

United States Court of Appeals for the Federal Circuit

INVENTIO AG,
Plaintiff-Appellant,

v.

**THYSSENKRUPP ELEVATOR AMERICAS
CORPORATION, THYSSENKRUPP ELEVATOR
CORPORATION, AND THYSSENKRUPP ELEVATOR
MANUFACTURING INCORPORATED,**
Defendants-Appellees.

2010-1525

Appeal from the United States District Court for the District of Delaware in Case No. 08-CV-0874, Judge Eduardo C. Robreno.

Decided: June 15, 2011

PIERRE R. YANNEY, Stroock & Stroock & Lavan LLP, of New York, New York, argued for plaintiff-appellant.

DAVID E. SCHMIT, Frost Brown Todd LLC, of Cincinnati, Ohio, argued for defendants-appellees.

Before LOURIE, PROST, and MOORE, *Circuit Judges.*

LOURIE, *Circuit Judge.*

Inventio AG (“Inventio”) appeals from the final judgment of the United States District Court for the District of Delaware in favor of ThyssenKrupp Elevator Americas Corporation, ThyssenKrupp Elevator Corporation, and ThyssenKrupp Elevator Manufacturing Incorporated (collectively, “ThyssenKrupp”). *See Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, No. 1:08-CV-874, Judgment (ECF No. 164) (D. Del. Aug. 4, 2010) (“Final Judgment”). The judgment follows the district court’s granting of ThyssenKrupp’s motion for summary judgment that the asserted claims of U.S. Patents 6,892,861 (“the ’861 patent”) and 6,935,465 (“the ’465 patent”) are invalid for failure to meet the definiteness requirement of 35 U.S.C. § 112, ¶ 2. *See Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, No. 1:08-CV-874, Order (ECF No. 163) (D. Del. Aug. 4, 2010) (“SJ Order”). The district court entered summary judgment after concluding that the claimed “modernizing device” and “computing unit” limitations were means-plus-function limitations subject to 35 U.S.C. § 112, ¶ 6 and that the written descriptions failed to disclose any corresponding structure. *See Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, No. 1:08-CV-874, Order (ECF No. 162) (D. Del. Aug. 4, 2010) (“Order on Motion for Reargument”); *Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 718 F. Supp. 2d 529, 542–556, 558–561 (D. Del. 2010) (“Claim Construction Opinion”). Because the district court erred when it concluded that the “modernizing device” and “computing unit” terms were means-plus-function limitations subject to § 112, ¶ 6, we reverse and remand for further proceedings.

ORDER ON MOTION TO STRIKE

Before we discuss the merits of Inventio’s appeal, we address ThyssenKrupp’s motion to strike. After the parties submitted their briefs, ThyssenKrupp filed a motion to strike portions of Inventio’s reply brief, arguing that it contained new and seriously misleading arguments about the disclosure of the ’861 and ’465 patents, mischaracterized legal precedent, misrepresented ThyssenKrupp’s responsive brief, and misrepresented the record in this case.

ThyssenKrupp’s motion lacks merit. It reargues the merits of the case. ThyssenKrupp simply disagrees with Inventio’s legal arguments, and its motion seems to us to be an improper attempt to obtain the final word in the appeal, a practice that we strongly discourage. *See Aventis Pharma S.A. v. Hospira, Inc.*, 637 F.3d 1341, 1343–44 (Fed. Cir. 2011). Its nasty tone is exemplified by use of the word “blatantly” or “blatant” at least four times. Thus, ThyssenKrupp’s filing of this motion borders on the type of frivolous and wasteful litigation tactics that we have previously frowned upon. *See Otocom Sys., Inc. v. Houston Computer Servs., Inc.*, 918 F.2d 937, 943–44 (Fed. Cir. 1990). We accordingly deny ThyssenKrupp’s motion and turn to the merits of Inventio’s appeal.

