

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ESSELTE CORPORATION ET AL.
Petitioners,

v.

DYMO
Patent Owner.

Case No. 2015-____
Patent 7,990,567

**PETITION FOR INTER PARTES REVIEW
PURSUANT TO 35 U.S.C. §§ 311–319 AND 37 C.F.R. § 42**

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Case No. 2015-____
IPR Petition - U.S. Pat. 7,990,567

EXHIBITS

Exhibit No.	Description
1001	U.S Patent No. 7,990,567
1002	Declaration of Stephen Gray
1003	U.S. Patent No. 6,089,765 to Mori (“Mori”)
1004	U.S. Patent No. 5,025,397 to Suzuki (“Suzuki”)
1005	U.S. Patent No. 5,816,717 to Beadman (“Beadman”)
1006	U.S. Patent No. 5,483,623 to Nagashima (“Nagashima”)
1007	U.S Patent No. 7,990,567 File History

Petitioners Esselte Corporation, Esselte AB, and Esselte Leitz GMBH & Co. KG (collectively “Esselte”) request *inter partes* review (“IPR”) of claims 8-10 of U.S. Patent No. 7,990,567 (“the ’567 patent”) (Ex. 1001.) This Petition shows that there is a reasonable likelihood that these claims are unpatentable. Petitioners request that the claims be declared unpatentable and canceled.

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

Real Parties-In-Interest: The real parties-in-interest are Esselte Corporation, Esselte AB, and Esselte Leitz GMBH & Co. KG. Esselte AB and Esselte Leitz GMBH & Co. KG have agreed to be bound by, and to satisfy, any judgment against Esselte Corporation in the district court action identified below. However, Esselte AB and Esselte Leitz GMBH & Co. KG contest personal jurisdiction in the district court.

Related Matters: The following matter involving the ’567 patent would affect, or be affected by, a decision in the proceeding: *Sanford L.P. (d/b/a DYMO), and DYMO B.V.B.A. v. Esselte AB, Esselte Leitz GMBH & Co. KG, and Esselte Corp.*, No. 1:14-cv-07616-VSB (S.D.N.Y.).

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Counsel consents to electronic service at their email addresses. A power of attorney accompanies this Petition.

II. PAYMENT OF FEES

We hereby authorize the Office to charge the fee set forth in 37 C.F.R. § 42.15(a) for this Petition to a credit card, and further authorize payment of any additional fees to be charged to Deposit Account No. 50-4494.

III. GROUND FOR STANDING UNDER 37 C.F.R. § 42.104(A)

Esselte certifies that the '567 patent is available for IPR and that Esselte is not barred or estopped from requesting this IPR.¹

¹ No assignor estoppel applies to Petitioners in an *inter partes* review proceeding. *See Redline Detection, LLC v. Star Envirotech, Inc.*, IPR2013-00106 (Paper No. 66, June 30, 2014) (holding that the equitable defense of assignor estoppel is not available in *inter partes* review); *Athena Automation Ltd. v. Husky Injection*

IV. IDENTIFICATION OF CHALLENGE UNDER 37 C.F.R. § 42.104(B)

The '567 patent is subject to the first-to-invent prior art rules in effect prior to the implementation of the America Invents Act. Accordingly, all references to 35 U.S.C. §§ 102 and 103 set forth herein refer to those sections in effect prior to the implementation of the America Invents Act. Petitioners request that the Board cancel claims 8-10 for the following reasons:

Ground 1. U.S. Patent No. 6,089,765 to Mori in view of U.S. Patent No. 5,025,397 to Suzuki would have rendered claims 8-10 obvious under 35 U.S.C. § 103(a).

Ground 2. U.S. Patent No. 5,816,717 to Beadman in view of Mori would have rendered claims 8-10 obvious under 35 U.S.C. § 103(a).

Ground 3. Suzuki in view of U.S. Patent No. 5,483,623 to Nagashima would have rendered claims 8-10 obvious under 35 U.S.C. § 103(a).

Molding Sys. Ltd., IPR2013-00290 (Paper No. 18, Oct. 25, 2013) (rejecting patent owner's argument in its preliminary response that the petition was barred by assignor estoppel).

V. OVERVIEW OF THE TECHNOLOGY AND THE '567 PATENT

Claims 8-10 of the '567 patent relate to a method for printing an image on an image receiving medium where the image is stored each time that the image is printed:

8. A method for printing an image on an image receiving medium comprising the steps of:

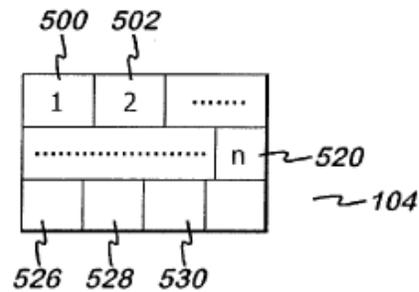
inputting the image to be printed;
printing the image on the image receiving medium;
storing a plurality of images, such that each time an image is printed said image is stored; and

recalling one of said stored images, wherein the method further comprises one of editing and reprinting said recalled stored image.

9. A method as claimed in claim 8, comprising storing a maximum of N previously printed labels.

10. A method as claimed in claim 9, wherein when the number of labels stored is greater than N, the oldest label is deleted.

The image to be printed is inputted to a printing device and printed on an image receiving medium. (Ex. 1001 at 3:49-58; 7:46-56.) The printing device is capable of storing the last N labels which are printed. (*Id.* at 10:51-11:19.) For example, the printing device stores the last N labels in RAM at separate locations 500, 502, 520, as illustrated in figure 6 below:



(*Id.*; Fig. 6.) A user may use the ‘RECALL’ function key on the printing device to recall labels which the user has stored. (*Id.* at 11:51-58.) The user can then select a previously printed label for editing or printing. (*Id.* at 11:66-12:10.)

During prosecution of the ’567 patent, patentees distinguished their invention from the prior art cited by the Examiner (U.S. Patent No. 6,351,275 to Ayling) by stating that the claims of the ’567 patent require automatically saving the image each time it is printed. (Ex. 1007 at 160-161 (“in Ayling, if a user is working on a label (i.e. the label is being temporarily stored in the working portion of the RAM), and that label is subsequently printed, then *it will not be saved to the storage portion of the RAM unless the user also presses the save key.* It is therefore respectfully submitted that Ayling does not disclose the feature recited in Applicants’ Claim 92 of ‘wherein said controller is further configured to control the memory to store an image in said memory each time an image is printed’.”) (emphasis added).)

Thus, the ’567 patent sought to solve a problem that was well known in the art by 2003: storing label data when a label is printed so that they can be reprinted.

(Ex. 1001 at 2:27-32; Ex. 1002 at ¶ 35.) Many prior art systems, including those relied upon below, were capable of storing images each time they were printed for future reprinting. (*Id.*) Indeed, those skilled in the art recognized that printing apparatus could receive image data, print it, and store it to enable future reprinting. (*Id.*)

VI. LEVEL OF ORDINARY SKILL IN THE ART

As required under 37 C.F.R. 42.104(b)(4) and (5), explanations of how claims 8-10 of the '567 patent are unpatentable under the statutory grounds identified above are provided in Section VIII below with reference to the supporting evidence. Additional background and support for each ground of rejection is set forth in the Declaration of Stephen Gray (Ex. 1002.) For purposes of this Petition, Petitioners adopt Mr. Grays's definition of a person of ordinary skill: "[A] person with at least a Bachelor of Science degree (or the equivalent) in a relevant scientific or engineering field, such as computer engineering, computer science, or electronics engineering, and having at least one year of experience related to printing systems." (Ex. 1002 at ¶ 29.)

VII. CONSTRUCTION OF CLAIM TERM

As required by 37 C.F.R. § 42.104(b)(3), Petitioners provide interpretation for a claim term in this section. An unexpired claim subject to *inter partes* review "shall be given its broadest reasonable construction in light of the specification of

the patent in which it appears.” 37 C.F.R. 42.100(b); *In re Cuozzo Speed Techs., LLC*, --F.3d --, 2015 U.S. App. LEXIS 1699 (Fed. Cir. 2015) (affirming that the broadest reasonable interpretation standard is properly adopted by the PTO regulation). Petitioners expressly reserve the right to present interpretations of the claims in litigation that may differ from those set forth herein.

A. “one of editing and reprinting said recalled stored image”

Petitioners propose that the claim term “one of editing and reprinting said recalled stored image” be construed as, “either editing the recalled stored image or reprinting the recalled stored image, or both editing and reprinting the recalled stored image.” *See Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001) (When a claim limitation is expressed in the disjunctive or as “compromising *one of*” multiple options, as is the case here, the prior art need only disclose *one* of them to invalidate the claim) (emphasis added); *Joao Bock Transaction Sys., LLC v. First Nat’l Bank*, 2013 WL 3199981, at *7 (N.D. Ill., June 24, 2013) (concluding that the phrase, “*one of ... and ...*” means “*one or more of the items in the list’ or ‘either or both of the items in the list.*”) (emphasis added); *see also Radware Ltd. v. A10 Networks, Inc.*, 2014 WL 1572644, at *7 (N.D. Cal. Apr. 18, 2014) (declining to apply the phrase ‘at least one of’ in the conjunctive where it only required a selection between two parameters separated by an ‘and.’); *Bradley v. Applied Marine Sys. LLC*, 2015 U.S. Dist. LEXIS 12032 (N.D. Cal. Feb. 2, 2015).

