

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF ILLINOIS

RAH COLOR TECHNOLOGIES LLC,

Plaintiff,

v.

XEROX CORPORATION,

Defendant.

Civil Action No. 1:17-cv-06813

Hon. Amy J. St. Eve

JURY TRIAL DEMANDED

**FIRST AMENDED 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 Xerox Corporation (“Xerox”) that relates to eight U.S. patents owned by RAH Color Technologies LLC (“RAH Color Technologies”): U.S. Patent Nos. 6,043,909 (the ’909 Patent); 6,995,870 (the ’870 Patent); 7,280,251 (the ’251 Patent); 7,312,897 (the ’897 Patent); 7,729,008 (the ’008 Patent); 8,416,444 (the ’444 Patent); 8,537,357 (the ’357 Patent); and 8,760,704 (the ’704 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 Xerox Corporation is a company duly organized and existing under the laws of the State of New York, with its principal place of business at 7201 Merritt 7, Norwalk, CT 06851-1056. On information and belief, Xerox Corporation can be served with process at that address. Xerox Corporation can also be served with process through its registered agent, Prentice Hall Corporation, 801 Adlai Stevenson Drive, Springfield, IL 62703.

3. Defendant Xerox Corporation makes, uses, sells, imports, and offers for sale consumer and commercial printing products and services, including digital printing equipment, color measurement devices, color management software and/or hardware, workflow software and/or hardware, 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. Xerox 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. Xerox, 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, <https://www.xerox.com/digital-printing/enus.html>, <http://www.office.xerox.com/digital-printing-equipment/digital-press/enus.html>, <https://www.xerox.com/en-us/digital-printing/workflow-software>, and <https://www.xerox.com/en-us/digital-printing/confident-color-management>, 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. Xerox, 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. Xerox has committed acts of patent infringement within the State of Illinois and, more particularly, within the Northern District of Illinois.

9. Xerox also maintains a regular and established place of business in Illinois and in this District including at 123 N. Wacker Dr., Chicago, Illinois 60606.

10. This Court's exercise of personal jurisdiction over Xerox 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. 6,995,870, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’870 Patent);
- 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. 8,416,444, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’444 Patent);
- United States Patent No. 8,760,704, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’704 Patent);
- United States Patent No. 8,537,357, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’357 Patent);
- United States Patent No. 6,043,909, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’909 Patent);
- United States Patent No. 7,280,251, entitled “System and Method for Calibrating Color Printers” (the ’251 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 more than 500 references in aggregate 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 11 of the largest manufacturers and service providers of color imaging and printing products for consumer and professional segments in the world. RAH Color Technologies has also licensed its innovations to two additional manufacturers with extensive experience in the color measurement and management space. Additionally, 13 major companies have entered into end-user license agreements with RAH Color Technologies.

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.

**XEROX'S AWARENESS OF THE PATENTS-IN-SUIT**

27. On March 27, 2014, counsel for RAH Color Technologies (Global IP Law Group) sent a letter to Mark Costello, Vice President and General Patent Counsel for Xerox, informing Xerox that it infringed RAH Color Technologies's patents. The letter also included detailed claim charts for the '870, '008, and '444 patents.

28. Gary Cohen, Senior Patent Counsel for Xerox, responded by letter on April 10, 2014, informing RAH Color Technologies that Xerox was reviewing the matter.

29. Counsel for RAH Color Technologies requested an update on Xerox's review on June 11, 2014. Xerox replied the same day, noting that Xerox had reached out to its suppliers for additional information. Until January 21, 2015, Xerox had not provided any substantive response to RAH Color Technologies.

30. On January 21, 2015, Xerox indicated that "Xerox does not desire a license to the RAH Color Technologies patent portfolio," and indicating that Xerox would have its suppliers contact counsel for RAH Color Technologies directly.

31. On February 26, 2015, counsel for RAH Color Technologies sent Mr. Cohen additional claim charts for the '251, '897, and '704 patents against Xerox products, noting that Xerox's infringement included Xerox's own products in addition to products Xerox sold from its suppliers.



32. Xerox did not respond until May 28, 2015, when Robert Hutter, Senior Patent Counsel for Xerox, provided Xerox's first substantive position, but only addressing some of the patents asserted against Xerox.

33. On January 18, 2016, counsel for RAH Color Technologies provided a substantive response to Xerox's May 28, 2015 letter.

34. After receiving no substantive response from Xerox despite several requests, counsel for RAH Color Technologies sent a message to Mr. Hutter on May 10, 2016 requesting dialog. On June 10, 2016, Mr. Hutter responded, noting "Xerox does not believe a discussion would be valuable at this time." Counsel for RAH Color Technologies responded the same day, requesting additional information.

35. On July 8, 2016, Mr. Hutter provided a partial summary of the exchanges between RAH Color Technologies and Xerox, and noted that licensing discussions would be "inappropriate" in light of RAH Color Technologies's litigation with Ricoh pending at the time.

36. The same day, counsel for RAH Color Technologies responded with additional details of the exchanges between RAH Color Technologies and Xerox, and noting that Xerox has not been willing to enter into any kind of discussions since RAH Color Technologies initially contacted Xerox in 2014. Xerox did not respond.

37. On February 9, 2017, counsel for RAH Color Technologies informed Xerox that its litigation with Ricoh had been resolved, that a suit had been filed against R.R. Donnelley & Sons, and that RAH Color Technologies remained willing to have meaningful dialog on the matter with Xerox.

38. Xerox did not respond until March 14, 2017, again noting that, without providing details, Xerox did not believe a license would be necessary, and noting that while Xerox would be open to a meeting in Rochester, NY, Xerox did “not intend to present [Xerox’s] position at that time.”

39. Counsel for RAH Color Technologies responded on March 20, 2017, noting that an in-person meeting where Xerox would not present a position would be unfruitful, and suggesting a phone conversation to discuss RAH Color Technologies’s position.

40. Mr. Hutter responded on March 29, 2017, again noting that Xerox would be open to an in-person meeting in Rochester, but not committing to substantive dialog. Xerox did not agree to a phone conversation, either.

41. Throughout the three years of dealings between RAH Color Technologies and Xerox, RAH Color Technologies has provided Xerox with at least three substantive letters, numerous emails, and at least seven claim charts.

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

43. 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, Xerox has continued to infringe and induce the infringement of the Patents-in-Suit.

44. Xerox promotes its capabilities of accurately measuring and managing color in support of Xerox’s business of providing printers, measuring devices, and software that it sells and offers for sale to customers in the U.S. As part of its business, Xerox uses, makes, has made, sells, and offers to sell printer hardware and software that

employ color measurement and management techniques in the U.S. which, alone or in combination, infringe various claims of the Patents-in-Suit.

45. Xerox 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 '870 CLAIM 34**

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

47. Claim 34 of the '870 Patent provides:

Claim 34 Preamble	A method for providing control to a user for processing color images comprising the steps of:
Element A	providing an interface operable at a computer through which the user is able to select a plurality of sites having one or more color input or output devices;
Element B	communicating between said sites through a network interface at 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 plurality of sites such that colors produced by the color devices appear substantially the same within colors attainable by each of the devices, wherein said information for transforming comprises information relating the color gamuts of different ones of said color devices to each other and user preferences for color reproduction for at least one of the color devices.

48. Xerox bundles EFI Fiery print servers with its color printers and presses for sale.

49. EFI Fiery print servers include Command Workstation.

50. On information and belief, Xerox's EFI Fiery print servers include Color Profiler Suite.

51. "Xerox Accused Print Servers" include EFI Fiery print servers (including, but not limited to the EX Print Server for Xerox Color 560/570 Printers, Color 800/1000, Color C75, Color J75, iGen4, iGen 150, and 700i/700 Color Digital Press, and the EX-P 1000i Print Server for Xerox Color 800i/1000i Presses) together with Command Workstation and/or Color Profiler Suite, and other print servers and software (including, but not limited to, any that include the same or equivalent functionality described in paragraphs 52-60 of Count I, paragraphs 69-70 of Count II, paragraph 79 of Count III, paragraphs 88-91 of Count IV, paragraphs 104-106 of Count V, paragraph 115 of Count VI, paragraph 124 of Count VII, and paragraph 133 of Count VIII.

52. Xerox Accused Print Servers provide control for processing color images through its color management features.

53. In Xerox Accused Print Servers, Command WorkStation provides a graphical user interface that displays other print servers and their associated printers on a network. The user can select one of the other print servers and printers, and connect to them over the network.

54. Xerox Accused Print Servers include a number of RGB and CMYK color profiles that comply with the International Color Consortium ("ICC") specification, including version 4 ("ICC v.4") and a color management system ("CMS") to process those profiles. ICC profiles include information on how to translate colors from a source (e.g., a digital photograph) to colors appropriate for an output device (e.g., a Xerox color printer/press). The CMS also includes information necessary for color translations, such

as descriptions of device gamuts that are similarly structured to the ICC-defined Perceptual Reference Medium Gamut (“PRMG”) used during gamut mapping between devices.

55. In Xerox Accused Print Servers, Command WorkStation includes a Calibrator Mode that calibrates color printers/presses to ensure that colors rendered by the printer/press in accordance with a color profile are within specifications of the device and the profile (e.g., gamut limitations).

56. In Xerox Accused Print Servers, Color Profiler Suite includes a verification feature that verifies that colors rendered by a printer/press in accordance with a color profile are within expectations. This verification confirms that the calibration of the printer/press and a corresponding profile remain valid.

57. Xerox Accused Print Servers are ICC v.4 compliant, which means the CMS uses the ICC-defined Perceptual Reference Medium Gamut (“PRMG”), or similarly structured descriptions of device gamuts for gamut mapping. The PRMG provides a standardized intermediate gamut representation for image data in coordinates for the ICC-defined Profile Connection Space (“PCS”) used for transforming colors between devices having different gamuts.

58. A color transformation process using the PRMG employs the PRMG, or similarly structured descriptions of gamuts, to map colors from an input device to an output device using an intermediate color-to-color’ transformation (i.e., input device gamut in PCS values to PRMG).

59. In Xerox Accused Print Servers, Color Profiler Suite includes a profile editor that allows users to modify color preferences for a given profile, such as lightness,

contrast, and saturation. Modifications to these preferences will be incorporated into the profile.

