United States Court of Appeals for the Federal Circuit

DATA ENGINE TECHNOLOGIES LLC,
Plaintiff-Appellant

v.

GOOGLE LLC,
Defendant-Appellee

2021-1050

Appeal from the United States District Court for the District of Delaware in No. 1:14-cv-01115-LPS, Judge Leonard P. Stark.

Decided: August 26, 2021

JUSTIN CHEN, Ahmad, Zavitsanos, Anaipakos, Alavi & Mensing P.C., Houston, TX, argued for plaintiff-appellant. Also represented by AMIR H. ALAVI, MASOOD ANJOM, SCOTT W. CLARK, KYUNG KIM.

GINGER ANDERS, Munger, Tolles & Olson LLP, Washington, DC, argued for defendant-appellee.
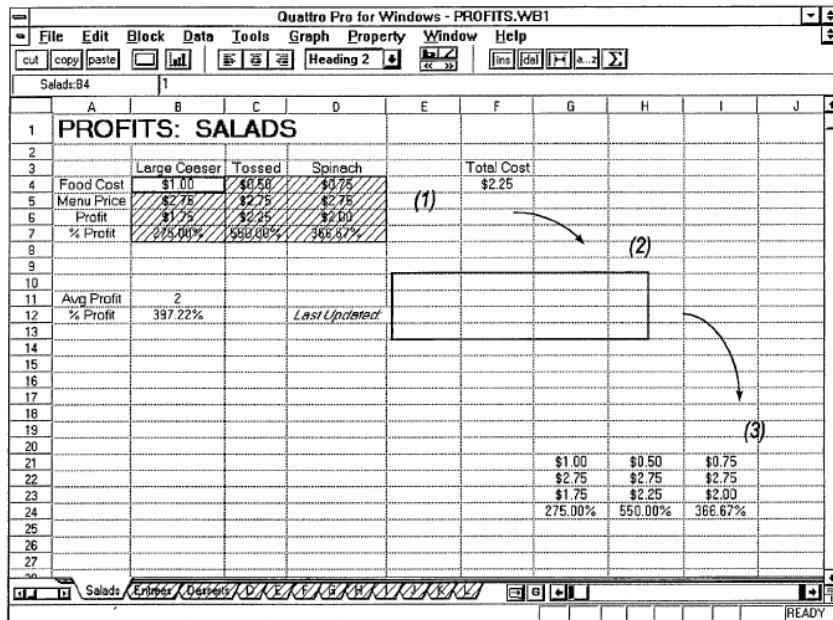

Before REYNA, HUGHES, and STOLL, *Circuit Judges*.

STOLL, *Circuit Judge*.

This is the second appeal in this case. Data Engine Technologies LLC (DET) appeals the United States District Court for the District of Delaware's summary judgment of noninfringement. The district court's summary judgment was premised on its construction of the term "three-dimensional spreadsheet" recited in the preamble of the asserted claims. For the reasons below, we hold that the preamble is limiting and adopt the district court's construction of that term. Because DET does not argue that the accused product infringes under the district court's construction, we affirm.

BACKGROUND

I

DET filed suit against Google LLC for infringing certain claims of U.S. Patent Nos. 5,590,259; 5,784,545; and 6,282,551 (the "Tab Patents"). The Tab Patents are directed to systems and methods for displaying and navigating three-dimensional electronic spreadsheets by implementing user-customizable "notebook tabs" on the spreadsheet interface. In discussing prior art spreadsheets, the Tab Patents explain that "three-dimensionality, as presently implemented, is an advanced feature beyond the grasp of many spreadsheet users." '259 patent col. 3 ll. 9–11. According to the Tab Patents, prior art spreadsheets "require[] the user to manipulate each additional spread of a three-dimensional spreadsheet as a separate window in a graphical windowing environment." *Id.* at col. 3 ll. 14–17. By contrast, the claimed notebook tabs "allow[] the user to simply and conveniently 'flip through' several pages of the notebook to rapidly locate information of interest." *Id.* at col. 8 ll. 51–57. Figure 4G illustrates an embodiment of the invention, with the user-customizable notebook tabs located along the bottom edge of the page:

Id. Fig. 4G. According to the Tab Patents, the notebook tabs provide users with a "highly intuitive interface—one in which advanced features (e.g., three-dimensionality) are easily learned." *Id.* at col. 6 ll. 59–63. "Thus, the spreadsheet notebook of the present invention provides a 3-D interface which readily accommodates real-world information in a format the user understands . . . ." *Id.* at col. 10 ll. 35–38.

