

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS

Rampage LLC,  
Plaintiff,

Civil Action No. : 1:16-cv-10691-JCB

v.

FIRST AMENDED COMPLAINT

Global Graphics SE, Gobal Graphics  
Software, Inc., and John Doe #1,  
Defendants.

Plaintiff, Rampage LLC, for its First Amended Complaint against defendants, Global Graphics SE, Global Graphics Software, Inc., and John Doe #1, alleges as follows:

PARTIES

1. Plaintiff, Rampage LLC, is a Massachusetts limited liability company having a principal place of business at 3 Abbott Avenue, Sharon, MA 02067.
2. On information and belief, defendant Global Graphics SE, is a publicly traded company formed under the laws of the United Kingdom having a principal place of business at 2030 Cambourne Business Park, Cambourne, Cambridge CB23 6DW, UK.
3. On information and belief, defendant Global Graphics Software, Inc., is a Massachusetts corporation having a principal place of business at 281 Winter Street, Waltham, MA 02451.
4. On information and belief, defendant Global Graphics Software, Inc., is a wholly owned subsidiary of Global Graphics Software Ltd., a United Kingdom entity, which is a wholly owned subsidiary of Global Graphics (UK) Ltd., a United Kingdom entity, which

is a wholly owned subsidiary of defendant Global Graphics SE.

5. Upon information and belief, John Doe #1 is an unknown company having a principal place of business within the United States.

#### JURISDICTION AND VENUE

6. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

7. This Court has subject matter jurisdiction over this dispute pursuant to 28 U.S.C. §§1331 and 1338(a).

8. This Court has personal jurisdiction over defendants based upon their contacts with this forum, including having an established place of business within the Commonwealth of Massachusetts and their acts of direct or indirect patent infringement within the United States.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §§1391(b) and 1400(b).

#### GENERAL FACTS

10. Plaintiff is the sole owner of U.S. Patent No. 9,053,410 entitled “Raster Image Processor With Printhead Profile Compensation For a Multi-Level Digital Printing Machine” that issued on June 9, 2015, and names Mitchell J. Bogart as the inventor (hereinafter the “Bogart Patent”). A copy of the Bogart Patent is attached hereto as Exhibit A.

11. The Bogart Patent issued from Application Serial No. 14/534,587 that was published as U.S. Publication No. 2015/0062659 on March 5, 2015 (the “Published Patent Application”). A copy of the Published Application is attached hereto as Exhibit B.

12. The Bogart Patent is valid and enforceable.

13. Claims 1 and 10 of the Bogart Patent are identical to claims 2 and 12 of the Published Patent Application, respectively.

14. On information and belief, defendant GG developed a software based raster image processor for use with a digital press that it markets and sells under the mark “Harlequin Host Renderer SDK” (the “Accused Product”). Attached as Exhibit C is a copy of a brochure for the Accused Product.

15. Upon information and belief, the Accused Product has four different types of screening methods that can be selected by the operator of a digital press, namely, “Harlequin multi-level screening”, “Harlequin Dispersed Screening”, “Harlequin Cross Modulated” and “Harlequin Precision Screening.”

16. Upon information and belief, the screening method of “Harlequin multi-level screening” is software for performing multi-level screening that can only be executed and/or processed on a digital press having one or more grayscale print heads (hereinafter the “Accused Process”).

17. On information and belief, defendants GG and GGS electronically delivered, directly or indirectly, the Accused Product to a digital press of at least one customer, defendant John Doe #1, located within the United States, for research, evaluation, and/or testing who then used and practiced and/or continues to use and practice the Accused

Process on its digital press (hereinafter the “Accused Digital Press”).

18. Plaintiff is unaware of the identity of defendant John Doe #1.

19. Upon information and belief, defendant GG knows the identity of defendant John Doe #1. Plaintiff will learn of the identity of defendant John Doe #1 during discovery and will move the Court for leave to amend the complaint.

COUNT I - PATENT INFRINGEMENT

UNDER 35 U.S.C. §271(a) - U.S. PATENT NO. 9,053,410

20. Plaintiff re-alleges each and every allegation set forth in Paragraphs 1-19 as if fully alleged herein.

21. Upon information and belief, defendant John Doe #1 used and practiced and/or continues to use and practice the Accused Process on the Accused Digital Press located within the United States.

