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United States Patent [19] Marbry et al.

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[54] **AUTOMATIC INSTALLATION OF PRINTERS IN A DISTRIBUTED ENVIRONMENT**

5,327,526 7/1994 Nomura et al. 395/115
5,353,388 10/1994 Motoyama 395/117
5,371,837 12/1994 Kimber et al. 395/114

[75] Inventors: **Jonathan E. Marbry; Samuel J. McKelvie**, both of Bellevue; **David H. Tryon**, Redmond; **Lin F. Shaw**, Redmond; **Chia-Chi Teng**, Redmond, all of Wash.

OTHER PUBLICATIONS

McClelland, Deke, "Macintosh System 7.1: Everything You Need to Know," second edition, 1992, pp. 106-110, 379, 384-387 Alameda, Ca.

[73] Assignee: **Microsoft Corporation**, Redmond, Wash.

Microsoft® Windows NT™ System Guide, Microsoft Corporation, Mar. 1993, Chapter 6, "Print Manager," pp. 173-201.

[21] Appl. No.: **641,087**

McClelland, Deke, *Macintosh® System 7.1: Everything You Need To Know*, 2d. ed., Sybex®, San Francisco, California 1993, pp. 106-110, 379, 384-387.

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Primary Examiner—Raymond J. Bayerl
Assistant Examiner—Steven P. Sax
Attorney, Agent, or Firm—Seed and Berry LLP

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[58] Field of Search 395/114, 101, 395/115, 112, 111, 110

[57] ABSTRACT

An operating system provides a point-and-print capability to users of the workstation. The point-and-print capability allows a user to print on any printer available within a distributed system by simply selecting a printer and requesting to print on the printer. The retrieval of configuration information and installation of the printer is performed transparently relative to the user of the workstation. The required printer configuration information is retrieved from a database that is maintained at a network server for the network that includes the target printer. A heuristic technique is employed to obtain complete printer configuration information when such printer configuration is not fully available from the network server.

[56] References Cited

U.S. PATENT DOCUMENTS

4,698,688	10/1987	Ochi et al.	358/257
4,829,468	5/1989	Nonaka et al.	364/900
5,150,454	9/1992	Wood et al.	395/115
5,228,118	7/1993	Sasaki	395/112
5,268,993	12/1993	Ikenoue et al.	395/114
5,287,194	2/1994	Lobiondo	358/296
5,287,434	2/1994	Bain et al.	395/101
5,299,296	3/1994	Padalino et al.	395/112
5,303,336	4/1994	Kageyama et al.	395/114

26 Claims, 9 Drawing Sheets



