

1 Christopher E. Hanba (*pro hac vice*)  
2 Email: chanba@dickinson-wright.com  
3 Joshua G. Jones (*pro hac vice*)  
4 Email: jjones@dickinson-wright.com  
5 DICKINSON WRIGHT PLLC  
6 607 W. 3rd Street, Suite 2500  
7 Austin, Texas 78701  
8 Telephone: (512) 770-4200  
9 Facsimile: (844) 670-6009

6 Eric M. Schiffer  
7 Email: eschiffer@schifferapc.com  
8 SCHIFFER, APC  
9 7545 Irvine Center Drive, Suite 200  
10 Irvine, CA 92618  
11 Telephone: (949) 533-0485

10 *Attorneys for Plaintiff*  
11 *Jonathan E. Jaffe*

12 [Additional counsel listed on signature page]

13 **UNITED STATES DISTRICT COURT**  
14 **CENTRAL DISTRICT OF CALIFORNIA**

15 JONATHAN E. JAFFE,  
16

17 Plaintiff,

18 v.

19 ADOBE, INC.,  
20

21 Defendant.  
22  
23  
24  
25  
26  
27  
28

Case No. 2:23-cv-06224-JWH-MAA

**PLAINTIFF JONATHAN E. JAFFE'S  
DISCLOSURE OF ASSERTED CLAIMS  
AND INFRINGEMENT CONTENTIONS  
(PATENT L.R. 3-1 AND 3-2)**

## TABLE OF CONTENTS

|      |                                                                                                  |    |
|------|--------------------------------------------------------------------------------------------------|----|
| I.   | Introduction – Reservation of Rights .....                                                       | 1  |
| II.  | Disclosure of Asserted Claims and Infringement Contentions – Patent Local Rule 3-1 .....         | 2  |
| A.   | Asserted Claims – Patent Local Rule 3-1(a).....                                                  | 2  |
| B.   | Accused Instrumentalities – Patent Local Rule 3-1(b) .....                                       | 2  |
| C.   | Claim Charts – Patent Local Rule 3-1(c).....                                                     | 3  |
| D.   | Direct and Indirect Infringement – Patent Local Rule 3-1(d).....                                 | 4  |
| 1.   | Infringement Under 35 U.S.C. § 271(a) .....                                                      | 4  |
| 2.   | Infringement Under 35 U.S.C. § 271(b) .....                                                      | 4  |
| E.   | Type of Infringement – Patent Local Rule 3-1(e).....                                             | 6  |
| F.   | Priority Date – Patent Local Rule 3-1(f).....                                                    | 6  |
| G.   | Jaffe’s Products that Incorporate or Reflect the Asserted Claims – Patent Local Rule 3-1(g)..... | 7  |
| H.   | Timing of Infringement and Damages– Patent Local Rule 3-1(h) .....                               | 7  |
| I.   | Claim of Willful Infringement – Patent Local Rule 3-1(h) .....                                   | 7  |
| III. | Document Production – Patent Local Rule 3-2 .....                                                | 9  |
| A.   | Document Production – Patent Local Rule 3-2(a).....                                              | 9  |
| B.   | Document Production – Patent Local Rule 3-2(b).....                                              | 9  |
| C.   | Document Production – Patent Local Rule 3-2(c).....                                              | 9  |
| D.   | Document Production – Patent Local Rule 3-2(d).....                                              | 10 |
| E.   | Document Production – Patent Local Rule 3-2(e).....                                              | 10 |
| F.   | Document Production – Patent Local Rule 3-2(f) .....                                             | 10 |
| G.   | Document Production – Patent Local Rule 3-2(g).....                                              | 10 |
| H.   | Document Production – Patent Local Rule 3-2(h).....                                              | 10 |
| I.   | Document Production – Patent Local Rule 3-2(i).....                                              | 11 |
| J.   | Document Production – Patent Local Rule 3-2(j).....                                              | 11 |

1       **I.       INTRODUCTION – RESERVATION OF RIGHTS**

2               Pursuant to the Patent Local Rules of the United States District Court for the Northern  
3       District of California (“Patent Local Rules”), as adopted by the Parties for this case pursuant to  
4       the Parties’ Joint Rule 26(f) Report (Dkt. No. 34), Plaintiff Jonathan E. Jaffe (“Jaffe”) hereby  
5       serves his Disclosure of Asserted Claims and Infringement Contentions (“Disclosure”) regarding  
6       infringement of U.S. Patent No. 6,757,828 (the “’828 Patent”) (“the Asserted Patent”). Jaffe’s  
7       Disclosure is made in accordance with the Patent Local Rules of the Northern District of  
8       California.

9               Jaffe bases this Disclosure on his current knowledge, understanding, and belief as to the  
10       facts and information available as of the date of this Disclosure. Discovery has not yet  
11       commenced, and Jaffe has not yet completed his investigation, collection of information,  
12       discovery, or analysis relating to this action. As a result, additional discovery, including  
13       discovery from Defendant Adobe, Inc. (“Adobe”) and its customers, may require Jaffe to amend,  
14       revise, and/or supplement this Disclosure and/or any accompanying exhibits. Jaffe thus  
15       specifically reserves the right to amend, revise, and/or supplement this Disclosure and/or any  
16       accompanying exhibits in accordance with this Court’s scheduling order and/or any other orders  
17       of record in this matter, and/or Federal Rule of Civil Procedure 26(e), as additional documents  
18       and information become available and as discovery and Jaffe’s investigation proceed. Jaffe  
19       further reserves his right to supplement this Disclosure and/or his exhibits based on, for example,  
20       claim construction proceedings and any positions that Adobe may take following any *Markman*  
21       order by the Court. This Disclosure is made without prejudice to any position Jaffe may take  
22       with respect to claim construction. Jaffe further reserves the right to introduce and use such  
23       supplemental materials at trial.

24               Jaffe provides the information below and in the infringement chart for the ’828 Patent  
25       attached as Exhibit A, as well as in the accompanying documents. As with the rest of this  
26       Disclosure, Jaffe’s claim charts for the Asserted Patent is preliminary and exemplary in nature,  
27       and Jaffe reserves the right to supplement the exhibits to allege other bases for infringement  
28       based on Jaffe’s continuing investigation and during the course of discovery. The information

1 contained in Jaffe's Disclosure and Exhibit A is not an admission regarding the scope of any  
2 claim or the proper construction of any claim or any terms contained therein. The production of  
3 documents that have been identified in this Disclosure is not an admission that such documents  
4 are admissible or that Jaffe has waived any objections regarding the admissibility of such  
5 documents.

6 Jaffe's claim chart for the Asserted Patent identifies specifically where each element of  
7 each asserted claim is found in Adobe's products, devices, or other instrumentalities (the  
8 "Accused Instrumentalities"). Although Jaffe identifies at least one citation where each element  
9 of each asserted claim is found in the Accused Instrumentalities, each and every disclosure of the  
10 same element in the Accused Instrumentalities or in documentation or other information about  
11 the Accused Instrumentalities is not necessarily identified. The lack of a citation for any element  
12 is not an admission that the element is not disclosed or is not inherent in the Accused  
13 Instrumentalities. In an effort to focus the issues and avoid redundancy, Jaffe identifies  
14 exemplary portions of the Accused Instrumentalities and reserves his right to cite other portions  
15 of the Accused Instrumentalities or documentation about them to support his claims.

16 **II. DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT**  
17 **CONTENTIONS – PATENT LOCAL RULE 3-1**

18 **A. Asserted Claims – Patent Local Rule 3-1(a)**

19 Jaffe identifies claims 1-5 of the '828 Patent, (collectively, the "Asserted Claims") as  
20 infringed by Adobe under 35 U.S.C. § 271(a) and (b).

21 Jaffe specifically reserves his right to amend, revise, and/or supplement his Asserted  
22 Claims as he acquires additional information about the Accused Instrumentalities (referenced  
23 below) and any other products that Adobe makes, uses, sells, offers to sell, and/or imports into  
24 the United States, and as additional Accused Instrumentalities are identified.

25 **B. Accused Instrumentalities – Patent Local Rule 3-1(b)**

26 Jaffe identifies Adobe's content attribution tools, also called "content credentials" within  
27 its Creative Cloud suite of software products, as well as Adobe products that comply with the  
28 Content Authenticity Initiative and Coalition for Content Provenance and Authenticity (C2PA)

standards as Accused Instrumentalities of which Jaffe is currently aware that infringes claims 1-5 of the '828 Patent. Upon information and belief, such products include Adobe products (standalone and/or apps) utilizing content authenticity, including but not limited to at least Adobe Behance, Adobe Capture, Adobe Creative Cloud, Adobe Darkroom, Adobe Lightroom, Adobe Lightroom Photo & Video Editor, Adobe Lightroom Classic, Adobe Premiere Pro, Adobe Photoshop, Adobe Photoshop Camera, Adobe Photoshop Express, Adobe Photoshop Camera, and Adobe Scan. Jaffe's identification of the Accused Instrumentalities is based on his current knowledge, understanding, and belief as to the facts and information publicly available as of the date of this disclosure. Jaffe's identification of the Accused Instrumentalities includes all products known to Jaffe to include the accused functionality, components, and/or design, and should be understood to include any other products made, used, sold, offered for sale, and/or imported by Adobe that have the same or reasonably similar functionality, components, and/or design as those set forth in the Asserted Claims of the Asserted Patent. Jaffe specifically reserves the right to amend, revise, and/or supplement his identification of Accused Instrumentalities as discovery becomes available.

**C. Claim Charts – Patent Local Rule 3-1(c)**

Jaffe identifies Adobe's infringement of each asserted claim of the '828 Patent in the infringement chart attached as Exhibit A, respectively, which details where each limitation of each asserted claim is found within each Accused Instrumentality or performed during the operation of the Accused Instrumentality by Adobe or third parties. The infringement chart attached as Exhibits A refers to documents related to Adobe's Accused Instrumentalities. Where Jaffe identifies a particular figure or a passage in a cited reference, the identification should be understood to encompass the caption and description of the figure and any text relating to the figure in addition to the figure itself. Similarly, where an identified portion of text refers to a figure, the identification should be understood to include the figure as well.

Jaffe bases his infringement charts on his current knowledge, understanding, and belief as to the functionality, components, and/or design of Jaffe's Accused Instrumentalities based on publicly available information. Jaffe reserves the right to supplement his infringement

1 contentions as more detailed discovery from Adobe becomes available. This infringement chart  
2 is submitted without prejudice to any position that Adobe may take with respect to claim  
3 construction. Jaffe specifically reserves the right to amend, revise, and/or supplement his  
4 infringement chart following any *Markman* order issued by the Court.

5 These contentions are based upon publicly available information, and Jaffe may  
6 supplement with information obtained from its review of Adobe technical information which  
7 Adobe is required to produce or make available for inspection and copying under Patent Local  
8 Rule 3-4(a).

