No. 21-1542

IN THE

United States Court of Appeals for the Federal Circuit

SAS INSTITUTE INC.,

Plaintiff-Appellant,

v.

WORLD PROGRAMMING LIMITED,

Defendant-Appellee.

On Appeal from the United States District Court
for the Eastern District of Texas
No. 2:18-cv-00295-JRG, Hon. J. Rodney Gilstrap

**BRIEF OF
THE MATHWORKS, INC. AND
ORACLE CORPORATION
AS AMICI CURIAE IN SUPPORT OF
APPELLANT SAS INSTITUTE, INC.**

Andrew D. Silverman
ORRICK, HERRINGTON &
  SUTCLIFFE LLP
51 West 52nd Street
New York, NY 10019

Annette L. Hurst
ORRICK, HERRINGTON &
  SUTCLIFFE LLP
405 Howard Street
San Francisco, CA
(415) 773-5700

Counsel for Amici Curiae

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

CERTIFICATE OF INTEREST

Case Number 21-1542

Short Case Caption SAS Institute Inc. v. World Programming Limited

Filing Party/Entity The Mathworks, Inc. and Oracle Corporation

---

Instructions: Complete each section of the form. In answering items 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance. **Please enter only one item per box; attach additional pages as needed and check the relevant box**. Counsel must immediately file an amended Certificate of Interest if information changes. Fed. Cir. R. 47.4(b).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 05/21/2021

Signature: /s/ Annette L. Hurst

Name: Annette L. Hurst

i

FORM 9. Certificate of Interest   Form 9 (p. 2)
July 2020

1. Represented Entities. Fed. Cir. R. 47.4(a)(1).	2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2).	3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities. ☑ None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities. ☑ None/Not Applicable
The Mathworks, Inc.		
Oracle Corporation		

☐   Additional pages attached

ii

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

☑   None/Not Applicable   ☐   Additional pages attached

5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

☑   None/Not Applicable   ☐   Additional pages attached

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

☑   None/Not Applicable   ☐   Additional pages attached

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

STATEMENTS OF INTEREST[1]

THE MATHWORKS, INC.

The MathWorks, Inc. ("MathWorks") is a mid-sized software company founded in 1984, with more than 5,000 employees and $1 billion in annual revenues. MathWorks' flagship product is MATLAB®, a sophisticated computer program used by engineers and scientists worldwide to perform numeric calculations and visualizations, to solve complex research problems, and to design, create, and test new products. MATLAB is popular in a number of technical domains such as signal and image processing, communications, control design, test and measurement, financial modeling and analysis, and computational biology. MATLAB also is relied on throughout the aerospace, defense, automotive, communications, electronics, and industrial automation industries, among others, and is a staple of academic research and teaching at major universities worldwide.

---

[1] No party's counsel authored this brief in whole or in part. No party, party's counsel, or any person other than amicus or its counsel contributed money intended to fund preparing or submitting this brief. All parties have consented to the filing of this brief.

1

MATLAB allows its users to develop better and more reliable
products and make new discoveries more quickly and easily. Cars,
airplanes, smartphones, and even the flight control system for the F-35
Joint Strike fighter developed by Lockheed Martin—to name just a few
products—were designed in part using MATLAB and other MathWorks
software products. For more than three decades, MathWorks has been
developing MATLAB, improving and adding features with each release.

Almost all of MathWorks' revenue comes from license fees
customers pay to use its software products. Copyright protection for its
products allows MathWorks to fund research and development costs
and continue to build new and sophisticated software. Strong and
effective copyright protection for computer software programs is
essential to MathWorks' ability to make that investment. And it is
important that the abstraction-filtration-comparison process, used by
many courts in copyright infringement cases, be properly applied.
MathWorks is concerned that the filtration step of that process was
misapplied in this case and denied the copyright holder, here SAS, the
appropriate opportunity to show that its copyrights were infringed and,

if allowed to stand, would improperly narrow the scope of copyright protection.

ORACLE CORPORATION

Non-Party Oracle Corporation ("Oracle") is one of the world's largest and leading technology companies, providing complete, open, and integrated business software and hardware systems. Its products and services include applications and infrastructure offerings that are delivered worldwide through a variety of flexible and interoperable IT deployment models. In particular, Oracle is chosen by its customers—which include businesses of many sizes, government agencies, educational institutions, and resellers—for its innovative software and its commitment to substantial investment in software innovation. Indeed, in each of the last three years, Oracle invested over $6 billion in research and development to enhance its existing portfolio of offerings and to develop new technologies and services.

