

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS

RAH COLOR TECHNOLOGIES LLC,

Plaintiff,

v.

FUJIFILM HOLDINGS CORPORATION,

FUJIFILM HOLDINGS AMERICA
CORPORATION, and

FUJIFLM NORTH AMERICA
CORPORATION,

Defendants.

Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT

This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code, against Defendants Fujifilm Holdings Corporation, Fujifilm Holdings America Corporation, and Fujifilm North America Corporation (collectively “Fujifilm”) that relates to eight U.S. patents owned by RAH Color Technologies LLC (“RAH Color Technologies” or “RAHCT”): U.S. Patent Nos. 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); 8,760,704 (the ’704 Patent); 7,830,546 (the ’546 Patent); and 8,817,314 (the ’314 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 Fujifilm Holdings Corporation is a company duly organized and existing under the laws of Japan, with its principal place of business at 7-3, Akasaka 9-chome, Minato-ku, Tokyo 107-0052, Japan. On information and belief, Fujifilm Holdings Corporation can be served with process at that address.

3. Defendant Fujifilm Holdings America Corporation is a Delaware Corporation that maintains a principal place of business at 200 Summit Lake Drive, Valhalla, NY 10595-1356. Fujifilm Holdings America Corporation can be served with process through its registered agent, Corporation Service Company, 80 State Street, Albany, New York, 12207-2543.

4. Defendant Fujifilm North America Corporation is a New York corporation that maintains a principal place of business at 200 Summit Lake Drive, Valhalla, NY 10595-1356. Fujifilm North America Corporation can be served with process through its registered agent, Corporation Service Company, 80 State Street, Albany, New York, 12207-2543.

5. Fujifilm North America Corporation's Imaging Division provides consumer and commercial photographic products and services, including: digital printing equipment, along with service and support.

6. Fujifilm North America Corporation's Electronic Imaging Division markets consumer digital cameras, and the Graphic Systems Division supplies products and services to the graphic printing industry.

7. Fujifilm manufactures, makes, uses, sells, imports, and offers for sale printer, prepress and workflow hardware and software that employ color measurement and management techniques in the U.S.

JURISDICTION AND VENUE

8. 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.

9. 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.

10. Each Fujifilm Defendant 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.

11. Fujifilm, directly and/or through subsidiaries and agents (including distributors, retailers, and others), makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites, for example, http://www.fujifilmusa.com/products/graphic_arts_printing/ and http://www.fujifilmusa.com/products/digital_cameras/, as well as other retailers) its products and/or services in the United States, the State of Illinois, and the Northern District of Illinois.

12. Fujifilm, 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. Fujifilm has committed acts of patent infringement within the State of Illinois and, more particularly, within the Northern District of Illinois.

13. Fujifilm North America Corporation also maintains operations in Illinois and in this District including at 850 Central Ave., Hanover Park, Illinois 60133.

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

15. Venue is proper in this District under 28 U.S.C. §§1391(b) and (c) and 1400(b) because all Defendants are subject to personal jurisdiction in this District and Fujifilm Holdings Corporation may be sued in any judicial district.

BACKGROUND FACTS REGARDING RAH COLOR TECHNOLOGIES

16. 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.

17. 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.

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

19. 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.

20. 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.

21. 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).

22. 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.

23. Dr. Holub formed Imagicolor Corporation in 1998 to commercialize his prototype described above in paragraph 22. Further efforts at business development continued, however, investment did not materialize and Imagicolor was eventually dissolved.

24. 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

25. The United States Patent Office has awarded Dr. Holub 30 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. 7,280,251, entitled "System and Method for Calibrating Color Printers" (the '251 Patent);
- United States Patent No. 7,312,897, entitled "System for Distributing and Controlling Color Reproduction at Multiple Sites" (the '897 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. 7,830,546, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’546 Patent); and
- United States Patent No. 8,817,314, entitled “System for Distributing and Controlling Color Reproduction at Multiple Sites” (the ’314 Patent).

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

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

28. RAH Color Technologies has licensed the technology covered by its patents to six of the largest manufacturers of color imaging and printing products for consumer and professional segments in the world, including three of the largest manufacturers of digital cameras. 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.

29. 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.

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

FUJIFILM'S AWARENESS OF THE PATENTS-IN-SUIT

31. Fujifilm has been aware of the Patents-in-Suit since at least October 3, 2014.

32. On October 3, 2014, counsel for RAH Color Technologies (Global IP Law Group, LLC) sent a six-page letter to Fujifilm's VP and General Counsel Judy Melillo offering Fujifilm a license to RAH Color Technologies' patents. The letter indicated that Fujifilm was using RAH Color Technologies' patented technologies, and identified the Patents-in-Suit and the Fujifilm products and methods RAH Color Technologies contends infringes them.

33. On June 16, 2015, counsel for RAH Color Technologies (Global IP Law Group, LLC) sent Frank Gallucci (Fujifilm's Chief IP Counsel) detailed claim charts for the '870, '897, '008, and '704 Patents.

34. Throughout the two years of dealings between RAHCT and Fujifilm, RAHCT has provided Fujifilm with at least four substantive letters, numerous emails and phone calls, and at least four claim charts; RAHCT has met with Fujifilm in-person in Tokyo, Japan, and in-person with Fujifilm's outside counsel in New York City.

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

36. 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, Fujifilm has continued to infringe and induce the infringement of the Patents-in-Suit.

37. Fujifilm promotes its capabilities of accurately measuring and managing color in support of Fujifilm's business of providing printers, measuring devices, digital cameras, and software that it sells and offers for sale to customers in the U.S. As part of its business, Fujifilm uses printer and digital camera 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.

38. Fujifilm 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 methods and using, making and importing systems, software, and apparatuses covered by the asserted patent claims identified below.

COUNT I: INFRINGEMENT OF U.S. PATENT '870 CLAIM 19

39. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1 to 36 of this Complaint as though set forth in full herein.

40. Claim 19 of the '870 Patent provides:

Claim 19 Preamble	An apparatus for controlling color reproduction with improved color matching at multiple rendering devices comprising:
Element A	a computer system representing a server having memory and a network interface, said computer system being capable of communicating with a plurality of sites through said network interface; and
Element B	said memory stores information for transforming color image data for rendering devices at said sites, wherein said information is transforming comprises at least information relating to the color gamuts of said rendering devices, said information for transforming is modifiable responsive to user preference for color reproduction, and said information for transforming is accessible from said computer system by said sites or distributed by said computer system to said sites with or without the color image data.