9 Jaffe does not contend that any element of any asserted claim is governed by 35 U.S.C.  
10 §112(6).

11 **D. Direct and Indirect Infringement – Patent Local Rule 3-1(d)**

12 The evidence identified below is not limited to demonstrating any single type of  
13 infringement and should be understood to evidence all types of infringement set forth below.

14 **1. Infringement Under 35 U.S.C. § 271(a)**

15 Adobe directly infringes all Asserted Claims of the '828 Patent under 35 U.S.C. § 271(a).  
16 For example, Adobe makes, uses, sells, offers to sell, and/or imports into the United States the  
17 Accused Instrumentalities. Jaffe's infringement chart (attached as Exhibit A) demonstrates how  
18 Adobe and the Accused Instrumentalities directly infringe each asserted claim of the '828 Patent.

19 **2. Infringement Under 35 U.S.C. § 271(b)**

20 Adobe has indirectly infringed all Asserted Claims of the Asserted Patent under 35  
21 U.S.C. § 271(b) at least, because Adobe has encouraged, instructed, enabled, and otherwise  
22 caused its distributors, resellers, contract equipment manufacturers, customers, and end users to  
23 make, use, sell, offer to sell, and/or import into the United States the Accused Instrumentalities.  
24 Adobe took affirmative acts to encourage direct infringement of the Asserted Patent by others  
25 with knowledge that the induced acts constitute patent infringement. Third parties directly  
26 infringed and continue to directly infringe the Asserted Claims of the Asserted Patent. The acts  
27 of making, using, selling, offering to sell, and/or importing the Accused Instrumentalities by  
28 Adobe's distributors, resellers, contract equipment manufacturers, customers, and end users

1 directly infringe the Asserted Claims of the Asserted Patent, as provided in Section II.D.1 above,  
2 and in Jaffe's infringement chart for the Asserted Patent (attached as Exhibits A).

3 Adobe intentionally encouraged and induced, third parties to directly infringe the  
4 Asserted Claims of the Asserted Patent by, at a minimum, providing instruction and/or technical  
5 support directing hardware manufacturers, who directly infringe, on how to make and/or use the  
6 Accused Instrumentalities; or by providing instruction manuals, demonstrations, and/or technical  
7 support directing distributors, resellers, hardware manufacturers, customers, and end users, who  
8 directly infringe, on how to use the Accused Instrumentalities; or authorizing distributors and  
9 resellers, who directly infringe, to sell or offer to sell the Accused Instrumentalities; or directing  
10 distributors, resellers, and hardware manufacturers to import the Accused Instrumentalities into  
11 the United States.

12 For example, as set forth in greater detail in Section II.I below, since at least as early as  
13 2007, Adobe has had knowledge of the '828 Patent. At that time, Goldhar/Jaffe Technology  
14 Development Corporation ("GJTDC"), the original assignee of the '828 Patent, had  
15 communications with Adobe about '828 Patent and the integration of concepts embodied in the  
16 '828 Patent. At Adobe's request, presentations were prepared for Adobe about the '828 Patent  
17 and the integration of the concepts embodied in the '828 Patent for use by Adobe. GJTDC  
18 provided several drafts of the presentations to Adobe for comment, GJTDC received comments  
19 from Adobe, and GJTDC modified the presentations to address Adobe's comments. GJTDC sent  
20 at least four versions of the presentation to Adobe beginning in January 2007. These  
21 presentations included an "Intellectual Property" page which stated that the concepts described in  
22 the presentations were protected by the '828 Patent. The full patent number as well as the issue  
23 date of the '828 Patent were included. In February 2007, Cheryl Shimamoto of Adobe informed  
24 GJTDC that Adobe found "[t]he technology is very interesting, but relevance to our program is  
25 marginal. So, rather than have you fly out here, we'd rather stop now." Adobe abruptly  
26 terminated all discussions shortly thereafter. These prepared presentations from 2007 still exist.  
27 *See* JAFFE-ADOBE008385-8489.

28 Adobe's analysis and knowledge of the Asserted Patent, combined with its ongoing

1 activity, demonstrates Adobe's knowledge and intent that the identified features of its Accused  
2 Products be used to infringe the Asserted Patent. Adobe's knowledge of the Asserted Patent,  
3 combined with its knowledge of the Accused Products and how they are used to infringe the  
4 Asserted Patent, consistent with Adobe's promotions and instructions, demonstrate Adobe's  
5 specific intent to induce users of the Accused Products to infringe the Asserted Patent.

6 **E. Type of Infringement – Patent Local Rule 3-1(e)**

7 Adobe literally infringes the Asserted Claims of the '828 Patent as explained above, and  
8 in the attached Exhibit A for the Asserted Claims of the '828 Patent.

9 In the alternative, to the extent Adobe asserts that the Accused Instrumentalities are not  
10 found to meet one or more limitations of any Asserted Claim of the Asserted Patent literally, that  
11 claim is infringed under the doctrine of equivalents. The Accused Instrumentalities meet those  
12 limitations under the doctrine of equivalents because they perform the same function in  
13 substantially the same way, use substantially the same means, and/or achieve substantially the  
14 same results, i.e. Adobe's conduct and/or the Accused Instrumentalities at least meet the  
15 function-way-result test. Adobe and/or the Accused Instrumentalities also infringe under the  
16 doctrine of equivalents under the insubstantial differences test.

17 Jaffe expressly reserves its right to assert infringement of the Asserted Claims of the  
18 Asserted Patent under the doctrine of equivalents in response to Adobe's preliminary invalidity  
19 contentions; Adobe's discovery responses, if any; Adobe's non-infringement contentions, if any;  
20 the parties' disclosures of claims to be construed; and any *Markman* order entered by the Court.

21 **F. Priority Date – Patent Local Rule 3-1(f)**

22 The priority date in this section reflects the earliest filing date associated with the  
23 Asserted Claims. Jaffe contends that the Asserted Claims of the '828 Patent are entitled to a  
24 priority date no later than July 27, 2000, the filing date of the U.S. Patent Application Serial No.  
25 09/626,044.

26 Jaffe's investigation regarding the date(s) of invention is ongoing. To the extent Jaffe  
27 discovers additional documents supporting an earlier priority and/or invention date, Jaffe will  
28 timely supplement this contention to the extent permitted by the Federal Rules of Civil Procedure

1 and this Court's rules.

2 **G. Jaffe's Products that Incorporate or Reflect the Asserted Claims – Patent**  
3 **Local Rule 3-1(g)**

4 Jaffe is not presently aware of any of his products that incorporate or reflect the Asserted  
5 Claims.

6 Jaffe's investigation is ongoing. Discovery has not yet commenced, and Jaffe has not yet  
7 completed its investigation, collection of information, discovery, or analysis relating to this  
8 action. Accordingly, Jaffe expressly reserves its rights to supplement this Disclosure.

9 **H. Timing of Infringement and Damages– Patent Local Rule 3-1(h)**

10 Jaffe alleges that Adobe infringed one or more claims of the '828 Patent from at least  
11 November of 2019, which is believed to be date that the Content Authenticity Initiative was  
12 released, until the expiration of the '828 Patent on July 3, 2022. Jaffe alleges that Adobe began  
13 causing damage to Jaffe on or about November of 2019, with respect to at least that amount due  
14 under a reasonable royalty pursuant to 35 U.S.C. § 284.

15 Jaffe's investigation is ongoing. Discovery has not yet commenced, and Jaffe has not yet  
16 completed his investigation, collection of information, discovery, or analysis relating to this  
17 action. Accordingly, Jaffe expressly reserves its rights to supplement this Disclosure.

18 **I. Claim of Willful Infringement – Patent Local Rule 3-1(h)**

19 Jaffe alleges that Adobe was aware of and did willfully infringe the Asserted Patent.  
20 Since at least as early as 2007, Adobe has had knowledge of the '828 Patent, and, despite its  
21 knowledge of Jaffe's patent rights, engaged in egregious behavior warranting enhanced damages.

22 In 2007, Goldhar/Jaffe Technology Development Corporation ("GJTDC"), the original  
23 assignee of the '828 Patent, had communications with Adobe about '828 Patent and the  
24 integration of concepts embodied in the '828 Patent. At Adobe's request, presentations were  
25 prepared for Adobe about the '828 Patent and the integration of the concepts embodied in the  
26 '828 Patent for use by Adobe. GJTDC provided several drafts of the presentations to Adobe for  
27 comment, GJTDC received comments from Adobe, and GJTDC modified the presentations to  
28 address Adobe's comments. GJTDC sent at least four versions of the presentation to Adobe

1 beginning in January 2007. These presentations included an “Intellectual Property” page which  
2 stated that the concepts described in the presentations were protected by the ’828 Patent. The  
3 full patent number as well as the issue date of the ’828 Patent were included. In February 2007,  
4 Cheryl Shimamoto of Adobe informed GJTDC that Adobe found “[t]he technology is very  
5 interesting, but relevance to our program is marginal. So, rather than have you fly out here, we’d  
6 rather stop now.” Adobe abruptly terminated all discussions shortly thereafter. These prepared  
7 presentations from 2007 still exist.

8 Jaffe is informed and believes that despite Adobe’s knowledge of the Asserted Patent and  
9 Jaffe’s patented technology, Adobe made the deliberate decision(s) to make, use, sell, or offer to  
10 sell products that it knew infringe Jaffe’s Asserted Patent.

11 Jaffe is informed and believes that Adobe has undertaken no efforts to avoid infringement  
12 of the Asserted Patent, despite Adobe’s knowledge and understanding that Adobe’s products  
13 infringe the Asserted Patent. Thus, Adobe’s infringement of the Asserted Patent is willful and  
14 egregious, warranting enhancement of damages.

15 Jaffe is informed and believes that Adobe knew or was willfully blind to the Asserted  
16 Patent and their infringement thereof. Despite this knowledge and/or willful blindness, Adobe  
17 has acted with blatant and egregious disregard for Jaffe’s patent rights with an objectively high  
18 likelihood of infringement.

19 At least as early 2007, Adobe had knowledge of the ’828 Patent and despite its  
20 knowledge of Jaffe’s patent rights, engaged in egregious behavior warranting enhanced damages.  
21 Thus, at a minimum, Adobe was placed on notice of its infringement of the ’828 Patent.

22 Jaffe is informed and believes that Adobe knew or was willfully blind to Jaffe’s  
23 technology and the Asserted Patent. Despite this knowledge and/or willful blindness, Adobe has  
24 acted with blatant and egregious disregard for Jaffe’s patent rights with an objectively high  
25 likelihood of infringement.

26 Jaffe is informed and believes that Adobe has undertaken no efforts to avoid infringement  
27 of the Asserted Patent, despite Adobe’s knowledge and understanding that Jaffe’s products and  
28 services infringe the ’828 Patent. Thus, Adobe’s infringement of the Asserted Patent is willful

1 and egregious, warranting enhancement of damages.

