United States Patent [19]

Ferrel et al.

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[54] **INFORMATION RETRIEVAL SYSTEM IN AN ON-LINE NETWORK INCLUDING SEPARATE CONTENT AND LAYOUT OF PUBLISHED TITLES**

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

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: **08/560,281**

[22] Filed: **Nov. 17, 1995**

Related U.S. Application Data

[63] Continuation of application No. 08/503,343, Jul. 17, 1995.

[51] **Int. Cl.**^{6} **G06F 17/30**

[52] **U.S. Cl.** **707/3**; 707/103; 707/104; 707/500; 707/517; 707/525; 707/522; 707/526

[58] **Field of Search** 395/600, 614, 395/615, 610; 707/522, 104, 103, 3, 500, 517, 525, 526; 358/403

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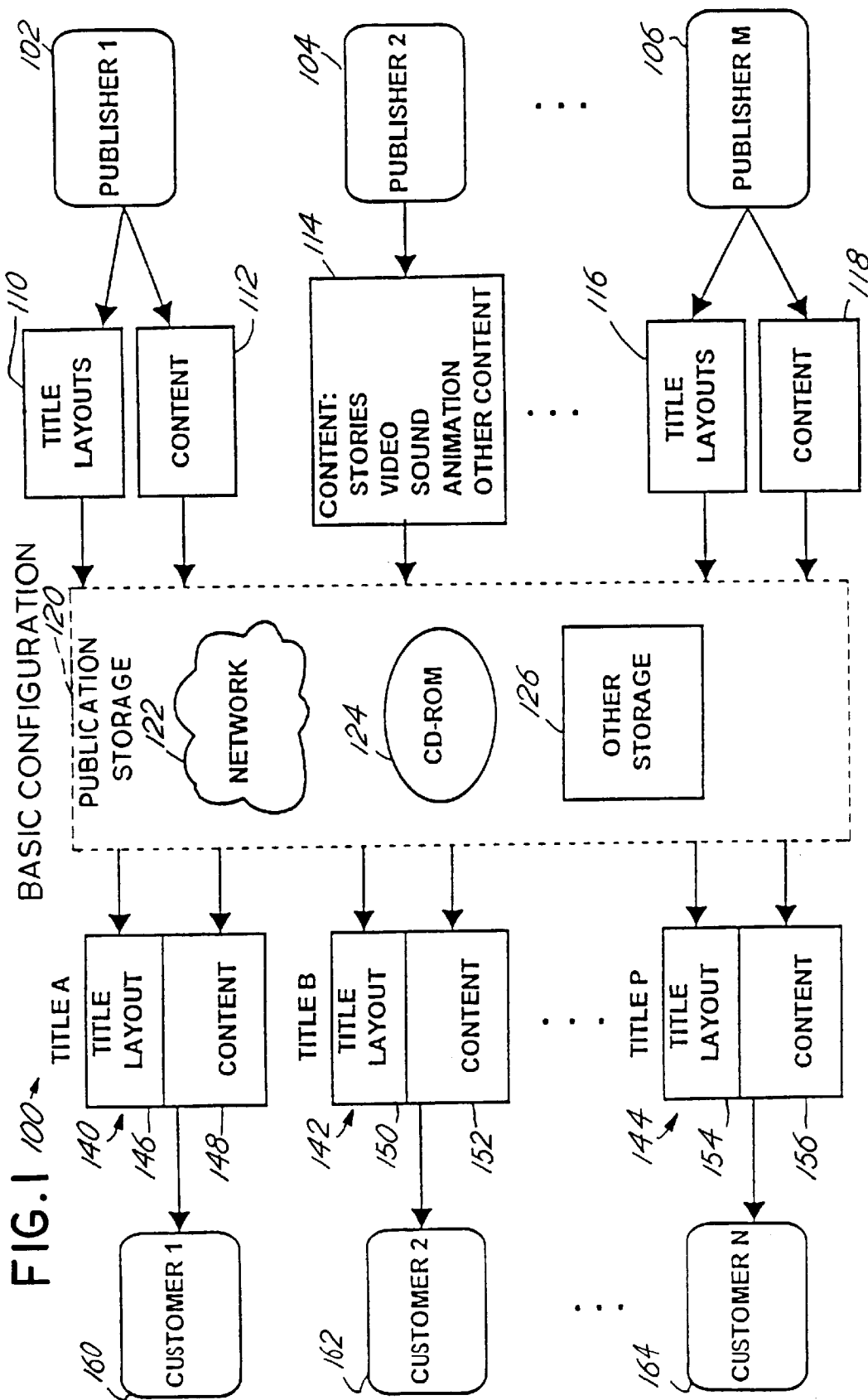
[57] **ABSTRACT**

A information retrieval system wherein design and content are separated. Within a section of a title, a designer can layout pages with controls that define areas for content to be inserted into the pages. Two commonly used controls in the system are a static story control, wherein a preselected story is statically placed on a page in the area defined by the control, and a dynamic story control, wherein the designer defines search objects to retrieve stories. An information retrieval (IR) server indexes and searches stories in titles. Indexing takes place when a title is released to the network by a publisher workstation. The IR server interrelates title, section and story objects by their globally unique identifiers and creates a routing table which is used to locate objects across multiple database partitions. The IR search service is requested in two different ways at customer runtime. The first way is the resolution of the search objects to retrieve matching stories. The retrieved stories are concatenated and poured into the area defined by the dynamic control when the title is viewed. In the second way, the IR search service is requested when a search is initiated by a customer using a "find" dialog to search across all stories in one or more titles, both dynamic and static.

