THE SECTION 117 ADAPTATION DEFENSE AND
KRAUSE V. TITLESERV, INC.:
AN ANALYSIS OF THE VARIOUS CIRCUITS’ APPROACHES

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I. INTRODUCTION

When Congress passed the Copyright Act of 1976, it granted
copyright owners certain exclusive rights. However, the
application of this body of law to computer programs proved

1 17 U.S.C. § 106 (emphasis added):
Subject to sections 107 through 122, the owner of copyright under this title has the exclusive
rights to do and to authorize any of the following:
(1) to reproduce the copyrighted work in copies or phonorecords;
(2) to prepare derivative works based upon the copyrighted work;
(3) to distribute copies or phonorecords of the copyrighted work to the public
by sale or other transfer of ownership, or by rental, lease, or lending;
(4) in the case of literary, musical, dramatic, and choreographic works,
pantomimes, and motion pictures and other audiovisual works, to perform the
copyrighted work publicly;
(5) in the case of literary, musical, dramatic, and choreographic works,
pantomimes, and pictorial, graphic, or sculptural works, including the
individual images of a motion picture or other audiovisual work, to display the
copyrighted work publicly; and
(6) in the case of sound recordings, to perform the copyrighted work publicly by
means of a digital audio transmission.

2 17 U.S.C. § 101 (defining a “computer program” as “a set of statements or
instructions to be used directly or indirectly in a computer in order to bring about a
certain result”). As a consequence of [a computer program’s] intangibility, software
creators/owners, and the business community, as well the legislature and judicial system
problematic in cases where the program’s author retained the copyright for his work. In this situation, a computer user’s good-faith utilization of a lawfully purchased computer program could result in violations of the copyright holder’s rights. In addition, when a user upgraded their computer’s hardware, they might be unable to continue use of the program without making certain modifications to the program. Such a modification would result in a derivative work, which the copyright holder had an exclusive right to prepare under § 106(2). Therefore, in order to avoid a potential claim for copyright infringement, a user would be forced into contracting with the copyright holder every time a modification was needed for the program’s continued use. The potential for undesirable results arising from this “forced-dealing” situation was great; therefore, Congress attempted to address the issue when it amended § 117 of the Copyright Act in its entirety.

Under the amended § 117, a computer program comprised of the modifications and the original underlying work constitutes an “adaptation” of that program. The text of the amended § 117(a), which addresses the “adaptation” of a computer program states:

(a) Making of Additional Copy or Adaptation by Owner of Copy.—

Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

(1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or
(2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.\(^8\)

Section 117(a) provides the user of a computer program with an affirmative defense\(^9\) against infringement claims for reproducing the copyrighted work\(^10\) and for preparing a derivative work\(^11\) under certain circumstances. This defense is meant to shield certain users from liability when creating an “adaptation”\(^12\) of a computer program, thus it is referred to as the “adaptation defense.”\(^13\)

The adaptation defense has been applied without uniformity among the circuits, resulting in disharmonious constructions of the defense’s requirements and the creation of varying tests to satisfy those requirements.\(^14\) Since the Supreme Court has been silent on the adaptation defense,\(^15\) the circuits have remained split on its application. In 2005, the Second Circuit reexamined the adaptation defense and reformulated its application in Krause v. Titleserv, Inc.\(^16\) The Second Circuit considered various methods other courts used to apply the adaptation defense, and then clearly reformulated its application. This makes the case an effective lens for an analysis of the proper application of the adaptation defense.

This Note serves two purposes. First, it provides an analysis of

\(^8\) Id.

\(^9\) Id. § 117(a).

\(^10\) 17 U.S.C. § 106(1). Copies are defined as: “material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term ‘copies’ includes the material object, other than a phonorecord, in which the work is first fixed.” Id. § 101.

\(^11\) Id. § 106(2). A derivative work is defined as:

  a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications, which, as a whole, represent an original work of authorship, is a ‘derivative work.’

\(^12\) Id. § 101.

\(^13\) See, e.g., John Harllee, The Protection of the Unpublished Application Protocol Interface Under Copyright Law, 4 VA. J.L. & TECH. 6, 31 (1999) (arguing that “[t]he fair use defense is significantly more complex than the adaptation defense, though it appears that it too was created primarily as a reaction to the realities of the marketplace.”) (emphasis added).

\(^14\) See, e.g., Krause v. Titleserv, Inc., 402 F.3d 119 (2d Cir. 2005); Vault Corp. v. Quaid Software Ltd., 847 F.2d 255 (5th Cir. 1988); MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993); DSC Commc’ns Corp. v. Pulse Commc’ns, Inc., 170 F.3d 1354 (Fed. Cir. 1999).


\(^16\) Krause, 402 F.3d at 119.
the Second Circuit's interpretation of the adaptation defense from *Krause v. Titleserv, Inc.*,\(^{17}\) while at the same time examining some of the other circuits' differing approaches.\(^{18}\) Second, this Note proposes an interpretation of the adaptation defense that satisfies the purposes of, and Congress's intent in, § 117(a) and endeavors to keep the relationship between the computer program user and copyright holder equitable.

### II. BACKGROUND TO THE AMENDED § 117

The amended § 117 was added to the Copyright Act as part of the 1980 amendments,\(^{19}\) upon recommendation from The National Commission On New Technological Uses Of Copyrighted Works ("CONTU").\(^{20}\) Congress established CONTU to perform research and to make recommendations concerning copyright protection for computer programs.\(^{21}\) Congress adopted the Final CONTU Report's\(^{22}\) recommended statutory text nearly verbatim.\(^{23}\) The Fifth Circuit acknowledged that "[t]he absence of an extensive legislative history and the fact that Congress enacted proposed § 117 with only one change have prompted courts to rely on the CONTU Report as an expression of legislative intent."\(^{24}\) Other circuits have also accepted the CONTU Report as the primary source of legislative intent, including the Second Circuit, which this Note examines in detail.\(^{25}\)

Major contentions remain, however, as to what adaptations qualify for the § 117 affirmative defense and as to the scope of this defense. This Note seeks to address both of these questions. In

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\(^{17}\) *Id.*

\(^{18}\) *Id.*

\(^{19}\) Section 117 was amended in its entirety by Congress's enactment of the 1980 Computer Software Copyright Act. Pub. L. No. 96-517, § 10(b) (amended Dec. 12, 1980).

\(^{20}\) *Krause*, 402 F.3d at 122 (explaining that "§ 117(a) was based on the recommendations of the National Commission on New Technological Uses of Copyrighted Works").

\(^{21}\) Early in the congressional hearings on copyright law revision it became apparent that problems raised by the use of the new technologies of photocopying and computers on the authorship, distribution, and use of copyrighted works were not dealt with by the then pending revision bill. Because of the complexity of these problems, CONTU was created to provide the President and Congress with recommendations concerning those changes in copyright law or procedure needed both to assure public access to copyrighted works used in conjunction with computer and machine duplication systems and to respect the rights of owners of copyrights in such works, while considering the concerns of the general public and the consumer. CONTU Report, *supra* note 3, at 1.

\(^{22}\) *Id.*

\(^{23}\) 17 U.S.C. § 117 (Congress made a single alteration by changing the party that could utilize § 117(a)'s exemption from "rightful possessor" to "owner").

\(^{24}\) *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 260-61 (5th Cir. 1988).

\(^{25}\) See, e.g., *Krause*, 402 F.3d at 122 (stating that "[t]he legislative history of § 117(a) is sparse and provides limited guidance on this point. . . . Congress largely enacted the language proposed by [CONTU] . . . ")
doing so, it is important to keep in mind that CONTU’s express purpose was to make:

recommendations concerning those changes in copyright law or procedure needed both to assure public access to copyrighted works used in conjunction with computer and machine duplication systems and to respect the rights of owners of copyrights in such works, while considering the concerns of the general public and the consumer.\(^\text{26}\)

In this purpose, there is a necessary balancing of the interests of the copyright holder against the interests of the consumer who will be utilizing the copyrighted work.\(^\text{27}\) Specifically, the Fifth Circuit noted that CONTU “acknowledg[ed] the importance of balancing the interest of proprietors in obtaining reasonable protection against the risks of unduly burdening users of programs and the general public.”\(^\text{28}\)

In order to achieve this purpose, CONTU laid out the following objectives concerning the copyright of computer programs:

\[\text{T}\]he following statements . . . ought to be true:

1. Copyright should proscribe the unauthorized copyright of these works.
2. Copyright should in no way inhibit the rightful use of these works.
3. Copyright should not block the development and dissemination of these works.
4. Copyright should not grant anyone more economic power than is necessary to achieve the incentive to create.\(^\text{29}\)

It is the second objective’s “rightful use” that is of most concern to those applying the adaptation defense, and therefore such uses will be given an appropriate treatment \textit{infra}.