60. In Xerox Accused Print Servers, Command WorkStation includes user selectable color preferences, such as gray component replacement (“GCR”) options that will substitute an amount of black to create neutral colors (e.g., white, black, gray) in place of non-neutral colors used to create those same neutral colors. Upon information and belief, these preferences can be included as part of an ICC profile.

61. Xerox directly infringes claim 34 of the ’870 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 34 as part of its color management consulting services.

62. In addition, Xerox induces infringement of claim 34 of the ’870 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

63. Upon information and belief, Xerox’s customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 34 of the ’870 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 34 of the ’870 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the ’870 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 34 of the ’870 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement.

Xerox'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 34 of the '870 Patent by using the Xerox Accused Print Servers.

64. Xerox has had knowledge of the '870 Patent since at least March 27, 2014.

65. Xerox uses, offers to sell, and sells the Xerox Accused Print Servers knowing that Xerox has infringed and continues to infringe at least claim 34 of the '870 Patent under 35 U.S.C. § 271(a) directly.

66. As a direct and proximate result of Xerox'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 '870 CLAIM 39**

67. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-66 of this Complaint as though set forth in full herein.

68. Claim 39 of the '870 Patent provides:

Claim 39	The method according to claim 34 wherein said user preferences for color reproduction include at least one aspect of the utilization of one or more neutral colorants.
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69. Command Workstation in Xerox Accused Print Servers allows for CMYK/Grayscale Processing methods, including GCR.

70. GCR controls the amount of black ink (i.e., a neutral colorant) used when rendering colors.

71. Xerox directly infringes claim 39 of the '870 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 39 as part of its color management consulting services.

72. In addition, Xerox induces infringement of claim 39 of the '870 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

73. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 39 of the '870 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 39 of the '870 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '870 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 39 of the '870 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 39 of the '870 Patent by using the Xerox Accused Print Servers.



74. Xerox has had knowledge of the '870 Patent since at least March 27, 2014.

75. Xerox uses, offers to sell, and sells the Xerox Accused Print Servers knowing that Xerox has infringed and continues to infringe at least claim 39 of the '870 Patent under 35 U.S.C. § 271(a) directly.

76. As a direct and proximate result of Xerox'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 '870 CLAIM 43**

77. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-66 of this Complaint as though set forth in full herein.

78. Claim 43 of the '870 Patent provides:

Claim 43	The method according to claim 34 further comprising the step of verifying whether said information for transforming properly transforms said color image data at one or more of said sites.
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79. In Xerox Accused Print Servers, Color Profiler Suite includes a verification function that checks whether color data is rendered properly compared to a reference. The verification process entails printing a measurement page using a specific color profile for a device, measuring those rendered colors, and comparing the measured values to expected values for that profile. If the transformation is occurring properly, then the difference between measured and expected values will be within tolerance.

80. Xerox directly infringes claim 43 of the '870 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing

and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 43 as part of its color management consulting services.

81. In addition, Xerox induces infringement of claim 43 of the '870 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

82. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 43 of the '870 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 43 of the '870 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '870 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 43 of the '870 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 43 of the '870 Patent by using the Xerox Accused Print Servers.

83. Xerox has had knowledge of the '870 Patent since at least March 27, 2014.

84. Xerox uses, offers to sell, and sells the Xerox Accused Print Servers knowing that Xerox has infringed and continues to infringe at least claim 43 of the '870 Patent under 35 U.S.C. § 271(a) directly.

85. As a direct and proximate result of Xerox'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 28**

86. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 51 of this Complaint as though set forth in full herein.

87. 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.

88. In Xerox Accused Print Servers, EX-P 1000i Print Server (“EX Print Server”) is used to control color printing on a printer/press (e.g., Xerox Color 800/1000 Press).

89. In Xerox Accused Print Servers, Xerox provides EX Print Server preinstalled on a computer system along with Command WorkStation (collectively, the “EX Computer”). The EX Computer itself includes a display, keyboard, and mouse. Command WorkStation provides a GUI that allows a user to choose various color settings and preferences, such as the type of color profiles that should be used, and options for gray component replacement.

90. In Xerox Accused Print Servers, the EX Print Server comes preinstalled with color profiles for output devices, believed to comply with the ICC v.4 specification. Additionally, Command WorkStation supports ICC v.4-compliant profiles, which can be imported onto the EX Computer. These ICC v.4-compliant profiles include tonal transfer curves, and tagged elements (e.g., “AToB0” and “BToA0” transforms) that are used to transform color coordinates from, for example, an input color image to a particular output device, such as a color printer (e.g., Xerox 800/1000 Presses) for rendering.

91. In addition, the EX Print Server generates and stores calibration curves for each ink color used by the rendering device (e.g., Xerox 800/1000 Presses).

92. In Xerox Accused Print Servers, the EX Computer stores print jobs that include color images and graphics for rendering.

93. In general, calibration curves (including those generated by EX Print Server, upon information and belief) are made based on measurements of colors made during a calibration process using a calibration device. Once properly calibrated,

rendered colors are measured again to generate a color profile. As such, the transformations contained in color profiles are also based on measurements of colors made during a calibration process using a calibration device.

94. Calibration devices in general (including the specific calibration devices recommended by Xerox, upon information and belief) use device-independent color units, such as density,  $L^*a^*b^*$  and/or CIEXYZ, resulting in device-independent calibration data.

95. In Xerox Accused Print Servers, the EX Computer stores in memory ICC v.4-compliant profiles that 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).

96. Xerox directly infringes claim 28 of the '008 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 28 as part of its color management consulting services.

97. In addition, Xerox induces infringement of claim 28 of the '008 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

98. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '008 Patent since at least March 27, 2017. Xerox 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. Xerox'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 Xerox Accused Print Servers.

99. Xerox has had knowledge of the '008 Patent since at least March 27, 2015.

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

101. As a direct and proximate result of Xerox'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 30**

102. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 51, and 86-101 of this Complaint as though set forth in full herein.

103. 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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104. Xerox Accused Print Servers are ICC v.4 compliant, which means the Xerox Accused Print Servers' CMM uses the ICC-defined PRMG, or similarly structured gamut data.

105. The data stored on Xerox Accused Print Servers 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.

106. Xerox Accused Print Servers use the PRMG, or similarly structured gamut data, and the color output device gamut data together with the tonal transfer 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.

107. Xerox directly infringes claim 30 of the '008 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 30 as part of its color management consulting services.

108. In addition, Xerox induces infringement of claim 30 of the '008 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

109. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '008 Patent since at least March 27, 2014. Xerox 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. Xerox'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 Xerox Accused Print Servers.

110. Xerox has had knowledge of the '008 Patent since at least March 27, 2014.

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



112. As a direct and proximate result of Xerox’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 31**

113. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 51, and 86-101 of this Complaint as though set forth in full herein.

114. 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.

115. Xerox Accused Print Servers support version 4 ICC profiles, which means they can use/process profiles containing the “gamutTag” defined in ICC v.4. The gamutTag allows Xerox Accused Print Servers to display colors of a print job that are outside the gamut of the device used to render the print job. 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.

116. Xerox directly infringes claim 31 of the ’008 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales

facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 31 as part of its color management consulting services.

117. In addition, Xerox induces infringement of claim 31 of the '008 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

118. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '008 Patent since at least March 27, 2014. Xerox 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. Xerox'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 Xerox Accused Print Servers.

119. Xerox has had knowledge of the '008 Patent since at least March 27, 2014.

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

121. As a direct and proximate result of Xerox'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 37**

122. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 51, and 86-101 of this Complaint as though set forth in full herein.

123. 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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124. The user interface of Xerox Accused Print Servers includes user options for GCR settings, including Full (Source GCR) and Full (Output GCR).

125. Xerox directly infringes claim 37 of the '008 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 37 as part of its color management consulting services.

126. In addition, Xerox induces infringement of claim 37 of the '008 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

127. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '008 Patent since at least March 27, 2014. Xerox 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. Xerox'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 Xerox Accused Print Servers.

128. Xerox has had knowledge of the '008 Patent since at least March 27, 2014.

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

130. As a direct and proximate result of Xerox'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 39**

131. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 51, and 86-102 of this Complaint as though set forth in full herein.

132. Claim 39 of the '008 Patent provides:

Claim 39	The method according to claim 28 further comprising the step of displaying on the display a sequence of processing of said color image data.
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133. In Xerox Accused Print Servers, Command WorkStation displays the steps involved in an ICC color flow for output/rendering, including when various profiles and calibration curves are used.

134. Xerox directly infringes claim 39 of the '008 Patent by selling, offering to sell, and using the Xerox Accused Print Servers, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 39 as part of its color management consulting services.

135. In addition, Xerox induces infringement of claim 39 of the '008 Patent by end users by selling the Xerox Accused Print Servers that practice the claimed process in ordinary use.

136. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 39 of the '008 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 39 of the '008 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '008 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 39 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement.

Xerox’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 39 of the ’008 Patent by using the Xerox Accused Print Servers.

137. Xerox has had knowledge of the ’008 Patent since at least March 27, 2014.

138. Xerox uses, offers to sell, and sells the Xerox Accused Print Servers knowing that Xerox has infringed and continues to infringe at least claim 39 of the ’008 Patent under 35 U.S.C. § 271(a) directly.

139. As a direct and proximate result of Xerox’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 ’444 CLAIM 11**

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

141. Claim 11 of the ’444 patent provides:

Claim 11 Preamble	A system for controlling color reproduction comprising:
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.

142. Xerox sells printers and presses that are bundled with CX Print Server pre-installed on a computer system; Xerox also sells its FreeFlow Core product, either as a standalone product or, upon information and belief, bundled with its printers and presses, both as the FreeFlow Core On-Premise version and the FreeFlow Core Cloud version (collectively, “FreeFlow Core”)

143. “Xerox Accused Color Print Servers” include CX Print Server (including but not limited to CX Print Server for Xerox iGen4, 700i/700 Digital Color Press, DocuColor 8080 Digital Press, and Color 800/1000 Presses), FreeFlow Core, and other software and/or hardware that include the same or equivalent functionality described in paragraphs 144-150 of Count IX, paragraphs 159-160 of Count X, and paragraphs 168-170 of Count XI.