65 Claims, 24 Drawing Sheets
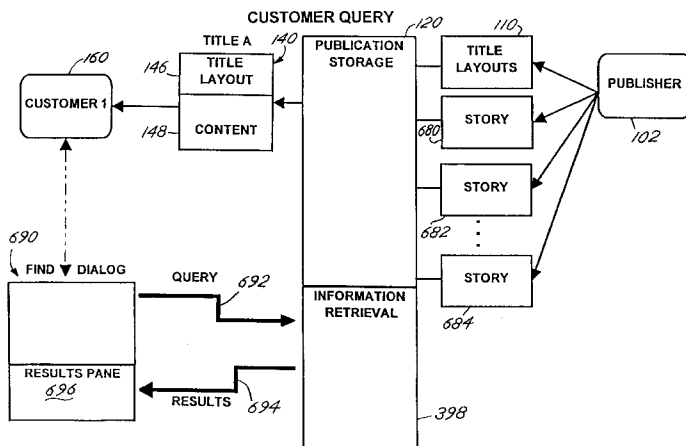
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FIG.1

FIG.2

BASIC SYSTEM COMPONENTS

PUBLISHER WORKSTATION

180

PROJECT EDITOR — 184

MULTIMEDIA PUBLISHER SYSTEM DOCUMENT EDITOR — 188

OLE — 198

PAGE EDITOR — 186

STYLE SHEET EDITOR — 187

SEARCH OBJECT EDITOR — 189

SOUND EDITOR — 190

IMAGE EDITOR — 192

OTHER MEDIA EDITOR — 193

194

102

NETWORK

122

CUSTOMER WORKSTATION

182

VIEWER — 202

160

FIG.3

DOCKET ALARM
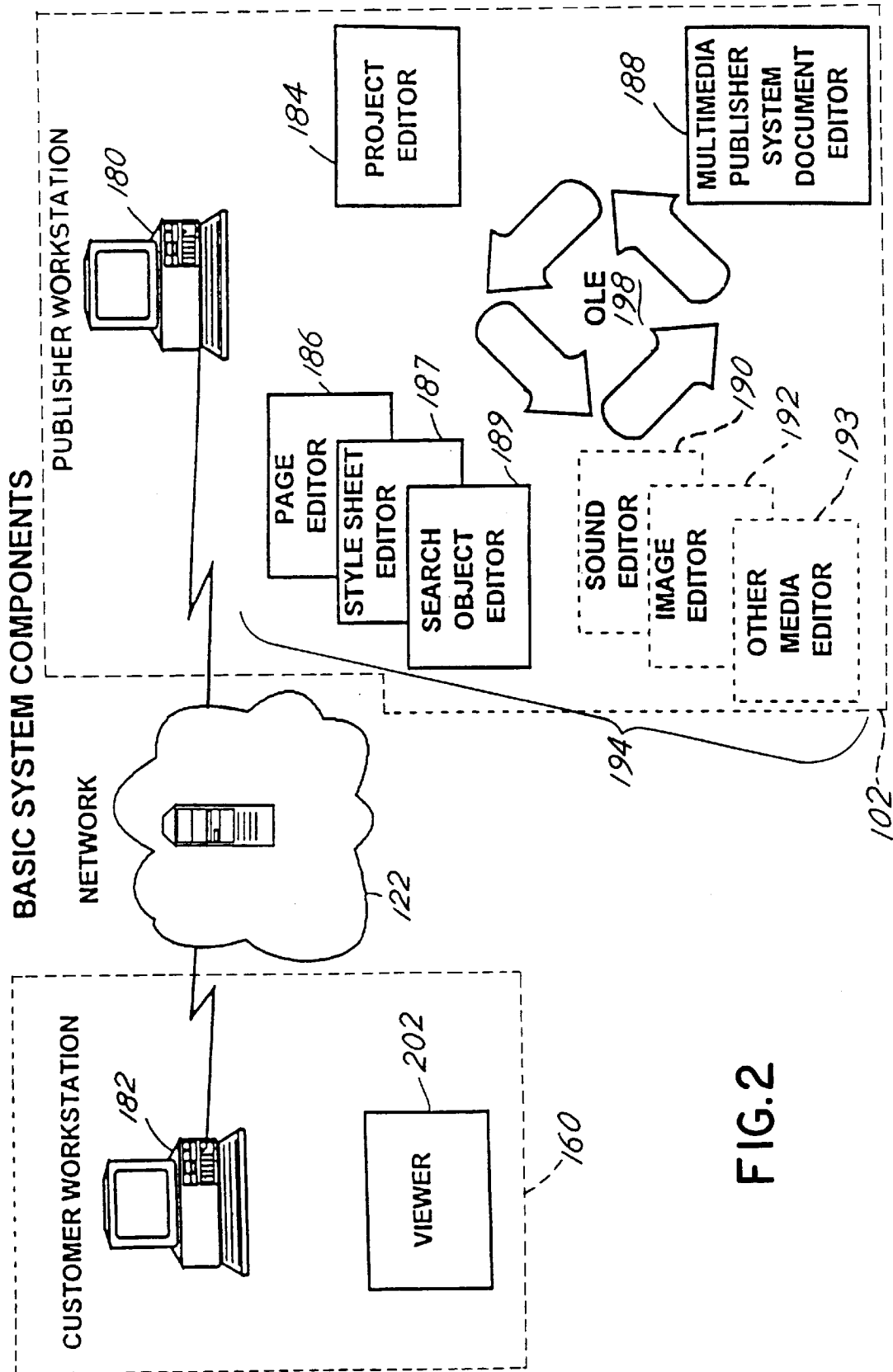
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