41. “Fujifilm Accused Color Management Systems” include Fujifilm ColorPath Sync and XMF Workflow and other hardware and software that include the same or equivalent functionality described in paragraphs 42-48 of Count I, paragraph 54 of Count II, paragraph 61 of Count III, paragraphs 67-69 of Count IV, paragraphs 75-76 of Count V, paragraphs 82-83 of Count VI, paragraphs 89-90 of Count VII, paragraph 96 of Count VIII, paragraphs 102-103 of Count IX, paragraphs 109-112 of Count X, paragraphs 120-121 of Count XI, paragraphs 129-130 of Count XII, paragraphs 138-139 of Count XIII, paragraphs 147-148 of Count XIV, paragraphs 156-160 of Count XV, paragraphs 166-171 of Count XVI, paragraphs 179-180 of Count XVII, paragraphs 180-189 of Count XVIII, paragraphs 197-204 of Count XIX, paragraph 212 of Count XX, paragraphs 220-222 of Count XXI, paragraph 230 of Count XXII, paragraphs 238-239 of Count XXIII, paragraph 247 of Count XXIV, and paragraphs 255-256 of Count XXV.

42. Fujifilm Accused Color Management Systems provide control for processing color images through the use of color profiles processed through a color management module (“CMM”) or profiling engine.

43. For example, Fujifilm ColorPath Sync is a cloud-based computer system using web-accessible servers that gives users the ability to communicate, control, and confirm color across numerous devices in one location or multiple locations.

44. Fujifilm Accused Color Management Systems store information for transforming color image data for various rendering devices in the form of International Color Consortium (“ICC”) version 4-compliant profiles, including device link profiles generated using ColorPath Sync.

45. Device link profiles (“DLPs”) transform device-specific input values into device-specific codes for an output device by combining a source transformation (e.g., input device-specific codes into device independent Profile Connection Space (“PCS”) coordinates) and a destination transformation (e.g., PCS coordinates into an output device’s specific codes) using specialized color mappings.

46. Upon information and belief, these specialized mappings employ representations for source and destination gamuts that correspond to gamut data in a form similar to, and compatible with, the ICC version 4-defined Perceptual Reference Medium Gamut.

47. Device link profiles may incorporate user preferences for color reproduction, such as maximum black ink amounts, black separation parameters, and white point controls.

48. Device link profiles are distributed from the ColorPath Sync cloud-based computers to any connected devices with or without color image data.

49. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

50. Fujifilm has had knowledge of the ’870 Patent since at least October 3, 2014, and RAH Color Technologies’ allegations of how Fujifilm Accused Color Management Systems infringe claim 19 of the ’870 patent since at least June 16, 2015.

51. As a direct and proximate result of Fujifilm’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 20

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

53. Claim 20 of the '870 Patent provides:

Claim 20	The apparatus according to claim 19 wherein said information comprises at least the relationship of the gamut of input image data to the gamuts of one or more rendering devices.
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54. In Fujifilm Accused Color Management Systems, ColorPath Sync creates device link profiles that provide specific control over colors, such as color areas to be preserved, preventing contamination of pure colors, and specific gray handling.

55. Upon information and belief, these controls require specialized gamut mappings based on the gamut of input color image data and the gamut(s) of the rendering device(s).

56. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

57. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 20 of the '870 patent since at least June 16, 2015.

58. As a direct and proximate result of Fujifilm'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 21

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

60. Claim 21 of the '870 Patent provides:

Claim 21	The apparatus according to claim 19 wherein said computer system further comprises a user interface for enabling a user to select one or more sites for connection to said computer system.
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61. In Fujifilm Accused Color Management Systems, ColorPath Sync includes a user interface through which a user can select sites and devices that connect to the ColorPath Sync cloud computers.

62. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

63. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 21 of the '870 patent since at least June 16, 2015.

64. As a direct and proximate result of Fujifilm'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 '870 CLAIM 23

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

66. Claim 23 of the '870 Patent provides:

Claim 23 Preamble	The apparatus according to claim 19
Element A	wherein colors produced by the rendering devices at said sites are substantially the same within output colors attainable by the rendering devices
Element B	and said rendering devices are capable of being of different types or models, or have different colorants.

67. In Fujifilm Accused Color Management Systems, ColorPath Sync aligns output rendering devices (e.g., digital press) to designated color targets to ensure that colors produced by the rendering devices are rendered accurately.

68. ColorPath Sync verifies that the alignment of output rendering devices remain within desired color error tolerances using ColorPath Sync's validation features.

69. In Fujifilm Accused Color Management Systems, ColorPath Sync connects to multiple types of rendering devices, such as digital inkjet printers and presses.

70. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

71. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 23 of the '870 patent since at least June 16, 2015.

72. As a direct and proximate result of Fujifilm'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 '870 CLAIM 24

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

74. Claim 24 of the '870 Patent provides:

Claim 24	The apparatus according to claim 19 wherein said user preferences are capable of being expressed at least in part by annotations to at least one of the input or output image data.
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75. In Fujifilm Accused Color Management Systems, ColorPath Sync is integrated with and used in combination with XMF Workflow.

76. XMF Workflow includes an annotation feature, which can be used to express user preferences.

77. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

78. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 24 of the '870 patent since at least June 16, 2015.

79. As a direct and proximate result of Fujifilm'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 '870 CLAIM 25

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

81. Claim 25 of the '870 Patent provides:

Claim 25	The apparatus according to claim 19 wherein said information for transforming enables at least one of proofing or simulation of color reproduction by at least one of said color rendering devices of another color rendering device.
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82. In Fujifilm Accused Color Management Systems, ColorPath Sync generates ICC version 4-compliant device link profiles.

83. Device link profiles can be used for proofing color reproduction of a different rendering device (e.g., using a proofer to match colors rendered by a digital press).

84. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

85. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 25 of the '870 patent since at least June 16, 2015.

86. As a direct and proximate result of Fujifilm'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 '870 CLAIM 26

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

88. Claim 26 of the '870 Patent provides:

Claim 26	The apparatus according to claim 19 wherein at least one of said sites is capable of being remote from the other said sites, and said communication is capable of being at least partly wireless.
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89. In Fujifilm Accused Color Management Systems, ColorPath Sync communicates with devices in multiple locations separate from each other (e.g., presses in different buildings).

