

No. 2023-1077

**United States Court of Appeals
for the Federal Circuit**

MIDWEST ATHLETICS AND SPORTS ALLIANCE LLC,
Plaintiff-Appellant,

v.

XEROX CORP.,
Defendant-Appellee.

Appeal from the United States District Court for the Western District of
New York, Case No. 6:19-cv-06036-EAW-MWP, Judge Elizabeth A. Wolford

**MIDWEST ATHLETICS AND SPORTS ALLIANCE LLC'S
OPENING BRIEF**

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REPRESENTATIVE CLAIMS

U.S. Patent No. 6,718,285

1. A system with operator enabled maintenance comprising:

at least one computational element within said system;

a plurality of operator replaceable component (ORC) devices within said system, each of said ORC devices having an expected life span;

a use mechanism coupled to each said computational element and said ORC devices, said use mechanism tracking use of at least one of said ORC devices using a predetermined parameter;

a comparison mechanism that compares use of said ORC devices to said expected life span; and

an operator alert mechanism responsive to said comparison mechanism to provide said operator alert when the result of said comparison satisfies a predetermined parameter representing at least one of said expected life spans where said expected life span for a single of said ORC devices is the shortest expected life span.

U.S. Patent No. 6,799,005

1. A system for pre-selecting ordered media in a printing system, comprising:

(a) an input source to store at least one set of the ordered media;

(b) a user interface having an input device to select the ordered media from a paper catalog, and to pre-select a first part of the ordered media set to be used in a print job and a second unwanted part of the ordered media set to be discarded;

(c) a first job output;

(d) a second job output; and

(e) a central processing unit configured to send the first part of the ordered media set directly to the first job output and the second part of the ordered media set directly to the second job output.

U.S. Patent No. 7,502,582

1. A method of printing to form colored images with improved color gamut and enhanced gloss, the method comprising:

forming a color print using five or more different color pigments which in combination form at least a pentachrome color image;

depositing a clear toner overcoat to the at least pentachrome color image, wherein the clear toner overcoat is formed as a receiver and image dependent inverse mask; and

subjecting the clear toner overcoat and the at least pentachrome color image to a gloss enhancing process.

U.S. Patent No. 8,005,415

1. A system for printing color images comprising:

a tandem color electrostatographic printer apparatus having five or more color printing stations for applying respective color separation toner images to a receiver member passing therethrough in a single pass to form a pentachrome color image;

a fusing station for fusing the pentachrome image;

a clear toner overcoat printing station for applying a clear toner overcoat to the fused pentachrome toner image; and

a belt glosser for providing enhanced gloss to the pentachrome color image having the clear toner overcoat.

U.S. Patent No. 6,411,314

- 1 An interface, implemented in a computer, for representing and controlling a production printing workflow comprising:

a display;

a first document object representing a document, said document further comprising content and formatting, said formatting defining at least one page in said document, said first document object being associated with a first visual representation on said display;

a document ticket object representing global document attributes, said document ticket object being associated with a second visual representation on said display and capable of being associated with said first document object;

a page object representing a page attribute of one of said at least one page, said page object being associated with a third visual representation on said display and capable of being associated with said first document object; and

a first user input device for selectively associating at least two of said first, second and third visual representations;

wherein association of said first, second and third visual representations results in association of said respective objects.

U.S. Patent No. 6,509,974

2. A system for providing production printing instructions for a printed end document to a job preparation station, wherein said printed end document comprises a plurality of documents in a predefined order, said plurality of documents each comprising content and document formatting, said system comprising:

a job submission station having a computer;

a receiver to receive said plurality of documents in electronic format from a job submission station operator, said receiver disposed at said job submission station and connected to transmit said documents in electronic format to said computer;

an input device connected to said computer for said job submission operator to input instructions to said computer, said instructions operative to control

features of said plurality of documents, wherein said control comprises at least one of manage, edit, modify and add feature;

said computer programmed to: (1) receive input instructions from said operator through said input device to place said plurality of documents into an electronic folder, and arrange said plurality of documents in said folder in the order said documents are to be printed in the printed end document; (2) automatically convert the plurality of documents into a ready for printer format and merge the plurality of documents together to create a single document in said ready for printer format; and (3) create an electronic job ticket providing global attributes for the printed end document,

wherein the plurality of documents are merged to create the single document, where the plurality of documents comprise a main portion and at least one exception page, where the printing of the main portion is delayed at a production device associated with the single document, while the at least one exception page is printed at an alternate output device where the production device prints the main portion and where the production device collates the at least one exception page with the main portion.

U.S. Patent No. 6,993,278

1. Digital printer or copier machine for the single-sided or double-sided printing of a substrate using at least one toner, with at least one fixing device for fixing the toner onto the substrate, whereby the fixing device has at least one heating device for fusing the toner, and with at least one transport device, in order to supply the substrate to the heating device, to guide it past the heating device and/or to further transport it from the heating device, whereby the transport device has at least one suction belt that has a number of through-passage openings and that can be impinged with a vacuum, characterized in that the suction belt is constructed as a mesh having stays forming through-passage openings, the entire cross-section flow-through area of said through-passage openings being markedly greater than the entire area of said stays between said through-passage openings.

CERTIFICATE OF INTEREST

Counsel for Plaintiff-Appellant Midwest Athletics and Sports Alliance LLC certifies the following:

1. The full name of all entities represented by undersigned counsel:

Midwest Athletics and Sports Alliance LLC

2. The names of the real parties in interest for the entities. Do not list the real parties if they are the same as the entities:

Not applicable.

3. All parent corporations and any other publicly held companies that own 10 percent or more of the stock in the entities:

Midwest Youth A & S, Inc.

4. The names of all law firms and the partners or associates that appeared for Midwest Athletics and Sports Alliance LLC before the United States District Court for the Western District of New York or are expected to appear in this court are:

Daniel J. Fischer of Koley Jessen

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5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal:

- *Midwest Athletics and Sports Alliance LLC v. Ricoh Corp.*, Case No. 2:20-cv-05871 (E.D. Pa.).
6. All information required by Fed. R. App. P. 26.1(b) and (c) in criminal cases and bankruptcy cases.

None.

Dated: February 27, 2023

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TABLE OF CONTENTS

	<u>Page</u>
REPRESENTATIVE CLAIMS	i
CERTIFICATE OF INTEREST	i
STATEMENT OF RELATED CASES	1
JURISDICTIONAL STATEMENT	2
INTRODUCTION	3
STATEMENT OF THE ISSUES.....	4
STATEMENT OF THE CASE.....	5
A. MASA’s Innovative Printer Technology Patents.....	5
1. The Operation and Maintenance Patents	5
2. The Workflow Patents	6
3. The Pentachrome Patents.....	6
B. The District Court’s Claim Constructions.....	7
C. MASA Timely Disclosed the Infringement Theories at Issue.....	9
D. The District Court Erroneously Granted Xerox’s Motions to Strike and for Summary Judgment.....	10
SUMMARY OF THE ARGUMENT	11
ARGUMENT	14
I. STANDARD OF REVIEW FOR ALL ISSUES.....	14
II. THE COURT SHOULD REVERSE THE FINDING THAT THE ’285 AND ’9005 PATENTS ARE INELIGIBLE UNDER SECTION 101	16

A. The District Court Erred in Finding the '285 Patent Ineligible Under Section 101.....17

 1. Claims 1 and 14 of the '285 Patent Are Not Directed to an Abstract Idea18

 2. Claims 1 and 14 of the '285 Patent Have a Patent-Eligible Inventive Concept26

B. The District Court Erred in Finding the '9005 Patent Ineligible Under Section 101.....29

 1. Claim 1 of the '9005 Patent Is Not Directed to an Abstract Idea31

 2. Claim 1 of the '9005 Patent Has a Patent-Eligible Inventive Concept38

III. THE COURT SHOULD REVERSE THE FINDINGS THAT THE PENTACHROME AND WORKFLOW PATENTS ARE NOT INFRINGED.....40

A. The District Court Erred in Finding Noninfringement of the Pentachrome Patents (the '582 and '415 Patents).....44

 1. The District Court Erred in Finding Noninfringement of Claims 1 and 5 of the '582 Patent.....44

 2. The District Court Erred in Finding Noninfringement of Claim 1 of the '415 Patent.47

B. The District Court Erred in Finding Noninfringement of the Workflow Patents (the '314 and '974 Patents)49

 1. The District Court Erred in Finding Noninfringement of Claim 1 of the '314 Patent and Claim 2 of the '974 Patent.49

a.	The District Court Erred in Construing the “Input Device” Terms to be Hardware or Physical.....	49
b.	The District Court Erred in Striking MASA’s Infringement Opinions in Which “Input Device” Consists of Hardware.....	51
2.	The District Court Erred in Finding Noninfringement of Claim 1 of the ‘974 Patent.	53
3.	The District Court Erred in Finding Noninfringement of Claim 51 of the ‘314 Patent.	55
IV.	THE COURT SHOULD REVERSE THE FINDING THAT CLAIM 1 OF THE ’278 PATENT IS INVALID AS INDEFINITE	56
	CONCLUSION	59

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Adams Respiratory Therapeutics, Inc. v. Perrigo Co.</i> , 616 F.3d 1283 (Fed. Cir. 2010)	50
<i>Adasa Inc. v. Avery Dennison Corp.</i> , 55 F.4th 900 (Fed. Cir. 2022)	21
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int’l</i> , 134 S. Ct. 2347 (2014).....	<i>passim</i>
<i>Amdocs (Israel) Ltd. v. Opennet Telecom, Inc.</i> , 841 F.3d 1288 (Fed. Cir. 2016)	39
<i>Ameritox, Ltd. v. Millennium Health, LLC</i> , 88 F. Supp. 3d 885 (W.D. Wis. 2015)	40
<i>Anticancer, Inc. v. Pfizer, Inc.</i> , 769 F.3d 1323 (Fed. Cir. 2014)	43, 56
<i>Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC</i> , 827 F.3d 1341 (Fed. Cir. 2016)	23, 26, 38, 39
<i>BASF Corp. v. Johnson Matthey Inc.</i> , 875 F.3d 1360 (Fed. Cir. 2017)	57
<i>Burke, Inc. v. Bruno Indep. Living Aids, Inc.</i> , 183 F. 3d 1334 (Fed. Cir. 1999)	41
<i>CardioNet, LLC v. InfoBionic, Inc.</i> , 955 F.3d 1358 (Fed. Cir. 2020)	<i>passim</i>
<i>Cardsoft, LLC v. VeriFone, Inc.</i> , 807 F.3d 1346 (Fed. Cir. 2015)	15
<i>Centrak, Inc. v. Sonitor Techs., Inc.</i> , 915 F.3d 1360 (Fed. Cir. 2019)	14