BACKGROUND

This patent case relates to elevator systems. In general terms, the asserted patents involve “modernizing” a conventional elevator system. ’861 patent col.1 ll.6–7.¹ In a conventional elevator system, a passenger, at the boarding floor, presses the “up/down” buttons on a floor call

¹ Because the ’861 and ’465 patents contain a common disclosure for the issues presented in this appeal, we will cite the ’861 patent for simplicity.

transmitter, which causes a signal, referred to as a “call report,” to be sent to the elevator control. *Id.* col.4 ll.64–67. The elevator control is the hardware that drives the elevator system to transport elevator cars between floors. *Id.* col.4 ll.16–37. The call report, which is generally an analog voltage signal, indicates to the elevator control the passenger’s boarding floor and may also indicate in which direction the passenger desires to travel (up or down). *Id.* col.4 ll.64–67, col.5 ll.37–40. After receiving this signal, the elevator control dispatches an elevator car to the passenger’s floor. *Id.* col.5 ll.43–49. Once inside the elevator car, the passenger selects a floor, which sends a second call report to the elevator control and causes the elevator system to transport the passenger to the destination floor. *Id.* col.5 ll.51–58.

The asserted patents disclose a modernized elevator system and a process for modernization. The modernized elevator system allows a passenger, at the boarding floor, to enter the passenger’s desired destination. *Id.* col.2 ll.4–18. As part of the modernization process, new floor terminals replace the original floor call transmitters (*i.e.*, the “up/down” buttons), and the new floor terminals allow a passenger, at the boarding floor, to input a desired destination floor when requesting an elevator. *Id.* col.6 ll.3–19.

The patents also disclose the back-end technology that interfaces with the new floor terminals and the conventional elevator control to operate the modernized elevator system, and this appeal focuses on those aspects of the modernized elevator system. In particular, the patents disclose a “modernizing device” and a “computing unit” that interface with the new floor terminals and the elevator control to operate the elevator system. *Id.* col.2 ll.28–53. Claim 1 of the ’465 patent, reproduced below, is representative of the claims on appeal and claims the

method of installing these components to modernize a conventional elevator system:

1. A method of modernizing an elevator installation having at least one elevator controlled by at least one elevator control by way of at least one call report, comprising:
 - a. installing at least one floor terminal at each floor served by an elevator controlled by an elevator control for at least one of the input of destination call reports and for recognition of identification codes of users;
 - b. installing at least one *computing unit* and connecting the at least one *computing unit* to said floor terminals for at least one of evaluating the destination call reports and association of destination floors with recognized ones of the identification codes, and for the output of at least one destination signal; and
 - c. installing at least one *modernizing device* and connecting the at least one *modernizing device* to said floor terminals and said at least one *computing unit* for reading the destination signal, for converting the destination signal into at least one call report and for controlling the elevator control by way of the call report.

'465 patent, col.11 ll.6–25 (emphases added). The written descriptions of both patents also show how the “computing unit” and the internal components of the “modernizing device” are connected to each other and the elevator control:

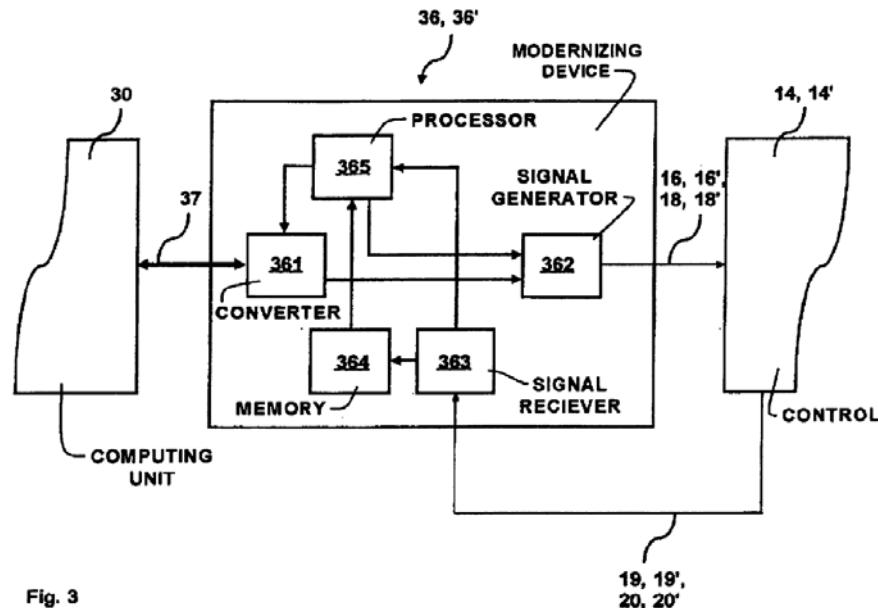


Fig. 3

As shown in the above figure, the modernizing device may communicate with both the computing unit and the elevator control. The modernizing device may receive digital transmissions from the computing unit and convert them into call reports issued to the elevator control. *Id.* col.7 ll.49–60. In addition to converting the digital signal into a call report, the modernizing device is also capable of receiving call reports and converting them into a digital form for processing, either by the modernizing device or the computing unit. *Id.* col.8, ll.54–65, col.9, ll.34–67.

The written descriptions explain how the modernized elevator system functions during operation. First, a passenger at the boarding floor inputs a destination floor to the new floor terminals by manually entering information or providing an identification code to a recognition device. *Id.* col.8 ll.8–14. The computing unit, which is connected to the terminals, receives the boarding floor and destination floor information and executes a “com-

puter program product” to determine, based on that information and other data, the optimal use of the elevator cars to transport the passenger to the desired floor. *Id.* col.6 l.27–col.7 l.25, col.8 ll.15–23. The computer program product performs the calculation by executing a “destination dispatch algorithm.” *Id.* col.6 l.27–col.7 l.25.

The computing unit then generates a control signal, which includes a series of destination signals, as a result of the optimization calculation. *Id.* col.8 ll.21–24. The modernizing device receives the first destination signal, converts this digital signal into an analog call report, and transmits the call report to the elevator control. *Id.* col.8 ll.21–40. The elevator control subsequently processes the call report and controls the elevator machinery to move the elevator car to the boarding floor. *Id.* col.8 ll.37–40.

After the passenger has boarded the elevator car, the modernizing device receives a second destination signal from the computing unit. *Id.* col.8 ll.41–45. The modernizing device, after receiving this signal, converts the signal into an analog call report, and transmits the call report to the elevator control. *Id.* col.8 ll.42–51. In accordance with the second call report, the elevator control causes the elevator car to move from the boarding floor to the destination floor. *Id.*

In 2008, Inventio sued ThyssenKrupp in the District of Delaware, alleging infringement of various claims of the ’465 and ’681 patents. After holding a *Markman* hearing, the district court construed numerous claim terms. During the claim construction process, the district court concluded that the terms “modernizing device” and “computing unit” were indefinite.

In reaching this conclusion, the district court first concluded that both terms lacked sufficiently definite structure to avoid § 112, ¶ 6. With regard to the “modern-

izing device,” the court concluded that while the term was presumptively not a means-plus-function limitation, the claim language failed to recite corresponding structure to perform the “modernizing” function. *Claim Construction Opinion*, 718 F. Supp. 2d at 542–43. For the “computing unit” terms, the court similarly concluded that the claim language, although presumptively not a means-plus-function limitation, failed to provide corresponding structure to perform the functions of the “computing unit.” *Id.* at 559–60. After concluding that the terms were means-plus-function limitations, the district court concluded that both terms were indefinite because the written descriptions also failed to disclose corresponding structure to perform the recited functions. *Id.* at 544–46, 559–61.