Both the *Radware* court and the court in *Joao Bock Transaction Sys.* relied on the context of the claim term at issue to determine whether a conjunctive or disjunctive construction was proper. *Radware*, 2014 WL 1572644 at *6-7; *Joao Bock Transaction Sys.*, 2013 WL 3199981 at *7.

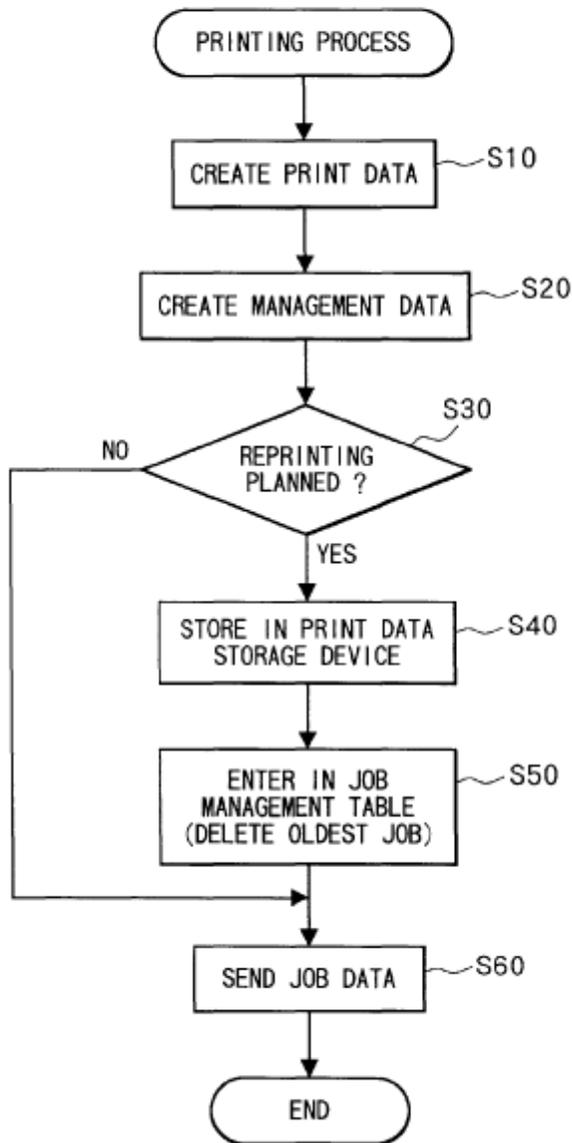
The specification of the '567 patent supports this construction. Specifically, the '567 patent uses the term “or” when discussing the options available to a user when he/she actuates the “RECALL” function key. (*See, e.g.*, Ex. 1001 at 11:51-65; Fig. 8.) Specifically, the '567 patent clarifies that “the user can then *print or edit* the recalled label.” (*Id.* at 11:63-65 (emphasis added); *see also id.* at 11:66-12:1 (“If the user selects the second option, that is the previous option, the user is able to select one of the previously printed labels for *editing or printing*”) (emphasis added).)

VIII. SPECIFIC PROPOSED GROUNDS FOR UNPATENTABILITY

A. Mori In View Of Suzuki Renders Claims 8-10 Obvious Under 35 U.S.C. § 103(a)

U.S Patent No. 6,089,765 to Mori is titled “Print system and printer” and was issued on July 18, 2000. Mori is prior art to the '567 patent under 35 U.S.C. § 102(b). Mori disclosed a printing system in which print data received by a printer is stored and managed in a print data storage device for reprinting. (Ex. 1003 at Abstract; 1:51-56.) Mori explained the printing process using several figures, including figure 4 reproduced below:

FIG. 4



(*Id.* at Fig. 4.) The printing system of Mori begins by receiving print data from a user. (*Id.* at 6:10-13; *see also id.* at 1:58-61; 2:56-63.) The printing process creates print data in a prescribed area of the RAM. (*Id.* at 6:13-24.) Once the printing process determines that the print data might be reprinted (“Yes” in step

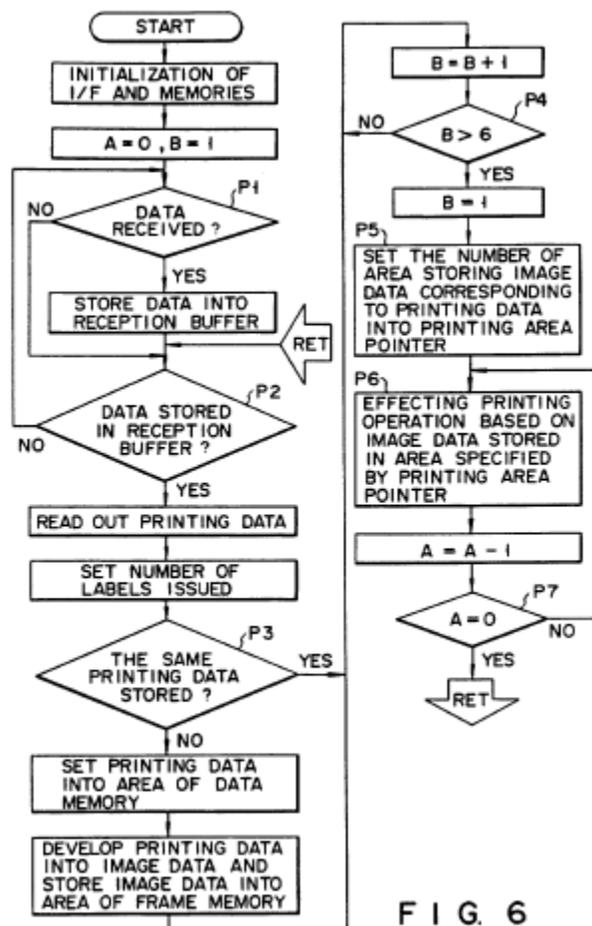
S30 above), the process stores the print data in a computer job management table in memory and transmits the print data to the printer for printing. (*Id.* at 6:33-44.)

The printer is configured to store the print data for a plurality of pages in RAM or a hard disk. (*Id.* at 3:30-34; 4:66-67.) For example, the printer is able to store print data for the last page of the latest-performed job as well as pages of jobs printed prior to the latest-performed job. (*Id.* at 3:37-43.) It would have been obvious to a person of ordinary skill in the art to modify the printing process of Mori to store the print data every time a page is printed, not only when the print data is intended for reprinting. (Ex. 1002 at ¶¶ 40, 72.) That is, it would have been obvious to remove the functionality to allow the user to opt out of reprinting print data. (*Id.*) The ability to opt out is an improvement that does not need to be included in a printing apparatus. (*Id.*) For example, if the printer was intended to be used in an environment where it would not be printing sensitive data, then this feature could be removed. (*Id.*)

Further, in order to store the (n+1)th print data in the storage device, the oldest print data is deleted from the storage device. (Ex. 1003 at 5:1-3.) A user is able to search the set of stored print data and select one set of print data desired for reprinting. (*Id.* at 5:39-42.) Mori further disclosed that once a monitor at the printer determines that a request for reprinting is received, the printer retrieves the

print data from the print data storage device and transmits it to the printer for printing. (*Id.* at 7:37-51; *see also id.* at 5:43-50.)

U.S. Patent No. 5,025,397 to Suzuki is titled “Label printer” and issued on June 18, 1991. Suzuki too is prior art to the ’567 patent under 35 U.S.C. § 102(b). The label printer disclosed in Suzuki receives image data such as characters and numeral codes, format data specifying the print position, magnification, and style. (Ex. 1004 at 3:5-18; 4:9-17.) Suzuki illustrated the label printing process using several figures, including figure 6 reproduced below:



(*Id.* at Fig. 6.)

Once the label printing process detects that printing data has been inputted to an input interface, the printing data is temporarily stored in a reception buffer. (*Id.* at 4:1-18.) The printing data includes character and numeral codes, format data specifying the printing position, magnification, style, and the number of labels to be issued. (*Id.*) The label printing process then determines if the printing data has been previously stored in the data memory. If the same printing data is not found in the data memory, it is then stored in the data memory. The printing data is also developed into image data which is stored in the frame memory section of the label printer. (*Id.* at 4:26-53; *see also id.* at 3:10-14.) ***The label printer stores the print data and its corresponding image each time it detects printing data.*** (*Id.* at 5:15-21; Ex. 1002 at ¶ 44.) The memory is capable of storing image data for a predetermined number of labels ‘n’ (n=6 in the examples illustrated in Suzuki). (Ex. 1004 at 3:31-36; 3:41-46; 5:24-28; Ex. 1002 at ¶¶ 45, 85.) The label printer also includes a control circuit for recalling previously stored data by transferring image data from the memory section to the printing section, allowing reprinting of previously stored data. (Ex. 1004 at 2:3-22; 5:3-14.)