III. A Brief Look at the Second Circuit’s Approach to the Adaptation Defense: \textit{Krause v. Titleserv, Inc.}

In \textit{Krause v. Titleserv, Inc.}, Krause, the author and copyright holder of numerous computer programs, alleged that Titleserv, a client and user of those computer programs, infringed Krause’s

\textsuperscript{26} CONTU Report, \textit{supra} note 3, at 1 (emphasis added).

\textsuperscript{27} Generally, “copyright policy is meant to balance protection, which seeks to ensure a fair return to authors and inventors and thereby to establish incentives for development, with dissemination, which seeks to foster learning, progress, and development.” 18 Am. Jur. 2d Copyright and Literary Property § 2.

\textsuperscript{28} \textit{Vault Corp.}, 847 F.2d at 259 (internal quotations omitted). \textit{See also} CONTU Report, \textit{supra} note 3, at 12.

\textsuperscript{29} CONTU Report, \textit{supra} note 3, at 12 (emphasis added).
copyright by modifying the source code of the programs.\textsuperscript{30} Titleserv was a title service agency and Krause was a computer programming consultant who performed work for Titleserv.\textsuperscript{31} The eight computer programs at issue were authored specifically for Titleserv, and were designed to “enable Titleserv to track and report on the status of client requests and other aspects of its operations.”\textsuperscript{32} The relationship between Krause and Titleserv ended when negotiations for the assignment of copyright in Krause’s programs concluded unsuccessfully.\textsuperscript{33} Krause told Titleserv it could continue to use the programs, but asserted that Titleserv had no right to modify the programs.\textsuperscript{34}

The alleged modifications of the programs by Titleserv fell into 4 categories: (1) “correcting program errors,” (2) “changing the source code to . . . [modify data] necessary to keep the programs up-to-date,” (3) “incorporating the programs into [a] Windows-based system,” and (4) “adding capabilities . . . [to make] the programs more responsive to the needs of Titleserv’s business.”\textsuperscript{35} The district court granted summary judgment for Titleserv based on the § 117 adaptation defense; therefore, Krause’s appeal turned on the application of this defense.\textsuperscript{36} The Second Circuit deconstructed the adaptation defense into three requirements: (i) one must be an “owner of a copy of a computer program”; (ii) the adaptation must be “an essential step in the utilization of the computer program in conjunction with a machine”; and (iii) the adaptation must be “used in no other manner.”\textsuperscript{37}

The first requirement was that Titleserv must have been an “owner of a copy of a computer program.”\textsuperscript{38} The parties argued over whether Titleserv was a licensee of the programs and had no title in the copies, or whether Titleserv was an owner of the copies of the programs and had formal title in the copies.\textsuperscript{39} However, the court interpreted § 117(a)’s ownership requirement to depend “on [the user’s] possession of sufficient functional incidents of

\textsuperscript{30} Krause, 402 F.3d at 120.
\textsuperscript{32} Krause, 402 F.3d at 120.
\textsuperscript{33} Id. at 120.
\textsuperscript{34} Id. at 121. Krause told Titleserv that “it was free to continue using the executable code . . . [but] had no right to modify the source code.” Id.
\textsuperscript{35} Id. at 125.
\textsuperscript{36} Id. at 120-21.
\textsuperscript{37} See 17 U.S.C. § 117(a); Krause, 402 F.3d at 122. Professor Nimmer credits the Krause opinion as giving “limited berth to the statutory requirement that the modification be ‘used in no other manner.’” 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.08(B)(1)(b) (2006).
\textsuperscript{38} 17 U.S.C. § 117(a).
\textsuperscript{39} Krause, 402 F.3d at 122-24.
ownership [over a copy], regardless of title.” The court concluded that the facts “gave [Titleserv] sufficient incidents of ownership to make it the owner of the cop[ies] for purposes of applying § 117(a).”

The second requirement was that Titleserv’s adaptations were “an essential step in the utilization of the computer program in conjunction with a machine.” The court broke this requirement into three portions: “essential,” “utilization,” and “in conjunction with a machine.” It concluded that the terms “essential” and “utilization” were both ambiguous as used in the statute. It also concluded that the phrase “in conjunction with a machine” was added to make clear that the program could be used in conjunction with machines besides computers. To cope with these ambiguities, the court referred to the CONTU Report for guidance.

The Second Circuit heavily relied on the following language from the CONTU Report: “[A] right to make those changes necessary to enable the use for which it was both sold and purchased should be provided . . . [including] the right to add features to the program that were not present at the time of rightful acquisition.” The court adopted this interpretation, but recognized the CONTU Report limited the defense to situations that “did not harm the interests of the copyright [holder].”

The Second Circuit broadly applied its interpretation of the defense’s second requirement, which allowed it to quickly find that the first three categories of modifications—(1) “correcting program errors”; (2) “changing the source code to . . . [modify data] necessary to keep the programs up-to-date”; and (3) “incorporating the programs into [a] Windows-based system”—were each shielded from Krause’s infringement claims by the adaptation defense. The fourth category of modifications, “adding capabilities . . . [to make] the programs more responsive to the needs of Titleserv’s business,” warranted further analysis by the court. Ultimately, the court found that “Krause enjoyed no

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40 Id. at 124 n.3 (emphasis added).
41 Id. at 125.
43 Krause, 402 F.3d at 127-29.
44 Id. at 127 (holding that “the utilization of a program does not need to be in conjunction with what we conventionally call a computer, but can be in conjunction with a range of machines driven in part by computer programs, such as automobiles, airplanes, and air conditioners”).
45 Id. at 128.
46 Id. (citing CONTU Report, supra note 3, at 15).
47 Id.
48 Id. at 125.
49 Id.
less opportunity after Titleserv’s changes, than before, to use, market, or otherwise reap the fruits of the copyrighted programs he created.”50 Based on these findings, the court held that Titleserv’s adaptations were “essential step[s] in the utilization of the computer program[s] in conjunction with a machine.”51

The third requirement Titleserv needed to satisfy for the adaptation defense was that the adaptation must be “used in no other manner.”52 The court interpreted § 117(a)’s use requirement to “depend on the type of use envisioned in the creation of the program.”53 It further explained that “[w]hat is important is that the transaction for which the programs are used is the type of transaction for which the programs were developed.”54 The court defined the type of transaction broadly as “the processing of transactions relating to Titleserv’s relationship with its customers,”55 which allowed the court to conclude that the adaptations satisfied the third requirement of § 117.56

The Second Circuit’s three requirement construction of the adaptation defense led it to affirm the district court’s grant of summary judgment for Titleserv. Furthermore, this holding clarified the circuit’s doctrine on the adaptation defense, which had previously been controlled by the holding in Aymes II.57

IV. DIFFERING APPROACHES TO THE § 117 REQUIREMENTS

As noted supra, the Second Circuit in Krause deconstructed the adaptation defense into three requirements: (i) one must be an “owner of a copy of a computer program”; (ii) the adaptation must be “an essential step in the utilization of the computer program in conjunction with a machine”; and (iii) the adaptation must be “used in no other manner.”58 These requirements must be examined separately, in order to consider the various circuits’ approaches to each.

A. The Meaning of “Owner of a Copy”

The first requirement to qualify for the § 117 adaptation defense is that the computer program user be an “owner of a copy”59 of the computer program.”60 However, Congress did not
make clear what would qualify one as an “owner,” thus leaving open the question of whether this group was limited to formal title owners, or if it would additionally include licensees or mere possessors of a copy of the computer program.\textsuperscript{61}

In \textit{Krause}, the Second Circuit found that “Congress’s decision to reject ‘rightful possessor’ [from the original CONTU Report version\textsuperscript{62}] of § 117] in favor of ‘owner’ [did] not indicate an intention to limit the protection of the statute to those possessing formal title.”\textsuperscript{65} The court concluded that “formal title in a program copy is not an absolute prerequisite to qualifying for [the adaptation defense]. Instead, courts should inquire into whether the party exercises \textit{sufficient incidents of ownership} over a copy of the program to be sensibly considered the owner of the copy for purposes of § 117(a).”\textsuperscript{64} This conclusion was in accord with the Copyright Act’s “express objective of creating national, uniform copyright law by broadly preempting state statutory and common-law copyright regulation.”\textsuperscript{65} The court explained that whether a user of a computer program holds formal title is “frequently . . . a matter of state law,”\textsuperscript{66} and thus requiring a § 117 “owner” to be a title owner would “undermine copyright’s goal of national uniformity by creating a patchwork of different requirements.”\textsuperscript{67}