90. ColorPath Sync communicates over a network, and such network communication can be wireless.

91. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

92. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 26 of the '870 patent since at least June 16, 2015.

93. As a direct and proximate result of Fujifilm'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 '870 CLAIM 27

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

95. Claim 27 of the '870 Patent provides:

Claim 27	The apparatus according to claim 19 wherein said user preferences comprise one or more of: at least one aspect of the utilization of colorants in excess of three; preferences for gamut scaling; or results of profile editing.
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96. In Fujifilm Accused Color Management Systems, ColorPath Sync provides various user preferences for inclusion with device link profiles, including the amount of different inks to be used for a CMYK (cyan, magenta, yellow, black inks) press.

97. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

98. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 27 of the '870 patent since at least June 16, 2015.

99. As a direct and proximate result of Fujifilm'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 '870 CLAIM 28

100. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-51 and 59-64 of this Complaint as though set forth in full herein.

101. Claim 28 of the '870 Patent provides:

Claim 28	The apparatus according to claim 21 wherein said user interface enables a user to initiate verification that said information for transforming properly transforms said color image data at one or more of said sites.
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102. In Fujifilm Accused Color Management Systems, ColorPath Sync includes a user interface that allows a user to use ColorPath Sync's color verification feature.

103. ColorPath Sync's verification feature ensures that colors are transformed accurately in accordance with the color profile used.

104. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems.

105. Fujifilm has had knowledge of the '870 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Management Systems infringe claim 28 of the '870 patent since at least June 16, 2015.

106. As a direct and proximate result of Fujifilm'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 '251 CLAIM 9

107. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 41 of this Complaint as though set forth in full herein.

108. 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.

109. In Fujifilm Accused Color Management Systems, ColorPath Sync integrates with, and can be accessed from, XMF Workflow, and both programs are used in combination for processing color data.

110. XMF Workflow communicates with multiple color rendering devices, such as digital color presses and proofing devices, as examples.

111. ColorPath Sync connects directly to supported spectrophotometers to collect measurements of colors reproduced by a rendering device for comparison to reference colors, such as colors defined by standards-setting bodies (e.g., Idealliance).

112. ColorPath Sync uses color measurements to build device link profiles, which are shared with connected rendering devices to ensure that, for example, a proofing device at one site matches a press at another site.

113. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

114. In addition, Fujifilm induces infringement of claim 9 of the '251 Patent by end users by importing and selling the Fujifilm Accused Color Management Systems that practice the claimed process in ordinary use.

115. Upon information and belief, Fujifilm'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. Fujifilm 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). Fujifilm has had actual knowledge of the '251 Patent since at least

October 3, 2014. Fujifilm 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. Fujifilm'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 Fujifilm Accused Color Management Systems.

116. Fujifilm has had knowledge of the '251 Patent since at least October 3, 2014.

117. As a direct and proximate result of Fujifilm'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 '251 CLAIM 19

118. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 107-117 of this Complaint as though set forth in full herein.

119. 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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120. In Fujifilm Accused Color Management Systems, ColorPath Sync collects color measurement data, which is then used to calculate ΔE color error data, with ΔE color error data calculated as the difference between reference color values and measured color values.

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

122. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

123. In addition, Fujifilm induces infringement of claim 19 of the '251 Patent by end users by importing and selling the Fujifilm Accused Color Management Systems that practice the claimed process in ordinary use.

124. Upon information and belief, Fujifilm'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. Fujifilm 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). Fujifilm has had actual knowledge of the '251 Patent since at least October 3, 2014. Fujifilm 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. Fujifilm'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 Fujifilm Accused Color Management Systems.

125. Fujifilm has had knowledge of the '251 Patent since at least October 3, 2014.

126. As a direct and proximate result of Fujifilm'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 '251 CLAIM 20

127. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 107-117 of this Complaint as though set forth in full herein.

128. 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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129. In Fujifilm Accused Color Management Systems, ColorPath Sync 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.

130. The colors rendered by a rendering device will not match reference color values exactly, but will deviate from those reference color values.

131. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

132. In addition, Fujifilm induces infringement of claim 20 of the '251 Patent by end users by importing and selling the Fujifilm Accused Color Management Systems that practice the claimed process in ordinary use.

133. Upon information and belief, Fujifilm'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. Fujifilm 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). Fujifilm has had actual knowledge of the '251 Patent since at least October 3, 2014. Fujifilm 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. Fujifilm'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 Fujifilm Accused Color Management Systems.

134. Fujifilm has had knowledge of the '251 Patent since at least October 3, 2014.

135. As a direct and proximate result of Fujifilm'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 '251 CLAIM 21

136. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 107-117 of this Complaint as though set forth in full herein.

137. 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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138. In Fujifilm Accused Color Management Systems, ColorPath Sync generates device link profiles directly from color measurements.

139. ColorPath Sync incorporates settings for black separation parameters into device link profiles, allowing for the preservation of black utilization settings for one device (e.g., press) when using another device (e.g., proofer).

140. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

141. In addition, Fujifilm induces infringement of claim 21 of the '251 Patent by end users by importing and selling the Fujifilm Accused Color Management Systems that practice the claimed process in ordinary use.

142. Upon information and belief, Fujifilm'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. Fujifilm 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). Fujifilm has had actual knowledge of the '251 Patent since at least October 3, 2014. Fujifilm 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. Fujifilm'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 Fujifilm Accused Color Management Systems.

143. Fujifilm has had knowledge of the '251 Patent since at least October 3, 2014.

144. As a direct and proximate result of Fujifilm'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 '251 CLAIM 22

145. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 107-117 of this Complaint as though set forth in full herein.

146. Claim 22 of the '251 patent provides:

Claim 22	The method according to claim 9 wherein said communicating step employs Internet Protocol and is capable of being at least partly wireless.
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147. In Fujifilm Accused Color Management Systems, ColorPath Sync is a cloud-based system that communicates with XMF Workflow computers over the Internet.

148. This communication is capable of being wireless.

149. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Management Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

150. In addition, Fujifilm induces infringement of claim 22 of the '251 Patent by end users by importing and selling the Fujifilm Accused Color Management Systems that practice the claimed process in ordinary use.

151. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 22 of the '251 Patent. Fujifilm actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 22 of the '251 Patent under 35 U.S.C. § 271(b). Fujifilm has had actual knowledge of the '251 Patent since at least October 3, 2014. Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 22 of the '251 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm'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 22 of the '251 Patent by using the Fujifilm Accused Color Management Systems.