2 Jaffe's investigation is ongoing. Discovery has not yet commenced, and Jaffe has not yet  
3 completed his investigation, collection of information, discovery, or analysis relating to this  
4 action. Accordingly, Jaffe expressly reserves its rights to supplement this Disclosure.

5 **III. DOCUMENT PRODUCTION – PATENT LOCAL RULE 3-2**

6 Jaffe is producing relevant non-privileged documents based on its investigation to date  
7 with these Disclosures, including documents designated “Highly Confidential - Attorneys’ Eyes  
8 Only” pursuant to the Protective Order for Litigation Involving Patents, Highly Sensitive  
9 Confidential Information, and/or Trade Secrets authorized by the Northern District of California  
10 pursuant Patent Local Rule 2-2.

11 **A. Document Production – Patent Local Rule 3-2(a)**

12 Based on Jaffe's investigation to date, Jaffe is not aware of any relevant non-privileged  
13 documents based on its investigation to date that are “sufficient to evidence each discussion with,  
14 disclosure to, or other manner of providing to a third party, or sale of or offer to sell, or any  
15 public use of, the claimed invention prior to the date of application for the patent in suit.”

16 Jaffe's investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
17 supplement its production as additional information and documents are discovered.

18 **B. Document Production – Patent Local Rule 3-2(b)**

19 Jaffe is producing non-privileged documents based on its investigation to date that  
20 evidence “the conception, reduction to practice, design, and development of each claimed  
21 invention, which were created on or before the date of application for the patent in suit or the  
22 priority date identified pursuant to Patent L.R. 3-1(f), whichever is earlier,” to the extent any  
23 such documents exist.

24 Jaffe's investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
25 supplement his production as additional information and documents are discovered.

26 **C. Document Production – Patent Local Rule 3-2(c)**

27 Jaffe is producing the certified file history for the '828 Patent, which can be found in  
28 Jaffe's document production at:

1 JAFFE-ADOBE000035-391.

2 **D. Document Production – Patent Local Rule 3-2(d)**

3 Jaffe is producing documents “evidencing ownership of the patent rights by the party  
4 asserting patent infringement” of the ’828 Patent his document production at:

5 JAFFE-ADOBE007506-8126.

6 Jaffe’s investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
7 supplement his production as additional information and documents are discovered.

8 **E. Document Production – Patent Local Rule 3-2(e)**

9 Based on Jaffe’s investigation to date, Jaffe is not aware of any relevant non-privileged  
10 documents based on its investigation to date that are “sufficient to show the operation of any  
11 aspects or elements of such instrumentalities” that Jaffe relies upon embodying any Asserted  
12 Claims of the Asserted Patent.

13 Jaffe’s investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
14 supplement its production as additional information and documents are discovered.

15 **F. Document Production – Patent Local Rule 3-2(f)**

16 Based on Jaffe’s investigation to date, Jaffe is not aware of any non-privileged  
17 “agreements, including licenses, transferring an interest in” the Asserted Patent.

18 Jaffe’s investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
19 supplement its production as additional information and documents are discovered.

20 **G. Document Production – Patent Local Rule 3-2(g)**

21 Based on Jaffe’s investigation to date, Jaffe is not aware of any licenses or agreements  
22 that are “comparable to a license that would result from a hypothetical reasonable royalty  
23 negotiation” granting rights to the Asserted Patent.

24 Jaffe’s investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
25 supplement its production as additional information and documents are discovered.

26 **H. Document Production – Patent Local Rule 3-2(h)**

27 Based on Jaffe’s investigation to date, Jaffe is not aware of any “agreements that  
28 otherwise may be used to support” Jaffe’s infringement damages case.

1 Jaffe's investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
2 supplement its production as additional information and documents are discovered.

3 **I. Document Production – Patent Local Rule 3-2(i)**

4 Jaffe is not aware of any responsive documents.

5 Jaffe's investigation is ongoing. Accordingly, Jaffe expressly reserves his right to  
6 supplement its production as additional information and documents are discovered.

7 **J. Document Production – Patent Local Rule 3-2(j)**

8 There are no "documents comprising or reflecting a F/RAND commitment or agreement  
9 with respect to the asserted patent(s)."

10  
11 Dated: April 22, 2024

Respectfully Submitted,

12 DICKINSON WRIGHT PLLC

13 By: /s/ Joshua G. Jones  
14 Joshua G. Jones

15 Christopher E. Hanba (*pro hac vice*)  
16 Email: chanba@dickinson-wright.com  
17 Joshua G. Jones (*pro hac vice*)  
18 Email: jjones@dickinson-wright.com  
19 DICKINSON WRIGHT PLLC  
20 607 W. 3rd Street, Suite 2500  
21 Austin, Texas 78701  
22 Telephone: (512) 770-4200  
23 Facsimile: (844) 670-6009

24 Ariana D. Pellegrino (*pro hac vice pending*)  
25 Email: apellegrino@dickinson-wright.com  
26 DICKINSON WRIGHT PLLC  
27 500 Woodward Avenue, Suite 4000  
28 Detroit, MI 48226  
Telephone: 313-223-3500

Eric M. Schiffer  
Email: eschiffer@schifferapc.com  
SCHIFFER, APC  
7545 Irvine Center Drive, Suite 200  
Irvine, CA 92618  
Telephone: (949) 533-0485

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Attorneys for Plaintiff  
Jonathan E. Jaffe

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**CERTIFICATE OF SERVICE**

The undersigned certifies that on April 22, 2024, I electronically served the foregoing document via electronic mail to all counsel of record.

Dated: April 22, 2024

DICKINSON WRIGHT PLLC

By: /s/ Joshua G. Jones

Joshua G. Jones (*pro hac vice*)

# EXHIBIT A

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

Plaintiff Jonathan E. Jaffe (“Jaffe” or “Plaintiff”) presently contends that Defendant Adobe, Inc. (“Adobe” or “Defendant”) infringes Claims 1-5 (the “Asserted Claims”) of U.S. Patent No. 6,757,828 (“’828 Patent”) directly and indirectly. This chart sets forth Jaffe’s preliminary infringement contentions relating to the Asserted Claims and the Accused Instrumentalities. Exemplary Accused Instrumentalities are referenced here, and they are listed in Jaffe’s Supplemental Disclosure of Preliminary Infringement Contentions with as much specificity as possible. In general terms, the Accused Instrumentalities are Adobe’s content attribution tools, also called “content credentials” within its Creative Cloud suite of software products, and Adobe’s products compatible with the Content Authenticity Initiative (“CAI”) and the Coalition for Content Provenance and Authenticity (“C2PA”) standards. Upon information and belief, such products include Adobe products (standalone and/or apps) utilizing content authenticity, including but not limited to at least Adobe Behance, Adobe Capture, Adobe Creative Cloud, Adobe Darkroom, Adobe Lightroom, Adobe Lightroom Photo & Video Editor, Adobe Lightroom Classic, Adobe Premiere Pro, Adobe Photoshop, Adobe Photoshop Camera, Adobe Photoshop Express, Adobe Photoshop Camera, and Adobe Scan. To the extent that other of Adobe’s products and services include/integrate functionality described below, Jaffe intends to include those products/applications within the scope of Accused Instrumentalities. The Accused Instrumentalities encompass any predecessor or successor product or service or unnamed related product or service that includes the functionality described below. Jaffe intends to include within the scope of the Accused Instrumentalities all other of Adobe’s systems, services, software, and products that provide substantially identical functionality or services to those detailed in this infringement claim chart.

These contentions articulate the structures and acts that constitute direct infringement of the ’828 Patent and identify specifically where each element of each asserted claim is found within each Accused Instrumentality. Exemplary references to publicly available descriptions of Adobe’s product and service information are provided where appropriate. Exemplary references to specific Accused Instrumentalities are not intended and should not be read to exclude Accused Instrumentalities not specifically identified. As discovery proceeds, these contentions and

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

the specific components identified here as meeting certain claim elements or performing certain claim steps may change in view of claim construction and additional information made available to Jaffe.

Additional information, in particular architecture and design documents are expected to provide further details about the implementation of accused functionality and specific information upon which Jaffe will rely in proving infringement. Jaffe will supplement these preliminary infringement contentions after receiving access to that information and may supplement or amend in light of the Court's claim constructions.