\begin{footnotesize}
\begin{enumerate}
\item U.S.C. § 202. “Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied.” \textit{Id.}
\item Id. § 117(a).
\item Id. § 117(a).
\item DSC Commc’ns Corp. v. Pulse Commc’ns, Inc., 170 F.3d 1354 (Fed. Cir. 1999) (finding that “ownership is an imprecise concept, and the Copyright Act does not define the term. Nor is there much useful guidance to be obtained from . . . the legislative history of the statute . . . .”).
\item CONTU Report, \textit{supra} note 3, at 12 (“Notwithstanding the provisions of § 106, it is not an infringement for the rightful possessor of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided . . . .”) (emphasis added).
\item \textit{Krause}, 402 F.3d at 123. Additionally:
\begin{itemize}
\item The term ‘rightful possessor’ is quite broad. Had that term been used, the authority granted by the statute would benefit a messenger delivering a program, a bailee, or countless others temporarily in lawful possession of a copy. Congress easily could have intended to reject so broad a category of beneficiaries without intending a narrow, formalistic definition of ownership dependent on title.
\end{itemize}
\textit{Id.}
\item \textit{Krause}, 402 F.3d at 124 (emphasis added).
\item Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 740 (1989); see also 17 U.S.C. § 301(a) (“[N]o person is entitled to any [exclusive rights within the general scope of copyright] or equivalent right . . . under the common law or statutes of any State.”).
\item \textit{Krause}, 402 F.3d at 123. For example:
\begin{itemize}
\item The same transaction might be deemed a sale under one state’s law and a lease under another’s. If § 117(a) required formal title, two software users, engaged in substantively identical transactions might find that one is liable for copyright infringement while the other is protected by § 117(a), depending solely on the state in which the conduct occurred.
\end{itemize}
\textit{Id.}
\item NIMMER \& NIMMER, \textit{supra} note 35, § 8.08(B)(1)(c).
\end{enumerate}
\end{footnotesize}
In addition to this uniformity justification for not limiting the availability of § 117 to users with formal title, the Second Circuit had also previously acknowledged an equity justification put forth by “[t]he Contu Report stat[ing] that ‘persons in rightful possession of copies of programs [should] be able to use them freely without fear of exposure to copyright liability.’”  

In Krause, the Second Circuit created the “sufficient incidents of ownership” standard for determining whether a computer program user was an “owner of a copy” for purposes of § 117.  

The court took into consideration the following factors:

(A) the consideration paid to the copyright holder;

(B) whether the program was developed for the client’s sole benefit;

(C) whether the program was customized for the client’s use;

(D) whether the program was stored on a server owned by the client;

(E) whether the copyright holder reserved the right to repossess the copies used by the client;

(F) whether the copyright holder agreed that the client had the right to possess and use the computer program forever, and

(G) whether the possessor was free to discard or destroy the copies any time it wished.

The court concluded that Titleserv’s right, “for which it paid substantial sums, to possess and use a copy indefinitely without material restriction, as well as to discard or destroy it at will, gave it sufficient incidents of ownership to make it the owner of the copy for purposes of applying § 117(a).”

In 1988, the Fifth Circuit considered the § 117 affirmative defense in Vault Corp. v. Quaid Software Ltd., which raised similar questions as to its application. In Vault, the plaintiff producer of anti-piracy technology comprised of both hardware and software claimed copyright infringement against Quaid, which produced software designed to defeat the plaintiff’s anti-piracy protection.

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69 Krause, 402 F.3d at 124.
70 Id.
71 Id. at 124-25; see also Krause v. Titleserv, Inc., 289 F. Supp. 2d 316, 318 (E.D.N.Y. 2003) (“Krause received in excess of $350,000 from Titleserv, leading Magistrate Judge Wall to find that ‘at the very least, Titleserv owned a copy of the program.’”).
72 Vault Corp. v. Quaid Software Ltd., 847 F.2d 255 (5th Cir. 1988).
73 Id. at 256 (“The protective device placed on a . . . diskette by Vault is comprised of two parts: a [small mark physically placed on the magnetic surface of each diskette] and a software program . . . .”).
74 Id. at 257 (“Quaid’s [software] . . . interacts with Vault’s program to make it appear to the computer that [Quaid’s diskette] . . . is the original [Vault] diskette . . . .”).
In order to develop its software, Quaid “analyzed Vault’s program by copying it into its computer’s memory”\(^\text{75}\) off of the Vault diskette. Vault asserted that this copying was direct infringement of its copyrighted software, while Quaid maintained that it had not infringed because § 117 applied.

Vault included a license agreement with every package of its anti-piracy technology that specifically prohibited iterated uses of its program.\(^\text{76}\) By purchasing and using Vault’s technology, Quaid became a licensee under the terms of this agreement.\(^\text{77}\) Nevertheless, after establishing that Quaid qualified for the other requirements of § 117, the Fifth Circuit held that the defense applied and that “Quaid did not infringe Vault’s exclusive right to reproduce its program in copies . . . .”\(^\text{78}\)

The court made its determination without specifically addressing whether Quaid was an “owner of a copy” under § 117. However, since the court had knowledge of Quaid’s licensee status and the terms of that license, it can be inferred that the Fifth Circuit believed an “owner of a copy” was not limited to a formal title owner and that even a licensee could qualify as an “owner of a copy” for purposes of § 117 under certain circumstances.

In 1993, the Ninth Circuit in MAI Systems Corp. v. Peak Computer, Inc.\(^\text{79}\) encountered a similar licensor-licensee relationship; however, its conclusion about § 117 availability differed significantly from that of the Fifth Circuit. In MAI Systems, the plaintiff computer system manufacturer claimed copyright infringement against Peak, which maintained and serviced MAI computer systems for its clients.\(^\text{80}\) In order to service its clients’ systems, Peak “use[d] MAI operating software ‘to the extent that the repair and maintenance process necessarily involve[d],’”\(^\text{81}\) which resulted in the “loading of [MAI’s] copyrighted software into RAM creat[ing] a ‘copy.’”\(^\text{82}\) MAI asserted that “Peak’s running of MAI software licensed [sic] to Peak customers” was copyright infringement, because “MAI software licenses [did] not allow for the use or copying of MAI software by third parties such

\(^{75}\) Id. at 261.
\(^{76}\) Id. at 257 (“Title to the Licensed Software and all copyrights and proprietary rights in the Licensed Software shall remain with VAULT. You may not transfer, sublicense, rent, lease, convey, copy, modify, translate, convert to another programming language, decompile or disassemble the Licensed Software for any purpose without VAULT’s prior written consent.”).
\(^{77}\) Id.
\(^{78}\) Id. at 261.
\(^{79}\) MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).
\(^{80}\) Id. at 513.
\(^{81}\) Id. at 518.
\(^{82}\) Id.
as Peak.\textsuperscript{83}

The Ninth Circuit affirmed the district court’s ruling that the § 117 affirmative defense was not available to Peak, based purely on the “owner of a copy” requirement. The court quickly concluded that “[s]ince MAI licensed its software, the Peak customers [(licensees of MAI)] do not qualify as ‘owners’ of the software and are not eligible for protection under § 117.”\textsuperscript{84} Given that the Peak customers did not qualify for § 117, they could not “authorize the making of another copy or adaptation”\textsuperscript{85} by Peak as § 117 would have allowed. The Ninth Circuit’s interpretation of the “owner of copy” requirement has been highly criticized\textsuperscript{86} and no subsequent court of appeals decision has followed this interpretation.

In 1999, the Federal Circuit in \textit{DSC Communications Corp. v. Pulse Communications, Inc.} also confronted the issue of determining the meaning of a § 117 owner.\textsuperscript{87} In \textit{DSC Communications}, the plaintiff manufacturer of telecommunication systems equipment claimed both direct infringement and contributory infringement of its copyrighted software by Pulse, which produced interface cards compatible with DSC’s systems.\textsuperscript{88} To facilitate this compatibility, Pulse designed its interface cards to “download[]”\textsuperscript{89} the [DSC] software from the host [DSC equipment] . . . upon power-up,” which emulated how DSC interface cards operated.\textsuperscript{90} Therefore, third-party companies that used Pulse interface cards with DSC equipment unavoidably caused unauthorized copies of DSC software to be made, thus leaving Pulse potentially contributorily liable. Additionally, DSC charged Pulse with direct infringement for the copying of DSC software during Pulse’s use of DSC systems, which Pulse purchased on the open market.\textsuperscript{91}

The Federal Circuit commented that “ownership is an

\textsuperscript{83} Id. at 517.
\textsuperscript{84} Id. at 518 n.5.
\textsuperscript{85} 17 U.S.C. § 117(a).
\textsuperscript{86} DSC Commc’ns Corp. v. Pulse Commc’ns, Inc., 170 F.3d 1354, 1360 (Fed. Cir. 1999). According to the court:

The Ninth Circuit stated that it reached the conclusion that Peak was not an owner because Peak had licensed the software from MAI. . . . That explanation . . . fail[ed] to recognize the distinction between ownership of a copyright, which can be licensed, and ownership of copies of the copyrighted software.