22. In that the Accused Product is a software product, plaintiff (like other owners of patents directed to software inventions) does not have access to the source code of the Accused Process. Defendant GG denied plaintiff’s request to review the source code of the Accused Process. Plaintiff will never have the opportunity to review the source code of the Accused Process except by discovery in this action. As such, unlike most pure mechanical products, plaintiff cannot examine the Accused Product to determine exactly how the software is written.

23. Upon information and belief, defendant GG developed an initial method for multi-level screening that had significant problems resulting in artifacts in the printed image (hereinafter the “Screening Problem”).

24. Attached as Exhibit D is a document published by defendants entitled “Halftone Screen Optimization for Single-Pass Inkjets” dated February 2016 (the “White Paper”).

Pages 3 and 4 of the White Paper explain the Screening Problem as follows:

Most printing software assumes you can print a perfect grid of dots. In practise on an inkjet press there are often variations between the control system’s aim point for an ink drop and where it actually lands. In addition the interaction of the ink drops with the media may introduce variations. For instance aqueous inks are absorbed into the surface of papers to differing extents depending on the coating or primer/bonding agent used, and how the driers operate to evaporate the water in the ink. Likewise UV-cured inks will behave differently on various absorbent or non-absorbent substrates, with variations such as the temperature/viscosity of the ink, whether a corona pre-treatment is applied, whether or not there is inter-color pinning (ie partial UV curing to “freeze” the dots), and the interval before the main UV cure exposure. All these variables, in combination or separately, may lead to changes in halftone dots’ size or shape away from the intended ideal, which in turn might lead to artifacts and errors that are visible to the naked eye in the finished print.

25. Defendant GG shared the Screening Problem with Mitchell Bogart.

26. Mitchell Bogart invented a solution to the Screening Problem that he provided to defendant GG under confidentiality. The solution has two parts that may be practiced alone or together, but ideally together to obtain the highest quality printed image. First, change the size of the tonal sub-ranges based upon density measurements of the actual dot sizes for each colorant. Second, overlap each tonal sub-range by a small amount, for example two percent (hereinafter the “MLS Solution”).

27. At Pages 5 and 6 of the White Paper, defendant GG explains its solution to the Screening Problem as follows:

Global Graphics can compensate for this, by measuring the printed patterns from print heads and the results of stitching from multiple heads. By measuring the characteristics of the drop generation and interaction with the substrate, it is possible to fine-tune the halftone dot shapes and placement within the Multi-Level Screening to mitigate unwanted

variables. The result is print that is visually largely error-free, because the optimized Multi-Level Screening compensates for and masks the effect of errors in the print process... It will also be necessary to fine-tune the use of different drop sizes from the grayscale print heads and in particular to control and adjust the way different sizes are overlapped in the transitions between tones.

28. Upon information and belief, defendant GG and/or GGS never sold a product that included a multi-level screening option until after it learned of the MLS Solution provided to defendant GG by Mitchell Bogart which is fully disclosed and partially claimed in the Bogart Patent.

29. Attached as Exhibit E are claim charts for claims 1 and 10 of the Bogart Patent with plaintiff's initial contentions of direct infringement by defendant John Doe #1 as they currently exist based upon public information disseminated by defendant GG (the "Claim Chart"). Claim 1 is directed to a method and claim 10 is directed to a system.

30. Upon information and belief, and as shown by the Claim Chart for claim 1 and re-alleged herein, each and every limitation of claim 1 of the Bogart Patent, or their equivalent, is used and/or practiced by the Accused Process when executed on the Accused Digital Press.

31. Upon information and belief, the Accused Process when executed on the Accused Digital Press creates first and second tonal sub-ranges corresponding to the first and second printable tone levels, respectively, for each colorant, as recited by step (a) of claim 1. Upon information and belief, each of the first and second tonal sub-ranges of the Accused Process inherently have beginning and ending boundary tone values as recited by step (a) of claim 1. Upon information and belief, each of the first and second tonal sub-ranges of the Accused Process inherently define first and second tone range spans as

recited by step (a) of claim 1. Upon information and belief, each of the first and second tonal sub-ranges of the Accused Process inherently define a first transition tone value as recited by step (a) of claim 1. Upon information and belief, at some point during the process of creating the first and second tonal ranges, the first transition tone value of the Accused Process is or can be both the ending boundary tone value of the first tonal sub-range and the beginning boundary tone value of the second tonal sub-range as recited by step (a) of claim 1.

32. Upon information and belief, the Accused Process when executed on the Accused Digital Press shifts (changes or adjusts) the position of the first transition tone value of the Accused Process so that the first tone range span of the Accused Process is different from the second tone range span of the Accused Process as recited by step (b) of claim 1.

