

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

**IN RE PAPST LICENSING GMBH &
CO. KG LITIGATION**

This Document Relates To:

ALL CASES

**Misc. Action No. 07-493 (RMC)
MDL Docket No. 1880**

**CAMERA MANUFACTURERS' MEMORANDUM
REGARDING EXPERT TESTIMONY
IN THE COURT'S CLAIM INTERPRETATION PROCESS**

Pursuant to the Court's Third Practice & Procedure Order dated June 6, 2008 [Dkt. # 122], defendants Casio, Inc., Casio Computer Co., Ltd., Fujifilm Corp., Fujifilm USA, Inc., Hewlett-Packard Company, JVC Company of America, Matsushita Electric Industrial Co., Ltd., Nikon Corporation, Nikon Inc., Olympus Corp., Olympus Imaging America, Inc., Panasonic Corporation of North America, Ricoh Americas Corporation, Ricoh Corporation, Samsung Opto-Electronics America, Inc., Samsung Techwin Co., Ltd. and Victor Co. of Japan, Ltd. (collectively, the "Camera Manufacturers") hereby respond to the Memorandum submitted by plaintiff Papst Licensing GmbH & Co. KG ("Papst") on June 16, 2008 [Dkt. # 134].

INTRODUCTION

In determining the proper construction of a patent claim term, courts may rely on extrinsic evidence — including expert testimony, with its potential for litigation-related bias — *only if* the term remains ambiguous after consideration of the intrinsic evidence (*i.e.*, the patent claims themselves, the specification, and the prosecution history). *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed.Cir. 2005) (*en banc*). If necessary to resolve such ambiguities, then extrinsic evidence, such as dictionaries, treatises, and expert testimony, can be considered, but should be utilized only in rare situations and subject to substantial limitations. It is for that reason, among others, that federal courts today most often conduct *Markman* hearings in one day or less. *See* Federal Circuit Bar Ass’n, GUIDELINES FOR PATENT CLAIM CONSTRUCTION POST-*PHILLIPS* (May 2006) (Exhibit A).

At this time, the Camera Manufacturers believe that extensive expert testimony will be unnecessary during the claim construction hearing. Although the specific terms to be addressed have not yet been identified, it appears that the meaning of the terms in the patents-in-suit can be derived from the intrinsic evidence. This is especially true in light of the neutral tutorial presentation that the Court has asked the parties to present prior to the claim construction hearing. That presentation will provide the Court with an understanding of the relevant technology. Because that is the primary purpose for which expert input most often is presented during the claim construction process, the Camera Manufacturers believe that expert testimony during the claim construction hearing will be very limited, if necessary at all.

ARGUMENT

I. THE LAW OF CLAIM CONSTRUCTION.

Claim construction is the first step of the two-step analysis for patent infringement. *Markman v. Westview Instr. Inc.*, 52 F.3d 967, 976 (Fed.Cir. 1995), *aff'd*, 517 U.S. 370 (1996). Before a trier-of-fact can compare the claims of the asserted patent to the accused product to determine if a product infringes the patent, a court must construe the meaning of the claims as a matter of law. *Id.* The purpose of claim construction is to resolve any ambiguities in the claim language to assist the trier-of-fact in determining any issues of infringement. *Curtiss-Wright Flow Control Corp. v. Velan Inc.*, 438 F.3d 1374, 1379 (Fed.Cir. 2006) (reversing the district court's broad construction of "adjustable" based on narrow usage in the specification). Claim construction is crucial because "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d at 1312 (internal citations omitted).

The claims must be construed in the context of the pertinent art because patents are addressed to and intended to be read by those of skill in the pertinent art. *Curtiss-Wright*, 438 F.3d at 1379; *Phillips*, 415 F.3d at 1313. Words of a claim are therefore generally given the ordinary and customary meaning that they would have to a person of ordinary skill in the pertinent art after reading all of the intrinsic evidence. *Phillips*, 415 F.3d at 1312-13; *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1582 (Fed.Cir. 1996). The Federal Circuit has made clear that "the ordinary and customary meaning of a claim term 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, *i.e.*, as of the effective filing date.” *Phillips*, 415 F.3d at 1313.

A. Intrinsic Evidence is the Primary Source for Claim Construction.

When construing a claim, a court should first look to the intrinsic evidence, namely, the claims, the specification, and the prosecution history. *Vitronics*, 90 F.3d at 1582-83. The Federal Circuit has held that “intrinsic evidence is the ***most significant source*** of the legally operative meaning of disputed claim language.” *Vitronics*, 90 F.3d at 1582 (emphasis added).

The “starting point for any claim construction must be the claims themselves.” *Pitney Bowes Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed.Cir. 1999) (citing *Vitronics*, 90 F.3d at 1582). After considering both the asserted and unasserted claims of the patent, a court should also consider the specification to determine, for example, if the inventor has used any terms in a manner inconsistent with their ordinary meaning. *Vitronics*, 90 F.3d at 1582. The Federal Circuit has noted that the specification is usually dispositive and “is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315. This is due, in large part, because the claims cannot be broader than what is described in the specification as the invention. *Microsoft Corp. v. Multi-Tech Sys. Inc.*, 357 F.3d 1340, 1347 (Fed.Cir. 2004) (“When the specification ‘makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.’”) (citing *SciMed Life Sys. Inc. v.*

Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed.Cir. 2001)).

Finally, a court should consider the prosecution history of the patent, which contains the complete record of all proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims.

Intrinsic evidence is usually sufficient to determine the meaning of a claim term. *Bell & Howell Doc. Mgmt. v. Altek Sys.*, 132 F.3d 701, 706 (Fed.Cir. 1997) (citing *Markman*, 90 F.3d at 986). “When the intrinsic evidence is unambiguous, it is improper for the court to rely on extrinsic evidence such as expert testimony for purposes of claim construction.” *Bell & Howell*, 132 F.3d at 706 (citing *Vitronics*, 90 F.3d at 1583). The claims, specification, and file history constitute the public record of the patentee’s claim — a record on which the public is entitled to rely. *Vitronics*, 90 F.3d at 1583. Extrinsic evidence cannot be used to change that public record. *See also* Federal Circuit Bar Ass’n, GUIDELINES FOR PATENT CLAIM CONSTRUCTION POST-PHILLIPS (May 2006) at 3 (“any change in meaning from contemporaneous intrinsic evidence based on extrinsic evidence may undermine the public notice function of patents”).