\textsuperscript{87} Id.
\textsuperscript{88} Id. at 1358 (“Pulse[] . . . developed a [DSC]-compatible [interface] card to compete with DSC’s [interface] card.”).
\textsuperscript{89} The downloading of DSC software from DSC equipment onto a Pulse interface card created a copy of the DSC software on the Pulse interface card. \textit{Id.}
\textsuperscript{90} DSC, 170 F.3d at 1358.
\textsuperscript{91} Id. at 1362-63.
imprecise concept, and the Copyright Act does not define the term."\(^{92}\) However, the court stated that “it is clear from the fact of the substitution of the term ‘owner’ for ‘rightful possessor’ that Congress must have meant to require more than ‘rightful possession’ to trigger the section 117 defense.”\(^{93}\) The Federal Circuit also rejected the Ninth Circuit’s holding in MAI Systems, which stated that all licensees were non-owners for the purpose of § 117.\(^{94}\) When the Federal Circuit examined the licensing agreements between DSC and the third-party companies, it came to the conclusion that “the licensing agreements severely limit the rights of the [third-party companies] with respect to the [DSC] software in ways that are inconsistent with the rights normally enjoyed by owners of copies of software.”\(^{95}\)

In coming to this conclusion, the Federal Circuit took into consideration the following features of the third-party companies’ license agreements:

the licensees were “characterize[d] . . . as non-owners of the copies of the software”;

the licensees did not have “the right to transfer copies of the . . . software”;\(^{96}\)

the licensees did not have “the right . . . to disclose the details of the software to third parties”;

the licensees did not have the right to “us[e] the software on hardware other than that provided by [the licensor]”;

the licensees’ “right of possession [was] perpetual”; and

the licensees’ “rights were obtained through a single payment.”\(^{97}\)

The court concluded that although the right of possession was perpetual and the third-party companies had obtained that right through a single payment (both factors suggesting that the third-party companies were owners under § 117), these factors were outweighed by the fact that the agreement was “heavily encumbered by other restrictions that [were] inconsistent with the status of owner.”\(^{98}\) Therefore, the court held that the third-party

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\(^{92}\) Id. at 1360.

\(^{93}\) Id.

\(^{94}\) Id. Additionally, the Federal Circuit noted that “[p]lainly, a party who purchases copies of software from the copyright owner can hold a license under a copyright while still being an ‘owner’ of a copy of the copyrighted software for purposes of § 117.” Id.

\(^{95}\) Id. at 1361.

\(^{96}\) Id. The limitation on the right to transfer a copy to a third party directly conflicts with § 109’s first-sale doctrine which gives an owner of a copy a right to sell the copy without authorization from the copyright holder. See 17 U.S.C. § 109.

\(^{97}\) DSC, 170 F.3d at 1361-62.

\(^{98}\) Id. at 1362.
companies were not entitled to a § 117 affirmative defense, which left Pulse potentially liable for contributory infringement upon remand.

The Federal Circuit quickly addressed the direct infringement charge against Pulse, which had purchased the DSC systems on the open market. Pulse’s purchase did not encumber it with any licensing agreement or other restrictions, so it “was thus an owner of those systems and the associated software.”\(^\text{100}\) The court then moved on to the second requirement of § 117, and ultimately held that Pulse was not liable for direct infringement due to this affirmative defense.\(^\text{101}\)

The Second Circuit’s “sufficient incidents of ownership” approach in Krause is similar to the Federal Circuit’s approach in DSC Communications when considering § 117 “owners.” Both approaches consider the underlying factual context of the agreement between the parties rather than merely the contractual labels applied to parties, and then they proceed to a totality of the circumstances determination. Both cases are satisfactory models for the type of factual inquiry a district court should employ. “Sufficient incidents of ownership” is an appropriate name for this analysis, and district courts should look to the factors utilized by both circuits in order to get a clear understanding of these incidents and to determine whether a party is an “owner of a copy” for purposes of § 117.\(^\text{102}\)

B. Understanding Whether an Adaptation is “an Essential Step in the Utilization of the Computer Program in Conjunction with a Machine.”

The second requirement to qualify for the § 117 adaptation defense is that the “adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine.”\(^\text{103}\) This requirement has been broken down in various ways by the courts; however, it is most useful to consider separately whether the adaptation is: (a) “an essential step in the utilization,” and (b) “in conjunction with a machine.”\(^\text{104}\) The CONTU Report acknowledges that “it is likely that many transactions involving copies of programs are entered into with full awareness that users will modify their copies to suit their own needs,” and thus this requirement represents CONTU’s effort to strike a balance between this reality and the protection of a copyright holder’s

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\(^{99}\) Id.

\(^{100}\) Id. at 1363.

\(^{101}\) Id.


\(^{103}\) Id. (emphasis added).

\(^{104}\) See id.; see also CONTU Report, supra note 3, at 12.
Analysis of the “in conjunction with a machine” portion can be addressed with much less complexity than the “essential step in the utilization” portion, so it will be addressed first. The Fifth Circuit in *Vault*, the Ninth Circuit in *MAI Systems*, and the Federal Circuit in *DSC Communications* did not address this portion of the second requirement; however, the Second Circuit in *Krause* shrewdly examined this portion and proffered a well thought out conclusion. In *Krause*, the plaintiff asserted that “in conjunction with a machine” implied that “only adaptations absolutely necessary to make a program boot or run” were authorized. However, as will be examined in detail infra, this reading would be in contradiction with the “essential step in the utilization” portion of this requirement. The Second Circuit’s response to this assertion appears correct:

[T]he words ‘in conjunction with a machine’ . . . can serve to broaden § 117(a)(1) by making clear that the utilization of a program does not need to be in conjunction with what we conventionally call a computer, but can be in conjunction with a range of machines driven in part by computer programs, such as automobiles, airplanes, and air conditioners.

This is consistent with CONTU’s general sentiment that the type of hardware one owns should not impede one’s ability to utilize software that has been rightfully acquired.

The “essential step in the utilization” portion of the second requirement has been the focus of a large amount of scrutiny, and in *Krause*, the Second Circuit gave thought to the meaning and likely application of the individual word “essential”, the individual word “utilization”, and the phrase taken as a whole. This final method of examination—considering the phrase as a whole—proved to be the most sensible since, as the *Krause* court

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105 CONTU Report, *supra* note 3, at 13; *see also* Aymes v. Bonelli, 47 F.3d 23, 26 (2d Cir. 1995).
106 *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988).
107 *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993).
110 *Id.* at 127.
111 *Id.*
112 CONTU Report, *supra* note 3, at 13. The Report clarifies that:

Because of a lack of complete [hardware] standardization . . . one who rightfully acquires a copy of a program frequently cannot use it without adapting it to . . . allow its use in the possessor’s computer. The copyright law . . . should no more prevent such use than it should prevent rightful possessors from loading programs into their computers.

*Id.*

113 *Krause*, 402 F.3d at 126-29.
recognized, the terms taken individually are highly ambiguous.\textsuperscript{114} Additionally, the CONTU Report—\textit{the sole source of legislative intent}—only discusses the purpose and consequences of the requirement as a whole.\textsuperscript{115}

The CONTU Report provides valuable insight into how to determine what modifications qualify as § 117 adaptations in light of this requirement. The CONTU Report states:

\begin{quote}
[A] right to make those changes necessary to enable the use for which [the computer program] was both sold and purchased should be provided. The conversion of a program from one higher-level language to another to facilitate use would fall within this right, as would the right to add features to the program that were not present at the time of rightful acquisition. . . . These rights . . . could only be exercised so long as they did not harm the interests of the copyright proprietor.\textsuperscript{116}
\end{quote}

Therefore, a host of modifications may qualify as an “essential step in the utilization”\textsuperscript{117} of the program, as long as each modification remains within the scope of “necessary to enable the use for which [the computer program] was both sold and purchased.”\textsuperscript{118} These modifications may range from those that merely keep preexisting functionality operational\textsuperscript{119} to those modifications that introduce functionality in the form of new features. It follows that, “the use for which [the computer program] was both sold and purchased”\textsuperscript{120} is a key determination.