33. Upon information and belief, the Accused Process when executed on the Accused Digital Press produces a modified output tone value for the first and second tonal sub-ranges of the Accused Process by first and second tone modification functions of the Accused Process as recited by step (c) of claim 1.

34. Upon information and belief, the Accused Process when executed on the Accused Digital Press produces a single multi-bit output value corresponding to the first colorant for each printable position on the page by using the modified output tone values of the first and second tone modification functions of the Accused Process as inputs to a bi-level half-toning algorithm of the Accused Process, as recited by step (d) of claim 1.

35. Upon information and belief, and as shown by the Claim Chart for claim 10 and re-alleged herein, when the Accused Product is installed on the Accused Digital Press or when the Accused Process is running on the Accused Digital Press, each and every

limitation of claim 10 of the Bogart Patent, or their equivalent, is present in the Accused Digital Press.

36. Upon information and belief, the Accused Digital Press has a computing device as recited by claim 10.

37. Upon information and belief, the Accused Digital Press has a memory device that is electrically connected with the computing device as recited by claim 10.

38. Upon information and belief, the Accused Digital Press, with the Accused Product installed thereon, has a screening module as recited by claim 10.

39. Upon information and belief, the screening module of the Accused Digital Press has a tone sub-range module as recited by claim 10. Upon information and belief, the tone sub-range module of the Accused Digital Press is configured to create first, second, and third tonal sub-ranges corresponding to the first, second, and third printable tone levels, respectively, of the Accused Digital Press. Upon information and belief, each of the tonal sub-ranges of the Accused Digital Press inherently define beginning and ending boundary tone values specifying where that drop size is used. Upon information and belief, the creation and presence of the first, second, and third tonal sub-ranges by the Accused Digital Press necessarily and inherently define first, second and third tone range spans. Further, upon information and belief and during processing of the tonal sub-ranges by the Accused Digital Press and prior to any inherent overlapping, the first, second, and third tonal sub-ranges of the Accused Digital Press necessarily and inherently define a first transition to be both the ending boundary tone value of the first tonal sub-range of the Accused Digital Press and the beginning boundary tone value of the second tonal sub-range of the Accused Digital Press and a second transition tone value to be the value of

both the ending boundary tone value of the second tonal sub-range of the Accused Digital Press and the beginning boundary tone value of the third tonal sub-range of the Accused Digital Press.

40. Upon information and belief, the screening module of the Accused Digital Press has a shifting module as recited by claim 10. Upon information and belief, the shifting module of the Accused Digital Press is configured to shift (change or adjust) the position of the first and second transition tone values of the Accused Digital Press so that the first tone range span of the Accused Digital Press is different from the second and third tone range spans of the Accused Digital Press.

41. Upon information and belief, the screening module of the Accused Digital Press has a pixel processing module as recited by claim 10. Upon information and belief, the pixel processing module of the Accused Digital Press has a tone modification sub-module configured to produce a modified output tone value for said first, second, and third tonal sub-ranges of the Accused Digital Press by first, second, and third tone modification functions, respectively, of the Accused Digital Press. Upon information and belief, the pixel processing module of the Accused Digital Press has an output sub-module configured to produce a single multi-bit output value corresponding to the first colorant for each printable position on the page of the Accused Digital Press by using the modified output tone values from the first, second, and third tone modification functions of the Accused Digital Press as inputs to at least one bi-level half-toning algorithm.

42. Defendant John Doe #1's use and practice of the Accused Process on the Accused Digital Press within the United States directly infringes claim 1 of the Bogart Patent in violation of 35 U.S.C. §271(a).

43. Defendant John Doe #1's manufacture, use, offer to sell, and/or sale of the Accused Digital Press within the United States directly infringes claim 10 of the Bogart Patent in violation of 35 U.S.C. §271(a).

44. Defendant John Doe #1's direct infringement of the Bogart Patent has caused and continues to cause plaintiff irreparable harm.

45. Defendant John Doe #1's direct infringement of the Bogart Patent has caused and continues to cause plaintiff monetary damage.

COUNT II - PATENT INFRINGEMENT BY INDUCEMENT

UNDER 35 U.S.C. §271(b) - U.S. PATENT NO. 9,053,410

46. Plaintiff re-alleges each and every allegation set forth in Paragraphs 1-45 as if fully alleged herein.

47. Upon information and belief, defendant GG and its Chief Technology Officer, Martin Bailey, had actual knowledge of the Published Patent Application on March 5, 2015, and the Bogart Patent at least as early June 23, 2015, when plaintiff e-mailed Martin Bailey notice of the Bogart Patent and the patent number, receipt of which was confirmed by Mr. Bailey via e-mail.