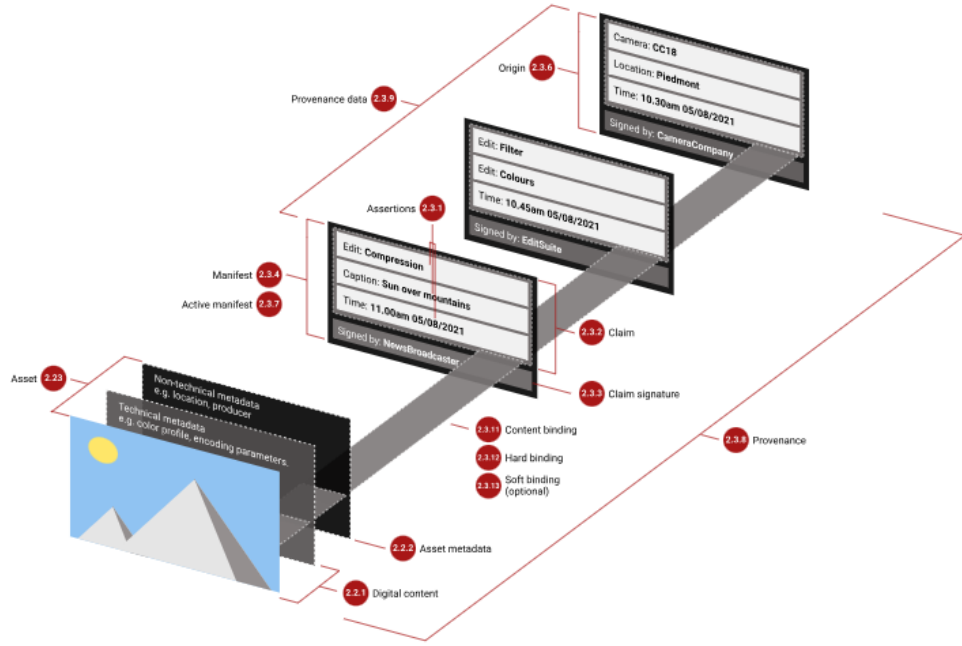
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                            | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Claim 1.</b> A method for authenticating a data stream stored in a data file in memory, said method comprising the steps of:</p> | <p>Plaintiff contends the preamble is not limiting because it describes a purpose or intended use of the claimed subject matter. In the event the preamble is found to impose a meaningful limitation on the scope of the claim, the Accused Instrumentalities employ a method for authenticating a data stream stored in a data file in memory.</p> <p style="text-align: center;"><b><u>The Content Authenticity Initiative unveils content attribution tool within Photoshop and Behance</u></b></p> <p style="text-align: center;"><u>Today, we are unveiling a preview of our attribution tool in Adobe Creative Cloud. This feature will be available to select customers in pre-release within Photoshop and Behance in the coming weeks. The tool is built using an early version of the open standard that will provide a secure layer of tamper-evident attribution data to photos, including the author's name, location and edit history. This will help consumers better understand the content they view online and give them greater confidence to evaluate its authenticity.</u></p> <p>Content Attribution Tool,<br/> <a href="https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance.html#gs.x05anq">https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance.html#gs.x05anq</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p>The Coalition for Content Provenance and Authenticity (C2PA) is a <a href="#">Joint Development Foundation</a> project that brings together the efforts of the <a href="#">Content Authenticity Initiative (CAI)</a> and <a href="#">Project Origin</a>.</p> <p>Founded in late 2019 by Adobe in collaboration with the New York Times and Twitter, the CAI is building a system to provide to provide provenance and history for digital media, providing a tool for creators to claim authorship while empowering consumers to make informed decisions about what to trust. Project Origin, founded in 2019 by BBC, CBC Radio Canada, Microsoft and the New York Times, focuses on tackling disinformation in digital news by defining an end-to-end process for publishing, distribution and attaching signals to a content to demonstrate its integrity.</p> <p><a href="https://c2pa.org/about/about/">https://c2pa.org/about/about/</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc.*, Case No. 2:23-cv-06224-JWH-MAA**  
**Plaintiff’s Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |  <p style="text-align: center;"><b>Figure 3. Elements of C2PA</b></p> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_introduction">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_introduction</a></p> <p>The C2PA specification “power[s] Content Credentials for digital content attribution in Adobe tools like Photoshop, which was announced as a public beta at Adobe MAX 2021.”</p> <p><a href="https://blog.adobe.com/en/publish/2022/01/26/cp2a-1spec-adobeblogv1">https://blog.adobe.com/en/publish/2022/01/26/cp2a-1spec-adobeblogv1</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant’s source code.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                      | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1(a).</b> storing a data stream in a data file memory;</p> | <p>The Accused Instrumentalities store a data stream in a data file memory. For example, Adobe Photoshop captures/retrieves images on a mobile device, camera, desktop computer, and the cloud. The captured photos are backed up to the memory and must be stored in the device's memory or on the cloud server's memory.</p> <div> <p>The image is a screenshot of the Adobe Photoshop interface. It shows a landscape photograph of rolling green hills under a blue sky with white clouds. The photo is enclosed in a green rectangular border. A green callout box with a pointer directed at the top of the image contains the text: "Original image (here: data stream) captured by photojournalist". At the bottom of the image, there is a black text box with white text that reads: "here's how a prototype of our attribution tool works". The Photoshop interface elements, including the toolbar on the left and the Properties panel on the right, are visible around the image.</p> </div> <p>Content Attribution Tool, <a href="https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance">https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p style="text-align: center;"><b>How are Content Credentials stored and recovered?</b></p> <p>Content Credentials can be stored and recovered in three ways:</p> <p><b>Attached directly to their respective files</b> This increases file sizes but can keep your Content Credentials more private. Attached Content Credentials are less resilient and can be stripped from your content when published or shared online.</p> <p><b>Published to the Content Credentials cloud</b> This method reduces file sizes and improves their resiliency. If they're ever stripped from your content, they can be recovered with <a href="#">Verify</a>. In Verify, your published Content Credentials may appear as possible matches for content that is visually similar to your own.</p> <ul style="list-style-type: none"> <li>• Adobe's Content Credentials cloud is a public, persistent storage solution for your Content Credentials, separate from the cloud file storage included in your Adobe plan.</li> <li>• If Content Credentials are missing after your content is published online, the platform you're using likely doesn't yet support Content Credentials. If you post your Content Credentials to the Content Credentials cloud, they can be recovered on <a href="#">Verify</a>.</li> </ul> <p><a href="https://helpx.adobe.com/creative-cloud/help/content-credentials.html">https://helpx.adobe.com/creative-cloud/help/content-credentials.html</a></p> <p>The C2PA standard specifies that assertion data (e.g. data about when, where and how an asset or digital file was created), may be embedded with the assertion data itself on the device or stored externally in the cloud. A device, such as a mobile device, camera, or desktop computer has memory in which data files, such as images, are stored, as well as assertion data. In addition, cloud servers also have memory to store data files such as images and assertion data.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                              | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                          | <p><b>19.10. Cloud Data</b></p> <p>There are use cases where storing the data for the assertion remotely, such as in the cloud, is better than embedded inside the asset, especially when the data is large. For any such cases, it is possible to use a special type of assertion that serves as a reference to that information. For privacy and reliability reasons, data referenced through a Cloud Data assertion shall be considered optional: their contents should not be retrieved as part of manifest validation. A validator may retrieve the contents later to serve an application-dependent need, such as further exploration of the provenance history.</p> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_cloud_data">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_cloud_data</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p>                                            |
| <p><b>1(b).</b> utilizing a sensor, which is tightly coupled to said memory, to generate at least one internal and unique parameter;</p> | <p>The Accused Instrumentalities utilize a sensor, which is tightly coupled to said memory, to generate at least one internal and unique parameter. The Accused Products utilize a sensor, which is tightly coupled to said memory, to generate at least one internal and unique parameter. Such a sensor could include, but is not limited to a GPS receiver in a camera or mobile device, a digital image sensor which captures a photo, or a processor that captures camera or mobile device metadata. Upon information and belief, a sensor could also include temperature sensors such as ring oscillators, which use a random salt for cryptographic hashing, and thermal energy sensors.</p> <p><a href="https://support.apple.com/guide/security/secure-enclave-sec59b0b31ff/web">https://support.apple.com/guide/security/secure-enclave-sec59b0b31ff/web</a><br/> <a href="https://en.wikipedia.org/wiki/Ring_oscillator">https://en.wikipedia.org/wiki/Ring_oscillator</a><br/> <a href="https://spectrum.ieee.org/behind-intels-new-randomnumber-generator">https://spectrum.ieee.org/behind-intels-new-randomnumber-generator</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p><a href="https://www.amd.com/content/dam/amd/en/documents/pdfs/developer/aocl/amd-secure-random-number-generator-library-2.0-whitepaper.pdf">https://www.amd.com/content/dam/amd/en/documents/pdfs/developer/aocl/amd-secure-random-number-generator-library-2.0-whitepaper.pdf</a></p> <p>The Accused Products define an “actor” as “a human or hardware or software product” which includes hardware such as a camera, “image editing software, cloud service, or the person using such tools.” These actors all utilize a sensor according to the patented method. In one example, the Accused Products capture/retrieve an image by utilizing a sensor on a mobile device, camera, desktop computer, and the cloud. In another example, hardware devices such as a camera or mobile phone contain sensors which store image files in memory. The Accused Products, which include image editing software, utilize a sensor when the image is loaded into the program and tamper evident edits are made to the image. The Accused Products must utilize the hardware camera sensor that is tightly coupled to the memory of the mobile device, camera, desktop computer, and the cloud computing device where the hardware camera sensor captures the image which is stored in the mobile device, camera, desktop computer, and cloud computing device memory.</p> |

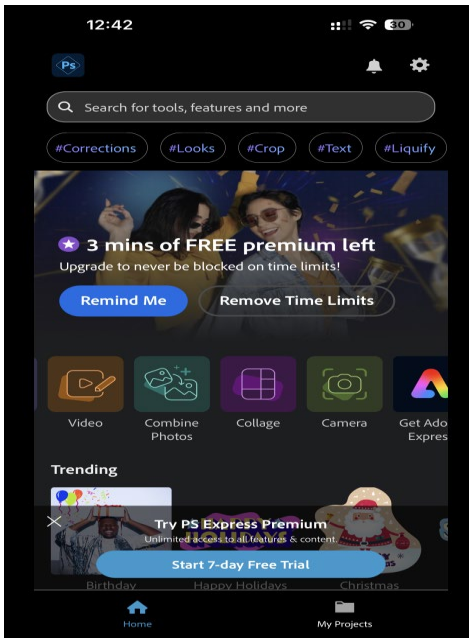
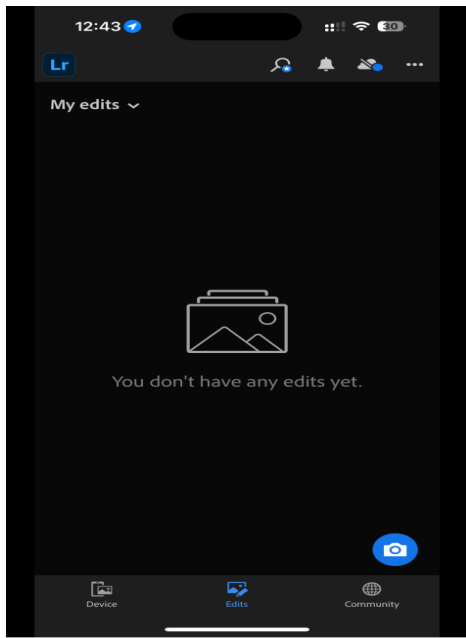
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <div> </div> <p>Source: Content Attribution Tool,<br/> <a href="https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance">https://blog.adobe.com/en/publish/2020/10/20/content-authenticity-initiative-unveils-content-attribution-tool-within-photoshop-behance</a></p> <p><b>Where does CAI data live?</b></p> <p>A piece of content's CAI data can either be embedded into the file itself, or stored in Adobe's Content Credentials cloud. Adobe's Content Credentials cloud is a public, persistent storage option for your attribution and history data. Publishing to this cloud will help keep your files smaller and make their Content Credentials more resilient and recoverable.</p> <p><a href="https://contentauthenticity.org/faq">https://contentauthenticity.org/faq</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <div> <p><b>Example uses</b></p> <p>Numerous Adobe tools and products implement Content Credentials. You can optionally attach credentials to images you create or modify using <a href="#">Photoshop</a> and <a href="#">Lightroom</a>. Additionally, all images created using the <a href="#">Firefly</a> generative AI tool automatically have attached Content Credentials. <a href="#">Behance displays Content Credentials</a> if they are attached to media shared on the site, and still images provided through <a href="#">Adobe Stock</a> automatically have Content Credentials attached.</p> </div> <div> <p><a href="https://opensource.contentauthenticity.org/docs/getting-started/">https://opensource.contentauthenticity.org/docs/getting-started/</a></p> </div> <div> <p><b>Actor:</b> A human or hardware or software product. For example, a camera, image editing software, cloud service, or the person using such tools.</p> </div> <div> <p><a href="https://opensource.contentauthenticity.org/docs/getting-started/">https://opensource.contentauthenticity.org/docs/getting-started/</a></p> </div> <div> <p>Adobe's mobile applications also utilize the camera sensor of a mobile device by allowing a user to capture digital photos directly from the mobile application to be selected and edited by the mobile application.</p> </div> <div> <p><b>View and select photos</b></p> </div> <div> <p>Launch the app and select the photo that you want to work with. The first screen displays photos from your device's memory.</p> </div> <div> <p>Alternatively, you can click a photograph using the app and work with it right away. To do this choose <b>Capture</b> from the <b>Home</b> screen.</p> </div> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p><a href="https://helpx.adobe.com/photoshop-express/get-started-ios.html">https://helpx.adobe.com/photoshop-express/get-started-ios.html</a></p> <div>  </div> <div>  </div> <p>The Accused Products also utilize a sensor when Content Credentials are used on compatible cameras that implement the C2PA standard such as Leica and Nikon.</p> <p><a href="https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx">https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx</a></p> <p>The C2PA standard specifies that actors (e.g. hardware or software that participates in the C2PA standard such as a camera, image editing software, or cloud service) utilize sensors to create assertion data about an asset such as a digital image. Assertions can include information such as camera information such as maker and lens of the camera, as well as location information and pixel data such as an image thumbnail.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p> <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_glossary">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_glossary</a>;<br/> <a href="https://c2pa.org/specifications/specifications/1.2/guidance/Guidance.html#_assertions">https://c2pa.org/specifications/specifications/1.2/guidance/Guidance.html#_assertions</a>;<br/> <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions</a> </p> <p>The technical metadata in image files captured by the digital camera and/or smartphone sensor are stored in Exchangeable image file (Exif) format. Such technical metadata captured by the sensor and stored in Exif format include, but are not limited to device make and model, shutter speed, ISO number, date and time of capture, location.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Exif assertion</b></p> <p>Exchangeable image file (Exif) format is a standard for storing technical metadata in image files of JPEG, TIFF, PNG, and other formats. Most digital cameras (including smartphones), scanners and other digital capture devices use Exif to store information such as device make and model, shutter speed, ISO number, date and time of capture, location, and so on. For more information on Exif, see the <a href="#">Exif specification</a>.</p> </div> <p> <a href="https://opensource.contentauthenticity.org/docs/manifest/assertions-actions#exif-assertion">https://opensource.contentauthenticity.org/docs/manifest/assertions-actions#exif-assertion</a> </p> <p>The Accused Instrumentalities specify that Exif information can be added to an asset (a digital media file or stream of data) in a way to validate the asset cryptographically.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <div style="background-color: #f9f9f9; padding: 10px; border: 1px solid #ccc;"> <p>Use an Exif assertion to add Exif information to the asset in a way that can be validated cryptographically. An Exif assertion has the label <code>stds.exif</code>.</p> </div> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>Here is a simple example:</p> </div> <div style="background-color: #e8f5e9; padding: 10px; border: 1px solid #ccc;"> <pre> "assertions": [   ...   {     "label": "stds.exif",     "data": {       "@context" : {         "exif": "http://ns.adobe.com/exif/1.0/"       },       "exif:GPSVersionID": "2.2.0.0",       "exif:GPSLatitude": "39,21.102N",       "exif:GPSLongitude": "74,26.5737W",       "exif:GPSAltitudeRef": 0,       "exif:GPSAltitude": "100963/29890",       "exif:GPSTimeStamp": "2019-09-22T18:22:57Z"     }   }   ... ] </pre> </div> <div style="background-color: #e8f5e9; padding: 10px; border: 1px solid #ccc;"> <p><a href="https://opensource.contentauthenticity.org/docs/manifest/assertions-actions">https://opensource.contentauthenticity.org/docs/manifest/assertions-actions</a></p> </div> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>The sensor is tightly coupled to said memory given that the metadata created by the sensor, such as a hardware camera sensor, whether on a mobile phone or another camera device, is “tamper evident” according to the Content Authenticity Initiative and the C2PA standard. Each manifest that is assigned to an asset, such</p> </div> |