144. In Xerox Accused Color Print Servers, CX Print Server is color print and management software pre-installed onto the memory of a computer system (collectively, the “CX Computer”). FreeFlow Core is workflow and color management software either

installed on Xerox cloud-based servers having memory, or on local on-premise servers having memory.

145. In Xerox Accused Color Print Servers, CX Print Server creates and stores calibration curves for each of the colors of a given printer/press (e.g., Xerox DocuColor 8080's C, M, Y, and K colors), and creates and stores ICC v.4-compliant color profiles using its Profiling Tool feature. Upon information and belief, Xerox will include pre-installed ICC profiles for use with its printers/presses bundled with CX Print Server. FreeFlow Core retrieves ICC v.4-compliant color profiles and stores these profiles at least temporarily on the FreeFlow Core server. These ICC v.4 profiles include curves that define how colors are to be rendered by a rendering device.

146. The ICC v.4-compliant profiles created and stored by CX Print Server and FreeFlow Core are used to translate color data from one source into color data useable by another device (e.g., a Xerox digital press/printer). For example, ICC v.4-compliant profiles for N-component output devices (e.g., Xerox DocuColor 8080) must include a BToA0-type tag that converts Profile Connection Space color coordinates into color coordinates specific for the output device. These device-dependent coordinates are used to control how the output device renders colors.

147. The ICC v.4-compliant profiles created and stored by CX Print Server and FreeFlow Core have a header that points to tagged elements including a gamut filter (indicated by the "gamutTag") that uses PCS color values as inputs, and outputs a zero or non-zero to indicate if the input color values is in or out-of-gamut for a particular rendering device (e.g., Xerox DocuColor 8080).



148. The ICC v.4-compliant profiles created by CX Print Server and FreeFlow Core have a header that points to tagged elements including a chromatic adaptation transform (indicated by the “chromaticAdaptationTag”) 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).

149. In Xerox Accused Color Print Servers, CX Print Server includes Creo Color Server Technology to translate between a source color space and an output device color space using color profiles. Similarly, FreeFlow Core includes color management features used to convert document colors to a destination/output profile’s color space.

150. In Xerox Accused Color Print Servers, the CX Computer has at least an Ethernet connection for communicating with other networked devices, including other connected printer/presses and computers. For example, in a proofing workflow, a profile created by CX Print Server can be sent to a proofer device using the network connection. FreeFlow Core, as a server-based system, communicates with client devices over a network. FreeFlow Core client computers access the server using a conventional web browser.

151. Xerox directly infringes claim 11 of the ’444 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Print Servers, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 11 as part of its color management consulting services.

152. In addition, Xerox induces infringement of claim 11 of the '444 Patent by end users by selling the Xerox Accused Color Print Servers having software components only useable on a computer system.

153. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '444 Patent since at least March 27, 2017. Xerox 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. Xerox's inducement includes, for example, providing software designed for use on computer systems, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, and installation guides that induce its customers and/or end users to directly infringe at least claim 11 of the '444 Patent by using the Xerox Accused Color Print Servers.

154. Xerox has had knowledge of the '444 Patent since at least March 27, 2014.

155. As a direct and proximate result of Xerox'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 15**

156. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 140-155 of this Complaint as though set forth in full herein.

157. 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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158. In Xerox Accused Color Print Servers, CX Print Server and FreeFlow Core are ICC v.4 compliant, which means that CX Printer Server's Color Server and FreeFlow Core use and store the ICC's standard Perceptual Reference Medium Gamut ("PRMG") or similarly structured gamut descriptors for gamut mapping.

159. 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.

160. Xerox directly infringes claim 15 of the '444 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Print Servers, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 15 as part of its color management consulting services.

161. Xerox has had knowledge of the '444 Patent since at least March 27, 2014.

162. In addition, Xerox induces infringement of claim 15 of the '444 Patent by end users by selling the Xerox Accused Color Print Servers having software components only useable on a computer system.

163. Upon information and belief, Xerox'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. Xerox 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). Xerox has had actual knowledge of the '444 Patent since at least March 27, 2017. Xerox 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. Xerox's inducement includes, for example, providing software designed for use on computer systems, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, and installation guides that induce its customers and/or end users to directly infringe at least claim 15 of the '444 Patent by using the Xerox Accused Color Print Servers.

164. As a direct and proximate result of Xerox'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 20**

165. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 140-155 of this Complaint as though set forth in full herein.

166. Claim 20 of the '444 patent provides:

Claim 20	The system according to claim 11 wherein said tonal transfer functions are specific to a color device and said tonal transfer functions are modified in accordance with reference data and responsive to user interface settings.
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167. In Xerox Accused Color Print Servers, CX Print Server creates calibration curves for use with the Xerox printer/press it came bundled with (e.g., Xerox DocuColor 8080) and for specific paper and ink combinations. The ICC v.4 profiles used by FreeFlow Core include tone response curves for multiple color channels of a specific destination profile for an output device. Corrections to the device's tone response curves are calculated on a regular basis to ensure the device remains in the calibrated state for which a profile is valid.

168. Calibration in general entails rendering color patches having known reference values, measuring those color patches, and comparing the measured values to the known reference values to generate calibration curves. The results of the calibration are also reflected in the tone response curves associated with an ICC v.4 profile because the profile reflects the color characteristics of a press in a preferred calibrated state (e.g., calibrated to a standard, or calibrated to customer color preferences).

169. In Xerox Accused Color Print Servers, CX Print Server includes user preferences for calibration curve generation, such as preferences for the specific paper to be used for a particular rendering device. Upon information and belief, FreeFlow Core has access to a user-adjustable tone response curve editor for adjusting colors during calibration or profiling.

170. Xerox directly infringes claim 20 of the '444 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Print Servers,

including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 20 as part of its color management consulting services.

171. In addition, Xerox induces infringement of claim 20 of the '444 Patent by end users by selling the Xerox Accused Color Print Servers having software components only useable on a computer system.

172. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 20 of the '444 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 20 of the '444 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '444 Patent since at least March 27, 2017. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 20 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox's inducement includes, for example, providing software designed for use on computer systems, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, and installation guides that induce its customers and/or end users to directly infringe at least claim 20 of the '444 Patent by using the Xerox Accused Color Print Servers.

173. Xerox has had knowledge of the '444 Patent since at least March 27, 2014.

174. As a direct and proximate result of Xerox’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 41**

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

176. Claim 41 of the ’444 patent provides:

Claim 41 Preamble	A non-transitory computer-readable medium encoded with a program for controlling color reproduction comprising:
Element A	one or more files comprising one or more color transformations for converting a first set of color coordinates into a second set of coordinates, wherein said second set at least partly controls rendering by a device, at least one of said files comprising a header which has information related to said one or more color transformations and provides access to a gamut filter and a chromatic adaptation transform, wherein said gamut filter has inputs which are color values and outputs indicative of whether color values of said inputs are inside or outside of a color gamut and said chromatic adaptation transform enables conversion of input color coordinates to output color coordinates representative of different viewing conditions; and
Element B	software for preparing color data for rendering by a device in accordance with said one or more color transformations.

177. Xerox sells the FreeFlow Core workflow and color management for use on supported computer systems, including Xerox cloud servers and client computer systems.

178. “Xerox Accused Color Server Systems” includes the FreeFlow Core On-Premise version and the FreeFlow Core Cloud version (collectively, “FreeFlow Core”), and other hardware and software that include the same or equivalent functionality

described in paragraphs 179-182 of Count XII, paragraphs 188-189 of Count XIII, paragraphs 195-198 of Count XIV, and paragraphs 204-206 of Count XV.

179. In Xerox Accused Color Server Systems, FreeFlow Core is workflow and color management software either installed on Xerox cloud-based servers having memory, or on local on-premise servers having memory. FreeFlow Core supports the use of ICC v.4-compliant profiles, and, upon information and belief, Xerox includes such profiles for use with presses that use FreeFlow Core. In addition, FreeFlow Core retrieves ICC v.4-compliant color profiles from a computer system (e.g., print server or DFE associated with a press or FreeFlow Core database server) and stores these profiles at least temporarily on the FreeFlow Core server.

180. The ICC v.4-compliant profiles used and stored by FreeFlow Core are files that have a header pointing to elements used to translate color data from one source into color data useable by another device (e.g., a Xerox digital press/printer). For example, the header for an ICC v.4-compliant profile must include a field defining the Profile Connection Space (“PCS”) coordinates used for transformations (e.g., CIELAB or CIEXYZ).

181. The ICC v.4-compliant profiles used and stored by FreeFlow Core also include header elements that point to various tagged elements corresponding to data structures. For example, ICC v.4-compliant profiles for N-component LUT-based output devices (e.g., Xerox CMYK digital press) must include a lutBToA-type data structure (indicated, for example, by the B2A0 tag) that converts PCS color coordinates into color coordinates specific for the output device. These device-dependent coordinates are used to control how the output device renders colors. As another example, ICC v.4-compliant



profiles for N-component LUT-based output devices (e.g., Xerox CMYK digital press) must include a gamut filter (indicated by the “gamutTag”) that uses PCS color values as inputs, and outputs a zero or non-zero to indicate if the input color values is in or out-of-gamut for a particular rendering device (e.g., Xerox CMYK digital press). As a further example, ICC v.4-compliant profiles for N-component LUT-based output devices (e.g., Xerox CMYK digital press) must include a chromatic adaptation transform (indicated by the “chromaticAdaptationTag”) 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).

182. In Xerox Accused Color Server Systems, FreeFlow Core includes color management features used to convert document colors to a destination/output profile’s color space.

183. Xerox directly infringes claim 41 of the ’444 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Server Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

184. Xerox has had knowledge of the ’444 Patent since at least March 27, 2014.

185. As a direct and proximate result of Xerox’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 42**

186. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 175-185 of this Complaint as though set forth in full herein.