152. Fujifilm has had knowledge of the '251 Patent since at least October 3, 2014.

153. As a direct and proximate result of Fujifilm'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 '897 CLAIM 61

154. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 41 of this Complaint as though set forth in full herein.

155. 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.

156. In Fujifilm Accused Color Management Systems, ColorPath Sync is a cloud-based system used to communicate, control, and confirm color across numerous devices in one location or multiple locations.

157. ColorPath Sync has a user interface through which a user can select connected color rendering devices by name or location.

158. ColorPath Sync generates device link profiles, which are used to control the conversion of input color image data to output color image data, and which include user preferences, such as preferences for maximum ink amounts, black separation, and white point.

159. ColorPath Sync includes a validation feature that verifies if colors rendered by devices are consistent with reference or expected color values.

160. The validation feature provides analysis of color values in L*a*b* device-independent units of color.

161. Fujifilm infringes claim 61 of the '897 Patent when it makes, imports, uses, sells and offers for sale the Fujifilm Accused Color Management Systems.

162. Fujifilm has had knowledge of the '897 Patent since at least October 3, 2014, and knowledge of RAH Color Technologies' specific allegations that the Fujifilm Accused Color Management Systems infringe claim 61 of the '897 Patent since at least June 16, 2015.

163. As a direct and proximate result of Fujifilm'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 '008 CLAIM 75

164. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 41 of this Complaint as though set forth in full herein.

165. Claim 75 of the '008 Patent provides:

Claim 75 Preamble	A color rendering system to improve color matching in relation to at least one other color output device comprising:
Element A	a computer system having a network interface allowing for communication with one or more other computers and a linkage for a color output device; and
Element B	memory for storing tonal transfer curves for the color channels of said color output device, one or more color transformations for converting a first set of color coordinates into a second set of coordinates for said color output device, color image data, and programs and data for providing a user interface to a user, 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 by said color output device, and wherein said user interface enables a user to configure a workflow for processing color image data by assembling elements representative of said workflow on a display.

166. In Fujifilm Accused Color Management Systems, ColorPath Sync integrates with, and can be accessed from, XMF Workflow; the programs are used in combination as a color rendering system for matching colors between color output devices.

167. Both ColorPath Sync and XMF Workflow are installed on computer systems, and communicate with other computers and color output devices using a linkage. For example, ColorPath Sync is a cloud-based system that uses computer servers and XMF Workflow comes preinstalled on data servers provided by Fujifilm.

168. Both ColorPath Sync and XMF Workflow have memory storing curves defining how much ink should be used to produce a given color on a rendering device in the form of calibration curves or tonal value increase (TVI) curves, storing color profiles compliant with the ICC version 4 specification used to transform colors from one set of coordinates to another set of coordinates, storing color images at least as part of a print job, and storing programs and data that provide a user interface.

169. On information and belief, Fujifilm calibrates its rendering devices from time to time, resulting in adjustments to tonal transfer curves and color transformations that are made in accordance with data from the calibration.

170. Calibration devices in general (and, on information and belief, the specification calibration device used by Fujifilm) use device-independent color units, such as density, $L^*a^*b^*$ and/or CIEXYZ, resulting in device-independent calibration data.

171. In Fujifilm Accused Color Management Systems, XMF Workflow has a user interface through which a user can drag-and-drop and functionally link icons representing steps of a workflow to define a workflow.

172. Fujifilm infringes claim 75 of the '008 Patent when it makes, imports, uses, sells and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

173. In addition, to the extent that claim 75 of the '008 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 75 of the '008 Patent by importing and selling the Fujifilm Accused Color

Management Systems intended for use on a computer system, and only operable on a computer system.

174. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 75 of the '008 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 75 of the '008 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 75 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 75 of the '008 Patent by using the Fujifilm Accused Color Management Systems.

175. Fujifilm has had knowledge of the '008 Patent since at least October 3, 2014, and knowledge of RAH Color Technologies' specific allegations that the Fujifilm Accused Color Management Systems infringe claim 75 of the '008 Patent since at least June 16, 2015.

176. As a direct and proximate result of Fujifilm'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 '008 CLAIM 76

177. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 164-176 of this Complaint as though set forth in full herein.

178. Claim 76 of the '008 Patent provides:

Claim 76 Preamble	The system according to claim 75
Element A	wherein said workflow comprises a sequence of operations selectable by a user
Element B	and said user interface enables said user to apply one or more of said operations to said color image data.

179. In Fujifilm Accused Color Management Systems, XMF Workflow includes a workflow manager that allows a user to implement a workflow by linking together graphical representations of steps or stages used in the workflow.

180. At least some of the steps or stages of the workflow represent an operation that is applied to color image data, such as for example, a color conversion operation.

181. Fujifilm infringes claim 76 of the '008 Patent when it makes, imports, uses, sells and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

182. In addition, to the extent that claim 76 of the '008 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 76 of the '008 Patent by importing and selling the Fujifilm Accused Color

Management Systems intended for use on a computer system, and only operable on a computer system.

183. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 76 of the '008 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 76 of the '008 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 76 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 76 of the '008 Patent by using the Fujifilm Accused Color Management Systems.

184. Fujifilm has had knowledge of the '008 Patent since at least October 3, 2014, and knowledge of RAH Color Technologies' specific allegations that the Fujifilm Accused Color Management Systems infringe claim 76 of the '008 Patent since at least June 16, 2015.

185. As a direct and proximate result of Fujifilm'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 '008 CLAIM 77

186. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 164-185 of this Complaint as though set forth in full herein.

187. Claim 77 of the '008 Patent provides:

Claim 77	The system according to claim 76 wherein said sequence of operations includes at least said one or more color transformations.
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188. In Fujifilm Accused Color Management Systems, XMF Workflow includes a workflow manager that allows a user to define a workflow by assembling graphical representations of steps or stages used in the workflow.

189. At least some of the steps or stages of the workflow represent an operation that is applied to color image data, such as for example, a color conversion operation using color profiles.

190. Fujifilm infringes claim 77 of the '008 Patent when it makes, imports, uses, sells and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

191. In addition, to the extent that claim 77 of the '008 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 77 of the '008 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

192. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 77 of the '008 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 77 of the '008 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 77 of the '008 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 77 of the '008 Patent by using the Fujifilm Accused Color Management Systems.