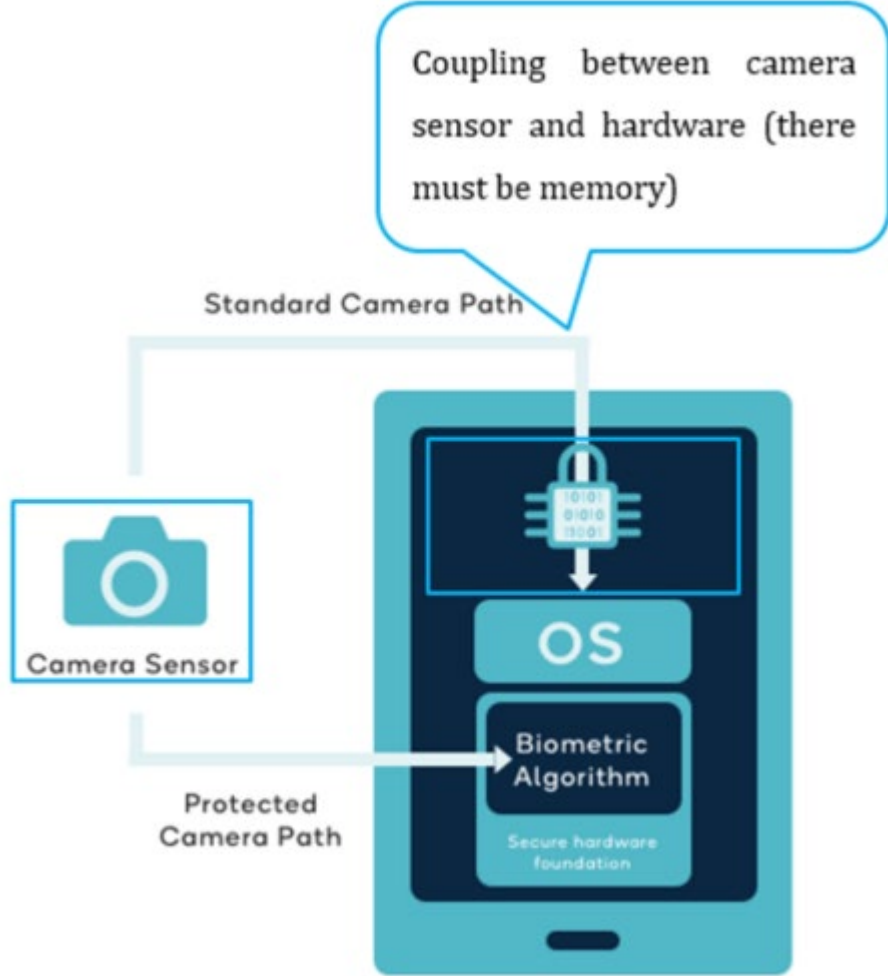
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p>as a digital image, is digitally signed and stored in memory and cannot be altered without also changing the unique "fingerprint" of the metadata stored.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p>The CAI uses <i>cryptographic asset hashing</i> to provide verifiable, tamper-evident signatures that the asset and metadata haven't been altered since the asset was published with the attached manifest. This means that a hash function converts the digital asset data to a unique "fingerprint," which is signed using a certificate. Once the credentials are signed, if the asset is changed then its fingerprint also changes. That's why it's called "tamper evident." You're not prevented from changing an image that has Content Credentials, but if you do, the credentials are no longer valid unless you change it using a tool that updates and re-hashes the credentials, along with a timestamp and optionally a description of what changed. The C2PA specification refers to this as <u>hard binding</u>.</p> </div> <p><a href="https://opensource.contentauthenticity.org/docs/getting-started/">https://opensource.contentauthenticity.org/docs/getting-started/</a></p> <p>The Accused Products add the tamper evident metadata to imported digital photos and also create tamper evident digital photos that include the metadata automatically when the photo is created by Adobe's mobile applications' utilization of a mobile device camera or when an Adobe partnered camera that implements Content Credentials and the C2PA standard is used.</p> |

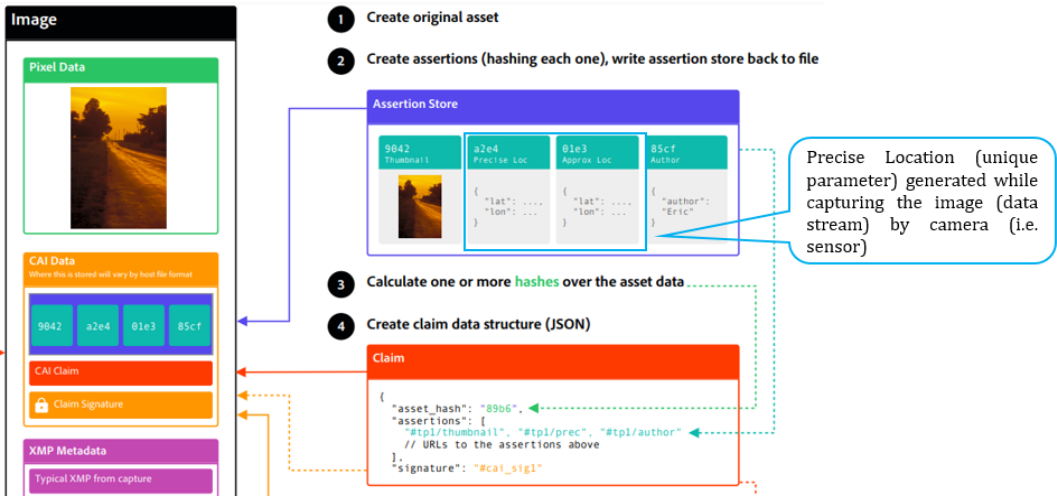
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p><b>What information is included?</b></p> <p>The following non-personal identifiable information is always included in Content Credentials automatically applied to assets generated with Adobe Firefly features:</p> <ul style="list-style-type: none"> <li>• <b>Output thumbnail:</b> visual thumbnail of the output; displays only for outputs generated using the Text to Image feature in the Firefly web app</li> <li>• <b>Issuer:</b> Adobe Inc., the organization responsible for issuing the Content Credential</li> <li>• <b>Content summary:</b> a notice that Adobe generative AI was used in the creation of the asset</li> <li>• <b>App or device used:</b> the Adobe software application or hardware device used to produce the asset</li> <li>• <b>AI tool used:</b> the Adobe generative AI tool used</li> <li>• <b>Actions:</b> the general editing and processing actions taken to produce the asset. Only "Created" or "Other edits" actions will be listed for assets generated with Adobe Firefly features.</li> </ul> <p><a href="https://helpx.adobe.com/firefly/using/content-credentials.html">https://helpx.adobe.com/firefly/using/content-credentials.html</a><br/> <a href="https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx">https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx</a></p> <p>In addition, the camera sensor of, for example, a mobile device, is tightly coupled to the hardware and, therefore, the memory of the device.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |  <p>Coupling between camera sensor and hardware (there must be memory)</p> <p>Standard Camera Path</p> <p>Camera Sensor</p> <p>Protected Camera Path</p> <p>OS</p> <p>Biometric Algorithm</p> <p>Secure hardware foundation</p> <p><a href="https://www.qualcomm.com/products/features/mobile-security">https://www.qualcomm.com/products/features/mobile-security</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p>The Accused Instrumentalities utilize Exif technical metadata which is stored in the memory of a digital camera, smartphone, and other digital capture devices which further demonstrates the sensor capturing such Exif information is tightly coupled to the memory of the hardware device.</p> <p>The internal and unique parameters include elements such as GPS (latitude and longitude), information about the camera or device such as the maker of the camera or lens, and/or the date and time of the image and assertion data as specified in the C2PA standard.</p> <ol style="list-style-type: none"> <li>1. A capture device captures an image and concurrently creates a set of assertions about the image such as capture location, equipment details, identity of the user, and perhaps a representative thumbnail. These assertions are embedded in the asset.</li> </ol>  <p>CAI Whitepaper, <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascde%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascde%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19</a>;<br/> <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions</a></p> |

