

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS

RAH COLOR TECHNOLOGIES LLC,

Plaintiff,

v.

ADOBE SYSTEMS INC.,

Defendant.

Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT

This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code, against Defendant Adobe Systems Incorporated (“Adobe”) that relates to four U.S. patents owned by RAH Color Technologies LLC (“RAHCT”): U.S. Patent Nos. 7,312,897 (the ’897 Patent); 7,729,008 (the ’008 Patent); 7,791,761 (the ’761 Patent); and 8,416,444 (the ’444 Patent) (collectively, the “Patents-in-Suit”).

THE PARTIES

1. Plaintiff RAH Color Technologies is a limited liability company organized under the laws of the Commonwealth of Virginia. RAH Color Technologies maintains an office at 7012 Colgate Drive, Alexandria, Virginia 22307. RAH Color Technologies owns numerous United States patents generally related to the field of color management. Dr. Richard A. Holub manages RAH Color Technologies and is a named inventor of the Patents-in-Suit.

2. Defendant Adobe Systems Inc. is a company duly organized and existing under the laws of the State of Delaware, with its principal place of business at 345 Park Avenue, San Jose, California 95110-2704. On information and belief, Adobe can be served with process at that address. Adobe can also be served with process through its registered agent, Prentice Hall Corporation, 801 Adlai Stevenson Drive, Springfield, IL 62703.

3. Defendant Adobe makes, uses, sells, imports, and offers for sale consumer and commercial color managed image and document software, and service and support in the U.S.

JURISDICTION AND VENUE

4. This Complaint states causes of action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 100 *et seq.*, and, more particularly 35 U.S.C. § 271.

5. This Court has subject matter jurisdiction of this action under 28 U.S.C. §§ 1331 and 1338(a) in which the district courts have original and exclusive jurisdiction of any civil action for patent infringement.

6. Adobe is subject to this Court's general personal jurisdiction pursuant to due process and/or the Illinois Long Arm Statute, Illinois Statutes 735 § 5/2-209, due at least to its substantial business conducted in this District, including: (i) having transacted business within the State of Illinois and attempted to derive financial benefit from residents of the State of Illinois in this District, including benefits directly related to the instant patent infringement causes of action set forth herein; (ii) having placed its products and services into the stream of commerce throughout the United States and

having been actively engaged in transacting business in Illinois and in this District, and
(iii) having committed the complained of tortious acts in Illinois and in this District.

7. Adobe, directly and/or through subsidiaries and agents (including distributors, retailers, and others), makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites, for example

<http://www.adobe.com/products/photoshop.html?promoid=PC1PQQ5T&mv=other#x>,
<http://www.adobe.com/products/illustrator.html?promoid=PGRQQLFS&mv=other>,
<http://www.adobe.com/products/indesign.html?promoid=PLHRQGPR&mv=other>, and
<https://acrobat.adobe.com/us/en/acrobat/acrobat-pro.html>, as well as through other retailers) its products and/or services in the United States, the State of Illinois, and the Northern District of Illinois.

8. Adobe, directly and/or through its subsidiaries and agents (including distributors, retailers, and others), has purposefully and voluntarily placed one or more of its infringing products and/or services, as described below, into the stream of commerce with the expectation that they will be purchased and used by consumers in the Northern District of Illinois in an infringing manner. These infringing products and/or services have been and continue to be purchased and used by consumers in the Northern District of Illinois. Adobe has committed acts of patent infringement within the State of Illinois and, more particularly, within the Northern District of Illinois.

9. Adobe also maintains a regular and established place of business in Illinois and in this District including at 420 N. Wabash Ave., Ste. 700, Chicago, Illinois

60611. Upon information and belief, Adobe sells its infringing products to customers from this location in this District.

10. This Court's exercise of personal jurisdiction over Adobe is consistent with Illinois Long Arm Statute, Illinois Statutes 735 § 5/2-209, and traditional notions of fair play and substantial justice.

11. Venue is proper in this District under 28 U.S.C. §§1391(b) and (c) because Defendant is subject to personal jurisdiction in this District, and under 28 U.S.C § 1400(b) because Defendant has committed acts of infringement in this District and Defendant maintains a regular and established place of business in this District.

BACKGROUND FACTS REGARDING RAH COLOR TECHNOLOGIES

12. RAH Color Technologies is owned by Dr. Richard A. Holub, who is a named inventor of all its patent assets. Dr. Holub holds a Ph.D. in Neurophysiology and has studied and worked extensively in the fields of vision and color reproduction for nearly fifty years.

13. For example, between 1983 and 1994, Dr. Holub worked for several leading companies including Eastman Kodak (following its acquisition of Eikonix Corp., which Dr. Holub joined in 1983), Agfa/Bayer and SuperMac Technologies where he served as Chief Color Scientist, Technology Consultant, and Principal Engineer, respectively, and had responsibility for developing and/or managing development of color technologies for new products.

14. Dr. Holub has additionally been a leader in development, research, and education in the graphic arts industry.

15. For example, for ten consecutive years beginning in 1993-94, Dr. Holub was elected to and served on the Board of Directors of The Technical Association of the Graphic Arts (“TAGA”), now a part of the Printing Industries of America. For nine of those ten years, Dr. Holub was an officer, serving three years as Technical Vice President and Papers Chair, two years as Executive Vice President, two years as President and two years as Immediate Past President. During his three years as Technical VP, Dr. Holub organized four technical conferences, including TAGA’s first-ever international conference, and, in addition, TAGA’s contributions to the Graphic Arts Show Company’s “Concepts” Conference in two successive years.

16. Between 1995 and 1998, Dr. Holub taught in various instructional programs at Rochester Institute of Technology, especially taking responsibility for research methods courses offered to Master’s students pursuing the technology concentration in the School of Printing Management and Sciences (subsequently renamed the School of Print Media). During that time he served on thesis committees for a number of students in the Master’s program. Many graduates of that program hold significant positions in the publishing and printing industries. In addition, during the early 1990’s, Dr. Holub served as a key technical contributor to early standards developed by CGATS, the Committee for Graphic Arts Technical Standards.

17. Spanning almost two decades, Dr. Holub’s R&D work (alone and with collaborators) resulted in 11 papers presented to TAGA’s Annual Technical Conference, all of which subsequently appeared in published Conference *Proceedings*. His research also resulted in the contribution of at least four (4) important papers to refereed journals, including the *Journal of Imaging Technology* and *Color Research and Application*, as

well as contributions to symposia organized by The Society for Imaging Science and Technology (IS&T), the Society of Photo-Optical Instrumentation Engineers (SPIE), and the Institute of Electrical and Electronics Engineers (IEEE).

18. In 1994, Dr. Holub began work on a new business that would leverage inventive developments in color measurement, imaging system architecture, user-interface and color reproduction technologies to implement open and accurate color reproduction in a networked environment. Over the next several years, Dr. Holub rented laboratory/demo space from RIT Research Corp., hired students from the Rochester Institute of Technology as well as software and hardware contractors to assist him in developing a first product prototype. The prototype combined instrumentation for fully automatic display calibration with software support for highly accurate soft-proofing. During this time, he also prepared and filed the first two in a series of significant patent disclosures to cover implementations of inventive concepts.