193. Fujifilm has had knowledge of the '008 Patent since at least October 3, 2014, and knowledge of RAH Color Technologies' specific allegations that the Fujifilm Accused Color Management Systems infringe claim 77 of the '008 Patent since at least June 16, 2015.

194. As a direct and proximate result of Fujifilm'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 '444 CLAIM 11

195. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 41 of this Complaint as though set forth in full herein.

196. 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.

197. In Fujifilm Accused Color Management Systems, ColorPath Sync integrates with, and can be accessed from, XMF Workflow, and both programs are used in combination for controlling color reproduction.

198. Fujifilm Accused Color Management Systems include a computer. For example, ColorPath Sync is a cloud-based system that uses computer servers and XMF Workflow comes preinstalled on data servers provided by Fujifilm.

199. Fujifilm Accused Color Management Systems store curves that define how much ink a press should use for different colors and curves for tonal value increases

for different colors, as well as color profiles (both standard and device link) compliant with the ICC version 4 specification.

200. The stored ICC version 4-compliant profiles include a header that points to various tagged elements, including, for example, BToA-type and AToB-type elements. The BToA-type tag converts device independent color coordinates (e.g., PCS values) into device specific output codes. The AToB-type tag performs the opposite conversion.

201. The stored ICC version 4-compliant profiles include a “gamutTag,” which corresponds to a data structure that uses PCS color values as inputs, and outputs an indication of whether the input color value is in or out-of-gamut for a rendering device.

202. The stored ICC version 4-compliant profiles include a “chromaticAdaptationTag,” which corresponds to a chromatic adaptation transform for conversion of colors based on different viewing conditions (e.g., D50 versus D65).

203. Upon information and belief, both XMF Workflow and ColorPath Sync include color management modules used for performing color conversions using the ICC version 4-compliant profiles.

204. Both XMF Workflow and ColorPath Sync communicate profiles and tonal transfer curves to other computers and/or rendering devices over a network.

205. Fujifilm infringes claim 11 of the ’444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

206. In addition, to the extent that claim 11 of the ’444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of

claim 11 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

207. Upon information and belief, Fujifilm'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. Fujifilm actively induces customers and 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). Fujifilm 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. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 11 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

208. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

209. As a direct and proximate result of Fujifilm'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 '444 CLAIM 13

210. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 195-209 of this Complaint as though set forth in full herein.

211. Claim 13 of the '444 Patent provides:

Claim 13	The system according to claim 11 wherein said programs further comprise software which provides a graphical user interface based upon screens stored in said memory.
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212. In Fujifilm Accused Color Management Systems, both XMF Workflow and ColorPath Sync provide graphical user interfaces.

213. Fujifilm infringes claim 13 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

214. In addition, to the extent that claim 13 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 13 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

215. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 13 of the '444 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 13 of the '444 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 13 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported

computer systems to induce its customers and/or end users to directly infringe at least claim 13 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

216. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

217. As a direct and proximate result of Fujifilm'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 '444 CLAIM 20

218. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 195-209 of this Complaint as though set forth in full herein.

219. 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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220. In Fujifilm Accused Color Management Systems, both XMF Workflow and ColorPath Sync generate curves corresponding to tonal transfer functions.

221. For example, in XMF Workflow, curves are generated based on color measurements from a calibrated rendering device. The calibration process in general (and specifically for XMF Workflow upon information and belief) involves rendering colors with known expected values on a specific device, measuring those colors, and then comparing the measured colors to the expected values. A similar process occurs when generating alignment curves using ColorPath Sync.

222. Upon information and belief, both XMF Workflow and ColorPath Sync include various user settings (e.g., type of paper used, type of ink used) to be used for a specific rendering device. Settings such as type of paper or ink as examples impact ink usage when rendering, and as a result, also impact the tonal transfer functions.

223. Fujifilm infringes claim 20 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

224. In addition, to the extent that claim 20 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 20 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

225. Upon information and belief, Fujifilm'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. Fujifilm actively induces customers and 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). Fujifilm 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. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported

computer systems to induce its customers and/or end users to directly infringe at least claim 20 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

226. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

227. As a direct and proximate result of Fujifilm'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 '444 CLAIM 21

228. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 195-217 of this Complaint as though set forth in full herein.

229. Claim 21 of the '444 Patent provides:

Claim 21	The system according to claim 13 wherein said graphical user interface enables a user to configure a workflow for processing color image data by assembling elements representative of said workflow on a display.
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230. In Fujifilm Accused Color Management Systems, XMF Workflow includes a workflow manager that allows a user to define a workflow by assembling graphical representations of steps or stages used in the workflow.

231. Fujifilm infringes claim 21 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

232. In addition, to the extent that claim 21 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 21 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

233. Upon information and belief, Fujifilm'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 '444 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 21 of the '444 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 21 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 21 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

234. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

235. As a direct and proximate result of Fujifilm'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 '444 CLAIM 22

236. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, 195-217, and 228-235 of this Complaint as though set forth in full herein.

237. Claim 22 of the '444 Patent provides:

Claim 22 Preamble	The system according to claim 21
Element A	wherein said workflow comprises a sequence of operations selectable by a user
Element B	and said user interface enables said user to apply one or more of said operations to said color image data.

238. In Fujifilm Accused Color Management Systems, XMF Workflow includes a workflow manager that allows a user to implement a workflow by linking together graphical representations of steps or stages used in the workflow.

239. At least some of the steps or stages of the workflow represent an operation that is applied to color image data, such as for example, a color conversion operation.

240. Fujifilm infringes claim 22 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

241. In addition, to the extent that claim 22 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 22 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

242. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 22 of the '444 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 22 of the '444 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 22 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 22 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

243. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

244. As a direct and proximate result of Fujifilm'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 '444 CLAIM 23

245. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, and 195-217 of this Complaint as though set forth in full herein.

246. Claim 23 of the '444 Patent provides:

Claim 23	The system according to claim 13 wherein said graphical user interface enables a user to initiate verification of one or more of said color transformations.
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247. In Fujifilm Accused Color Management Systems, ColorPath Sync includes a validation feature that verifies if colors are rendered as expected (e.g., within tolerances) when using color profiles.

248. Fujifilm infringes claim 23 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

249. In addition, to the extent that claim 23 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 23 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

250. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 23 of the '444 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 23 of the '444 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 23 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 23 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

251. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

252. As a direct and proximate result of Fujifilm'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 '444 CLAIM 24

253. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 41, 195-217, and 245-252 of this Complaint as though set forth in full herein.