When the court makes this determination, the rights of the copyright holder must remain in sight. It is relevant to recall that the adaptation defense is a limited defense for a specific group of users\textsuperscript{121} who make qualifying modifications to a computer program. Therefore, it is prudent to keep factual determinations about the “the use for which [the computer program] was both sold and purchased”\textsuperscript{122} highly focused and specific, rather than broad and general. Otherwise, this limited exception to a copyright holder’s rights will swallow up the general rule of

\begin{footnotes}
\footnotetext{114} Id. at 126 (suggesting that the meaning of the word “essential” can “\textit{var[y]} considerably from one context to another. . . . [A]mbiguity inheres in the word ‘essential.’ . . .”). Moreover, “\textit{‘[u]tilization’ of a computer program might refer exclusively to booting and running the program . . . [or] might refer more broadly to ‘mak[ing] [the program] useful’ to the owner of the copy . . . .” Id. at 26.
\footnotetext{115} CONTU Report, \textit{supra} note 3, at 13.
\footnotetext{116} Id. (emphasis added); \textit{Krause}, 402 F.3d at 128.
\footnotetext{117} 17 U.S.C. § 117(a)(1).
\footnotetext{118} CONTU Report, \textit{supra} note 3, at 13.
\footnotetext{119} For example, recompiling the source code or modifying the original source code to allow the computer program to function on a given machine.
\footnotetext{120} CONTU Report, \textit{supra} note 3, at 13.
\footnotetext{121} This affirmative defense is only available to “owners of a copy” of the computer program. 17 U.S.C. § 117.
\footnotetext{122} CONTU Report, \textit{supra} note 3, at 13.
\end{footnotes}
Moreover, the only guidance specifically written into the statute as to whether the legislature intended for this requirement to be interpreted narrowly or broadly lies in the word “essential,” which given its plain meaning would suggest the legislature meant for a narrow interpretation. Furthermore, the CONTU Report states that the right to make qualifying adaptations “could only be exercised so long as [it] did not harm the interests of the copyright proprietor.” This suggests that a factfinder should not be overly broad when considering what adaptations will be afforded this defense, which is in accord with the conclusion of the preceding paragraph. Therefore, the scope of this adaptation defense requirement must remain narrowly focused on “changes necessary to enable the use for which [the computer program] was both sold and purchased.”

In *Vault Corp. v. Quaid Software Ltd.*, discussed *supra*, the Fifth Circuit held that Quaid’s copying of Vault’s program into the computer’s memory for the purpose of using the software was an “essential purpose” that was permitted by § 117, because the copy was “created as an essential step in the utilization of Vault’s program.” Although the Fifth Circuit seemed to adopt an “absolute necessity” reading of this requirement, it never fully articulated its interpretation. The court also acknowledged that the purpose of Vault’s program was to “prevent the copying of the program placed on the [Vault] diskette by one of Vault’s customers.” This use was likely the “use for which the [program] was both sold and purchased;” however, since this case involved § 117’s application to copies of software rather than to adaptations of software, the court never addressed this point. Therefore, this case’s application of the second requirement is arguably of little instructional value for purposes of the adaptation defense.

In *MAI Systems Corp. v. Peak Computer, Inc.*, discussed *supra*, the Ninth Circuit dismissed the § 117 defense, due to it finding

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123 17 U.S.C. § 106 (“[T]he owner of copyright under this title has the exclusive rights to do and to authorize any of the following . . . .”) (emphasis added).
124 The Second Circuit in *Krause* defined the word “essential” as “necessary, indispensable,” or “unavoidable.” *Krause v. Titleserv, Inc.*, 402 F.3d 119, 126 (2d Cir. 2005) (citing *WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 777 (1976)*).
126 Id.
127 *See supra* Part IV.A.
128 *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 261 (5th Cir. 1988) (emphasis added) (internal quotations omitted).
129 Id.
131 *See supra* Part IV.A.
the first requirement not satisfied because Peak customers were licensees.\textsuperscript{132} Therefore, the court never fully explored the second requirement. However, the Ninth Circuit did note another court’s “absolute necessity” reading of this requirement in relation to copies,\textsuperscript{133} but never expressed its own view or mentioned this requirement’s application to adaptations. Therefore, like \textit{Vault},\textsuperscript{134} this case is arguably of little instructional value for the adaptation defense’s second requirement.

In \textit{DSC Communications Corp. v. Pulse Communications, Inc.}, discussed \textit{supra},\textsuperscript{135} the Federal Circuit did not analyze or apply the second requirement in making its holding regarding the contributory infringement claim. Rather, the court held that the third-party companies were not entitled to a § 117 affirmative defense based on not being able to satisfy the defense’s first requirement.\textsuperscript{136} However, in relation to the direct infringement claim, because Pulse itself satisfied the first requirement, the court was able to reach the second requirement of the § 117 affirmative defense. Unfortunately, the court did not express its interpretation in depth; rather, it merely stated that Pulse was entitled to make copies “as were necessary to operate . . . its own [DSC] systems.”\textsuperscript{137} Similarly to \textit{Vault}, it seems as though the Federal Circuit adopted an “absolute necessity” reading of this requirement, at least in regards to making copies. However, it never expressed a view or mentioned this requirement’s application to adaptations, so like \textit{Vault}\textsuperscript{138} and \textit{MAI Systems},\textsuperscript{139} this case is of little instructional value for the adaptation defense’s second requirement.

Fortunately, in \textit{Krause v. Titleserv, Inc.}, discussed \textit{supra},\textsuperscript{140} the Second Circuit thoroughly analyzed the second requirement and clearly articulated its application of this requirement. The court

\textsuperscript{132} MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 518 n.5 (9th Cir. 1993) (“Since MAI licensed its software, the Peak customers [licensees of MAI] do not qualify as ‘owners’ of the software and are not eligible for protection under § 117.”).

\textsuperscript{133} “One of the grounds for finding that § 117 did not apply was the court’s conclusion that the permanent copying of the software onto the silicon chips was not an ‘essential step’ in the utilization of the software because the software could be used through RAM without making a permanent copy.” \textit{MAI}, 991 F.2d at 519 (citing \textit{Apple Computer, Inc. v. Formula Int’l, Inc.}, 594 F. Supp. 617 (C.D. Cal. 1984)) (emphasis added).

\textsuperscript{134} \textit{Vault Corp. v. Quaid Software Ltd.}, 847 F.2d 255 (5th Cir. 1988).

\textsuperscript{135} \textit{See supra} Part IV.A.

\textsuperscript{136} \textit{DSC Commc’ns Corp. v. Pulse Commc’ns, Inc.}, 170 F.3d 1354, 1362 (Fed. Cir. 1999).

\textsuperscript{137} The first requirement is that one must be an “owner of a copy” of the computer program. 17 U.S.C. § 117(a).

\textsuperscript{138} \textit{DSC}, 170 F.3d at 1363 (emphasis added).

\textsuperscript{139} \textit{Vault Corp. v. Quaid Software Ltd.}, 847 F.2d 255 (5th Cir. 1988).

\textsuperscript{140} MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).

\textsuperscript{141} \textit{See supra} Part III, IV.A.
defined the eight programs at issue as being “designed to enable Titleserv to track and report on the status of client requests and other aspects of its operations.” Since Krause “develop[ed] the programs for [Titleserv’s] sole benefit” and “customized the software to serve Titleserv’s operations,” it is logical that the “use for which [the programs] w[ere] both sold and purchased” was indeed “to enable Titleserv to track and report on the status of client requests and other aspects of its operations.” Therefore, modifications that enable this type of tracking and reporting should satisfy the “created as an essential step in the utilization” portion of the adaptation defense.

Titleserv’s modification fall into four main categories: (1) “correcting programming errors”; (2) “routine tasks necessary to keep the programs up-to-date,” such as “add[ing] new clients” and “insert[ing] changed client addresses”; (3) “incorporating the programs into [a] Windows-based system”; and (4) “adding capabilities, such as print[ing] checks . . . [and] allowing customers direct access to their records.” The Second Circuit correctly recognized that categories (1) through (3) easily qualified as “essential step[s] in the utilization.” More specifically, each of these three categories helped to “enable Titleserv to track and report on the status of client requests and other aspects of its operations.” Category (1)’s correcting of programming errors enabled the programs to continue to track and report. Category (2)’s routine task of keeping the programs up-to-date involved adding and updating the very data on which the programs operated, thus enabling the programs to continue being useful for tracking and reporting. Category (3)’s incorporation of the programs into a new system enabled the

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142 Krause v. Titleserv, Inc., 402 F.3d 119, 120 (2d Cir. 2005).
143 Id. at 124.
144 CONTU Report, supra note 3, at 13.
145 Krause, 402 F.3d at 120 (emphasis added). In a fact intensive inquiry about the “use for which [the programs] w[ere] both sold and purchased,” it would be useful to examine any written agreements between the parties; however, the Krause decision did not evidence any such documents. Id.
147 Id. at 125-26.
148 Id. at 120.
149 This finding is consistent with the Second Circuit’s prior interpretation of § 117 in Aymes v. Bonelli, which held that the user’s modifications “to keep [the program’s data] current from year to year . . . were essential to allow use of the program for the very purpose for which it was purchased.” 47 F.3d 23, 26-27 (2d Cir. 1995).
150 Without more detailed information regarding the incorporation of the programs into the Windows-based system, it cannot be assessed whether the changes involved merely facilitated compatibility with the new system or whether some of the changes further expanded the functionality of the programs. Therefore, for purposes of this Note, only changes involved with compatibility will be considered when evaluating the
programs to continue to track and report after Titleserv upgraded its systems.\textsuperscript{152}

The Second Circuit recognized that category (4)’s addition of new capabilities “require[ed] additional analysis;”\textsuperscript{153} however, the court’s conclusion differs from that of this Note. The court stated that “[s]uch changes were not strictly necessary to keep the programs functioning, but were designed to improve their functionality in serving the business for which they were created.”\textsuperscript{154} This statement is correct, but the proper inquiry for the second requirement remains whether the changes “enable[d] Titleserv to track and report on the status of client requests and other aspects of its operations.”\textsuperscript{155}

The Second Circuit never examined whether the capabilities at issue—“check printing,”\textsuperscript{156} “providing for direct client access”\textsuperscript{157}—“enable[d] Titleserv to track and report on the status of client requests and other aspects of its operations.”\textsuperscript{158} Instead, the court quickly concluded that “[w]e can see no reason why the modest alterations to Titleserv’s copies of the programs should not qualify.”\textsuperscript{159} An assessment of new computer program capability is a very fact intensive inquiry and requires particular scrutiny. However, some hypotheses can be formulated based purely on the limited information the Krause opinion offered about the new functionality.