19. Dr. Holub formed Imagicolor Corporation in 1998 to commercialize his prototype described above in paragraph 18. Further efforts at business development continued, however, investment did not materialize and Imagicolor was eventually dissolved.

20. Though commercialization of the prototype did not come to fruition, Dr. Holub continued to innovate, and pursue patents on those innovations, with the United States Patent Office. In 2005, RAH Color Technologies LLC was formed as a vehicle for an on-going licensing program for companies whose products depend on Dr. Holub's innovations.

**BACKGROUND FACTS REGARDING THE RAH COLOR TECHNOLOGIES
PATENT PORTFOLIO**

21. The United States Patent Office has awarded Dr. Holub 33 patents to date, including the following Patents-in-Suit:

- United States Patent No. 7,729,008, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’008 Patent);
- United States Patent No. 7,791,761, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’761 Patent)
- United States Patent No. 8,416,444, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’444 Patent); and
- United States Patent No. 7,312,897, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’897 Patent);

22. The United States Patent Office has considered over 500 references during the prosecution of Dr. Holub’s patent applications.

23. Hundreds of subsequently filed patent applications by third parties have cited to Dr. Holub’s patents.

24. RAH Color Technologies has licensed the technology covered by its patents to thirteen multinational manufacturers of imaging equipment (including digital cameras, color video displays, color printers and presses, and color measurement instruments) and providers of software and services (including imaging workflow, color management, printing and photographic services, and consulting, process outsourcing and training), the majority of which resolved without the need for litigation. Additionally, 13 major companies have entered into end-user license agreements with RAH Color Technologies, all without litigation.

25. These industry-leading companies have each recognized the contributions Dr. Holub has made to the fields of color management, remote proofing, and measurement and control of color product quality.

26. All right, title, and interest in the Patents-in-Suit are held by RAH Color Technologies.

ADOBE'S AWARENESS OF THE PATENTS-IN-SUIT

27. On December 19, 2013, counsel for RAHCT, Global IP Law Group, LLC, sent Dana Rao, VP, Intellectual Property & Litigation for Adobe, a letter informing Adobe that its products infringed RAHCT's '897, '008, and '444 Patents. The letter also enclosed detailed claim charts for the '897 and '444 Patents. Mr. Rao did not respond.

28. On January 16, 2014, counsel for RAHCT sent Mr. Rao a follow-up message seeking discussion. Mr. Rao did not respond.

29. On February 21, 2014, Michael Hsu, Legal Counsel for Adobe, sent counsel for RAHCT a brief message, indicating that Adobe did not believe it infringed and that it believed there were prior art activities predating at least the '897, '008, and '444 Patents. Adobe did not provide any explanation or facts in support of its position.

30. On April 15, 2014, counsel for RAHCT sent Mr. Hsu a note seeking clarification of Adobe's position, including any factual bases. Adobe did not respond.

31. On April 9, 2015, counsel for RAHCT contacted Mr. Hsu again seeking clarification of Adobe's position, requesting dialogue, and informing Adobe of recently filed litigation against X-Rite. On December 10, 2015 and March 21, 2016, counsel for RAHCT again sought a response from Adobe. In particular, in its March 21, 2016

message, counsel noted that RAHCT had settled its litigation with X-Rite. Adobe did not respond.

32. On May 3, 2016, counsel for RAHCT again reached out to Mr. Hsu, informing Adobe of RAHCT's litigation with Ricoh, and again seeking clarification of Adobe's position. Mr. Hsu responded, and indicated that an in-person meeting in June would be possible.

33. Around that time, Adobe transferred the RAHCT matter to Andy Nguyen at Adobe. Counsel for RAHCT met with Mr. Rao and Mr. Nguyen on August 25, 2016 in San Jose to discuss potential settlement. No agreement was reached.

34. Counsel for RAHCT subsequently spoke with Mr. Nguyen on or around November 8, 2016, during which Mr. Nguyen provided an overview of Adobe's position. On November 21, 2016, Mr. Nguyen provided a summary of Adobe's position at the request of counsel for RAHCT.

35. On December 21, 2016, counsel for RAHCT provided Adobe a detailed written response to Adobe's position, along with a detailed claim chart for the '761 Patent. Counsel for RAHCT requested an update from Adobe on January 17, 2017. Mr. Nguyen responded on January 18, 2017 that Adobe was still reviewing.

36. On February 9, 2017, counsel for RAHCT requested an in-person meeting with Adobe in light of RAHCT's settlement of litigation with Ricoh. Counsel for RAHCT sent another message on February 21, 2017 again seeking a meeting. Adobe did not respond to either message.

37. On March 20, 2017, counsel for RAHCT sent Mr. Nguyen another message seeking dialogue, and informing Adobe of RAHCT's progress in its litigation

with R. R. Donnelley & Sons, and its filing of a complaint against Agfa-Gevaert N.V. Adobe did not respond.

38. Throughout more than four years of dealings between RAHCT and Adobe, RAHCT has provided Adobe with at least three substantive letters, numerous emails, and at least seven claim charts.

39. Adobe has not agreed to enter into a licensing agreement with RAH Color Technologies for its infringing activities and the Patents-in-Suit.

40. Despite knowledge of the Patents-in-Suit and knowledge of the manner in which the Patents-in-Suit are infringed as demonstrated in the provided claim charts, Adobe has continued to infringe and induce the infringement of the Patents-in-Suit.

41. Adobe promotes its capabilities of accurately managing color in support of Adobe's business of providing color managed software that it sells and offers for sale to customers in the U.S. As part of its business, Adobe uses, makes, has made, sells, and offers to sell software that employs color management techniques in the U.S. which, alone or in combination, infringe various claims of the Patents-in-Suit.

42. Adobe has in the past and continues to directly infringe the asserted claims of the Patents-in-Suit pursuant to 35 U.S.C. § 271 by using, making, selling, and offering to sell systems, software, and apparatuses covered by the asserted patent claims identified below.

COUNT I: INFRINGEMENT OF U.S. PATENT '008 CLAIM 28

43. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 of this Complaint as though set forth in full herein.

44. Claim 28 of the '008 patent provides:

Claim 28 Preamble	A method for color rendering using a computer system having a display coupled to said computer system, said method comprising the steps of:
Element A	displaying on the display a menu of selections which enable a user to select at least user preferences for color reproduction; and
Element B	storing in memory at least tonal transfer curves for a plurality of color channels, color image data, and one or more color transformations for converting a first set of color coordinates into a second set of coordinates wherein said tonal transfer curves and said one or more color transformations are at least partly in accordance with calibration data in device-independent units of color and are useable in combination to control rendering of said color image data, and at least one of said one or more color transformations is a chromatic adaptation transform useable to compensate for change in viewing conditions.