Oracle has a significant interest in the outcome of this dispute as the decisions that the Court makes may affect all software companies, including Oracle, who depend on robust copyright protection for their works to support their businesses and their substantial investments in

the creation of new software. Software companies routinely protect

their software research and development investments based on their

copyrights, and such copyrights form the backbone of their licensing

models. Thus, although patent law remains an important component of

modern software companies' intellectual property portfolios, copyright

law often provides the most reliable and effective protection against

unauthorized copying. The vital role of copyright protection in the

software space has been magnified in recent years, as developments in

patent law, including subject matter eligibility, have cast doubt on the

scope and availability of patent protection. Oracle is concerned that the

district court's incorrect application of the parties' legal burdens in the

abstraction-filtration-comparison test, if affirmed, will lead to an

improperly narrow scope of copyright protection for software. Thus,

Oracle files this brief in support of Plaintiff SAS Institute Inc. ("SAS").

INTRODUCTION

You're prospecting for gold – a modern day 49er. You shovel your sample. A wire mesh classifier culls the largest duds. Next, the sluice wields its specific gravity. At the bottom you've got a gold pan full of promising sediment. It's time to examine it and compare it to known samples to see whether you've struck it rich. Instead, you dump it back in the stream and call it a day.

That was the District Court's mistake here. It took an otherwise sensible burden-shifting approach to the abstraction-filtration-comparison ("A-F-C") analysis, and, instead of performing every step in the filtering process, it simply threw out all of the SAS code. Once there was a question as to something, it refused to examine anything. The court's order failed to take the final step of panning the gold. While it may have been a somewhat tedious one, it was an especially expensive mistake here where the court was prospecting in the Mother Lode—a known deposit of "cloned" or "identical" WPL code.

The judgment should be reversed, and the district court ordered to filter *only* the unprotected elements so that the expression that remains can be compared for purposes of assessing infringement.

ARGUMENT

I. **THE DISTRICT COURT FLUBBED ITS APPLICATION OF AN OTHERWISE SENSIBLE BURDEN-SHIFTING APPROACH.**

This case involves the filtration step of the abstraction-filtration-comparison test. The Fifth Circuit and this Court generally treat the copyrightability assessment of software elements in the filtration step as a legal question. *Computer Mgt. Assistance Co. v. Robert F. DeCastro, Inc.*, 220 F.3d 396 (5th Cir. 2000) (court performs filtration analysis); *Eng'g Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335 (5th Cir. 1994) (court performs filtration analysis); *Krepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533-34 (5th Cir. 1994) (court must determine scope of copyright protection); *Oracle Am., Inc. v. Google, Inc.*, 750 F.3d 1339, 1353 & n.3 (Fed. Cir. 2014);[2] *see also Compulife Software, Inc. v. Newman*, 959 F.3d 1288, 1303 (11th Cir. 2020); *Gates Rubber Co. v. Bando Chem. Indus, Ltd.*, 9 F.3d 823 (10th

---

[2] *Oracle* addressed the question of copyrightability for the Java Standard Edition platform at issue. A subsequent decision of this Court, *Oracle Am., Inc. v. Google, LLC*, 886 F.3d 1179 (Fed. Cir. 2018), held that Google's copyright was not a fair use. The Supreme Court recently reversed that latter decision. *Google, LLC v. Oracle Am. Inc.*, No. 18-956, 593 U.S. __ (2021). The Supreme Court's decision did not disturb this Court's earlier copyrightability decision. *See* Slip Op. at 15.

Cir. 1993). Courts perform the assessment as part of the filtration step

in the abstraction-filtration-comparison analysis. *See Eng'g Dynamics*,

26 F.3d at 1345-47; *Computer Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d

693 (2d Cir. 1992). The very purpose, as the Second Circuit famously

said, is to find whether there is a "golden nugget" of copyrightable

expression that can then be used by the jury in the "comparison" step to

assess whether there has been infringement. *Altai*, 982 F.2d at 710.[3]