Neither Mori nor Suzuki was considered by the Patent Office during prosecution of the ’567 patent. Further, a person of ordinary skill in the art would have found it obvious to combine Mori and Suzuki. (*See* Ex. 1002 at ¶¶ 57-59.)

Mori and Suzuki both addressed the same problem of reducing preparation time for printing, and disclosed quite similar approaches to addressing this problem. For instance, Mori was confronted with the limitation that printers could only reprint one-page of data for the last page that had been printed. (Ex. 1003 at 1:39-44.) To solve this problem, Mori devised a print system that enabled a user to execute a process to reprint a plurality of pages of data, in addition to the one-page data for the last page. (*Id.* at 1:45-1:56.) Likewise, an objective of the label printer disclosed in Suzuki was to reduce the preparation time for printing multiple labels by saving image data which has been used for the printing operation, and using the saved data for reprinting multiple labels. (Ex. 1004 at 1:42-2:22.) Combining these references would have involved simply arranging old elements with each performing the same function it had been known to perform, to yield no more than one would expect from such an arrangement. (Ex. 1002 at ¶¶ 57-59.)

As discussed in detail below, the print system of Mori in view of the label printer in Suzuki would have rendered claims 8-10 obvious to a person of ordinary skill in the art at the time of the alleged invention.

Claim	Mori and Suzuki
8. A method for printing an image on an image receiving medium comprising the steps of:	Mori disclosed “a print system for performing a printing operation, the print system comprising: a printer including: reception means for receiving print data; print performing means for performing print process with using the print data; and print data retransmission request means for requesting

Claim	Mori and Suzuki
	<p>retransmission of the print data desired to be reprinted after the print performing means has printed the print data; and a computer including: transmission means for transmitting the print data to the printer so that the printer will print the print data.” (Ex. 1003 at 1:57-67; <i>See also id.</i> at 2:4-10.) (<i>See also</i> Ex. 1002 at ¶¶ 60-61.)</p> <p>Mori stated, “The printing process of FIG. 4 is started when the user executes or inputs a print process execute command via the input portion 26 to print image data created using one application program 41.” (Ex. 1003 at 6:10-13.) Mori further disclosed printing the print image data using “a print mechanism 16 for printing on a recording medium according to the transmitted print data.” (<i>Id.</i> at 3:26-27.)</p> <p>Mori provided several figures illustrating methods for printing an image. For example, Figure 4 of Mori is reproduced above.</p> <p>Suzuki also disclosed “[a] label printer compris[ing] an input section for inputting printing data, a frame memory for storing image data derived from the printing data, a printing section for printing an image corresponding to the image data on label paper, and a control circuit for creating the image data based on the printing data, storing the image data into the frame memory, and transferring the image data stored in the frame memory to the printing section.” (Ex. 1004 at Abstract; <i>see also id.</i> at 2:4-7; 3:18-20; 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:54-59 (“[I]n the step P6, image data is read out from one of the areas 9A-1 to 9A-6 which is</p>

Claim	Mori and Suzuki
	<p>specified by the number data P stored in the printing area memory 5E of the RAM 5 and then supplied to the printing head 11 which in turn prints an image corresponding to the image data on label paper. The label paper thus printed is issued as a label.”); Fig. 6.) (<i>See also</i> Ex. 1002 at ¶ 62.)</p>
<p>inputting the image to be printed;</p>	<p>Mori disclosed that the printing process of Fig. 4 (produced above) “is started when the user executes or inputs a print process execute command via the input portion 26 to print image data created using one application program 41.” (Ex. 1003 at 6:10-13.) (<i>See also</i> Ex. 1002 at ¶¶ 63-65.)</p> <p>Suzuki disclosed “a label printer comprising an input section for inputting printing data.” (Ex. 1004 at Abstract; <i>see also id.</i> at 1:65-66; 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:9-17 (“After this, if it is detected in the step P1 that printing data is input to the input interface 6, the printing data is temporarily stored into the reception buffer 5A. In this case, the printing data includes character and numeral codes, format data specifying the printing position, magnification, style, and the like and label-number data specifying the number of labels to be issued which correspond to article information printed on one label.”); Fig. 6.) (<i>See also</i> Ex. 1002 at ¶¶ 66-67.)</p>
<p>printing the image on the image receiving medium;</p>	<p>Mori disclosed “a print mechanism 16 for printing on a recording medium according to the transmitted print data.” (Ex. 1003 at 3:26-27; <i>see also id.</i> at 6:40-44 (“Subsequently, in S60 [shown above in Figure 4], the CPU 21 transmits the print data together with the Job ID to the printer 10 so that the printer 10 will perform a normal printing operation</p>

Claim	Mori and Suzuki
	<p>with the print data while knowing that the print data might be reprinted.”); 15:22-24.) (<i>See also</i> Ex. 1002 at ¶ 68.)</p> <p>Suzuki also disclosed “a printing section for printing an image corresponding to the image data on label paper.” (Ex. 1004 at Abstract; <i>see also id.</i> 1:65-2:14; 3:18-20 (“The printing head 11 is constituted by a thermal head, for example, and prints an image corresponding to the received image data on label paper.”); 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:54-60 (“[I]n the step P6, image data is read out from one of the areas 9A-1 to 9A-6 which is specified by the number data P stored in the printing area memory 5E of the RAM 5 and then supplied to the printing head 11 which in tum prints an image corresponding to the image data on label paper. The label paper thus printed is issued as a label.”); Fig. 6.) (<i>See also</i> Ex. 1002 at ¶ 69.)</p>
<p>storing a plurality of images, such that each time an image is printed said image is stored; and</p>	<p>Mori disclosed “that the printer 10 is of a type that can store, in the RAM 13, the last page of print data (job) printed last onto a predetermined type of sheet. The printer 10 may store the last page of the last performed job in a hard disk drive, not shown, connected to the printer 10... Alternatively, the printer 10 can be configured to store print data for a plurality of pages in the RAM 13 or the hard disk (not shown). In this case, the printer 10 can maintain print data not only for the last page of the latest-performed job but also for pages of jobs printed prior to the latest-performed job if the total number of pages of those jobs does not exceed a maximum page number predetermined for the</p>

Claim	Mori and Suzuki
	<p>printer 10.” (Ex. 1003 at 3:30-43; <i>see also id.</i> at 5:53-55 (“the printer 10 is of the type that can retain one or more predetermined pages of print data for reprinting operation.”); 4:4-7 (“The print data storage device 44 is for storing and managing print data that is created by the application program 41 and transferred to the printer 10 and that will possibly be desired to be reprinted by the printer 10.”) 9:32-34 (“the printer 10 can be configured to store print data for a plurality of pages in the storage device.”); 6:34-36 (“the CPU 21 stores the print data in the print data storage device 44 in S40 [shown above in Figure 4].”); 10:38-42 (“according to the printing system 1 of the present embodiment, print data created by the computer 20 with using the application program 41 for being transferred to the printer 10 is stored and managed in the print data storage device 44”).)</p> <p>Mori further disclosed how print data is stored each time it is printed for possible reprinting:</p> <p>“Next, in S30, the CPU 21 determines whether or not the subject print data is intended to be reprinted. This process of S30 allows the user to prohibit reprinting of sensitive or secret information, which should not be left in a form that would allow anyone to reprint the information. In this step, therefore, the user can manipulate the input portion 26 either to indicate that the data is prohibited from being reprinted or to specify that the data is intended for reprinting.</p> <p><i>If the CPU 21 determines based on the user’s indication that the print data might be reprinted (‘yes’ in S30), the CPU 21 stores the print data in the print data storage device 44 in S40.</i> Then, in S50, the CPU 21 assigns a new Job ID to the print data, and enters the information on the print data</p>