187. Claim 42 of the '444 patent provides:

Claim 42	The non-transitory computer-readable medium according to claim 41 further comprising a 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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188. In Xerox Accused Color Server Systems, FreeFlow Core supports ICC v.4 profiles. As an ICC v.4-compliant system, FreeFlow Core uses and stores the ICC-defined Perceptual Reference Medium Gamut (“PRMG”), or similarly structured descriptions of device gamuts for gamut mapping. The PRMG provides a standardized intermediate gamut representation for image data in coordinates for the ICC-defined Profile Connection Space (“PCS”) used for transforming colors (e.g., from an input device gamut in PCS values to PRMG).

189. 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.

190. Xerox directly infringes claim 42 of the '444 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Server Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

191. Xerox has had knowledge of the '444 Patent since at least March 27, 2014.

192. As a direct and proximate result of Xerox'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 '704 CLAIM 11**

193. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 178 of this Complaint as though set forth in full herein.

194. Claim 11 of the '704 patent provides:

Claim 11 Preamble	An apparatus for controlling color reproduction comprising:
Element A	a computer system operating as a server which is one of a plurality of sites that communicate through network interfaces using one or more network protocols; and
Element B	memory which stores:
Element C	information for transforming color image data for color rendering devices at said sites, wherein at least part of said information is stored in one or more files having a header and tags identifying data structures of said files, at least one of said files comprising a three-dimensional array whose inputs are device-independent color coordinates and whose output at each input coordinate indicates whether said input coordinate is either inside or outside of a color gamut; and
Element D	one or more programs operable for rendering said color image data at one or more of said color rendering devices responsive to said information for transforming and to user preferences for color reproduction.

195. Xerox Accused Color Server Systems include servers on which FreeFlow Core is installed, with the servers located either on-premise, or as part of Xerox's cloud

server system. As a server-based system, Xerox Accused Color Server Systems communicate with client devices and systems using a web browser and a network connection.

196. In Xerox Accused Color Server Systems, the FreeFlow Core servers include memory for storing programming and other information, including ICC v.4-compliant profiles. FreeFlow Core servers retrieve these profiles from a computer system (e.g., print server or DFE associated with a press or FreeFlow Core database server) for use in color management operations.

197. ICC v.4 color profiles are files that include a header and tagged elements that point to various data structures. For example, ICC v.4-compliant profiles for N-component LUT-based output device (e.g., a Xerox CMYK digital press) must include tags pointing to the BToA-type data structure. The BToA-type data structure is used to convert Profile Connection Space color values (e.g., XYZ device-independent color coordinates) into color coordinates specific for a chosen output device (e.g., Xerox CMYK digital press). As another example, N-component LUT-based output device profiles require a gamutTag that points to a data structure that uses a table to calculate whether input PCS values (from an input or source device) are in or out-of-gamut for the chosen output device (e.g., Xerox CMYK digital press).

198. In Xerox Accused Color Server Systems, the FreeFlow Core servers include color management capabilities for converting document colors to color values useable by a chosen output device (e.g., Xerox CMYK digital press). FreeFlow Core performs these color conversions consistent with user preferences, such as the type of

source profile or rendering intent. Upon information and belief, the converted colors are then returned to client systems during a printing operation.

199. Xerox directly infringes claim 11 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Server Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

200. Xerox has had knowledge of the '704 Patent since at least March 27, 2014.

201. As a direct and proximate result of Xerox'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 '704 CLAIM 12**

202. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 178, and 193-201 of this Complaint as though set forth in full herein.

203. Claim 12 of the '704 patent provides:

Claim 12	The apparatus according to claim 11 wherein said memory further stores at least one gamut descriptor associated with one of said color rendering devices for use in conjunction with gamut operator to produce a color-to-color' transform for gamut mapping, wherein said a gamut descriptor is an array whose inputs comprise coordinates related to lightness and hue and whose outputs are related to the saturation of at least surface colors of a color gamut at said coordinates related to lightness and hue.
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204. In Xerox Accused Color Server Systems, the FreeFlow Core servers include memory for storing programming and other information, including ICC v.4-compliant profiles. FreeFlow Core servers retrieve these profiles from a computer system (e.g., print server or DFE associated with a press or FreeFlow Core database server) for use in color management operations.

205. As an ICC v.4-compliant system, Xerox Accused Color Server Systems use and store the ICC-defined Perceptual Reference Medium Gamut (“PRMG”), or similarly structured descriptions of device gamuts for gamut mapping. The PRMG provides a standardized intermediate gamut representation for image data in coordinates for the ICC-defined Profile Connection Space (“PCS”) used for transforming colors (e.g., from an input device gamut in PCS values to PRMG).

206. 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.

207. Xerox directly infringes claim 12 of the ’704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Server Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

208. Xerox has had knowledge of the ’704 Patent since at least March 27, 2014.

209. As a direct and proximate result of Xerox’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 '704 CLAIM 17**

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

211. Claim 17 of the '704 patent provides:

Claim 17 Preamble	A method of color reproduction comprising the steps of:
Element A	connecting two or more programmable computers in a network provided by LAN, WAN or Internet for communication using one or more network protocols, wherein at least two of said two or more programmable computers are linked to color rendering devices;
Element B	providing data for storage in memory associated with said network, said data comprising:
Element C	graphical menu elements used by one or more of said two or more programmable computers to provide a user interface on a display enabling a user to initiate execution of programs for receiving color measurements and verifying the accuracy of transforming input colors having a device independent interpretation for rendering on one or more of said color rendering devices by comparing measured colors to reference colors with respect to an error criterion;
Element D	at least one file comprising a header and tags identifying a plurality of data structures within said file, said data structures holding information related to color transformation, wherein at least one of said data structures is a three-dimensional array whose inputs are device-independent color values and each of whose outputs indicate whether the corresponding input color is inside or outside of a color gamut, wherein said file is communicable between nodes of said network; and
Element E	tonal transfer functions expressing the relationship between digital command codes and rendered density values for each of the color channels of at least one of said color rendering devices responsive to measurements and to user preferences expressed through said user interface; and
Element F	directing execution of one or more programs by one or more of said two or more programmable computers, said one or more programs comprising:
Element G	software for retouching color images or designing page layouts;

Element H	a program that receives measurement data representative of rendered output of at least one of said a color rendering devices and accumulates a record of color reproduction performance of said at least one of said color rendering devices over time;
Element I	a program that uses said measurement data for comparing measured colors to reference colors to produce color error data; and
Element J	a program for modifying rendering by said at least one of said color rendering devices responsive to said color error data.

212. “Xerox Accused Color Press Systems” includes any Xerox digital press in combination with FreeFlow Core On-Premise version or FreeFlow Core Cloud version (collectively, “FreeFlow Core” or “FFC”), and Xerox Automated Color Quality Suite (“ACQS”), and Xerox Confident Color Technology (“Confident Color”), and other hardware and software that include the same or equivalent functionality described in paragraphs 213-200 of Count XVI, paragraphs 228-230 of Count XVII, paragraph 238 of Count XVIII, and paragraph 246 of Count XIX.

213. Xerox Accused Color Press Systems provide color management and workflow functionality in a networked printing operation containing multiple digital printing presses.

214. To provide such functionality, digital presses (each connected to a specific print server computer) are connected to servers running FreeFlow Core. ACQS and Confident Color are components included with the digital presses, and reside on the print server computer, upon information and belief. Both the print server computers and the FreeFlow Core servers have memory for storing color information, settings, and other print information.



215. In Xerox Accused Color Press Systems, ACQS uses color measurements from color measurement devices to automatically calibrate, profile, and check the accuracy of existing profiles, of digital presses. Users can select the appropriate measuring device from a menu of available devices, including, for example, integrated full width arrays or inline spectrophotometers to begin the calibration or profiling process.

216. In Xerox Accused Color Press Systems, upon information and belief, ACQS checks the accuracy of a profile by comparing measured colors to known reference color values (e.g., GRACoL or Fogra standard color references), and determining whether any differences between the measured and reference values (a measure of color error) exceed tolerances. The checked profiles include color values that bear a known relationship to CIE device independent color values. In addition to profile verification, ACQS calibrates digital presses by comparing measured color values to reference values, and making adjustments to ink or toner settings or tone reproduction curve settings to compensate for any color error.

217. In Xerox Accused Color Press Systems, FreeFlow Core retrieves ICC v.4-compliant profiles from a computer system (e.g., print server or DFE associated with a press or FreeFlow Core database server). ICC v.4 color profiles are files that include a header and tagged elements that point to various data structures related to color transformations. For example, all ICC v.4 color profiles for N-component LUT-based output devices (e.g., a CMYK digital press) include AToB-type and BToA-type data structures that are used to convert first color values into second color values. As another example, all ICC v.4 color profiles for N-component LUT-based output devices (e.g., a

CMYK digital press) include a gamut filter structure (indicated by the gamutTag). The gamutTag structure calculates whether an input value (PCS device-independent color values) is in or out-of-gamut for a specific output device (e.g., digital press).

218. In Xerox Accused Color Press Systems, Xerox digital presses include tone reproduction curve (“TRC”) editing features, such as Automatic TRC Adjustment or TRC Editor. TRCs define a relationship between digital instructions and the amount of ink or toner to deposit when printing. Automatic TRC Adjustment automatically adjusts TRCs using color measurements provided by a measuring device (e.g., full width array), with the measurements reflective of user preferences for colors (e.g., saturation levels). Upon information and belief, TRC Editor operates in a similar manner. The TRCs are stored at least on the print server computer.

219. In Xerox Accused Color Press Systems, FreeFlow Core includes and launches Impose and Enhance Images programs. Impose is used for arranging how pages are organized on a sheet or multi-page impression. Enhance Images is used to adjust color images, such as adjusting saturation, contrast, color balance, and other color settings.

220. In Xerox Accused Color Press Systems, ACQS is used for calibration and profiling using color measurements provided by a measurement device (e.g., integrated full width array or inline spectrophotometer). Upon information and belief, ACQS, using its time based calibration feature, stores a record of color measurements collected over time to ensure that a press renders colors consistently and accurately over time.

221. Xerox directly infringes claim 17 of the ’704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Press Systems,

including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 17 as part of its color management consulting services.

222. In addition, Xerox induces infringement of claim 17 of the '704 Patent by end users by selling the Xerox Accused Color Press Systems that practice the claimed process in ordinary use.

223. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 17 of the '704 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 17 of the '704 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '704 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 17 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 17 of the '704 Patent by using the Xerox Accused Color Press Systems.