45. “Adobe Accused Creative Products” include Adobe Photoshop, and any other software (including, for example, Illustrator, InDesign and Acrobat Pro) that include the same or equivalent functionality described in paragraphs 46-52 of Count I, paragraphs 61-62 of Count II, paragraphs 71-73 of Count III, paragraphs 82-84 of Count IV, paragraph 93 of Count V, paragraph 102 of Count VI, paragraph 111 of Count VII, paragraph 120 of Count VIII, paragraph 130 of Count IX, paragraphs 138-143 of Count X, paragraph 152 of Count XI, paragraphs 161-162 of Count XII, paragraphs 171-172 of Count XIII, paragraphs 181-182 of Count XIV, paragraph 191 of Count XV, paragraph 200 of Count XVI, paragraphs 209-213 of Count XVII, paragraph 222 of Count XVIII, paragraph 231 of Count XIX, paragraphs 240-241 of Count XX, paragraphs 250-252 of Count XXI, paragraph 261 of Count XXII, and paragraph 270 of Count XXIII.

46. Adobe Accused Creative Products are software products used on compatible computer systems that include a color monitor, and that are used for creating, editing, viewing, and publishing color images and documents in print and on the web.

47. Adobe Accused Creative Products include a graphical user interface that includes, for example, color settings that a user can select based on preferences for how the user wants colors to be rendered.

48. Adobe Accused Creative Products store color profiles that comply with the International Color Consortium (“ICC”)’s version 4 specification (“ICC v.4”). For example, Photoshop automatically installs color profiles on a computer as part of the installation process. As another example, Adobe Accused Creative Products embed color profiles into a color image or document to be saved along with the color image or document on the computer.

49. ICC v.4 profiles include output curves or tone reproduction curves, and tagged elements (e.g., “AToB0” and “BToA0” transforms, “chad” chromatic adaptation transform) that are used in combination to transform color coordinates from, for example, an input color image to coordinates for a particular output device, such as a color printer or color monitor for rendering.

50. Color profiles, including those automatically installed by Adobe Accused Creative Products, are created using a calibrated device (e.g., a calibrated reference color monitor). To calibrate a device, colors having known reference values are rendered and measured using a calibration device. If the measured color values deviate from the known reference values, then output curves and/or tone reproduction curves will be adjusted so the rendered colors will match the known reference color values. Once the

device is calibrated, a profile (including relevant tagged elements such as “AToB0” and “BToA0” transforms, “chad” chromatic adaptation transform) is created using a similar process. As a result, any curves and transformations are generated based on a calibrated state of the rendering device.

51. Calibration devices (including the specific calibration devices that are used by Adobe, upon information and belief, and that Adobe urges its customers to employ) use device-independent color units, such as density, $L^*a^*b^*$ and/or CIEXYZ, resulting in device-independent calibration data.

52. The ICC v.4-compliant profiles stored in memory by Adobe Accused Creative Products include a chromatic adaptation transform (indicated by a chromaticAdaptationTag (“chad” tag)) that is used to convert color values from one viewing condition (e.g., D65 white point used by digital images) to color values from another viewing condition (e.g., D50 white point used as a standard for printing).

53. Adobe directly infringes claim 28 of the ’008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

54. In addition, Adobe induces infringement of claim 28 of the ’008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

55. Upon information and belief, Adobe’s customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 28 of the ’008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 28 of the ’008 Patent under 35

U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 28 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 28 of the '008 Patent by using the Adobe Accused Creative Products.

56. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

57. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 28 of the '008 Patent under 35 U.S.C. § 271(a) directly.

58. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT II: INFRINGEMENT OF U.S. PATENT '008 CLAIM 29

59. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

60. Claim 29 of the '008 Patent provides:

Claim 29	The method according to claim 28 further comprising the step of enabling the user to display a reproduction of said color image data on the display, and to associate annotations with said reproduction.
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61. Adobe Accused Creative Products are used for computer-based creation, editing, and viewing of color images and documents.

62. Adobe Accused Creative Products include a feature that allows a user to add notes to a color image or document.

63. Adobe directly infringes claim 29 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

64. In addition, Adobe induces infringement of claim 29 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

65. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 29 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 29 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 29 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware

specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 29 of the '008 Patent by using the Adobe Accused Creative Products.

66. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

67. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 29 of the '008 Patent under 35 U.S.C. § 271(a) directly.

68. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT III: INFRINGEMENT OF U.S. PATENT '008 CLAIM 30

69. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

70. Claim 30 of the '008 Patent provides:

Claim 30	The method according to claim 28 wherein said storing step further comprises storing in the memory gamut data of at least the color output device or another color device in device independent units of color for use in combination with said tonal transfer curves and said one or more color transformations to control rendering of said color image data for improved color matching between said color output device and said another color device.
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71. Adobe Accused Creative Products are ICC v.4 compliant, which means the Adobe Accused Creative Products' CMM uses and stores (when installed) the ICC-defined PRMG, or similarly structured gamut data.

72. The data stored by Adobe Accused Creative Products includes a gamut mapping from the PRMG, or similarly structured gamut data, to the gamut of a color output device, by way of a perceptual rendering transformation from PCS to a representation of the gamut of the output device. Such mapping uses the PRMG, or similarly structured gamut data, as a source gamut.

73. Adobe Accused Creative Products use the PRMG, or similarly structured gamut data, and the color output device gamut data together with curves and color transformations (e.g., BToA0) to improve color matching between the color output device (for which the ICC v.4 profile was created) and a representative color output device (i.e., another color device) having the PRMG.

74. Adobe directly infringes claim 30 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

75. In addition, Adobe induces infringement of claim 30 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

76. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 30 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 30 of the '008 Patent under 35

U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 30 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 30 of the '008 Patent by using the Adobe Accused Creative Products.

77. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

78. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 30 of the '008 Patent under 35 U.S.C. § 271(a) directly.

79. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT IV: INFRINGEMENT OF U.S. PATENT '008 CLAIM 31

80. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

81. Claim 31 of the '008 Patent provides:

Claim 31 Preamble	The method according to claim 28 further comprising the steps of
Element C	enabling display of parts of said color image data which are outside the gamut of the color output device and
Element D	storing a data structure in said memory whose inputs are color values and whose outputs indicate whether input values are either in or out of gamut for the color output device.

82. Adobe Accused Creative Products support version 4 ICC profiles, which means they can use/process profiles containing the “gamutTag” defined in ICC v.4.

83. The gamutTag allows Adobe Accused Creative Products to display colors of a color image or document that are outside the gamut of the device used to render the color image or document. For example, Photoshop includes a “Gamut Warning” feature that identifies out-of-gamut colors, and Illustrator, InDesign, and Acrobat Pro provide warning indications if colors are out-of-gamut for a particular rendering device.

84. The gamutTag is a data structure that uses color values as inputs and outputs a value indicating whether the input color value is in-gamut or out-of-gamut for a particular rendering device.

85. Adobe directly infringes claim 31 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

86. In addition, Adobe induces infringement of claim 31 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

87. Upon information and belief, Adobe’s customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least

claim 31 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 31 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 31 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 31 of the '008 Patent by using the Adobe Accused Creative Products.

88. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

89. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 31 of the '008 Patent under 35 U.S.C. § 271(a) directly.

90. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT V: INFRINGEMENT OF U.S. PATENT '008 CLAIM 32

91. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

92. Claim 32 of the '008 Patent provides:

Claim 32	The method according to claim 28 wherein said gamut data comprises the darkest color reproducible by the color output device and said darkest color is useable in gamut mapping.
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93. Adobe Accused Creative Products include a black point compensation feature. This feature adjusts for differences between the darkest level of black achievable on one device and the darkest level of black achievable on another device using a gamut mapping operation. This gamut mapping, included as PRMG data or similarly structured gamut data, includes mapping the darkest color of a source color space to the darkest color of a destination color space.

94. Adobe directly infringes claim 32 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

95. In addition, Adobe induces infringement of claim 32 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

96. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 32 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 32 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 32 of the '008 Patent with the specific intent to

encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 32 of the '008 Patent by using the Adobe Accused Creative Products.

97. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

98. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 32 of the '008 Patent under 35 U.S.C. § 271(a) directly.

99. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT VI: INFRINGEMENT OF U.S. PATENT '008 CLAIM 33

100. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

101. Claim 33 of the '008 Patent provides:

Claim 33	The method according to claim 28 further comprising the step of providing a colorant-to-colorant transformation which enables proofing or simulation of one output device by another.
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102. Adobe Accused Creative Products support device link profiles, and convert device-dependent input colors in an image or document through a device link color profile, which is stored at least temporarily. Device link profiles can be used for proofing and for simulating color reproduction of a different rendering device (e.g., using a proofer to simulate how colors would appear when rendered by a digital press).

103. Adobe directly infringes claim 33 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

104. In addition, Adobe induces infringement of claim 33 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

105. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 33 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 33 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 33 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end

users to directly infringe at least claim 33 of the '008 Patent by using the Adobe Accused Creative Products.

106. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

107. Adobe makes, uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 33 of the '008 Patent under 35 U.S.C. § 271(a) directly.

108. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT VII: INFRINGEMENT OF U.S. PATENT '008 CLAIM 36

109. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-68 of this Complaint as though set forth in full herein.

110. Claim 36 of the '008 Patent provides:

Claim 36	The method according to claim 29 further comprising the step of enabling communication with one or more other computer systems through a network interface of said computer system, in which said annotations are communicated to one or more users at one or more other computer systems.
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111. In Adobe Accused Creative Products, at least Photoshop, Illustrator, and InDesign allow users to send and share color images and documents, including any notes, with other users over a network through its Creative Cloud Assets feature. Acrobat Pro includes a shared review feature that shares documents and any annotations with other users over a network.

112. Adobe directly infringes claim 36 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

113. In addition, Adobe induces infringement of claim 36 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

114. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 36 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 36 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 36 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 36 of the '008 Patent by using the Adobe Accused Creative Products.

115. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

116. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 36 of the '008 Patent under 35 U.S.C. § 271(a) directly.

117. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT VIII: INFRINGEMENT OF U.S. PATENT '008 CLAIM 37

118. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 of this Complaint as though set forth in full herein.

119. Claim 37 of the '008 Patent provides:

Claim 37	The method according to claim 28 further comprising the step of displaying on the display user preferences for one or more of GCR, UCR or maximum black.
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120. In Adobe Accused Creative Products, at least Photoshop includes user options for GCR settings, such as Black Generation, Black Ink Limit, Total Ink Limit, and UCA Amount that are displayed.

121. Adobe directly infringes claim 37 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

122. In addition, Adobe induces infringement of claim 37 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

123. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 37 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 37 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 37 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 37 of the '008 Patent by using the Adobe Accused Creative Products.

124. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

125. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 37 of the '008 Patent under 35 U.S.C. § 271(a) directly.

126. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT IX: INFRINGEMENT OF U.S. PATENT '008 CLAIM 38

127. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-58 and 118-126 of this Complaint as though set forth in full herein.

128. Claim 38 of the '008 Patent provides:

Claim 38	The method according to claim 37 wherein said user preferences further comprise a neutral definition in terms of mixtures of colorants, wherein one or more neutral definitions are displayed graphically.
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129. In Adobe Accused Creative Products, the user interface of at least Photoshop displays black ink usage as a gray ramp graph indicating the amount of black ink used along with the amounts of non-neutral colorants used. Users can preferentially customize the gray ramp, for example, by limiting the amount of black ink used, or the total amount of ink used, at least when using GCR separations.

130. Adobe directly infringes claim 38 of the '008 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement, and training/tutorial videos.

131. In addition, Adobe induces infringement of claim 38 of the '008 Patent by end users by selling the Adobe Accused Creative Products that practice the claimed process in ordinary use.

132. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 38 of the '008 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 38 of the '008 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '008 Patent since at least

December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 38 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 38 of the '008 Patent by using the Adobe Accused Creative Products.

133. Adobe has had knowledge of the '008 Patent since at least December 19, 2013.

134. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 38 of the '008 Patent under 35 U.S.C. § 271(a) directly.

135. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT X: INFRINGEMENT OF U.S. PATENT '444 CLAIM 11

136. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 and 45 and of this Complaint as though set forth in full herein.

137. Claim 11 of the '444 patent provides:

Claim 11 Preamble	A system for controlling color reproduction comprising:
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Element A	a computer at a site;
Element B	memory storing information, said information comprising:
Element C	data representing tonal transfer functions for a plurality of color channels;
Element D	one or more color transformations for converting a first set of color coordinates into a second set of coordinates;
Element E	a gamut filter, said gamut filter representing an array stored in a file and accessible through a file header, wherein said array has inputs which are color values and outputs indicative of whether said color values of said inputs are inside or outside of a color gamut; and
Element F	a chromatic adaptation transform stored in a file and accessible through a file header, said chromatic adaptation transform enabling conversion of input color coordinates to output color coordinates representative of different viewing conditions;
Element G	said memory storing programs for performing at least one color conversion utilizing at least part of said stored information; and
Element H	a network interface enabling communication of at least part of said information by said computer with at least one other site using a network protocol.

138. Adobe Accused Creative Products are software designed to be installed on compatible computer systems, and are used to create, edit, and render color images and documents. As part of the installation package, Adobe Accused Creative Products automatically install a set of ICC v.4-compliant color profiles, and can be used to embed ICC v.4-compliant color profiles into files that are saved onto the computer system's memory.

139. These ICC v.4-compliant profiles require a header that points to certain tagged elements (e.g., AToB-type tags) that include curves that dictate how colors are output. These tagged elements are used to translate color data from one source into color data useable by another device. For example, ICC v.4-compliant profiles for N-component LUT-based input profiles require the AToB0-type tag that converts

coordinates specific for the input device into device independent values that often represent D65 illumination; these latter color coordinates are converted to Profile Connection Space (“PCS”) color coordinates. These PCS color coordinates are then converted into coordinates specific for an output device (e.g., color printer or monitor).