The adaptation’s new check printing capability does not immediately seem to be inline with the “track[ing] and report[ing of] . . . client requests.”\textsuperscript{160} However, it can be imagined that the “track[ing] and report[ing of] . . . other aspects of [Titleserv’s] operations”\textsuperscript{161} might be greatly enhanced by the ability to print checks quickly and internally. Therefore, depending on the factual findings concerning these “other aspects,” the check printing capability might fall within the scope of this requirement.

However, the adaptation’s new remote direct access capability is more problematic. If the remote access only allows the incorporation of the programs into the Windows-based system.

\textsuperscript{152} See generally Krause, 402 F.3d at 125-26. This finding is again consistent with Aymes, which held that the user’s modifications “to maintain the viability of the original software when [it] upgraded its computer to accommodate successive generations of IBM systems . . . were essential to allow use of the program for the very purpose for which it was purchased.” 47 F.3d at 26-27.
\textsuperscript{153} Krause, 402 F.3d at 126.
\textsuperscript{154} Id. (emphasis added).
\textsuperscript{155} Id. at 120 (emphasis added).
\textsuperscript{156} Id. at 126.
\textsuperscript{157} Id.
\textsuperscript{158} Id. at 120.
\textsuperscript{159} Id. at 128-29.
\textsuperscript{160} Id. at 120 (emphasis added).
\textsuperscript{161} Id. (emphasis added).
customer to *track their requests* and *access reports on their requests*, then the adaptation would seem to be “enabl[ing] the use for which [the programs] w[ere] both sold and purchased,” as defined by the court in *Krause*. However, if the remote access capability gave the customer new functionality outside of the scope of *tracking and reporting* on their requests, such as the ability to make new requests, then this would seem to fall outside “the use for which [the programs] w[ere] both sold and purchased.” The following language from the *Krause* decision seems to suggest that the remote access did indeed give the customers the ability to do more than just track and report: “[I]t seems to us to make little difference whether the programs are accessed and operated by Titleserv’s personnel or the personnel of the customer in *carrying out* or checking on *its transactions* with Titleserv.” Therefore, although this new functionality would indeed be helpful to Titleserv’s business, it does not fall within the scope of this requirement and should be excluded from the protection of the adaptation defense.

**C. The “Used in No Other Manner” Requirement**

The third and last requirement to qualify for the § 117 adaptation defense is that the adaptation must be “used in no other manner.” In *Vault Corp. v. Quaid Software Ltd.*, discussed *supra*, the copyright holder plaintiff argued that this requirement “should be interpreted to permit only the copying of a computer program for the purpose of using it for [the copyright owner’s] intended purpose.” The court refused to “read such limiting language into [the § 117] exception,” when the statute’s language was not suggestive of this conclusion and there was no clear congressional guidance leading to this conclusion. The court acknowledged that Vault’s software was not used by Quaid for Vault’s intended purpose; nevertheless, it still ultimately found that Quaid qualified for § 117 protection and thus did not

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163 *Krause*, 402 F.3d at 119.
165 *Krause*, 402 F.3d at 130 (emphasis added).
167 See *supra* Part IV.A.
168 *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 261 (5th Cir. 1988).
169 Id.; see also NIMMER, *supra* note 3, § 4:37 (“[A] presumption exists that a client has a right to use a program that it contracts for . . . . Results that preclude this should be avoided unless clearly mandated by the context or the agreements.”).
170 “[T]he copy of Vault’s program made by Quaid was not used to prevent the copying of the program placed on the [Vault] diskette by one of Vault’s customers (which is the purpose of Vault’s program) . . . .” *Vault*, 847 F.2d at 261.
infringe Vault’s copyright. The Fifth Circuit in Vault did not articulate its own interpretation of the “used in no other manner” requirement, but it is clear that the court did not believe the copyright holder’s intended use was dispositive as to what “manner” the program should be used.

In MAI Systems Corp. v. Peak Computer, Inc., discussed supra, the Ninth Circuit did not acknowledge the “used in no other manner” portion of § 117. The court came to its holding without ever examining this requirement, so this decision need not be examined further at this time. Similarly, in DSC Communications Corp. v. Pulse Communications, Inc., discussed supra, the Federal Circuit neither analyzed nor applied this requirement in making its holdings regarding § 117.

Unlike the Ninth Circuit and the Federal Circuit, the Second Circuit in Krause v. Titleserv, Inc., discussed supra, thoroughly considered a similar, but less partial, interpretation than that put forth by the plaintiff in Vault Corp. The court stated that “use in another manner seems to . . . depend on the type of use envisioned in the creation of the program.” However, the court did not state whether it was what the copyright holder envisioned or what the owner of a copy envisioned that was relevant. The court noted that “[t]he programs Krause designed for Titleserv were designed for the processing of transactions relating to Titleserv’s relationship with its customers,” and so it concluded that “[w]hat is important is that the transaction for which the programs are used is the type of transaction for which the programs were developed.” Given a plain reading, this “type of transaction” test focuses more on what type of adaptations qualify for § 117 protection rather than what manners of use for an otherwise qualifying adaptation are protected by § 117. As will be discussed

171 Id.
173 See supra Part IV.A.
174 MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 518-19 (9th Cir. 1993) (“Section 117 allows the owner of a copy of a computer program to make or authorize the making of another copy without infringing copyright law, if it is an essential step in the utilization of the computer program or if the new copy is for archival purposes only.”) (internal quotations omitted).
175 See supra Part IV.A.
176 DSC Commc’n Corp. v. Pulse Commc’ns, Inc., 170 F.3d 1354 (Fed. Cir. 1999).
177 See supra Part III, IV.A.
178 Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 261 (5th Cir. 1988). The copyright holder plaintiff argued that this requirement “should be interpreted to permit only the copying of a computer program for the purpose of using it for [the copyright owner’s] intended purpose.” Id.
179 Krause v. Titleserv, Inc., 402 F.3d 119, 129 (2d Cir. 2005); Nimmer & Nimmer, supra note 35, § 8.08 (“The [Krause] opinion also gave limited berth to the statutory requirement that the modification be ‘used in no other manner.’”).
180 Krause, 402 F.3d at 130.
infra, the Second Circuit’s test creates overlap with the “created as an essential step in the utilization of the computer program” second requirement already discussed.\footnote{Id., supra, Part IV.C.}

When applying its “type of transaction” test, the Second Circuit in \textit{Krause}\footnote{Id., supra, Part IV.C., 402 F.3d at 119.} broadly defined the type of transaction as “aid[ing] Titleserv in ordering its transactions with client banks.” This definition allowed the court to find that “an adaptation which allows the programs to be accessed directly through a dial-up connection by the client bank, rather than exclusively by Titleserv’s personnel at the request of the client bank” was the same type of transaction because the adaptation still \textit{aided Titleserv} in ordering its transactions with client banks.\footnote{Id., supra, 402 F.3d at 119.}

This interpretation of § 117’s third requirement by the Second Circuit, that “\textit{use in another manner seems to . . . depend on the type of use envisioned in the creation of the program},” creates overlap with § 117’s second requirement by attempting to determine what adaptations the section protects rather than what “\textit{uses}” of the adaptations are protected.\footnote{Id., supra, Part IV.D, at 129.} It should be recognized that the third requirement reads “that \textit{it is used in no other manner}.”\footnote{Id., supra, Part IV.D, at 129.} The two key words in this requirement, “it” and “manner,” must be interpreted correctly in order to bring about the results intended by Congress. Analyzing § 117 grammatically, the pronoun “it” in this requirement refers to the noun “adaptation” in the previous clause; the previous clause requires that the “adaptation is created as an essential step . . . .”\footnote{17 U.S.C. § 117(1)(a) (emphasis added).} The “manner” to which this requirement refers is that manner from the previous clause, that the adaptation is used “in the utilization of the computer program.”\footnote{Id.} Therefore, the “that it is used in no other manner” requirement should be read to mean that the adaptation may not be used in any other manner besides the utilization of the computer program.

