work may be fixed in the source code of a computer program. But the fixation must not be confused with the work. A printed book is a fixation which may embody a variety of works, for example a literary work (the text) and a series of artistic works (illustrations). These different works are likely to have different authors, and hence different owners and terms of copyright. Thus the fact that one can identify a fixation is a necessary, but not a sufficient, condition for the subsistence of copyright.

30. Counsel for WPL submitted that the proposition that a programming language such as the SAS Language

could be a work was a novel one which requited factual investigation as well as legal analysis. I agree. An issue which was considered at trial, in particular in the expert evidence, was whether the SAS Language was a programming language at all. Having considered the evidence, I concluded that it was: see my first judgment at [47]-[56]. That evidence sheds some light on the question presently under consideration. Thus WPL's expert Dr Worden explained in his report that it was necessary to distinguish between a language, including a programming language such as the SAS Language, and instances of it. He also explained there are two main aspects of a language: its syntax and its semantics.

31. Nevertheless, I am confident that further evidence relevant to the present issue could usefully have been adduced by the parties. I briefly described in my first judgment at [46] the manner in which the SAS System executes scripts written in the SAS Language. This is not a matter which was investigated in any detail at the trial, however. Nor was there any detailed consideration of the relationship between the SAS Language and the SAS Components other than Base SAS. Still less was there investigation of the history of the SAS Language: when, how and by whom it was created and when, how and to what extent it has evolved from its origins.

32. As an illustration of this point, counsel for WPL submitted that the SAS Language could be regarded as an abstraction from the SAS Components in a similar way as the plot of a novel can be regarded as an abstraction from the novel. Even leaving aside my general scepticism about the appropriateness of this kind of analogy when dealing with computer software (see my first judgment at [234]), I am not at all sure that the submission is factually accurate. My present understanding is

that the SAS Components implement scripts written in the SAS Language. Accordingly, it is possible to deduce aspects of the SAS Language from observing the operation of the SAS Components. It does not follow that the SAS Language is an abstraction from the SAS Components. It may perhaps be more accurate to regard it as an abstraction from the SAS Manuals, but I am not sure about that either.

33. Based on the evidence which was adduced at trial, and my general understanding of the position, my provisional view is that a programming language such as the SAS Language is not capable of being a work. A dictionary and a grammar are works which describe a language. Such works record, and thereby fix, the elements of the language they describe: the meanings of its words and its syntax. It does not follow that the language is a work. Rather, the language is the material from which works (including dictionaries and grammars) may be created. The evolutionary or organic aspect of language can be left on one side for the moment, since it is clear that it is possible to create a language from scratch. Even when a language is created from scratch, however, what it amounts to is a system of rules for the generation and recognition of meaningful statements. Programming languages such as the SAS Language are no different in this respect.

34. Counsel for SAS Institute argued that the SAS Language was an intellectual creation, and therefore it was a work. In my view that is a *non sequitur*. As counsel for WPL pointed out, there are many intellectual creations which are not works, such as scientific theories: see Ricketson and Ginsburg at pp. 406-407. An article or book describing a scientific theory is a literary work, but for the reasons explained above that is beside the point

when it comes to the question of whether the scientific theory *per se* is a work. I would add that treating the scientific theory as a distinct work protectable by copyright would undermine the exclusion of the theory from protection by the copyright in the article or book mandated by Article 9(2) of TRIPS and Article 2 of the WIPO Copyright Treaty (as to which, see my first judgment at [204]-[205]).

35. A second issue is whether, assuming that a programming language is in principle capable of being a work, the SAS Language as it exists now is a work. Although, as I have said, the matter was not properly investigated at trial, it is my understanding that the SAS Language has evolved considerably since its origins. Rather as new words and syntactical constructions enter human languages over time, so too new features have been added to the SAS Language over time. This was not planned and there was no overall design. In those circumstances, it is doubtful whether the SAS Language would qualify as a compilation: see my first judgment at [261]. Whether it could be argued to be a (literary) work of some other type is a question upon which it is not necessary for me to express any view.

SAS data file formats

36. The position in relation to the SAS data file formats is similar to that in respect of the SAS Language. Again, counsel for SAS Institute sought to argue that the SAS data file formats were independent copyright works, relying upon the judgment of the CJEU at [45]. Again, counsel for WPL objected that no such case had been pleaded by SAS Institute, and it was too late for SAS Institute to seek to raise such a case now. As counsel for WPL pointed out, the position in relation to the SAS data file formats is, if anything, even worse than that in rela-

tion to the SAS Language, since the draft amendments proposed by SAS Institute still do not plead any case in relation to the data file formats.

37. In my judgment SAS Institute cannot advance a case that the SAS data file formats are distinct copyright works without pleading it. Even leaving aside the point that no such amendment has yet been formulated, it would not be justified to give SAS Institute permission to amend at this late stage. As with the SAS Language, this would require difficult new factual and legal issues to be investigated.

38. There was relatively little evidence about the SAS data file formats at trial. To the best of my recollection, the only format that was addressed in the evidence at trial was SAS7BDAT (see my first judgment at [128]-[129]). I do not even know what other formats, if any, SAS Institute claims that WPL has copied.

39. The question of whether a data file format such as SAS7BDAT is a work is not straightforward for similar reasons to those that I have given in relation to the SAS Language.

40. Even if it is a work, SAS Institute's claim in respect of the data file formats raises rather more acutely the question of fixation. For the reasons given in my first judgment at [32] and [128]-[129], it has not been established that SAS7BDAT is fixed in the SAS Components. It is not clear to me that it is fixed in any of the SAS Manuals either.

41. This claim also raises the question of originality, and in particular whether a data file format is an intellectual creation. For this purpose, elements "differentiated only by their technical function" must be disregarded: see *BSA* at [47] (quoted in paragraph 19 above) and [50].

What is required is something on which the author has stamped his "personal touch" through the creative choices he has made: see Case C-145/10 *Painer* v *Standard Verlags GmbH* [2011] ECR I-0000, [2012] ECDR 6 at [89]-[92] and Case C-604/10 *Football Dataco Ltd* v *Yahoo! UK Ltd* [2012] ECR I-0000, [2012] Bus LR 1753 at [38]-[39]. It is open to evidence and argument as to whether data file formats such as SAS7BDAT satisfy this requirement.

Functionality

42. Counsel for SAS Institute argued that in answering Questions 1-5 the CJEU had adopted a different, and rather narrower, definition of the "functionality" of a computer than I had adopted when posing those questions. I do not propose to go into the details of this argument. It suffices to say that I regard it as completely unsustainable, for two main reasons. First, although the Court reformulated Questions 1-5 at [29], in doing so it continued to use the word "functionality." There is nothing in this section of the judgment to suggest that it meant something different. Nor does the cross-reference at [40] to the Advocate General's Opinion show this, since there is nothing to show that the Advocate General adopted a different meaning. Secondly, in Question 2 I asked whether the answer to Question 1 was affected by (a) the nature and/or extent of the functionality of the First Program or (c) the level of detail to which the functionality has been reproduced in the Second Program. It is clear from the Court's ruling that the answer is not affected by these factors.

Reproduction of a substantial part

43. Counsel for SAS Institute argued that the answer given by the CJEU to Questions 8-9 showed that I had

applied the wrong test for reproduction of a substantial part in my first judgment at [249]. The correct approach, he submitted, was simply to ask whether the part reproduced constituted the expression of the intellectual creation of the author. I do not accept this argument.

44. I considered the test for reproduction of a substantial part in my first judgment at [239]-[244]. I held at [244] that it was clear from the judgment of the CJEU in *Infopaq* at [31]-[48] that: "there will only be reproduction of a substantial part of a literary work . . . where what has been reproduced represents the expression of the intellectual creation of the author of that literary work."

45. It is clear from subsequent judgments of the CJEU that this is indeed the correct test: see in particular BSA at [45]-[46] and [56]-[57], Joined Cases C-403/08 and C-429/08 *Football Association Premier League Ltd* v *QC Leisure* [2011] ECR I-0000 at [154]-[156] and the judgment in the present case at [65].

46. Counsel for SAS Institute did not take issue with this test, but argued that I had misapplied it at [249] because it was impermissible to dissect what had been reproduced into protectable and non-protectable parts. I disagree. It is clear from the CJEU's answer to Questions 1-5 that neither the functionality nor the programming language nor the data file formats of a computer program constitute a form of expression of that program, and hence they are not protected by the copyright in the program. Accordingly, in applying the *Infopaq* test, those elements must be disregarded. There can only be a reproduction of a substantial part of the computer program if the defendant has reproduced something that represents the expression of the intellectual creation of the author of the program.

47. Counsel for SAS Institute relied upon the CJEU's answer to Questions 8 and 9, and in particular the passage at [66]-[67], as supporting his argument. As I understand that passage, however, all the Court is saying is that it is possible to create a protectable form of expression using elements which in themselves are not protectable. That is not a controversial proposition. I shall return to this point below.

Conclusion

48. I therefore conclude that WPL has not infringed SAS Institute's copyrights in the SAS Components by producing WPS.

SAS Institute's claim that WPS infringes the copyrights in the SAS Manuals

49. In my first judgment I concluded, in summary, as follows:

i. I considered that the reasoning which supported Pumfrey J's interpretation of Article 1(2) of the Software Directive also applies to Article 2(a) of the Information Society Directive, but again this is a question on which guidance from the ECJ was required: see [251]-[256].

ii. On the assumption that Article 2(a) of the Information Society Directive was to be interpreted in the same manner as Article 1(2) of the Software Directive, WPL had not infringed SAS Institute's copyrights in the SAS Manuals by producing or testing WPS: see [255] and [257]-[261].

50. Again, counsel for SAS Institute submitted that the judgment of the CJEU required me to reconsider these provisional conclusions. In part, he relied on essentially

the same arguments with regards to the SAS Language and functionality that I have considered above.

51. In addition, he argued that the Court's answer to Questions 8-9 showed that Pumfrey J's approach to the interpretation of Article 1(2) of the Software Directive could not be applied to Article 2(1) of the Information Society Directive. Rather, it was necessary for this court to consider the various similarities between WPS and the SAS Manuals relied upon by SAS Institute, in particular the similarities in (i) formulae, (ii) keywords, (iii) default values, (iv) comments and (v) optimisations, and decide whether, in reproducing these in WPS, WPL had reproduced the expression of the intellectual creation of the authors of the SAS Manuals.