140. ICC v.4 requires a gamut filter (indicated by the “gamutTag” or “gamt”) for certain types of profiles, including N-component LUT-based output profiles used, for example, by CMYK printers. For example, Adobe Accused Creative Products store these profiles, at least temporarily, when soft-proofing. Soft-proofing in general entails visualizing, on a calibrated monitor, how colors would appear when rendered by a particular printer by applying a profile specific for that particular printer in processing colors for rendering on that calibrated monitor. In ICC v.4, the gamutTag is updated to have the structure of the new lutBtoAType tag preferred for N-component output transforms, used, at least in part, to determine whether an input color coordinate to the output transform is in-gamut or out-of-gamut for the destination device. The updated tag provides interoperability and can be used to limit the colors displayed on the calibrated monitor to those realizable on the destination device.

141. With the exception of device link profiles, all ICC v.4-compliant color profiles require a chromatic adaptation transform (indicated by the “chromaticAdaptationTag”), which is used to convert color values from one viewing condition (e.g., D65 white point used by digital images) to color values from another viewing condition (e.g., D50 white point used as a standard for printing and for the PCS).

142. Adobe Accused Creative Products include the Adobe Color Management Module, which is used to transform colors using industry-standard ICC color profiles in preparation for viewing on a color display or printing on a color printer.

143. Adobe Accused Creative Products integrate with, and provide access to, Creative Cloud Libraries, which are used to remotely store images, documents and other files for sharing with others. For example, a file with embedded color profile can be shared with another user on a different computer system using Creative Cloud.

144. Adobe directly infringes claim 11 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

145. In addition, Adobe induces infringement of claim 11 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

146. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 11 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 11 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 11 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets,

demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 11 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

147. Adobe has had knowledge of the '444 Patent, and RAHCT's specific allegations of infringement of claim 11 of the '444 Patent since at least December 19, 2013.

148. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 11 of the '444 Patent under 35 U.S.C. § 271(a) directly.

149. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XI: INFRINGEMENT OF U.S. PATENT '444 CLAIM 13

150. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, 45, and 136-149 of this Complaint as though set forth in full herein.

151. Claim 13 of the '444 patent provides:

Claim 13	The system according to claim 11 wherein said programs further comprise software which provides a graphical user interface based upon screens stored in said memory.
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152. Adobe Accused Creative Products are software products that have graphical user interfaces.

153. Adobe directly infringes claim 13 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

154. In addition, Adobe induces infringement of claim 13 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

155. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 13 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 13 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 13 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 13 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

156. Adobe has had knowledge of the '444 Patent, and RAHCT's specific allegations of infringement of claim 13 of the '444 Patent since at least December 19, 2013.

157. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 13 of the '444 Patent under 35 U.S.C. § 271(a) directly.

158. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XII: INFRINGEMENT OF U.S. PATENT '444 CLAIM 15

159. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, 45, and 136-149 of this Complaint as though set forth in full herein.

160. Claim 15 of the '444 patent provides:

Claim 15	The system according to claim 11 wherein said information stored by said memory further comprises a gamut descriptor data structure, said gamut descriptor representing a two-dimensional array whose inputs are coordinates related to lightness and hue and whose outputs represent the saturation at the surface of a color gamut at said input coordinates.
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161. Adobe Accused Creative Products provide and support ICC v.4-compliant color profiles, which means that Adobe Accused Creative Products use and store the ICC's standard Perceptual Reference Medium Gamut ("PRMG") or similarly structured gamut descriptors for gamut mapping.

162. The PRMG is structured as an array having inputs corresponding to lightness and hue, and having outputs corresponding to gamut surface chroma (saturation) limits as a function of lightness and hue inputs.

163. Adobe directly infringes claim 15 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

164. In addition, Adobe induces infringement of claim 15 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

165. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 15 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 15 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 15 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 15 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

166. Adobe has had knowledge of the '444 Patent, since at least December 19, 2013.

167. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 15 of the '444 Patent under 35 U.S.C. § 271(a) directly.

168. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XIII: INFRINGEMENT OF U.S. PATENT '444 CLAIM 18

169. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, 45, and 136-158 of this Complaint as though set forth in full herein.

170. Claim 18 of the '444 patent provides:

Claim 18	The system according to claim 13 wherein said graphical user interface enables specification by a user of a neutral definition in terms of mixtures of colorants and displays said neutral definition graphically on said display.
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171. In Adobe Accused Creative Products, at least Photoshop includes a graphical user interface that allows a user to select various settings for black colorant use, including Gray Component Replacement ("GCR"). Neutral colors, such as blacks or grays, can be created by overprinting non-neutral colors (e.g., cyan, magenta, yellow). GCR creates neutral colors by replacing non-neutral colors with black.

172. In Adobe Accused Creative Products, at least Photoshop displays a gray ramp graph of a gray ramp that depicts how much black and non-neutral colors will be used to create a shade of a neutral color. Users can customize the gray ramp, and the

resulting amounts of black and non-neutral colors used to create a given neutral shade, for example, by modifying black ink or total ink limits, at least for GCR separations.

173. Adobe directly infringes claim 18 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

174. In addition, Adobe induces infringement of claim 18 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

175. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 18 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 18 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 18 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 18 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

176. Adobe has had knowledge of the '444 Patent, and RAHCT's specific allegations of infringement of claim 18 of the '444 Patent since at least December 19, 2013.

177. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 18 of the '444 Patent under 35 U.S.C. § 271(a) directly.

178. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XIV: INFRINGEMENT OF U.S. PATENT '444 CLAIM 19

179. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, 45, and 136-158 of this Complaint as though set forth in full herein.

180. Claim 19 of the '444 patent provides:

Claim 19	The system according to claim 13 wherein said graphical user interface enables a user to add annotations to displayed images, wherein said annotations are separable from the image data and are communicable as part of an interactive conference with a user at said at least one other site.
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181. Adobe Accused Creative Products can add notes to color images and documents. These notes can be deleted from the image without altering the image or document.

182. In Adobe Accused Creative Products, Photoshop, Illustrator and InDesign allow users to send and share color images and documents, including any notes, with

other users over a network through its Creative Cloud feature as part of a shared review. Acrobat Pro includes a shared review feature that allows for sharing of images and documents, including any notes, with other users on a network.

183. Adobe directly infringes claim 19 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

184. In addition, Adobe induces infringement of claim 19 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

185. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 19 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 19 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 19 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 19 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

186. Adobe has had knowledge of the '444 Patent since at least December 19, 2013.

187. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 19 of the '444 Patent under 35 U.S.C. § 271(a) directly.

188. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XV: INFRINGEMENT OF U.S. PATENT '444 CLAIM 26

189. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, 45, 136-158, and 179-188 of this Complaint as though set forth in full herein.

190. Claim 26 of the '444 patent provides:

Claim 26	The system according to claim 19 further comprising one or more other sites, each of said one or more other sites having a computer and software enabling a user to participate in said interactive conference.
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191. In Adobe Accused Creative Products, Photoshop, Illustrator and InDesign allow users to send and share color images and documents, including any notes, with other users over a network through its Creative Cloud feature as part of a shared review with other users using Adobe Accused Creative Products. Acrobat Pro includes a shared review feature that allows for sharing of images and documents, including any notes, with other users on a network.