Core Wireless S.A.R.L. v. LG Elecs., Inc.,
880 F.3d 1356 (Fed. Cir. 2018)24, 36

DDR Holdings, LLC v. Hotels.com, L.P.,
773 F.3d 1245 (Fed. Cir. 2014)38

Dropbox, Inc. v. Synchronoss Techs., Inc.,
815 F. App’x 529 (Fed. Cir. 2020)29, 39

Enfish, LLC v. Microsoft Corp.,
822 F.3d 1327 (Fed. Cir. 2016)*passim*

Exergen Corp. v. Kaz USA, Inc.,
725 F. App’x 959 (Fed. Cir. 2018)15, 16, 28, 36

Finjan, Inc. v. Blue Coat Sys., Inc.,
879 F.3d 1299 (Fed. Cir. 2018)23

Finjan, Inc. v. Secure Computing Corp.,
626 F.3d 1197 (Fed. Cir. 2010)48

IDB Ventures, LLC v. Charlotte Russe Holdings, Inc.,
No. 2:17-cv-00660-WCB-RSP, 2018 WL 5634231 (E.D. Tex. Oct.
31, 2018)19

Interval Licensing LLC v. AOL, Inc.,
766 F.3d 1364 (Fed. Cir. 2014)58

Lucent Techs., Inc. v. Gateway, Inc.,
580 F.3d 1301 (Fed. Cir. 2009)46, 47

Major League Baseball Props., Inc. v. Salvino, Inc.,
542 F.3d 290 (2d Cir. 2008)14

McRO, Inc. v. Bandai Namco Games Am. Inc.,
837 F.3d 1299 (Fed. Cir. 2016)*passim*

Mobile Telecomms. Techs., LLC v. Blackberry Corp.,
No. 3:12-cv-01652-M, 2016 WL 2907735 (N.D. Tex. May 17,
2016)44

Moleculon Research Corp. v. CBS, Inc.,
793 F.2d 1261 (Fed. Cir. 1986)46

Montgomery v. New York City Transit Auth.,
806 F. App’x 27 (2d Cir. 2020)15

Nautilus, Inc. v. Biosig Instruments, Inc.,
572 U.S. 898 (2014).....57

One-E-Way, Inc. v. Int’l Trade Comm’n,
859 F.3d 1059 (Fed. Cir. 2017)58

Rapid Litig. Mgt. Ltd. v. CellzDirect, Inc.,
827 F.3d 1042 (Fed. Cir. 2016)27, 38

ROY-G-BIV Corp. v. ABB, Ltd.,
63 F. Supp. 3d 690 (E.D. Tex. 2014).....43

Secured Mail Sols. LLC v. Universal Wilde, Inc.,
873 F.3d 905 (Fed. Cir. 2017)32, 33

Teva Pharms. USA, Inc. v. Sandoz, Inc.,
574 U.S. 318 (2015).....15

Thales Visionix Inc. v. United States,
850 F.3d 1343 (Fed. Cir. 2017)22, 25

Travel Sentry, Inc. v. Tropp,
877 F.3d 1370 (Fed. Cir. 2017)14

Treehouse Avatar LLC v. Valve Corp.,
54 F.4th 709 (Fed. Cir. 2022)15

Uniloc USA, Inc. v. ADP, LLC,
772 F. App’x 890 (Fed. Cir. 2019)33

Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.,
No. 2:17-cv-00651-JRG, 2018 WL 4927279 (E.D. Tex. Sept. 18,
2018)19

Verve, LLC v. Crane Cams, Inc.,
311 F.3d 1116 (Fed. Cir. 2002)58

Wireless Media Innovations, LLC v. Maher Terminals, LLC,
100 F. Supp. 3d 405 (D.N.J. 2015).....20, 21

Statutes

28 U.S.C.
§ 1295(a)(1)2
§ 1331 and § 1338.....2

35 U.S.C. § 101*passim*
35 U.S.C. § 112.....7

Other Authorities

Fed. R. Civ. P. 26.....44
Fed. R. Civ. P. 56.....14

STATEMENT OF RELATED CASES

Pursuant to Fed. Cir. Rule 47.5, Plaintiff-Appellant Midwest Athletics and Sports Alliance LLC (“MASA”) states that:

1) MASA previously filed the following appeal in this matter:

- *In re: Midwest Athletics and Sports Alliance LLC*, Case No. 21-167 (Fed. Cir.). The Order on this Petition was issued on September 10, 2021 before the panel of Circuit Judges Lourie, Bryson, and Taranto. The decision was not published in the Federal Reporter.

MASA has not taken any other appeals in this matter from lower courts or bodies.

2) MASA is a party to the following additional case, which may be directly affected by the Court’s decision in this appeal:

- *Midwest Athletics and Sports Alliance LLC v. Ricoh Corp.*, Case No. 2:20-cv-05871 (E.D. Pa.).

JURISDICTIONAL STATEMENT

The District Court had original jurisdiction over this action for patent infringement under 28 U.S.C. § 1331 and § 1338. The District Court entered final judgment in favor of Xerox Corporation (“Xerox”) on September 29, 2022. Appx1. MASA timely filed a notice of appeal pursuant to Federal Rule of Appellate Procedure 4(a)(1) on October 19, 2022. Appx30138-30140. This Court has jurisdiction over this appeal under 28 U.S.C. § 1295(a)(1).

INTRODUCTION

The District Court in this action created a web of rulings of noninfringement, invalidity and exclusions of evidence that resulted in a takedown of MASA's entire case. Yet this web breaks apart upon examination, based on inconsistencies within the rulings, the factual record and the clear precedent of this Court.

For instance, in finding certain patents ineligible under Section 101, the District Court directly contradicted its own constructions that found structure and physical components in the claims at issue. For its infringement findings, the District Court engaged in flawed claim construction and relied heavily on excluding infringement theories instead of the merit of MASA's positions, even though MASA had properly disclosed its theories in its infringement contentions under the Patent Local Rules. For the remaining infringement theories that the District Court considered on summary judgment, it disregarded evidence that created material factual issues. Finally, in finding invalidity based on indefiniteness, the District Court failed to consider the intrinsic record and this Court's precedent finding similar terms definite.

Because the District Court's tangled web of rulings cannot stand up to scrutiny, the rulings should be reversed.

STATEMENT OF THE ISSUES

1. Whether the District Court erred in finding claims ineligible under 35 U.S.C. §101 despite its construction that these claims have physical components, and the evidence showing that the claims are directed to non-abstract subject matter and have patent-eligible inventive concepts under the two-step *Alice* analysis.
2. Whether the District Court erred in granting summary judgment of noninfringement where MASA presented evidence that demonstrated Xerox made, offered for sale, and/or used components that satisfy the disputed elements in the accused products.
3. Whether the District Court committed legal error in its construction of the “input device” term as consisting of hardware or physical devices, where this construction reads out preferred embodiments from the specification.
4. Whether the District Court abused its discretion in striking MASA’s experts’ opinions based on theories that were properly disclosed in MASA’s infringement contentions.
5. Whether the District Court committed legal error in its claim construction order that found indefinite the term “markedly greater” where the term’s boundaries are set forth in the intrinsic record and this Court has found similar terms of degree definite.

STATEMENT OF THE CASE

On December 13, 2017, MASA sued Xerox in the United States District Court for the District of Nebraska for infringement of twenty U.S. Patents, including U.S. Patent Nos. 6,411,314 (the '314 Patent), 6,509,974 (the '974 Patent), 6,718,285 (the '285 Patent), 6,799,005 (the '9005 Patent), 6,993,278 (the '278 Patent), 7,502,582 (the '582 Patent) and 8,005,415 (the '415 Patent) at issue in this appeal. Appx428-483. On January 7, 2019, the action was transferred to the United States District Court for the Western District of New York (“the District Court”). Appx10295-10313. A summary of these patents and relevant procedural history is provided below.

A. MASA’s Innovative Printer Technology Patents

MASA is a Nebraska-based public benefit organization created to benefit youth through sports by providing services, funding, and equipment to organizations to foster positive values and the importance of sports and physical activity in child development. Appx1009(¶¶ 1-2).

MASA grouped the asserted patents into categories—including Operations and Maintenance, Workflow and Pentachrome. Appx13503.

1. The Operation and Maintenance Patents

The '285 and '278 Patents are “Operation and Maintenance Patents.” The '285 Patent generally relates to inventions regarding the operation and maintenance

of printing systems, whereby the reduction of operating cost and machine down time of a printer is achieved through the use of Operator Replaceable Components (“ORCs”) that have predictable lifespans that can be replaced by operators of the product. Appx299-311. The ’278 Patent generally relates to a digital printer or copier machine for the single-sided or double-sided printing of a substrate, the machine including a substrate transport device having a mesh suction belt. Appx385-394.

2. The Workflow Patents

The ’314, ’974 and ’9005 Patents are “Workflow Patents.” The Workflow Patents generally relate to inventions regarding the managing of the workflow of printing processes, for example, the software and printing systems that are used to manage and display print job workflows based on customer requirements. Appx256-276-298, Appx312-333.

3. The Pentachrome Patents

The ’582 and ’415 Patents are “Pentachrome Patents.” The Pentachrome Patents generally relate to inventions regarding improving the quality of color and gloss in a printed document through printing of pentachrome color (i.e., five color) images. Appx350-367, Appx368-384.

B. The District Court’s Claim Constructions

On December 28, 2020, the District Court entered a claim construction order.

Appx131-233. The District Court construed the following terms in Claim 1 of the ‘285 Patent as means plus function claims:

Term	Patent / Claim	Court’s Construction
<p>“a use mechanism coupled to each said computational element and said ORC devices, said use mechanism tracking use of at least one of said ORC devices using a predetermined parameter”</p>	<p>‘285 / 1</p>	<p>Means-plus-function limitation to be constructed in accordance with 35 U.S.C. § 112, ¶ 6</p> <p>Function: tracking use of at least one of said ORC devices using a predetermined parameter</p> <p>Structure: “a database management system within a digital front end (DFE) controller 104, coupled to each ORC device and a computer, that is programmed to perform steps 412 and 414 of Fig. 4 which are described at 3:29-46:61, 13:36-44.</p>
<p>“a comparison mechanism that compares use of said ORC devices to said expected life span...where said expected life span for a single of said ORC devices is the shortest expected life span.”</p>	<p>‘285 / 1</p>	<p>Means-plus-function limitation to be constructed in accordance with 35 U.S.C. § 112, ¶ 6</p> <p>Function: comparing use of said ORC devices to said expected list span...where said expected life span for a single of said ORC devices is the shortest expected life span.</p> <p>Structure: “a database management system within a digital front end (DFE) controller 104, coupled to each ORC device and a computer, that is programmed to perform steps 416-417</p>

		of Fig. 4 or steps 314-316 of Fig. 3, described at 10:26-11:12.
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Appx219-220. The District Court also construed the following term in Claim 1 of the ‘9005 Patent:

Term	District Court’s Construction
“ordered media”	A set of ordered physical media

Appx228.