52. Counsel for SAS Institute particularly relied on [66]-[67] of the Court's judgment as supporting this argument. I do not agree that those paragraphs lead to the conclusion for which he contended, however. The Court starts at [65] with the basic proposition that elements of a work may only enjoy protection under Article 2(a) if they amount to the expression of the author's intellectual creation. Next, it says at [66] that the keywords, syntax, options, defaults and iterations consist of words, figures or mathematical concepts which are not, as such, an intellectual creation. In other words, they are "ideas, procedures, methods of operation or mathematical concepts," to use the language of Article 9(2) of TRIPS and Article 2 of the WIPO Copyright Treaty. Next, it says at [67] that it is only through the choice, sequence and combination of such words, figures and mathematical concepts that the author can make an intellectual creation. As I have already remarked, it is not a controversial proposition to say that a protectable form of expression may be created through the combination of elements which in themselves

are not protectable. In this respect, the Court was essentially repeating what it had said in *Infopaq* at [45]-[46]. The question remains, however, whether WPL has reproduced the expression of the intellectual creation of the authors of the SAS Manuals.

53. I remain of the view that, for the reasons I gave in my first judgment, the answer to this question is no. In so far as counsel for SAS Institute argued that WPL had reproduced compilations of (i) formulae, (ii) keywords, (iii) default values, (iv) comments and (v) optimisations from the SAS Manuals, I would repeat the answers I gave at [260]-[261], and in particular the first one. The authors of the SAS Manuals did not create such compilations, the authors of the SAS System did.

54. I therefore conclude that WPL has not infringed SAS Institute's copyright in the SAS Manuals by producing or testing WPS.

SAS Institute's claims in respect of the Learning Edition

55. In my first judgment I concluded, in summary, as follows:

  i. WPL's use of the SAS Learning Edition fell outside the scope of the terms of the relevant licences: see [276]-[290].

 ii. The interpretation of Article 5(3) of the Software Directive was another question on which guidance from the CJEU was required: see [291]-[311] and [314].

iii. On the interpretation of Article 5(3) which I favoured, WPL's use of the Learning Edition was within Article 5(3), and to the extent that the licence terms prevented this they were null and void, with the result that none of WPL's acts complained of

was a breach of contract or an infringement of copyright except perhaps one: see [313]-[315] above.

56. It is important to note that SAS Institute alleged that WPL had acted in breach of the licence terms in two distinct ways. First, SAS Institute alleged that more than one employee of WPL had used copies of the Learning Edition purchased by WPL at least prior to March 2009. Secondly, SAS Institute alleged that WPL had used the Learning Edition for purposes which extended beyond the scope of the licence. I upheld both of these complaints, the first at [280]-[283] and [288] and the second at [284]-[286] and [289]-[290].

57. It should also be noted that Question 6 focused upon the second allegation, and the first was not mentioned in the summary of the judgment which was included in the order for reference. I do not recall why this was, but I presume that it was because at that time I did not regard the first allegation as adding materially to the second allegation when it came to the interpretation of Article 5(3). Be that as it may, counsel for SAS Institute has now presented arguments which require them to be considered separately.

Use by more than one employee

58. As I noted in my first judgment, it is common ground that WPL purchased copies of the Learning Edition which were used by its employees. It is also common ground that WPL was the contracting party in respect of the licences granted by SAS Institute for the use of those copies. Nevertheless, SAS Institute contended, and I accepted, that on the true construction of the licence terms, the licence only extended to use by the Customer, that is to say, the individual employee who clicked on the "yes" button when installing the Learning Edition. According-

ly, use of the same copy of the Learning Edition by other employees, albeit on the same computer, was outside the scope of the licence.

59. Counsel for SAS Institute pointed out that the CJEU's answer to Questions 6 and 7 referred to what "a person who has obtained a copy of a computer program under a licence" was entitled to do by virtue of Article 5(3). He submitted that this did not include either (i) employees other than the Customer or (ii) WPL in so far as WPL made automated use of the Learning Edition. I do not accept this argument for the following reasons.

60. As counsel for SAS Institute accepted, WPL is a legal person. As he also accepted, it obtained copies of the Learning Edition. It did so under licences. It is true that the licences were entered into by particular employees acting as agents for WPL. It is also true that the licences restricted the use of those copies of the Learning Edition to those specific employees. It [is] also true that other employees of WPL used those copies in contravention of that restriction and that WPL is vicariously liable for such use. None of that detracts from the fact that WPL obtained copies of the Learning Edition under licence.

61. It follows that, by virtue of Article 5(3), WPL was entitled without SAS Institute's consent to observe, study and test the functioning of the Learning Edition in order to determine its underlying ideas and principles. In my judgment it does not matter whether it exercised that right by the "licensed" employees or the "unlicensed" employees, leaving aside for the moment the fact that the "licensed" employees committed acts extending beyond the scope of the licence. Article 9(1) renders null and void any contractual restrictions contrary to Article 5(3). In my view this includes a contractual restriction on

the employees by whom a legal person in the position of WPL can exercise the right under Article 5(3).

62. To put what is much the same point in a slightly different way, I consider that it makes no difference to the issue with regard to Article 5(3) whether WPL's acts fell outside the scope of the licence because (i) the copies of the Learning Edition it purchased were used by "unlicensed" employees or (ii) the "licensed" employees used the copies of the Learning Edition for purposes which were not permitted by the terms of the licences. Either way, WPL acting by its employees used the Learning Edition in ways which fell outside the scope of the licences.

63. The position is no different in respect of any automated use of the Learning Edition by WPL, although I do not accept that there was any such use.

Use for purposes beyond the scope of the licence

64. Counsel for SAS Institute submitted, and I agree, that neither the CJEU's answer to Questions 6-7 nor its reasoning was very clear. He submitted, however, that, properly understood, the correct conclusion was that WPL was not protected by Article 5(3) because it had used the Learning Edition in a manner which fell outside the scope of the licences. Counsel for WPL made the opposite submission. It is therefore necessary to consider the Court's reasoning with some care.

65. It is important to note that the Court begins at [48] by recording that WPL performed acts which fell outside the scope of the licence and that the Court states at [49] that it follows that this court "raises the question whether the purpose of the study or observation has an effect on whether the person who obtained the licence may invoke" Article 5(3).

66. The Court then observes at [50]-[53] that Article 5(3) entitles a licensee to observe, study or test the functioning of a computer program in order to determine its underlying ideas and principles, that this is consistent with Article 1(2) and that provisions to the contrary are null and void by virtue of Article 9(1).

67. So far, the judgment is perfectly clear. The difficulty lies in understanding the passage at [54]-[61] where the Court discusses, first, the requirement of Article 5(3) that the licensee determines the ideas and principles "while performing any of the acts of loading, displaying, running, transmitting or storing the programme which he is entitled to do" and, secondly, the proviso to Article 5(3) stated in the 18th recital (recital [19] in the numbering in my first judgment).

68. The Court begins at [55] by saying that the determination of the ideas and principles "may be carried out within the framework of the acts permitted by the licence." While this might at first blush be taken to suggest that it may not be done outside the scope of the licence, I think that counsel for WPL was right to submit that the better view is that the acts referred to are the acts of loading, displaying, running, transmitting or storing the program referred to in the preceding paragraph.

69. The Court then notes at [56] the proviso stated in the 18th recital, namely that "these acts do not infringe the copyright in the program." At [57] it says that the acts in question are those referred to in Article 4(a) and (b). It also notes that these are referred to in Article 5(1), and it goes on in [58] to note the 17th recital (although not the somewhat different terms of Article 5(2)). Again, this seems to me to support the view that the acts referred to are the acts of loading, displaying, running,

transmitting or storing (and to that extent reproduction of) the program.

70. The Court concludes at [59] that the copyright owner cannot prevent the licensee from determining the ideas and principles underlying the program where the licensee carries out "acts which that licence permits him to perform and the acts of loading and running necessary for the use of the program," provided that the licensee does not infringe the owner's rights. Again, it seems to me that the "acts" referred to first are the acts of loading, displaying, running, transmitting or storing the program.

71. In my view it is also significant that the Court does not say in [54]-[59] that the licensee's entitlement is affected by the *purpose* for which it carries out the acts of loading, displaying, running, transmitting or storing the program, and in particular whether that is a licensed purpose or an unlicensed purpose. Consistently with the reading of those paragraphs that I have suggested above, this indicates that the answer to the question posed at [49] is no.

72. With regard to the condition that the licensee does not infringe the copyright owner's rights, the Court draws attention at [60] to Article 6(2)(c), which provides that information obtained through decompilation may not be used to develop a computer program substantially similar in its expression or for any other infringing act. It goes on to say in [61] that it "must therefore be held that" the copyright in a computer program is not infringed "where, as in the present case, the lawful acquirer of the licence did not have access to the source code of the computer program . . . but merely studied, observed and tested that program in order to reproduce its functionality in a second program." In other words, the

Court appears to be saying that the condition which the Court has read into Article 5(3) in the light of the 18th recital should be interpreted as having the same effect as Article 6(2)(c). Certainly, the Court is clearly stating that WPL complied with the condition.

73. Accordingly, I conclude that WPL did not lose the protection of Article 5(3) due to the fact that it performed acts which fell outside the scope of the licence.

Use of the Learning Edition to generate zip code data

74. In my first judgment I expressed the provisional view that Article 5(3) protected the various ways in which WPL had used the Learning Edition listed in [289] "except perhaps the last": see [315]. Counsel for WPL submitted that, despite the hesitation expressed there, I should conclude that WPL's use of the Learning Edition to generate zip code data was covered by Article 5(3).

75. As counsel for WPL submitted, the position on the evidence with regard to this act is as follows:

  i. WPL had generated a table of zip code zones and the states to which they corresponded by running a short script through the Learning Edition.

 ii. There was no evidence as to how or in what form the zip code data was stored in the SAS Components. Nor was there any evidence as to who had compiled that data or from what source(s).

iii. The vast majority of the data obtained by WPL's program could not "belong" to SAS Institute because it corresponded to the official list of valid US zip codes published by the US Postal Service. The table produced by the Learning Edition was a "superset" of those zip codes, such that certain zip codes were treated as corresponding to a particular

state even when they had not been officially allocated by the US Postal Service.

iv. What WPL did was to write WPS in such a way that, if a customer ran a program in WPS which involved processing zip codes, then WPS would be able to recognise not only the public domain zip codes, but also the other zip codes recognised by the SAS Components, so as to be able to produce the same output as the SAS Components.

76. Counsel for WPL submitted that, by doing this, WPL had not gone beyond ascertaining the SAS Components' method of operation and then creating its own program. There was no claim by SAS Institute that either the complete list of zip codes or the set of non-standard zip codes were copyright works in their own right. Nor was there any basis on which the court could conclude that, in writing the relevant part of WPL, WPS had reproduced the expression of the intellectual creation of the author(s) of the relevant part of the SAS Components. I accept this submission.

SAS Language

77. Counsel for SAS Institute submitted that, by running the Learning Edition, WPL had reproduced the SAS Language and that this was an infringement of the copyright in the SAS Language to which Article 5(3) was not a defence.