The district court subsequently denied Inventio’s motion for reargument, *Order on Motion for Reargument*, at 1, and granted ThyssenKrupp’s motion for summary judgment that the asserted claims were invalid for failure to meet the definiteness requirement under § 112, ¶ 2. *SJ Order*, at 1–2. The district court then entered final judgment for ThyssenKrupp. *Final Judgment*, at 1.

Inventio timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

Central to this appeal is whether the terms “modernizing device” and “computing unit” are means-plus-function limitations that fall within the ambit of § 112, ¶ 6. Because we conclude that the claimed “modernizing device” and “computing unit” are not means-plus-function limitations, we do not address whether the written descriptions disclose corresponding structure. We also decline to provide constructions for these claim terms, as the claim-scope dispute in this case focused on whether these claim terms are subject to § 112, ¶ 6, and

the parties did not develop how these terms should be construed should § 112, ¶ 6 not apply.

I. Applicable Law

Section 112, ¶ 6 allows a patentee to express a claim limitation as “a means or step for performing a specified function without the recital of structure, material, or acts in support thereof,” and the section provides that claim limitations expressed in this manner “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” That provision applies “only to purely functional limitations that do not provide the structure that performs the recited function.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1311 (Fed. Cir. 2005) (en banc). Whether certain claim language invokes § 112, ¶ 6 is an exercise in claim construction and is therefore a question of law, subject to *de novo* review. *Personalized Media Commc’ns, LLC v. ITC*, 161 F.3d 696, 702 (Fed. Cir. 1998).

The framework under which we determine if a claim limitation invokes § 112, ¶ 6 is straightforward. The use of the term “means” triggers a rebuttable presumption that § 112, ¶ 6 governs the construction of the claim term. *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259 (Fed. Cir. 2008). Conversely, where, as here, the claim language does not recite the term “means,” we presume that the limitation does not invoke § 112, ¶ 6. *Personalized Media*, 161 F.3d at 703–04. When a claim term lacks the word “means,” the presumption can be overcome 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.’” *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002) (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)).

As the above standard shows, the use of the word “means” is central to the analysis, as the terms “means” and “means for” have become closely associated with means-plus-function claiming. *See Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004). Thus, the presumption flowing from the absence of the term “means” is a strong one that is not readily overcome. *Id.*

At the outset, the parties dispute whether the “sufficiently definite structure” analysis focuses on the claim language in isolation or allows the court to view the claim language in light of the written description to determine if ThyssenKrupp has rebutted the presumption that the claims recite sufficiently definite structure. Quoting *TriMed*, ThyssenKrupp argues that the “sufficiently definite structure” analysis hinges on whether the claim language “specifies the exact structure that performs the functions in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure.” 514 F.3d at 1259–60. Relying primarily on *Personalized Media*, Inventio argues that, to determine if a claim term that lacks the word “means” is subject to § 112, ¶ 6, the court should consider the intrinsic record.

We agree with Inventio. Claims are interpreted in light of the written description supporting them, and that is true whether or not the claim construction involves interpreting a “means” clause. The presumption that a claim lacking the term “means” recites sufficiently definite structure can be rebutted “if the evidence intrinsic to the patent and any relevant extrinsic evidence so warrant[s].” *Personalized Media*, 161 F.3d at 704. In deciding whether a challenger has rebutted the presumption, “the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid

the ambit of § 112, ¶ 6.” *Id.* To determine the proper construction of a claim term, we look to the words of the claims themselves, the written description, the prosecution history, and any relevant extrinsic evidence. *Phillips*, 415 F.3d at 1315–17. In addition, we allow an inventor to provide, in the written description, express definitions for terms that appear in the claims, and those definitions govern the construction of the claims. *Id.* at 1316.