The purpose of this limitation is clear when considering the purpose of § 117(a) – to allow an owner of a copy of a computer program to create a new copy or adaptation that \textit{will allow the owner of the copy} to utilize the computer program.\footnote{Id. (emphasis added).} This purpose necessarily creates a defense to § 106 infringement claims for (1) reproducing the copyrighted work\footnote{Id. § 106(1).} and (2) preparing a
derivative work, such as an adaptation, based upon the copyrighted work.\textsuperscript{190} However, this purpose does not require, nor should it be interpreted to create, a defense to infringement claims arising from the remaining portions of § 106.

For example, § 106(3) grants the owner of a copyright exclusive right to “distribute copies . . . of the copyrighted work to the public.”\textsuperscript{191} Surely, when it amended § 117, Congress did not intend to automatically grant an “owner of a copy” a right to distribute his adaptation—which may not itself be copyrightable—to the public. Therefore, the third requirement that “[the adaptation] is used in no other manner” is a means to limit the bounds of § 117(a)’s initial phrase—“[n]otwithstanding the provisions of section 106”—which creates an exemption from § 106’s grant of specific exclusive rights to the copyright holder.\textsuperscript{192} This interpretation, that Congress did not intend to fully shield the creator of an adaptation from § 106 liability, is consistent with § 117(b)’s limitation that “[a]daptations . . . may be transferred only with the authorization of the copyright owner.”\textsuperscript{193}

It follows similarly that both § 106(4)’s right to “perform the copyrighted work publicly”\textsuperscript{195} and § 106(5)’s right to “display the copyrighted work publicly”\textsuperscript{196} were not meant to be excluded by § 117 from the copyright holder’s exclusive rights.\textsuperscript{197} Additionally, § 106(6) does not apply to computer programs.\textsuperscript{198} If the converse was true and § 117 did exempt an owner of a copy from §§ 106(4) and 106(5), then § 117’s defense would nullify all of the copyright holder’s rights. Presumably, this interpretation was not Congress’ intent. Therefore, §§ 106(3)-(6) are not implicated by the adaptation defense and need not be explored in an analysis of the adaptation defense’s applications.

In Krause, one feature of the adaptation added functionality

\textsuperscript{190} Id. § 106(2).
\textsuperscript{191} Id. § 106(3).
\textsuperscript{192} Id. § 117(a).
\textsuperscript{193} See id. § 106.
\textsuperscript{194} Id. § 117(b).
\textsuperscript{195} Id. § 106(4).
\textsuperscript{196} Id. § 106(5).
\textsuperscript{197} Section 106(4) applies to “literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works,” and § 106(5) applies to “literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work.” Id. § 106. “The term ‘literary works’ does not connote any criterion of literary merit or qualitative value; it includes catalogs, directories, and similar factual, reference, or instructional works and compilations of data. It also includes computer data bases, and computer programs to the extent that they incorporate authorship in the programmer’s expression of original ideas, as distinguished from the ideas themselves.” Id. § 102 (emphasis added).
\textsuperscript{198} Section 106(6) applies to “sound recordings.” Id. § 106.
that allowed two client banks of Titleserv to access the computer program remotely through use of a dial-up connection, so that the two client banks could have “direct access to their records.”

This remote access did not constitute a “distribution” of the adaptation to a third party, because the remote access by client banks did not result in the source code or object code of the adaptation being copied or transferred to the client banks’ machines. Therefore, the adaptation was not used in any other manner that would violate § 106(3) and it satisfies the third requirement of § 117. Notwithstanding its different interpretation, the Second Circuit in Krause came to the same conclusion as this Note in regards to the third requirement, which allowed the court to hold this modification exempt from § 106 infringement liability.

However, it is not difficult to envision modern scenarios where this Note’s interpretation of the “used in no other manner” requirement would lead to a different result than the application of the Second Circuit’s interpretation in Krause. One example is the outsourcing of development to the open source community. The fixing of software bugs is an adaptation that most courts, including the Second Circuit in Krause, would grant the § 117 defense. Moreover, if an owner of a copy was to “authorize the making of . . . [an] adaptation” by another party, this would still satisfy the first requirement. However, when the authorized party is an open source community, this Note’s interpretation of the third requirement

\[199\] Krause v. Titleserv, Inc., 402 F.3d 119, 125 (2d Cir. 2005).
\[200\] Krause v. Titleserv, Inc., 289 F. Supp. 2d 316, 320 (E.D.N.Y. 2003). The court stated that:

[A] closer examination of the record, sua sponte, bears out that Titleserv did not share the programs with these banks; e.g., it did not allow the banks to copy the source codes of these programs. Defendants merely allowed the two banks “dial-up” access to view client records on Titleserv’s computer systems . . . . Id. It is also worth noting that sharing code with only two clients would probably not constitute a “public” distribution under § 106(3). How much distribution qualifies as a “public” distribution is an interesting topic in itself, and this topic can be explored further in other scholarship.
\[201\] Krause, 402 F.3d at 130.
\[203\] Krause, 402 F.3d at 119.

\[206\] See Krause, 402 F.3d at 125 (“[C]orrecting programming errors or ‘bugs,’ which interfered with the proper functioning of the programs . . . was done so that the programs would continue to function. . . . It cannot seriously be disputed that such fixing is ‘essential.’”).

would not be satisfied because allowing the source code to be viewed by the public—the open source community—would violate
the copyright holder’s exclusive right of public distribution.208 In contrast, under the Second Circuit’s Krause209 interpretation, the
third requirement would be satisfied because the fixing of software bugs would result in the same “type of transaction”—”the
processing of transactions relating to Titleserv’s relationship with its customers”210—because the adaptation would still perform
the same function as the original computer program, regardless of whether the source code was viewed by the open source
community.211

The need for the third requirement’s inclusion in § 117 is clear. Even though an adaptation may pass the first and second
requirements—it was created by an owner of a copy as an essential step in the utilization of the program—the adaptation might still
fail to satisfy the third requirement. Such an adaptation would violate the copyright holder’s exclusive rights under § 106212
and should not be granted the § 117 defense to an infringement claim.213

V. A PROPOSAL FOR PROPER APPLICATION OF THE ADAPTATION
DEFENSE

A. Interpreting the Adaptation Defense

This Note has endeavored to comply with the Congressional intent embodied in the CONTU Report,214 to “balance[] the
interest of proprietors in obtaining ‘reasonable protection’ against the risks of ‘unduly burdening users of programs and the general
public.’”215 In doing so, this Note proposes the following interpretation of the § 117(a) adaptation defense. An adaptation
must satisfy the following three requirements to qualify for the defense:

- the adaptation must be made or authorized by an owner of a copy
  of the computer program;
- the adaptation must be created as an essential step in the

\[208\] Allowing the source code to be viewable by the public is tantamount with a
distribution of the source code, in violation of § 106(3). \textit{Id.} § 106(3).

\[209\] \textit{Krause}, 402 F.3d 119.

\[210\] \textit{Id.} at 130.

\[211\] \textit{Id.}


\[213\] \textit{See id.} § 117(a).

\[214\] CONTU Report, \textit{supra} note 3.

\[215\] \textit{Vault Corp. v. Quaid Software Ltd.}, 847 F.2d 255, 259 (5th Cir. 1988) (citing
CONTU Report, \textit{supra} note 3, at 29).
utilization of the computer program; and
the adaptation must be used in no other manner.\textsuperscript{216}

To satisfy the “owner of a copy” requirement, one must possess “sufficient incidents of ownership to make it the owner of the copy for purposes of applying § 117(a).”\textsuperscript{217} This factual inquiry should explore the underlying factual context of the agreement between the parties rather than merely the contractual labels applied to parties, and then proceed to a totality of the circumstances determination. In making this determination, courts should weight factors such as, but not limited to, those utilized by both the Second Circuit in \textit{Krause}\textsuperscript{218} and the Federal Circuit in \textit{DSC Communications Corp.}\textsuperscript{219} to gain a clear understanding of the parties’ agreement. These factors include:

- the amount of consideration paid to the copyright holder;
- whether the user’s rights were obtained through a single payment;
- whether the program was developed for the user’s sole benefit;
- whether the program was customized for the user’s purpose;
- whether the user was characterized in the agreement as a non-owner of the copies of the program;
- whether the program’s source code was stored on a server owned by the user;
- whether the user had the right to use the software on hardware other than that prescribed by copyright holder;
- whether the user’s right of possession was perpetual;
- whether the copyright holder reserved the right to repossess the copies under certain circumstances;
- whether the user was free to discard or destroy the copies at any time;
- whether the user had the right to disclose the details of the software to third parties; and
- whether the user had the right to transfer the copies of the software.