B. Extrinsic Evidence, Especially Expert Testimony, Plays At Most a Limited Role in Construing Claim Terms.

While the Federal Circuit has authorized courts to consider extrinsic evidence in limited circumstances, it has repeatedly emphasized that extrinsic evidence is less reliable than intrinsic evidence. Extrinsic evidence consists of all evidence external to the patent and prosecution history and includes dictionaries, learned

treatises, and expert testimony. *Id.* Extrinsic evidence is therefore less significant than the intrinsic record in determining the legally operative meaning of the claims. *Phillips*, 415 F.3d at 1317-18. While extrinsic evidence may be useful to the Court, it is “unlikely to result in a reliable interpretation of the patent claim scope unless considered in the context of the intrinsic evidence.” *Phillips*, 415 F.3d at 1319. The “claims and written description remain the primary and more authoritative sources of claim construction.” *Mantech Envtl. Corp. v. Hudson Envtl. Servs. Inc.*, 152 F.3d 1368, 1373 (Fed.Cir. 1998). They “must always be considered and where clear must be followed.” *Id.* (citing *Markman*, 52 F.3d at 981).

The Federal Circuit has identified several purposes for which extrinsic evidence may be considered. These include: providing background on the technology at issue; explaining how an invention works; ensuring that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art; and establishing that a particular term in the patent or prior art has a particular meaning in the pertinent field. *Phillips*, 415 F.3d at 1318.

The Federal Circuit has warned courts to be especially cautious in deciding whether and how to consider expert testimony. It has noted that “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Phillips*, 415 F.3d at 1318. While a district court may use expert testimony to help it understand the underlying technology, expert testimony on the proper construction of a disputed claim term “may only be relied upon if the patent documents, taken as a whole, are insufficient to enable the court to construe the

disputed claim terms. ***Such instances will rarely, if ever, occur.***” *Pitney Bowes*, 182 F.3d at 1308-09 (emphasis added). If relied on at all, extrinsic evidence may not “be used to vary claim terms from how they are defined, even implicitly, in the specification or file history.” *Vitronics*, 90 F.3d at 1584-85.

The Federal Circuit has instructed courts “to discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Phillips*, 415 F.3d at 1318 (citing *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed.Cir. 1998)). The potential bias within expert testimony is especially concerning since it “is ***generated at the time of and for the purpose of litigation*** and thus can suffer from bias that is not present in intrinsic evidence.” *Phillips*, 415 F.3d at 1318 (emphasis added). *See also Vitronics*, 90 F.3d at 1583 (noting that the public is entitled to rely on a patent’s public record in designing around the patented invention and that after-the-fact expert testimony to alter a patent’s public record would make the design-around right meaningless). The Federal Circuit has noted that “[p]atents should be interpreted on the basis of their intrinsic record, not on the testimony of such after-the-fact ‘experts’ that played no part in the creation or prosecution of the patent.” *Bell & Howell*, 132 F.3d at 706.

Because of this limited and secondary role of expert testimony, the Court has great discretion whether to admit, or exclude, such evidence. *Inpro II Licensing, S.A.R.L. v. T-Mobile USA Inc.*, 450 F.3d 1350, 1357 (Fed. Cir. 2006) (finding no

abuse of discretion in trial court's exclusion of expert testimony during claim construction). When it is admitted, care must be taken not to rely too heavily on such evidence. *Vitronics*, 90 F.3d at 1585 ("Unfortunately, here the trial judge did use the extrinsic evidence to vary or contradict the manifest meaning of the claims.").

II. USE OF EXPERT TESTIMONY DURING CLAIM CONSTRUCTION.

This Court has scheduled a neutral tutorial presentation for September 3, 2008. At this session, the parties will provide the Court with background information on the relevant technology, help the Court understand the technical aspects of the relevant subject matter consistent with the knowledge of a person of skill in the art, and explain how the alleged invention functions. This neutral tutorial presentation will provide the Court with much of the information for which it might otherwise consider expert testimony.

Moreover, although the Camera Manufacturers cannot determine whether expert testimony is needed until they receive and consider Papst's opening claim construction brief, the claims, the specification, and the prosecution history will likely provide sufficient bases for determining the meaning of any disputed terms. Testimonial evidence of any kind may be unnecessary. Because the parties will provide the Court with both substantive briefing and a neutral tutorial before the claim construction hearing, the Camera Manufacturers believe that this hearing will require no more than one day consisting of arguments presented by counsel and likely will not necessitate the presentation of any expert testimony. Allowing extensive expert testimony at the hearing has the potential to result in a protracted,

contentious, and unproductive debate, having little or nothing to do with the most significant evidence relating to the construction of the claims terms in dispute — the intrinsic record.

Even if any limited testimony were required, the hearing should still take no more than one day. *See* Federal Circuit Bar Ass’n, GUIDELINES FOR PATENT CLAIM CONSTRUCTION POST-*PHILLIPS* (May 2006) at 10-11 (discussing the various formats for claim construction hearings and noting “[e]ven if each party presents two witnesses (one fact and one expert), the hearing typically can be concluded in a day, unless there are an usually large number of claim terms at issue.”). Here, there will not be a large number of claim terms at issue, especially since the claims and the terms used therein are not complicated when considered in light of the intrinsic evidence.

Many terms of the patents-in-suit, such as “host device” and “driver,” for example, are sufficiently defined by the intrinsic evidence. After reading the claims and the specification of the patent, the meaning of those terms in this patent are easily understood. For example, the intrinsic evidence confirms that a host device is a computer that connects to and controls the operation of peripheral devices, and a driver is a set of software used to control an input/output device.

To the extent that the Court wishes to consider extrinsic evidence, technical dictionaries and learned treatises should be considered first and do not require an evidentiary hearing. Unlike expert testimony, they are not created after-the-fact, during and for the purpose of litigation.

