EXHIBIT 6

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Bixler et al.

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(54) **AUTOMATED CONFIGURATION OF INTERNET-LIKE COMPUTER NETWORKS**

(75) Inventors: **David C. Bixler**, Hermosa Beach; **Eufemia P. Hilger**, Torrance, both of CA (US); **Jeffrey A. Smith**, Albuquerque, NM (US); **Mark R. Wittlin**, Hermosa Beach; **Neil G. Siegel**, Rancho Palos Verdes, both of CA (US)

(73) Assignee: **TRW Inc.**, Redondo Beach, CA (US)

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(58) **Field of Search** 709/204–205, 709/220–224, 227–228, 238–242; 345/333–334, 356, 969

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,751,967	*	5/1998	Raab et al.	709/228
5,774,689	*	6/1998	Curtis et al.	709/205
5,838,907	*	11/1998	Hansen	709/220
5,889,954		3/1999	Gessel et al.	709/223
5,913,921	*	6/1999	Tosey et al.	709/220
5,983,269	*	11/1999	Mattson et al.	709/221
6,003,075	*	12/1999	Arendt et al.	709/221
6,012,088	*	1/2000	Li et al.	709/220
6,085,238	*	7/2000	Yuasa et al.	709/223

FOREIGN PATENT DOCUMENTS

0797330	9/1997	(EP)	....	H04L/12/24
0889656	1/1999	(EP)	....	H04L/12/24

OTHER PUBLICATIONS

Dynamic LAN Reconfiguration Mechanism, IBM Technical Disclosure Bulletin vol. 37, No. 11, Nov. 1994, p. 407–410.
Intelligent Resource Dimensioning In ATM Networks, ISS Symposium, Apr. 23, 1995, vol. 2.

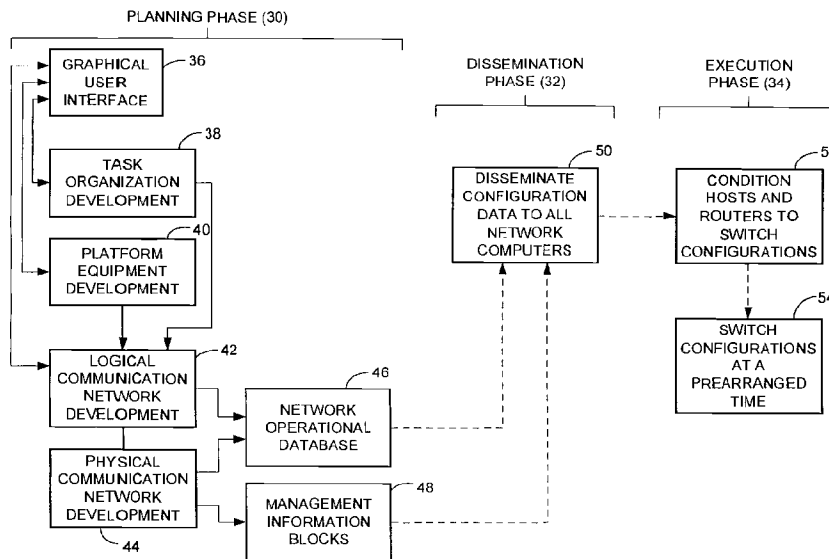* cited by examiner

Primary Examiner—Meng-Ai T. An
Assistant Examiner—Bharat Barot
(74) *Attorney, Agent, or Firm*—Michael S. Yatsko

