

**THIS OPINION WAS NOT WRITTEN FOR PUBLICATION**

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** RICHARD A. RELPH

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Appeal No. 96-0281  
Application 08/248,625<sup>1</sup>

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HEARD: June 10, 1999

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Before URYNOWICZ, FLEMING and RUGGIERO, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge.***

**DECISION ON APPEAL**

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<sup>1</sup> Application for patent filed May 24, 1994. According to Appellant, the application is a continuation-in-part of Application 07/760,620, filed September 16, 1991, abandoned.

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This is a decision on appeal from the final rejection of claims 15 through 27, all of the claims pending in the present application. Claims 1 through 14 have been cancelled.

The invention relates to a system and method for using a memory management unit to reduce memory requirements for the operation of a laser printer. Independent claim 15 is reproduced as follows:

15. A system for managing data in a peripheral device, said device being responsive to a host computer, the system comprising:

a processing means for receiving said data from said host computer and for processing said data;

a memory means coupled with said processing means for receiving said data from such processing means and for storing said data, said memory means comprising a plurality of storage locations, said memory means receiving a physical address corresponding to one storage location of said plurality of storage locations, said memory means storing said data at a storage location corresponding to said physical address;

a memory management unit for controlling communication of said data between said processing means and said memory means, said memory management unit being coupled with said processing means and with said memory means, said memory management unit receiving a virtual address from said processing means, determining said physical address from said virtual address, and providing said physical address to said memory means; and

a compression means for reading said data stored in a first predetermined number of said plurality of storage

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locations, compressing said data to produce compressed data, and storing said compressed data in a second predetermined number of said plurality of storage locations, said second predetermined number being less than said first predetermined number;

said memory management unit determining an amount of said data stored within said memory means and generating a compression signal when said amount exceeds a predetermined threshold;

said compression means responding to said compression signal to compress said data.

The Examiner relies on the following reference:

Sakata et al. (Sakata)                    5,105,284                    Apr. 14, 1992

Claims 15 through 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sakata.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the briefs<sup>2</sup> and answer for the respective details thereof.

**OPINION**

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<sup>2</sup> Appellant filed an appeal brief on May 1, 1995. Appellant filed a reply brief on August 23, 1995. The Examiner stated in the Examiner's letter mailed August 30, 1995 that the reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

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We will not sustain the rejection of claims 15 through 27 under 35 U.S.C. § 103.

The Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. **In re Sernaker**, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." **Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.**, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), **cert. denied**, 117 S.Ct. 80 (1996) **citing W. L. Gore & Assoc., Inc. v. Garlock, Inc.**, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984).

On pages 6 and 7 of the brief, Appellant argues that Sakata fails to teach or suggest that compression occurs only when the amount of stored data exceeds a predetermined thresh-

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old. Appellant points out that in clear contrast, Sakata teaches compressing all of the data. Appellant further emphasizes this argument in the reply brief.

On page 5 of the answer, the Examiner argues that Appellant fails to claim the selection between compressed data and non-compressed data. On page 6 of the answer, the Examiner argues that Sakata teaches compressing data based upon the amount of storage capacity left. For this teaching, the Examiner relies on Sakata's abstract.

We note that Appellant's claim 15 recites "said memory management unit determining an amount of said data stored within

said memory means and generating a compression signal when said amount exceeds a predetermined threshold." We note that Appellant's claims 20, 23 and 26, which are the other independent claims, contain similar limitations.

Upon a careful review of Sakata, we fail to find that Sakata teaches a memory management unit that determines an amount of data stored within the memory means and generates

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a compressed signal when said amount exceeds a predetermined threshold. We recognize that Sakata's abstract states that based upon the remaining amount of capacity, image data is compressed and reduced. However, Sakata teaches in column 13, lines 26 through 31, that the operator enters a desired compression ratio on the operation board by using numerical keys or dip switches. In column 13, lines 45 through 49, Sakata teaches that if one tries to store data in the memory without compressing them, despite the limited memory capacity, a code indicative of short memory capacity is applied to the main controller so as to provide such a message on the operation board. Therefore, Sakata does not teach a system which determines the compression ratio, but instead this is determined by the operator. Therefore, Sakata fails to teach or suggest a memory management unit determining the amount of data stored within the memory means and generating a compressed signal when said amount exceeds a predetermined threshold as claimed by Appellant.

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We have not sustained the rejection of claims 15 through 27 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

**REVERSED**

	STANLEY M. URYNOWICZ, JR.	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	BOARD OF
PATENT		)	
	MICHAEL R. FLEMING	)	APPEALS AND
	Administrative Patent Judge	)	
INTERFERENCES		)	
		)	
		)	
	JOSEPH RUGGIERO	)	
	Administrative Patent Judge	)	

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