78. This argument is only open to SAS Institute if it is entitled to rely on the SAS Language as a distinct copyright work in its own right. I have concluded that that is not the case. In any event, I do not accept that it has been established that WPL reproduced the SAS Language by running the Learning Edition.

Conclusion

79. I therefore conclude that WPL's use of the Learning Edition was within Article 5(3), and to the extent that such use was contrary to the licence terms they are null and void by virtue of Article 9(1), with the result that none of WPL's acts complained of was a breach of contract or an infringement of copyright.

SAS Institute's claims that the WPS Manual and the WPS Guides infringe the copyrights in the SAS Manuals

80. In my first judgment I concluded, in summary, as follows:

i. WPL had infringed the copyrights in the SAS Manuals by substantially reproducing them in the WPL Manual: see [317]-[319].

ii. WPL had not infringed the copyrights in the SAS Manuals by producing the WPS Guides: see [320]-[329].

81. Counsel for SAS Institute submitted that these conclusions had to be reconsidered in the light of the CJEU's judgment, and that I should now conclude that the WPS Manual infringed to a greater extent than I had previously concluded and that the WPS Guides infringed. In support of this submission he relied on a number of the arguments I have already considered above, in particular the arguments regarding the SAS Language, functionality and the passage at [66]-[67] of the CJEU's judgment. I do not accept that any of these arguments leads to the conclusion that the WPL Manual infringes to a greater extent than I previously considered or that the WPS Guides infringe.

Result

82. For the reasons given above, I dismiss all of SAS Institute's claims except for its claim in respect of the WPS Manual. That claim succeeds to the extent indicated in my first judgment, but no further.

APPENDIX G
IN THE COURT OF APPEAL
CIVIL DIVISION

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No. A3/2013/0709

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On Appeal From The High Court,
Chancery Division
Mr. Justice Arnold
HC09C03292

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Date: 21 November 2013

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Before

LORD JUSTICE TOMLINSON
LORD JUSTICE LEWISON
AND
LORD JUSTICE VOS

————

Between

SAS Institute, Inc.,
Appellant

-and-

World Programming Limited,
Respondent.

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Hearing dates: 5, 6 & 7 November 2013

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Approved Judgment

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(163a)

Lord Justice Lewison:

Introduction

1. The underlying issue in this case is the extent to which the developer of a computer program may lawfully replicate the functions of an existing computer program; and the materials that he may lawfully use for that purpose. The rival programs in our case are both sophisticated pieces of business software.

2. The SAS System is an integrated set of analytical software programs which enables users to carry out a wide range of data processing and analysis tasks, and in particular statistical analysis, developed by SAS Institute. SAS Institute publishes numerous detailed technical manuals for the SAS System. The core component of the SAS System is Base SAS, which enables users to write and run application programs to manipulate data. These applications are written in a language called the SAS Language. The functionality of Base SAS may be extended by the use of additional components. In addition, SAS Institute produces at lower cost a cut-down version of the SAS System software called the SAS Learning Edition. As its name suggests it is intended to educate users in the functions of the full system.

3. WPL is a competitor of SAS Institute. It perceived that there would be a market demand for alternative software which would be able to execute application programs written in the SAS Language. The idea was that its alternative software would produce the same outputs as the SAS Components in response to the same inputs. WPL therefore created a product called World Programming System ("WPS") to do this. In developing WPS, WPL sought to emulate much of the functionality of the SAS Components as closely as possible. This was

so as to ensure that WPL's customers' application programs executed in the same manner when run on WPS as on the SAS Components. SAS Institute contends that WPL has both committed a series of infringements of copyright and acted in breach of contract in creating WPS and its accompanying documentation.

4. In the court below SAS Institute alleged that in creating WPS:

 i. WPL had used the SAS Manuals as a technical specification for WPS and copied a substantial part of those manuals in creating WPS itself, thereby infringing copyright in the SAS Manuals (the "Manual to Program Claim");

 ii. WPL had indirectly infringed copyright in the SAS Components in creating WPS (the "Program to Program Claim");

 iii. WPL had infringed the copyright in the SAS Manuals by reproducing a substantial part of them in WPL's own WPS Manual and WPS Guide (the "Manual to Manual Claim"); and

 iv. WPL had repeatedly used the SAS Learning Edition outside the scope of the applicable licence to obtain additional information about the SAS System, and to check that the operations of WPS precisely replicated those of the SAS Components; it had thereby infringed SAS Institute's copyright in the SAS Learning Edition and acted in breach of contract (the "Learning Edition Claim").

5. Arnold J tried the action in June 2010, and gave judgment on 23 July 2010. His judgment is at [2010] EWHC 1829 (Ch) [2011] RPC 1 where the facts are rehearsed in very great detail. Despite a detailed and ex-

haustive discussion of the law, the judge was unable finally to dispose of the claims without guidance from the Court of Justice of the European Union; and referred a series of questions to that court. His second judgment dealt with the form of the questions, and need not concern us. Following an opinion from Advocate-General Bot the court answered those questions (or at least its paraphrase of them) on 2 May 2012. Its judgment is at Case C-406/10 [2012] RPC 31, where the Advocate-General's opinion is also reproduced. The case then returned to Arnold J and he gave a third judgment on 25 January 2013. That judgment is at [2013] EWHC 69 (Ch) [2013] RPC 17. Unfortunately the parties could not agree what the CJEU had actually decided. The language in which the court expressed its judgment was, at times, disappointingly compressed, if not obscure. Moreover, although the judge had referred specific and detailed questions to the CJEU, the CJEU refrained from answering them, but instead answered its own paraphrase. This led to a disagreement about whether the court had actually given answers to all the questions posed. It would, perhaps, be more helpful if in response to a national court asking for help the CJEU, in the performance of its duty of sincere co-operation, answered the questions it was asked unless there are cogent reasons not to.

6. Following his third judgment the judge dismissed the claims of SAS Institute, except that he found limited breaches of copyright in relation to the Manual to Manual Claim. The judge gave permission to appeal on the Learning Edition Claim, and I gave permission to appeal on Manual to Program Claim, and the remainder of the Manual to Manual Claim. There is no appeal against the dismissal of the Program to Program Claim.

7. Mr Geoffrey Hobbs QC, Mr Michael Hicks and Mr Guy Hollingworth presented SAS Institute's appeal. Mr Martin Howe QC and Mr Robert Onslow presented WPL's response. I would like at the outset to express my appreciation of the excellence of the arguments, both written and oral, which made the task of hearing the appeal a real pleasure.

8. Although I disagree with some of the judge's reasoning, those disagreements do not affect the ultimate result. Since the appeal is an appeal against the judge's order rather than against his reasons, I would dismiss the appeal. My reasons follow.

Procedural matters

9. Some of Mr Hobbs' criticisms of the judge tie in with the way in which the case was managed, prepared for and presented at trial. It is therefore necessary to refer to the case management order which I made when the case came before me, sitting at first instance, in April 2010. The order was made in the context of a tight timetable to trial which was thought necessary in view of the commercial imperatives. By paragraph 3(1) of that order I limited the number of similarities between the SAS Manuals and the WPS Manual which SAS Institute were permitted to put forward at trial. But paragraph 3(2) of the order stated: "such similarities shall be taken to be a representative sample of the similarities present between the SAS Manuals and the WPL Manual as a whole."

10. It is clear from the transcript of the hearing that the underlying purpose of these orders was that whatever proportion of copying was found in the representative samples could be extrapolated across the manuals as a whole.

11. I made a similar order in relation to the number of examples of similarities between the WPS software and the SAS Manuals and SAS Components; and again the order provided that: "such specific similarities shall be taken to be a representative sample of the similarities present between the SAS Manuals and the SAS Software Components and WPS as a whole."

12. Paragraph 8 of the order stated that: "The case shall proceed on the basis that insofar as [WPL] has used SAS Manuals for the purposes of developing WPS, it shall be treated as having worked from versions of the manuals in respect of which copyright has been admitted to subsist."

The SAS System and its creation

13. There is no dispute that each of the SAS Components is an original computer program in which copyright subsists. Nor is there any dispute that the creation of each of the SAS Components involved very great intellectual effort on the part of SAS Institute's employees. Nor is there any dispute that the intellectual effort involved in creating each of the SAS Components included both (i) intellectual effort in determining the requirements for the software and (ii) intellectual effort in designing and writing source code to implement those requirements. The first of these will have involved making choices about what the SAS components would do. Equally, however, it is common ground that WPL did not copy the program directly, because it had no access to the source code or the object code. As the judge found, WPS is not written in the SAS Language. It was first written in the Java programming language, and has subsequently been translated into C++.

14. The judge made the following additional findings about the SAS System:

   i. Many of SAS Institute's developers have expertise in statistics as well as in computer software.

  ii. Although many of the statistical analyses and computations performed by the SAS System are based on methods published by others in the academic statistics literature, some have been devised by SAS Institute's own employees.

 iii. The SAS System consists of DATA steps and PROC steps. A PROC step invokes a PROC (of which there are more than 3,000) which processes and analyses data in SAS data sets to produce statistics, tables, reports, charts, plots and so on.

  iv. Each PROC step represents a significant body of work in its own right, including research into the best approach to statistical analysis. Choices need to be made as to what features to introduce, what syntax to use, what statements and options are appropriate for a particular procedure, and what output should be generated by the new procedure.

  v. One particular PROC, PROC UNIVARIATE, (which the judge took as illustrative) has been the subject of continuous development. It is now much more complicated and sophisticated than it was in 1979, and SAS Institute has devoted considerable effort to its improvement. The judge found that:

> . . . the decision as to which percentile definitions to include in PROC UNIVARIATE, and which to leave out, required skill, judgment and labour on the part of SAS Institute's employees, albeit that most of the definitions ap-

pear to have come from sources in the public domain. I also accept that this is representative of the substantial skill, judgement and labour expended by SAS Institute in developing the SAS System apart from the skill, judgement and labour in designing and writing the source code. As in this case, to a large extent the SAS System performs statistical computations in accordance with methods devised by others and published in the statistical literature, but in some case the methods have been devised (or at least modified) by SAS Institute's employees. As in this case, SAS Institute has to make a choice as which methods or combinations of methods to offer the users of the SAS System.

The SAS Manuals and their creation

15. There is also no dispute that each of the SAS Manuals is an original literary work in which copyright subsists. Nor is there any dispute that the creation of each of the SAS Manuals involved intellectual effort on the part of SAS Institute's employees. The SAS Manuals contain a wealth of information about the external behaviour of the SAS System but, not surprisingly, say almost nothing about its internal operation. As the judge put it at [60] and [250] of his first judgment:

> [60] The SAS Manuals do not contain information about the internal behaviour of the SAS System. Thus they do not give any information about the internal file formats used by the SAS System, the intermediate language used to compile DATA Steps, the SAS object code which the SAS System uses when executing SAS application programs, or the statement structures which result from parsing the

PROC steps. Still less do the SAS Manuals contain any details of the source code of the SAS System.