192. Adobe directly infringes claim 26 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

193. In addition, Adobe induces infringement of claim 26 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

194. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 26 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 26 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 26 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 26 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

195. Adobe has had knowledge of the '444 Patent since at least December 19, 2013.

196. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 26 of the '444 Patent under 35 U.S.C. § 271(a) directly.

197. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XVI: INFRINGEMENT OF U.S. PATENT '444 CLAIM 27

198. RAH Color Technologies incorporates by reference the allegations set forth in 1-42, 45, and 136-149 of this Complaint as though set forth in full herein.

199. Claim 27 of the '444 patent provides:

Claim 27	The system according to claim 11 further comprising one or more other sites, each of said one or more other sites having a computer which provides a reproduction of color responsive to said at least part of said information.
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200. In Adobe Accused Creative Products, Photoshop, Illustrator and InDesign allow users to send and share color images and documents with other users over a network through its Creative Cloud feature as part of a shared review. Acrobat Pro includes a shared review feature that allows for sharing of images and documents, including any notes, with other users on a network. Any shared files can contain embedded ICC v.4-compliant profiles to ensure that reviewers view an accurate representation of colors, e.g., for soft-proofing purposes.

201. Adobe directly infringes claim 27 of the '444 Patent by selling, offering to sell, and using the Adobe Accused Creative Products, including in relation to at least

product testing and improvement responsive to user feedback, and training/tutorial videos.

202. In addition, Adobe induces infringement of claim 27 of the '444 Patent by end users by selling the Adobe Accused Creative Products for use on a computer system.

203. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 27 of the '444 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 27 of the '444 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '444 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 27 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing software useable only with computer systems, extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 27 of the '444 Patent by installing and using the Adobe Accused Creative Products on a computer system.

204. Adobe has had knowledge of the '444 Patent since at least December 19, 2013.

205. Adobe uses, offers to sell, and sells the Adobe Accused Creative Products knowing that Adobe has infringed and continues to infringe at least claim 27 of the '444 Patent under 35 U.S.C. § 271(a) directly.

206. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XVII: INFRINGEMENT OF U.S. PATENT '761 CLAIM 7

207. RAH Color Technologies incorporates by reference the allegations set forth in 1-42 of this Complaint as though set forth in full herein.

208. Claim 7 of the '761 patent provides:

Claim 7 Preamble	A method of color rendering on a printer having a plurality of non-neutral colorants and a plurality of neutral colorants, comprising the steps of:
Element A	transforming input color image data into output color image data in units of said non-neutral colorants and said neutral colorants with the aid of a processor, in which said input color image data is expressible in device independent units of color, wherein at least one of said neutral colorants is at least partly exchangeable with one or more of said non-neutral colorants or other of said neutral colorants; and
Element B	transmitting said output color image data to said printer.

209. "Adobe Accused Photo Editing Products" include Adobe Photoshop, and any other software that include the same or equivalent functionality described in paragraphs 210-214 of Count XVII, paragraph 223 of Count XVIII, paragraph 232 of Count XIX, paragraphs 241-242 of Count XX, paragraphs 251-253 of Count XXI, paragraph 262 of Count XXII, and paragraph 271 of Count XXIII.

210. Adobe Accused Photo Editing Products are computer software used to print color images on a color printer. For example, Photoshop supports printing using

different types of color printers, including Roland 5+ color printers (e.g., cyan, magenta, yellow, black, white, light black), using its Multichannel Profile feature.

211. Adobe Accused Photo Editing Products perform color management. For example, Photoshop uses color management and ICC profiles to transform coordinates for a color image from one source to coordinates useable by a second device (e.g., printer). When using Photoshop's Multichannel Profile feature, color coordinates to be rendered will be transformed into coordinates corresponding to multiple non-neutral and neutral colorants (e.g., cyan, magenta, yellow, black, white, light black).

212. Adobe Accused Photo Editing Products use ICC profiles for the transformation process. For example, Photoshop's Color Management Module transforms coordinates from the first source into PCS coordinates, with the PCS coordinates then transformed into coordinates for the second device. PCS color coordinates are device-independent units, such as CIELAB or CIEXYZ.

213. Adobe Accused Photo Editing Products exchange neutral colorants with non-neutral colorants. Upon information and belief, Photoshop's Multichannel Profile feature can define a custom GCR separation, including the amount of neutral colorant to use instead of non-neutral colorants.

214. Adobe Accused Photo Editing Products print color images. For example, once a color image's color coordinates have been transformed into coordinates for a color printer (e.g., Roland 5+ color printer), Photoshop can then transmit the color image data to the printer for printing.

215. Adobe directly infringes claim 7 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at

least product testing and improvement responsive to user feedback, and training/tutorial videos.

216. In addition, Adobe induces infringement of claim 7 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

217. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 7 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 7 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 7 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 7 of the '761 Patent by using the Adobe Accused Photo Editing Products.

218. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

219. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 7 of the '761 Patent under 35 U.S.C. § 271(a) directly.

220. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XVIII: INFRINGEMENT OF U.S. PATENT '761 CLAIM 8

221. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, and 207-220 of this Complaint as though set forth in full herein.

222. Claim 8 of the '761 Patent provides:

Claim 8	The method according to claim 7 further comprising the step of providing said processor as part of a computer system coupled to said printer, wherein said transforming step is performed at least partly by said computer system.
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223. Adobe Accused Photo Editing Products are designed for use on a supported computer system for printing color images. When installed, Adobe Accused Photo Editing Products' Color Management Module uses the computer system's processor to perform color transformations.

224. Adobe directly infringes claim 8 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

225. In addition, Adobe induces infringement of claim 8 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

226. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 8 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 8 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 8 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 8 of the '761 Patent by using the Adobe Accused Photo Editing Products.

227. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

228. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 8 of the '761 Patent under 35 U.S.C. § 271(a) directly.

229. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XIX: INFRINGEMENT OF U.S. PATENT '761 CLAIM 9

230. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, and 207-229 of this Complaint as though set forth in full herein.

231. Claim 9 of the '761 Patent provides:

Claim 9	The method according to claim 8 further comprising the step of providing a user interface operable on said computer system and enabling a user to express preferences for of said output color image data.
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232. Adobe Accused Photo Editing Products provide a graphical user interface that includes options for various color settings. For example, Photoshop includes options for GCR, black generation, and black point compensation when printing a color image.

233. Adobe directly infringes claim 9 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

234. In addition, Adobe induces infringement of claim 9 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

235. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 9 of the '761 Patent. Adobe actively induces customers and end-users to directly

infringe each and every claim limitation of at least claim 9 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 9 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 9 of the '761 Patent by using the Adobe Accused Photo Editing Products.

236. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

237. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 9 of the '761 Patent under 35 U.S.C. § 271(a) directly.

238. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XX: INFRINGEMENT OF U.S. PATENT '761 CLAIM 10

239. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, and 207-220 of this Complaint as though set forth in full herein.

240. Claim 10 of the '761 Patent provides:

Claim 10 Preamble	The method according to claim 7 wherein said transforming step further comprises the step of: performing a conversion in device independent units of color that compensates for changes in viewing conditions of said output color image data when rendered.
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241. Adobe Accused Photo Editing Products provide and support ICC v.4-compliant color profiles. All ICC v.4-compliant profiles, with the exception of Device Link profiles, require a chromatic adaptation transform (indicated by the “chromaticAdaptationTag”).

242. The chromatic adaptation transform is used by Adobe Accused Photo Editing Products during the color management process to convert color values from one viewing condition (e.g., D65 white point used by digital images) to color values for another viewing condition (e.g., D50 white point used as a standard for printing).

243. Adobe directly infringes claim 10 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

244. In addition, Adobe induces infringement of claim 10 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

245. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 10 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 10 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least

December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 10 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 10 of the '761 Patent by using the Adobe Accused Photo Editing Products.

246. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

247. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 10 of the '761 Patent under 35 U.S.C. § 271(a) directly.

248. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXI: INFRINGEMENT OF U.S. PATENT '761 CLAIM 11

249. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, and 207-220 of this Complaint as though set forth in full herein.

250. Claim 11 of the '761 Patent provides:

Claim 11 Preamble	The method according to claim 7
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Element A	wherein said output color image data when rendered represents a reproduction, and said transforming step further comprises the step of:
Element B	performing one or more gamut operations to improve color match between said reproduction and another reproduction.

251. Adobe Accused Photo Editing Products are used for viewing color images on a monitor, or printing color images.

252. Adobe Accused Photo Editing Products include a soft-proofing feature that applies a color profile for a particular rendering device (e.g., a profile for a printer) to simulate, on a computer monitor, how the image colors would appear when rendered by the output device.

253. Because the gamut of the computer monitor differs from the gamut of the simulated output device, a gamut mapping operation is performed by the CMM to map the monitor gamut to the output device gamut.

254. Adobe directly infringes claim 11 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

255. In addition, Adobe induces infringement of claim 11 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

256. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 11 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 11 of the '761 Patent under 35

U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 11 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 11 of the '761 Patent by using the Adobe Accused Photo Editing Products.

257. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

258. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 11 of the '761 Patent under 35 U.S.C. § 271(a) directly.

259. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXII: INFRINGEMENT OF U.S. PATENT '761 CLAIM 13

260. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 and 207-229 of this Complaint as though set forth in full herein.

261. Claim 13 of the '761 Patent provides:

Claim 13	The method according to claim 8 further comprising the step of
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	providing a user interface operable on said computer system which enables a user to associate annotations with color image data.
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262. Adobe Accused Photo Editing Products include a Notes feature for adding annotations to a color image.

263. Adobe directly infringes claim 13 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

264. In addition, Adobe induces infringement of claim 13 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

265. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 13 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 13 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 13 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end

users to directly infringe at least claim 13 of the '761 Patent by using the Adobe Accused Photo Editing Products.

266. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

267. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 13 of the '761 Patent under 35 U.S.C. § 271(a) directly.

268. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXIII: INFRINGEMENT OF U.S. PATENT '761 CLAIM 15

269. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42, and 207-238 of this Complaint as though set forth in full herein.

270. Claim 15 of the '761 Patent provides:

Claim 15	The method according to claim 9 wherein said preferences include at least one of a neutral definition in terms of mixtures of at least said plurality of non-neutral colorants or a darkest color to employ when said output color image data is rendered.
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271. Adobe Accused Photo Editing Products include color preferences. For example, Photoshop includes settings for GCR, black ink usage, and black point compensation. GCR defines how much non-neutral colorant should be used to generate a neutral color. Black point compensation preserves shadow details by simulating the full dynamic range of an output device. Upon information and belief, this feature uses the

darkest possible color that an output device can produce, even if that color is a non-neutral color.

272. Adobe directly infringes claim 15 of the '761 Patent by selling, offering to sell, and using the Adobe Accused Photo Editing Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

273. In addition, Adobe induces infringement of claim 15 of the '761 Patent by end users by selling the Adobe Accused Photo Editing Products that practice the claimed process in ordinary use.

274. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 15 of the '761 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 15 of the '761 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '761 Patent since at least December 21, 2016. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 15 of the '761 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support (e.g., maintenance contracts, consulting services, system integration) that induce its customers and/or end users to directly infringe at least claim 15 of the '761 Patent by using the Adobe Accused Photo Editing Products.

275. Adobe has had knowledge of the '761 Patent since at least December 21, 2016.

276. Adobe uses, offers to sell, and sells the Adobe Accused Photo Editing Products knowing that Adobe has infringed and continues to infringe at least claim 15 of the '761 Patent under 35 U.S.C. § 271(a) directly.

277. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXIV: INFRINGEMENT OF U.S. PATENT '897 CLAIM 32

278. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 of this Complaint as though set forth in full herein.

279. Claim 32 of the '897 Patent provides:

Claim 32 Preamble	A method for providing control to a user for processing color images comprising the steps of:
Element A	providing an interface through which said user is able to select one or more sites, each having one or more color input or output devices, wherein at least one of said sites is capable of being remotely located with respect to said user;
Element B	providing information regarding identity or location of said one or more sites useable for communication with said sites; and
Element C	providing information for transforming input color image data into output color image data for the color input or output devices at said sites comprising at least information representing the gamuts or a relationship between the gamuts of said color devices, wherein said information for transforming comprises at least user preferences for color reproduction by at least one of the color devices.

280. “Adobe Accused Color Document Products” include Adobe Acrobat Professional, and other hardware and/or software that include the same or equivalent functionality described in paragraphs 281-286 of Count XXIV, paragraph 295 of Count XXV, and paragraph 304 of Count XXVI.

281. Adobe Accused Color Document Products include color management features that enable a user to process input images and to define how they should be rendered, either on a color monitor or a color printer.

282. In Adobe Accused Color Document Products, Acrobat includes tracking and shared review features that allow users to host files on a user’s computer. Users, including the host user, can remotely access those hosted files by clicking on a link that connects to the host computer and file.

283. Adobe Accused Color Document Products include the Adobe Color Engine, a type of color management module (“CMM”), which uses ICC color profiles for rendering colors on a computer monitor or a color printer. ICC profiles are used by the CMM, in addition to other color information (e.g., black ink usage settings), to convert one set of coordinates (e.g., from a source or input device) into another set of coordinates or codes specific for another device (e.g., color monitor or printer). Adobe Accused Color Document Products embed color profiles into a color image or document to be saved along with the color image or document on the computer. Upon information and belief, Adobe Accused Color Document Products also automatically installs ICC profiles.

284. Adobe Accused Color Document Products comply with and support ICC v.4, which means the CMM uses the ICC-defined Perceptual Reference Medium Gamut (“PRMG”), or similarly structured descriptions of device gamuts for gamut mapping.