224. Xerox has had knowledge of the '704 Patent since at least March 27, 2014.

225. As a direct and proximate result of Xerox’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 ’704 CLAIM 18**

226. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 210-225 of this Complaint as though set forth in full herein.

227. Claim 18 of the ’704 patent provides:

Claim 18 Preamble	The method according to claim 17
Element A	wherein at least one of said color rendering devices is a press linked to one of said programmable computers,
Element B	said method further comprising the step of utilizing a multi-dimensional color transformation to perform color matching between the color rendering device linked to another of said programmable computers and said press in accordance with a criterion for color error and a relationship between the color gamuts of said press and said another rendering device.

228. Xerox Accused Color Press Systems are designed for use with digital printing presses to manage color and workflows. Digital presses are connected to computer systems, such as a print server computer.

229. In Xerox Accused Color Press Systems, FreeFlow Core manages color by converting source colors (e.g., from a document) to colors useable by a destination device (e.g., digital press) using profiles. FreeFlow Core performs this conversion by creating DeviceLink profiles. DeviceLink profiles are used when using one digital press to match the color output of another press. DeviceLink profiles operate by merging (or “concatenating,” a term of art for evaluating a series of transformations “in tandem”), at

least in part, the color transformations (e.g., transformations for CMYK) contained in profiles for two different devices.

230. In Xerox Accused Color Press Systems, when FreeFlow Core creates DeviceLink profiles, it must take into consideration differences in gamuts between the presses to be matched. Upon information and belief, FreeFlow Core uses a gamut filter (a necessary data structure for ICC v.4 N-component LUT-based output devices, indicated by the gamutTag) to determine if colors in-gamut for the first device are also in-gamut, or out-of-gamut, for the second device. The data structure identified by a gamutTag is used to constrain the colors input to a transform (e.g., BToA-type transform) for a press to those reproducible on the press-to-be-matched.

231. Xerox directly infringes claim 18 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Press Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 18 as part of its color management consulting services.

232. In addition, Xerox induces infringement of claim 18 of the '704 Patent by end users by selling the Xerox Accused Color Press Systems that practice the claimed process in ordinary use.

233. Upon information and belief, Xerox'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 '704 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 18 of the '704 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '704 Patent since at least March

27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 18 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 18 of the '704 Patent by using the Xerox Accused Color Press Systems.

234. Xerox has had knowledge of the '704 Patent since at least March 27, 2014.

235. As a direct and proximate result of Xerox'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 '704 CLAIM 20**

236. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 210-225 of this Complaint as though set forth in full herein.

237. Claim 20 of the '704 patent provides:

Claim 20	The method according to claim 17 wherein said program that receives measurement data is capable of communicating with a light-sensitive instrument, said light sensitive instrument being incorporated into at least one of said color rendering devices.
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238. In Xerox Accused Color Press Systems, ACQS communicates with a color measurement device to calibrate and profile digital presses. Xerox digital presses include integrated color measurement devices, such as a full width array or inline spectrophotometer.

239. Xerox directly infringes claim 20 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Press Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 20 as part of its color management consulting services.

240. In addition, Xerox induces infringement of claim 20 of the '704 Patent by end users by selling the Xerox Accused Color Press Systems that practice the claimed process in ordinary use.

241. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 20 of the '704 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 20 of the '704 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '704 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 20 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 20 of the '704 Patent by using the Xerox Accused Color Press Systems.

242. Xerox has had knowledge of the '704 Patent since at least March 27, 2014.

243. As a direct and proximate result of Xerox'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 '704 CLAIM 21**

244. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 210-225, and 236-243 of this Complaint as though set forth in full herein.

245. Claim 21 of the '704 patent provides:

Claim 21	The method according to claim 20 wherein said light-sensitive instrument comprises one or more cameras that capture images of at least areas within pages rendered by said at least one of said color rendering devices.
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246. In Xerox Accused Color Press Systems, Xerox digital presses with integrated full width arrays have charge-coupled devices (CCDs) for capturing colors rendered on a page by the digital press.

247. Xerox directly infringes claim 21 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Press Systems, including use in relation to product testing and improvement, and demonstration at trade



shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 21 as part of its color management consulting services.

248. In addition, Xerox induces infringement of claim 21 of the '704 Patent by end users by selling the Xerox Accused Color Press Systems that practice the claimed process in ordinary use.

249. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 21 of the '704 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 21 of the '704 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '704 Patent since at least March 27, 2014. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 21 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 21 of the '704 Patent by using the Xerox Accused Color Press Systems.

250. Xerox has had knowledge of the '704 Patent since at least March 27, 2014.

251. As a direct and proximate result of Xerox'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 '704 CLAIM 29**

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

253. Claim 29 of the '704 patent provides:

Claim 29 Preamble	A color reproduction system comprising
Element A	a press for printing variable information on successive pages;
Element B	an interface providing communication between said press and a computer that provides data to said press, said computer having a display and a user interface;
Element C	memory for storing data representing color graphics and images in units having a device-independent interpretation, curves controlling tonal transfer for each color channel of said press and one or more color transformations comprising at least a multi-dimensional transformation for translating at least part of said data representing color graphics and images into values useable for controlling rendering on said press and a three-dimensional array whose inputs are device independent color coordinates and whose output at each input coordinate indicates whether said input coordinate is inside or outside of a color gamut;
Element D	one or more files stored in said memory, said one or more files having at least a header and tags identifying data structures within said one or more files to enable sharing of contents of said one or more files by said computer with another computer, said data structures comprising at least said multi-dimensional transformation and said three-dimensional array;
Element E	a program executable by said computer that renders, responsive to at least said multi-dimensional transformation, pages by said press having data representing said color graphics and images; and
Element F	at least one instrument comprising an illumination source and

	one or more photosensors, wherein said instrument provides measurements of colors printed by said press, said measurements enabling corrections of at least said curves controlling tonal transfer for each color channel.
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254. Xerox sells printers and presses that come bundled with FreeFlow Print Server.

255. “Xerox Accused Color Rendering Systems” includes the Versant 2100 with FreeFlow Print Server, and other Xerox printers/presses that come bundled with FreeFlow Print Server (including, but not limited to, FreeFlow Print Server for the Color 8250, Color J75, iGen 150, iGen 4, Color 800/1000, and Color 800i/1000i), and have either an inline spectrophotometer or full width array (including but not limited to Color 8250, Color J75, iGen 150, iGen 4, Color 800/1000, Color 800i/1000i), and other hardware and software that include the same or equivalent functionality described in paragraphs 256-262 of Count XX, paragraph 268 of Count XXI, paragraph 274 of Count XXII, paragraph 280 of Count XXIII, paragraphs 286-287 of Count XXIV, and paragraph 293 of Count XXV.

256. In Xerox Accused Color Rendering Systems, Versant 2100 is a press that includes full variable data printing capabilities. Xerox sells the Versant 2100 bundled with FreeFlow Print Server software preinstalled on a computer system, which includes a display. The Versant 2100 connects to the computer system preinstalled with FreeFlow Print Server using a network interface.

257. In Xerox Accused Color Rendering Systems, the FreeFlow Print Server computer has memory that stores color graphics and images as part of print jobs, with

those color graphics and images having color units that bear a mathematical relationship to device independent units of color (e.g., L\*a\*b\* or XYZ values).

258. In Xerox Accused Color Rendering Systems, the FreeFlow Print Server allows for editing and saving tone reproduction curves that control the amount of ink to deposit during rendering by a device, such as the Versant 2100.

259. In Xerox Accused Color Rendering Systems, the FreeFlow Print Server uses and stores ICC version 4-compliant color profiles, upon information and belief. These ICC v.4-compliant profiles contain multi-dimensional transformations in the form of, for example, “BToA” and “AToB” type tagged elements used when translating input color values (e.g., color graphics and images) into color values useable by an output device (e.g., the Versant 2100).

260. The ICC v.4-compliant profiles used and stored by the FreeFlow Print Server contain a three-dimensional array in the form of a “gamutTag” element, which uses PCS color values as inputs, and outputs a zero or non-zero indicating that an input color is in or out-of-gamut for a rendering device. ICC v.4-compliant profiles also include a header and tags identifying data structures (e.g., AToB-type, BToA-type and gamutTag) in a standardized format allowing for interoperability among devices and color management systems.

261. In Xerox Accused Color Rendering Systems, the FreeFlow Print Server includes Integrated Parallel RIP Technology for rendering color images and graphics. When rendering, the RIP technology uses the tagged elements of profiles (e.g., BToA and AToB type tags) to convert input color data into color data useable by a rendering device (e.g., Versant 2100).

262. In Xerox Accused Color Rendering Systems, the Versant 2100 includes a full width array photo inline sensor system (“Full Width Array”) that has a light source, and that analyzes finished images and corrects any errors in output color and density uniformity by automatically adjusting color values. These color value adjustments involve modifying tonal transfer curves, upon information and belief.

263. Xerox directly infringes claim 29 of the ’704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 29 as part of its color management consulting services.

264. Xerox has had knowledge of the ’704 Patent since at least February 26, 2015, and RAH Color Technologies’ specific allegations of how Xerox Accused Color Rendering Systems infringe claim 29 of the ’704 patent since at least February 26, 2015.

265. As a direct and proximate result of Xerox’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 ’704 CLAIM 30**

266. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 252-265 of this Complaint as though set forth in full herein.

267. Claim 30 of the ’704 Patent provides:

Claim 30	The system according to claim 29 wherein said instrument is integrated with said press to provide on line measurements of said colors printed by said press.
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268. In Xerox Accused Color Rendering Systems, the Versant 2100's Full Width Array is integrated into the Versant 2100, and provides color measurements while the Versant 2100 is in active operation.

269. Xerox directly infringes claim 30 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 30 as part of its color management consulting services.

270. Xerox has had knowledge of the '704 Patent since at least February 26, 2015, and RAH Color Technologies' specific allegations of how Xerox Accused Color Rendering Systems infringe claim 30 of the '704 patent since at least February 26, 2015.

271. As a direct and proximate result of Xerox'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 '704 CLAIM 31**

272. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 252-271 of this Complaint as though set forth in full herein.