Should expert testimony be necessary, the Camera Manufacturers believe that such testimony will be limited and directed only to certain terms. There is no need for extensive expert testimony regarding the meaning of the claims or every term, but the extent to which expert testimony will be needed can only be determined after the parties exchange claim construction briefing. Based on these materials, the Court can determine whether it needs to hear any live testimony at the *Markman* hearing.

CONCLUSION

Accordingly, the Camera Manufacturers see no need to deviate from the clear holdings of the Federal Circuit with regard to the consideration of and reliance upon expert testimony during claim construction. To the extent that the Court or the parties believe that expert testimony will resolve any ambiguity, the Camera Manufacturers suggest that such testimony be limited and focused on particular terms and in compliance with long-standing Federal Circuit precedent.

Dated: June 26, 2008

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned attorney certifies that on 26 June 2008:
a copy of the following was served via ECF:

- *Camera Manufacturers' Memorandum Regarding Expert
Testimony in the Court's Claim Interpretation Process*

on all counsel of record by filing it through the United States District Court
for the District of Columbia's Electronic Case Filing System.

Respectfully submitted,
SAMSUNG TECHWIN CO., LTD. and
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EXHIBIT A

Guidelines for Patent Claim Construction *Post-Phillips*

The Basics of a “*Markman*” Hearing

(May 2006)

Federal Circuit Bar Association
Patent Litigation Committee
Markman Project

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Guidelines for Patent Claim Construction

I. Introduction

Claim construction is the process by which a court determines what the claims of a patent mean. Although patents contain substantial information about the invention (e.g., background, drawings, examples, and a detailed written description), the claims determine the scope of the patentee's exclusive rights.

A. Patent Claim Construction

Years ago, claim construction was rarely an explicit issue in patent cases. Unless the court granted summary judgment, the issue was left for the jury to sift through in deliberating its verdict. Typically, this process produced no record of the claim construction.

Following the Supreme Court's decision in *Markman v. Westview Instruments, Inc.*, claim construction has become perhaps the single most important aspect of any patent case. In *Markman*, the Supreme Court concluded that claim construction is for the trial court to decide, and not an issue for the jury. Claim construction is a threshold issue for the trial court.

The ability of trial courts to resolve claim construction before trial has redefined patent litigation. Claim construction shapes — and often resolves — key liability issues, including infringement and invalidity. Accordingly, its timing may dramatically affect the scope and cost of discovery and of the case as a whole.

Claim construction may require the investment of additional time and resources by the district court. A variety of factors influence whether it is more efficient and effective to construe the claims early in the case rather than later. Moreover, the appellate reversal and remand rates for claim-construction decisions have remained persistently high. Unfortunately, high reversal rates and the availability of *de novo* appellate review tend to encourage appeals.

The purpose of these Guidelines is to provide practical assistance to district courts, their staffs, members of the Bar, and litigants. This is not an academic treatise. This is intended to be a practical guide, based on the experience of the bench and bar in construing claims. Numerous sources of scholarly treatment of claim-construction issues are readily available. Rather, these Guidelines are intended to assist district courts in construing claims in a cost-effective manner and in a way that will increase the likelihood that their claim-construction decisions will be affirmed on appeal.

B. General Principles

In July 2005, the Federal Circuit issued an *en banc* decision in *Phillips v. AWH Corp.* *Phillips* reaffirmed and amplified many of the Court's prior decisions detailing various aspects of claim construction. It also clarified certain of the Court's prior precedents regarding the proper role of dictionaries, modified others regarding the

importance of the specification relative to general purpose dictionary definitions, and emphasized the critical role of the specification in determining what the claims mean.

Four principal sources of evidence are available to the trial court in construing claims: the language of the claims; the specification; the prosecution history; and extrinsic evidence. *Phillips* clarified the role and relative importance of each type of evidence. In general, the ordinary meaning of the terms used in the claims to one of ordinary skill in the art is determined in the context of the specification. The prosecution history, if in evidence, is evaluated to determine whether the inventor disclaimed or disavowed any scope that may otherwise be considered to be within the claims. Yet, because the prosecution history reflects an ongoing negotiation between the applicant and the Patent Office, rather than the outcome of that negotiation, it often lacks the clarity of the specification and, thus, is less useful than the specification for claim-construction purposes. Finally, extrinsic evidence may be useful but is generally less reliable than the patent and its prosecution history in construing the claims.

C. Treatment of Factual Issues

Phillips reaffirms that claim construction is a question of law. The Court in *Phillips* declined to address whether the Federal Circuit would give deference to the district court's determination of subsidiary facts in construing claims.

Under current precedent, the terms used in the claims must be construed as they would be understood by persons of ordinary skill in the art. With respect to claim construction, these issues are resolved, in the first instance, by the district court. Unlike findings of fact on substantive issues in a case, any findings of fact necessary to construe the claims are not entitled to deference on appellate review under current law. Rather, they are subject to *de novo* review on appeal. Although on a motion for summary judgment, contested facts would be construed in favor of the nonmoving party, these presumptions do not apply to claim construction.

II. Background

A. The Public Notice Function of Patents

A patent provides notice to the public of the scope of the patentee's rights. The public record of the patent makes up the "intrinsic" evidence: the claims; the specification; and the prosecution history. The prosecution history includes the administrative record of the interaction between the patent applicant and Patent Office from when the patent application was submitted until the patent was issued. This intrinsic evidence is the primary evidence of the scope of the patent rights.

The intrinsic evidence must be viewed from the vantage point of one skilled in the art. Reference materials that were publicly available at the time, such as dictionaries or technical references, may provide background or context for determining how one of ordinary skill in the art would have considered the terms used in the claims. Reference

texts, such as dictionaries and treatises, and testimony, such as expert and inventor testimony, are generally known as “extrinsic evidence.”

The intrinsic evidence is the primary evidence in the claim-construction analysis. Extrinsic evidence is less useful. There are a number of reasons why the intrinsic evidence is accorded greater weight than extrinsic evidence. Among them, any change in meaning from the contemporaneous intrinsic evidence based on extrinsic evidence may undermine the public notice function of patents. The Federal Circuit has concluded that, while extrinsic evidence may be considered, it is unlikely to result in reliable interpretation unless considered in the context of the intrinsic evidence. Thus, the district court may consider the extrinsic evidence in its sound discretion, mindful of its flaws and limitations.