285. The PRMG provides a standardized, intermediate gamut representation for image data in coordinates of the ICC-defined Profile Connection Space (“PCS”) used for transforming colors between devices having different gamuts, and provides the information needed for relating one color gamut (e.g., that of an input device) to another color gamut (e.g., that of an output device).

286. The CMM used by Adobe Accused Color Document Products include settings for various aspects of color usage, such as treating grays as K-only grays, preserving black, and black point compensation. These settings are used in combination with the ICC profiles.

287. Adobe directly infringes claim 32 of the ’897 Patent by selling, offering to sell, and using the Adobe Accused Color Document Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

288. In addition, Adobe induces infringement of claim 32 of the ’897 Patent by end users by selling the Adobe Accused Color Document Products that practice the claimed process in ordinary use.

289. Upon information and belief, Adobe’s customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 32 of the ’897 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 32 of the ’897 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the ’897 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 32 of the ’897 Patent with the specific intent to

encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 32 of the '897 Patent by using the Adobe Accused Color Document Products.

290. Adobe has had knowledge of the '897 Patent since at least December 19, 2013.

291. Adobe uses, offers to sell, and sells the Adobe Accused Color Document Products knowing that Adobe has infringed and continues to infringe at least claim 32 of the '897 Patent under 35 U.S.C. § 271(a) directly.

292. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXV: INFRINGEMENT OF U.S. PATENT '897 CLAIM 33

293. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 and 278-292 of this Complaint as though set forth in full herein.

294. Claim 33 of the '897 Patent provides:

Claim 33	The method according to claim 32 wherein said user preferences include at least one aspect of the utilization of one or more neutral colorants.
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295. Adobe Accused Color Document Products include a feature that uses black ink to generate shades of gray when printing on a CMYK printer, instead of using a combination of cyan, magenta, and yellow to create those same grays.

296. Adobe directly infringes claim 33 of the '897 Patent by selling, offering to sell, and using the Adobe Accused Color Document Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

297. In addition, Adobe induces infringement of claim 33 of the '897 Patent by end users by selling the Adobe Accused Color Document Products that practice the claimed process in ordinary use.

298. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 33 of the '897 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 33 of the '897 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '897 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 33 of the '897 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 33 of the '897 Patent by using the Adobe Accused Color Document Products.

299. Adobe has had knowledge of the '897 Patent since at least December 19, 2013.

300. Adobe uses, offers to sell, and sells the Adobe Accused Color Document Products knowing that Adobe has infringed and continues to infringe at least claim 33 of the '897 Patent under 35 U.S.C. § 271(a) directly.

301. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

COUNT XXVI: INFRINGEMENT OF U.S. PATENT '897 CLAIM 37

302. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-42 and 278-292 of this Complaint as though set forth in full herein.

303. Claim 37 of the '897 Patent provides:

Claim 37	The method according to claim 32 wherein said user preferences are capable of being expressed at least in part by annotations to the image data, said annotations being displayable with but separable from said image data and shareable between two or more said sites.
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304. Adobe Accused Color Document Products include an annotation feature that allows users to add notes to a color image or document. These annotations can express user preferences. The annotations can be removed without altering the underlying color image or document. The color image or document with annotation can then be shared with other users through the tracking and shared review feature of Adobe Accused Color Document Products.

305. Adobe directly infringes claim 37 of the '897 Patent by selling, offering to sell, and using the Adobe Accused Color Document Products, including in relation to at least product testing and improvement responsive to user feedback, and training/tutorial videos.

306. In addition, Adobe induces infringement of claim 37 of the '897 Patent by end users by selling the Adobe Accused Color Document Products that practice the claimed process in ordinary use.

307. Upon information and belief, Adobe's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 37 of the '897 Patent. Adobe actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 37 of the '897 Patent under 35 U.S.C. § 271(b). Adobe has had actual knowledge of the '897 Patent since at least December 19, 2013. Adobe has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 37 of the '897 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Adobe's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 37 of the '897 Patent by using the Adobe Accused Color Document Products.

308. Adobe has had knowledge of the '897 Patent since at least December 19, 2013.

309. Adobe uses, offers to sell, and sells the Adobe Accused Color Document Products knowing that Adobe has infringed and continues to infringe at least claim 37 of the '897 Patent under 35 U.S.C. § 271(a) directly.

310. As a direct and proximate result of Adobe's acts of patent infringement, RAH Color Technologies has been and continues to be injured and has sustained, and will continue to sustain, damages.

WILLFUL INFRINGEMENT

311. Adobe has infringed and continues to infringe the above identified claims of each of the Patents-in-Suit despite: its knowledge of the '008 and '444 Patents and its knowledge that at least Adobe Accused Creative Products were and are using the technology claimed by the '008 and '444 Patents since at least December 19, 2013; its knowledge of the '897 Patent and its knowledge that at least Adobe Accused Color Document Products were and are using the technology claimed by the '897 Patent since at least December 19, 2013; its knowledge of the '761 Patent and its knowledge that at least Adobe Accused Photo Editing Products were and are using the technology claimed by the '761 Patent since at least December 21, 2016; its specific knowledge of RAH Color Technologies' allegations for certain claims of the '444 Patent since at least December 19, 2013; and the objectively high likelihood that its acts constitute patent infringement.

312. Adobe's infringement of the Patents-in-Suit is willful and deliberate, entitling RAH Color Technologies to enhanced damages under 35 U.S.C. § 284.

313. Adobe's willful infringement and unwillingness to enter into license negotiations with RAH Color Technologies make this an exceptional case such that RAH

Color Technologies should be entitled to recover its attorneys' fees and costs incurred in relation to this matter pursuant to 35 U.S.C. §285.

JURY DEMAND

RAH Color Technologies demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff RAH Color Technologies requests that this Court enter judgment in its favor and against Adobe as follows:

- A. Adjudging, finding, and declaring that Adobe has infringed of the above-identified claims of each of the Patents-in-Suit under 35 U.S.C. § 271;
- B. Awarding the past and future damages arising out of Adobe's infringement of the Patents-in-Suit to RAH Color Technologies in an amount no less than a reasonable royalty, together with prejudgment and post-judgment interest, in an amount according to proof;
- C. Adjudging, finding, and declaring that Adobe's infringement is willful and enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;
- D. Adjudging, finding, and declaring that this is an "exceptional" case pursuant to 35 U.S.C. § 285;
- E. Awarding attorney's fees, costs, or other damages pursuant to 35 U.S.C. §§ 284 or 285 or as otherwise permitted by law; and
- F. Granting RAH Color Technologies such other further relief as is just and proper, or as the Court deems appropriate.

January 31, 2018

Respectfully submitted,

By: /s/ Irwin Park
David Berten (dberten@giplg.com)
Alison Aubry Richards (arichards@giplg.com)
Irwin Park (ipark@giplg.com)
Global IP Law Group, LLC
55 W. Monroe St.
Ste. 3400
Chicago, Illinois 60603
Phone: 312.241.1500

*Attorneys for Plaintiff,
RAH Color Technologies LLC*