273. Claim 31 of the '704 Patent provides:

Claim 31	The system according to claim 30 wherein said instrument comprises one or more cameras calibrated for colorimetric capture of an image printed by said press.
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274. In Xerox Accused Color Rendering Systems, the Versant 2100's Full Width Array is used for color measurements, and includes a line camera (i.e., a camera comprising several rows of photosensitive elements that scan printed copy by virtue of relative movement of copy and line camera) calibrated for such color measurements upon information and belief.

275. Xerox directly infringes claim 31 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 31 as part of its color management consulting services.

276. Xerox has had knowledge of the '704 Patent since at least February 26, 2015, and RAH Color Technologies' specific allegations of how Xerox Accused Color Rendering Systems infringe claim 31 of the '704 patent since at least February 26, 2015.

277. As a direct and proximate result of Xerox'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 '704 CLAIM 32**

278. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 252-271 of this Complaint as though set forth in full herein.

279. Claim 32 of the '704 Patent provides:

Claim 32	The system according to claim 30 wherein said instruments provides said on line measurements in units of density.
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280. In Xerox Accused Color Rendering Systems, the Versant 2100's Full Width Array provides automatic density uniformity adjustments. To provide such density adjustments, the Full Width Array makes density measurements.

281. Xerox directly infringes claim 32 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 32 as part of its color management consulting services.

282. Xerox has had knowledge of the '704 Patent since at least February 26, 2015, and RAH Color Technologies' specific allegations of how Xerox Accused Color Rendering Systems infringe claim 32 of the '704 patent since at least February 26, 2015.

283. As a direct and proximate result of Xerox'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 '704 CLAIM 34**

284. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 252-265 of this Complaint as though set forth in full herein.

285. Claim 34 of the '704 Patent provides:

Claim 34	The system according to claim 29 wherein said computer and said another computer each have a network interface for communication using one or more network protocols, in which information of state of calibration and capabilities of said press is communicated between said computer and said another computer for use in preparing said color graphics and images for rendering by said press.
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286. In Xerox Accused Color Rendering Systems, FreeFlow Print Server communicates with other computers using its network interface. For example, another computer can run Xerox's FreeFlow Core product, which is designed to communicate with Xerox digital presses, such as the Versant 2100 and FreeFlow Print Server.

287. FreeFlow Core features digital front end management and status, and automatic printer/press management. Upon information and belief, these features communicate calibration and capabilities information of printers/presses that can be used to prepare color print jobs.

288. Xerox directly infringes claim 34 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 34 as part of its color management consulting services.

289. Xerox has had knowledge of the '704 Patent since at least February 26, 2015, and RAH Color Technologies' specific allegations of how Xerox Accused Color Rendering Systems infringe claim 34 of the '704 patent since at least February 26, 2015.

290. As a direct and proximate result of Xerox'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 '704 CLAIM 35**

291. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 252-265 of this Complaint as though set forth in full herein.

292. Claim 35 of the '704 Patent provides:

Claim 35	The system according to claim 29 wherein one of said one or more files stored in said memory comprises a colorant to colorant transformation that enables improved matching of color reproduction by said press to color reproduction of one of an offset press, a gravure press, a flexographic press, or a proofer.
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293. In Xerox Accused Color Rendering Systems, FreeFlow Print Server creates and stores DeviceLink color profiles. DeviceLink profiles provide a direct link between color units useable by one press to color units useable by another press, and provide improved color matching by preserving certain color settings, such as the amount of black ink to use to generate a specific color. DeviceLink profiles can be used by a rendering device (e.g., a proofer) to simulate how colors would appear when rendered using a different device, such as an offset, gravure, or flexographic press.

294. Xerox directly infringes claim 35 of the '704 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Rendering Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 35 as part of its color management consulting services.

295. Xerox has had knowledge of the '704 Patent since at least February 26, 2015, and RAH Color Technologies' specific allegations of how Xerox Accused Color Rendering Systems infringe claim 35 of the '704 patent since at least February 26, 2015.

296. As a direct and proximate result of Xerox'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 '357 CLAIM 8**

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

298. Claim 8 of the '357 Patent provides:

Claim 8 Preamble	A method for measuring color comprising the steps of:
Element A	providing illumination to a surface;
Element B	collecting light of said illumination reflected from said surface with the aid of optics while scanning said surface;
Element C	measuring said collected light with a spectrograph to provide data representative of said light collected by said optics in accordance with a calibration enabling CIE colorimetry traceable to a standard;
Element D	processing said data provided by said spectrograph for comparison to reference data, said reference data comprising at least a colorimetric specification of desired colors;
Element E	storing said data provided by said spectrograph in a database of measurements in association with time of measurement information;
Element F	displaying information of the grayness of a color to a user; and
Element G	communicating said data provided by said spectrograph or results of processing said data provided by said spectrograph, and said information to one or more computer systems through a network interface using a network protocol.

299. “Xerox Accused Color Measurement Systems” include Xerox digital presses with integrated color measurement devices (e.g., full width array or inline spectrophotometer) in combination with FreeFlow Core On-Premise version or FreeFlow Core Cloud version (collectively, “FreeFlow Core” or “FFC”), Xerox Automated Color Quality Suite (“ACQS”), and/or Xerox Confident Color Technology (“Confident Color”), and other print servers and software (including, but not limited to, any that include the same or equivalent functionality described in paragraphs 300-305 of Count XXVI, paragraph 312 of Count XVII, paragraph 319 of Count XVIII, paragraphs 326-328 of Count XXIX, paragraphs 335-338 of Count XXX, paragraph 346 of Count XXXI, and paragraph 353 of Count XXXII).

300. In Xerox Accused Color Measurement Systems, an integrated color measurement device (e.g., full width array or inline spectrophotometer) provides color measurements for at least calibration and profiling purposes with ACQS. The color measurement devices include optics (e.g., lenses, mirrors, and/or diffraction gratings) and a light source that illuminates, and reflects off of, a moving printed sheet. The measurement devices collect the reflected light synchronized with the movement of the printed sheet so as to scan the sheet. The collected light is then directed towards a spectrograph component of the measuring devices for processing into color values using equations provided by the International Commission on Illumination (“Commission Internationale de l’Eclairage”).

301. In Xerox Accused Color Measurement Systems, the measuring devices are standardized color measurement devices, indicating that the devices are calibrated against a known colorimetric reference. Upon information and belief, the reference bears a

calibration that is certified by a standards-setting body, such as the National Institute of Standards and Technology.

302. In Xerox Accused Color Measurement Systems, ACQS uses the color measurements from the measurement devices for calibration and profiling to match approved proofs and previously printed jobs. Upon information and belief, ACQS matches proofs and previous jobs in part by comparing the color measurements to color values established in the proofs or previous jobs. Additionally, upon information and belief, ACQS compares color measurements to known reference color values, such as those provided by the printing industry (e.g., GRACoL or Fogra).

303. In Xerox Accused Color Measurement Systems, ACQS performs calibration on a regular basis to provide printing process consistency and reliability. Upon information and belief, ACQS stores previous measurements, including the time of the measurements, in a database (either on the press itself, a print server computer connected to the press, or on FreeFlow Core servers) to ensure that printed colors remain within tolerances over time.

304. In Xerox Accused Color Measurement Systems, Confident Color Technology provides a TRC Editor that displays grayscale TRCs at least during G7 calibration. G7 calibration is a service included with Confident Color Technology that adjusts gray balances to meet the G7 specification using, upon information and belief, measurements from the measurement devices.

305. In Xerox Accused Color Measurement Systems, ACQS uses color measurements to calibrate digital presses, and to create or adjust profiles for digital presses based on the calibrated state. FreeFlow Core provides color management

functionality using ICC v.4-compliant profiles retrieved from client computer systems (e.g., print server computer for a specific printing press) using a network.

306. Xerox directly infringes claim 8 of the '357 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 8 as part of its color management consulting services.

307. In addition, Xerox induces infringement of claim 8 of the '357 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

308. Upon information and belief, Xerox'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 '357 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 8 of the '357 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 8 of the '357 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 '357 Patent by using the Xerox Accused Color Measurement Systems.

309. As a direct and proximate result of Xerox’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 XXVII: INFRINGEMENT OF U.S. PATENT ’357 CLAIM 10**

310. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 297-309 of this Complaint as though set forth in full herein.

311. Claim 10 of the ’357 Patent provides:

Claim 10	The method according to claim 8 further comprising the steps of:
Element A	producing one or more color transformations responsive to said data provided by said spectrograph; and
Element B	communicating to said one or more computer systems at least said information related to or representative of said one or more color transformations, wherein said information related to or representative of said one or more color transformations is useable by said one or more computer systems for color matching.

312. In Xerox Accused Color Measurement Systems, FreeFlow Core supports ICC v.4 profiles, and ACQS generates or adjusts such profiles using color measurement data. ICC v.4 profiles require data structures used to transform colors. For example, ICC v.4 profiles for N-component LUT-based output devices (e.g., Xerox CMYK digital press) must include BToA-type data structures used to convert PCS color values to color values useable by the output device. FreeFlow Core retrieves the profiles created or adjusted by ACQS, and uses the profiles to ensure that color rendered by a press match desired colors (e.g., colors consistent with a standard reference, colors desired by client).

313. Xerox directly infringes claim 10 of the ’357 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement

Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 10 as part of its color management consulting services.

314. In addition, Xerox induces infringement of claim 10 of the '357 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

315. Upon information and belief, Xerox'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 '357 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 10 of the '357 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 10 of the '357 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 '357 Patent by using the Xerox Accused Color Measurement Systems.

316. As a direct and proximate result of Xerox'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 XXVIII: INFRINGEMENT OF U.S. PATENT '357 CLAIM 13**

317. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 297-309 of this Complaint as though set forth in full herein.

318. Claim 13 of the '357 Patent provides:

Claim 13	The method according to claim 8 further comprising the steps of:
Element A	producing color error data from said comparison; and
Element B	providing said color error data to color controls of a production system.