The District Court’s constructions of the foregoing terms of the ‘285 and ‘9005 Patents confirm its erroneous patent eligibility determinations, as explained in the Argument section below.

The District Court also construed the following terms of ‘314 Patent and ‘974 Patents as follows:

Term	District Court’s Construction
‘314 Patent, Claim 1: “a first user input device for selectively associating”	A hardware device that allows a user to selectively associate
‘974 Patent, Claim 2: “input device”	A physical input device

Appx223, Appx233.

In addition, the District Court found the claim term “markedly greater” in the ‘278 Patent indefinite. Appx219.

The District Court's indefiniteness finding for the '278 Patent and the foregoing claim constructions for the '314 and '974 Patents are in error for the reasons set forth in the Argument section below.

C. MASA Timely Disclosed the Infringement Theories at Issue

Pursuant to the Western District of New York Local Patent Rules, MASA served its initial infringement contentions on March 20, 2019 and final infringement contentions on August 14, 2019, which it amended on October 25, 2019. Appx106; Appx13504. MASA's final infringement contentions state that they were served prior to claim construction and Xerox's production of documents relating to the accused products and reserved the right to supplement based on information subsequently made available. Appx13504 (citing Appx14756-14757).

On February 23, 2021, following claim construction, MASA filed for leave to file an amended complaint and serve supplemental contentions. Appx13497-13519. MASA argued it had good cause to request leave to amend to include allegations of induced infringement of the WorkFlow Patents, including the '314 and '974 Patents. Appx13513-13518. Fact discovery closed on May 3, 2021. Appx13489.

On June 2, 2021, MASA served infringement expert reports based on its infringement contentions. *See, e.g.*, Appx16624-17565, Appx15707-Appx16160. These included reports from Dr. Mitzenmacher for the Workflow patents and Dr. Kahn for the Pentachrome Patents. Appx16624-17565, Appx15707-Appx16160.

On July 9, 2021, the District Court denied MASA's request to amend. Appx104-130. In doing so, the District Court confirmed that "[t]he adequacy of the allegations of direct infringement contained in MASA's complaint is not before this Court on this motion." Appx123.

D. The District Court Erroneously Granted Xerox's Motions to Strike and for Summary Judgment

MASA and Xerox each filed motions for summary judgment. Appx21696-21698, Appx22546-22549. Xerox argued, inter alia, that the accused printers do not infringe the asserted patents while MASA argued for infringement. *Id.* Xerox also moved for invalidity, including patent ineligibility of certain asserted patents. Appx21266-21269. Xerox also filed a motion to strike numerous infringement opinions in MASA's expert reports, arguing that they were untimely. Appx15671-15675.

On September 28, 2022, the District Court granted Xerox's motions in part, including finding the following: (1) that Xerox is entitled to summary judgment of invalidity based on patent ineligibility as to Claims 1 and 14 of the '285 Patent and Claim 1 of the '9005 Patent; and (2) that Xerox is entitled to summary judgment of noninfringement of Claims 1 and 5 of the '582 Patent, Claim 1 of the '415 Patent, Claims 1 and 51 of the '314 Patent and Claims 1 and 2 of the '974 Patent. Appx102-103. As explained below, the District Court's findings were based on its erroneous claim constructions, made factual determinations based on the record evidence when

there were material issues of triable facts and improperly struck expert theories that were disclosed in MASA's infringement contentions. On September 29, 2022, the District Court entered final judgment in Xerox's favor. Appx1. MASA timely filed a notice of appeal on October 19, 2022. Appx30138-30140.

SUMMARY OF THE ARGUMENT

This Court should reverse the District Court's judgment for the following reasons:

First, the District Court's findings of patent ineligibility under Section 101 of Claims 1 and 14 of the '285 Patent and Claim 1 of the '9005 Patent should be reversed. These findings directly contradict the District Court's constructions of these claims in which it found particularized physical structure. Based on these constructions, these claims are not directed to abstract subject matter, and along with the record evidence, including the intrinsic record and expert testimony viewed in the light most favorable to MASA, they have a patent-eligible inventive concept, and thus they are patent-eligible under the two-step *Alice* analysis. Therefore, under the *de novo* standard of review that applies to patent eligibility decisions, these findings by the District Court should be reversed.

Second, the District Court's findings of noninfringement of the Pentachrome and Workflow Patents should be reversed. For the Pentachrome Patents, specifically Claims 1 and 5 of the '582 Patent and Claim 1 of the '415 Patent, the District Court

erred by disregarding MASA’s evidence that the external coaters, which satisfy the gloss enhancing process and belt glosser elements of these claims, have been offered for sale, used and tested by Xerox and its customers in connection with the accused products. This evidence gives rise to material factual disputes such that summary judgment is improper.

For the Workflow patents, specifically Claim 1 of the ‘314 Patent and Claim 2 of the ‘974 Patent, the District Court’s noninfringement decision is based on its erroneous construction of the “input device” elements of these claims to be hardware or physical devices. Based on this erroneous construction alone, this Court should reverse summary judgment of noninfringement of these claims. Even if this erroneous construction is applied, the District Court’s noninfringement decision should still be reversed because it is premised on its improper exclusion of MASA’s expert’s opinions that hardware of the accused products satisfies the “input device” elements. MASA properly disclosed this theory in its infringement contentions, which included both software and hardware for these elements, in claiming direct infringement of these claims. Yet the District Court struck this theory on the flawed premise that it had previously denied MASA leave to amend its amend its infringement contentions to add allegations in which the “input device” elements were satisfied by hardware—but those allegations related to inducement of

infringement not the direct infringement claims at issue in the motion to strike. Thus, the District Court abused its discretion in striking this theory.

For Claim 2 of the '974 Patent, the District Court improperly granted summary judgment of noninfringement based on the element “arranging the plurality of documents in said folder in the order the documents are to be printed in the printed end document.” In doing so, the District Court disregarded the ample evidence that the accused products satisfy this element, which at a minimum, raised genuine factual issues. For Claim 51 of the '314 Patent, the District struck in error MASA's expert's opinion for the “selectively associating” element, failing to recognize that this theory was disclosed in MASA's infringement contentions.

The District Court's decisions to strike MASA's infringement theories, which form the basis for its findings of noninfringement of Claims 1 and 51 of the '314 Patent and Claim 2 of the '974 Patent, confuse notice with proof. In effect, the District Court improperly imposed a requirement that MASA disclose its evidence in its infringement contentions, as opposed to simply notice of its infringement theories. This demonstrates a fundamental misunderstanding of the Patent Local Rules and their purpose, resulting in the severe prejudice of depriving MASA of the opportunity to try its properly-disclosed infringement case. Given this abuse of discretion, these exclusions of MASA's evidence should be reversed.

Third, the District Court erred in finding indefiniteness of Claim 1 of the ‘278 Patent based on the term “markedly greater.” The District Court failed to consider the intrinsic evidence that set forth the boundaries for this term, as well as precedent from this Court in which similar terms of degree have been found definite. Thus, under the *de novo* standard of review that applies to indefiniteness issues, this finding of invalidity based on indefiniteness should be reversed.

ARGUMENT

I. STANDARD OF REVIEW FOR ALL ISSUES

The Court reviews the District Court’s grant or denial of summary judgment under the law of the regional circuit. *See Centrak, Inc. v. Sonitor Techs., Inc.*, 915 F.3d 1360, 1365 (Fed. Cir. 2019). The Second Circuit “reviews [the District Court’s] grant of summary judgment *de novo*.” *Travel Sentry, Inc. v. Tropp*, 877 F.3d 1370, 1377 (Fed. Cir. 2017) (citing *Major League Baseball Props., Inc. v. Salvino, Inc.*, 542 F.3d 290, 309 (2d Cir. 2008)). In applying this standard, this Court should view all evidence in the light most favorable to MASA, drawing all reasonable inferences in MASA’s favor. *See Travel Sentry*, 877 F.3d at 1377.¹ The District Court’s grant of summary judgment should be affirmed only if Xerox has shown that there is no genuine dispute as to any material fact and it is entitled to judgment as a matter of law. *Id.*, citing Fed. R. Civ. P. 56(a). Summary judgment of patent ineligibility

¹ All citations are omitted and all emphasis added, unless noted otherwise.

under 35 U.S.C. § 101 is an issue of law based on underlying facts that this Court reviews *de novo*. *Exergen Corp. v. Kaz USA, Inc.*, 725 F. App'x 959, 963, 695 (Fed. Cir. 2018).

The Court reviews the District Court's ultimate claim construction *de novo*. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015) (“[W]hen the District Court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent’s prosecution history), the judge’s determination will amount solely to a determination of law, and [the Court] will review that construction *de novo*.”). However, the Court reviews the District Court’s subsidiary factual findings made during claim construction for clear error. *Id.* Before such deferential review is applied, the “District Court must have actually made a factual finding in order to trigger . . . deferential review.” *Cardsoft, LLC v. VeriFone, Inc.*, 807 F.3d 1346, 1350 (Fed. Cir. 2015).

The Federal Circuit reviews the “grant or denial of motions to strike an expert report . . . under the law of the applicable regional circuit.” *Treehouse Avatar LLC v. Valve Corp.*, 54 F.4th 709, 714 (Fed. Cir. 2022). The Second Circuit reviews a district court’s ruling on a motion to strike for abuse of discretion. *Montgomery v. New York City Transit Auth.*, 806 F. App'x 27, 30 (2d Cir. 2020).

II. THE COURT SHOULD REVERSE THE FINDING THAT THE '285 AND '9005 PATENTS ARE INELIGIBLE UNDER SECTION 101

This Court should reverse the District Court's judgment of invalidity of Claims 1 and 14 of the '285 Patent and Claim 1 of the '9005 Patent because MASA provided ample evidence that the asserted claims are directed to patent-eligible subject matter. The District Court misapplied the law under Section 101 to find patent ineligibility, contradicting its own claim constructions that the claimed elements include physical structure. Further, the District Court erroneously substituted its own view of the underlying facts in the eligibility analysis instead of viewing them in the light most favorable to MASA. At a minimum, there were genuine issues of material fact precluding the court from granting summary judgment as to ineligibility.