In cases where the claims do not recite the term “means,” considering intrinsic and extrinsic evidence is usually helpful, as the litigated issue often reduces to whether skilled artisans, after reading the patent, would conclude that a claim limitation is so devoid of structure that the drafter constructively engaged in means-plus-function claiming. *See MIT v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006). Indeed, in prior cases, we have reviewed the intrinsic record, as well as extrinsic evidence such as technical dictionaries, to determine if the challenger successfully rebutted the presumption that a claim that lacks the term “means” is not subject to § 112, ¶ 6. E.g., *Phillips*, 415 F.3d at 1311 (concluding that term “steel baffles” was not a means-plus-function limitation where “[t]he claims and the specification unmistakably establish that the ‘steel baffles’ refer to particular physical apparatus”); *Personalized Media*, 161 F.3d at 704 (declining to construe “digital detector” as a means-plus-function limitation where “neither intrinsic nor extrinsic evidence” rebutted the presumption that a “detector” connoted structure to those of skill in the art); *Lighting World*, 382 F.3d at 1360–63 (reviewing the written description, technical dictionaries, and expert testimony to conclude that the defendant failed to rebut the presumption that the claimed “connector assembly” connoted sufficiently definite structure).

In light of this caselaw, ThyssenKrupp's reading of *TriMed* misses the mark. While it is true that the claim language, in order to avoid the application of § 112, ¶ 6 when a claim recites the term "means," must "specif[y] the exact structure that performs the functions in question," *TriMed*, 514 F.3d at 1259–60, *TriMed* does not preclude consideration of the written description, prosecution history, and extrinsic evidence to determine if a challenger has rebutted the presumption that a claim limitation that lacks the term "means" connotes sufficiently definite structure to those of skill in the art. Moreover, where the claims recite the term "means," we have considered the written description to inform the analysis of whether the claim recites sufficiently definite structure to overcome the presumption that § 112, ¶ 6 governs the construction of the claim. *See e.g., TI Grp. Automotive Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1135 (Fed. Cir. 2004) (concluding that § 112, ¶ 6 did not apply to recited "pumping means" where "[t]he written description informs and fully supports the structure recited in the claims"). Accordingly, it is proper to consult the intrinsic record, including the written description, when determining if a challenger has rebutted the presumption that a claim lacking the term "means" recites sufficiently definite structure.

II. Modernizing Device

Inventio argues that the district court erred when it concluded that the claimed "modernizing device" is a means-plus-function limitation. Inventio argues that the claims recite structural detail about the modernizing device and how it is connected to other components of the patented system. In addition, Inventio argues that the written descriptions identify the modernizing device as a structural component, as they provide a block diagram of

the modernizing device and also describe the structure and operation of the modernizing device.

ThyssenKrupp argues that the claimed “modernizing device” is defined only in terms of the functions that the device performs, not its structure. ThyssenKrupp also argues that the claims provide no physical structure for the modernizing device, that there is no evidence that the term “modernizing device” had a well understood meaning in the art, and that there is no evidence that technical dictionaries recognize a “modernizing device” as denoting structure. Finally, citing *MIT* and *Personalized Media*, ThyssenKrupp argues that the term “device” is a generic term like “means” and that the modifier “modernizing” does not add structure.

We agree with Inventio. The term “modernizing device” presumptively connotes sufficiently definite structure to those of skill in the art, *Personalized Media*, 161 F.3d at 703–04, and that presumption is a strong one that is not readily overcome, *Lighting World*, 382 F.3d at 1358. In this case, ThyssenKrupp has not overcome the presumption that the claimed “modernizing device” connotes sufficiently definite structure.

In past cases, we have concluded that a claimed “circuit,” coupled with a description of the circuit’s operation in the claims, connoted sufficiently definite structure to skilled artisans to avoid the application of § 112, ¶ 6. *MIT*, 462 F.3d at 1355–56; *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320–21 (Fed. Cir. 2004); *Apex Inc. v. Raritan Comp., Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003). As we explained in *Linear*, the term “circuit” itself connotes structure and the contextual language that describes the objective and operation of the claimed “circuit” conveys the structural arrangement of the circuit’s components and provides additional limiting

structure. 379 F.3d at 1320–21. Thus, we concluded in *Linear* that a claimed “circuit” for “monitoring a signal from the output terminal to generate a first feedback signal” was not subject to § 112, ¶ 6 because the term connoted structure and the contextual language described the objective of the “circuit”—“monitoring a signal from the output terminal”—as well as the desired output of the “circuit”—“generat[ing] a first feedback signal.” *Id.*