319. In Xerox Accused Color Measurement Systems, ACQS performs calibration or profiling using color data provided by a color measurement device (e.g., integrated full width array or inline spectrophotometer) to at least better match approved proofs or previous print jobs. Upon information and belief, the better match is achieved by calculating the difference between measured colors to reference colors (e.g., the approved proof or previous print job), with the difference in color values being the color error. Upon information and belief, ACQS instructs the press to adjust color output to compensate for the color error.

320. Xerox directly infringes claim 13 of the '357 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 13 as part of its color management consulting services.

321. In addition, Xerox induces infringement of claim 13 of the '357 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

322. Upon information and belief, Xerox'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 '357 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 13 of the '357 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 13 of the '357 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 '357 Patent by using the Xerox Accused Color Measurement Systems.

323. As a direct and proximate result of Xerox'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 XXXIX: INFRINGEMENT OF U.S. PATENT '357 CLAIM 26**

324. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 297-316 of this Complaint as though set forth in full herein.

325. Claim 26 of the '357 Patent provides:

Claim 26	The method according to claim 10 wherein said information related to or representative of said one or more color
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	transformations comprises one of a gamut filter or a chromatic adaptation transform, said gamut filter representing a first data structure stored in a file and accessible through a file header wherein said first data structure has inputs which are color values and outputs indicative of whether input color values are inside or outside of a color gamut, and said chromatic adaptation transform representing a second data structure stored in a file and accessible through a file header to enable conversion of input color coordinates to output color coordinates representative of different viewing conditions.
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326. In Xerox Accused Color Measurement Systems, FreeFlow Core supports ICC v.4 profiles, and retrieves these profiles for use during color management. ICC v.4 profiles are files that include a header element and tags pointing to various required data structures. For example, ICC v.4 profiles for N-component LUT-based output devices (e.g., Xerox CMYK digital press) require both a gamut filter (indicated by the gamutTag) and a chromatic adaptation transformation (indicated by the chromaticAdaptationTag) data structure.

327. The data structure corresponding to the gamutTag identifies source or input colors that are in or out-of-gamut for a chosen output or destination device (e.g., Xerox CMYK digital press). This data structure uses PCS values (e.g., XYZ color coordinates) as inputs. An output of zero indicates a color is in-gamut, and a non-zero output indicates a color is out-of-gamut.

328. The data structure corresponding to the chromaticAdaptationTag converts color values that were generated under one type of viewing condition (e.g., D65 white light typically used for digital images and computer monitors) to color values as if generated under a different viewing condition (e.g., D50 white light typically used for printing).

329. Xerox directly infringes claim 26 of the '357 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 26 as part of its color management consulting services.

330. In addition, Xerox induces infringement of claim 26 of the '357 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

331. Upon information and belief, Xerox'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 '357 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 26 of the '357 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 26 of the '357 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 26 of the '357 Patent by using the Xerox Accused Color Measurement Systems.

332. As a direct and proximate result of Xerox’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 XXX: INFRINGEMENT OF U.S. PATENT ’909 CLAIM 36**

333. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 299 of this Complaint as though set forth in full herein.

334. Claim 36 of the ’909 Patent provides:

Claim 36 Preamble	A method for controlling color reproduction at a plurality of nodes in a network, each said node having at least one rendering device, said method comprising the steps of:
Element A	providing a data structure in said network;
Element B	providing at each said node common input color image data representing one or more pages;
Element C	providing color calibration data at each said node characterizing output colors of the rendering device of the node;
Element D	producing for each said node, responsive to the color calibration data of the rendering device of the node, information for transforming the input color image data into output color image data at the rendering device of the node;
Element E	storing said information in said data structure;
Element F	transforming for each said node said input color image data into output color image data for the rendering device of the node responsive to said information in said data structure; and
Element G	rendering at the rendering device of each said node a color reproduction of said pages responsive to said output color image data, wherein colors displayed in said reproduction at the rendering device of each said node appear substantially the same within output colors attainable by the rendering devices, wherein at least one of said rendering devices comprises one of a printing press and a proofer device.

335. Xerox promotes the use of Xerox Accused Color Measurement Systems to manage color workflows and to ensure that print jobs remain consistent with respect to

colors when using different types of presses (e.g., Xerox Versant 180, Xerox Brenva HD) in a networked printing operation, with each type of press associated with networked computer (e.g., digital front end or print server computer, FreeFlow Core client/server computer).

336. In Xerox Accused Color Measurement Systems, FreeFlow Core is fully compliant with the Job Description Format (“JDF”) used for printing workflows. JDF files store various information related to print job workflows, including ICC profiles used for color conversions. These JDF files are communicated between different printing operations. For example, FreeFlow Core creates a JDF file that defines the final printer destination, allowing for routing of the print job to the desired printer. FreeFlow Core splits jobs based on user preferences, sending a single print job having the same color images to multiple presses for rendering.

337. In Xerox Accused Color Measurement Systems, networked Xerox presses include color measurement devices, including a full width array or inline spectrophotometer, to measure colors rendered by the presses. ACQS uses the color measurements to calibrate or linearize the press relative to a reference through adjustments to a press’s tone reproduction curves. ACQS further creates ICC profiles by measuring the colors rendered by a calibrated press. ICC profiles, such as those used for CMYK digital presses, must include data structures for transforming input colors into color coordinates useable by the press (e.g., BToA-type transformations, chromatic adaptation transforms). FreeFlow Core uses these ICC profiles to convert the colors of a print job into color coordinates useable by the press. FreeFlow Core then communicates

these color coordinates to the press (e.g., to the press's digital front end or print server computer) for rendering.

338. In Xerox Accused Color Measurement Systems, networked Xerox presses are calibrated to known printing standards (e.g., GRACoL) using ACQS and color measurements provided by a press's color measurement device. Calibrating to printing standards ensures that colors output by the different presses are all consistent, and ensures that colors of a print job rendered by one press match the colors of the same print job rendered on a different press.

339. Xerox directly infringes claim 36 of the '909 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 36 as part of its color management consulting services, including its Confident Color services.

340. In addition, Xerox induces infringement of claim 36 of the '909 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

341. Upon information and belief, Xerox'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 '909 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 36 of the '909 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 36 of the '909 Patent with the specific intent to encourage such

infringement, and knowing that the acts induced constitute patent infringement. Xerox’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 ’909 Patent by using the Xerox Accused Color Measurement Systems.

342. Xerox has had knowledge of the ’909 Patent since at least November 12, 2001.

343. As a direct and proximate result of Xerox’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 XXXI: INFRINGEMENT OF U.S. PATENT ’909 CLAIM 37**

344. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 299, and 333-343 of this Complaint as though set forth in full herein.

345. Claim 37 of the ’909 Patent provides:

Claim 37 Preamble	The method according to claim 36 further comprising the steps of:
Element A	verifying at each said node that said information for the rendering device of the node properly transformed the input color image data into the output color image data; and
Element B	revising said information stored in the data structure at the node responsive to results of said verifying step.

346. In Xerox Accused Color Measurement Systems, ACQS uses color measurements from color measurement devices to automatically check the accuracy of



existing ICC profiles, of digital presses. If the profile is no longer accurate, ACQS will automatically adjust the existing ICC profile, or create a new ICC profile. Upon information and belief, the adjusted or new profile is then stored in the JDF file for a print job.

347. Xerox directly infringes claim 37 of the '909 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 37 as part of its color management consulting services, including its Confident Color services.

348. In addition, Xerox induces infringement of claim 37 of the '909 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

349. Upon information and belief, Xerox'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 '909 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 37 of the '909 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 37 of the '909 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 '909 Patent by using the Xerox Accused Color Measurement Systems.

350. Xerox has had knowledge of the '909 Patent since at least November 12, 2001.

351. As a direct and proximate result of Xerox'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 XXXII: INFRINGEMENT OF U.S. PATENT '909 CLAIM 38**

352. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45, 299, 333-351 of this Complaint as though set forth in full herein.

353. Claim 38 of the '909 Patent provides:

Claim 38 Preamble	The method according to claim 37 wherein said step of verifying at each said node further comprising the steps of:
Element A	rendering verification forms by the rendering device of the node;
Element B	measuring colors of the verification forms; and
Element C	comparing statistically the measured colors with reference data for said verification forms to provide color error data at the node; and
Element D	said revising step further comprises revising said information of said data structure at the node responsive to said color error data.

354. In Xerox Accused Color Measurement Systems, upon information and belief, ACQS verifies the accuracy of ICC profiles by providing color patches that are printed having values corresponding to known reference values (e.g., GRACoL standards, or user-defined color values), measuring the color patches (using the press's

inline spectrophotometer or full width array), and determining if the measured color deviates from the reference color value, with any deviations reflecting color error data. Upon information and belief, ACQS makes adjustments to the profile, or creates a new profile, when the color error data exceeds a tolerance, with the profile then stored in a print job's JDF file.

355. Xerox directly infringes claim 38 of the '909 Patent when it makes, has made, imports, uses, sells, and offers for sale the Xerox Accused Color Measurement Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also uses claim 38 as part of its color management consulting services, including its Confident Color services.

356. In addition, Xerox induces infringement of claim 38 of the '909 Patent by end users by selling the Xerox Accused Color Measurement Systems that practice the claimed process in ordinary use.

357. Upon information and belief, Xerox'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 '909 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 38 of the '909 Patent under 35 U.S.C. § 271(b). Xerox is knowingly inducing its customers and/or end users to directly infringe at least claim 38 of the '909 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 '909 Patent by using the Xerox Accused Color Measurement Systems.

358. Xerox has had knowledge of the '909 Patent since at least November 12, 2001.

359. As a direct and proximate result of Xerox'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 XXXIII: INFRINGEMENT OF U.S. PATENT '251 CLAIM 9**

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

361. Claim 9 of the '251 Patent provides:

Claim 9 Preamble	A method of processing color data comprising:
Element A	communicating with one or more color-capable rendering devices;
Element B	enabling the collection of color reproduction data relative to a reference for said devices;
Element C	sharing at least part of said color reproduction data between said devices over a network via a network interface of each of said devices for the purpose of matching color reproductions by said devices.

362. "Xerox Accused Color Matching Systems" include Xerox MatchAssure, and other software and/or hardware that include the same or equivalent functionality described in paragraphs 363-364 of Count XXXIII, paragraphs 372-373 of Count

XXXIV, paragraphs 381-382 of Count XXXV, and paragraphs 390-391 of Count XXXVI.