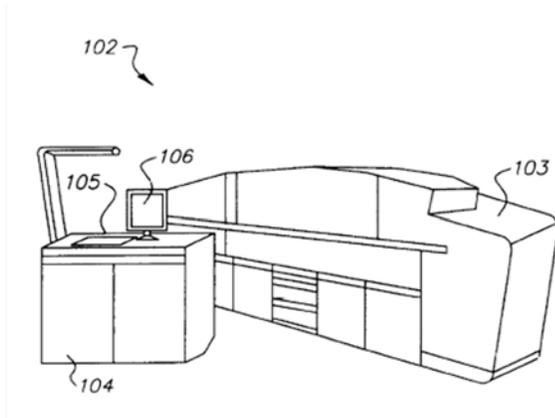
As this Court has found, “[p]atent eligibility under 35 U.S.C. § 101 is an issue of law [this Court] review[s] *de novo*” and, specifically, “whether a claim is directed to patentable subject matter is a question of law based on underlying facts.” *Exergen*, 725 F. App'x at 963, 965. This Court applies a two-step patent-eligibility framework: “the Court must first determine whether the claims at issue are directed to a patent-ineligible concept. If so, the Court then asks whether the claim's elements, considered both individually and ‘as an ordered combination,’ ‘transform the nature of the claim’ into a patent-eligible application.” *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2350 (2014). Courts must “tread carefully in

construing this exclusionary principle lest it swallow of patent law.” *Id.* at 2354. Indeed, “[t]here is no dispute . . . that many computer-implemented claims are formally addressed to patent-eligible subject matter.” *Id.* at 2358-59.

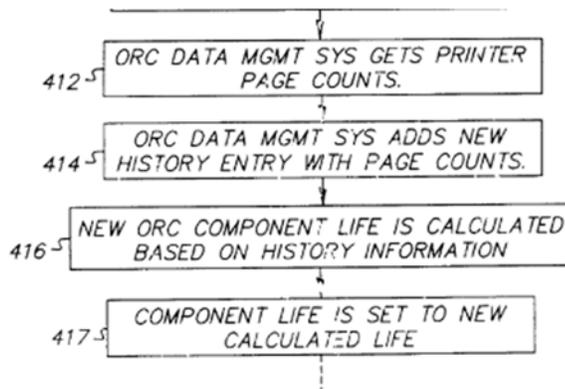
As explained below, MASA demonstrated patent eligibility for both steps of the patent-eligibility framework regarding the ‘285 and ‘9005 Patents, and thus this Court should reverse the District Court’s ineligibility findings.

A. The District Court Erred in Finding the ‘285 Patent Ineligible Under Section 101

Claims 1 and 14 of the ‘285 Patent are directed to patent eligible subject matter. With respect to Claim 1, the District Court specifically construed “use mechanism” and “comparison mechanism” as means-plus-function elements with concrete structure performing detailed algorithms. Appx219-220. Particularly, the District Court found that a “use mechanism” has a structure of “a database management system within a digital front end (DFE) controller 104, coupled to each ORC device and a computer, that is programmed to perform steps 412 and 414 of Fig. 4 which are described at 3:29-4:61, 13:36-44.” Appx219. It found a “comparison mechanism” has a structure of “a database management system within a digital front end (DFE) controller 104 that is programmed to perform steps 416-417 of Fig. 4 or steps 314-316 of Fig. 3, as described at 10:26–11:12.” Appx220. Aspects of the structure and steps in these constructions are shown in the specification as follows:



Appx300.



Appx303.

With these constructions, the District Court limited the use mechanism to embodiments that measure the life of an ORC in terms of “page counts.” Thus, the District Court construed these claim elements such that they have concrete form and particularized functions using specific hardware.

1. Claims 1 and 14 of the ‘285 Patent Are Not Directed to an Abstract Idea

Under Step 1 of the *Alice* framework, which concerns whether the claimed invention as a whole is directed to an abstract idea, the District Court erred in finding

Claims 1 and 14 abstract based on its flawed premise that they are merely directed to collecting and analyzing information to be displayed. Appx76; *Alice*, 134 S. Ct. at 2355; *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016). MASA provided substantial evidence that these claims are not directed towards an abstract idea. Rather, they are directed to tracking the life of ORCs in printers and improving digital printing systems by sending alerts to the operator to replace ORCs. Appx28062 n2; Appx299 (Abstract). This improvement is accomplished through a ‘use mechanism’ that tracks and a ‘comparison mechanism’ that compares, both of which the Court construed as specific, tangible components, as well as an ‘operator alert mechanism’ that notifies.” Appx28062; Appx21259 (¶ 135).

Because the District Court found Claim 1 to have structure described in the specification, it provides a specific implementation and thus is not abstract. *McRO*, 837 F.3d at 1316 (finding claim not abstract because “the structure of the limited rules reflects a specific implementation”); *see also Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, No. 2:17-cv-00651-JRG, 2018 WL 4927279, at *4 (E.D. Tex. Sept. 18, 2018) (denying motion to dismiss based on eligibility where claims provided “an improved step counter system that takes a limited set of hardware . . . and provide[d] underlying mathematical improvements to create an improved step counter device . . .”); *IDB Ventures, LLC v. Charlotte Russe Holdings, Inc.*, 17-cv-00660-WCB-

RSP, 2018 WL 5634231, at *5 (E.D. Tex. Oct. 31, 2018) (denying motion to dismiss based on ineligibility where “[r]ather than merely reciting a general method for selecting and sorting data . . . [two asserted claims] of the [patent-in-suit] recite selecting and sorting data using a specific structure (i.e., a query dialog box), which is designed in a particular manner to permit the construction of filters and sort orders on the same screen.”).

In particular, Claim 1 is directed to a system containing a computational element and ORC devices coupled with specific unconventional computer components (i.e., a use mechanism, a comparison mechanism, and an operator alert mechanism). Appx21015-21016. This is a particular improvement to computer technology allowing determination of usage to notify the operator that ORCs are running out of life such that the operator can efficiently replace the ORCs.

The District Court itself noted that at the claim construction stage, it found that “use mechanism” and “comparison mechanism” were means-plus-function limitations with corresponding structure. Appx77 n.17; Appx183-184. Yet the District Court discounted the impact of this construction on eligibility based on the holding in *Wireless Media Innovations, LLC v. Maher Terminals, LLC*, 100 F. Supp. 3d 405, 414 (D.N.J. 2015), claiming “this is not enough for the system to become patent-eligible” In doing so, the District Court misconstrues the holding in *Wireless Media*. There, the court had not yet issued a claim construction order, did

not purport to construe the claims within its order, and did not offer any opinions regarding means-plus-function claims' bearing on patent eligibility. *Id.* at 407, 414. Instead, the court merely acknowledged plaintiff's *argument* that the claim at issue "contains a mean-plus-function term . . . which includes all physical structure used to carry out the function of recording information," but did not itself construe the term. *Id.* at 414-15 ("Without purporting to construe the claim. . ."). Ultimately, the court held that plaintiff's *separate argument* that the "claim incorporates tangible components into the monitoring system . . . is not enough for the system to become patent-eligible subject matter," but made no conclusion as to whether plaintiff's argument regarding means-plus-function argument had any merit or if it constituted evidence of patent eligibility. *Id.*

Further, the District Court's argument that Claim 1 is abstract because MASA did "not claim to have invented any of" the "use mechanism," a "comparison mechanism," and "an operator alert mechanism" components misunderstands the patent-eligibility question. Appx77. Indeed, "[t]he 'directed to' inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept Rather, the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016); *see also Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 908 (Fed. Cir.

2022) (“If the focus of the claim is a specific and concrete technological advance, for example an improvement to a technological process or in the underlying operation of a machine, our inquiry ends and the claim is eligible.”).

Here, as mentioned above, these computer components work together to offer specific improvements to how a computer operates – i.e., the use of specialized systems to track the usage of a printer’s internal ORCs. Therefore, as a whole, Claim 1 is not abstract. *See CardioNet, LLC v. InfoBionic, Inc*, 955 F.3d 1358, 1368 (Fed. Cir. 2020) (holding that “the claims ‘focus on a specific means or method that improves’ cardiac monitoring technology; they are not ‘directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery,’” and thus are not abstract).

MASA also provided evidence that the components of the ’285 Patent claims are not generic because they focus on components specifically designed to track usage of ORCs. Appx28063-28064; Appx21262 (¶ 143). As MASA’s expert explains, “the[se] non-generic interoperable hardware printer components...[are] tasked with performing a software algorithm of specific ordered steps in order to notify operators that an ORC is running out of life,” and each of the components involved and the printer itself have a highly “specialized use case.” Appx28063-28064; Appx21262-21263 (¶ 144); *Thales Visionix Inc. v. United States*, 850 F.3d

1343, 1348-49 (Fed. Cir. 2017) (finding claims regarding a technique for using sensors to more accurately and efficiently track objects were not abstract).

As for Claim 14, it is specifically directed to a method for providing operator maintenance, reciting concrete steps that a digital printing system undertakes in order to alert an unskilled operator when maintenance of an ORC is necessary. Appx21016. Claim 14 is not abstract, *inter alia*, because it “recite[s] specific steps . . . that accomplish the desired result” rather than the result itself. *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018); Appx21029 (¶ 20). Here, Claim 14 does just that by outlining the specific steps—i.e., “determining a remaining life span for the [ORC] device having the shortest expected life span,” “comparing said remaining life span with a predetermined threshold,” and “responding to a result of the comparing step indicating that said predetermined threshold has been exceeded”—to accomplish the goal of “notifying the operator on a periodic basis that [the] predetermined threshold has been exceeded;” it does not just claim the result itself. Appx21029. Thus, the District Court’s finding that Claim 14 involves a mental process that can be performed in the human mind ignores the specific steps recited in Claim 14. Appx76-77.

Like other claims that have not been found to be abstract, both Claim 1 and Claim 14 “improve[] an existing technological process.” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351 (Fed. Cir. 2016); *Enfish,*

822 F.3d at 1334 (“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ Rather, both this court and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.”). Specifically, Claims 1 and 14 are directed to technological improvements that advance the system’s process for notifying an unskilled operator of ORCs that are running out of life such that the system alerts and enables the operator to efficiently replace the printer’s components. Appx21016-21017; *see also Core Wireless S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362-63 (Fed. Cir. 2018) (holding that claims that improved user interface for electronic devices were not abstract because this Court “previously [has] held claims focused on various improvements of systems [are] directed to patent eligible subject matter under § 101.”). The claims here are akin to that claimed in *McRO*, where this Court held it was “the incorporation of the claimed rules, not the use of the computer, that ‘improved [the] existing technological process’ by allowing the automation of further tasks.” *McRO*, 837 F.3d at 1314. Similarly, here, it is the claimed system and the incorporation of the claimed steps *coupled with* specific computer components that improves digital printing systems by creating an efficient means of alerting for replacements.