[250] The SAS Manuals are nothing more (and nothing less) than a very detailed description of what the software does. They give the reader very little insight into how the source code achieves that. As noted above, Professor Ivey [SAS Institute's Expert] did not compare WPS to the SAS source code. When asked, he said that he would expect the two source codes to look different.   Dr Worden [WPL's expert], who had compared certain aspects of the WPS code with the corresponding SAS code, said that they were indeed very different.

16. The judge made the following additional findings about the SAS Manuals and their relationship with the SAS System:

i. SAS Institute regards the writing of the Manuals as an important task on which significant resources are expended.   SAS Institute's Publications Division employs 54 writers and 14 editors. They are technically qualified and have also received substantial training from SAS Institute.

ii. There is close liaison between the technical writers who write the Manuals and the developers who develop the relevant components of the SAS System. In some cases a lot of the Manual was written by the developers themselves.

iii. The relevant parts of each Manual are planned, and to some extent written, while the software is being developed so that the Manuals can be completed as soon as possible after the software.

WPS

17. It is not disputed that in creating WPS, WPL's programmers studied and used the SAS Manuals. The judge made the following additional findings about the creation of WPS:

i. In general, each WPL programmer was responsible for writing the parts of the WPS Manual which document the code written by him. Although there were slight differences between the working methods of the different programmers, in general the way in which they proceeded was to read the relevant part of the relevant SAS Manual, then write the WPS code and then produce the relevant part of the WPS Manual.

ii. WPL's evidence was that it was its policy that the WPS Manual should not be copied directly from the SAS Manuals because it was conscious of the danger of infringing the copyright in the SAS Manuals, and that the WPL programmers did not do so.

iii. WPL said that the reasons for the similarities were that: (i) the SAS Manuals described in detail the functionality, and in particular the syntax and semantics, of the relevant elements of the SAS System; (ii) WPL used the SAS Manuals to reproduce the functionality, and in particular the syntax and semantics, of those elements of the SAS System in the WPS source code; (iii) the WPS Manual was written from the WPS source code; and accordingly (iv) the similarities were attributable to the fact both the SAS Manuals and the WPS Manual were describing the same functionality, and in particular the same syntax and semantics.

iv. WPL accepted that process amounted to it having indirectly copied the SAS Manuals, but contended that the distinction was an important one.

18. The judge also found that in creating WPS, WPL's programmers used the Learning Edition in the following ways:

i. To ascertain details of the operation of the SAS System, and in particular details which were not evident from the SAS Manuals, in order to make WPS behave in the same way. Thus WPL's employees repeatedly used the Learning Edition to determine the output of the SAS System, compare it with the output of WPS and make any necessary changes to WPS.

ii. To compare the performance of WPS with that of the Learning Edition in order to improve the relative performance of WPS. This did not amount to formal benchmarking, but nevertheless WPL did undertake ad hoc performance tests for this purpose.

iii. To test WPS. Before November 2009 WPL's testing software automatically ran test scripts through the Learning Edition and WPS to compare the two. After that it was done manually.

iv. To ascertain the output to the log file.

v. To ascertain the format of a particular data file; and

vi. To generate zip code data, mainly originating from the US Post Office, which were incorporated into WPS.

The Program to Program claim

19. Following the decision of the CJEU it is now also common ground that neither the SAS Language nor the functionality of the SAS System is protected by copyright under the Software Directive. That is the reason why there is no appeal against the rejection of the Program to Program Claim.

Ideas vs expression of ideas

The legislation

20. It is a cliché of copyright law that copyright does not protect ideas: it protects the expression of ideas. But the utility of the cliché depends on how ideas are defined. This dichotomy has made its way into international treaties and European legislation. The international treaties include the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS"), article 9(2) of which provides: "Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such."

21. Article 2 of the World Intellectual Property Organisation Copyright Treaty ("WIPO") is to the same effect. Both these treaties are part of the international legal order of the European Union.

22. Council Directive 91/250/EEC ("the Software Directive") contains the following recitals (numbered as in the judge's first judgment):

> [13] Whereas, for the avoidance of doubt, it has to be made clear that only the expression of a computer program is protected and that ideas and principles which underlie any element of a program, including those which underlie its interfaces, are not protected by copyright under this Directive;

[14] Whereas, in accordance with this principle of copyright, to the extent that logic, algorithms and programming languages comprise ideas and principles, those ideas and principles are not protected under this Directive;

[15] Whereas, in accordance with the legislation and jurisprudence of the Member States and the international copyright conventions, the expression of those ideas and principles is to be protected by copyright.

23. This dichotomy is carried forward into article 1(2): "Protection in accordance with this Directive shall apply to the expression in any form of a computer program. Ideas and principles which underlie any element of a computer program, including those which underlie its interfaces, are not protected by copyright under this Directive."

24. Article 1(3) provides that: "A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection."

25. The Software Directive has since been replaced by Council Directive 2009/24/EC but without relevant alterations of substance. I will continue to refer to the original Software Directive.

26. Running alongside the Software Directive is Council Directive 2001/29/EC ("The Information Society Directive"). Its recitals proclaim that:

(20) This Directive is based on principles and rules already laid down in the Directives currently in force in this area, in particular Directives 91/250/ EEC [*i.e.* the Software Directive], 92/100/EEC, 93/83/EEC, 93/98/EEC and 96/9/EC, and it devel-

ops those principles and rules and places them in the context of the information society. The provisions of this Directive should be without prejudice to the provisions of those Directives, unless otherwise provided in this Directive.

27. Thus the principles underlying the Software Directive also underlie the Information Society Directive. This is also confirmed by recital (50) which says:

> Such a harmonised legal protection does not affect the specific provisions on protection provided for by Directive 91/250/EEC. In particular, it should not apply to the protection of technological measures used in connection with computer programs, which is exclusively addressed in that Directive. It should neither inhibit nor prevent the development or use of any means of circumventing a technological measure that is necessary to enable acts to be undertaken in accordance with the terms of Article 5(3) or Article 6 of Directive 91/250/EEC. Articles 5 and 6 of that Directive exclusively determine exceptions to the exclusive rights applicable to computer programs.

28. Article 2 provides that: "Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part: (a) for authors, of their works . . .."

Intellectual creation

29. As Mr Howe QC pointed out, unlike the Software Directive the Information Society Directive does not expressly deal with the scope of copyright protection (*i.e.* what is capable of being protected by copyright). Nevertheless the ECJ (and latterly the CJEU) has supplied the

omission. What is protected is the expression of an author's "intellectual creation." The phrase "intellectual creation" does not appear in the Information Society Directive. The point emerges most clearly from the decision of the court in Case C-5/08 *Infopaq International A/S* v *Danske Dagblades Forening* [2009] ECR I-6569. At [33] to [37] the court said:

> 33 Article 2(a) of Directive 2001/29 provides that authors have the exclusive right to authorise or prohibit reproduction, in whole or in part, of their works. It follows that protection of the author's right to authorise or prohibit reproduction is intended to cover 'work.'

> 34 It is, moreover, apparent from the general scheme of the Berne Convention, in particular Article 2(5) and (8), that the protection of certain subject-matters as artistic or literary works presupposes that they are intellectual creations.

> 35 Similarly, under Articles 1(3) of Directive 91/250, 3(1) of Directive 96/9 and 6 of Directive 2006/116, works such as computer programs, databases or photographs are protected by copyright only if they are original in the sense that they are their author's own intellectual creation.

> 36 In establishing a harmonised legal framework for copyright, Directive 2001/29 is based on the same principle, as evidenced by recitals 4, 9 to 11 and 20 in the preamble thereto.

> 37 In those circumstances, copyright within the meaning of Article 2(a) of Directive 2001/29 is liable to apply only in relation to a subject-matter which is original in the sense that it is its author's own intellectual creation.

30. Thus the court is taking an expression used in one Directive and applying it to another. In fact the origin of the expression is in the international legal order represented by the Berne Convention. In that way the court interprets Directives dealing with intellectual property consistently. It does so in order to establish "a harmonised legal framework for copyright."

31. The court has also considered what amounts to an "intellectual creation" on a number of occasions. The essence of the term is that the person in question has exercised expressive and creative choices in producing the work. The more restricted the choices, the less likely it is that the product will be the intellectual creation (or the expression of the intellectual creation) of the person who produced it. In Case C-393/09 *Bezpečnostní softwarová asociace—Svaz softwarové ochrany* v *Ministerstvo kultury* [2011] FSR 18 ("*BSA*") what was in issue was a graphic user interface which enabled a computer user to communicate with a computer program. The question referred was whether it was protected by the Software Directive. The answer was "no." The reason was that it was not "a form of expression of a computer program": see [42]. However, both Advocate-General Bot and the court itself also considered whether it could be protected by the Information Society Directive. The Advocate-General began at [73] and [74] by recognising that the development of an interface required considerable intellectual effort on the part of its developer. That intellectual effort included using a programming language to create a complex structure. But that did not necessarily mean that the product of that intellectual effort qualified for copyright protection. He continued at [75] and [76]:

> 75 The difficulty as regards determination of the originality of the graphic user interface lies in the

fact that the majority of the elements which comprise it have a functional purpose, since they are intended to facilitate the use of the computer program. Accordingly, the manner in which those elements are expressed can be only limited since, as the Commission stated in its written submissions, the expression is dictated by the technical function which those elements fulfil. Such is the case, for example, of the mouse which moves the cursor across the screen, pointing at the command button in order to make it operate or of the drop-down menu which appears when a text file is open.

76 In such cases, it seems to me that the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable. If such a possibility was offered, it would have the consequence of conferring a monopoly on certain companies on the computer program market, thus significantly hampering creation and innovation on that market, which would run contrary to the objective of Directive 2001/29.

32. The court specifically approved this reasoning. It said at [48] to [50]:

48 When making that assessment [*i.e.* the assessment whether the GUI is the author's own intellectual creation], the national court must take account, inter alia, of the specific arrangement or configuration of all the components which form part of the graphic user interface in order to determine which meet the criterion of originality. In that regard, that criterion cannot be met by components of the graphic user interface which are differentiated only by their technical function.

49 As the Advocate General states in points 75 and 76 of his Opinion, where the expression of those components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable.

50 In such a situation, the components of a graphic user interface do not permit the author to express his creativity in an original manner and achieve a result which is an intellectual creation of that author.