Claim	Mori and Suzuki
	<p>together with the new Job ID in the computer job management table T1. The CPU 21 also adds the Job ID to the header data of the print data.</p> <p><i>Subsequently, in S60, the CPU 21 transmits the print data together with the Job ID to the printer 10 so that the printer 10 will perform a normal printing operation with the print data while knowing that the print data might be reprinted.</i>” (Id. at 6:25-44 (emphasis added).) (See also Ex. 1002 at ¶¶ 39-40; 70-74.)</p> <p>Suzuki also disclosed “a memory section for storing image data derived from different printing data.” (Ex. 1004 at 1:67-68; 2:15-17 (“In the above label printer, items of image data which have been used for the printing operation can be stored into the memory section.”); 3:10-14 (“The frame memory selection circuit 10 is connected to a frame memory 9 which stores a plurality of items of image data each representing character, numeral or bar code in the dot matrix form and serves to access the frame memory 9.”); 4:26-38 (“Further, the printing data is developed and converted into image data by use of the character generator 15A or the bar code conversion table 1SB. Then, the image data is stored into one of the memory areas 9A-1 to 9A-6 which is specified by the number data B stored in the write-in area pointer 50.”).)</p> <p><i>The label printer stores the print data and its corresponding image each time it detects printing data.</i> (Id. at 5:15-21 (“If the input printing data is not stored in the data memory 5B, it is determined that image data corresponding to the input printing data is not stored in the frame memory 9. Therefore, the input printing data is set into the data memory 5B and image data is created based on the input printing data and stored into the frame</p>

Claim	Mori and Suzuki
	memory 9.”); Ex. 1002 at ¶¶ 44-45; 75-76.)
<p>recalling one of said stored images, wherein the method further comprises one of editing and reprinting said recalled stored image.</p>	<p>Mori disclosed, “After a printing process has been performed, the user retrieves the printed document from the printer 10. The user then verifies the printing. If the user desires to reprint the document, that user can execute a reprint command for the desired print data at the printer 10 itself.” (Ex. 1003 at 2:58-63.)</p> <p>Mori also disclosed “a control unit 17 for enabling the user to input commands such as a reprint command” and “liquid crystal display 18 (hereinafter referred to as a LCD 18) for displaying a list of reprintable print data in the printer job management table T2.” (<i>Id.</i> at 3:22-26.) Further, “[w]hen the printer monitor 43 receives a retransmission request from the computer 20, the requested print data is selected from the print data stored in the print data storage device 44 and is resent to the printer 10 for reprinting... Upon receiving a retransmission request from the printer 10 (yes in S220), the CPU 21 first identifies in S110 a job specified in the request transmitted from the printer 10... Next, in S120, the CPU 21 retrieves the specified print data from the print data storage device 44. The CPU 21 transmits the print data to the printer 10...” (<i>Id.</i> at 4:11-14; 7:37-45; <i>see also id.</i> at 10:43-49 (“When such a retransmission request from the printer 10 is detected, the print data requested for retransmission is specified in the print data storage device 44, and then sent to the printer 10 for reprinting.”); 16:2-6.)</p> <p>Mori illustrated the reprinting process in several figures, including Figure 6 reproduced below:</p>

Claim	Mori and Suzuki
	<p style="text-align: center;">FIG. 6</p> <pre>graph TD; S230([REPRINTING PROCESS]) --> S110[FIND JOB SPECIFIED BY REQUEST RECEIVED FROM THE PRINTER]; S110 --> S120[READ DATA FROM STORAGE AREA AND SEND TO PRINTER]; S120 --> S130[DELETE JOB FROM JOB MANAGEMENT TABLE AND FREE STORAGE AREA]; S130 --> END([END]);</pre> <p>(<i>Id.</i> at Fig. 6.)</p> <p>Mori further disclosed that the stored image could be recalled from either the computer or the printer itself: “The printer 10 is configured to be capable of displaying data of the printer job management table T2 on the LCD 18, enabling the user to easily search all the sets of reprintable print data and to select one set of print data desired for reprinting. When the user selects the job name of a job for reprinting, the printer 10 sends, to the computer 20, a command that includes the selected job name and</p>

Claim	Mori and Suzuki
	<p>that requests the computer 20 to retransmit to the printer 10 print data corresponding to the selected job name. The printer monitor 43 in the computer 20 detects the command (request for retransmission) and executes a process to transmit the requested print data to the printer 10.</p> <p>It is noted that the printer 10 can manage the number of pages for each print data on the printer job management table T2. This is effective because the printer 10 is of the type that can retain one or more predetermined pages of print data for reprinting operation. It is now assumed that the printer 10 is of the type that can store only the last page of the latest-printed data. When the user requests a reprint of the latest-printed data, if the printer 10 confirms, based on the management table T2, that the requested print data contains a single page's worth of data, the printer 10 can know that the requested print data is retained in the printer 10. Accordingly, the printer 10 executes a direct reprint of this print data without sending a retransmission request to the computer 20. As a result, work becomes more efficient.” (<i>Id.</i> at 5:39-64.) Mori also described recalling the stored image from the printer itself. (<i>Id.</i> at 9:16-54.)</p> <p>In the case where the stored image is recalled from the computer, “[u]pon receiving a retransmission request from the printer 10 (yes in S220), the CPU 21 first identifies in S110 a job specified in the request transmitted from the printer 10. It is noted that the retransmission request includes: a command body for specifying a reprint instruction; and identification data (for example, Job ID) for specifying the job desired to be reprinted. Next, in S120, the CPU 21 retrieves the specified print data from the print data storage device 44. The CPU 21</p>

Claim	Mori and Suzuki
	<p>transmits the print data to the printer 10 without adding any Job ID to the print data. Subsequently, in S130, the CPU 21 deletes, from the computer job management table T1, job data (entry data) corresponding to the print data that has just been retransmitted for reprinting, and clears the corresponding storage area in the print data storage device 44.” (<i>Id.</i> at 7:37-51.) (<i>See also</i> Ex. 1002 at ¶¶ 77-80.)</p> <p>The label printer disclosed in Suzuki “detected that the printing data is already stored therein, [and] determined that the label printing operation was previously effected based on the same printing data as the input printing data. Then, image data corresponding to the input printing data [was] read out from the frame memory 9 and [was] used for the label printing operation.” (Ex. 1004 at 5:7-14.) (<i>See also</i> Ex. 1002 at ¶¶ 81-82.)</p>
<p>9. A method as claimed in claim 8, comprising storing a maximum of N previously printed labels.</p>	<p>Mori disclosed that “the print data storage device 44 is capable of storing as many as ‘n’ number of sets of print data, where ‘n’ is an integer number dependent on the capacity of the device 44.” (<i>Id.</i> at 4:26-29; <i>see also id.</i> at 4:66-67;12:63-66.) (<i>See also</i> Ex. 1002 at ¶¶ 83-84.)</p> <p>Suzuki also disclosed, “As shown in FIG. 4, the frame memory 9 is divided into six memory areas 9A-1 to 9A-6 each used for storing image data for one label.” (Ex. 1004 at 3:31-36; <i>see also id.</i> at 3:41-46 (“The data memory 5B has six memory areas 5B-1 to 5B-6 assigned to the memory areas 9A-1 to 9A-6 of the frame memory 9, for respectively storing printing data corresponding to image data stored in the memory areas 9A-1 to 9A-6 of the frame memory 9.”); Thus, “six memory areas 9A-1 to 9A-6 each capable of storing image data for one label are provided in the frame</p>

Claim	Mori and Suzuki
	<p>memory 9, and therefore six different items of image data can be stored in the frame memory 9.” (<i>Id.</i> at 5:24-28. <i>See also</i> Fig. 4; Ex. 1002 at ¶¶ 45, 85-86.)</p>
<p>10. A method as claimed in claim 9, wherein when the number of labels stored is greater than N, the oldest label is deleted.</p>	<p>Mori disclosed that “in order to store the (n+1)th print data in the storage device 44, the oldest print data is deleted from the storage device 44.” (Ex. 1003 at 5:1-3; <i>see also id.</i> at 6:58-66 (“It is noted that if the computer job management table T1 becomes full, print data for the newest job is written to the print data storage device 44 in S40 [shown above in Figure 4], and entry data corresponding to this newest job is written in S50 over entry data corresponding to the oldest job, thereby freeing up storage area in the print data storage device 44 previously occupied by the print data corresponding to the oldest job. Thus, the print data for the oldest job is deleted from the print data storage device 44.”); 7:62-8:1 (“Alternatively, if the capacity of the print data storage device 44 is restricted, it may be possible to delete jobs and their corresponding print data in an order beginning from the oldest job when the capacity of the print data storage device 44 is exceeded. For example, this deletion operation can be executed in S50 when the print data storage device 44 becomes full with the newest-created print data.”); 16:21-25 (“the computer 20 may be designed to erase print data from the print data memory device 44 in an order beginning from the oldest transmitted print data when the print data memory device 44 becomes full of print data.”).) (<i>See also</i> Ex. 1002 at ¶¶ 87-88.)</p>

B. Beadman In View Of Mori Renders Claims 8-10 Obvious Under 35 U.S.C. § 103(a)

U.S. Patent No. 5,816,717 to Beadman is titled “Label printing apparatus with character string matching” and issued on October 6, 1998. Beadman is prior art to the ’567 patent under 35 U.S.C. § 102(b). Beadman is directed to a method for recalling and reprinting stored labels in response to target data provided by a user. (Ex. 1005 at 1:66-2:14.) In Beadman, a label printing apparatus allows labels to be composed and displayed using character and function keys on a keyboard. (*Id.* at 5:5-9.) Once a label has been composed, it is stored as label data containing information defining the characters to be printed, their size and other attributes (*e.g.*, bold, outline, italic, etc.) and layout in the label storage space of the memory. (*Id.* at 5:25-34.)