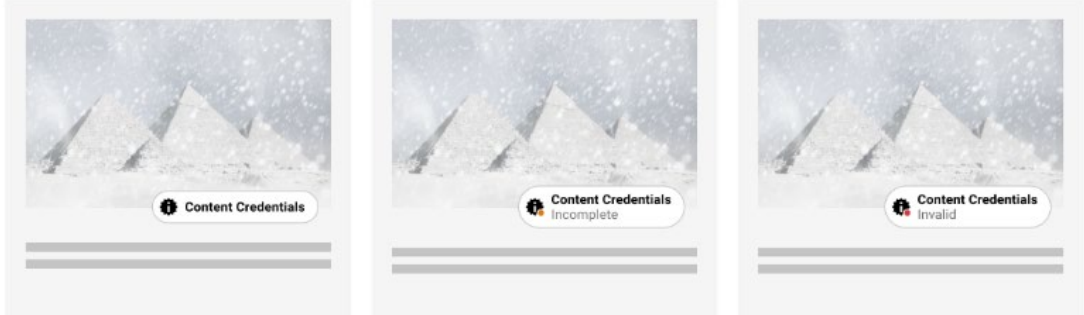
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                                                                                                                                                             | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                         | <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Claim 1(c).</b> monitoring the integrity of the tight coupling between said memory and said sensor when said at least one internal and unique parameter is generated, and, if said integrity is compromised, then also providing an indication of said compromised integrity;</p> | <p>The Accused Instrumentalities monitor the integrity of the tight coupling between said memory and said sensor when said at least one internal and unique parameter is generated, and, if said integrity is compromised, then also providing an indication of said compromised integrity. For example, the Accused Instrumentalities must capture an image through a camera sensor in the hardware and the captured image is stored in the hardware memory. The Accused Instrumentalities detect the un-authentic data and prevent security tampering. The integrity of the tight coupling between the memory and the sensor must be monitored and provides an indication the integrity of the image is compromised, for example, by indicating whether the original data of the image and the subsequent data do not match.</p> <p>Content consumers will be best served by a different set of UX principles to help them make decisions about what to trust through the presentation of claim evidence. For that reason, it is important that if a visual indication is associated with a valid asset, it should indicate only that CAI data is present and verified, and should <i>not</i> appear to indicate whether the content is authentic. In cases where the asset and its CAI data do not match, this should be clearly indicated as well.</p> <p>CAI Whitepaper, <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19</a></p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff’s Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <div style="background-color: yellow; height: 12px; margin-bottom: 10px;"></div> <p><b>1. Creation</b></p> <p>We use cryptographic asset hashing to provide verifiable, tamper-evident signatures that the image and metadata hasn’t been unknowingly altered. At creation, choose what information to attach to the content being created. Throughout this process, the creator of content can choose to preserve attribution or to remain anonymous. Privacy and security of photojournalists and other creators are of the utmost consideration in our work.</p> <p><a href="https://contentauthenticity.org/how-it-works">https://contentauthenticity.org/how-it-works</a></p> <p>The C2PA standard describes that assertions, such as camera information such as maker and lens of the camera, as well as location information and pixel data such as an image thumbnail, are bound together into units called a C2PA Manifest. Such manifests must include one or more binding assertions to ensure that the asset (or digital image) is tamper-evident.</p> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html</a></p> <p>The C2PA standard also describes “indicators of C2PA data” which demonstrate an indication of compromised integrity to the asset or digital image.</p> |

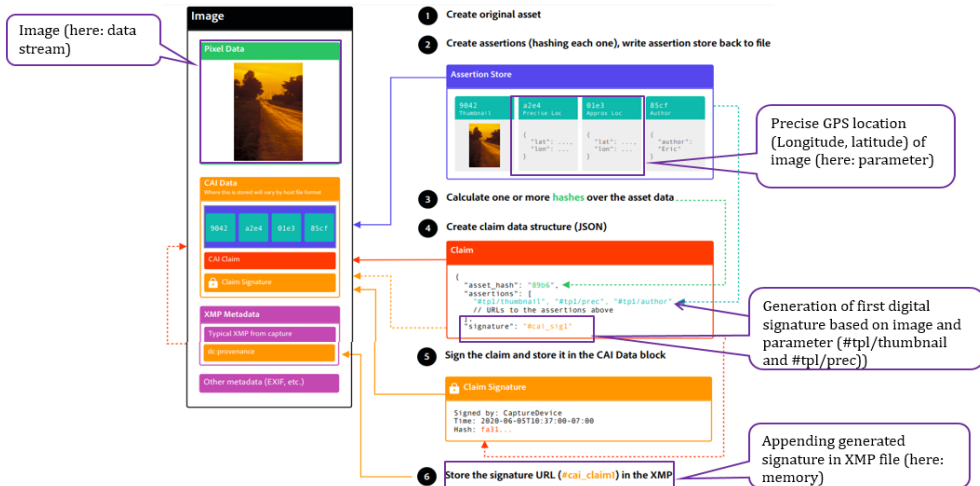
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p><b>4.3. Validation states (E)</b></p> <div> <div>L1 with signer</div> <div>L1 with incomplete active manifest</div> <div>L1 with invalid active manifest</div>  </div> <p style="text-align: center;"><i>Figure 3. L1 validation states {need to update this image}</i></p> <p>In the event that the active manifest is invalid, a stateful indicator of data validation can be displayed. There are several scenarios when displaying a data validation state may be necessary. See Chapter 14, Validation in the <a href="#">C2PA Technical Specifications</a> for further information.</p> <p><a href="https://c2pa.org/specifications/specifications/1.0/ux/UX_Recommendations.html#_11_indicator_of_c2pa_data">https://c2pa.org/specifications/specifications/1.0/ux/UX_Recommendations.html#_11_indicator_of_c2pa_data</a></p> <p>Cameras compatible with the C2PA standard, such as made by Leica and Nikon in partnership with Adobe, also monitor the integrity of the tight coupling between the camera sensor and the memory of the camera and Exif information stored in the memory of the camera.</p> <p><a href="https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx">https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p> |

**Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA**  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                                                                                                                                                   | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Claim 1(d).</b> utilizing a signature protocol to generate a first signature based on said data stream and said at least one parameter, said first signature being generated without altering said data stream and being appended to said data file in said memory;</p> | <p>The Accused Instrumentalities utilize a signature protocol to generate a first signature based on said data stream and said at least one parameter, said first signature being generated without altering said data stream and being appended to said data file in said memory. For example, the Accused Products utilize cryptographic asset hashing to provide assurances that a digital image file has not been altered since publication.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p>The CAI uses <i>cryptographic asset hashing</i> to provide verifiable, tamper-evident signatures that the asset and metadata haven't been altered since the asset was published with the attached manifest. This means that a hash function converts the digital asset data to a unique "fingerprint," which is signed using a certificate. Once the credentials are signed, if the asset is changed then its fingerprint also changes. That's why it's called "tamper evident." You're not prevented from changing an image that has Content Credentials, but if you do, the credentials are no longer valid unless you change it using a tool that updates and re-hashes the credentials, along with a timestamp and optionally a description of what changed. The C2PA specification refers to this as <u>hard binding</u>.</p> </div> <p><a href="https://opensource.contentauthenticity.org/docs/getting-started/">https://opensource.contentauthenticity.org/docs/getting-started/</a></p> <p><b>5.4 Digital Signatures</b></p> <p>In order to ensure the integrity of the CAI information that is embedded into an asset, including the asset's data itself, <a href="#">digital signature</a> technology is employed. That same technology also provides an authentication mechanism connected to the signer, that provides a way to establish trust in the actors involved in the CAI-enabled workflow.</p> <p>Because the data being signed is, in signature terms, "arbitrary message content," a standard <a href="#">Cryptographic Message Syntax (CMS)</a> signature is used to sign the asset. While a simple CMS signature is sufficient, CAI recommends using a CMS Advanced Electronic Signature (CAAdES) instead. Use of a CAAdES-compliant signature will ensure that the CAI data complies with the <a href="#">European eIDAS legislation</a>.</p> <p>It is also recommended that the signer should use a trusted timestamp authority to generate a trusted time-mark or time-stamp token. This is for proving that the signature itself actually existed at a certain date and time and can be incorporated into the CAAdES content-time-stamp attribute to create a CAAdES-T compliant signature.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |  <p>The diagram illustrates the process of creating a claim and storing it in an XMP file, as described in the Content Attribution Initiative Whitepaper. The process is divided into six numbered steps:</p> <ol style="list-style-type: none"> <li><b>Create original asset</b>: An image (here: data stream) is provided.</li> <li><b>Create assertions (hashing each one), write assertion store back to file</b>: An <b>Assertion Store</b> is created, containing assertions for the image and its metadata. A callout indicates: "Precise GPS location (Longitude, latitude) of image (here: parameter)".</li> <li><b>Calculate one or more hashes over the asset data</b>: Hashes are calculated over the asset data.</li> <li><b>Create claim data structure (JSON)</b>: A <b>Claim</b> data structure is created, containing the asset hash, assertions, and a signature. A callout indicates: "Generation of first digital signature based on image and parameter (#tpl/thumbnail and #tpl/prec)".</li> <li><b>Sign the claim and store it in the CAI Data block</b>: The claim is signed and stored in the CAI Data block. A callout indicates: "Appending generated signature in XMP file (here: memory)".</li> <li><b>Store the signature URL (#cal_claim) in the XMP</b>: The signature URL is stored in the XMP file.</li> </ol> <p>The diagram also shows the structure of the <b>CAI Data</b> block, which includes:</p> <ul style="list-style-type: none"> <li><b>Pixel Data</b>: The image data.</li> <li><b>CAI Data</b>: A block containing the claim and its signature.</li> <li><b>XMP Metadata</b>: Typical XMP from capture, etc. (e.g., provenance).</li> <li><b>Other metadata (EXIF, etc.)</b>.</li> </ul> <p>Content Attribution Initiative Whitepaper,<br/> <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascde%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascde%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover</a></p> <p>The C2PA standard specifies that manifests, which include bundles of asset assertions, include digital signatures. The C2PA manifest includes bundles of assets assertions called claims which are digitally signed.</p> |

