United States Court of Appeals for the Federal Circuit

ZEROCLICK, LLC,
Plaintiff-Appellant

v.

APPLE INC.,
Defendant-Appellee

2017-1267

Appeal from the United States District Court for the Northern District of California in No. 3:15-cv-04417-JST, Judge Jon S. Tigar.

Decided: June 1, 2018

BRIAN DAVID LEDAHL, Russ August & Kabat, Los Angeles, CA, argued for plaintiff-appellant. Also represented by MARC AARON FENSTER.

JOSEPH R. PALMORE, Morrison & Foerster LLP, Washington, DC, argued for defendant-appellee. Also represented by SETH W. LLOYD, BRIAN ROBERT MATSUI; SCOTT F. LLEWELLYN, Denver, CO.

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

HUGHES, *Circuit Judge.*

Zeroclick, LLC sued Apple Inc. in the U.S. District Court for the Northern District of California, asserting claims 2 and 52 of U.S. Patent No. 7,818,691 and claim 19 of U.S. Patent No. 8,549,443. The district court found the asserted claims invalid for indefiniteness, reasoning that the claims recited means-plus-function terms for which the specifications do not disclose sufficient structure. Because the district court failed to undertake the relevant inquiry and make related factual findings to support its conclusion that the asserted claims recited means-plus-function terms, we vacate and remand.

I

The '691 and '443 patents relate to modifications to the graphical user interfaces of devices such as computers and mobile phones, modifications that allow the interfaces to be controlled using pre-defined pointer or touch movements instead of mouse clicks.[1] J.A. 3–4. More specifically, the claimed invention contemplates updating existing user interface programs by using a two-step method recited in claims 2 and 52 of the '691 patent, or by making two configuration changes to the user interface code as recited in claim 19 of the '443 patent.

Claim 2 of the '691 patent recites:

> 2. A graphical user interface (GUI), which may comprise an update of an existing program, that may fully operate a GUI by a two step method of movement of a pointer (0) to operate one or more functions within the GUI,
>
> wherein, said existing program is any existing

---

[1] The '443 patent is a continuation of the '691 patent. Both patents essentially have a common specification.

> program that can operate the movement of the pointer (0) over a screen (300) and has one or more functions operated by one or more other methods apart from said two step method,
>
> and/or one or more functions operated by said one or more other methods in said existing program can be updated to operate by said two step method,
>
> wherein said GUI executes one or more functions within the GUI by the completion of the following said two step method:
>
> first said pointer (0) is immediately adjacent or passes within a control area (1), which is an area of the screen (300) that may be any size including from a pixel on the screen (300) to occupying the whole screen (300), and
>
> second by the completion of a subsequent movement of said pointer (0) according to a specified movement generates a 'click' event, thereby triggering one or more functions within the GUI.

'691 patent, col. 81 ll. 6–28. Claim 52 is nearly identical to claim 2, except that it covers the "method of operating a graphical user interface" described in claim 2, while claim 2 covers the graphical user interface itself. *Id.* at col. 85 l. 52–col. 86 l. 9.

> Claim 19 of the '443 patent recites:
>
> 19. A device capable of executing software comprising:
>
> a touch-sensitive screen configured to detect being touched by a user's finger without requiring an exertion of pressure on the screen;
>
> a processor connected to the touch-sensitive screen and configured to receive from the screen

> information regarding locations touched by the user's finger;
>
> executable user interface code stored in a memory connected to the processor;
>
> the user interface code executable by the processor;
>
> the user interface code being configured to detect one or more locations touched by a movement of the user's finger on the screen without requiring the exertion of pressure and determine therefrom a selected operation; and
>
> the user interface code is further configured to cause one or more selected operations, which includes one or more functions available to the user interface code of the device, to deactivate while the user's finger is touching one or more locations on the screen.

'443 patent, col. 82 ll. 10–29.