As MASA’s expert describes, “the technical improvement involves a novel way to interface and communicate data on a display panel about an internal printer

component, where that data was calculated by using, for example, a counter and printer CPU, with source code that comprises instructions to perform the specific steps of the claimed invention.” Appx28063, Appx21259-21260 (¶ 136-137); *see also, e.g., Thales*, 850 F.3d at 1348-49 (finding claims regarding a technique for using sensors to more accurately and efficiently track objects were not abstract); *Enfish*, 822 F.3d at 1336-37 (holding that the claims were not directed to an abstract idea, and instead were directed to a “specific improvement to the way computers operate” which functions “differently than conventional . . . structures”).

The '285 Patent's written description confirms that the claims are not directed to abstract ideas consistent with this Court's jurisprudence. *Enfish*, 822 F.3d at 1335 (“[T]he ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”); *CardioNet*, 955 F.3d at 1368-69, 1371 (concluding that the asserted patent is not directed to an abstract idea “in light of the written description” which “identifies a number of advantages gained by the elements recited in the claimed cardiac monitoring device” and holding that “the district court erred by disregarding the written description’s recitation of the advantages of the claimed invention”). For example, the '285 Patent's specification states that it improves existing digital printing technology “by providing a system having [ORC] devices that have a predictable lifetime before the ORC devices have to be replaced”

and “provides tracking of the remaining lifetime of the ORC devices” such that “the system will prompt the operator when the ORC devices need to be replaced.” Appx304 (1:66-2:7). Additionally, “[t]he concepts embodied by the present invention empower the operator with the ability to perform maintenance on a Sophisticated digital press without the requirement of a field service person.” *Id.* (at 2:13-16).

Because MASA demonstrated that the claimed invention is rooted in and serves as an improvement to computer technology, and more specifically to digital printing systems, the District Court erred in holding that Claims 1 and 14 of the ‘285 Patent are abstract.

2. Claims 1 and 14 of the ‘285 Patent Have a Patent-Eligible Inventive Concept

MASA additionally provided proof that the claims are eligible under Step 2 because they recite inventive concepts when “consider[ing] the elements of each claim both individually and ‘as an ordered combination.’” *Enfish*, 822 F.3d at 1334; *see also generally Bascom*, 827 F.3d at 1348 (“some inventions’ basic thrust might more easily be understood as directed to an abstract idea, but under step two of the *Alice* analysis, it might become clear that the specific improvements in the recited computer technology go beyond ‘well-understood, routine, conventional activit[ies]’ and render the invention patent-eligible”). Further, MASA provided evidence that each component and method of the claims is non-generic and presents a solution to

technological issues with manual printing system maintenance. *Rapid Litig. Mgt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed. Cir. 2016) (“Under step two, claims that are ‘directed to’ a patent-ineligible concept, yet also ‘improve[] an existing technological process,’ are sufficient to ‘transform[] the process into an inventive application’ of the patent-ineligible concept.”).

In particular, MASA explained that when considered on an individual basis (or as an ordered combination), each of the components and methods that correspond to the elements of the asserted claims are not generic or conventional because they each possess a novel way to interface and communicate data about the ORCs within a printer. Appx21018-21019. These non-conventional and specific features are disclosed in the ‘285 Patent, which explains that each “ORC could have its own page counter, a rotation counter, a toner density sensor, etc. for the purpose of providing raw usage data or counts of that ORC to a CPU in order to translate the raw usage data to a metric that can compare to the total expected life of each individual ORC. Each ORC’s total expected life is stored in the printer’s memory in order to enable such a comparison.” *Id.*; see also Appx21262 (¶ 143).

In finding that “[C]laim 1 of the ‘285 Patent does not identify any of these hardware components as part of the claimed system,” the District Court both misunderstands the ‘285 Patent and the law. Appx77-78. As an initial matter, as MASA noted, the claim language itself is illustrative of numerous non-generic

components: “operator replaceable component (ORC) devices,” a use mechanism coupled to each said computational element,” “a comparison mechanism that compares use of said ORC devices,” “an operator alert mechanism responsive to said comparison mechanism.” Appx29718. Thus, these components render the Patent inventive. Moreover, even if the claims did not recite other non-generic components, the components identified in the specification are sufficient to render the Patent inventive. *Exergen*, 725 F. App’x at 967 (concluding that “the district court fact finding that the claimed combination was not proven to be well-understood, routine, and conventional is not clearly erroneous” based on evidence cited from the patent specification); *McRO*, 837 F.3d at 1313 (identifying the claimed improvement from the patent specification).

MASA also provided evidence that when considering the claim elements collectively, as an ordered combination, the various components of Claim 1 include a use mechanism, a comparison mechanism, and an operator alert mechanism, and Claim 14 recites corresponding methods for each of these mechanisms that together offer specific improvements in printing systems. Appx21019; Appx21264-21265 (¶¶ 146-149); Appx21028-21029 (¶ 20). Indeed, these components and methods respectively compute a metric of usage of those ORCs, compare a component’s usage data to a parameter via software, and then provide the results of that comparison by notifying the operator that an ORC is running out of life, which

collectively make up the claimed invention and go beyond well-understood, routine, and conventional activities. Appx21019; Appx21264 (¶ 146). MASA also noted that such a combination of these claim limitations did not exist in the prior art and form the inventive concept, rendering the claims patent eligible. Appx21019.

In finding that it is not “enough for subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art,” the District Court again misapprehends the law. Appx78-79. Indeed, “[Federal Circuit] cases have consistently held that an ‘inventive concept’ exists when a claim ‘recite[s] a specific, discrete implementation of the abstract idea’ *where the ‘particular arrangement of elements is a technical improvement over [the] prior art.’*” *Dropbox, Inc. v. Synchronoss Techs., Inc.*, 815 F. App’x 529, 534 (Fed. Cir. 2020).

Because MASA provided significant evidence that the claims contain inventive concepts when considering the claimed elements both individually and as an ordered concept, the District Court erred in holding that the claims of the ‘285 Patent are not inventive. At a minimum, MASA demonstrated a genuine issue of material fact as to whether the Patent contains inventive concepts that should have precluded a finding of summary judgment of invalidity.

B. The District Court Erred in Finding the ‘9005 Patent Ineligible Under Section 101

This Court should reverse the District Court’s judgment of ineligibility of Claim 1 of the ‘9005 Patent because MASA provided ample evidence that it is

directed to patent-eligible subject matter. As with the claims of the ‘285 Patent, the District Court’s claim construction in this claim undermines its Section 101 finding. Specifically, the District Court construed ordered media in Claim 1 as “a set of ordered physical media,” notably specifying that ordered media “*must be physical*” because “[t]he specification...makes plain that the ‘ordered media’ are physical, describing the manner in which they may be inserted and how they may be scanned.” Appx199. With this construction, the District Court rejected the argument that “ordered media” could be non-physical, digitally represented and stored in computer memory. Appx12287.

The Court also construed two other terms as requiring physical structures, confirming that its patent ineligibility finding was incorrect. In particular, the Court construed “input source” as “a physical container configured to hold or receive physical media,” finding that it must be physical and cannot just be “computer memory.” Appx199-200. The District Court likewise construed “a user interface having an input device” as “a user interface in communication with a physical device with which a user may make inputs.” *Id.*

Given the construction of Claim 1 incorporating physical ordered media, this claim is not abstract under the *Alice* analysis. Moreover, at a minimum, there are genuine issues of material fact precluding summary judgment of ineligibility.

1. Claim 1 of the ‘9005 Patent Is Not Directed to an Abstract Idea

The District Court erred in finding the ‘9005 Patent directed to an abstract idea that makes the printing process more efficient. Appx65-66. MASA demonstrated that the ‘9005 Patent is not directed towards an abstract idea, but instead is directed to a specific improvement to a digital printing system—namely, the specific improvement of “pre-select[ing] only that portion of the ordered media that will be used in the print job.” Appx28056; Appx326 (1:65-67, 1:16-18), Appx333 (Claim 1); Appx27124-27125, Appx27126-27128 (¶¶ 683, 688-691). This Court has warned against characterizing the problem and solution at a high level of abstraction, untethered from the language of the claims. *Enfish*, 822 F.3d at 1337 (“[D]escribing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.”).

Notably, the District Court acknowledged MASA’s explanation that the specification describes how the claimed invention addresses a specific technical need in the marketplace at the time of the invention—specifically “that there was a need within digital printing systems to ‘pre-select only that portion of the ordered media that will be used in the print job,’ because ‘[s]eparating the unused portions of the ordered media during the print job may slow down the completion of the print job’ and ‘lead to inefficient use of the printer when the print shop has many print

jobs to run on the printer.” Appx66. MASA also noted other needs highlighted in the ‘9005 Patent that the claimed invention addresses, including that many “digital printing systems[s] . . . have limited capability in the selection of different output destinations for the blank or printed output pages” (Appx326 (1:22-40)) and that existing printing systems at the time of invention did not “allow the operator to choose an output destination for the individual pages of the output set” and “lack[ed] the flexibility to let a requestor choose when to route a page to the ‘purge’ tray to customize a print job” (Appx326 (1:29-31, 1:51-53)). Appx28057. As described above, a patent’s specification provides evidence as to what the claims are directed to, and thus, here, the ‘9005 Patent is directed to an improvement in the printing process that changes both the timing and the manner of the ordered media selection process, and the manner of the output process, such that ordered media is pre-selected to be removed before the job even runs and sent to two different outputs. *Enfish*, 822 F.3d at 1335; *CardioNet*, 955 F.3d at 1368-69, 1371.

In support of its finding that Claim 1 of the ‘9005 Patent is directed to an abstract idea, the District Court cites to inapposite cases that, unlike Claim 1, involve abstract ideas that neither recite specific means for improving technology nor disclose non-generic computer components. The District Court first cites to *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) for the holding that general concepts about how to “make a process more efficient . . . do[]

not necessarily render an abstract idea less abstract.” Appx66. However, that case is not analogous because, there, this Court held that “[t]he claims . . . are not directed to specific details of the barcode or the equipment for generating and processing it” and they “generically provide for the encoding of various data onto a mail object but do not set out how this is to be performed” and they do not recite “special rules or details of the computers, databases, printers, or scanners.” *Secured Mail*, 873 F.3d at 910. The second case the District Court cites, *Solutran, Inc. v. Elavon, Inc.*, is also not analogous for the same reason. 931 F.3d 1161, 1167 (Fed. Cir. 2019) (“Solutran’s counsel acknowledged at oral argument that the ’945 patent’s invention did not improve the technical capture of information from a check to create a digital file or the technical step of electronically crediting a bank account.”).

In contrast, here, MASA offered evidence that “[t]he claimed process uses a combined order of specific rules that [disclose a system coordinating specific computer components] . . . to create desired results” *McRO*, 837 F.3d at 1315 (finding patent eligibility at Step 1); Appx28059. “[T]he patent claims a particular improvement in *how* [faster and more efficient processing of print jobs such that parts of a job can be pre-selected and sent to two different outputs] is done.” *Uniloc USA, Inc. v. ADP, LLC*, 772 F. App’x 890, 897 (Fed. Cir. 2019) (finding claims not directed to an abstract idea). Appx28059.