(57) **ABSTRACT**

A system and corresponding method of its operation, for configuring a communication network of multiple interconnected computers. The system includes a graphical user interface **(36)** that facilitates the functions of task organization development **(38)**, platform equipment development **(40)**, address book development **(60)** and logical network development **(42)** in a simulated planning phase of operation **(30)**. Using the system, an authorized user performs these development functions to define one or more logical communication networks, and then the system automatically generates specifications for a corresponding physical communication network **(44)**, including management information blocks **(74)**. In a dissemination phase of operation **(32)**, the management information blocks are transmitted **(50)** to the network computers. In an execution phase of operation **(34)**, the received management information blocks are used to condition **(52)** the network computers to switch to the new configuration upon receipt of a timing or command signal, when the computers all switch to a new configuration **(54)** at the same time.
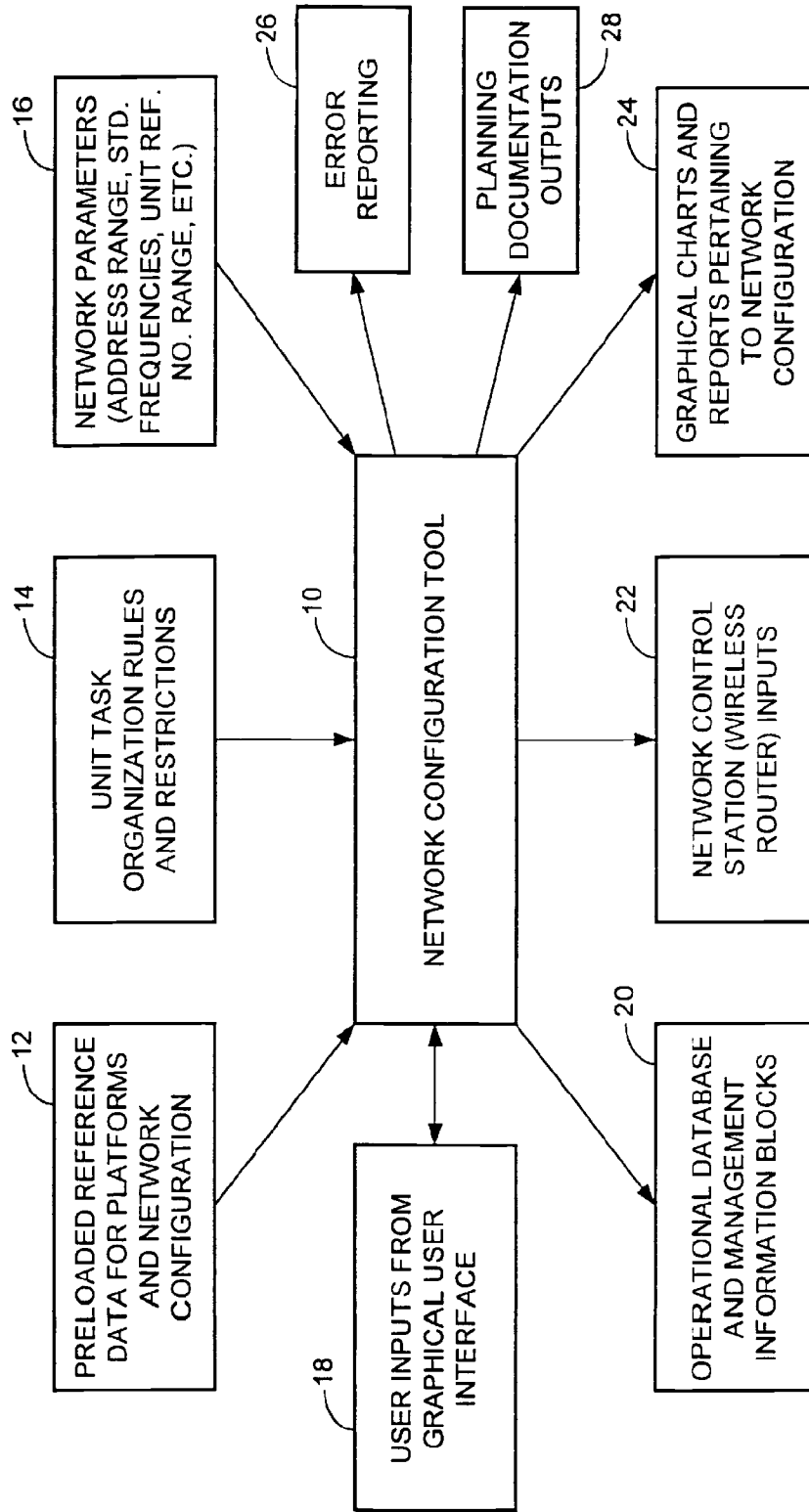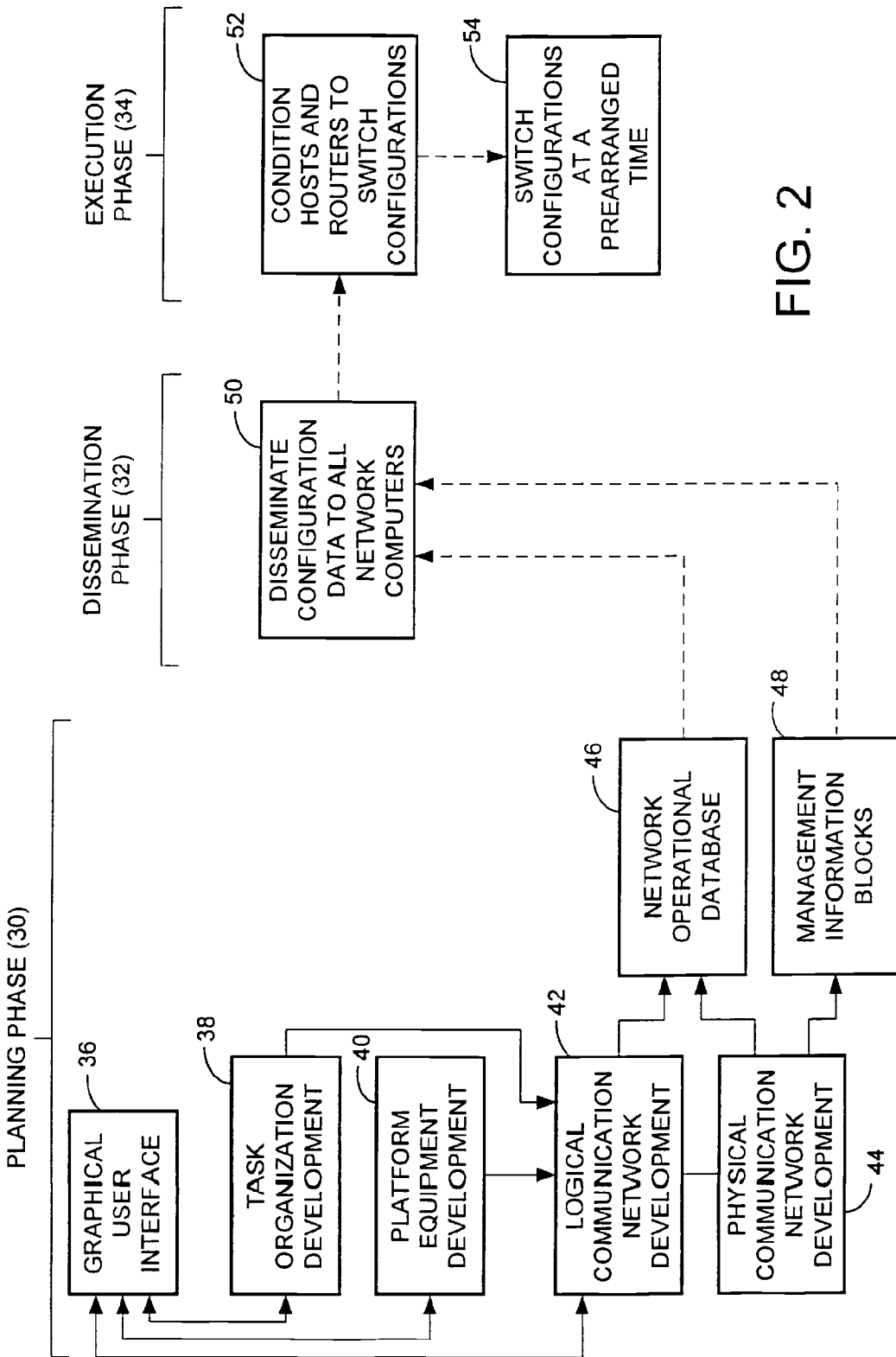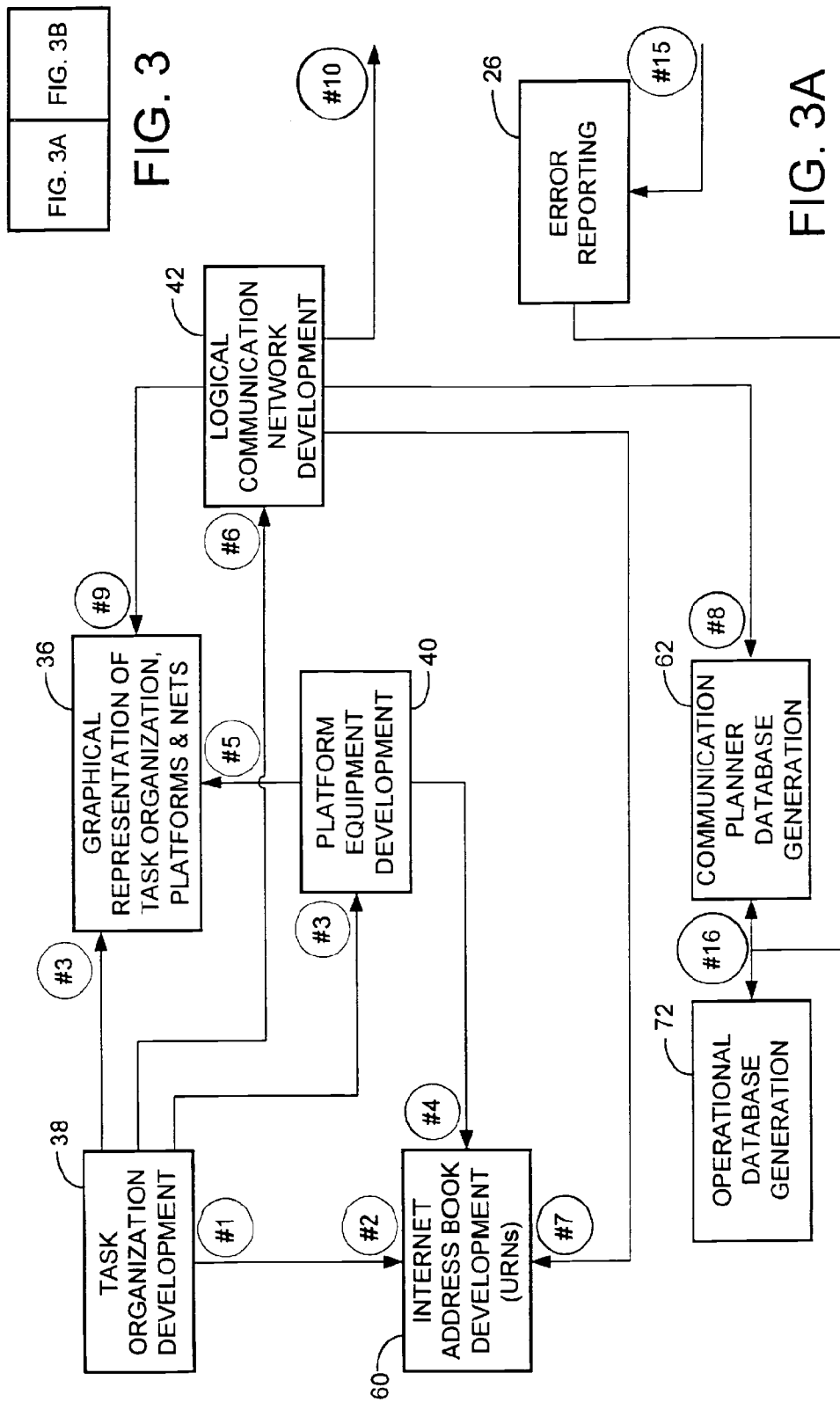
16 Claims, 19 Drawing Sheets