Specifically, Beadman disclosed that once a save button is depressed, the label is stored in a label storage space. (*Id.* at 5:22-27.) Thus, “[*e*]ach **label is stored** as label data in the form of a sequence of bytes containing information defining the characters to be printed, their size and other attributes (such as bold, outline, italic etc.), their layout and other features of the label.” (*Id.* at 5:30-34 (emphasis added).) It would have been obvious to a person of ordinary skill in the art to modify the label printing apparatus in Beadman to store each label when it is printed without requiring the user to press a save button. (Ex. 1002 at ¶¶ 49, 100-101.) For example, one of ordinary skill in the art would have been motivated to

combine the teachings of Beadman and Mori such that the label printing apparatus stored the label each time it was printed without further user intervention. (*See, e.g.*, Ex. 1003 at 4:4-7 (“The print data storage device 44 is for storing and managing print data that is created by the application program 41 and transferred to the printer 10 and that will possibly be desired to be reprinted by the printer 10.”); 10:38-42 (“according to the printing system 1 of the present embodiment, print data created by the computer 20 with using the application program 41 for being transferred to the printer 10 is stored and managed in the print data storage device 44”); 6:25-44 (“If the CPU 21 determines based on the user’s indication that the print data might be reprinted (‘yes’ in S30), the CPU 21 stores the print data in the print data storage device 44 in S40.”); Ex. 1002 at ¶ 90, 103.) Mori and Beadman both addressed the need for printing devices that store a plurality of print data for subsequent printing to enable a user who is likely to reprint previously printed data to recall such data quickly and efficiently. (Ex. 1003 at 1:45-2:10; Ex. 1005 at 1:55-64.) This combination would have involved no more than the predictable use of prior art techniques according to the functions established in the respective prior art disclosures. (*See also* Ex. 1002 at ¶¶ 89-90.)

The stored label in Beadman may be recalled by the user by entering, for example, target character(s) or word(s) and pressing a memory recall key. (Ex. 1005 at 5:35-67.) A recalled label may then be edited and/or printed using the

label printer. (*Id.* at 6:28-30.) For example, Beadman discussed editing a previously saved label by combining it with new text. (*Id.* at 6:24-38.) A user could then reprint the edited label, or the recalled label. (*Id.*) Although Beadman is listed on the face of the '567 patent, it was not raised by the Examiner in any office action during prosecution of the '567 patent.

As illustrated in the chart below, Beadman and Mori render claims 8-10 of the '567 patent obvious under § 103(a).

Claim	Beadman and Mori
<p>8. A method for printing an image on an image receiving medium comprising the steps of:</p>	<p>Beadman disclosed a “label printing apparatus” for printing an image on a label. (Ex. 1005 at 1:10-12; <i>see also id.</i> at 1:66-2:14; 3:43-47 (“the platen is rotated to cause image receiving tape to be driven past the print head and the print head is controlled to print an image onto the image receiving tape by thermal transfer of ink from the ribbon 112.”).) (<i>See also</i> Ex. 1002 at ¶¶ 91-92.)</p> <p>Mori disclosed “a print system for performing a printing operation, the print system comprising: a printer including: reception means for receiving print data; print performing means for performing print process with using the print data; and print data retransmission request means for requesting retransmission of the print data desired to be reprinted after the print performing means has printed the print data; and a computer including: transmission means for transmitting the print data to the printer so that the printer will print the print data.” (Ex. 1003 at 1:57-67; <i>see also id.</i> at 2:4-10.)</p> <p>Mori stated, “The printing process of FIG. 4 is started when the user executes or inputs a print</p>

Claim	Beadman and Mori
	<p>process execute command via the input portion 26 to print image data created using one application program 41.” (<i>Id.</i> at 6:10-13.) Mori further disclosed printing the print image data using “a print mechanism 16 for printing on a recording medium according to the transmitted print data.” (<i>Id.</i> at 3:26-27.)</p> <p>Mori provided several figures illustrating methods for printing an image. For example, Figure 4 of Mori is reproduced above. (<i>See also</i> Ex. 1002 at ¶ 93.)</p>
<p>inputting the image to be printed;</p>	<p>Beadman disclosed “input means for selecting characters for composing a label to be printed.” (Ex. 1005 at 2:1-2.) In Beadman, “the label printing apparatus allows labels to be composed and displayed on the display 6 using the character keys CK and function keys FK. Data to be printed is typed into the printing device using data input keys CK and FK on the keyboard 4. As the data is entered into the keyboard 4 it is supplied to the microprocessor 200 which drives the display 6 to display the data as it is entered.” (<i>Id.</i> at 5:4-11; <i>see also id.</i> at 5:20-25.) (<i>See also</i> Ex. 1002 at ¶¶ 94-95.)</p> <p>Mori disclosed that the printing process of Fig. 4 (produced above) “is started when the user executes or inputs a print process execute command via the input portion 26 to print image data created using one application program 41.” (Ex. 1003 at 6:10-13.) (<i>See also</i> Ex. 1002 at ¶¶ 96-97.)</p>
<p>printing the image on the image receiving medium;</p>	<p>Beadman disclosed “printing means for printing the composed label.” (Ex. 1005 at 2:6.) In particular Beadman disclosed, “[T]he platen is rotated to cause image receiving tape to be driven past the print head and the print head is controlled to print</p>

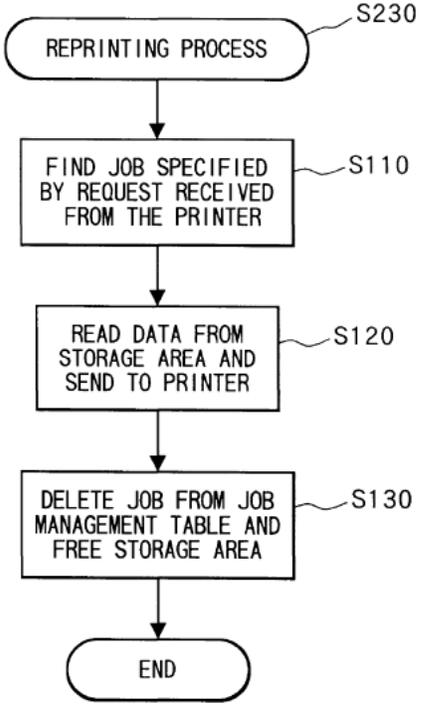
Claim	Beadman and Mori
	<p>an image onto the image receiving tape by thermal transfer of ink from the ribbon 112.” (<i>Id.</i> at 3:43-47; <i>see also id.</i> at 5:14-18 (“As the character is stored in compressed form this font data is stored temporarily in the RAM 14 and is manipulated by the microprocessor 8 to generate pixel data to form the character. This pixel data is transmitted in one form to the display 6 and in another form to the print head for printing.”).) (<i>See also</i> Ex. 1002 at ¶ 98.)</p> <p>Mori disclosed “a print mechanism 16 for printing on a recording medium according to the transmitted print data.” (Ex. 1003 at 3:26-27; <i>see also id.</i> at 6:40-44 (“Subsequently, in S60 [shown above in Figure 4], the CPU 21 transmits the print data together with the Job ID to the printer 10 so that the printer 10 will perform a normal printing operation with the print data while knowing that the print data might be reprinted.”); 15:22-24.) (<i>See also</i> Ex. 1002 at ¶ 99.)</p>
<p>storing a plurality of images, such that each time an image is printed said image is stored; and</p>	<p>Beadman disclosed “storage means for storing the composed label as label data defining the label, wherein a plurality of composed labels can be stored in said storage means.” (Ex. 1005 at 2:7-9.) “<i>Each label is stored</i> as label data in the form of a sequence of bytes containing information defining the characters to be printed, their size and other attributes (such as bold, outline, italic etc.), their layout and other features of the label.” (<i>Id.</i> at 5:30-34 (emphasis added).) (<i>See also</i>, Ex. 1002 at ¶¶ 49, 100-102.)</p> <p>Mori similarly disclosed “that the printer 10 is of a type that can store, in the RAM 13, the last page of print data (job) printed last onto a predetermined type of sheet. The printer 10 may store the last page of the last performed job in a hard disk drive, not</p>