In particular, MASA provided evidence that the claimed invention allows selection of more than one output destination for different parts of the ordered media stock, including based on type of ordered media by using a paper catalog, which solved problems associated with traditional printing systems that only allowed selection of one output destination and did not allow for selection of an output destination for individual pages of the output set. Appx28060; Appx326 (1:23-32); Appx27124-27129 (¶¶ 683-697). Further, the claimed invention enables pre-selection of ordered media, which improves traditional printing systems' lack of flexibility to choose when to route a page to the "purge" tray, and slow and inefficient print jobs when separating unused portions of ordered media during the print job. Appx28060; Appx326 (1:22-67); *see also* Appx27125-27129 (¶¶ 684-686, 687-697). Thus, unlike the District Court's cited cases, the invention is directed to a specific improvement in the way digital printing systems function.

Moreover, MASA proffered evidence that the novel invention expands the technical capabilities of a traditional digital printing system, and does not use the digital printing system "merely as a tool." *Enfish*, 822 F.3d at 1336. Indeed, Claim 1 requires many non-generic digital printing system components including an "input source," a "user interface having an input device," a "first job output," a "second job output," and a "central processing unit." Appx28057; Appx333 (Claim 1).

As noted above, the District Court construed several of these terms in such a way that highlights the specific physical technical components required. For example, several of the District Court’s constructions of terms require specialized digital printing system components. The District Court construed “ordered media” to mean “[a] set of ordered physical media,” “input source” to mean “[a] physical container configured to hold or receive physical media,” “a user interface having an input device” to mean “[a] user interface in communication with a physical device with which a user may make inputs,” and “send . . . part of the ordered media set directly to the . . . output” to mean “[t]ransmit part of the ordered media to the job output without receiving an image from the print engine. Appx28057. Further, as the District Court noted, the “job output” is the part of the printer where the media is routed after processing, such as a paper tray, and, critically, a central processing unit is “the computational and control unit of a computer,” which itself should render Claim 1 not abstract. Appx68.

The District Court attempts to rebut the abundance of evidence MASA presented illustrating that the ‘9005 Patent recites special rules leveraging non-generic computer components that offer a specific improvement over digital printing systems by suggesting that the components “were known at the relevant time period.” Appx68-69. However, the District Court ignores that, even if these components were well-known individually, “[t]he analysis under *Alice* step one is

whether the claims as a whole are ‘directed to’ an abstract idea, regardless of whether the prior art demonstrates that the idea or other aspects of the claim are known, unknown, conventional, unconventional, routine, or not routine,” and, here, the invention as a whole is directed to a specific improvement in digital printing technology. *CardioNet*, 955 F.3d at 1372; *see also Core Wireless*, 880 F.3d at 1362-63 (“Although the generic idea of summarizing information certainly existed prior to the invention, these claims are directed to a particular manner of summarizing and presenting information in electronic devices . . . these claims recite a specific improvement over prior systems, resulting in an improved user interface for electronic devices.”); *Exergen*, 725 F. App’x at 965 (“Something is not well-understood, routine, and conventional merely because it is disclosed in a prior art reference.”).

Throughout its Order, the District Court takes each of the ‘9005 Patent’s recited computer components, assesses the component in isolation, oversimplifies the technology, and dismisses the entirety of the ‘9005 Patent on the basis that the individual component is not a technical innovation. *See, e.g.*, Appx69-71. However, the District Court’s Step 1 analysis is erroneous because, as mentioned above, it ignores that “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *McRO*, 837 F.3d at 1312. In particular, the District Court fails to recognize the evidence MASA

provided that Claim 1 of the ‘9005 Patent recites a specific means for improving technology, including addressing a need “for a printing system that supports selection of different output destinations, even for the same execution of a single output set of a print job to reduce printing costs and cycle time,” “to enhance a user’s control over the routing of pages within a printer to support a customization of a print job,” and “to preselect only that portion of the ordered media that will be used in a print job.” Appx28058; Appx326 (1:36-40, 1:56-59, 1:65-67). In addition to explicitly highlighting the needs in the prior art that the Patent addresses, the ‘9005 Patent also explicitly states that it “lead[s] to a faster and more efficient processing of the print job on the printer,” as the District Court itself acknowledges. Appx70. Thus, the District Court’s holding that “Plaintiff also cannot support its claim that the ‘9005 Patent “help[s] the printer sort faster, or in a unique or innovative way” is belied by the Patent itself. *Id.*

Critically, this Court has concluded that improvements over technology that result in faster and more efficient processes do not render claims abstract. *See, e.g., Enfish*, 822 F.3d at 1337 (not abstract where database achieves “increased flexibility, faster search times, and smaller memory requirements.”); *CardioNet*, 955 F.3d at 1370 (not abstract where device achieves “speedier, more accurate, and clinically significant detection...”). Thus, the District Court erred in finding Claim 1 of the ‘9005 Patent abstract.

2. Claim 1 of the '9005 Patent Has a Patent-Eligible Inventive Concept

MASA additionally provided proof that the claim is eligible under Step 2 because it contains inventive concepts when considered both individually and as an ordered combination. *Enfish*, 822 F.3d at 1334; *see generally Bascom*, 827 F.3d at 1348. Further, MASA provided evidence that each component of Claim 1 is non-generic and presents a solution to technological issues with digital printing systems. *Rapid Litig.*, 827 F.3d at 1050; *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014).

First, when considered on an individual basis, MASA offered evidence that the '9005 Patent claims novel and inventive concepts, as articulated directly in the specification. Appx28061. For example, as mentioned above, the specification discloses “pre-selecting only that portion of the ordered media that will be used in the print job” “result[ing] [in] the unused portion of the ordered media [] not present when the print job is run, leading to a faster and more efficient processing of the print job on the printer.” Appx326 (2:2-8). This inventive concept is particularly highlighted in claim limitation 1(e), which recites “a central processing unit configured to send the first part of the ordered media set directly to the first job output and the second part of the ordered media set directly to the second job output.”. Appx333 (Claim 1). In response, the District Court incorrectly held that “none of the limitations of claim 1 of the '9005 Patent reveal an inventive concept”

because MASA's expert "relies essentially exclusively on his analysis" of a prior art reference, when, in fact, MASA's expert only referenced the prior art reference once. Appx71; Appx27134-27135 (¶ 715). The District Court ignores the remainder of evidence MASA's expert proffered demonstrating that the '9005 Patent contains inventive concepts. *See, e.g.*, Appx27130-27131 (¶ 700) ("[A] POSITA would understand that the elements of claim 1 of the '9005 Patent are combined to claim an inventive concept"), Appx27137 (¶ 724) ("A POSITA would understand that a generic CPU would not be capable of this functionality"). Further, even if MASA's expert relied only on his analysis of one prior art reference, technical improvements over prior art and unconventional solutions to technological problems evidence an inventive concept. *Dropbox*, 815 F. App'x at 534; *see also Amdocs (Israel) Ltd. v. Opennet Telecom, Inc.*, 841 F.3d 1288, 1303-04 (Fed. Cir. 2016).

Second, MASA provided evidence that Claim 1 of the '9005 Patent contains an inventive concept when viewed as an ordered combination. "[A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces." *Bascom*, 827 F.3d at 1350. Indeed, Claim 1 provides an inventive concept when viewed as an ordered combination because it discloses and specifically claims a novel and unconventional system for pre-selecting ordered media in a printing system, which leverages and assigns particular functions to specific digital printing system components, including an input source, a user

interface, multiple job outputs, and a CPU to effect fast and efficient printing jobs. See Appx333 (Claim 1); Appx27130-27131 (¶¶ 699-702); *Ameritox, Ltd. v. Millennium Health, LLC*, 88 F. Supp. 3d 885, 912 (W.D. Wis. 2015) (“the combination of steps produces a new and useful result”). Thus, contrary to the District Court’s holding, Claim 1 recites a novel printing means that provides an unconventional system that fundamentally changes both the timing and the manner of the ordered media selection process, as well as the manner of the output process, such that ordered media is pre-selected to be removed before the job even runs and sent to two different outputs. Appx74.

Because MASA provided significant evidence that the claims contain inventive concepts when considering the claimed elements both individually and as an ordered concept, the District Court erred in holding that the claims of the ‘9005 Patent are not inventive. At a minimum, MASA demonstrated a genuine issue of material fact as to whether the Patent contains inventive concepts that should have precluded a finding of summary judgment of invalidity.

III. THE COURT SHOULD REVERSE THE FINDINGS THAT THE PENTACHROME AND WORKFLOW PATENTS ARE NOT INFRINGED

The District Court’s grant of summary judgment of noninfringement of claims of the Pentachrome and Workflow Patents should be reversed because (1) MASA provided evidence of infringement that at least raised a material issue of fact, (2) the

District Court's erroneous claim construction required reversal, and (3) the District Court abused its discretion when it struck properly disclosed infringement contentions.

As explained below, for Claims 1 and 5 of the '582 Patent and Claim 1 of the '415 Patent (both Pentachrome Patents), the District Court erred in failing to give weight to MASA's evidence that the external coaters, which satisfy the gloss enhancing process and belt glosser elements of these claims, have been offered for sale, used and tested by Xerox and its customers in connection with the accused products. This evidence gives rise to material factual disputes precluding summary judgment.

For Claim 1 of the '314 Patent and Claim 2 of the '974 Patent (both Workflow patents), the District Court's noninfringement decision is premised on its erroneous construction of the "input device" elements of these claims to consist of hardware or physical devices. This erroneous construction alone warrants reversal of summary judgment of these claims. *See Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1338 (Fed. Cir. 1999) ("Summary judgment should ordinarily be vacated or reversed . . . if it is based on a claim construction that this court determines to be erroneous.").

Even if this flawed construction is used, the District Court's noninfringement finding should be reversed because it is based on an improper exclusion of MASA's

expert's opinions that hardware of the accused products satisfies the "input device" elements. This theory was properly disclosed in MASA's infringement contentions, which included both software and hardware for these elements in claiming direct infringement of these claims. The District Court struck this theory on the flawed premise that it had previously denied MASA leave to amend its amend its infringement contentions to add allegations in which the "input device" elements were satisfied by hardware. Yet those allegations related to inducement of infringement not the direct infringement claims at issue in the motion to strike. Thus, this exclusion by the District Court was an abuse of discretion and should be reversed.

For Claim 2 of the '974 Patent, the District Court improperly granted summary judgment of noninfringement based on the element "arranging the plurality of documents in said folder in the order the documents are to be printed in the printed end document." In doing so, the District Court disregarded the ample evidence that the accused products satisfy this element, which at a minimum, raised genuine factual issues. For Claim 51 of the '314 Patent, the District struck in error MASA's expert's opinion for the "selectively associating" element, failing to recognize that this theory was disclosed in MASA's infringement contentions.