In this case, the claims indicate that the “modernizing device” functions as an electrical circuit that receives signals, processes signals, and outputs signals to other components in the patented system. For example, claim 1 of the ’861 patent recites that the “modernizing device” is connected to an elevator control and a computing unit, where the computing unit transmits a destination signal to the modernizing device. ’861 patent, col.11 ll.6–21. The modernizing device then converts that destination signal into a call report and transmits the call report to the elevator control. *Id.* In addition, dependent claims describe the input, output, and signal receiver aspects of the modernizing device, *id.* col.11 l.22–36, 44–55, and describe the comparison of a target value or indication signal with a plurality of travel time profiles that the modernizing device performs, *id.* col.11 ll.37–43, col.12 ll.1–8. Similarly, claim 1 of the ’465 patent claims a “modernizing device” that is connected to floor terminals and a computing unit, where the modernizing device reads a destination signal, converts the destination signal into a call report, and controls the elevator control by way of the call report. ’465 patent, col.11 ll.6–25.

The written descriptions support the conclusion that the claimed “modernizing device” is not a purely functional limitation. As detailed above, the written descriptions depict the modernizing device and its internal components, namely, the processor, signal generator,

converter, memory, and signal receiver elements. '861 patent, Fig. 3. The written descriptions also show how the elements are connected together and to the elevator control and computing unit components of the elevator system. *Id.* They also describe how the modernizing device, employing these components, receives a destination signal from the computing unit, converts it into a call report, and issues the call report to the elevator control. *Id.* col.7 l.49–col.8 l.4. In addition, they describe that the modernizing device has an input and signal receiver that detects a signal from the elevator control, such as a target value, and processes the signal with a time travel profile to control the elevator system. *Id.* col.8 l.54–col.9 l.67.

In sum, the claims and written descriptions show that ThyssenKrupp has failed to overcome the presumption that the claimed “modernizing device” is not a means-plus-function limitation. In light of this disclosure, ThyssenKrupp’s reliance on dicta in the *Personalized Media* and *MIT* cases is unavailing. In those cases, we stated that the term “device” was a generic structural term that “typically do[es] not connote sufficiently definite structure.” *MIT*, 462 F.3d at 1354. In this case, however, the claims recite a “modernizing device,” delineate the components that the modernizing device is connected to, describe how the modernizing device interacts with those components, and describe the processing that the modernizing device performs. The written descriptions additionally show that the modernizing device conveys structure to skilled artisans. Thus, this is not a case where a claim nakedly recites a “device” and the written description fails to place clear structural limitations on the “device.”

III. Computing Unit

Inventio also challenges the district court’s conclusion that the claim term “computing unit” is a means-plus-

function limitation. Inventio argues that a “computing unit” connotes structure to those of skill in the art, specifically a computer or other data processing device. Inventio also argues that the written descriptions explicitly define the “computing unit” as “a commercially available personal computer or a workstation,” which includes “at least one processor and at least one data memory.”

ThyssenKrupp argues that the claimed “computing unit” lacks sufficiently definite structure to avoid the application of § 112, ¶ 6 because the claims fail to provide any physical structure, the term “computing unit” lacks a well understood meaning in the art, and the term “unit” is the legal equivalent of “means.” ThyssenKrupp also argues, quoting *Brown v. Baylor Healthcare System*, that even if a “computing unit” is read to mean a computer, simply disclosing “a general processor without more” is not enough “to perform the claimed function” and avoid the application of § 112, ¶ 6. 381 Fed. Appx. 981, 983–84 (Fed. Cir. 2010) (nonprecedential decision).