Claim	Beadman and Mori
	<p>shown, connected to the printer 10... Alternatively, the printer 10 can be configured to store print data for a plurality of pages in the RAM 13 or the hard disk (not shown). In this case, the printer 10 can maintain print data not only for the last page of the latest-performed job but also for pages of jobs printed prior to the latest-performed job if the total number of pages of those jobs does not exceed a maximum page number predetermined for the printer 10.” (Ex. 1003 at 3:30-43; <i>see also id.</i> at 5:53-55 (“the printer 10 is of the type that can retain one or more predetermined pages of print data for reprinting operation.”); 4:4-7 (“The print data storage device 44 is for storing and managing print data that is created by the application program 41 and transferred to the printer 10 and that will possibly be desired to be reprinted by the printer 10.”) 9:32-34 (“the printer 10 can be configured to store print data for a plurality of pages in the storage device.”); 6:34-36 (“the CPU 21 stores the print data in the print data storage device 44 in S40 [shown above in Figure 4].”); 10:38-42 (“according to the printing system 1 of the present embodiment, print data created by the computer 20 with using the application program 41 for being transferred to the printer 10 is stored and managed in the print data storage device 44”).)</p> <p>Mori further disclosed how print data is stored each time it is printed for possible reprinting:</p> <p>“Next, in S30, the CPU 21 determines whether or not the subject print data is intended to be reprinted. This process of S30 allows the user to prohibit reprinting of sensitive or secret information, which should not be left in a form that would allow anyone to reprint the information. In this step, therefore, the user can manipulate the input portion</p>

Claim	Beadman and Mori
	<p>26 either to indicate that the data is prohibited from being reprinted or to specify that the data is intended for reprinting.</p> <p><i>If the CPU 21 determines based on the user's indication that the print data might be reprinted ('yes' in S30), the CPU 21 stores the print data in the print data storage device 44 in S40. Then, in S50, the CPU 21 assigns a new Job ID to the print data, and enters the information on the print data together with the new Job ID in the computer job management table T1. The CPU 21 also adds the Job ID to the header data of the print data. Subsequently, in S60, the CPU 21 transmits the print data together with the Job ID to the printer 10 so that the printer 10 will perform a normal printing operation with the print data while knowing that the print data might be reprinted.</i>" (<i>Id.</i> at 6:25-44 (emphasis added).) (<i>See also</i> Ex. 1002 at ¶¶ 103-105.)</p>
<p>recalling one of said stored images, wherein the method further comprises one of editing and reprinting said recalled stored image.</p>	<p>The label printing device in Beadman enabled "a user to compose a label and then to store that label for subsequent printing. This is particularly useful where a user is likely to need to produce the same label again at a later time. Rather than again compose the label, it can be recalled from a store of precomposed labels." (Ex. 1005 at 1:55-60.) To do so, the label printing device comprised "recall means operable to recall said stored labels in response to target data provided by a user at the input means, the recall means being operable to provide for display only labels in said stored plurality of labels which contain label data matching said target data." (<i>Id.</i> at 2:10-14.)</p> <p>Beadman illustrated the method for reprinting a label using, for example, figure 3 reproduced</p>

Claim	Beadman and Mori
	<p data-bbox="656 275 760 306">below:</p> <div data-bbox="748 373 1357 1276"><p data-bbox="841 380 922 411">FIG. 3</p><pre>graph TD; 20[POINT TO FIRST LABEL] --> 22{AT END OF LABEL MEMORY?}; 22 -- YES --> EXIT1((EXIT)); 22 -- NO --> 24{LABEL MATCHES?}; 24 -- YES --> 28[DISPLAY LABEL]; 28 --> 30[WAIT FOR USER INPUT]; 30 --> 32{MOVE TO NEXT?}; 32 -- YES --> 24; 32 -- NO --> 34{EXIT?}; 34 -- YES --> EXIT2((EXIT)); 34 -- NO --> 26[MOVE TO NEXT LABEL]; 26 --> 24;</pre></div> <p data-bbox="656 1339 863 1371"><i>(Id. at Fig. 3.)</i></p> <p data-bbox="656 1413 1422 1661">Beadman enabled a user to enter a target for a label (e.g., character or plurality of characters which he/she knows to be present in the label) to recall labels having label data matching data defining the target character(s). <i>(Id. at 5:35-45; see also id. at 5:56-67; 6:24-39.)</i></p> <p data-bbox="656 1703 1422 1862">Beadman further enabled a user to edit and/or print a recalled label using the printing apparatus. <i>(Id. at 6:24-38 (“Once the required label has been located by this procedure and has been displayed on the</i></p>

Claim	Beadman and Mori
	<p>screen, the user presses a save key, for example the “return” key of the device. This causes the sequence of bytes representing the label to be copied into the RAM 14 of the microprocessor. Once this has been done the label can be edited and/or printed using the printing apparatus in the normal way. It is possible to use the label recall function to add to an existing label which is being composed. In that event, during composition of the label a cursor key controls movement of a cursor on the display to indicate to a user his current location. If the label recall function is operated with the cursor set at a particular location, the label which is recalled will be inserted into the label being formulated. This makes it possible to insert labels into other labels without the need to reformulate a label which has already been stored.”.) (<i>See also</i> Ex. 1002 at ¶¶ 106-109.)</p> <p>Mori disclosed, “After a printing process has been performed, the user retrieves the printed document from the printer 10. The user then verifies the printing. If the user desires to reprint the document, that user can execute a reprint command for the desired print data at the printer 10 itself.” (Ex. 1003 at 2:58-63.)</p> <p>Mori also disclosed “a control unit 17 for enabling the user to input commands such as a reprint command” and “liquid crystal display 18 (hereinafter referred to as a LCD 18) for displaying a list of reprintable print data in the printer job management table T2.” (<i>Id.</i> at 3:22-26.) Further, “[w]hen the printer monitor 43 receives a retransmission request from the computer 20, the requested print data is selected from the print data stored in the print data storage device 44 and is resent to the printer 10 for reprinting... Upon</p>

Claim	Beadman and Mori
	<p>receiving a retransmission request from the printer 10 (yes in S220), the CPU 21 first identifies in S110 a job specified in the request transmitted from the printer 10...Next, in S120, the CPU 21 retrieves the specified print data from the print data storage device 44. The CPU 21 transmits the print data to the printer 10....” (<i>Id.</i> at 4:11-14; 7:37-45; <i>see also id.</i> at 10:43-49 (“When such a retransmission request from the printer 10 is detected, the print data requested for retransmission is specified in the print data storage device 44, and then sent to the printer 10 for reprinting.”); 16:2-6.)</p> <p>Mori illustrated the reprinting process in several figures, including Figure 6 reproduced below:</p> <p style="text-align: center;">FIG. 6</p>  <pre> graph TD S230([REPRINTING PROCESS]) --> S110[FIND JOB SPECIFIED BY REQUEST RECEIVED FROM THE PRINTER] S110 --> S120[READ DATA FROM STORAGE AREA AND SEND TO PRINTER] S120 --> S130[DELETE JOB FROM JOB MANAGEMENT TABLE AND FREE STORAGE AREA] S130 --> END([END]) </pre> <p>(<i>Id.</i> at Fig. 6.)</p>

Claim	Beadman and Mori
	<p>Mori further disclosed that the stored image could be recalled from either the computer or the printer itself: “The printer 10 is configured to be capable of displaying data of the printer job management table T2 on the LCD 18, enabling the user to easily search all the sets of reprintable print data and to select one set of print data desired for reprinting. When the user selects the job name of a job for reprinting, the printer 10 sends, to the computer 20, a command that includes the selected job name and that requests the computer 20 to retransmit to the printer 10 print data corresponding to the selected job name. The printer monitor 43 in the computer 20 detects the command (request for retransmission) and executes a process to transmit the requested print data to the printer 10.</p> <p>It is noted that the printer 10 can manage the number of pages for each print data on the printer job management table T2. This is effective because the printer 10 is of the type that can retain one or more predetermined pages of print data for reprinting operation. It is now assumed that the printer 10 is of the type that can store only the last page of the latest-printed data. When the user requests a reprint of the latest-printed data, if the printer 10 confirms, based on the management table T2, that the requested print data contains a single page's worth of data, the printer 10 can know that the requested print data is retained in the printer 10. Accordingly, the printer 10 executes a direct reprint of this print data without sending a retransmission request to the computer 20. As a result, work becomes more efficient.” (<i>Id.</i> at 5:39-64.) Mori also described recalling the stored image from the printer itself. (<i>Id.</i> at 9:16-54.)</p> <p>In the case where the stored image is recalled from</p>