With respect to the District Court's decisions to strike MASA's infringement theories, the District Court fundamentally misconstrued the requirements of the

Patent Local Rules and their purpose to ensure the parties provide notice of their contentions, without requiring evidence in support of those contentions. The District Court essentially required matching disclosures in the infringement contentions and expert reports, which is not the standard. Such an approach would simply not be possible, since contentions are served prior to completion of fact discovery (here, over 6 months prior) and thus could not incorporate the various proofs that an expert report contains. As this Court has noted in applying the equivalent of the Western District of New York's Patent Local Rule 3-1, "infringement contentions need not prove infringement' but must 'outline a plaintiff's theories of infringement.'" *Anticancer, Inc. v. Pfizer, Inc.*, 769 F.3d 1323, 1331 (Fed. Cir. 2014).

Here, MASA properly disclosed in its final infringement contentions each of the theories in MASA's infringement expert reports that the District Court struck, as shown below. As required, MASA's experts provided a full explanation of their opinions in their reports with detailed citation to the record based on fact and expert discovery, all of which was consistent with MASA's infringement contentions. This is proper because "[t]he scope of infringement contentions and expert reports are not . . . coextensive." *ROY-G-BIV Corp. v. ABB, Ltd.*, 63 F. Supp. 3d 690, 699 (E.D. Tex. 2014). That is, MASA's infringement contentions did not need to prove its infringement case. Instead, MASA's expert reports properly "include a complete statement of the expert's opinions, the basis and reasons for them, and any data or

other information considered when forming them.” *Id.* (citing Fed. R. Civ. P. 26(a)(2)(B)). These reports appropriately provided additional evidence and details in support of MASA’s infringement case—not entirely new theories. *Mobile Telecomms. Techs., LLC v. Blackberry Corp.*, No. 3:12-cv-01652-M, 2016 WL 2907735, at *3 (N.D. Tex. May 17, 2016) (denying defendant’s motion to strike purported new theories where the expert “refined his opinions based on the discovery produced, but did not materially change the infringement theory”).

Thus, as discussed further below, the District Court abused its discretion in striking these portions of the expert reports.

A. The District Court Erred in Finding Noninfringement of the Pentachrome Patents (the ‘582 and ‘415 Patents)

1. The District Court Erred in Finding Noninfringement of Claims 1 and 5 of the ‘582 Patent.

The District Court erred in granting summary judgment of noninfringement of Claims 1 and 5 of the ‘582 Patent, which it based on its flawed conclusion that MASA had not provided “evidence that the accused products use a ‘gloss enhancing process’.” Appx92-95. This decision should be reversed because MASA provided evidence that Xerox infringes, since the TEC Lighting Production UV Coater used with the accused printer provides the required gloss enhancing process. Appx22224; Appx22256; Appx22028-22031 (64:17-65:19, 65:23-66:4, 66:5-11, 75:1-5); Appx21864-21879 (¶¶ 168-180), Appx21935-21950 (¶¶ 270-282); Appx22127

(83:14-23). The District Court improperly discounted this evidence. Indeed, Xerox did not dispute on summary judgment that the TEC Lighting Production UV Coater provides the gloss enhancing process of Claims 1 and 5 of the '582 Patent or that it works with the accused printer. Appx28765-28766. Rather, Xerox claimed that there was no evidence that Xerox or its customers ever used this coater with the accused printer. *Id.* In accepting this argument, the District Court failed to give any weight to the evidence that MASA provided to demonstrate the use of the accused printer with the coater, let alone view this evidence in the light most favorable to MASA as required. Appx92-93.

In particular, the District Court failed to properly consider the circumstantial evidence from MASA's expert Dr. Khan that Xerox tested the accused product in combination with the TEC Lighting Production UV Coater. Specifically, Dr. Khan explained that Xerox must have used and tested the compatibility of both products together because it marketed the products to be "uniquely designed to work with" each other. Appx15817-15818 (¶¶ 168-170); Appx22245 (listing all coaters compatible with the accused iGen 5 Press), Appx22256 (the TEC Lighting Production UV Coater is "the first inline duplex coating solution *uniquely designed to work with Xerox presses.*"); Appx21864-21879 (¶¶ 168-180), Appx21935-21950 (¶¶ 270-282). Dr. Kahn testified it would be unreasonable for a company to make statements about printing products working together without actually testing the

products together. Appx28704-28706 (78:16-80:5). MASA also presented evidence through Dr. Kahn, showing Xerox's direction and control over its customers when the iGen 5 Press operates to specifically work with external coaters. Appx15735-15756 (¶¶ 66-76).

In failing to credit this evidence, the District Court's decision conflicts with this Court's precedent that circumstantial evidence is sufficient to support a jury verdict of infringement. *See, e.g., Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1318 (Fed. Cir. 2009) (finding circumstantial evidence sufficient to uphold the jury's verdict where the products were designed to practice the claimed invention and sold with instructions on how to use the products in an infringing way); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986) (affirming district court's finding of infringement based entirely on circumstantial evidence).

For instance, in *Lucent*, this Court explained, "circumstantial evidence was just adequate to permit a jury to find that at least one other person within the United States during the relevant time period, other than the expert, had performed the claimed method." 580 F.3d at 1318. The patentee's expert testified that "[i]t's hard to imagine that we're the only two people in the world that ever used it." *Id.* The patentee relied on the fact that "Microsoft not only designed the accused products to practice the claimed invention, but also instructed its customers to use the accused

products in an infringing way.” *Id.* This Court found the jury could “have reasonably concluded that, sometime during the relevant period from 2003 to 2006, more likely than not one person somewhere in the United States had performed the claimed method using the Microsoft products.” *Id.* As this Court noted, “a finding of infringement can rest on as little as one instance of the claimed method being performed during the pertinent time period.” *Id.* at 1317.

Here, MASA’s expert Dr. Khan, like the expert in *Lucent*, tested the product and explained, as a person skilled in the art, that Xerox must have used and tested the products together—particularly in view of Xerox’s marketing materials stating that the products are uniquely designed to work with each other. The District Court wholly dismissed this evidence, far from viewing it in the light most favorable to MASA, and disregarded this Court’s precedent. This evidence, at a minimum, gives rise to a disputed factual issue regarding infringement. Accordingly, the District Court’s finding of summary judgment of noninfringement of the ’582 Patent warrants reversal.

2. The District Court Erred in Finding Noninfringement of Claim 1 of the ‘415 Patent.

The District Court erred in granting summary judgment of noninfringement of Claim 1 of the ‘415 Patent, which it based on its flawed conclusion that MASA had not provided “evidence that the accused products have a “belt glosser.” Appx97-98. This decision should be reversed because MASA provided evidence that the

Duplo 145A/205A UV Offline Coater used with the accused printer has a belt glosser. *Id.* The District Court erred in dismissing MASA’s evidence that third party coatiers such as the Duplo 145A/205A UV Offline Coater, which have belt glossers, were used with the accused printer. *Id.* As explained above in connection with the ’582 Patent, the District Court erroneously dismissed Dr. Kahn’s testimony that Xerox tested its product based on his experience and Xerox’s own marketing literature. The District Court dismissed the same evidence here. Appx22245, Appx22256; Appx21996-22014 (¶¶ 415-427); Appx28704-28706 (78:16-80:5).

The District Court further erred by misapplying the Federal Circuit’s precedent in *Finjan, Inc. v. Secure Computing Corp.* Appx98-99. In *Finjan*, this Court found “an accused device may be found to infringe if it is reasonably capable of satisfying the claim limitations, even though it may also be capable of noninfringing modes of operation. *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1204 (Fed. Cir. 2010). This Court determined that although users need to purchase additional keys to unlock further functionality and the defendant did not sell such “key,” the system claim was still infringed because the software was capable of infringing when the infringing functionalities were unlocked through the subsequent purchase of the keys not sold by the accused infringer. *Id.* at 1204-05. Similarly, here, the iGen 5 Press is capable of operating as required by the patents. This capability is designed and implemented by Xerox in the iGen 5 Printer. The

only thing that is required to enable the capability is the external coater, which is the equivalent of the key in *Finjan*, and which is employed by Xerox during testing, or by a customer, during operation. Thus, in view of this precedent, the District Court’s grant of summary judgment of noninfringement is in error and should be reversed.

B. The District Court Erred in Finding Noninfringement of the Workflow Patents (the ‘314 and ‘974 Patents)

The District Court also erred in granting summary judgment of noninfringement of Claims 1 and 51 of the ‘314 Patent and Claim 2 of the ‘974 Patent, which it based on its flawed conclusion MASA could not prove that the “input device” elements were met. Appx88-90. This decision should be reversed because: (1) the District Court’s claim construction of the “input device” terms was in error by reading in a limitation that these terms are hardware or physical; and (2) the District Court abused its discretion in striking MASA’s infringement expert’s opinion that the “input device” elements are satisfied by hardware or physical components of the accused products.

1. The District Court Erred in Finding Noninfringement of Claim 1 of the ‘314 Patent and Claim 2 of the ‘974 Patent.

a. The District Court Erred in Construing the “Input Device” Terms to be Hardware or Physical

As an initial matter, the District Court erred in construing the term “a first user input device...” in Claim 1 of the ‘314 Patent as a “hardware device...,” and “input device” in Claim 2 of the ‘974 Patent as a “physical input device.” Appx189-190,

Appx206. The intrinsic record confirms that both hardware and graphical user interfaces should be included in the term's construction. Indeed, the District Court's construction erroneously excludes a preferred embodiment identified in the specification that includes non-hardware devices and specifically discloses graphical user interfaces. *See* Appx272 (15:5-11) (“[T]here are many ways to implement a GUI and therefore, ***all forms of graphic input devices***, including tear off menus, floating button palates, dialog boxes, alternate keyboard command and mouse short shortcuts and alternative physical input devices are all contemplated.”). By importing the hardware limitation and excluding the graphical user interface embodiment, the District Court violated a cardinal principle of claim construction—namely that “[a] claim construction that excludes the preferred embodiment ‘is rarely, if ever, correct and would require highly persuasive evidentiary support.’” *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010). No such support exists here.