Zeroclick alleged that Apple infringed claims 2 and 52 of the '691 patent and claim 19 of the '443 patent. Apple responded by asserting invalidity of those claims. At the claim construction stage, the district court found the asserted claims invalid for indefiniteness, reasoning that the claims recite means-plus-function limitations for which the specifications do not disclose sufficient structure. Zeroclick appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

"Regarding questions of claim construction, including whether claim language invokes 35 U.S.C. § 112, [¶] 6, the district court's determinations based on evidence intrinsic to the patent as well as its ultimate interpretations of the patent claims are legal questions that we review de novo." *Williamson v. Citrix Online, LLC*,

792 F.3d 1339, 1346 (Fed. Cir. 2015) (en banc). "The ultimate conclusion that a claim is indefinite under 35 U.S.C. § 112, ¶ 2 is a legal conclusion, which we review de novo." *Cox Commc'ns, Inc. v. Sprint Commc'n Co.*, 838 F.3d 1224, 1228 (Fed. Cir. 2016) (footnote omitted).[2]

During claim construction, the district court found that the limitation "program that can operate the movement of the pointer (0)" recited in claims 2 and 52 of the '691 patent is a means-plus-function term. J.A. 9–10. The court identified "program" as the means that performs the function of "operat[ing] the movement of the pointer (0) over a screen (300)." J.A. 10 (alteration in original). The court also found that the limitation "user interface code being configured to detect one or more locations touched by a movement of the user's finger on the screen without requiring the exertion of pressure and determine therefrom a selected operation" recited in claim 19 of the '443 patent is a means-plus-function term. J.A. 11–12. The court identified "user interface code" as the means of performing a two-fold function: "(1) 'to detect one or more locations touched by a movement of the user's finger on a screen without requiring the exertion of pressure'; and (2) to 'determine therefrom a selected operation.'" J.A. 12 (citations omitted). Zeroclick argues that the district court erred in construing these terms as means-plus-function limitations. We agree.

---

[2] The America Invents Act (AIA) designated § 112, ¶ 2 as § 112(b) and § 112, ¶ 6 as § 112(f). Pub. L. No. 112-29, § 4(c), 125 Stat. 284, 296 (2011). However, the amended version of § 112 applies only to patent applications "filed on or after" September 16, 2012. *See* AIA § 4(e), 125 Stat. at 297. Because the application that led to the '691 and '443 patents was filed before that date, we refer to the pre-AIA versions of these § 112 provisions.

"To determine whether § 112, para. 6 applies to a claim limitation, our precedent has long recognized the importance of the presence or absence of the word 'means.'" *Williamson*, 792 F.3d at 1348. The failure to use the word "means" creates a rebuttable presumption that § 112, ¶ 6 does not apply. *Id.* But the presumption can be overcome, and § 112, ¶ 6 will apply, "if the challenger *demonstrates* that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Id.* (emphasis added) (internal quotation marks, brackets, and citation omitted); *see also Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016) ("In determining whether this presumption has been rebutted, the challenger must establish by a preponderance of the evidence that the claims are to be governed by § 112, ¶ 6."); *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (noting that the district court relied on evidence extrinsic to the patent in reaching its conclusion that a term invoked means-plus-function treatment).

When evaluating whether a claim limitation invokes § 112, ¶ 6, the essential inquiry remains "whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Williamson*, 792 F.3d at 1348; *Greenberg*, 91 F.3d at 1583 ("What is important is . . . that the term, as the name for structure, has a reasonably well understood meaning in the art."). That determination must be made under the traditional claim construction principles, on an element-by-element basis, and in light of evidence intrinsic and extrinsic to the asserted patents. *See, e.g.*, *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 702–04 (Fed. Cir. 1998) (stating that "[w]hether certain claim language invokes 35 U.S.C. § 112, ¶ 6 is an exercise in claim construction" and that the presumption that § 112, ¶ 6 does not apply

"can be rebutted if the evidence intrinsic to the patent and any relevant extrinsic evidence so warrant"); *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed. Cir. 1996) (noting that whether § 112, ¶ 6 is invoked involves an analysis of the "patent and its prosecution history," and consulting a dictionary definition of "perforation" to understand if one of skill in the art would understand the term to connote structure). The district court failed to undertake that inquiry and make related factual findings.