254. Claim 24 of the '444 Patent provides:

Claim 24	The system according to claim 23 wherein said programs comprise software for rendering a color image and recording data of said rendered image with a color measurement instrument, said instrument having an associated calibration reference.
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255. In Fujifilm Accused Color Management Systems, ColorPath Sync renders color images (e.g., color patches) and connects with supported color measuring devices.

256. In general, measuring devices (including those specifically supported by Fujifilm, upon information and belief) come with a calibration reference to ensure that the device makes accurate measurements.

257. Fujifilm infringes claim 24 of the '444 Patent when it makes, imports, uses, sells, and offers for sale the Fujifilm Accused Color Management Systems, including use in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

258. In addition, to the extent that claim 24 of the '444 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 24 of the '444 Patent by importing and selling the Fujifilm Accused Color Management Systems intended for use on a computer system, and only operable on a computer system.

259. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 24 of the '444 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 24 of the '444 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 24 of the '444 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software only operable on a computer system and providing specific requirements for supported computer systems to induce its customers and/or end users to directly infringe at least claim 24 of the '444 Patent by using the Fujifilm Accused Color Management Systems.

260. Fujifilm has had knowledge of the '444 Patent since at least October 3, 2014.

261. As a direct and proximate result of Fujifilm'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 '704 CLAIM 29

262. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 of this Complaint as though set forth in full herein.

263. 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.

264. “Fujifilm Accused Color Rendering Systems” includes the J Press 720S, XMF Workflow, and ColorPath Sync, and other hardware and software that include the same or equivalent functionality described in paragraphs 265-278 of Count XXVI, paragraph 286 of Count XXVII, paragraph 292 of Count XXVIII, paragraphs 298-300 of Count XXIX, paragraphs 308-311 of Count XXX, and paragraphs 317-319 of Count XXXI.

265. In Fujifilm Accused Color Rendering Systems, the J Press 720S (“J Press”) includes XMF Workflow to drive the press, and ColorPath Sync, which is integrated with, and accessible through, XMF Workflow.

266. The J Press is a press that includes full variable data printing capabilities.

267. XMF Workflow is digital front end software that comes pre-installed on a computer system provided by Fujifilm that includes a display and a user interface.

268. XMF Workflow has an interface for communicating between the J Press and providing data (e.g., data associated with print jobs) from XMF Workflow to the J Press.

269. XMF Workflow 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).

270. ColorPath Sync, accessible through XMF Workflow, generates at least tonal value increase curves that control the amount of ink to deposit during rendering by a device.

271. XMF Workflow also generates characterization curves that control the amount of ink to deposit during rendering by a device.

272. XMF Workflow uses and stores ICC version 4-compliant color profiles that 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 J Press).

273. In addition, ColorPath Sync generates device link profiles compliant with the ICC version 4 specification that include, for example, an AToB type tagged element.

274. The ICC version 4-compliant profiles used and stored by XMF Workflow 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 an input color is in or out-of-gamut for a rendering device, respectively.

275. ICC version 4-compliant profiles 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.

276. XMF Workflow includes a color management module that 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., J Press).

277. The J Press includes an In-Line Sensor (ILS) system that detects inconsistencies in ink deposition, and makes adjustments to ink depositions by modifying tonal transfer curves, upon information and belief.

278. In addition, ColorPath Sync connects to supported color measuring devices (e.g., spectrophotometers) directly. Upon information and belief, Fujifilm will provide these measuring devices upon purchase of Fujifilm Accused Color Rendering Systems.

279. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

280. In addition, to the extent that claim 29 of the '704 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 29 of the '704 Patent by importing and selling the Fujifilm Accused Color Rendering Systems intended for use with the elements of the claim, including, but not limited to, color measuring devices.

281. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 29 of the '704 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 29 of the '704 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 29 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software designed for collecting color measurement data, and providing specific requirements for supported color measuring devices to induce its customers and/or end users to directly infringe at least claim 29 of the '704 Patent by using the Fujifilm Accused Color Rendering Systems.

282. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' specific allegations of how Fujifilm Accused Color Rendering Systems infringe claim 29 of the '704 patent since at least June 16, 2015.

283. As a direct and proximate result of Fujifilm'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 '704 CLAIM 30

284. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 262-283 of this Complaint as though set forth in full herein.

285. 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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286. The J Press includes an integrated ILS system for measurements of printed colors.

287. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

288. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Rendering Systems infringe claim 30 of the '704 patent since at least June 16, 2015.

289. As a direct and proximate result of Fujifilm'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 '704 CLAIM 32

290. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 262-289 of this Complaint as though set forth in full herein.

291. 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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292. The J Press's integrated ILS system measures printed colors in units of density, upon information and belief.

293. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

294. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Rendering Systems infringe claim 32 of the '704 patent since at least June 16, 2015.

295. As a direct and proximate result of Fujifilm'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 XXIX: INFRINGEMENT OF U.S. PATENT '704 CLAIM 33

296. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 262-283 of this Complaint as though set forth in full herein.

297. Claim 33 of the '704 Patent provides:

Claim 33 Preamble	The system according to claim 29
Element A	wherein said instrument provides spectral data,
Element B	and said system further comprises a program to correct said multi-dimensional rendering transformation with the aid of a color-to-color' transform or to compute another one of said multi-dimensional rendering transformation responsive to color error data determined from said spectral data, in which calibration of said instrument is verified with respect to a standard reflectance.

298. In Fujifilm Accused Color Rendering Systems, ColorPath Sync is designed to receive measurements from supported spectrophotometers directly for color measurements.

299. ColorPath Sync compares measured colors to expected reference color values during, for example, a validation process. If the measured color values do not conform with expected values (e.g., the difference between actual and expected values exceeds a threshold tolerance), then ColorPath Sync will re-profile the rendering device to generate a new device link profile that contains a multidimensional transformation (e.g., AToB-type element).

300. Upon information and belief, measuring devices supported by ColorPath Sync include calibration references to ensure that the measuring device remains accurate.

301. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing

and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

302. In addition, to the extent that claim 33 of the '704 Patent requires system components provided by its customers and/or end-users, Fujifilm induces infringement of claim 33 of the '704 Patent by importing and selling the Fujifilm Accused Color Rendering Systems intended for use with the elements of the claim, including, but not limited to, color measuring devices.