***Jonathan E. Jaffe v. Adobe, Inc.*, Case No. 2:23-cv-06224-JWH-MAA**  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                     | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                 | <div> <p>The diagram illustrates the structure of a C2PA Manifest. It is represented as a large green rectangle. Inside this rectangle, there are three distinct colored boxes stacked vertically. The top box is orange and labeled 'Claim Signature'. The middle box is red and labeled 'Claim'. The bottom box is blue and labeled 'Assertions'. Within the 'Assertions' box, there are three smaller, light blue rectangular boxes arranged horizontally.</p> </div> <p><i>Figure 1. A C2PA Manifest and its constituent parts</i></p> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p> |
| <p><b>Claim 1(e).</b> utilizing said signature protocol to generate a second signature based on said image;</p> | <p>The Accused Instrumentalities utilize the signature protocol to generate a second signature based on the said data stream.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

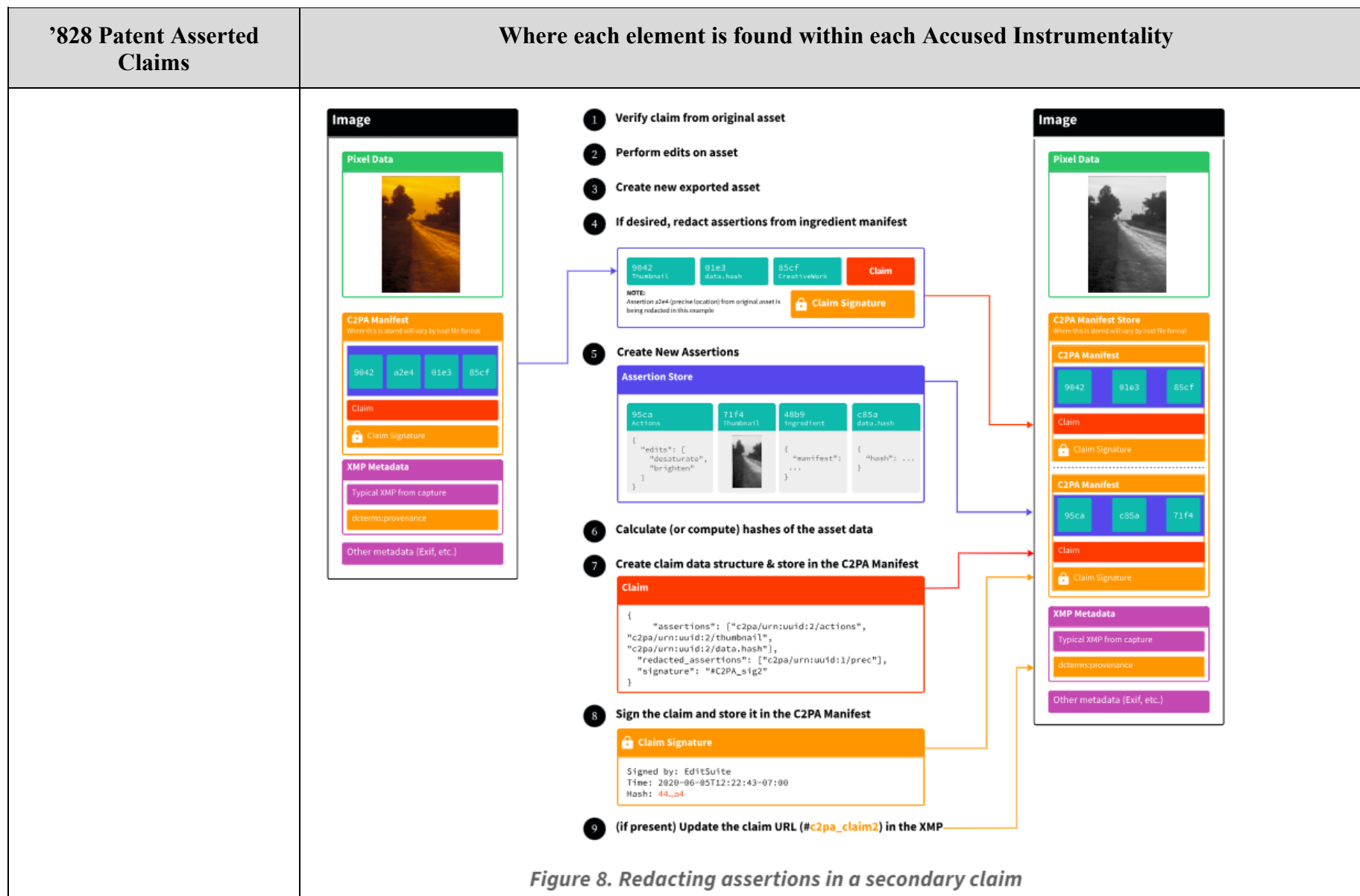
***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |  <p>The diagram illustrates the Content Authentication Initiative (CAI) process for validating an image and its associated claims. It shows the flow from an image to its metadata (CAI Data, C&amp;A Claims, XMP Metadata) and then to the validation steps (1-7). It also shows the structure of the claims and signatures, including the second signature '#cai_sig2'.</p> <p><b>Image Metadata Structure:</b></p> <ul style="list-style-type: none"> <li><b>Image:</b> Pixel Data (Image of a road)</li> <li><b>CAI Data:</b> (When this is stored will vary by host file format) <ul style="list-style-type: none"> <li>9842, 81a3, 83c1</li> </ul> </li> <li><b>C&amp;A Claims:</b> <ul style="list-style-type: none"> <li>Claim Signature (9842, 81a3, 83c1)</li> <li>CAI Claim (9842, 81a3, 83c1)</li> <li>CAI Claim Signature (9842, 81a3, 83c1)</li> </ul> </li> <li><b>XMP Metadata:</b> <ul style="list-style-type: none"> <li>Typical XMP from capture</li> <li>AI provenance</li> <li>Other metadata (EXIF, etc.)</li> </ul> </li> </ul> <p><b>Validation Steps:</b></p> <ol style="list-style-type: none"> <li>1. Retrieve the claim via the URL in XMP and validate it</li> <li>2. Retrieve the claim signature and validate it</li> <li>3. Compute &amp; validate all asset hashes</li> <li>4. Inspect assertions and validate each</li> <li>5. Retrieve the claim for parent_claim and validate it</li> <li>6. Retrieve the claim signature for parent_claim and validate it</li> <li>7. Inspect assertions and validate each</li> </ol> <p><b>Claim Structure:</b></p> <pre> {   "asset_hash": "d798",   "parent_claim": "#tpi/claim",   "assertions": [     {       "asset": "#ad/thumbnail",       "signature": "#cai_sig2"     }   ] } </pre> <p><b>Claim Signature:</b></p> <pre> Signed by: Adobe Time: 2020-06-05T12:22:43-07:00 Hash: 44_a4 </pre> <p><b>Assertion Store:</b></p> <pre> {   "asset": "#ad/thumbnail",   "signature": "#cai_sig2" } </pre> <p><b>Second Signature:</b> "#cai_sig2"</p> |

Content Authentication Initiative Whitepaper,  
<https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascids%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&viewer%21megaVerb=group-discover>

The C2PA standard describes an image having multiple claims, which are bundles of asset assertions about the image, that are both digitally signed indicating a second signature based on the data stream.