III. The Timing of Claim Construction

The district court has substantial flexibility in the timing of claim construction. Claims may be construed at any time until the case is submitted to the jury or decided by the court. Although delaying claim construction may provide the court with a fuller evidentiary record or better appreciation for the issues, it may not be the most efficient or effective way to resolve the parties' dispute. The parties may continue to discover and try their cases through the motions period based on alternative claim constructions. Delaying claim construction leaves the parties without guidance that might otherwise help narrow the issues or resolve the case without requiring the time and expense of a full trial on the merits. The district court must, therefore, weigh the benefits of early claim construction against the adequacy of the factual record and the development of the issues available to the court at that stage of the case.

The claims may be construed at any of several stages, for example: early in the case before substantial discovery has occurred; while discovery is ongoing; after the completion of discovery; or at any point before the case is submitted to a jury or the court renders its decision in a bench trial. It is up to the district court to determine what is best in any particular case, and there is often no “correct” answer.

As with any interlocutory decision by the court, the district court is free to revisit and alter its construction of the claims. The district court may be inclined to do so as its understanding of the technology evolves as it receives more evidence during the course of a case. Specifically, even after the district court issues a written order providing its claim construction, that decision is not final. Thus, that construction may be modified by a subsequent order of the court. The parties will normally rely on the court's claim construction in litigating the case. Consequently, the court should strive to minimize the prejudice that may be caused by any change in its claim construction during the course of the case.

A. Early Claim Construction

The claims may be construed before substantial discovery has occurred. Early claim construction may help streamline the case in a number of ways: (1) it may be dispositive; (2) it may narrow the issues; or (3) it may provide guidance to the parties as to what issues are significant and what evidence is needed for discovery and/or at trial. This can, and often does, encourage settlement.

The court's ability and willingness to construe the claims early in the case, prior to the close of discovery, may depend on a number of factors. One important consideration is the extent to which claim construction may be case-dispositive. Another important consideration is the clarity of the terms used in the claims and the availability of adequate evidence from intrinsic sources. A third important consideration is the extent to which the parties have developed the record sufficiently to define the issues in the case. If the issues in the case are not well-defined, resources may be wasted resolving claim-construction disputes that are ultimately irrelevant. At the same time, important claim-construction disputes may arise only later in the case, requiring a second round of claim-construction proceedings.

The intrinsic evidence, based on the claims, specification, and prosecution history, should be readily available. While extrinsic evidence may be less available early in the case, the court can mitigate this problem by providing the parties with an opportunity to conduct claim-construction-related discovery. Discipline may be enforced by notifying the parties that evidence that could have been presented at the early claim-construction proceeding will not be considered on any motion for reconsideration.

A chief benefit of performing claim construction before discovery is complete is that it can conserve the parties' and the court's resources by resolving the case rapidly, provided the court has sufficient evidence on which to base its ruling.

B. Claim Construction Before Expert Discovery

Resolving claim construction after fact discovery is substantially complete but before expert discovery and summary judgment is another common approach. This timing provides the parties with a greater opportunity to define the issues in the case and to collect evidence relevant to claim construction. While this approach does not offer the possibility of as prompt a resolution of the case as claim construction before the end of fact discovery, it nonetheless provides the potential to resolve the case before the added expense of expert discovery. In addition, it is early enough to focus the parties in their expert discovery and summary judgment efforts. This not only can result in the savings of significant resources but, by focusing the issues in the case, it may improve the quality of the evidentiary record.

C. Performing Claim Construction with Summary Judgment

Some district courts reserve claim construction until the summary judgment stage of the proceedings. This may improve the definition of the issues in the case, so the court can better understand the implications of its claim construction rulings. Because

there has not yet been a claim-construction ruling, however, the parties' experts may need to anticipate a broader range of potential alternative claim constructions. This may require that the experts perform an infringement and invalidity analysis under alternative constructions which, in turn, may complicate the expert discovery process. By the same token, it may offer the court additional evidence and insight to help inform its decision.

D. Reserving Claim Construction Until Trial

Some courts wait until trial to construe the claims. One reason to do this is that a claim-construction hearing typically provides less time for development of an evidentiary record and definition of the issues than does a trial. If development of an appropriate record would require excessive time or resources before trial, or the claim construction is not critical to the case, it may be more efficient simply to try the case. The evidence may be taken during trial and the claims may be construed at any point before the jury is charged. Provided that claim construction will not be dispositive in a particular case and delaying it will not complicate the proof, this may be a viable option. Experience indicates, however, that cases in which this is true are relatively rare.

In some cases, the record may still be unclear or incomplete, even following fact and expert discovery. For example, the terms used in the claims may have special or nonstandard meanings in the art. The parties may disagree strongly over how persons of ordinary skill in the art would have understood the terms. The parties may have submitted substantial, and inconsistent, evidence supporting these disparate views. These issues may become acute in complex or obscure technical fields, or in technical fields with short product development cycles that are evolving rapidly. The knowledge of persons of "ordinary skill in the art" may not be recorded in technical dictionaries or standard references. It may be identified only through the testimony of persons who were active in the field of the invention claimed in the patent at the time. When the relevant time frame is remote, such as when the patent was filed many years earlier, these issues may be very challenging.

Reserving the issue of claim construction in this manner, however, typically complicates trial. It forces the parties to try alternative claim constructions. This, in turn, may compel the parties to introduce evidence supporting multiple theories of the case, so that they have introduced sufficient proof, regardless which claim construction the court ultimately adopts. All of this may increase the length and expense of trial. More important, the admission of this extraneous and irrelevant evidence may confuse the jury.

E. Factors Affecting the Timing of Claim Construction

1. Ordinary and Customary Meaning

The claims define the invention. The starting point for claim construction, therefore, is the ordinary and customary meaning of the terms used in the claims. The ordinary and customary meaning is the meaning that the term would have to a person of

ordinary skill in the art. This ordinary and customary meaning establishes the baseline from which to begin claim construction.