Claim	Beadman and Mori
	<p>the computer, “[u]pon receiving a retransmission request from the printer 10 (yes in S220), the CPU 21 first identifies in S110 a job specified in the request transmitted from the printer 10. It is noted that the retransmission request includes: a command body for specifying a reprint instruction; and identification data (for example, Job ID) for specifying the job desired to be reprinted. Next, in S120, the CPU 21 retrieves the specified print data from the print data storage device 44. The CPU 21 transmits the print data to the printer 10 without adding any Job ID to the print data. Subsequently, in S130, the CPU 21 deletes, from the computer job management table T1, job data (entry data) corresponding to the print data that has just been retransmitted for reprinting, and clears the corresponding storage area in the print data storage device 44.” (<i>Id.</i> at 7:37-51; <i>see also id.</i> at 10:38-49.) (<i>See also Ex.</i> 1002 at ¶¶ 110-113.)</p>
<p>9. A method as claimed in claim 8, comprising storing a maximum of N previously printed labels.</p>	<p>Mori disclosed that “the print data storage device 44 is capable of storing as many as ‘n’ number of sets of print data, where ‘n’ is an integer number dependent on the capacity of the device 44.” (<i>Ex.</i> 1003 at 4:26-29; <i>see also id.</i> at 4:66-67; <i>Ex.</i> 1002 at ¶¶ 114-115.)</p>
<p>10. A method as claimed in claim 9, wherein when the number of labels stored is greater than N, the oldest label is deleted.</p>	<p>Mori disclosed that “in order to store the (n+1)th print data in the storage device 44, the oldest print data is deleted from the storage device 44.” (<i>Ex.</i> 1003 at 5:1-3; <i>see also id.</i> at 6:58-66 (“It is noted that if the computer job management table T1 becomes full, print data for the newest job is written to the print data storage device 44 in S40 [shown above in Figure 4], and entry data corresponding to this newest job is written in S50 over entry data corresponding to the oldest job, thereby freeing up storage area in the print data</p>

Claim	Beadman and Mori
	<p>storage device 44 previously occupied by the print data corresponding to the oldest job. Thus, the print data for the oldest job is deleted from the print data storage device 44.”); 7:62-8:1 (“Alternatively, if the capacity of the print data storage device 44 is restricted, it may be possible to delete jobs and their corresponding print data in an order beginning from the oldest job when the capacity of the print data storage device 44 is exceeded. For example, this deletion operation can be executed in S50 when the print data storage device 44 becomes full with the newest-created print data.”); 16:21-25 (“the computer 20 may be designed to erase print data from the print data memory device 44 in an order beginning from the oldest transmitted print data when the print data memory device 44 becomes full of print data.”). <i>See also</i>, Ex.1002 at ¶¶ 116-117.)</p>

C. Suzuki In View Of Nagashima Renders Claims 8-10 Obvious Under 35 U.S.C. § 103(a)

U.S. Patent No. 5,483,623 to Nagashima is titled “Printing apparatus” and issued on January 9, 1996. Nagashima is prior art to the ’567 patent under 35 U.S.C. § 102(b). It is directed to a printing apparatus that instructs the reusing of printing information that was previously printed and stored in memory. (Ex. 1006 at Abstract; (the printing apparatus “converts printing information, such as page description language, into dot data, and has *an image memory 16 which stores the dot data for the purpose of reusing the dot data for printing an image or overlaying another image*”) (emphasis added); *see also id.* at 1:9-13; 1:29-45.)

The printing apparatus in Nagashima receives printing information, consisting of

characters and figures, from a host computer. (*Id.* at 1:66-2:4; *see also id.* at 2:31-33.) The printing information is sent to a printer and also stored in an image memory. (*Id.* at 2:5-25; *see also id.* at 4:34-37; 2:40-46.) Specifically, the image memory stores the dot data used for printing images. (*Id.* at 2:14-25.) Thus, unless a document is classified as “secret,” the image memory continues to store the data for the document. (*Id.* at 2:41-43.) The image memory stores printer information for multiple pages that have previously been printed. (*Id.* at 2:55-60 (“The dot data, already used for printing images is retained in the image memory 16, while it is possible for said memory 16 to store another page of dot data.”); 4:62-7:10.) It would have been obvious to a person of ordinary skill in the art to modify the printing process of Nagashima to store the print data every time a page is printed, even if it is classified as “secret.” (Ex. 1002 at ¶¶ 54, 130.) That is, it would have been obvious to remove the functionality to allow the user to designate a document as “secret.” (*Id.*) The ability to designate a document as “secret” is an improvement that does not need to be included in a printing apparatus. (*Id.*) For example, if the printer was intended to be used in an environment where it would not be printing sensitive data, then this feature could be removed. (*Id.*)

The printing apparatus can also instruct the reusing of the stored printer information – it allows the editing and reprinting of the stored printer information. (*Id.* at 1:32-35; 4:25-33; 5:6-15.) For instance, the printing apparatus permits the

editing of stored printing information by overlaying an image represented by new dot data on an image represented by previously stored dot data in the image memory. Thereafter, the laser beam printer prints the overlaid image. (*See id.* at 4:25-33.)

Similarly, as discussed above, Suzuki disclosed a label printer that saves image data of previously printed labels that can be retrieved from a stored location for reprinting. A person of ordinary skill in the art would have found it obvious to combine Suzuki and Nagashima. (*See Ex. 1002 at ¶ 119.*) Suzuki and Nagashima had the common objective of reducing the preparation time for printing. (*Ex. 1004 at 1:61-63; Ex. 1006 at 1:18-31.*) Both inventions disclosed similar approaches to achieve their objective – reusing printing information by storing it in memory so that image data need not be newly created for previously printed images. (*Ex. 1004 at 1:65-2:29; Ex. 1006 at 1:26-45.*) This combination would have involved no more than the predictable use of prior art techniques according to the functions established in the respective prior art disclosures. (*See also Ex. 1002 at ¶ 119.*)

As illustrated in the chart below, Suzuki and Nagashima render claims 8-10 of the '567 patent obvious under § 103(a).

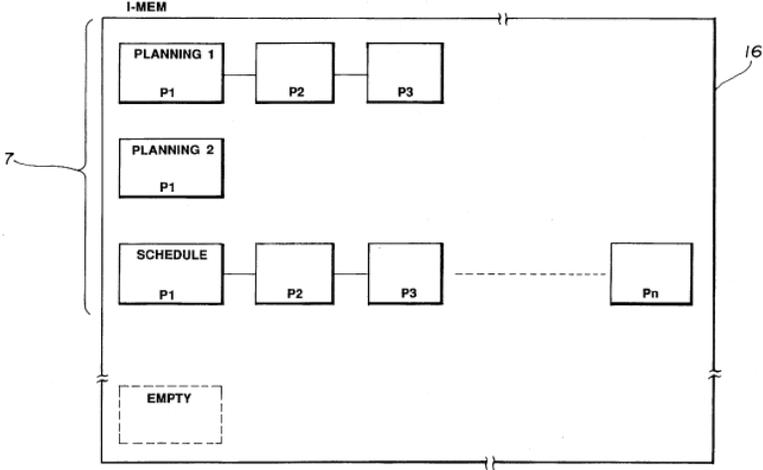
Claim	Suzuki and Nagashima
8. A method for printing an image on an image receiving medium	Suzuki disclosed “[a] label printer compris[ing] an input section for inputting printing data, a frame memory for storing image data derived from the printing data, a printing section for printing an

Claim	Suzuki and Nagashima
<p>comprising the steps of:</p>	<p>image corresponding to the image data on label paper, and a control circuit for creating the image data based on the printing data, storing the image data into the frame memory, and transferring the image data stored in the frame memory to the printing section.” (Ex. 1004 at Abstract; <i>see also id.</i> at 2:4-7; 3:18-20; 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:54-59 (“[I]n the step P6, image data is read out from one of the areas 9A-1 to 9A-6 which is specified by the number data P stored in the printing area memory 5E of the RAM 5 and then supplied to the printing head 11 which in turn prints an image corresponding to the image data on label paper. The label paper thus printed is issued as a label.”); Fig. 6.)</p> <p>Suzuki illustrated the label printing process using several figures, including Figure 6 reproduced above in Section VIII.A. (<i>See also</i> Ex. 1002 at ¶ 120.)</p> <p>Nagashima disclosed a printing apparatus “which converts printing information, such as page description language, into dot data, and has an image memory 16 which stores the dot data for the purpose of reusing the dot data for printing an image or overlaying another image.” (Ex. 1006 at Abstract; <i>see also id.</i> at 1:9-13 (“This invention relates to the field of printing, and is primarily, but not exclusively, concerned with a printing apparatus for converting printing information received from a word processor or host computer into dot data and printing an image on the basis of the dot data.”); 2:28-30 (“the LBP [laser beam</p>