363. In Xerox Accused Color Matching Systems, MatchAssure connects to and communicates with at least one color printer/press by IP address, and provides color patch charts that are printed by a selected printer/press. MatchAssure's color patch charts are based on industry-standard colors, such as GRACoL or Fogra, that have known color values. The color patch charts are then measured using MatchAssure, and the measured color values are used to create a color profile for the selected printer/press.

364. In Xerox Accused Color Matching Systems, the profiles created by MatchAssure are forwarded to a central print server for use with printers and presses connected/networked to the print server. The created profiles are used to ensure that all printers/presses will reproduce colors consistently, for example, when simulating one press by another for proofing purposes, or when harmonizing color output between presses/printers in different locations in multi-site production.

365. Xerox directly infringes claim 9 of the '251 Patent by selling, offering to sell, and using the Xerox Accused Color Matching Systems, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 9 as part of its color management consulting services.

366. In addition, Xerox induces infringement of claim 9 of the '251 Patent by end users by selling the Xerox Accused Color Matching Systems that practice the claimed process in ordinary use.

367. Upon information and belief, Xerox'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 '251 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 9 of the '251 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '251 Patent since at least February 26, 2015. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 9 of the '251 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 9 of the '251 Patent by using the Xerox Accused Color Matching Systems.

368. Xerox has had knowledge of the '251 Patent since at least February 26, 2015, and RAH Color Technologies's specific allegations of how Xerox Accused Color Matching Systems infringe claim 9 of the '251 patent since at least February 26, 2015.

369. As a direct and proximate result of Xerox'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 XXXIV: INFRINGEMENT OF U.S. PATENT '251 CLAIM 19**

370. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 360-369 of this Complaint as though set forth in full herein.

371. Claim 19 of the '251 patent provides:

Claim 19	The method according to claim 9 wherein said color reproduction data comprise color measurements or functions based upon said color measurements, and said reference is expressed in device-independent units.
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372. In Xerox Accused Color Matching Systems, MatchAssure collects color measurement data, which is then used to calculate  $\Delta E_{ab}$  color error data, with  $\Delta E_{ab}$  color error data calculated as the difference between reference color values and measured color values.

373. Both the reference color values and measured color values are in  $L^*a^*b^*$  (CIELAB) device-independent units of color.

374. Xerox directly infringes claim 19 of the '251 Patent by selling, offering to sell, and using the Xerox Accused Color Matching Systems, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 19 as part of its color management consulting services.

375. In addition, Xerox induces infringement of claim 19 of the '251 Patent by end users by selling the Xerox Accused Color Matching Systems that practice the claimed process in ordinary use.

376. Upon information and belief, Xerox'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 '251 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 19 of the '251 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '251 Patent since at least February 26, 2015. Xerox has been and is knowingly inducing its customers and/or end

users to directly infringe at least claim 19 of the '251 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 19 of the '251 Patent by using the Xerox Accused Color Matching Systems.

377. Xerox has had knowledge of the '251 Patent since at least February 26, 2015, and RAH Color Technologies's specific allegations of how Xerox Accused Color Matching Systems infringe claim 19 of the '251 patent since at least February 26, 2015.

378. As a direct and proximate result of Xerox'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 XXXV: INFRINGEMENT OF U.S. PATENT '251 CLAIM 20**

379. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 360-369 of this Complaint as though set forth in full herein.

380. Claim 20 of the '251 patent provides:

Claim 20	The method according to claim 9 wherein said color reproduction data comprise errors of reproduction and said reference comprises desired colors of said reproduction.
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381. In Xerox Accused Color Matching Systems, MatchAssure connects to supported color measurement devices, and receives measurements from those measuring devices to compare to reference colors having known values. Reference color patches are



chosen to be indicative of the colors to be rendered, such as colors consistent with GRACoL or Fogra industry standards.

382. The colors rendered by a rendering device will not match reference color values exactly, but will deviate from those reference color values. The deviation is represented as  $\Delta E_{ab}$  color error data.

383. Xerox directly infringes claim 20 of the '251 Patent by selling, offering to sell, and using the Xerox Accused Color Matching Systems, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 20 as part of its color management consulting services.

384. In addition, Xerox induces infringement of claim 20 of the '251 Patent by end users by selling the Xerox Accused Color Matching Systems that practice the claimed process in ordinary use.

385. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 20 of the '251 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 20 of the '251 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '251 Patent since at least February 26, 2015. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 20 of the '251 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 20 of the '251 Patent by using the Xerox Accused Color Matching Systems.

386. Xerox has had knowledge of the '251 Patent since at least February 26, 2015, and RAH Color Technologies's specific allegations of how Xerox Accused Color Matching Systems infringe claim 20 of the '251 patent since at least February 26, 2015.

387. As a direct and proximate result of Xerox'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 XXXVI: INFRINGEMENT OF U.S. PATENT '251 CLAIM 21**

388. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-45 and 360-369 of this Complaint as though set forth in full herein.

389. Claim 21 of the '251 patent provides:

Claim 21	The method according to claim 9 wherein said color reproduction data enable matching of one or more aspects of black utilization between said devices.
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390. In Xerox Accused Color Matching Systems, MatchAssure creates color profiles by collecting color measurements. The color profile is used to control rendering by a printer/press, including the amount of ink to use to render a given color.

391. In Xerox Accused Color Matching Systems, MatchAssure includes a printer-specific GCR strategy that controls how the color black is utilized to render neutral colors when used in combination with a color profile.

392. Xerox directly infringes claim 21 of the '251 Patent by selling, offering to sell, and using the Xerox Accused Color Matching Systems, including in relation to product testing and improvement responsive to user feedback, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos. Upon information and belief, Xerox also practices claim 21 as part of its color management consulting services.

393. In addition, Xerox induces infringement of claim 21 of the '251 Patent by end users by selling the Xerox Accused Color Matching Systems that practice the claimed process in ordinary use.

394. Upon information and belief, Xerox's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 21 of the '251 Patent. Xerox actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 21 of the '251 Patent under 35 U.S.C. § 271(b). Xerox has had actual knowledge of the '251 Patent since at least February 26, 2015. Xerox has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 21 of the '251 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Xerox'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 21 of the '251 Patent by using the Xerox Accused Color Matching Systems.

395. Xerox has had knowledge of the '251 Patent since at least February 26, 2015, and RAH Color Technologies's specific allegations of how Xerox Accused Color Matching Systems infringe claim 21 of the '251 patent since at least February 26, 2015.

396. As a direct and proximate result of Xerox'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 XXXVII: INFRINGEMENT OF U.S. PATENT '897 CLAIM 61**

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

398. Claim 61 of the '897 Patent provides:

Claim 61 Preamble	A computer-readable medium encoded with a computer program for providing control to a user for processing color images comprising:
Element A	a screen through which the user is able to select one or more sites according to information regarding identity or location of said one or more sites, each of said one or more sites having one or more color output devices;
Element B	one or more screens enabling the user to control conversion of color image data for each of said color output devices for said one or more selected sites in accordance with user preferences for color reproduction; and
Element C	one or more modules enabling the user to select verification of color reproduction of each of said color output devices in accordance with a reference expressible in device independent units.

399. "Xerox Accused Automated Color Management Systems" include Xerox IntegratedPLUS Automated Color Management hardware and software (including Xerox FreeFlow Core, which provides the software platform that IntegratedPLUS runs on), and

other hardware and/or software that include the same or equivalent functionality described in paragraphs 400-402 of Count XXXVII.

400. In Xerox Accused Automated Color Management Systems, IntegratedPLUS includes an application that runs locally on a user's computer system that includes a graphical user interface. The graphical user interface, upon information and belief, allows a user to connect to color printers/presses that may be physically located remotely using a network connection by name or network address.

401. In Xerox Accused Automated Color Management Systems, the graphical user interface of IntegratedPLUS allows a user to determine if a connected color printer/press requires calibration, and if so, allows a user to create a color profile, which controls color transformations. Upon information and belief, the profile creation process will allow users to incorporate color reproduction preferences, such as gray component replacement or defining the type of paper or ink used by the color printer/press to be profiled.

402. In Xerox Accused Automated Color Management Systems, IntegratedPLUS includes a data analysis component that verifies whether colors fall within a user's predefined specification by printing target sheets for measurement and comparison to the predefined specification. Upon information and belief, the predefined specifications serve as a reference of known color values that are in device-independent units, such as CIELAB.

403. Xerox infringes claim 61 of the '897 Patent when it makes, has made, imports, uses, sells and offers for sale the Xerox Accused Automated Color Management Systems.

404. Xerox has had knowledge of the '897 Patent since at least February 26, 2015, and knowledge of RAH Color Technologies' specific allegations that the Xerox Accused Automated Color Management Systems infringe claim 61 of the '897 Patent since at least February 26, 2015.

405. As a direct and proximate result of Xerox'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**

406. Xerox has infringed and continues to infringe the above identified claims of each of the Patents-in-Suit despite: its knowledge of the '870, '008, and '444 Patents and its knowledge that at least Xerox Accused Print Servers, and Xerox Accused Color Print Servers were and are using the technology claimed by the '870, '008, and '444 Patents since at least March 27, 2014; its knowledge of the '704, '251, and '897 Patents and its knowledge that at least Xerox Accused Color Rendering Systems, Xerox Accused Color Matching Systems, and Xerox Accused Automated Color Management Systems were and are using the technology claimed by the '704, '251, and '897 Patents since at least February 26, 2015; its specific knowledge of RAH Color Technologies' allegations for certain claims of the '704, '251, and '897 Patents since at least February 26, 2015; its knowledge of the '909 Patent since at least November 12, 2001; and the objectively high likelihood that its acts constitute patent infringement.

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

408. Xerox'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 Xerox as follows:

- A. Adjudging, finding, and declaring that Xerox 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 Xerox'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 Xerox'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.

February 23, 2018

Respectfully submitted,

By: /s/ Irwin Park  
David Berten ([dberten@giplg.com](mailto:dberten@giplg.com))  
Alison Aubry Richards ([arichards@giplg.com](mailto:arichards@giplg.com))  
Irwin Park ([ipark@giplg.com](mailto: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*