The terms are not considered in a vacuum. Persons of ordinary skill in the art are deemed to read the claims in the context of the entire patent, including the specification. In some cases, the ordinary meaning is readily apparent; in others, it is not so clear. To the extent that the meaning can be readily determined, this factor may favor earlier construction. By the same token, the need to consider other sources of evidence may indicate that construction should be delayed, at least long enough to make a full record.

2. The Claims Themselves

The claims themselves may provide substantial guidance. The context in which a term is used in a claim may be highly instructive. For example, the use of an adjective with a noun may imply that the noun lacks the property described by the adjective when it is used without that adjective. Other claims may also provide guidance, as a term is generally used consistently throughout a patent. Similarly, the presence of a term or limitation in a dependent claim may imply that it is not inherent in the independent claim.

3. The Specification and Prosecution History

The claims do not stand alone. They are an integral part of a larger specification. The specification is the primary basis for construing the claims. The specification may indicate that the invention should be construed broadly. Alternatively, in some cases, it may reveal a special definition for a term or an intentional disclaimer or disavowal of claim scope by the inventor.

The patentee is permitted to define in the patent the terms that are used in the claims. The quality of the definitions, however, may vary widely. The meaning of claim terms may vary with the quality of the drafting of the application and the clarity of the meanings of the terms in the art. Where the applicant has provided clear definitions, or terms are clearly and readily understood in the art, early construction may be appropriate. Where the meaning is more obscure, delaying construction until a later stage of the proceedings may be more appropriate.

Similarly, the inventor may have limited the invention either in the specification or during prosecution. The inventor may have dictated the scope of the claims in the specification. If so, that disclaimer or disavowal may be dispositive. Although the prosecution history may not be as clear or as useful in this regard as the specification, the inventor also may have disclaimed or disavowed certain scope of the claims during prosecution. A clear statement of claim scope, or an explicit disavowal or express disclaimer may favor early resolution. A record that is less clear will likely be less useful in this regard.

4. Level of Technical Complexity

Technical complexity may encourage delaying claim construction to permit fuller development of the record. In complex cases, tutorials, or even expert testimony, may assist the court. The court may also appoint a technical expert or special master.

Claims are construed as they would be understood by persons of ordinary skill in the art. The use of claim terms as technical terms of art, rather than the common ordinary meaning of the terms, may favor additional factual development.

5. Level of Legal or Logistical Complexity

The presence of multiple patents and/or multiple claims may also favor delaying claim construction. Multiple patents and/or claims may generate additional burdens on the court. The court may benefit from procedures to eliminate or simplify claims. In addition, the court may require the parties to categorize and prioritize patents and/or claims for purposes of claim construction. The claims may be categorized and/or prioritized based on common terms appearing in certain of the claims. Discovery directed to these issues may facilitate this process. The parties may also be asked to identify representative claims to help streamline the analysis.

6. Lack of Clarity

The patentee is entitled to write the claims in any fashion, within the limits of the patent laws. This may result in substantial variability. Unfortunately, the terms used in the claims may not be clear. For example, terms of art, unique to a particular field of technology, may be used. Because the meaning may not be readily apparent and the inventor may have used the terms idiosyncratically, the court should look to the words of the claims themselves, the remainder of the specification, the prosecution history, and, if appropriate, the extrinsic evidence.

Care is required to ensure that the extrinsic evidence is used appropriately. Extrinsic evidence may illuminate how persons of ordinary skill in the art viewed a term or concept. Nonetheless, it is less significant and less reliable than the intrinsic evidence in determining the meaning of the terms used in the claims. Extrinsic evidence cannot cure a fundamental defect of lack of definiteness or ambiguity, nor can it modify the claims in a manner inconsistent with the intrinsic evidence. The court should discount any extrinsic evidence that is at odds with the intrinsic evidence. Lack of clarity may indicate that claim construction should be delayed. This may also permit fuller development of the various legal issues (e.g., inadequacy of written description, indefiniteness, etc.) it may raise.

7. The Parties' Positions on the Timing of Claim Construction

As with any complex litigation, the district court will likely consider the parties' views on the timing of claim construction. The parties, however, may be driven by tactical considerations that the court may find valid, or may choose to ignore.

A patentee may favor late claim construction to retain some degree of uncertainty in the hopes of keeping pressure on the defendant(s) to settle. Alternatively, a patentee may favor early claim construction in order to reduce costs and streamline or simplify the issues in the case. Similarly, a patentee with a weak case on the merits may favor early claim construction in the hope that the record will not be developed adequately to reveal those weaknesses. An alleged infringer may favor early claim construction, regardless of the strength or weakness of its case, simply to interpose an additional impediment to getting the case to trial. Both parties may agree to early or late claim construction as a case management vehicle, in order to focus the issues, or to facilitate orderly disposition of the case.

The parties' positions on timing of claim construction, therefore, may be confounded by many factors that may be pertinent or irrelevant to the court's interests. Nonetheless, the court may wish to encourage the parties to agree to an efficient procedure.

8. Anticipated Effect of the *Markman* Ruling

Although the effect on the case of a particular *Markman* ruling is not technically relevant to the construction of the claims, the district court typically will want to know the potential consequences of ruling one way or the other. This may indicate the urgency of the issue or the efficiency of determining these issues earlier, or later, in the proceeding.

(a) Case Dispositive

If a claim-construction ruling may dispose of the entire case, claim construction early in the case, or during or immediately following fact discovery, may help conserve the court's and the parties' resources.

(b) Narrow the Issues

Even if the claim construction is not case-dispositive, it will often eliminate or narrow issues. Eliminating issues may favor early construction. These same factors may favor claim construction following fact discovery. If the claim-construction issue will not be dispositive, discovery on other issues in the case should proceed while the court is resolving the claim-construction issues.

(c) Enhance the Potential for Settlement

Claim construction may also enhance the prospects for settlement. It may eliminate or narrow contested issues, clarifying the parties' options. Similarly, claim construction may affect or clarify the parties' damages theories. Where the claim construction dramatically affects damages—whether by substantially enhancing or diminishing the damages—claim construction early in the case or following discovery may help foster settlement discussions and avoid unnecessary expense.