Claim	Suzuki and Nagashima
	<p>printer] 18 prints an image on a recording medium on the basis of the dot data read out from the image memory 16.”); 5:16-18 (“the page printer has a laser beam printer (LBP), but an ink jet printer or a thermal printer may be used as an alternative”).) (See also Ex. 1002 at ¶ 121.)</p>
<p>inputting the image to be printed;</p>	<p>Suzuki disclosed “a label printer [] comprising an input section for inputting printing data.” (Ex. 1004 at Abstract; see also <i>id.</i> at 1:65-66; 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:9-17 (“After this, if it is detected in the step P1 that printing data is input to the input interface 6, the printing data is temporarily stored into the reception buffer 5A. In this case, the printing data includes character and numeral codes, format data specifying the printing position, magnification, style, and the like and label-number data specifying the number of labels to be issued which correspond to article information printed on one label.”); Fig. 6.) (See also Ex. 1002 at ¶ 122.)</p> <p>Nagashima disclosed, “The control panel 1 has a display portion and input keys. Display data and key data are transmitted between the control panel 1 and the CPU 11 via a control interface 14.” (Ex. 1006 at 2:31-33; see also <i>id.</i> at 1:66-2:2 (“[a] communications circuit 15 [that] receives printing information from the host computer 10, consisting of characters and figures defined in a page description language (PDL).”) (See also Ex. 1002 at ¶ 123.)</p>
<p>printing the image on the image receiving medium;</p>	<p>Suzuki disclosed “a printing section for printing an image corresponding to the image data on label paper.” (Ex. 1004 at Abstract; see also <i>id.</i> 1:65-</p>

Claim	Suzuki and Nagashima
	<p>2:14; 3:18-20 (“The printing head 11 is constituted by a thermal head, for example, and prints an image corresponding to the received image data on label paper.”); 3:62-65 (“FIG. 6 is a flowchart explaining the label issuing process effected for printing an image corresponding to input printing data on label paper and issuing the printed label paper as a label.”); 4:54-60 (“[I]n the step P6, image data is read out from one of the areas 9A-1 to 9A-6 which is specified by the number data P stored in the printing area memory 5E of the RAM 5 and then supplied to the printing head 11 which in tum prints an image corresponding to the image data on label paper. The label paper thus printed is issued as a label.”); Fig. 6.) (<i>See also</i> Ex. 1002 at ¶ 124.)</p> <p>Nagashima also disclosed a printer that “prints an image on a recording medium on the basis of the dot data read out from the image memory 16.” (Ex. 1006 at 2:28-30; <i>see also id.</i> at 4:34-37 (“When print key 6 of the control panel 1 has been actuated to indicate the off-line print, the CPU 11 reads out the selected dot data from the image memory 16 and supplies the dot data to LBP [laser beam printer] 18, to print an image (S3, S10).”).) (<i>See also</i> Ex. 1002 at ¶¶ 125-126.)</p>
<p>storing a plurality of images, such that each time an image is printed said image is stored; and</p>	<p>Suzuki disclosed “a memory section for storing image data derived from different printing data.” (Ex 1004 at 1:67-68; 2:15-17 (“In the above label printer, items of image data which have been used for the printing operation can be stored into the memory section.”); 3:10-14 (“The frame memory selection circuit 10 is connected to a frame memory 9 which stores a plurality of items of image data each representing character, numeral or bar code in the dot matrix form and serves to access the frame</p>

Claim	Suzuki and Nagashima
	<p>memory 9.”); 4:26-38 (“Further, the printing data is developed and converted into image data by use of the character generator 15A or the bar code conversion table 15B. Then, the image data is stored into one of the memory areas 9A-1 to 9A-6 which is specified by the number data B stored in the write-in area pointer 5D.”.) (See also Ex. 1002 at ¶¶ 127-128.)</p> <p>Nagashima similarly disclosed “memory means for storing plural pages or plural documents of said dot data.” (Nagashima at 1:42-43.) For example, an image memory “stores the dot data to be supplied to the LBP [laser beam printer] 18 and has sufficient capacity to store a plurality of pages or a plurality of documents of dot data.” (Ex. 1006 at 2:14-17.) The image memory “store[s] the dot data even after the LBP 18 has printed an image derived from said data...<i>The dot data, already used for printing images is retained in the image memory 16, while it is possible for said memory 16 to store another page of dot data. Thus, it is possible to store a number of multipage documents.</i>” (<i>Id.</i> at 2:40-42 (emphasis added); 2:55-59.) For example, Figure 3 reproduced below illustrates a snapshot of an image memory that stores different documents or pages. (<i>Id.</i> at 2:47-61.)</p>

Claim	Suzuki and Nagashima
	<p style="text-align: center;">FIG. 3</p>  <p>The diagram, labeled FIG. 3, illustrates the structure of I-MEM (Image Memory). It is enclosed in a rectangular frame with a reference numeral 16 on the right side. Inside the frame, there are four main sections: <ul style="list-style-type: none"> PLANNING 1: A horizontal sequence of three boxes labeled P1, P2, and P3, connected by solid lines. PLANNING 2: A single box labeled P1. SCHEDULE: A horizontal sequence of boxes labeled P1, P2, P3, followed by a dashed line, and then a box labeled Pn. EMPTY: A dashed rectangular box at the bottom left. A bracket on the left side, labeled with the numeral 7, encompasses the PLANNING 1, PLANNING 2, and SCHEDULE sections. The I-MEM label is positioned at the top left of the frame.</p> <p>(<i>Id.</i> at Fig. 3.) (See also, Ex. 1002 at ¶¶ 54, 129-131.)</p>
<p>recalling one of said stored images, wherein the method further comprises one of editing and reprinting said recalled stored image.</p>	<p>The label printer disclosed in Suzuki also “detected that the printing data is already stored therein, [and] determined that the label printing operation was previously effected based on the same printing data as the input printing data. Then, image data corresponding to the input printing data [was] read out from the frame memory 9 and [was] used for the label printing operation.” (Ex. 1004 at 5:7-14.) (See also, Ex. 1002 at ¶¶ 132-133.)</p> <p>The printing apparatus of Nagashima “can instruct the reusing of printing information, without being instructed by an external apparatus, such as a host computer or word processor.” (Ex. 1006 at 1:32-35; see also <i>id.</i> at 5:6-15 (“The image memory can store a plurality of pages or a plurality of documents of dot data, which have previously been printed, so desired dot data stored in the image memory can be reused later for reprinting an image, for example. Moreover, the dot data stored in the image memory may be reused by operating</p>

Claim	Suzuki and Nagashima
	<p>the control panel of the page printer, without instructions from the host computer, so that the dot data can easily be reused, while the host computer is available for other tasks.”.) Further, the printing apparatus permits the editing of stored printing information by overlaying an image represented by new dot data on an image represented by previously stored dot data in the image memory. Thereafter, the laser beam printer prints the overlaid image. (<i>See id.</i> at 4:25-33.) (<i>See also</i>, Ex. 1002 at ¶¶ 134-135.)</p>
<p>9. A method as claimed in claim 8, comprising storing a maximum of N previously printed labels.</p>	<p>Suzuki disclosed, “As shown in FIG. 4, the frame memory 9 is divided into six memory areas 9A-1 to 9A-6 each used for storing image data for one label.” (Ex. 1004 at 3:31-36; <i>see also id.</i> at 3:41-46 (“The data memory 5B has six memory areas 5B-1 to 5B-6 assigned to the memory areas 9A-1 to 9A-6 of the frame memory 9, for respectively storing printing data corresponding to image data stored in the memory areas 9A-1 to 9A-6 of the frame memory 9.”); 5:24-28 (Thus, “six [n] memory areas 9A-1 to 9A-6 each capable of storing image data for one label are provided in the frame memory 9, and therefore six [n] different items of image data can be stored in the frame memory 9.”.) <i>See also</i> Fig. 4. reproduced below:</p>

Claim	Suzuki and Nagashima
	<div data-bbox="902 352 1185 730" data-label="Diagram"> <p>The diagram shows a vertical stack of six rectangular boxes, each representing a memory area. From top to bottom, they are labeled 'MEMORY AREA 1', 'MEMORY AREA 2', 'MEMORY AREA 3', 'MEMORY AREA 4', 'MEMORY AREA 5', and 'MEMORY AREA 6'. To the right of each box is a label: '9A-1', '9A-2', '9A-3', '9A-4', '9A-5', and '9A-6'. A short horizontal line connects each label to the right edge of its corresponding box.</p> </div> <p data-bbox="938 751 1045 781" style="text-align: center;">F I G. 4</p> <p data-bbox="656 823 1430 863"><i>(Id. at Fig. 4. See also, Ex. 1002 at ¶¶ 45, 136-137.)</i></p>
<p>10. A method as claimed in claim 9, wherein when the number of labels stored is greater than N, the oldest label is deleted.</p>	<p>Nagashima disclosed that “when the image memory 16 does not have memory area to store further dot data, the CPU 11 erases old dot data from the image memory 16 and registers a new identification (S5).” (Ex. 1006 at 3:64-67. <i>See also, Ex. 1002 at ¶¶ 138-139.</i>)</p>

IX. CONCLUSION

For the foregoing reasons, Esselte respectfully requests institution of IPR for claims 8-10 of the '567 patent because there is a reasonable likelihood that Esselte will prevail on the claims challenged in this Petition, and Esselte respectfully requests that these claims be declared unpatentable and canceled.

Dated: February 19, 2015

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing corrected petition for *inter partes* review was served on February 19, 2015, by delivering a copy to FEDERAL EXPRESS directed to the attorneys of record for the '567 patent at the following address:

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