Claim 12 is representative of the claims on appeal and recites:

12. In an electronic spreadsheet system for storing and manipulating information, a computer-implemented method of representing a *three-dimensional spreadsheet* on a screen display, the method comprising:

displaying on said screen display a first spreadsheet page from a plurality of spreadsheet pages, each of said spreadsheet pages comprising an array of information cells arranged in row and column

format, at least some of said information cells storing user-supplied information and formulas operative on said user-supplied information, each of said information cells being uniquely identified by a spreadsheet page identifier, a column identifier, and a row identifier;

while displaying said first spreadsheet page, displaying a row of spreadsheet page identifiers along one side of said first spreadsheet page, each said spreadsheet page identifier being displayed as an image of a notebook tab on said screen display and indicating a single respective spreadsheet page, wherein at least one spreadsheet page identifier of said displayed row of spreadsheet page identifiers comprises at least one user-settable identifying character;

receiving user input for requesting display of a second spreadsheet page in response to selection with an input device of a spreadsheet page identifier for said second spreadsheet page;

in response to said receiving user input step, displaying said second spreadsheet page on said screen display in a manner so as to obscure said first spreadsheet page from display while continuing to display at least a portion of said row of spreadsheet page identifiers; and

receiving user input for entering a formula in a cell on said second spreadsheet page, said formula including a cell reference to a particular cell on another of said spreadsheet pages having a particular spreadsheet page identifier comprising at least one user-supplied identifying character, said cell reference comprising said at least one user-supplied identifying character for said particular spreadsheet page identifier together with said column

identifier and said row identifier for said particular cell.

Id. at col. 26 l. 44–col. 27 l. 17 (emphasis added to disputed limitation).

II

In 2016, Google filed a motion for judgment on the pleadings under Federal Rule of Civil Procedure 12(c), arguing that the asserted claims are ineligible for patenting under 35 U.S.C. § 101. Applying the two-step test set forth in *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), the district court concluded that representative claim 12 of the '259 patent is "directed to the abstract idea of using notebook-type tabs to label and organize spreadsheets" and does not recite an inventive concept. *Data Engine Techs. LLC v. Google LLC (Data Engine I)*, 211 F. Supp. 3d 669, 678–79 (D. Del. 2016). The district court therefore held the asserted claims ineligible under § 101. *Id.*

DET appealed, arguing that the "key innovation" of the Tab Patents "was to improve the user interface by reimagining the three-dimensional electronic spreadsheet using a notebook metaphor." Appellant's Br., *Data Engine Techs. LLC v. Google Inc.*, No. 2017-1135, 2017 WL 1423236, at *8 (Fed. Cir. Apr. 10, 2017). Specifically, DET argued that claim 12 is directed to a patent-eligible concept that solves "a problem that is unique to not only computer spreadsheet applications . . . , but *specifically three-dimensional electronic spreadsheets.*" *Id.* at *20 (emphasis added); *id.* (arguing that claim 12 "recites a particular structure for an improved graphical user interface for a three-dimensional electronic spreadsheet"). Thus, according to DET, "the invention made a distinct improvement to the user interface of a pre-existing software product, an electronic three dimensional spreadsheet. . . . [T]he invention applies only to a three-dimensional spreadsheet on a computer screen display." *Id.* at *21.

We agreed with DET. *Data Engine Techs. LLC v. Google LLC* (*Data Engine II*), 906 F.3d 999, 1002 (Fed. Cir. 2018).[1] At step one of *Alice*, we considered whether the claims at issue are directed to a patent-ineligible concept and determined that "claim 12 is directed to more than a generic or abstract idea as it claims a particular manner of navigating three-dimensional spreadsheets, implementing an improvement in electronic spreadsheet functionality." *Data Engine II*, 906 F.3d at 1011. We explained that the claimed invention solves a "known technological problem in computers in a particular way—by providing a highly intuitive, user-friendly interface with familiar notebook tabs for navigating the three-dimensional worksheet environment." *Id.* at 1008. Thus, "consider[ing] the claim as a whole," we concluded that the claimed "notebook tabs are specific structures within the three-dimensional spreadsheet environment that allow a user to avoid the burdensome task of navigating through spreadsheets in separate windows using arbitrary commands." *Id.* at 1011. We therefore reversed the district court's judgment that the asserted claims are ineligible and remanded for further proceedings. *Id.*

III

On remand, Google requested the district court reopen claim construction[2] and construe the preamble term "three-dimensional spreadsheet" in view of our eligibility determination in *Data Engine II*. The parties disputed

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[1]   We affirmed the district court's determination that claim 1 of the '551 patent is ineligible under § 101. *Data Engine II*, 906 F.3d at 1012–13.