9. The Need for, and Appropriateness of, Extrinsic Evidence

Many district courts, as well as litigants, prefer to proceed to claim construction without extrinsic evidence. Yet, the Federal Circuit, prior to *Phillips*, remanded several cases for the district court specifically to consider extrinsic evidence. The appropriate role of extrinsic evidence is now more clear. Although it may help “shed useful light on the relevant art,” it is less significant and less reliable than the intrinsic evidence.

Where the court accepts extrinsic evidence, it is important to keep in mind its limitations relative to the intrinsic evidence. There are a number of reasons why the extrinsic evidence is accorded less weight and considered less reliable than the intrinsic evidence. First, extrinsic evidence is by definition not part of the patent and was not created at the time of prosecution of the patent to explain the patent’s scope and meaning. Second, extrinsic publications may not have been written for the same audience as the patent—persons of ordinary skill in the art of the patent—and may not reflect the understanding of skilled artisans. Third, testimony generated for purposes of litigation may suffer from bias that does not infect the intrinsic evidence. Fourth, the “virtually unbounded universe” of extrinsic evidence that may be of some marginal relevance places a heavy burden on the court to sift the wheat from the chaff. Finally, undue reliance on extrinsic evidence poses the risk of changing the meaning of the claims from the meaning indicated by the intrinsic evidence, undermining the public notice function of the patent.

Although it is permissible for the court to use extrinsic evidence, its inherent flaws and limitations make it less useful than the intrinsic evidence. The court may need to weigh the availability of, or the parties’ desire to adduce, additional extrinsic evidence against its relatively low level reliability in deciding when to construe the claims.

10. Related Litigation

The existence of prior or contemporaneous litigation may also affect the timing of claim construction. Prior litigation involving the same patents and/or claims may have *stare decisis* effect if the prior decision was affirmed on appeal and/or the time for appeal has expired. A final judgment based on the construction of claims in a prior case may not be given collateral estoppel or *res judicata* effect, if the defendant was not a party to the prior case. Nonetheless, as a prior decision on a question of law, the doctrine of *stare decisis* encourages adherence to that claim construction in subsequent cases where the facts are substantially the same, regardless whether the parties and alleged infringement are the same.

These factors may influence whether the district court will consider the claim-construction issues at all in a subsequent case. Although a subsequent defendant may argue that they are entitled to a different claim construction than was held in a prior proceeding, *stare decisis* may compel that the construction rendered in a prior decision be followed, provided it is subsumed in a final judgment or no appeal was timely taken from it.

The parties may also be in contemporaneous litigation involving the same patents, claims, or parties. In that situation, there may be no collateral estoppel or *res judicata* effect of the prior judgment. Nonetheless, the prior decision may be persuasive. One party or the other may be seeking a tactical advantage by trying to get a claim-construction ruling in one court, for use in another.

For example, it has become relatively common for parties to pursue parallel district court litigation while involved in an International Trade Commission (ITC) investigation on the same patent, in order to develop additional options for claim construction. For these reasons, the parties should be required to identify any related litigation and the potential effect each case may have on the other.

A unique situation arises when related litigation is pending in the ITC. The ITC has jurisdiction over patent claims in the import trade. Although its determinations are not binding on the district courts, even if affirmed on appeal to the Federal Circuit, they may be persuasive. Some of the ITC's Administrative Law Judges have substantial experience in interpreting patent claims. Moreover, the ITC's procedures permit development of a full evidentiary record, which may be useful in construing the claims.

IV. Format of the *Markman* Hearing

Markman hearings may range from submissions on the papers, to multiple day evidentiary hearings, to mini-trials, to a consolidated hearing with trial on the merits.

A. Submission on the Papers

Although some cases may be decided on the papers, this is not common. Proceeding on the papers may be simple and may conserve the court's resources. Yet, oral argument provides the parties an opportunity to assist the court to understand the issues. In addition, an evidentiary hearing may provide the parties or their experts an opportunity to explain the technology and nomenclature involved in the case.

Deciding claim construction on the papers alone limits the evidentiary record. The patent and prosecution history will typically be submitted with the briefs. Deciding the issues without oral argument, however, deprives the district court of the benefit of argument of counsel and the opportunity to ask questions to test perceived weaknesses in the parties' arguments. Nonetheless, this approach may be appropriate in cases involving simple issues and simple technology, and/or where there is no substantial issue as to the appropriate construction.

B. Deciding the Issue on Briefing and Argument Without an Evidentiary Hearing

Deciding claim-construction issues on briefing and oral argument but without an evidentiary hearing is another approach. Again, the patent and prosecution history will

typically be submitted as part of the record. The court may decline, however, to accept extrinsic evidence.

This approach may be appropriate where the intrinsic evidence is clear. It provides the court the added benefit of argument of counsel, or at least the opportunity to ask questions to develop the issues or test perceived weaknesses in the parties' arguments. Particularly where the court perceives meanings that were not argued by either party, this approach is preferable to deciding the issues on the papers alone because it gives the court an opportunity to test those perceived meanings.

C. Deciding the Issue Based upon an Evidentiary Hearing

The court may allow the parties an opportunity to present live testimony. Each party may offer the testimony of an expert and, potentially, a fact witness. Even if each party presents two witnesses (one fact and one expert), the hearing typically can be concluded in a day, unless there are an unusually large number of claim terms at issue. In considering whether to admit extrinsic evidence, the court must keep in mind the limitations of extrinsic evidence, which may reduce or eliminate the usefulness of, or need for, extensive testimony or evidentiary submissions.

V. Evidence Pertinent to Claim Construction

A. The Intrinsic Evidence

1. The Claims

The claims define the invention. Words used in the claims are generally given the ordinary and customary meanings they would have to a person of ordinary skill in the art at the time of the effective filing date of the application.

The context of a claim can be particularly helpful. The use of an adjective with a particular noun in a claim term is typically interpreted differently—and more narrowly—than the use of the same noun without the accompanying adjective.

Similarly, other claims may inform the meaning of a term in a particular claim. Terms are normally used consistently throughout a patent. Thus, the meaning of a term may help inform the meaning of the same term in other claims.