33. What seems to me to be clear from this passage is (a) that if expression is dictated by technical function then the criterion of originality is not satisfied; and (b) that, where that is the case, the product is not an intellectual creation of the author at all. It is of importance to note that this emphasis on questions of function applies to the Information Society Directive and not just to the Software Directive. What is equally important is that the court approved the Advocate-General's description of the policy of the Information Society Directive which is, like that of the Software Directive, to avoid conferring a monopoly on certain companies in the computer program market, thus significantly hampering creation and innovation in that market. One of Mr Hobbs' major points was that what counted in the context of the Information Society Directive was "features" rather than "functions." But in my judgment that argument is inconsistent with what both the Advocate-General and the court said in *BSA*.

34. In Joined Cases C-403/08 and C-429/08 *Football Association Premier League Ltd* v *QC Leisure* [2012] All ER (EC) 629 the court held that a football match was not

entitled to copyright protection under the Information Society Directive. One reason for that, as the court explained at [98], was that "football matches . . . are subject to rules of the game, leaving no room for creative freedom for the purposes of copyright." In Case C-145/10 *Painer* v *Standard Verlags GmbH* [2012] ECDR 6, again in considering the Information Society Directive, the CJEU said at [88] that an intellectual creation is the author's own "if it reflects the author's personality" and went on to say at [89]: "That is the case if the author was able to express his creative abilities in the production of the work by making free and creative choices."

35. The CJEU made a similar point in relation to database right in Case C-604/10 *Football Dataco Ltd* v *Yahoo! UK Ltd* [2013] FSR 1 at [37] to [39]:

> 37 Secondly, as is apparent from recital 16 of Directive 96/9, the notion of the author's own intellectual creation refers to the criterion of originality (see, to that effect, *Infopaq International A/S* v *Danske Dagblades Forening* (C-5/08) [2009] E.C.R. I-6569; [2010] F.S.R. 20 at [35], [37] and [38]; *Bezpečnostní softwarová asociace—Svaz softwarové ochrany* v *Ministerstvo Kultury* (C-393/09) [2010] E.C.R. I-13971; [2011] F.S.R. 18 at [45]; *Football Association Premier League Ltd* v *QC Leisure* (C-403/08 & C-429/08) [2012] F.S.R. 1 at [97]; and *Painer* v *Standard Verlags GmbH* (C-145/10) [2012] E.C.D.R. 6 at [87]).

> 38 As regards the setting up of a database, that criterion of originality is satisfied when, through the selection or arrangement of the data which it contains, its author expresses his creative ability in an original manner by making free and creative choices (see, by analogy, *Infopaq International* [2010]

F.S.R. 20 at [45]; *Bezpečnostní softwarová asociace* [2011] F.S.R. 18 at [50]; and *Painer* [2012] E.C.D.R. 6 at [89]) and thus stamps his "personal touch" (*Painer* [2012] E.C.D.R. 6 at [92]).

39 By contrast, that criterion is not satisfied when the setting up of the database is dictated by technical considerations, rules or constraints which leave no room for creative freedom (see, by analogy, *Bezpečnostní softwarová asociace* [2011] F.S.R. 18 at [48] and [49], and *Football Association* [2012] F.S.R. 1 at [98]).

36. This test may not be quite the same as the traditional test in English law. As Advocate-General Mengozzi explained in *Football Dataco Ltd* v *Yahoo! UK Ltd*:

36 It is common knowledge that, within the European Union, various standards apply as regards the level of originality generally required for copyright protection to be granted. In particular, in some EU countries which have common law traditions, the decisive criterion is traditionally the application of "labour, skills or effort." For that reason, in the United Kingdom for example, databases were generally protected by copyright before the entry into force of the Directive. A database was protected by copyright if its creator had had to expend a certain effort, or employ a certain skill, in order to create it. On the other hand, in countries of the continental tradition, for a work to be protected by copyright it must generally possess a creative element, or in some way express its creator's personality, even though any assessment as to the quality or the "artistic" nature of the work is always excluded.

37 Now, on this point there is no doubt that, as regards copyright protection, the Directive espouses

a concept of originality which requires more than the mere "mechanical" effort needed to collect the data and enter them in the database. To be protected by the copyright, a database must—as art. 3 of the Directive explicitly states—be the "intellectual creation" of the person who has set it up. That expression leaves no room for doubt, and echoes a formula which is typical of the continental copyright tradition.

37. If the Information Society Directive has changed the traditional domestic test, it seems to me that it has raised rather than lowered the hurdle to obtaining copyright protection.

Substantial part

38. Our domestic legislation confines the doing of a restricted act (*e.g.* copying) to doing that act in relation to the work as a whole or any "substantial part of it": Copyright Designs and Patents Act 1988 s. 16(1), s. 16(3), *Nova Productions Ltd* v *Mazooma Games Ltd* [2007] EWCA Civ 219 [2007] RPC 25 at [29]. It has long been the position in domestic law that what is substantial is a question to be answered qualitatively rather than quantitatively. In *Infopaq* the court said that parts of a work are entitled to the same protection as the work as a whole. But the parts in question must "contain elements which are the expression of the intellectual creation of the author of the work": [39]. This is now the test for determining whether a restricted act has been done in relation to a substantial part of a work. Both counsel agreed that to interpret section 16(3) in this way was consistent with the court's duty to interpret domestic legislation, so far as possible, so as to conform with European Directives. I do not think that anything in the decisions of this court in *Nova Productions Ltd* v *Mazooma Games Ltd*

and *The Newspaper Licensing Agency* v *Meltwater Holding BV* [2011] EWCA Civ 890 [2012] RPC 1 casts doubt on that proposition.

The reference in our case

39. In the course of the reference in our case both the Advocate-General and the court discussed the distinction between ideas and the expression of ideas. The Advocate-General began his discussion at [42] to [44] concluding at that point that the originality "of a work" lies not in an idea, but in the expression of an idea. At this point the Advocate-General was dealing with works generally, not limited to computer programs. However, at [47] to [50] he recognised that elements of creativity, skill and inventiveness manifest themselves in the way in which a program is put together; and that copyright protection for a program is conceivable from the point at which the selection and compilation of its elements are indicative of the creativity and skill of the author. He concluded that the protection of a computer program was not confined to the source code and object code but extended to any other element expressing the creativity of its author.

Functionality of the program as an idea

40. The Advocate-General then turned to consider what counts as an idea, rather than the expression of an idea; in particular the functionality of a computer program. He defined that expression at [52] as follows:

> The functionality of a computer program can be defined as the set of possibilities offered by a computer system, the actions specific to that program. In other words, the functionality of a computer program is the service which the user expects from it.

41. He then gave an example taken from the facts in *Navitaire Inc* v *easyJet Airline Co Ltd* [2004] EWHC

1725 (Ch) [2006] RPC 3. In short he said that the functionalities of a computer program are dictated by a specific and limited purpose: "In this, therefore, they are similar to an idea. It is therefore legitimate for computer programs to exist which offer the same functionalities."

42. But he added at [55] that:

> There are, however, many means of achieving the concrete expression of those functionalities and it is those means which will be eligible for copyright protection under [the Software Directive]. As we have seen, creativity, skill and inventiveness manifest themselves in the way in which the program is drawn up, in its writing. The programmer uses formulae, algorithms which, as such, are excluded from copyright protection because they are the equivalent of the words by which the poet or the novelist creates his work of literature. However, the way in which all of these elements are arranged, like the style in which the computer program is written, will be likely to reflect the author's own intellectual creation and therefore be eligible for protection.

43. He pointed out at [57] that to allow the functionality of a computer program to be protected as such by copyright would amount to making it possible to monopolise ideas. At [60] he referred to *Infopaq* and the Information Society Directive and said that given that a computer program must be regarded as a literary work, the same approach should apply.

44. After further discussion he said at [63]: "Whatever its nature and scope may be, it is my view that the functionality, or indeed the combination of several functional-

ities, continues to be comparable to an idea and cannot therefore be protected, as such, by copyright."

45. The important point here is that even a combination of several functionalities (which entails choice by the programmer or developer) falls on the ideas side of the line. Nor does the Advocate-General restrict himself to protection under the Software Directive: he speaks of copyright generally. He added in the following paragraph: "64 Similarly, it is my opinion that the foregoing analysis cannot be called in question by the nature and extent of the skill, judgment and labour expended in devising the functionality of a computer program."

46. Thus the nature of the skill and judgment expended in devising the functionality of a computer program (which will inevitably involve making choices) still falls on the ideas side of the line.

47. I do not consider that the court disagreed with that analysis. Thus at [39] the court said that:

> On the basis of those considerations, it must be stated that, with regard to the elements of a computer program which are the subject of Questions 1 to 5, neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program for the purposes of Art. 1(2) of [the Software Directive].

48. The court did not itself define what it meant by "functionality"; and in those circumstances there is no reason to suppose that it meant anything different from the way in which the Advocate-General defined the word. Moreover, at [40] it specifically approved what the Advocate-General had said at [57] of his opinion: ". . . to accept

that the functionality of a computer program can be protected by copyright would amount to making it possible to monopolises ideas, to the detriment of technological progress and industrial development."

49. As Mr Howe QC pointed out, in that paragraph of its judgment the court expressed the policy in very general terms (not limited to protection under the Software Directive). Since it is exactly the same policy that, in *BSA* at [49], the court held applied to the Information Society Directive, the expression of the policy in general terms is readily understandable.

50. Mr Hobbs QC drew attention to the court's statement at [45]: "The Court also points out that the finding made in para. 39 of the present judgment cannot affect the possibility that the SAS language and the format of SAS Institute's data files might be protected, as works, by copyright under [the Information Society Directive] if they are their author's own intellectual creation."

51. It will be recalled that in [39] the court had discussed (a) the functionality of a computer program, (b) the programming language and (c) the format of data files used in a computer program. By contrast in [45] it considered only (b) and (c). One must infer, therefore, that the court considered that the functionality of a computer program could not be protected under the Information Society Directive. So I do not think that this carries SAS Institute's argument further.

52. It is also the case that the court's discussion about protecting the functionality of a computer program under the Software Directive was at root a decision about where to draw the line between ideas and expression of ideas. Since the same division between ideas and expression of ideas and the same underlying policy apply with

equal force to the Information Society Directive, it would be entirely unsurprising for the line to be drawn in the same place.

Protection of the Manuals

53. The Advocate-General dealt with protection of the SAS Manuals under the Information Society Directive at [102] to [122] of his opinion. At [109] he made the same distinction (with a cross-reference) between ideas and the expression of ideas that he had made in relation to the Software Directive. Ideas, procedures, methods of operation and mathematical concepts as such are not protected by copyright because they fall on the ideas side of the line. At [110] he said: "In this case, the referring court states that WPL has, in particular, taken the keywords, syntax, commands and combinations of commands, options, defaults and iterations from the SAS Manuals in order to reproduce them in its program, as well as in the WPL manual."