303. Upon information and belief, Fujifilm's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 33 of the '704 Patent. Fujifilm actively induces customers and users to directly infringe each and every claim limitation of at least claim 33 of the '704 Patent under 35 U.S.C. § 271(b). Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 33 of the '704 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing software designed for collecting color measurement data, and providing specific requirements for supported color measuring devices to induce its customers and/or end users to directly infringe at least claim 33 of the '704 Patent by using the Fujifilm Accused Color Rendering Systems.

304. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Rendering Systems infringe claim 33 of the '704 patent since at least June 16, 2015.

305. As a direct and proximate result of Fujifilm'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 '704 CLAIM 34

306. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 262-283 of this Complaint as though set forth in full herein.

307. 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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308. In Fujifilm Accused Color Rendering Systems, both XMF Workflow and ColorPath Sync communicate over a network with other computers.

309. For example, ColorPath Sync computers communicate with client computers associated with rendering devices; XMF Workflow computer communicates with other computers associated with rendering devices when acting as a workflow server.

310. ColorPath Sync communicates whether connected rendering devices (e.g., J Press) are calibrated properly (e.g., rendering colors within conformance parameters).

311. XMF Workflow communicates information on capabilities of presses (e.g., J Press), including whether the press is available for, or capable of, printing tasks.

312. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

313. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Rendering Systems infringe claim 34 of the '704 patent since at least June 16, 2015.

314. As a direct and proximate result of Fujifilm'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 '704 CLAIM 35

315. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 262-283 of this Complaint as though set forth in full herein.

316. 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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317. In Fujifilm Accused Color Rendering Systems, ColorPath Sync makes and stores device link profiles.

318. Device link 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.

319. Device link 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.

320. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Color Rendering Systems, including in relation to product testing and improvement, and demonstration at trade shows, sales facilities, customer sites, and training/tutorial videos.

321. Fujifilm has had knowledge of the '704 Patent since at least October 3, 2014, and RAH Color Technologies' allegations of how Fujifilm Accused Color Rendering Systems infringe claim 35 of the '704 patent since at least June 16, 2015.

322. As a direct and proximate result of Fujifilm'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 '546 CLAIM 26

323. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 of this Complaint as though set forth in full herein.

324. Claim 26 of the '546 Patent provides:

Claim 26 Preamble	A method of color image processing comprising the steps of:
Element A	capturing an image with a color input device;
Element B	processing said image digitally to produce image data in coordinates of a color space, wherein said processing modifies at least one of tone reproduction or chroma; and

Element C	storing said image data in a file having a header for obtaining information related to said processing, wherein said information is used in transforming colors for reproduction, wherein said transforming expands the gamut of colors in at least one dimension of said color space.
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325. “Fujifilm Accused Digital Camera Systems” include digital cameras that are compliant with the Exif specification and that have color processing settings (e.g., controlling color tone and white balance), such as the Fujifilm X-series of digital cameras (including but not limited to models designated as X100T, X-T1, X30, X-Pro1, X-E1, X-E2, X-M1, X-A1, X100S, XQ1, X20, XF1, and X-S1) and FinePix series of digital cameras (including but not limited to FinePix models designated as HS50EXR, HS35EXR, F900EXR, and F850EXR) and other hardware and software that include the same or equivalent functionality described in paragraphs 326-337 of Count XXXII, paragraphs 346-361 of Count XXXIII, paragraphs 367-368 of Count XXXIV, and paragraphs 374-375 of Count XXXV.

326. Fujifilm Accused Digital Camera Systems capture a color image using an image sensor.

327. Fujifilm Accused Digital Camera Systems process the captured image using an image processor to produce a digital photograph. The digital photograph has colors that are defined by a color space, such as sRGB or Adobe RGB.

328. Digital cameras capture light (and its color information) using a photosensor (e.g., CMOS). The photosensor, in combination with a processor, converts the captured light into electronic pixel data representative of the light that struck each element of the photosensor. The electronic pixel data is converted into color coordinates for the camera’s color space.

329. Fujifilm Accused Digital Camera Systems process images in accordance with color processing settings.

330. For example, the X-T1 includes Film Simulation settings such as Velvia/VIVID, which increases the saturation of colors in the digital photograph.

331. Fujifilm Accused Digital Camera Systems store the image data as JPEG files compliant with the Exif 2.3 specification at least temporarily on a memory buffer, as well as on a memory card.

332. As an example, the Exif 2.3 specification requires a JPEG to be written in a file that has a header.

333. The header includes information related to color processing settings used, such as the Film Simulation setting used by the X-T1.

334. Fujifilm Accused Digital Camera Systems use the information on color processing settings at the time of processing to transform colors.

335. For example, the Film Simulation information corresponds to color modifications used when processing the captured image to a color space.

336. Fujifilm Accused Digital Camera Systems use a color transformation that expands the gamut of colors in at least one dimension of the color space.

337. For example, the X-T1's Velvia/VIVID setting increases the saturation of colors in a digital photograph. This increase in saturation expands the gamut of colors of the original image in at least one dimension of a color space.

338. Fujifilm directly infringes claim 26 of the '546 Patent by using the Fujifilm Accused Digital Camera 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.

339. In addition, Fujifilm induces infringement of claim 26 of the '546 Patent by end users by importing and selling the Fujifilm Accused Digital Camera Systems that practice the claimed process in ordinary use.

340. Upon information and belief, Fujifilm'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 '546 Patent. Fujifilm actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 26 of the '546 Patent under 35 U.S.C. § 271(b). Fujifilm has had actual knowledge of the '546 Patent since at least October 3, 2014. Fujifilm has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 26 of the '546 Patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. Fujifilm's inducement includes, for example, providing extensive training and technical guides, product data sheets, demonstrations, software and hardware specifications, and other forms of support that induce its customers and/or end users to directly infringe at least claim 26 of the '546 Patent by using the Fujifilm Accused Digital Camera Systems.

341. Fujifilm has had knowledge of the '546 Patent since at least October 3, 2014.

342. Fujifilm makes, uses, offers to sell, sells, and/or imports the Fujifilm Accused Digital Camera Systems knowing that Fujifilm has infringed and continues to infringe at least claim 26 of the '546 Patent under 35 U.S.C. § 271(a) directly.

343. As a direct and proximate result of Fujifilm'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 '314 CLAIM 8

344. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38 and 325 of this Complaint as though set forth in full herein.