FIG. 1

NETWORK PARAMETERS (ADDRESS RANGE, STD. FREQUENCIES, UNIT REF. NO. RANGE, ETC.) 16

ERROR REPORTING 26

PLANNING DOCUMENTATION OUTPUTS 28

GRAPHICAL CHARTS AND REPORTS PERTAINING TO NETWORK CONFIGURATION 24

UNIT TASK ORGANIZATION RULES AND RESTRICTIONS 14

NETWORK CONFIGURATION TOOL 10

NETWORK CONTROL STATION (WIRELESS ROUTER) INPUTS 22

PRELOADED REFERENCE DATA FOR PLATFORMS AND NETWORK CONFIGURATION 12

USER INPUTS FROM GRAPHICAL USER INTERFACE 18

OPERATIONAL DATABASE AND MANAGEMENT INFORMATION BLOCKS 20

FIG. 2

FIG. 3

FIG. 3A | FIG. 3B

FIG. 3A

LOGICAL COMMUNICATION NETWORK DEVELOPMENT — 42

ERROR REPORTING — 26

GRAPHICAL REPRESENTATION OF TASK ORGANIZATION, PLATFORMS & NETS — 36

PLATFORM EQUIPMENT DEVELOPMENT — 40

COMMUNICATION PLANNER DATABASE GENERATION — 62

TASK ORGANIZATION DEVELOPMENT — 38

INTERNET ADDRESS BOOK DEVELOPMENT (URNs) — 60

OPERATIONAL DATABASE GENERATION — 72

#10, #15, #9, #6, #8, #5, #3, #16, #3, #1, #2, #4, #7

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