54. It is thus clear that the Advocate-General (a) appreciated that WPL had taken *combinations* of commands and (b) had taken them from their descriptions in the SAS Manuals. Nevertheless he said at [111]: "In my opinion, these elements, as such, do not qualify for the protection conferred by copyright."

55. He then considered the *selection* of statistical operations described in the SAS Manuals; and pointed out that WPS offered "the same selection of statistical operations." Nevertheless his pithy conclusion at [115] was that: "The WPL System does not reproduce the description [in the SAS Manuals] of those statistical operations but simply executes them."

56. He dealt with mathematical formulae at [116] and a specific statistical operation at [117]. He concluded at

[118]: "In my view, it follows from the foregoing considerations that those various components correspond to ideas, procedures, methods of operation or mathematical concepts. Consequently, they are not, as such, eligible for the copyright protection conferred by Art. 2(a) of Directive 2001/29 [*i.e.* the Information Society Directive]."

57. The notion of "ideas, procedures, methods of operation and mathematical concepts" is not expressly found in the Information Society Directive. On the contrary, it is a read-across from the Software Directive. In other words, what counts as an idea, for the purposes of a computer program, also counts as an idea for the purposes of a manual. If something counts as an idea it is not "eligible" for protection, *i.e.* not capable of protection. It is also abundantly clear that the Advocate-General regarded all the detailed elements specified in the question referred (which included the combination of commands and the selection of statistical operations implemented in the SAS System) as falling within the scope of ideas rather than expression. Both combinations and selections are choices of a kind, but plainly in the Advocate-General's opinion they were choices of the wrong kind to be capable of protection by copyright.

58. The court itself dealt with this part of the case as follows:

> 66 In the present case, the keywords, syntax, commands and combinations of commands, options, defaults and iterations consist of words, figures or mathematical concepts which, considered in isolation, are not, as such, an intellectual creation of the author of the computer program.

> 67 It is only through the choice, sequence and combination of those words, figures or mathematical

concepts that the author may express his creativity in an original manner and achieve a result, namely the user manual for the computer program, which is an intellectual creation . . .

68 It is for the national court to ascertain whether the reproduction of those elements constitutes the reproduction of the expression of the intellectual creation of the author of the user manual for the computer program at issue in the main proceedings.

59. In my judgment a fair reading of the court's judgment, and especially of [66], shows that the court agreed with the Advocate-General on this point. Paragraph [66] is not simply a repetition of paragraph [110] of the Advocate-General's opinion. It includes all the features mentioned in the latter paragraph but adds more. The additions are those which the Advocate-General discusses at [115] to [117]. Moreover as WPL point out, in [66] the court is stating that these elements are not even the intellectual creation of the author of the program. If they are not the intellectual creation of the author of the program it is hard to see how they can be the intellectual creation of the author of the manual which describes the program. I note also that the question referred to the CJEU asked specifically whether the level of detail with which the functionality of the program had been reproduced made any difference. The Advocate-General was clear (at [62]) that it did not; and the court gives no hint of disagreement. In saying that these features are not the intellectual creation of the author of the program the court is echoing the Advocate-General's view that to the extent that there are choices involved, they are choices of the wrong kind to be capable of protection by copyright. This, in my judgment, is the answer to Mr Hobbs' submission that the developers of WPS fettered their own

choices and took the choices made by the designers of the SAS System. These choices fall on the ideas side of the line, and are not protected by copyright.

60. Mr Hobbs emphasised the court's statement that the functions (or features) mentioned in [66] were not an intellectual creation "in isolation . . . as such." From that he drew the proposition that those features, in combination, would attract copyright protection. There are two points to make about that. First, in [66] the court was dealing with the intellectual creation of the author of the program; not the intellectual creation of the author of the manual. Second, what the court was discussing was the question of intellectual creation, rather than the expression of an intellectual creation. We know from *BSA* that what is critical is not the intellectual creation, but the expression of the intellectual creation.

61. Thus when we come to [68] the question that the court is leaving to the national court is not whether there has been a reproduction of the intellectual creation of the author of the manual, but whether there has been a reproduction of *the expression* of the intellectual creation of the author of the manual. That is a significantly narrower question.

The Manual to Program Claim

62. The essence of this claim is that in writing WPS in the Java programming language (and subsequently in C++) WPL has copied the SAS Manuals. This argument seems at first sight to be counter-intuitive, because the SAS Manuals themselves do not contain any programming language. They describe the functions that the program is to perform.

63. Following the judgment of the CJEU the question remaining for the judge was whether the reproduction in

WPS of elements described in the SAS Manuals constituted the reproduction of the expression of the intellectual creation of the author of the user manual. It is important to stress that it is only the intellectual creation of the author of the user manual that counts. The intellectual creation of the author of a different work (*e.g.* the computer program itself) is not relevant to this question. In addition, and perhaps more importantly, for the purposes of copyright what is relevant is not the intellectual creation itself, but the expression of the intellectual creation of the author of the manual: *Infopaq* at [39]; CJEU in our case at [65] and [68]. The functionality of a computer program is, quite simply, not a form of expression at all.

64. In his first judgment the judge dealt with the Manual to Program Claim as follows:

> [255] Assuming that the reasoning which led Pumfrey J in *Navitaire* to conclude that it is not an infringement of the copyright in a computer program to replicate its functions without copying its source code or design is correct, I consider that by parity of reasoning it is not an infringement of the copyright in a manual describing those functions to use the manual as a specification of the functions that are to be replicated and, to that extent, to reproduce the manual in the source code of the new program. Once again, it is a question of the kind of skill, judgement and labour involved. Copyright in a literary work, be it a computer program or a manual, does not protect skill, judgment and labour in creating ideas, procedures, methods of operation or mathematical formulae. It follows that it is not an infringement to reproduce such things either from a computer program or a manual . . . .

[259] . . . counsel for SAS Institute submitted that WPL had reproduced the form of expression of the mathematical formulae set out in the SAS Manuals in the WPS source code. In principle, this argument seems to me to address the issue from the correct perspective. As I have said, however, the evidence does not establish that SAS Institute's employees expended any particular skill, judgement or labour in devising the form of expression of those formulae as distinct from other mathematically equivalent formulae. Furthermore, it is not possible to translate such formulae directly into source code and WPL has not done so. As I have said, there is some resemblance of form between the WPS source code and the formulae in the SAS Manuals, but it should not be overstated. Having regard to the quality as well as the quantity of what has been taken, and provided that it was permissible for WPL to reproduce the ideas etc. described in the SAS Manuals, I am not persuaded that WPL has reproduced a substantial part of the expression of the SAS Manuals.

[260] . . . counsel for SAS Institute did not dispute that a single mathematical formula was unprotectable by copyright. He submitted, however, that the SAS Manuals contained a compilation of statistical methods and that WPL had reproduced that compilation. Thus in the case of example 14, he argued there were at least 10 possible methods of calculating percentiles in the statistics literature, SAS had exercised skill, judgement and labour in selecting five of those 10 while omitting the remainder and WPL had reproduced that selection in WPS. In my judgment, however, this argument involves an intel-

lectual sleight of hand. If there is a compilation of statistical methods, the compilation is to be found in the SAS System. The authors of the SAS Manuals did not create that compilation, they simply reproduced it. Although the authors of the SAS Manuals undoubtedly exercised skill, judgement and labour in devising the form of expression of the Manuals, and in particular their wording, they did not exercise any skill, judgement or labour in making the compilation of statistical methods. It follows that, to use the language of *Infopaq*, what WPL reproduced from the SAS Manuals in this respect does not "express the intellectual creation" of the authors of the SAS Manuals.

[261] I would add that I do not accept that the SAS System does contain a compilation of statistical methods. It is clear from the evidence that the collection of statistical methods contained in the current version of the SAS System has grown steadily over a period of around 35 years. The collection has grown by accretion as a result of both customer feedback and competitive pressure as well as SAS Institute's own initiatives. While there may be individual procedures or functions in respect of which it could be said that an author or group of authors consciously planned and implemented a particular selection of methods, in general the collection was not planned and there was no overall design. It was therefore not the intellectual creation of an author or group of authors. In this respect it stands in the same position as the collection of commands in *Navitaire*: see the judgment of Pumfrey J at [92].

65. In this passage the judge has combined the traditional test and the *Infopaq* test. But that combination is,

if anything, more favourable to the authors of the SAS Manuals than a strict application of the *Infopaq* test.

66. In his third judgment the judge answered the question that the CJEU left to him in the following way:

> In so far as counsel for SAS Institute argued that WPL had reproduced compilations of (i) formulae, (ii) keywords, (iii) default values, (iv) comments and (v) optimisations from the SAS Manuals, I would repeat the answers I gave at [260]-[261], and in particular the first one. The authors of the SAS Manuals did not create such compilations, the authors of the SAS System did.

67. SAS Institute first criticises the judge for having carried forward his reasoning on the scope of the Software Directive into his interpretation of article 2(a) of the Information Society Directive. They say that the two directives are separate and self-contained pieces of legislation; and that the protection given by the latter is broader than the protection given by the former.

68. In the light of recitals (20) and (50) of the Information Society Directive I do not consider that the first step in this argument can be sustained. Nor, as I have shown, is it supported by the Advocate-General's opinion in our case or the judgment of the CJEU both in our case and in others.

69. In addition when considering the concept of "intellectual creation" the CJEU has built on decisions on different directives, as can be seen most clearly from the quoted extract from *Football Dataco Ltd* v *Yahoo! UK Ltd* (see [35] above) in which the court reasons by analogy from one directive to another. Indeed in *Infopaq* itself the notion of the author's own intellectual creation was carried across from the Berne Convention and the Soft-

ware Directive into the Information Society Directive, even though the latter Directive does not use the phrase. The conclusion must be that the same concept of what is capable of protection (as a form of expression rather than as an idea) applies to both the Software Directive and the Information Society Directive. Since the court's avowed intention was to establish a harmonised legal framework for copyright, this is not surprising.

70. It is also the case that the European legislation was enacted against the background of many international treaties and well-established principles of copyright law, and that the relevant directives must be interpreted against that background: *Infopaq* at [32]. One of these principles is that for an infringement of copyright to exist, the defendant's work must represent the claimant's work in some real sense. This is an embedded feature of copyright law. In *Designers Guild Ltd* v *Russell Williams (Textiles) Ltd* [2000] 1 WLR 2416 Lord Hoffmann explained at [25] that:

> . . . a copyright work may express certain ideas which are not protected because they have no connection with the literary, dramatic, musical or artistic nature of the work. It is on this ground that, for example, a literary work which describes a system or invention does not entitle the author to claim protection for his system or invention as such.