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**



***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                                                                                                                                                                                                                                                                                                           | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_signing_a_claim">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_signing_a_claim</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>Claim 1(f).</b> comparing said first signature to said second signature, if said first and second signatures are not the same, then generating an error signal that is displayed to a user to indicate that said stored data stream is not authentic, and if said first and second signatures are the same, then generating an ok signal that is displayed to a user to indicate that said stored data stream is authentic.</p> | <p>The Accused Instrumentalities compare the first and the second signature.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ol style="list-style-type: none"> <li>1. A capture device captures an image and concurrently creates a set of assertions about the image such as capture location, equipment details, identity of the user, and perhaps a representative thumbnail. These assertions are embedded in the asset.</li> <li>2. A claim, referring to the set of assertions and including a hash of the image, is created and cryptographically signed by a trusted signing authority on behalf of the user. The claim is then embedded into the image and a reference to it stored in the asset's metadata (see "Figure 1: Creating a Claim").</li> <li>3. The image, with its attached claim, is imported into an editing tool. The prior claim is verified (see "Figure 2: Validating Claims"), such that upon successful verification its assertions and claims can be carried forward as the image's history is accumulated.</li> <li>4. As edits are made, additional assertions are captured and stored in a cloud service. Upon image export, these are gathered together as part of a second claim along with the hash of the updated image. A URL to the claim is stored in the asset's metadata. This new claim (which is also stored in the cloud) refers to the prior claim, therefore ensuring that all assertions from both claims are accessible via the exported image without any link to the prior version of the image.</li> <li>5. The edited image, with its CAI metadata attached, is shared on a platform.</li> <li>6. A content consumer encounters the image on the Web via a CAI-enabled viewing experience and sees a visual indication that CAI claims are present.</li> </ol> </div> <div style="width: 48%;"> <ol style="list-style-type: none"> <li>7. Finally, the content consumer interacts with the visual indicator to learn about the image's history. The most recent claim is retrieved and verified along with the entire chain of claims and their component assertions (see "Figure 2: Validating Claims"). The assertions are displayed to the viewer in a clear, time-ordered user experience depicting the image's claim history from inception to display.</li> </ol> </div> </div> <p>Content Authentication Initiative White Paper,<br/> <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascids%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascids%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover</a></p> <p>The C2PA standard describes that, in the Accused Products, each of multiple claims, that are each associated with a given asset, such as a digital image, are all digitally signed. These signatures are then compared by</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <p>retrieving the signature value from the manifest. If the signature field is not present then the claim is rejected by the Accused Products.</p> <p><b>16.4. Validate the Signature</b></p> <p>Retrieve the URI reference for the signature from the value of the claim's <code>signature</code> field and resolve the URI reference to obtain the COSE signature. The signature must be embedded in the same manifest as described in <a href="#">Section 12.1.1, "C2PA Box details"</a>. If the signature URI does not refer to a location within the same C2PA Manifest box (a <code>self#jumbf</code> location), the claim must be rejected. If no such field is present or the URI cannot be resolved, then the claim must be rejected with a failure code of <code>claimSignature.missing</code>.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p><b>NOTE</b></p> <p>The signature and the claim need to be in the same manifest to be valid.</p> </div> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_validation">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_validation</a></p> <p>When the Accused Instrumentalities compare the first and second signatures, if the signatures are not the same, an error is signaled to the user to show the stream is not authentic, if the signatures are the same, then an OK signal is generated to indicate to the user the stream is authentic.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <ol style="list-style-type: none"> <li>1. A capture device captures an image and concurrently creates a set of assertions about the image such as capture location, equipment details, identity of the user, and perhaps a representative thumbnail. These assertions are embedded in the asset.</li> <li>2. A claim, referring to the set of assertions and including a hash of the image, is created and cryptographically signed by a trusted signing authority on behalf of the user. The claim is then embedded into the image and a reference to it stored in the asset's metadata (see "Figure 1: Creating a Claim").</li> <li>3. The image, with its attached claim, is imported into an editing tool. The prior claim is verified (see "Figure 2: Validating Claims"), such that upon successful verification its assertions and claims can be carried forward as the image's history is accumulated.</li> <li>4. As edits are made, additional assertions are captured and stored in a cloud service. Upon image export, these are gathered together as part of a second claim along with the hash of the updated image. A URL to the claim is stored in the asset's metadata. This new claim (which is also stored in the cloud) refers to the prior claim, therefore ensuring that all assertions from both claims are accessible via the exported image without any link to the prior version of the image.</li> <li>5. The edited image, with its CAI metadata attached, is shared on a platform.</li> <li>6. A content consumer encounters the image on the Web via a CAI-enabled viewing experience and sees a visual indication that CAI claims are present.</li> <li>7. Finally, the content consumer interacts with the visual indicator to learn about the image's history. The most recent claim is retrieved and verified along with the entire chain of claims and their component assertions (see "Figure 2: Validating Claims"). The assertions are displayed to the viewer in a clear, time-ordered user experience depicting the image's claim history from inception to display.</li> </ol> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims            | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |         |           |                                       |                                                                     |                          |                                        |                                                                 |                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|-----------|---------------------------------------|---------------------------------------------------------------------|--------------------------|----------------------------------------|-----------------------------------------------------------------|--------------------------|
|                                        | <p>Content Authentication Initiative Whitepaper,<br/><a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ausc%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ausc%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19&amp;viewer%21megaVerb=group-discover</a></p> <p>The C2PA standard specifies “status codes” which are generated after comparison of the first and second digital signatures. The standard specifies “success codes” which are generated to indicate to the user that the stream is authentic, and “failure codes” to indicate to the user that the user stream is not authentic.</p> <p>16.1.1. Success codes</p> <table><tr><th>Value</th><th>Meaning</th><th>url Usage</th></tr><tr><td><code>claimSignature.validated</code></td><td>The claim signature referenced in the ingredient's claim validated.</td><td>C2PA Claim Signature Box</td></tr><tr><td><code>signingCredential.trusted</code></td><td>The signing credential is listed on the validator's trust list.</td><td>C2PA Claim Signature Box</td></tr></table> | Value                    | Meaning | url Usage | <code>claimSignature.validated</code> | The claim signature referenced in the ingredient's claim validated. | C2PA Claim Signature Box | <code>signingCredential.trusted</code> | The signing credential is listed on the validator's trust list. | C2PA Claim Signature Box |
| Value                                  | Meaning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | url Usage                |         |           |                                       |                                                                     |                          |                                        |                                                                 |                          |
| <code>claimSignature.validated</code>  | The claim signature referenced in the ingredient's claim validated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | C2PA Claim Signature Box |         |           |                                       |                                                                     |                          |                                        |                                                                 |                          |
| <code>signingCredential.trusted</code> | The signing credential is listed on the validator's trust list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | C2PA Claim Signature Box |         |           |                                       |                                                                     |                          |                                        |                                                                 |                          |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                                                                                                 | Where each element is found within each Accused Instrumentality |                                                                                                                                                    |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|                                                                                                                                                                                                                             | 16.1.2. Failure codes                                           |                                                                                                                                                    |                          |
|                                                                                                                                                                                                                             | Value                                                           | Meaning                                                                                                                                            | url Usage                |
|                                                                                                                                                                                                                             | claim.missing                                                   | The referenced claim in the ingredient's manifest cannot be found.                                                                                 | C2PA Claim Box           |
|                                                                                                                                                                                                                             | claim.multiple                                                  | More than one claim box is present in the manifest.                                                                                                | C2PA Claim Box           |
|                                                                                                                                                                                                                             | claim.hardBindings.missing                                      | No hard bindings are present in the claim.                                                                                                         | C2PA Claim Box           |
|                                                                                                                                                                                                                             | claim.required.missing                                          | A required field is not present in the claim.                                                                                                      | C2PA Claim Box           |
|                                                                                                                                                                                                                             | claim.cbor.invalid                                              | The cbor of the claim is not valid                                                                                                                 | C2PA Claim Box           |
|                                                                                                                                                                                                                             | ingredient.hashURI.mismatch                                     | The hash of the the referenced ingredient claim in the manifest does not match the corresponding hash in the ingredient's hashed URI in the claim. | C2PA Assertion           |
|                                                                                                                                                                                                                             | claimSignature.missing                                          | The claim signature referenced in the ingredient's claim cannot be found in its manifest.                                                          | C2PA Claim Signature Box |
|                                                                                                                                                                                                                             | claimSignature.mismatch                                         | The claim signature referenced in the ingredient's claim failed to validate.                                                                       | C2PA Claim Signature Box |
| <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_signature_validation">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_signature_validation</a> |                                                                 |                                                                                                                                                    |                          |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff’s Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                        | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                    | <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant’s source code.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>Claim 2.</b> The method of claim 1, wherein said memory form a part of a digital camera.</p> | <p>See claim 1 above.</p> <p>In the Accused Instrumentalities, the memory forms part of a digital camera.</p> <p>For example, Adobe Photoshop captures/retrieves images on a mobile device that includes a digital camera as well as stand-alone digital camera devices. The captured photos are backed up to the memory and must be stored in the device’s memory.</p> <p>The technical metadata in image files captured by the digital camera and/or smartphone sensor are stored in the digital camera memory in Exchangeable image file (Exif) format. Such technical metadata captured by the sensor and stored in Exif format include, but are not limited to device make and model, shutter speed, ISO number, date and time of capture, location.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Exif assertion</b></p> <p>Exchangeable image file (Exif) format is a standard for storing technical metadata in image files of JPEG, TIFF, PNG, and other formats. Most digital cameras (including smartphones), scanners and other digital capture devices use Exif to store information such as device make and model, shutter speed, ISO number, date and time of capture, location, and so on. For more information on Exif, see the <a href="#">Exif specification</a>.</p> </div> <p><a href="https://opensource.contentauthenticity.org/docs/manifest/assertions-actions#exif-assertion">https://opensource.contentauthenticity.org/docs/manifest/assertions-actions#exif-assertion</a></p> <p>Cameras compatible with the C2PA standard, such as made by Leica and Nikon in partnership with Adobe, also monitor the integrity of the tight coupling between the camera sensor and the memory of the camera and Exif information stored in the memory of the camera.</p> |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                  | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                              | <p><a href="https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx">https://news.adobe.com/news/news-details/2022/Adobe-Partners-With-Leica-and-Nikon-To-Implement-Content-Authenticity-Technology-Into-Cameras/default.aspx</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>Claim 3.</b> The method of claim 1, wherein said at least one parameter comprises a random number.</p> | <p>See claim 1 above.</p> <p>The Accused Instrumentalities utilized the C2PA standard which specifies that random salt is used for cryptographic hashing.</p> <p><a href="https://c2pa.org/specifications/specifications/1.2/specs/C2PA_Specification.html">https://c2pa.org/specifications/specifications/1.2/specs/C2PA_Specification.html</a></p> <p>In salting such a cryptographic hash, at least one parameter would include a random number.</p> <p>These random numbers are generated via a library that uses sensors that provide the parameters that generate the numbers. For example, Apple TRNG in iOS devices uses ring oscillators.</p> <p><a href="https://support.apple.com/guide/security/secure-enclave-sec59b0b31ff/web">https://support.apple.com/guide/security/secure-enclave-sec59b0b31ff/web</a></p> <p>Desktop computer CPUS, such as made by AMD and Intel, also use ring oscillators.</p> <p><a href="https://spectrum.ieee.org/behind-intels-new-randomnumber-generator">https://spectrum.ieee.org/behind-intels-new-randomnumber-generator</a></p> <p><a href="https://www.amd.com/content/dam/amd/en/documents/pdfs/developer/aocl/amd-secure-random-number-generator-library-2.0-whitepaper.pdf">https://www.amd.com/content/dam/amd/en/documents/pdfs/developer/aocl/amd-secure-random-number-generator-library-2.0-whitepaper.pdf</a></p> |
| <p><b>Claim 4.</b> The method of claim 1, further comprising the step of appending at</p>                    | <p>See claim 1 above.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                                                                              | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>least one additional parameter to said data file in said memory, said at least one additional parameter being generally representative of a condition under which said data stream was generated.</p> | <p>In the Accused Instrumentalities, at least one additional parameter is appended to said data file in said memory with the additional parameter being generally representative of a condition under which said data stream was generated.</p> <p>The additional parameter that is generally representative of a condition under which said data stream was generated would include elements such as GPS (latitude and longitude), information about the camera or device such as the maker of the camera or lens, and/or the date and time of the image and assertion data as specified in the C2PA standard.</p> <p>CAI Whitepaper, <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Ascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19</a>;<br/> <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions</a></p> <p>The C2PA standard describes that assertions, such as camera information such as maker and lens of the camera, as well as location information and pixel data such as an image thumbnail, are bound together into units called a C2PA Manifest. Such manifests must include one or more binding assertions to ensure that the asset (or digital image) is tamper-evident.</p> <p><a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html</a></p> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p> |
| <p><b>Claim 5.</b> The method of claim 4, wherein said at least one additional parameter is selected from a group consisting of: GPS coordinates, zoom settings,</p>                                     | <p>See claim 1 above.</p> <p>See claim 4 above.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

***Jonathan E. Jaffe v. Adobe, Inc., Case No. 2:23-cv-06224-JWH-MAA***  
**Plaintiff's Preliminary Infringement Contention Claim Chart for U.S. Patent No. 6,757,828**

| '828 Patent Asserted Claims                                                                                                                    | Where each element is found within each Accused Instrumentality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>AutoFocus status, focus quality sampling, roll, pitch and yaw values, compass headings, flash status, CamID, Seq, and a Security Value.</p> | <p>In the Accused Instrumentalities, the additional parameter includes at least GPS coordinates (latitude and longitude), and information about the camera such as the lens which would include zoom settings and focus status and quality.</p> <p>CAI Whitepaper, <a href="https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19">https://acrobat.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A2c6361d5-b8da-4aca-89bd-1ed66cd22d19</a>;<br/> <a href="https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions">https://c2pa.org/specifications/specifications/1.3/specs/C2PA_Specification.html#_assertions</a></p> <p>The additional parameter would also include Exif information stored by the digital camera.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Exif assertion</b></p> <p>Exchangeable image file (Exif) format is a standard for storing technical metadata in image files of JPEG, TIFF, PNG, and other formats. Most digital cameras (including smartphones), scanners and other digital capture devices use Exif to store information such as device make and model, shutter speed, ISO number, date and time of capture, location, and so on. For more information on Exif, see the <a href="#">Exif specification</a>.</p> </div> <p>This claim element is met in whole or in part by software. Plaintiff reserves the right to amend or supplement this contention after it has been able to appropriately review Defendant's source code.</p> |