To satisfy the “essential step in the utilization” requirement, an adaptation must remain within the scope of “enabl[ing] the use for which [the computer program] was both sold and

\textsuperscript{216} See 17 U.S.C. § 117(a).
\textsuperscript{217} \textit{Krause v. Titleserv, Inc.}, 402 F.3d 119, 125 (2d Cir. 2005).
\textsuperscript{218} \textit{Id.} at 124.
\textsuperscript{219} \textit{DSC Commc’ns Corp. v. Pulse Commc’ns, Inc.}, 170 F.3d 1354, 1361-62 (Fed. Cir. 1999).
These adaptations may include adding new “features to the program that were not present at the time of rightful acquisition,” as long as these new features remain within the scope of this requirement. The factual determination of “the use for which [the computer program] was both sold and purchased” should be highly focused and specific, otherwise this limited exception to a copyright holder’s rights will swallow up the general rule of exclusivity.

To satisfy the “used in no other manner” requirement, an adaptation must not be used in any other manner besides the utilization of the computer program. Therefore, the adaptation is only shielded from liability arising under § 106(1)’s reproduction of a copyrighted work, and § 106(2)’s preparation of a derivative work.

B. Revisiting the Modifications of the Adaptation in Krause

Section IV examined each of the § 117 requirements separately, and therefore it addressed the modifications at issue in Krause in respect to one § 117 requirement at a time. However, it is useful to assess all of the adaptation defense’s requirements in one pass under this Note’s interpretation in order to further an understanding of the requirements and their application. In Krause, the modifications fell into four main categories:

(1) correcting programming errors or ‘bugs,’ which interfered with the proper functioning of the programs;

(2) changing the source code to add new clients, insert changed client addresses, and perform other routine tasks necessary to keep the programs up-to-date and to maintain their usefulness to Titleserv;

(3) incorporating the programs into the Windows-based system Titleserv designed and implemented between 1997 and 1998; and

(4) adding capabilities, such as the ability to print checks, and, to a limited degree, allowing customers direct access to their records, which made Titleserv’s copy of the programs more responsive to the needs of Titleserv’s business.

Presumably, the same party made or authorized all four of

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221 Id. (emphasis added); Krause, 402 F.3d at 128.
222 17 U.S.C. § 106 (“[T]he owner of copyright under this title has the exclusive rights to do and to authorize any of the following . . . .”)
223 Id.
224 Krause, 402 F.3d at 119.
225 Id. at 125.
the categories of modifications, therefore an analysis of the first requirement will be applicable to all four categories. The Second Circuit in *Krause* found that Titleserv had “sufficient incidents of ownership to make it the owner of the copy for purposes of applying [the adaptation defense]” based on a weighing of seven factors. Since these factors comprise many of those listed in this Note’s interpretation, the result under this Note’s interpretation is in concert with the Second Circuit’s result. Therefore, all four modifications satisfied the first requirement, and only the second and third requirements still need to be examined for each modification.

To satisfy the second requirement, the adaptation must remain within the scope of “enabl[ing] the use for which [the computer program] was both sold and purchased.” The court in *Krause* defined the eight programs at issue as being “designed to enable Titleserv to track and report on the status of client requests and other aspects of its operations.” Since *Krause* “develop[ed] the programs for [Titleserv’s] sole benefit” and “customized the software to serve Titleserv’s operations,” it is logical that the “use for which [the programs] w[ere] both sold and purchased” was indeed “to enable Titleserv to track and report on the status of client requests and other aspects of its operations.” Therefore, modifications that enable this type of tracking and reporting will satisfy this portion of the adaptation defense.

The first category of modifications, “correcting programming errors or ‘bugs,’” on its face satisfied both the second and third requirements of the adaptation defense. It satisfied the second requirement, because correcting errors enables a computer program to continue its preexisting use for which it was sold and purchased. In this case, the correcting of errors enabled the programs to continue to track and report. It satisfied the third requirement, because correcting errors does not, in and of itself, result in any violations of §§ 106(3)-(6). Therefore, the first category of modifications qualified for the adaptation defense.

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226 The first requirement is that “the adaptation must be made or authorized by an owner of a copy of the computer program.” 17 U.S.C. § 117(a) (emphasis added).
227 See supra Part IV.A; *Krause*, 402 F.3d at 124-25.
228 CONTU Report, supra note 3, at 13.
229 *Krause*, 402 F.3d at 120.
230 Id. at 124.
232 *Krause*, 402 F.3d at 120 (emphasis added). In a fact intensive inquiry about the “use for which [the programs] w[ere] both sold and purchased,” it would be useful to examine any written agreements between the parties, however the *Krause* decision did not evidence any such documents. Id.
234 Id. § 106.
The second category of modifications, “add[ing] new clients, insert[ing] changed client addresses, and perform[ing] other routine tasks necessary to keep the programs up-to-date,” satisfied both the second and third requirements. It satisfied the second requirement because the addition and updating of data on which the programs operated enabled them to continue to be useful for tracking and reporting. It satisfied the third requirement because the addition and updating of data did not, in and of itself, result in any violations of §§ 106(3)-(6). Therefore, the second category of modifications qualified for the adaptation defense.

The third category of modifications, “incorporating the programs into [a] Windows-based system,” satisfied both the second and third requirements. It satisfied the second requirement because the incorporation of the programs into a new system enabled the programs to continue to track and report after Titleserv upgraded its systems. It satisfied the third requirement because the adding and updating of data did not, in and of itself, result in any violations of §§ 106(3)-(6). Therefore, the third category of modifications qualified for the adaptation defense.

The fourth category of modifications, “adding capabilities, such as the ability to print checks, and, to a limited degree, allowing customers direct access to their records,” must be examined one capability at a time. An assessment of new capability is a very fact intensive inquiry and requires particular scrutiny. However, some hypotheses can be formulated based purely on the limited information the Krause opinion offered about each capability.

The check printing capability does not seem to be inline with the “track[ing] and report[ing of] . . . client requests.” However, it can be imagined that the “track[ing] and report[ing of] . . . other aspects of [Titleserv’s] operations” might be greatly enhanced by the ability to print checks quickly and internally. Therefore, depending on the factual findings concerning these “other aspects,” the check printing capability might fall within the scope...
of the second requirement. This capability satisfied the third requirement because check printing capability did not, in and of itself, result in any violations of §§ 106(3)-(6). Therefore, the check printing capability might qualify for the adaptation defense, contingent upon the factual findings indicated above.

The remote direct access capability seems to fall outside of the scope of the second requirement, because language from the Krause decision suggests that the remote access gave clients the ability to do more than just track and report: “[I]t seems to us to make little difference whether the programs are accessed and operated by Titleserv’s personnel or the personnel of the customer in carrying out or checking on its transactions with Titleserv.” Therefore, although this new functionality would indeed be helpful to Titleserv’s business, it does not fall within the scope of the second requirement. Even though already excluded from the adaptation defense’s protection by the second requirement, this capability satisfied the third requirement. It did so because the remote access did not constitute a “distribution” of the adaptation to the public. Therefore, the direct access capability did not, in and of itself, result in any violations of §§ 106(3)-(6). In sum, the remote direct access capability did not qualify for the adaptation defense.

VI. Conclusion

This Note has endeavored to carry out the Congressional intent embodied in the CONTU Report, to “balance[] the interest of proprietors in obtaining ‘reasonable protection’ against the risks of ‘unduly burdening users of programs and the general public.’” Through analysis of the Second Circuit’s approach to the adaptation defense in Krause v. Titleserv, Inc. and the approaches of other circuits, this Note has proposed an interpretation that meets CONTU’s objectives, such as that “[c]opyright should in no way inhibit the rightful use of [a computer program].”

242 Krause, 402 F.3d at 130 (emphasis added).
244 17 U.S.C. § 106.
245 CONTU Report, supra note 3.
247 402 F.3d 119 (2d Cir. 2005).
248 CONTU Report, supra note 3, at 12 (emphasis added). CONTU laid out the following objectives concerning the copyright of computer programs:
(1) Copyright should proscribe the unauthorized copyright of these works;
This Note’s interpretation has left the program user a great deal of flexibility to adapt their copy of the program, while at the same time protecting the copyright holder’s rights that were not meant to be defeated by the adaptation defense. It is worth noting that should a specific capability not fall within the scope of the adaptation defense, generally, the user would be within his rights to create a new computer program to accomplish the functionality sought, rather than the sometimes quicker and less costly route of adapting the copyright holder’s work.

CONTU’s recommendations sought to “respect the rights of owners of copyrights . . . while considering the concerns of the general public and the consumer.”240 This aspiration to keep the relationship between the program user and copyright holder equitable was of the utmost importance in formulating this Note’s interpretation of the adaptation defense, and this interpretation could serve to resolve the current inconsistency between the circuits.

Logan Marc*

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(2) Copyright should in no way inhibit the rightful use of these works;
(3) Copyright should not block the development and dissemination of these works;
(4) Copyright should not grant anyone more economic power than is necessary to achieve the incentive to create.

Id. 240 Id. at 1.

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