71. To similar effect is the observation of Jacob LJ in *Nova Productions Ltd* v *Mazooma Games Ltd* at [51]: "Similarly and more generally, a written work consisting of a specification of the functions of an intended computer program will attract protection as a literary work. But the functions themselves do not."

72. *Copinger & Skone James on Copyright* (17th ed) explain the principle thus at 7-37:

> It has already been pointed out that in general terms a work is not reproduced unless what has been produced represents the work in some real sense. A description in a novel of a scene from nature is thus not infringed by a drawing made to depict that scene. So, in the context of a literary work, the copyright in a book which described a method of teaching mathematics was not infringed by making a series of coloured rods which demonstrated that method, the copyright in written instructions for the making of a garment was not infringed by making the garment, and the copyright in the words and numerals in knitting guides was not infringed by making garments to those instructions. Again the copyright in a book of recipes would not be infringed by making a dish according to one of the recipes.

73. I do not consider that either the Software Directive or the Information Society Directive undermines this basic principle; nor did the decision of the CJEU in this case.

74. It is, however, fair to say that the judge does not seem to have appreciated that the judgment of the CJEU had, to some extent, changed the question. What is protected is the form of expression of an intellectual creation. The intellectual creation itself is not protected; and the functionality of a computer program does not count as a form of expression. The functionality of a computer program (in the sense of what it does and how it responds to particular inputs) falls on the ideas side of the line. It falls on that side of the line whether one is considering the Software Directive or the Information Society Di-

rective. Accordingly, in my judgment the judge was wrong at [260] to concentrate on who did what, and in his third judgment to rely on that paragraph of his first judgment as containing his conclusion. It would have been preferable simply to say that the copying that SAS Institute alleged was not the copying of the form of expression of an intellectual creation, which is close to how the judge put it in [255] of his first judgment. In short, what WPL took was not capable of protection by copyright. Thus although I do not agree with the way in which the judge formulated his conclusion in his third judgment, I consider that he came to the right answer.

75. I should also say that for that reason in my judgment it does not matter whether the creation of the computer program preceded the writing of the manual, proceeded alongside the writing of the manual, or followed the writing of the manual. In *Nova Productions Ltd* v *Mazooma Games Ltd* Jacob LJ was dealing with the example of an "intended" program; and Lord Hoffmann's statement of principle was entirely neutral on the question of timing. The examples given in Copinger & Skone James exhibit a variety of different sequences of events. In the light of the judgment of the CJEU the common thread underlying these cases is that what is taken is an idea rather than the expression of an idea.

76. There is also the general policy of the directives to be considered. I have already quoted what the CJEU said in our case at [40] and what it said in *BSA* at [49]. The policy underlying both the Software Directive and the Information Society Directive is identical. It would be contrary to that policy if SAS Institute could achieve copyright protection for the functionality of its program indirectly via its manual which simply explains that functionality. Moreover, as the judge pointed out at [253] of

his first judgment, the European Commission took the view in its amended proposal for the Software Directive that it was permissible for a third party to use manuals published by the creator of an original program as a source of information about interfaces in order to create an interoperable program and, to that extent, to reproduce the original program.

77. Mr Hobbs submitted that the judge's conclusion was inconsistent with WPL's admission that copyright subsisted in the SAS Manuals. I do not agree. No one doubts that copyright in the manuals subsists. The question is: what does that copyright protect?

78. In short, although we are not bound by it, I agree with the Advocate-General's pithy conclusion that: "The WPL System does not reproduce the description [in the SAS Manuals] of those statistical operations but simply executes them."

79. In my judgment, therefore, the judge was right in his conclusion that the elements of the program that WPL obtained from the SAS Manuals in creating WPS were not the form of expression of the intellectual creation of the authors of the manuals.

80. At [261] of his first judgment the judge appears to have been saying that the SAS System was not the intellectual creation of its authors because it had grown by accretion without an overall design. He repeated this reason in his third judgment. In my judgment he was wrong to do so. First, the subsistence of copyright in the SAS System was admitted on the pleadings, and the judge's reasoning seems to me to go behind that admission. Second, I can see no reason in principle why something that has grown by accretion should, for that reason alone, be deprived of copyright protection. But my disa-

greement with the judge on this point does not affect the outcome of the Manual to Program Claim.

81. I would therefore dismiss the appeal in relation to the Manual to Program Claim.

The Manual to Manual Claim

82. Subject to a procedural point the appeal in relation to the Manual to Manual Claim stands or falls with the Manual to Program Claim. This follows from the judgment of the CJEU at [69] in which the court said: "In this respect, the examination, in the light of Directive 2001/29, of the reproduction of those elements of the user manual for a computer program must be the same with respect to the creation of the user manual for a second program as it is with respect to the creation of that second program."

83. If, therefore, the Manual to Program Claim fails, so must the Manual to Manual Claim, in so far as it concerns the underlying elements of the program itself. Linguistic reproduction of the precise terms of the SAS Manuals is a different matter, as the judge rightly recognised. He held that in some limited respects WPL had infringed the copyright in the SAS Manuals; and WPL do not challenge that conclusion.

84. The judge's conclusion is also supported by the reasoning of Pumfrey J in *Navitaire Inc* v *easyJet Airline Co Ltd*. He gave the following example at [127]:

> Take the example of a chef who invents a new pudding. After a lot of work he gets a satisfactory result, and thereafter his puddings are always made using his written recipe, undoubtedly a literary work. Along comes a competitor who likes the pudding and resolves to make it himself. Ultimately, after much culinary labour, he succeeds in emulat-

ing the earlier result, and he records his recipe. Is the later recipe an infringement of the earlier, as the end result, the plot and purpose of both (the pudding) is the same? I believe the answer is no.

85. This part of his judgment was approved by this court in *Nova Productions Ltd* v *Mazooma Games Ltd*. I think that in his opinion in our case the Advocate-General also approved its reasoning, given that he based his examples on the facts of that case. In so far as the text of the WPS manual was copied from the SAS Manuals, which the judge found established to some extent, the claim for copyright infringement succeeded, and there is no appeal against that. But in so far as the WPS manual described the WPS program, which had been created from observation of the functionality of SAS and its description in the SAS Manuals, it is exactly analogous to the writing by the second chef of his successful recipe, which does not infringe copyright in the first chef's recipe.

86. This attack on the judge's third judgment therefore fails.

87. However, Mr Hobbs had another, different attack. He pointed to the judge's conclusions at [317] and [319] as follows:

> The only issue here is whether WPL has reproduced a substantial part of the relevant SAS Manuals. WPL contends that it has gone no further than indirectly copying the content of the SAS Manuals via the WPS source code, and that this is not an infringement because all it has done is to copy the ideas, procedures, methods of operation and mathematical formulae described in the SAS Manuals rather than the expression of the SAS Manuals.

I have concluded that WPL went further than merely copying the ideas etc. described in the SAS Manuals. For the reasons given in paragraph 148 above, I consider that WPL substantially reproduced the language of the SAS Manuals even though its policy was not to do so. Applying the test laid down in *Infopaq*, namely whether the parts which have been reproduced express the intellectual creation of the authors of the SAS Manuals, I conclude they do.

88. Mr Hobbs' point is that, having regard to the case management order which stated that the pleaded similarities were to be treated as representative, once the judge had found that there had been infringement that was the end of the Manual to Manual claim. He should simply have entered judgment for SAS Institute on that claim.

89. I have already set out the terms of the case management order. What was before the judge was a selection of alleged similarities, which were to stand as representative samples of the manuals as a whole. I do not, however, consider that the terms of the order compelled the conclusion that if a single instance of infringement were to be established that meant that the whole of the WPS Manual should be treated as infringing. Within the selection the judge was free to decide that some instances of copying had been proved, and others had not. As I have said the underlying purpose of these orders was that whatever *proportion* of copying was found in the representative samples could be extrapolated across the manuals as a whole.

90. This attack on the judge's partial dismissal of the Manual to Manual claim also fails. I should, perhaps, record that Mr Howe told us that in fact the WPS Manu-

al that the judge considered had been withdrawn and a new one will be written from scratch.

The Learning Edition Claim

91. The use of the Learning Edition was, in principle, governed by the terms of the contractual licence. There were four versions of the licence in issue. WPL bought two copies of version 1.0 in October 2003, one copy of version 2.0 in March 2005, two copies of version 4.1(a) in July 2007 and seven copies of version 4.1(b) in March 2009. The relevant terms were these:

> **"<u>Important: Please carefully read the terms and conditions of this License Agreement ('Agreement') before clicking on the 'Yes' button</u>. By clicking on the 'Yes' button, the individual licensing the Software ('Customer') agrees to these terms, and SAS Institute Inc ('SAS') will authorize Customer to use the SAS Learning Edition Software ('Software') in accordance with the terms and conditions of this Agreement. If Customer does not agree to all of the terms of this Agreement, click on the 'No' button and return the Software to the supplier from whom Customer obtained it. Customer will receive a refund of licence fees applicable to and paid by Customer for this Software, if any, provided Customer returns the full Software package with proof of purchase within thirty (30) days of date of purchase or the supplier's return period, whichever is the longer.**
>
> **1. Licence Grant**
>
> 1.1 In exchange for Customer's payment of all applicable fees and compliance with all of the terms and conditions of this Agreement, SAS hereby

grants Customer a[*n individual*] nonassignable, nontransferable and nonexclusive license to use the Software on one (1) workstation at a time, for Customer's [*own self-training*] non-production purposes only. Concurrent usage or use on a network is not authorized.

1.2 Customer may not use the Software in any outsourcing, facilities management or service bureau arrangement or any data or information technology management operation by or for third parties.

1.3 . . . Customer may terminate its license to use the Software by either returning all copies of the Software and associated documentation to SAS or by destroying copies. . . .

2. Intellectual Property Rights

The Software is copyrighted. . . . Customer may not reverse assemble, reverse engineer, or decompile the Software or otherwise attempt to recreate the Source Code, except to the extent applicable laws specifically prohibit such restriction. . . . Customer may not distribute the Software to any third party in modified or unmodified form.

4. Export Restrictions

. . . By accepting this Agreement, Customer affirms that it is located in and is a lawfully admitted permanent resident of a country to which the United States permits SAS to send the Controlled Material. Customer further affirms it is a party to whom the United States allows SAS to provide the Controlled Material . . . .

. . .

9. Complete Agreement

This Agreement and any invoices relating to the Software set forth the entire agreement between Customer and SAS related to the Software and supercede any purchase order, communications or representations regarding the Software. . . . "

92. The words in italics were contained in versions 1.0 and 2.0 but not in versions 4.1 (a) or (b). The licences were governed by the laws of the state of North Carolina and the USA. However, the trial was conducted on the basis that there was no difference between those laws and English law. So was the appeal.