Thus, this claim construction should be reversed. The term “a first user input device for selectively associating” is straightforward and requires no construction. Because the District Court's findings of noninfringement of Claim 1 of the '314 Patent and Claim 2 of the '974 Patent were based on its erroneous construction for this term, these noninfringement findings should also be reversed.

b. The District Court Erred in Striking MASA's Infringement Opinions in Which "Input Device" Consists of Hardware

The District Court further erred in granting Xerox's motion to strike the opinions of MASA's expert Dr. Mitzenmacher that hardware or physical aspects of the accused products satisfy the "input device" elements. Appx34-35. MASA disclosed in its final infringement contentions hardware devices, such as a computer, mouse, keyboard, display, etc. as input devices for Claim 1 of the '314 Patent. *See* Appx88-89; Appx27669 (showing that the FreeFlow Print Server works on a computer having a *mouse* and *keyboard*), Appx27668 ("Each of the Accused Printers can be used by and connected to a *computer* with a *video monitor* that receives instructions from Xerox FreeFlow *via input devices* displayed on a display or video monitor."), Appx27669 ("These GUIs may, for example, be displayed on a *video monitor*"). The same is true for Claim 2 of the '974 Patent. *See* Appx27862 ("Xerox FreeFlow includes an input device connected to said computer because it provides components (input device) that receive input from a user (job submission operator)" and "the input processing components receive input provided by a user via a graphical user interface ("GUI")), Appx27865 (showing that the FreeFlow Print Server works on a computer having a *mouse* and *keyboard*), Appx27864 ("Each of the Accused Printers can be used by and connected to a *computer* with a

video monitor that receives instructions from Xerox FreeFlow *via input devices* displayed on a display or video monitor.”).

In striking Dr. Mitzenmacher’s opinions that included hardware for the “input device,” the District Court relied heavily on its prior decision denying MASA’s motion to amend its final infringement contentions, arguing that the District Court had denied MASA leave to add hardware aspects of the accused products to meet the “input device” elements. Appx34-35. However, this argument is fundamentally incorrect. MASA did not seek to amend its *existing direct infringement contentions* to add hardware as satisfying this element, because, as explained above, MASA already disclosed hardware for the “input device” terms in its final infringement contentions. Rather, MASA sought to amend “its infringement contentions to include...contentions *regarding indirect infringement*” based on the Court’s claim construction that required hardware for this element. Appx13513. In other words, the Court’s construction of “input device” to require hardware components gave rise to a new potential claim of indirect infringement, which MASA sought leave to add, in addition to MASA’s existing claim for direct infringement. In fact, the District Court acknowledged this distinction in its Order on MASA’s motion to amend, finding: “MASA disagrees that the accused method claims must be asserted as indirect infringement claims, contending that . . . MASA may assert direct

infringement. *The adequacy of the allegations of direct infringement* contained in MASA’s complaint *is not before this Court on this motion.*” Appx123 n.10.

Thus, the District Court’s erred in relying on the order on MASA’s motion to amend to strike MASA’s expert’s opinions regarding “input device.” Because MASA disclosed hardware in its final infringement contentions for the “input device” elements, the District Court abused its discretion in striking these opinions. Further, because the District Court’s findings of noninfringement of Claim 1 of the ‘314 Patent and Claim 2 of the ‘974 Patent were based on striking these opinions, these noninfringement findings should also be reversed.

2. The District Court Erred in Finding Noninfringement of Claim 1 of the ‘974 Patent.

The District Court erred in finding noninfringement of the element of Claim 1 of the ‘974 Patent requiring “arranging the plurality of documents in said folder in the order the documents are to be printed in the printed end document.” Appx95-96. The District Court overlooked the volume of evidence cited by MASA’s infringement expert Dr. Mitzenmacher showing that this element was satisfied. Appx17001-17035 (¶¶ 226-243). In doing so, the District Court incorrectly concluded that Dr. Mitzenmacher only “opines that, within the accused products, the documents are placed into a “hot folder,” . . . [and] does not then indicate that the accused products arrange the documents within that same hot folder.” Appx95. However, Xerox’s own internal documents and source code, which Dr.

Mitzenmacher described and relied upon for his opinion, flatly contradict the District Court's findings.

As just one example, as shown below, Dr. Mitzenmacher cites internal documents illustrating that the job priority may be changed from *within* the hot folder. Appx17012-17016 (¶ 232).

Opening a Hot Folder

A hot folder does not need to be open to be processing. Having the folder's window open allows you to:

- see what files are in the queue
- make changes to the folder
- change job priority
- start or stop the folder
- remove jobs from the processing queue

Changing Job Priority

Jobs are processed according to the **Submission Order** you selected on the folder's Setup tab.

You can manually increase or decrease a job's order in the processing queue.

To Change Job Priority



NOTE: The File View tab can only display a maximum of 100 items. When the list is full, the oldest item will be removed from the list.

1. From the **Hot Folders** menu, select **Open** if the folder is not already open.
2. Click on the name of the folder you wish to open.
3. Click the folder's **File View** tab.
4. Click the job you wish to change.
 - a. To move the job to the top of the queue, click **Process Next**.
 - b. To increment the job's position one position at a time, click **Move Up** repeatedly until the job is in the desired position.
 - c. To move the job down in position, click **Move Down** repeatedly until the job is in the desired position.

Dr. Mitzenmacher provides various other examples in which the documents are arranged within the hot folder, along with other ways this element is satisfied

beyond the hot docs folder. Appx17001-17035 (¶¶ 226-243). At a minimum, this evidence creates genuine issues of fact precluding summary judgment.

Thus, reversal of the District Court’s finding of non-infringement of Claim 1 of the ’974 Patent is warranted.

3. The District Court Erred in Finding Noninfringement of Claim 51 of the ‘314 Patent.

The District Court erred in striking Dr. Mitzenmacher’s opinion that the “selectively associating” element of Claim 51 is met by using an input device to edit an object in one view of FreeFlow Express to Print.² In its infringement contentions, MASA explained that Xerox FreeFlow associates said first and second visual representations when it uses input processing software modules to assist in the production of a printed document using inputs received via the interface. Appx27697-27699. MASA further provided video *evidence* of the interface being manipulated by a user in support of this theory. *Id.*

In his report, Dr. Mitzenmacher provided *additional evidence* in support of this infringement theory. Appx16828-16839. In considering this additional evidence, the District Court concluded that MASA’s infringement contentions

² While the District Court also struck this opinion with respect to Claim 1 of the ‘314 Patent, it did not rely on that striking as a basis for granting summary judgment of noninfringement of Claim 1 of the ‘314 Patent. To the extent that striking forms the basis for the District Court’s noninfringement decision for Claim 1 of the ‘314 Patent, the striking should be reversed for Claim 1 for the same reasons as for Claim 51 of the ‘314 Patent.

“show an entirely different view of FreeFlow Express to Print than the one shown in the Mitzenmacher Report.” Appx36. The District Court then relied on this difference to strike this opinion in Dr. Mitzenmacher’s report. Appx46-50. This is improper because it faults MASA for providing additional evidence in support of its theory, as opposed to a different theory. MASA properly “outline[d] [its] theories of infringement” in its infringement contentions and elaborated in its infringement report by presenting additional supporting evidence. *See Anticancer, Inc.*, 769 F.3d at 1331.

Accordingly, the District Court abused its discretion in striking Dr. Mitzenmacher’s opinion that “selectively associating” is met by an input device to edit an object in one view of FreeFlow Express to Print. Therefore, the District Court’s decision to strike should be reversed.

IV. THE COURT SHOULD REVERSE THE FINDING THAT CLAIM 1 OF THE ’278 PATENT IS INVALID AS INDEFINITE

The District Court incorrectly found the term “markedly greater” from claim 1 of the ’278 Patent indefinite. The District Court failed to properly consider the evidence, including the claim language and specification, that provide the boundaries for the term, as well as precedent from this Court finding similar terms of degree to be definite. Because this term, when “read in light of the specification delineating the patent, and the prosecution history,” does not “fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention,” the

District Court's indefiniteness finding is in error. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Thus, Xerox fell far short of proving indefiniteness, as it must, by clear and convincing evidence. *See BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017).

The context of Claim 1 provides guidance for this term. Specifically, Claim 1 states: "whereby the transport device has at least one suction belt that has a number of through-passage openings and that can impinged with a vacuum, characterized in that the suction belt is constructed as a mesh having stays forming through-passage openings, the entire cross-section flow-through area of said through-passage openings being markedly greater than then entire area of said stays between said through-passage openings." The specification further provides the boundaries of this term, stating: "In a preferred embodiment form, it is provided that the total cross-section flow-through area of the openings is larger, preferably markedly larger than the total area of the stays (i.e., fabric material runs) between the openings. In this way ***it is ensured that the greater portion of the area of the second toner image has no contact with the suction belt and thus is completely unaffected by it.***" Appx391 (3:24-33). Thus, through-passage openings are greater than the stays between the openings to the extent this is ensured, which sets forth the boundaries for this claim term.

Indeed, while “markedly greater” is not a precise mathematical term, it is a comparative term as MASA’s expert Dr. McCarthy confirmed. Appx13272-13273 (¶¶ 90-92). As Dr. McCarthy explained, a POSA would understand that “markedly greater” means “clearly defined and evident; noticeable” in order to achieve the aforementioned goal. *Id.*; Appx13229-13234. Precedent does not require a term such as “greater” to be modified with a precise or mathematical descriptor. *See, e.g., Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370-72 (Fed. Cir. 2014) (observing that there is no absolute or mathematical precision required). Dr. McCarthy explained that POSA would understand that “substantially” similarly to a term like “markedly.” Appx13273 (¶ 92). This Court has found terms like “substantially” to be definite in the context of intrinsic evidence. *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1120 (Fed. Cir. 2002) (“It is well established that when the term ‘substantially’ serves reasonably to describe the subject matter so that its scope would be understood by a [POSA], and to distinguish the claimed subject matter from the prior art, it is not indefinite.”). For instance, in *One-E-Way*, this Court reversed a finding of indefiniteness of the term “virtually free” that invalidated two patents, finding that when viewed in light of the intrinsic record, the term would inform a POSA about the scope of the invention with reasonable certainty. *One-E-Way, Inc. v. Int’l Trade Comm’n*, 859 F.3d 1059, 1064-67 (Fed. Cir. 2017).

As the term “markedly greater” informs a POSA with reasonable certainty of the scope of the invention, the term is not indefinite. Thus, the District Court’s finding of indefiniteness of Claim 1 of the ‘278 Patent should be reversed.

CONCLUSION

For the reasons set forth above, this Court should reverse the District Court’s Order granting Xerox summary judgment of invalidity of Claims 1 and 14 of the ‘285 Patent and Claim 1 of the ‘9005 Patent, and noninfringement of Claims 1 and 51 of the ‘314 Patent, Claims 1 and 2 of the ‘974 Patent, Claims 1 and 5 of the ‘582 Patent and Claim 1 of the ‘415 Patent. The Court should also reverse the District Court’s construction of the “input device” terms of Claim 1 of the ‘314 Patent and Claim 2 of the ‘974 Patent and finding of indefiniteness of Claim 1 of the ‘278 Patent.

Respectfully submitted,

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