345. Claim 8 of the '314 Patent provides:

Claim 8 Preamble	A digital system for capturing a color image comprising:
Element A	one or more sensors which capture an image to provide electronic pixel data responsive to light of said image;
Element B	a programmable processor linked to said one or more sensors wherein said processor enables conversion of said electronic pixel data into digital image data in a three-dimensional color space and said conversion includes one or more operations which map an input gamut to an output gamut, wherein said input gamut corresponds to the receptive gamut represented by said electronic pixel data and said output gamut represents the gamut of colors which digital image data produced by said conversion are capable of representing in said three-dimensional color space and wherein the mapping by said one or more operations results in a decrease of saturation of at least colors of said input gamut which are not encompassed by said output gamut;
Element C	a display and user-interface which enable a user to express preferences for color processing and to view a rendering of said digital image data responsive to said color processing; and
Element D	storage for a file comprising said digital image data and a header, said header providing access to information stored in fields within said file, wherein said information is representative of a mapping of colors to adjust for illumination and to increase saturation, responsive to characteristics of the scene captured by said one or more sensors and in accordance with said preferences for color processing and wherein at least part of said information is communicated to an external

	computer system.
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346. Fujifilm Accused Digital Camera Systems have an image sensor (e.g., CMOS) to capture images.

347. Digital cameras in general (including Fujifilm Accused Digital Camera Systems) capture light (and its color information) using a photosensor (e.g., CMOS). The photosensor, in combination with a processor, converts the captured light into electronic pixel data representative of the light that struck each element of the photosensor.

348. Fujifilm Accused Digital Camera Systems have an image processor used in combination with the image sensor.

349. Digital cameras convert electronic pixel data into digital image data (e.g., digital photograph) in a three-dimensional color space. For example, the X-T1 has a CMOS sensor. The CMOS sensor outputs unprocessed electronic pixel data, which are converted by the image-processing engine to coordinates in the three-dimensional sRGB or Adobe RGB color space.

350. In Fujifilm Accused Digital Camera Systems, the conversion process from unprocessed electronic pixel data to an image in a defined color space (e.g., sRGB or Adobe RGB) requires mapping an input gamut to an output gamut.

351. For example, the X-T1's CMOS sensor has an input gamut corresponding to the range of colors the sensor can detect. The sRGB or Adobe RGB color spaces each have a defined gamut corresponding to an output gamut. When the unprocessed electronic pixel data is converted into sRGB or Adobe RGB, only those colors in the

electronic pixel data that are capable of being represented in the sRGB or Adobe RGB color space will be reflected in the digital image data.

352. In Fujifilm Accused Digital Camera Systems, mapping by one or more operations results in a decrease of saturation of at least colors of the input gamut that are not encompassed by the output gamut.

353. Fujifilm Accused Digital Camera Systems have a display and user-interface which include settings for color processing, such as white balance and Film Simulation settings in the X-T1.

354. In Fujifilm Accused Digital Camera Systems, the display and user-interface allow a user to view captured images in accordance with any chosen color processing settings.

355. Fujifilm Accused Digital Camera Systems have memory (e.g., memory buffer) for storing digital photographs at least temporarily.

356. Fujifilm Accused Digital Camera Systems create JPEG digital image files compliant with the Exif 2.3 specification that can be stored on memory.

357. For example, the Exif 2.3 specification is a file system format for storing images that requires the use of a header.

358. The Exif 2.3 required header provides access to information stored in fields within the file.

359. For example, JPEG files created by the X-T1 include fields for white balance and FilmMode (corresponding to the X-T1's Film Simulation setting).

360. The information is representative of a mapping of colors adjusted for illumination (e.g., white balance) and increased saturation (e.g., Velvia/VIVID Film

Simulation). In both cases, the adjustment for illumination and the increase in saturation reflect the characteristics of the scene captured as well as user settings.

361. Fujifilm Accused Digital Camera Systems can transfer image files (e.g., JPEGs) to another computer or device using a USB cable or using a Wi-Fi connection.

362. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Digital Camera Systems.

363. Fujifilm has had knowledge of the '314 Patent since at least October 3, 2014.

364. As a direct and proximate result of Fujifilm'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 '314 CLAIM 9

365. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 325, and 344-364 of this Complaint as though set forth in full herein.

366. Claim 9 of the '314 Patent provides:

Claim 9	The system according to claim 8 wherein said three-dimensional color space comprises calibrated RGB coordinates.
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367. Fujifilm Accused Digital Camera Systems create digital photographs using either the sRGB or Adobe RGB color space.

368. For example, the X-T1 can use either the sRGB or Adobe RGB color space. Both of these color spaces represent calibrated RGB coordinates since they have values that have been specified, and that have a defined relationship to CIE standards.

369. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Digital Camera Systems.

370. Fujifilm has had knowledge of the '314 Patent since at least October 3, 2014.

371. As a direct and proximate result of Fujifilm'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 '314 CLAIM 12

372. RAH Color Technologies incorporates by reference the allegations set forth in paragraphs 1-38, 325, and 344-364 of this Complaint as though set forth in full herein.

373. Claim 12 of the '314 Patent provides:

Claim 12	The system according to claim 8 wherein said one or more sensors record image data of a moving object, and said programmable processor comprises a component that performs color transformations at video rates.
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374. Fujifilm Accused Digital Camera Systems have a real-time viewfinder that captures a scene, including moving objects, in real-time and displays it on the Fujifilm Accused Digital Camera System display.

375. Rendering image data of real-time captured images to the Fujifilm Accused Digital Camera System display in real-time requires one or more transformations. At least one such transformation must occur at the refresh rate of the real-time image (i.e., at a video rate) captured using the real-time viewfinder.

376. Direct infringement occurs when Fujifilm uses, makes, has made, or sells the Fujifilm Accused Digital Camera Systems.

377. Fujifilm has had knowledge of the '314 Patent since at least October 3, 2014.

378. As a direct and proximate result of Fujifilm'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

379. Fujifilm has infringed and continues to infringe the above identified claims of each of the Patents-in-Suit despite its knowledge of the Patents-in-Suit and its knowledge that at least Fujifilm Accused Color Management Systems, Fujifilm Accused Color Rendering Systems, and Fujifilm Accused Digital Camera Systems were and are using the technology claimed by the Patents-in-Suit since at least October 3, 2014; its specific knowledge of RAH Color Technologies' allegations for certain claims of the '870, '897, '008, and '704 Patents since at least June 16, 2015; and the objectively high likelihood that its acts constitute patent infringement.

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

381. Fujifilm'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 Fujifilm as follows:

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

April 18, 2017

Respectfully submitted,

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