---

[3] Of course, the standard for evaluating any challenged software
nuggets retains the low bar for originality set in *Feist Publ'ns, Inc. v.
Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (1991); *see Oracle*, 750 F.3d at
1354, 1362-63. Courts in general have no trouble finding the minimally
sufficient "creative spark" in a wide variety of humble works. *Key
Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc.*, 945 F.2d 509, 514
(2d Cir. 1991) (Chinese yellow pages); *CDN Inc. v. Kapes*, 197 F.3d
1256, 1257-58, 1260-61 (9th Cir. 1999) (estimates of coin values); *Kregos
v. Associated Press*, 937 F.2d 700, 702, 704 (2d Cir. 1991) (pitcher's
statistics); *Oriental Art Printing, Inc. v. Goldstar Printing Corp.*, 175 F.
Supp. 2d 542, 548 (S.D.N.Y. 2001) (Chinese restaurant menu). Modest
software elements are equally eligible for protection, such as copy and
call commands (*Dun & Bradstreet Software Servs., Inc. v. Grace
Consulting, Inc.*, 307 F.3d 197 (3d Cir. 2002)), interface specifications
(*Bateman v. Mnemonics, Inc.*, 79 F.3d 1532, 1547 (11th Cir. 1996)),
input formats (*Eng'g Dynamics*, 26 F.3d at 1346; *Broderbund Software,
Inc. v. Unison World, Inc.*, 648 F. Supp. 1127, 1133 (N.D. Cal. 1986)),
Application Programming Interfaces (*Oracle*, 750 F.3d at 1354;
MedioStream, Inc. v. Microsoft Corp., 749 F. Supp. 2d 507, 520-21 (E.D.
Tex. 2010)), and data structures (*eScholar, LLC v. Otis Educ. Sys., Inc.*,
No. 04 Civ. 4051(SCR), 2005 WL 2977569, at *20-21 (S.D.N.Y. Nov. 3,
2005); *Positive Software Solutions, Inc. v. New Century Mortgage Corp.*,
259 F. Supp. 2d 531, 535 (N.D. Tex. 2003)).

The Fifth Circuit's analysis in *Computer Management Assistance* was typical of the use of abstraction-filtration-comparison analysis in software copyright infringement cases. First, the plaintiff identified which elements of the software it alleged were entitled to protection. 220 F.3d at 401-02. The court then proceeded to filtration. *Id.* at 402. As part of the filtration process, the defendant put forth evidence that some of the elements were unprotected *scenes-a-faire.* *Id.* The court held that "those expressions contained in Sections Two and Four of Appendix A that are dictated by these external factors are not subject to copyright protection and are eliminated from consideration in comparing [the two programs]." *Id.* With the remaining material, the court proceeded to a substantial similarity comparison, and found insufficient similarity to sustain the claim of infringement. *Id.*

Relying upon a more recent and slightly more refined formulation by the Eleventh Circuit in *Compulife*, the district court here used a filtration assessment with an evidentiary burden-shifting approach. Appx13-Appx15. In such a rubric, the plaintiff comes forward with its initial showing of copyrightability, meeting its prima facie case of copyrightability and shifting the burden of production to the defendant.

Compulife, 959 F.3d at 1306. This makes sense because the plaintiff should not be tasked with proving a negative of demonstrating copyrightability against a potentially limitless set of existing works and arguable constraints. *Id.* at 1305. Specifically, once the plaintiff meets its initial burden, the defendant must come forward with its arguments and evidence that particular elements lack protection and why. (Argument alone may be sufficient for obvious conventions such as alphabetization, though evidence otherwise generally is necessary.) Defendant must establish a filtration framework that helps the court sift the sample to eliminate any stock elements, industry standards, public domain or other unprotected material, thus leaving only the gold to be compared by the factfinder for infringement purposes.[4]

---

[4] As in *Oracle*, the Court here need not resolve one way or another whether aspects of this filtering were technically part of a copyrightability or an infringement analysis. Multiple doctrines were used to filter the code in this case, and they all had to be assessed prior to any comparison. Additionally, there does not appear to have been dispute in this case about the propriety of the filters, such as material already in the public domain.

A.   The court erred in holding that a partial showing by defendant shifts the entire burden.

In its order, the court acknowledged that the filtering process required identifying "the core protectable expression, if any, covered by each asserted work." Appx7 (quoting Appx2). It also acknowledged the wide range of possibilities that may result, from a finding that everything is protected to a finding that nothing is protected or "somewhere-in-between." Appx13. The court went off track, however, by failing to allow for exactly that "in-between" case.

It did so because it treated a partial showing of lack of protection as tantamount to a showing that the entire work is unprotected. Yet proof that "*some … of the copied material is unprotectable*" does not and should not shift the burden "back to the plaintiff to respond" to *all* the copied material. Appx13. Rather, "where a defendant's evidence is insufficient to prove that a particular element is unprotectable, the court should simply assume that the element is protectable and include that element in the final substantial-similarity comparison between the works." *Compulife*, 959 F.3d at 1306 & n.8. In the burden-shifting approach, the plaintiff faces only the task of "responding to the appropriately narrowed issue." *Id.* It is only "*that* material"

10

demonstrated to be unprotected that is filtered out—not everything. *Id.* (emphasis added); *see also Computer Mgt. Assistance*, 220 F.3d at 402 (filtering expression of elements into Appendix sections of what was protected and unprotected). In other words, burden-shifting during filtration is not an all-or-nothing exercise—unless there is only a single element of protected expression to evaluate or the defendant has established that each and every element the plaintiff claims to be protected is unprotectable.