93. The judge found that WPL was in breach of the terms of the licence in two different ways. First, it had allowed use of the Learning Edition by employees other than those who had "clicked through" the licence and hence fell outside the definition of "Customer." Second he held that WPL had used the Learning Edition for purposes that were not "non-production" purposes. However, he referred to the CJEU the question whether WPL's use of the Learning Edition for a purpose that was not permitted by the licence was nevertheless permitted by article 5(3) of the Software Directive, in which case the terms of the licence prohibiting that use would be void to that extent.

94. Article 4 of the Software Directive is headed "Restricted Acts." It provides so far as relevant:

Subject to the provisions of Articles 5 and 6, the exclusive rights of the rightholder within the meaning of Article 2, shall include the right to do or to authorize:

(a) the permanent or temporary reproduction of a computer program by any means and in any form,

in part or in whole. Insofar as loading, displaying, running, transmission or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder;

(b) the translation, adaptation, arrangement and any other alteration of a computer program and the reproduction of the results thereof, without prejudice to the rights of the person who alters the program . . . .

95. Article 5 is headed "Exceptions to the restricted acts." It provides so far as relevant:

1. In the absence of specific contractual provisions, the acts referred to in Article 4(a) and (b) shall not require authorization by the rightholder where they are necessary for the use of the computer program by the lawful acquirer in accordance with its intended purpose, including for error correction.

. . .

3. The person having a right to use a copy of a computer program shall be entitled, without the authorization of the rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.

96. Article 9(1) states that: "Any contractual provisions contrary to Article 6 or to the exceptions provided for in Article 5(2) and (3) shall be null and void."

97. The basis on which the court answered the questions under this head was set out at [47] and [48] of its judgment. The court noted that the question referred re-

lated to a person who had obtained a copy of a computer program under licence and carried out acts "with a purpose that [went] beyond the framework established by the licence." It noted that the licence in this case restricted the licence to non-production purposes, but that WPL "used the various copies of the Learning Edition of SAS Institute's program to perform acts which fall outside the scope of the licence."

98. Having set out the question and the factual framework in that way, I am bound to say that, at least on first reading, the CJEU gave a clear answer to the question referred. It concluded at [61]:

> It must therefore be held that the copyright in a computer program cannot be infringed where, *as in the present case*, the lawful acquirer of the licence did not have access to the source code of the computer program to which that licence relates, but merely studied, observed and tested that program in order to reproduce its functionality in a second program. (Emphasis added)

99. When the case came back to the judge SAS took the point that whereas the CJEU's judgment had been given on the basis that WPL was "a lawful acquirer of the licence," WPL never did acquire the right to use the program, which was restricted to the individual employee who clicked through the licence. The judge rejected that argument in his third judgment as follows:

> 60 As counsel for SAS Institute accepted, WPL is a legal person. As he also accepted, it obtained copies of the Learning Edition. It did so under licences. It is true that the licences were entered into by particular employees acting as agents for WPL. It is also true that the licences restricted the use of

those copies of the Learning Edition to those specific employees. It [is] also true that other employees of WPL used those copies in contravention of that restriction and that WPL is vicariously liable for such use. None of that detracts from the fact that WPL obtained copies of the Learning Edition under licence.

61 It follows that, by virtue of Article 5(3), WPL was entitled without SAS Institute's consent to observe, study and test the functioning of the Learning Edition in order to determine its underlying ideas and principles. In my judgment it does not matter whether it exercised that right by the "licensed" employees or the "unlicensed" employees, leaving aside for the moment the fact that the "licensed" employees committed acts extending beyond the scope of the licence. Article 9(1) renders null and void any contractual restrictions contrary to Article 5(3). In my view this includes a contractual restriction on the employees by whom a legal person in the position of WPL can exercise the right under Article 5(3).

62 To put what is much the same point in a slightly different way, I consider that it makes no difference to the issue with regard to Article 5(3) whether WPL's acts fell outside the scope of the licence because (i) the copies of the Learning Edition it purchased were used by "unlicensed" employees or (ii) the "licensed" employees used the copies of the Learning Edition for purposes which were not permitted by the terms of the licences. Either way, WPL acting by its employees used the Learning Edition in ways which fell outside the scope of the licences.

100. In other words, what the judge was saying was that WPL lawfully acquired the right to use the program, but the manner in which that right was to be put into effect was through the medium of the particular employee who clicked through and accepted the licence terms. It was on that basis that a term of the licence restricting the manner in which the right could be put into effect was invalidated by article 5(3).

101. I will take the points arising under this part of the claim in reverse order. I deal first with the question whether the fact that WPL used the Learning Edition for a purpose not permitted by the terms of the licence means that it cannot rely on article 5(3). In my judgment both the Advocate-General and the court have answered that question with an unequivocal "No." Despite Mr Hobbs' extremely skilful advocacy it is in my judgment clear that the court distinguished between *acts* permitted by the licence, and the *purpose* for which those permitted acts were carried out. Once you have crossed the threshold of being entitled to perform acts for any purpose specified in the licence, article 5(3) permits you to perform those same acts for a purpose that falls within article 5(3). To my mind that is the only reading of the court's judgment that is consistent with [61].

102. It follows, in my judgment, that if the judge was right about the meaning of "nonproduction" purposes, then that contractual restriction is invalid to the extent that it prohibits the observation, study or testing of the functioning of the program in order to determine the ideas and principles underlying it. Mr Howe also argued that the judge was wrong in his interpretation of that phrase. In view of my conclusion about article 5 (3) it is unnecessary to deal with that argument; and I express no view about whether the judge was right or wrong.

103. The second question of interpretation boils down to: who is "the Customer"?

104. The Re-Re-Amended Particulars of Claim do not, I think, allege that WPL was not entitled to use the Learning Edition at all. Rather, it is said that the activities of its employees were not permitted by clause 1.1 of the licence; and it is also asserted that WPL had accepted the terms of the licence. In those circumstances, I do not think that it is open to SAS, on the basis of its pleaded case, to assert that WPL was not a lawful acquirer of the licence.

105. It was not disputed that the licences must be interpreted in the same way as any commercial contract. The general principles of contractual interpretation are well-known and I do not need to rehearse them. There were, however, some points of disagreement on the details, with which I need to deal. The first concerns the relevance of and weight to be given to factual background. In considering the questions of interpretation with which he was concerned the judge took into account what he called "the background knowledge" which he set out at [277]. The judge took into account among other things what was on the packaging in which the Learning Edition was supplied. He also appears to have taken into account what could have been learned from the SAS website, even though it was not established that WPL had visited the site. In this latter respect I consider that the judge pushed the concept of background knowledge too far. Almost anything is available on the internet these days, and simply because something is available on the internet does not mean that it is relevant background: *The Movie Network Channel Pty Ltd* v *Optus Vision Pty Ltd* [2010] NSWCA 111 at [97] to [100]; *Toth* v *Emirates* [2012] EWHC 517 (Ch) [2012] FSR 26 at [44]; *Hamid (t/a*

Hamid Properties) v *Francis Bradshaw Partnership* [2013] EWCA Civ 470 at [49]. To be fair, Mr Hobbs did not suggest that it was.

106. I begin with the language of the licence itself. In my judgment the only real indication that the licence is granted to a single human being is the rubric right at the beginning of the licence: viz "By clicking on the 'Yes' button, the individual licensing the Software ('Customer') agrees to these terms". It seems to me to be obvious that only a human being can click on the "Yes" button. But that, as it seems to me, is not in itself a strong pointer. The word "individual" can be read as meaning "a single person", which would include a legal person such as a company. In addition a human who clicks on the "Yes" button may do so as agent for the person (in this case a company) who bought the program and is, in the ordinary sense of the word, a customer. There are other indications elsewhere in the licence that point to the conclusion that the Customer may be a company. First, in both clause 1.3 and clause 4 "Customer" is referred to as "it," which does not suggest a human being. Second, the prohibition on concurrent usage would be unnecessary if the licence only extended to the single human being who had clicked on the "Yes" button. Third, it is difficult to envisage how a single human being would use the Learning Edition on more than one workstation at a time. Fourth, the licence, and in particular clause 1.1, is drafted on the basis that the person who pays for the program is the "Customer". Where, as in this case, it is a company that pays the purchase price, the assumption must be that the company is the Customer. Fifth, the fact that the chosen defined term is "Customer" is itself an indication that the licensee is the same person as the person who bought the product: *Chartbrook Ltd* v *Persimmon Homes Ltd* [2009]

UKHL 38 [2009] 1 AC 1101 at [17]; *Cattles plc* v *Welcome Financial Services Ltd* [2010] EWCA Civ 599 [2010] 2 BCLC 712 at [35]. Sixth, SAS positively avers that the licence agreement subsists between it and WPL. It is difficult to see how there could be a licence agreement with a contracting party under which the contracting party acquired no *licence*.

107. I do not consider that the background material detracts from these points. The judge referred to the fact that the packaging calls the Learning Edition a "personal learning" version. But that is consistent with the view that the person in question is a company. The packaging also says that "students" and "business professionals" will learn from the edition. But clearly the actual operation of the program will be carried out by a human being whoever the "Customer" is; so that, too, carries the argument no further. What is of equal, if not more, significance is that SAS Institute describes the SAS System as "the world's leading *business* intelligence and analytical software." Since it promotes the software as business software it is natural to suppose that businesses want to learn how to use it; although obviously corporate businesses will do so through the agency of human beings.

108. Finally, one cannot forget that the licence agreement is offered on a take-it-or-leave-it basis. The purchaser has only two choices: click on the "Yes" button or click on the "No" button. There is no room for negotiation. If there were any doubt about the meaning of the licence at this stage, in my judgment the application of the *contra proferentem* principle would tip the balance in WPL's favour. In my judgment the judge was wrong to rule out the principle at an early stage in his analysis. Accordingly, in disagreement with the judge, I would hold that WPL had the right to use the Learning Edition.

Once one arrives at that position, there is no restriction on the number of employees whom WPL may authorise to observe, study and test the program, provided that they do so one at a time and at a single workstation at a time. It follows, therefore that WPL were not in breach of the licence by authorizing multiple employees to use the program for the purposes of observation, testing and study. Thus I reach the same conclusion as the judge, but for a different reason.

109. This means that it is unnecessary to consider whether the judge was correct in deciding that article 9 also invalidated the restriction to a single employee that he found to exist. Again, I express no view about whether he was right or wrong in that respect. Nor is it necessary to consider Mr Howe's argument that it is now too late to raise the point.

110. In my judgment, however, for the reasons I have given this attack on the judge's third judgment also fails.

Result

111. I would dismiss the appeal.

Lord Justice Vos:

112. I agree.

Lord Justice Tomlinson:

113. I also agree.