Differences between claims may also help define the terms. For example, a dependent claim that includes a particular term may indicate that its independent claim lacks the added limitation.

2. The Specification

Persons of ordinary skill are considered to read the words used in a claim in the context not only of the particular claim itself but in the context of the entire patent. A

patent is a fully integrated legal instrument. The specification is always highly relevant and is the single best guide to the meaning of claim terms.

The patentee has the option of defining the terms that are used in the patent. The specification may reveal a special definition. Specifically, the patentee may define the terms differently than they would be understood by persons of ordinary skill in the field of the invention. Where the patentee has clearly defined the terms, those definitions govern construction of the claims.

In addition to the plain language of the claims themselves, the patent contains a description of the field and background of the invention, a written description, and drawings illustrating the invention. The specification illustrates and provides examples of the invention. These examples do not limit the invention, unless the patentee has expressed a clear intent to do so. Reading a limitation from the written description into the claims remains one of the cardinal sins of patent law.

Nonetheless, the patentee may have limited the invention to certain embodiments or may have distinguished the invention from prior inventions. When the specification reveals an intentional disclaimer, or disavowal, of claim scope by the inventor, the invention may be limited to the embodiments or examples the applicant has described as the invention.

3. The Prosecution History

The prosecution history should be considered whenever it is in evidence. If the prosecution history has not been introduced into evidence, the court should request it. The prosecution history constitutes an official Government record of the patent application and the court is encouraged to refer to it. The prosecution history records the give and take between the inventor and the Patent Office leading to the issuance of the patent. To the extent that the inventor limited the invention or distinguished it from prior art in order to secure the patent, these limitations are critical and must be considered.

The prosecution history, however, is typically written in a highly stylized and cryptic language. Care must be taken to understand and consider these statements in context, particularly when they are being read as limiting or distinguishing the invention from the prior art.

The prosecution history, like the specification, was created by the inventor in attempting to explain and obtain the patent. Yet, because the prosecution history represents an ongoing negotiation between the patentee and the Patent Office, rather than the result of that negotiation, it often lacks the clarity of the specification and, thus, is less useful than the specification in construing the claims.

Nonetheless, the prosecution history may reveal how the inventor understood the invention and whether the inventor limited the invention in attempting to obtain the patent. Thus, the court should preclude any interpretation that was disclaimed during prosecution.

4. Cited Prior Art

The prior art references cited in the patent and prosecution history are part of the intrinsic evidence. The Examiner is presumed to have reviewed all of the cited references. The cited references may provide substantial and valuable evidence of how certain terms were understood at the time of the invention. The cited references may define terms that are not defined in dictionaries, treatises, or references, or that the patentee failed to define.

D. Extrinsic Evidence

Various types of extrinsic evidence have been offered in claim-construction proceedings. For example, witness testimony, and statements or documents authored by the inventor, patentee, or alleged infringer, are frequently relied upon by the parties in advocating a particular claim construction.

Extrinsic evidence, however, is always less significant than the intrinsic evidence in construing the claims. It can never alter or change the meaning of a claim term in a manner that is inconsistent with the intrinsic evidence. The weight to be given the different forms of extrinsic evidence will depend on the circumstances.

1. Reference Materials (Dictionaries, Treatises, and Encyclopedias)

Where the ordinary meaning of the claim language is clear, general purpose dictionaries may be helpful. Yet, patentees often use terms idiosyncratically. In these situations, the court may need to look to other sources, including the words of the claims themselves, the specification, the prosecution history, and extrinsic evidence. In this regard, contemporaneous dictionaries, treatises, and other reference materials may be considered. Reference materials may be used in several ways. They may provide insight into the common, ordinary meanings of terms. Even if the terms are accorded a different meaning, they may shed light on what one of ordinary skill would have considered the terms to mean at the time. They may also provide context. Yet, they are always less significant than the intrinsic evidence, namely, the claims, the specification, and the prosecution history.

References are subject to certain limitations. First, a reference is more valuable if it is contemporaneous. References published well after the patent application was filed may be of little use and, indeed, may be affirmatively misleading. Although nomenclature may be stable in some fields, in other fields it may change rapidly, be inconsistent, incomplete, or entirely lacking at a certain period during the development of the technology. Moreover, a particularly successful invention may itself have an effect on subsequent editions of treatises or dictionaries. It may add to or alter the meaning of terms. Thus, the time frame is often critical.

Second, dictionaries and treatises are general references. Normally, words have multiple, generally accepted meanings. General references typically compile multiple meanings used not only in the particular field of art of the invention but in several

different fields, inevitably extending beyond the meaning to one of ordinary skill in the art of the invention. These references may or may not reveal how one of ordinary skill in the particular art would understand the terms. As general references, they do not necessarily share the same context as the invention.

Moreover, different dictionaries may contain different meanings for the same words. Claim construction should not rise or fall based on the selection of the particular reference or the selections of the editors of those references.

These limitations must be kept in mind when considering dictionaries and other reference materials.

2. Uncited Prior Art

Uncited prior art is not normally relied upon in construing the claims. It can be useful if it shows a consistent usage of disputed claim terms. However, because there are often numerous uncited prior art references, uncited prior art selected and submitted by a party may not be representative of the usage of the terms in the field as a whole.

Nonetheless, the parties may argue that uncited prior art may be pertinent. Patents and publications may, as may any other reference work, reflect how persons who were skilled in the art at that time considered and used a term that appears in the patent claims. As with the cited references, the uncited art should be contemporaneous with the invention.

3. Testimony

Testimony is typically offered from several sources: the inventor; the patentee; the alleged infringer; technical experts; legal experts; or experts on Patent Office procedure. While some of these sources may be helpful to the court, others are unreliable and may be misleading.

(a) Inventor, Patentee, and Alleged Infringer Testimony

The inventor's testimony is generally disfavored when it is self-serving or conflicts with the intrinsic evidence. Claim construction is governed by the language of the claims themselves. It is not defined by the inventor's subjective intent. Rather, that intent must be expressed objectively in the intrinsic evidence.