The district court erred here in holding that a showing that *some* material may be unprotected was sufficient to shift the *entire* burden back to plaintiff. It permitted WPL to shift the burden after showing only that "at least *some* of the asserted works were unprotectable." Appx16 (quotation marks omitted) (emphasis added). It shifted the burden because "defendant established that *at least some* of the copyrighted work is not protectable expression." Appx15 (emphasis added). It relied only upon "species of unprotectability." *Id.* (quotation marks omitted). But a showing as to *some* is not enough to shift the burden as to *all*. This is inconsistent with statutory presumption of validity accorded the registration certificate, which is prima facie

evidence and therefore sufficient by itself to shift the burden to

defendant in the first instance. 17 U.S.C. § 410(c). It was also plainly

inconsistent with the governing approach in *Computer Management*

Assistance and *Compulife*.

The successful 49er does not simply give up and go home because

some part of the initial shovel was not gold.

B.   The court failed to perform the final step in the filtration process.

By shifting the entire burden on a showing that some elements

were unprotected, the district court further failed to perform the final

step in the filtration process. As noted, the court should have shifted

the burden back to SAS only with respect to that expression where WPL

met its initial burden. Everything else remained within the scope of

protectable expression. Furthermore, when the burden shifted back,

the court had an obligation to assess SAS's rebuttal as those *specific*

elements where WPL demonstrated an issue, and, consistent with the

narrowing rubric, WPL's showing needed to be specific enough so SAS

could in fact respond in a meaningful way, without having to prove the

negative. The court's final filtration task was to examine the contested

elements and make a conclusion about whether the challenge to protectability was well-taken.

Here, the court paid lip service to filtering, but its analysis (at Appx16-Appx17) reveals that it failed to perform that final step in the process—i.e., determining what, if anything, was unprotected among the contested material. The court abandoned its pan of sediment instead of picking through it to weed out the pyrite and weigh the gold.

C.   The court seemingly ignored the expression in the arrangement or collection of elements.

Finally, in holding that the burden shifted back to SAS upon a showing that only *some* material may be unprotected, the court seems to have ignored the overarching expression in the overall collection or assemblage of elements. The district court noted that SAS claims copyright in its programming framework comprising several "collections" of various types of material. Appx10. But the court did not examine whether WPL had shifted the burden as to the protectability of this overall assemblage of elements. *See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (1991) (As long as the "selection and arrangement" of elements "entail[s] a minimal degree of creativity," it can be protectable even if the elements thereof "contain[] absolutely no

protectible written expression."). On remand, the district court should be ordered to consider the protected expression in the overall assemblage as well as in the relevant constituent parts of the work.

* * *

The district court's improper failure to filter had devastating effect. Since WPL readily acknowledges that its software is a "clone," and that its work aims to be "identical" to that of SAS, the failure to specify the scope of any remaining protected expression resulted in the rejection of an otherwise seemingly meritorious claim of infringement. There is no doubt here that WPL in fact copied whatever expression exists. The *only* meaningful question was whether anything remained that was protectable. If so, there was infringement. *See Feist*, 499 U.S. at 361 (1991) (infringement flows from "copying of constituent elements of the work that are original").

CONCLUSION

By throwing the gold sediment back into the water rather panning it, the district court shirked its fundamental duty to define the scope of the copyright elements that were infringed in this case. The district

court's decision should be vacated and the matter remanded for the

district court to perform a proper filtration analysis.

May 21, 2021   Respectfully submitted,

                                         /s/ Annette L. Hurst

Andrew D. Silverman   Annette L. Hurst
ORRICK, HERRINGTON &   ORRICK, HERRINGTON &
   SUTCLIFFE LLP   SUTCLIFFE LLP
51 West 52nd Street   405 Howard Street
New York, NY 10019   San Francisco, CA
                                         (415) 773-5700

Counsel for Amici Curiae

CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a) and Fed. Cir. R. 29(b), because this brief contains 2781 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and Fed. Cir. R. 32(b).

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface using Microsoft Word 2016 in Century Schoolbook 14-point font.

ORRICK, HERRINGTON & SUTCLIFFE LLP

/s/ Annette L. Hurst

Annette L. Hurst
Counsel for Amici Curiae