48. Upon information and belief, defendants GG and GGS intentionally contacted and persuaded defendant John Doe #1 to help defendant GG research, test and/or evaluate the Accused Process operating on the Accused Digital Press despite knowing that execution of the Accused Process on the Accused Digital Press would constitute direct infringement of claims 1 and 10 of the Bogart Patent by defendant John Doe #1.

49. The actions of defendants GG and GGS demonstrate a clear intent to induce John Doe #1 into using and practicing the Accused Process on the Accused Digital Press thereby constituting an indirect infringement of claims 1 and 10 of the Bogart Patent in violation of 35 U.S.C. §271(b).

50. Defendants GG and GGS's indirect infringement of the Bogart Patent has caused and continues to cause plaintiff irreparable harm.

51. Defendants GG and GGS's indirect infringement of the Bogart Patent has caused and continues to cause plaintiff monetary damage.

COUNT III - CONTRIBUTORY PATENT INFRINGEMENT

UNDER 35 U.S.C. §271(c) - U.S. PATENT NO. 9,053,410

52. Plaintiff re-alleges each and every allegation set forth in Paragraphs 1-51 as if fully alleged herein.

53. Upon information and belief, the Accused Product was especially made for the Accused Digital Press.

54. Upon information and belief, defendants GG and GGS had knowledge that operation of the Accused Digital Press by defendant John Doe#1 with the Accused Product loaded thereon and/or the Accused Process running thereon would directly infringe claims 1 and 10 of the Bogart Patent.

55. Upon information and belief, the Accused Process is especially made for a digital press having a grey scale printhead as is the Accused Digital Press. The Accused Process has no substantial non-infringing use within the United States.

56. Upon information and belief, the Accused Process is a material and substantial part of the invention defined by claims 1 and 10 of the Bogart Patent.

57. Defendants GG and GGS's actions constitute contributory infringement of claims 1 and 10 of the Bogart Patent in violation of 35 U.S.C. §271(c).

58. Defendants GG and GGS's indirect infringement of the Bogart Patent has caused and continues to cause plaintiff irreparable harm.

59. Defendants GG and GGS's indirect infringement of the Bogart Patent has caused and continues to cause plaintiff monetary damage.

#### REQUESTED RELIEF

Plaintiff requests this Court to enter judgment in favor of plaintiff against the defendants, Global Graphics SE, Global Graphics Software Inc., and John Doe #1, jointly and severally, on the above counts and grant it the following relief:

1. Pursuant to 35 U.S.C. §283, an Order that defendant John Doe #1 be preliminary and permanently enjoined from using and/or practicing the Accused Process and any other process that infringes U.S. Patent No. 9,053,410 within the United States and/or its territories;

2. Pursuant to 35 U.S.C. §283, an Order that defendant John Doe #1 be preliminary and permanently enjoined from making, using, and/or selling any digital press using the Accused Product or the Accused Process and any other digital press that infringes U.S. Patent No. 9,053,410 within the United States and/or its territories;

3. Pursuant to 35 U.S.C. §283, an Order that defendants Global Graphics SE and Global Graphics Software Inc., be preliminary and permanently enjoined from selling and offering for sale the Accused Product and from contributing, inducing or encouraging any person to use and/or practice the Accused Process and any other process that infringes U.S. Patent No. 9,053,410 within the United States and/or its territories;

4. Pursuant to 35 U.S.C. §284, that defendants pay plaintiff actual damages as may be proved at trial and in no event less than a reasonable royalty;

5. Pursuant to 35 U.S.C. §284, that plaintiff be awarded interest on damages;

6. Pursuant to 35 U.S.C. §284, that plaintiff be awarded its costs; and

7. Such other damages and relief as this Court deems equitable and just.

REQUEST FOR A JURY

Plaintiff hereby requests a jury on all issues triable by a jury.

Respectfully submitted,

Rampage LLC

By its Attorney,

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Dated: 06-10-2016

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the above document was filed through the ECF system and will be sent electronically to registered participants as identified on the Notice of Electronic Filing, and paper copies will be sent by first class mail, postage pre-paid, to those indicated as non-registered participants on June 10, 2016.

/s/ Steven N. Fox  
Steven N. Fox