[2]   In 2015, prior to the district court's entry of judgment on the pleadings, the parties had requested the court construe the preamble term "three-dimensional spreadsheet," later agreeing that the term did not need construction.

(1) whether the preamble is a limitation of the asserted claims needing construction and (2) if so, what would be the proper construction of this term. The district court agreed with Google that the preamble is limiting and determined that the term "three-dimensional spreadsheet" means a "spreadsheet that defines a mathematical relation among cells on different spreadsheet pages, such that cells are arranged in a 3-D grid." *Data Engine Techs. LLC v. Google LLC* (*Data Engine III*), C.A. No. 14-1115-LPS, 2019 WL 6701290, at *3 (D. Del. Dec. 9, 2019).

Thereafter, Google moved for summary judgment of noninfringement, arguing that the accused product, Google Sheets, is not a "three-dimensional spreadsheet" as required by all of the asserted claims. The district court granted the motion, finding it "undisputed that Google Sheets does not allow a user to define the relative position of cells in all three dimensions and is, therefore, incapable of infringing" the asserted claims of the Tab Patents. *Data Engine Techs. LLC v. Google LLC* (*Data Engine IV*), C.A. No. 14-1115-LPS, 2020 WL 5411188, at *4 (D. Del. Sept. 9, 2020).

DET appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

There is no dispute on appeal that Google does not infringe under the district court's construction of "three-dimensional spreadsheet." Therefore, we need only decide whether the preamble is limiting and, if so, whether the district court's construction of that term is correct. For the reasons below, we agree with the district court that the preamble is limiting and adopt its construction, and therefore affirm its summary judgment of noninfringement.

Whether a preamble is limiting is an issue of claim construction. *Arctic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1327 (Fed. Cir. 2019). Claim construction is a

question of law we review de novo to the extent that "the issue is decided only on the intrinsic evidence." *Id.* at 1327–28 (first citing *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015); and then citing *Hamilton Beach Brands, Inc. v. f'real Foods, LLC*, 908 F.3d 1328, 1339 (Fed. Cir. 2018)).

I

We begin our claim construction analysis by addressing DET's argument that the preamble term "three-dimensional spreadsheet" is not limiting and thus does not have patentable weight. We disagree.

In its first appeal to this court, DET urged us to hold that the asserted claims of the Tab Patents are eligible subject matter under § 101 by placing particular importance on the claimed improvement being unique to three-dimensional spreadsheets. As part of the eligibility analysis, we are required at step one of *Alice* to "consider the claims 'in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.'" *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1367–68 (Fed. Cir. 2020) (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016)). "We also consider the patent's written description, as it informs our understanding of the claims." *CardioNet*, 955 F.3d at 1368. Accordingly, in the first appeal, we considered the claims as a whole in light of the written description and agreed with DET that the asserted claims are directed to improvements in three-dimensional spreadsheets. That determination ascribes patentable weight to the preamble term "three-dimensional spreadsheet."

DET's assertion that the preamble term "three-dimensional spreadsheet" is not limiting effectively seeks to obtain a different claim construction for purposes of infringement than we applied, at DET's insistence, in holding the asserted claims of the Tab Patents eligible under § 101. We have repeatedly rejected efforts to twist claims,

"like 'a nose of wax,'" in "one way to avoid [invalidity] and another to find infringement." *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (citation omitted); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003) ("It is axiomatic that claims are construed the same way for both invalidity and infringement."). Analogously, where, as here, a patentee relies on language found in the preamble to successfully argue that its claims are directed to eligible subject matter, it cannot later assert that the preamble term has no patentable weight for purposes of showing infringement. Indeed, we have held that where the preamble is relied on to distinguish prior art during prosecution, it cannot later be argued that the preamble has no weight. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1347–48 (Fed. Cir. 2002) (holding that preamble was limiting in light of arguments made during prosecution "show[ing] a clear reliance by the patentee on the preamble to persuade the Patent Office that the claimed invention is not anticipated by the prior art"). Thus, in view of DET's emphasis on this preamble term in support of patent eligibility, we conclude that the preamble term "three-dimensional spreadsheet" is limiting.

II

We turn next to the district court's construction of "three-dimensional spreadsheet." Both parties agree that a three-dimensional spreadsheet requires cells "arranged in a 3-D grid," Appellant's Br. 22; Appellee's Br. 45, but dispute whether it also requires "a mathematical relation among cells on different spreadsheet pages," as required by the district court's construction, *see Data Engine III*, 2019 WL 6701290, at *3. We conclude that it does.