Neither of the limitations at issue uses the word "means." Presumptively, therefore, § 112, ¶ 6 does not apply to the limitations. Apple argued that the limitations must be construed under § 112, ¶ 6, but provided no evidentiary support for that position. Accordingly, Apple failed to carry its burden, and the presumption against the application of § 112, ¶ 6 to the disputed limitations remained unrebutted. The district court's discussion is revealing: its determination that the terms must be construed as means-plus-function limitations is couched in conclusory language. The court relied on Apple's arguments, contrasting them against Zeroclick's contentions, but pointed to no record evidence that supports its ultimate conclusion regarding whether § 112, ¶ 6 applies to the asserted claims. *Cf.* J.A. 10 ("[T]he Court concludes that the term 'program that can operate the movement of the pointer (0)' is a means-plus-function term because the claim itself fails to recite any structure whatsoever, let alone 'sufficiently definite structure.'" (quoting *Williamson*, 792 F.3d at 1349)); J.A. 12 ("[B]ecause the use of the phrase 'user interface code' provides the same 'black box recitation of structure' as the use of the word 'module' did in *Williamson*, and the claim language provides no additional clarification regarding the structure of the term, the Court concludes that 'user interface code' constitutes a means-plus-function term." (quoting *Williamson*, 792 F.3d at 1350)). The court thus legally erred by not giving effect

to the unrebutted presumption against the application of § 112, ¶ 6.

By taking that approach, the district court effectively treated "program" and "user interface code" as nonce words, which can operate as substitutes for "means" and presumptively bring the disputed claims limitations within the ambit of § 112, ¶ 6. That is erroneous for at least three related reasons. First, the mere fact that the disputed limitations incorporate functional language does not automatically convert the words into means for performing such functions. *See Greenberg*, 91 F.3d at 1583 ("Many devices take their names from the functions they perform. The examples are innumerable, such as 'filter,' 'brake,' 'clamp,' 'screwdriver,' or 'lock.'"). Second, the court's analysis removed the terms from their context, which otherwise strongly suggests the plain and ordinary meaning of the terms. Claims 2 and 52 of the '691 patent, for example, recite "[a] graphical user interface," which their preambles make clear, may comprise "an update of an *existing* program" using a two-step method. *See, e.g.*, '691 patent, col. 81 ll. 6–28 (emphasis added). Claim 19 of the '443 patent similarly tethers "user interface code"—code meant to be updated using two configuration changes recited in the claim—to the code "stored in a memory connected to the processor." '443 patent, col. 82 ll. 10–29. That processor is in turn "configured to receive from the screen information regarding locations touched by the user's finger." *Id.* Given that "[t]he basic concept behind both of the patents-in-suit is relatively simple," J.A. 3, a person of ordinary skill in the art could reasonably discern from the claim language that the words "program," as used in claims 2 and 52 of the '691 patent, and "user interface code," as used in claim 19 of the '443 patent, are used not as generic terms or black box recitations of structure or abstractions, but rather as specific references to conventional graphical user interface programs or code, existing in prior art at the time of the inventions.

Indeed, the distinction drawn between the graphical user interfaces in the prior art and the improvement to such interfaces in the claimed invention—laid bare in the written descriptions supporting the asserted claims—bolsters that conclusion. *See, e.g.*, '691 patent, col. 3 ll. 3–20 (disclosing that "the programming design for all graphical interfaces has been based with the mindset of using the movement of the mouse (or other pointer device) to locate a graphical user interface (GUI) control in conjunction with the double click, the click, the up and down button press to activate the function of the GUI control," but that the invention claimed in the patent "provides the design of the computer interface to the *movement* of the pointer alone" (emphasis added)); '443 patent, col. 3 ll. 3–15 (same); *see also* '691 patent, col. 1 ll. 31–39 (disclosing that "the concept of activating some element of a GUI without clicking is known," and further that the nearest prior art "described the typical embodiment of the conventional graphical user interface GUI and how it could be generated by a computer"); *id.* at col. 6 ll. 15–19, col. 11 ll. 12–40 (noting backward compatibility, "enabl[ing] all existing GUI's [*sic*], which would only have their traditional click methodology, to automatically be changed to add or replace it with the Zeroclick methodology" as a "definite benefit" of the Zeroclick invention over the "well accepted conventional methodology"). Apple produces no other evidence, intrinsic or extrinsic to the asserted patents, that casts doubt on that conclusion.

Third, and relatedly, the district court made no pertinent finding that compels the conclusion that a conventional graphical user interface program or code is used in common parlance as substitute for "means." *Cf. Williamson*, 792 F.3d at 1350–51 (affirming the district court's finding that "'module' is simply a generic description for software or hardware that performs a specified function" based on, among other things, the patent owner acknowledging so). The district court thus erred by effectively

treating "program" and "user interface code" as nonce words and concluding in turn that the claims recited means-plus-function limitations.

III

Based on the foregoing, we vacate the district court's judgment and remand for further proceedings consistent with this opinion.

VACATED AND REMANDED

Costs to Zeroclick.