We agree with Inventio that the “computing unit” here connotes sufficiently definite structure. Similar to the term “modernizing device,” the claimed “computing unit” presumptively connotes sufficiently definite structure to those of skill in the art. *Personalized Media*, 161 F.3d at 703–04. The claims indicate that the presumption is not overcome in this case. The claims recite that the computing unit is connected to the modernizing device and generates a destination signal for transmission to the modernizing device. ’861 patent, col.11 ll.6–21. The claims elaborate that the computing unit is connected to the floor terminals of the elevator system, and evaluates incoming call reports, destination floors, and identification codes to generate the destination signal for processing by the modernizing device. *Id.* col.12 ll.9–52; ’465 patent, col.12 ll.7–59.

The written descriptions also indicate that the “computing unit” connotes structure to skilled artisans. As the claim term implies, the written descriptions refer to the computing unit as a computer, where one of its functions is to store and execute a computer program product. ’861 patent, col.6 ll.21–24 (stating that the “computing unit” is “a commercially available personal computer or workstation” and that the “computing unit” includes “at least one processor and at least one data memory”); *id.* col.9 ll.61–64 (stating that “it is entirely possible to perform the computer program product on any computer, for example on the computing unit of the system or on a remote server”) (internal reference number omitted). The written descriptions also explain the steps that the computer program product performs, *see id.* col.6 1.3–col.7 1.25, as well as the interaction between the computing unit and modernizing device, *id.* col.7 ll.26–48, and the computing unit and the floor terminals, *id.* col.8 ll.6–22.

In total, this disclosure shows that ThyssenKrupp has not rebutted the presumption that the claimed “computing unit” connotes sufficiently definite structure to those of skill in the art. In response to this evidence, ThyssenKrupp relies on dictum from our nonprecedential decision in *Brown* to argue that a computer, when claimed, is not sufficient structure to perform the claimed functions as a matter of law. ThyssenKrupp’s reading of that case, however, is overly broad.

In *Brown*, the patentee had the burden to show that the “portable processing means” claim limitation recited sufficiently definite structure to perform the recited “processing” function, and we concluded on the record in that case that the patentee had failed to meet that burden. 381 Fed. Appx. at 983–84. We rejected the patentee’s argument that one would equate the “portable processing means” with a “general purpose processor”

because the argument ignored that the patentee “chose to claim the element at issue in functional terms.” *Id.* We also noted that even if the patentee’s argument were correct, “a general purpose processor without more would not be enough to perform the claimed function.” *Id.* at 984.

Contrary to ThyssenKrupp’s arguments, *Brown* did not hold, as a matter of law, that a claimed “computer” is not sufficiently definite structure to avoid the application of § 112, ¶ 6. Indeed, we have held that a claimed “control unit” that comprised a “CPU” and a “portioned memory system” recited sufficiently definite structure to perform the recited “controlling the communication unit” function. *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1372 (Fed. Cir. 2006), *rev’d on other grounds*, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617 (2008). Ultimately, whether claim language invokes § 112, ¶ 6 depends on how those skilled in the art would understand the structural significance of that claim language, assessed against the presumptions that flow from a drafter’s choice to employ or not employ the term “means.” See *Personalized Media*, 161 F.3d at 704.

In this case, the inventor did not draft the claims in “means for” format, and his decision to avoid the term “means” raises a strong presumption that the claimed “computing unit” connotes sufficiently definite structure to those skilled in the art. *Lighting World*, 382 F.3d at 1358. ThyssenKrupp had the burden to show that the “computing unit” terms are so structurally devoid that we should rewrite them in means-plus-function format. The claims and the written descriptions, however, indicate that those of skill in the art would understand a computing unit to connote sufficiently definite structure. Thus, on this record, ThyssenKrupp has failed to meet its burden.

CONCLUSION

For the foregoing reasons, the judgment of the district court is reversed and the case is remanded to the district court for further proceedings.

REVERSED AND REMANDED