The words of a claim are generally given their ordinary meaning, which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d

1303, 1312–13 (Fed. Cir. 2005) (en banc). The claims, however, "do not stand alone" and "must be read in view of the specification" and the prosecution history. *Id.* at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978–79 (Fed. Cir. 1995) (en banc)), 1317 (citing *Markman*, 52 F.3d at 980). "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317. For example, "a patentee may define a claim term . . . in the prosecution history." *Honeywell Inc. v. Victor Co. of Japan, Ltd.*, 298 F.3d 1317, 1323 (Fed. Cir. 2002). Additionally, "[a] patentee may, through a clear and unmistakable disavowal in the prosecution history, surrender certain claim scope to which he would otherwise have an exclusive right by virtue of the claim language." *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1324 (Fed. Cir. 2009).

Here, the claims themselves do not answer the question of whether a three-dimensional spreadsheet requires a mathematical relation among cells on different spreadsheets. Nor does the specification provide any guidance on this front. Based on the prosecution history, however, we agree with the district court that the preamble term "three-dimensional spreadsheet" requires a mathematical relation.

During prosecution of the application that led to the '259 patent, the applicants provided an explicit definition of a "true" three-dimensional spreadsheet and distinguished prior art under this definition. Specifically, the Examiner rejected the pending claims over a prior art spreadsheet known as Lotus 1-2-3 that allowed a user to link "different user-named spreadsheet files" by referring to cells in one spreadsheet file in cells of another. J.A. 2286–88. The Examiner "point[ed] to the linked spreadsheet files as suggesting user-nameable page

identifiers in a 3D spreadsheet." J.A. 2287. The applicants distinguished Lotus 1-2-3 from the claimed invention, arguing that it "falls far short of a true 3D spreadsheet." J.A. 2287. According to the applicants, a "3D spreadsheet defines a mathematical relation among cells on the different pages so that operations such as grouping pages and establishing 3D ranges have meaning." J.A. 2287. Therefore, giving effect to this express definition in the prosecution history, we determine that the claims require a three-dimensional spreadsheet that "defines a mathematical relation among cells on the different pages."

DET reads the prosecution history differently. According to DET, the passage defining a three-dimensional spreadsheet does not rise to the level of "clear and unmistakable" disclaimer when read in context. Appellant's Br. 25. Specifically, DET contends that because it admitted later on in the same applicant remarks that Lotus 1-2-3 is a three-dimensional spreadsheet, it could not have been distinguishing Lotus 1-2-3 on that basis. Appellant's Br. 22 (quoting J.A. 2288 (applicant remarks stating "Lotus'[s] techniques for displaying and navigating between pages within a single 3D spreadsheet")). Rather, DET argues it distinguished Lotus 1-2-3 solely because "Lotus'[s] disclosure relative to linking different user-named spreadsheet *files*" is not the same as the claimed "user-named *pages* in a 3D spreadsheet." Appellant's Br. 19–20 (some emphasis omitted) (quoting J.A. 2288). According to DET, therefore, the prosecution history statements defining a "true" three-dimensional spreadsheet are irrelevant. We disagree.

"Prosecution history disclaimer plays an important role in the patent system. It 'promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution.'" *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013) (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003)). For this reason, we have held patentees to distinguishing statements

made during prosecution even if they said more than needed to overcome a prior art rejection. *See, e.g.*, *Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013) ("[A]n applicant's argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well." (quoting *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007))). And we do so here. True, the applicants acknowledged that Lotus 1-2-3 allows users to navigate within a single three-dimensional spreadsheet file and argued that Lotus 1-2-3's user-named spreadsheet files differ from the claimed user-named pages in a three-dimensional spreadsheet. Even if this alone would have been sufficient to overcome the Examiner's rejection, the applicants went further, providing an express definition of a three-dimensional spreadsheet and arguing that Lotus 1-2-3 is not a "true" three-dimensional spreadsheet under that definition. DET cannot escape the import of its statements to the Patent Office by suggesting they were not needed to overcome the Examiner's rejection. Consistent with the public notice function of the prosecution history, the public is entitled to rely on these statements as defining the scope of the claims.

CONCLUSION

We have considered DET's remaining arguments and find them unpersuasive. For the foregoing reasons, we adopt the district court's claim construction and therefore affirm its summary judgment of noninfringement.

AFFIRMED