The admissions of an inventor against interest may be relevant, where they help shed light on how an objective person skilled in the art would understand the intrinsic evidence. As in other areas of law, statements against interest can have substantial probative value. The patent owner's and/or alleged infringer's testimony is often offered as an alleged admission against interest on claim-construction issues. Nonetheless, it must be kept in mind that the extrinsic evidence is less reliable than the patent and its prosecution history.

(b) Technical Experts

Technical experts may provide testimony or identify other evidence on how terms were understood by persons of ordinary skill in the art at the time the invention was made. Expert opinion testimony may be helpful to the court in explaining the context of the claims. Further, expert testimony may be helpful in synthesizing complex evidence about the technical matters that may be relevant to claim construction. As background, it may explain whether a particular term had a particular meaning in the pertinent field of art.

As in other areas of law, courts must distinguish between unreliable experts who provide biased testimony and those who provide testimony that is helpful to the court and supported by the evidence. In addition, admissions by experts may help narrow the issues in dispute and identify common ground.

Conclusory, unsupported assertions by experts, however, are not useful to the court. Specifically, the court should discount any expert testimony that is at odds with the claim construction mandated by the claims, the specification, and the prosecution history.

(c) Substantive Patent Law Experts

Experts offered to opine on patent law generally are not appropriate. They should not be permitted to testify unless they add something helpful to the court, beyond what an advocate can add in oral argument or what a court and its clerks can discern from the record and their legal or factual research.

Some observers have suggested appointing a special master or technical consultant to advise the court on the proper construction of the claims. Although these tools may be efficient and useful with respect to factual issues, they are not appropriate with respect to legal issues. It is the court's role to construe the claims as a matter of law. Opinion testimony on legal issues invades the court's role to determine the law.

(d) Experts on Patent Procedure

Patent experts may also be offered on Patent Office procedure. Specifically, they may be offered to explain the significance of certain events that occurred or statements that were made during prosecution. This may be particularly tempting to a party if the patent was involved in reissue, or reexamination, or interference proceedings. To the extent that such testimony provides context or simply explains the facts surrounding a particular procedure, it may be helpful to the court. Care must be taken, however, to ensure that the expert's testimony is limited to appropriate subject matter—namely procedural matters—and does not invade the court's authority to determine the law.

VI. Contentions

Parties often resist giving their contentions on claim construction. For example, the patentee may resist disclosing its claim construction until they are aware of what prior art the accused infringer will rely upon. The accused infringer, in turn, may resist disclosing its contentions on infringement and validity until it has received the patentee's claim construction. In many cases, the parties will promulgate contention interrogatories, yet agree that neither side need respond to them. Alternatively, the parties may agree that a corporate representative will provide that information, only at a later stage in the proceeding.

While these practices may preserve the parties' options and flexibility, they delay framing and narrowing the issues. It typically helps the court to have the parties' contentions early in the case. This may help identify critical issues, frame discovery, simplify and streamline the case, and narrow the issues. Some courts have found it helpful to require the parties to provide their claim-construction contentions early in discovery, shortly after the Rule 26(f) scheduling or case management conference.

Several district courts have instituted local rules or implemented procedures through Scheduling Orders to require disclosure of the parties' contentions early in the discovery process. A listing of some published district court local rules is provided in Appendix B. Although there is no universally required procedure, a typical procedure follows:

- Within a limited period of time (a few weeks) following the entry of the Rule 26(f) Scheduling Order, the patentee discloses which claims of the patent it is asserting in the action and provides to the alleged infringer a claim chart, identifying its construction of each term and its contentions of how the defendant infringes that claim.
- Within a limited period of time following service of the patentee's construction (typically a few weeks), the alleged infringer discloses to the patentee a claim chart identifying its construction of the claims, along with its contentions whether each claim is invalid, not infringed, and/or unenforceable, and the basis for those contentions.
- Within a limited period of time following receipt of the defendant's contentions, and well in advance of the close of discovery, the patentee serves its rebuttal contentions regarding validity, infringement, and enforceability.

This exchange provides the parties and the court information from which to determine the scope of discovery and the timing of a claim construction.

Some courts that employ these types of procedures schedule a *Markman* hearing following the end of discovery.

VII. Issues Raised *Sua Sponte*

The court may identify, or perceive, issues that neither of the parties has identified or briefed. Basic fairness suggests that the parties should have a full and fair opportunity to address such issues before the court rules on them. Furthermore, as a general proposition, deciding issues, particularly potentially complicated issues such as claim construction, without input from the parties can increase the potential for error. This is particularly true in claim-construction proceedings that involve complex, technical issues. While an invention may seem obvious, persons skilled in the art may view the issue very differently than a lay person.

Securing the parties' input on an issue may require the parties to rebrief or reargue an issue. These costs, however, are relatively minor, particularly in view of the substantial benefits of having the issue fully developed. In addition, the parties may perceive that they have been denied a full and fair opportunity to address the issue where the court adopts a theory on which the parties had no opportunity to submit evidence, briefing, or argument.

VIII. Appeal

Although the issue of claim construction could be certified for interlocutory appeal, the Federal Circuit has been generally unwilling to hear interlocutory appeals of claim-construction issues. It is unlikely that an interlocutory appeal from a claim-construction ruling will be accepted by the Federal Circuit.

Appendix A

District Court Local Patent Rules

1. United States District Court for the Northern District of California, Patent Local Rules, available at <http://www.cand.uscourts.gov/>.
2. United States District Court for the Southern District of California, Patent Local Rules, available at <http://www.casd.uscourts.gov/>.
3. United States District Court for the District of Delaware, Chief Judge Robinson, Scheduling Orders, available at <http://www.ded.uscourts.gov/SLRmain.htm>.
4. United States District Court for the Northern District of Georgia, Patent Local Rules, available at <http://www.gand.uscourts.gov/>.
5. United States District Court for the District of Minnesota, available at <http://www.mnd.uscourts.gov/>.
6. United States District Court for the Eastern District of Missouri, Judge Shaw, Patent Rules, available at <http://www.moed.uscourts.gov/>.
7. United States District Court for the Western District of Pennsylvania, Patent Rules, available at <http://www.pawd.uscourts.gov/>.
8. United States District Court for the Eastern District of Texas, Patent Rules, available at <http://www.txed.uscourts.gov/>.