US005835765A

United States Patent [19]

Matsumoto

[11] **Patent Number:** 5,835,765

[45] **Date of Patent:** *Nov. 10, 1998

[54] **COMPUTER OPERATION MANAGEMENT SYSTEM FOR A COMPUTER OPERATING SYSTEM CAPABLE OF SIMULTANEOUSLY EXECUTING PLURAL APPLICATION PROGRAMS**

[75] Inventor: **Hajime Matsumoto**, Itami, Japan

[73] Assignee: **Mitsubishi Denki Kabushiki Kaisha**, Tokyo, Japan

[*] 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.: **539,007**

[22] Filed: **Oct. 4, 1995**

[30] **Foreign Application Priority Data**

May 31, 1995 [JP] Japan 7-133920

[51] **Int. Cl.**[6] **G06F 9/46**
[52] **U.S. Cl.** **395/672**; 395/674; 395/677
[58] **Field of Search** 395/650, 672, 395/674, 677; 364/281.7, 281.8, 281.4, 281, 281.6, 284.3, 285.3, 286.4, 265

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Primary Examiner—Lucien U. Toplu
Attorney, Agent, or Firm—McDermott, Will & Emery

[57] **ABSTRACT**

A computer operation management system comprises a computer having a central processing unit, a main memory and, an auxiliary memory, an operating system for operating the computer so as for the computer to execute plural application, programs simultaneously and a process manager for monitoring an execution status of plural application programs to control the number of application programs simultaneously executed and their execution priorities.

11 Claims, 14 Drawing Sheets
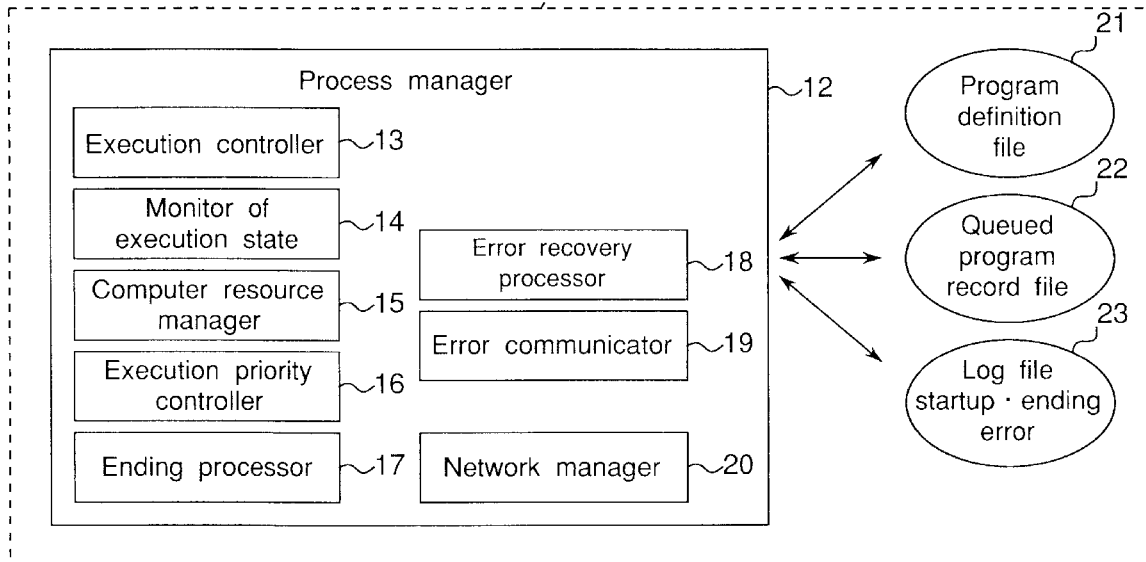

11 Computer operation management system

Fig.1

Fig.2

11 Computer operation management system

21 Program definition file

22 Queued program record file

23 Log file startup · ending error

12

Process manager

13 Execution controller

14 Monitor of execution state

15 Computer resource manager

16 Execution priority controller

17 Ending processor

18 Error recovery processor

19 Error communicator

20 Network manager
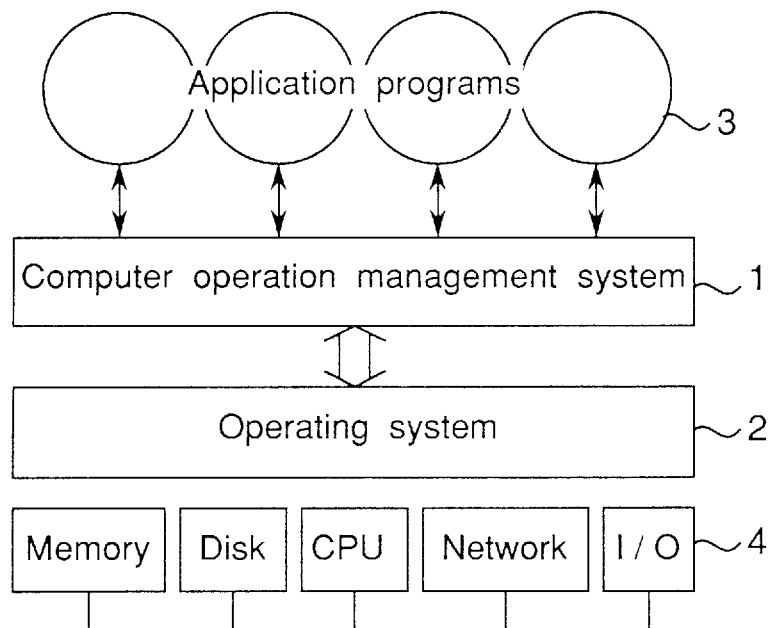
Fig.3

Computer operation management system

Fig.4

Execution controller

```
         ┌─────────┐
         │  START  │
         └─────────┘
              │
S41  ┌──────────────────────────┐
     │ Program startup request  │
     └──────────────────────────┘
              │
S42  ┌──────────────────────────┐
     │     Reading max. No.     │
     │   from definition file   │
     └──────────────────────────┘
              │
              ▼◄──────────────────────────┐
S43  ┌──────────────────────────┐         │
     │    Counting programs     │         │  Check after
     │      in execution        │         │  constant time
     └──────────────────────────┘         │
              │                            │
              ▼            NO        S47   │
S44     ╱──────────╲    ──────►  ┌──────────────────┐
       ╱ Count No.< ╲            │   Writing into   │
       ╲  Max. No.  ╱            │  request queue   │
        ╲──────────╱            └──────────────────┘
              │ YES
S45  ┌──────────────────────────┐
     │     Program startup      │
     └──────────────────────────┘
              │
S46  ┌──────────────────────────┐
     │   Writing startup log    │
     └──────────────────────────┘
              │
         ┌─────────┐
         │   END   │
         └─────────┘
```

DOCKET ALARM
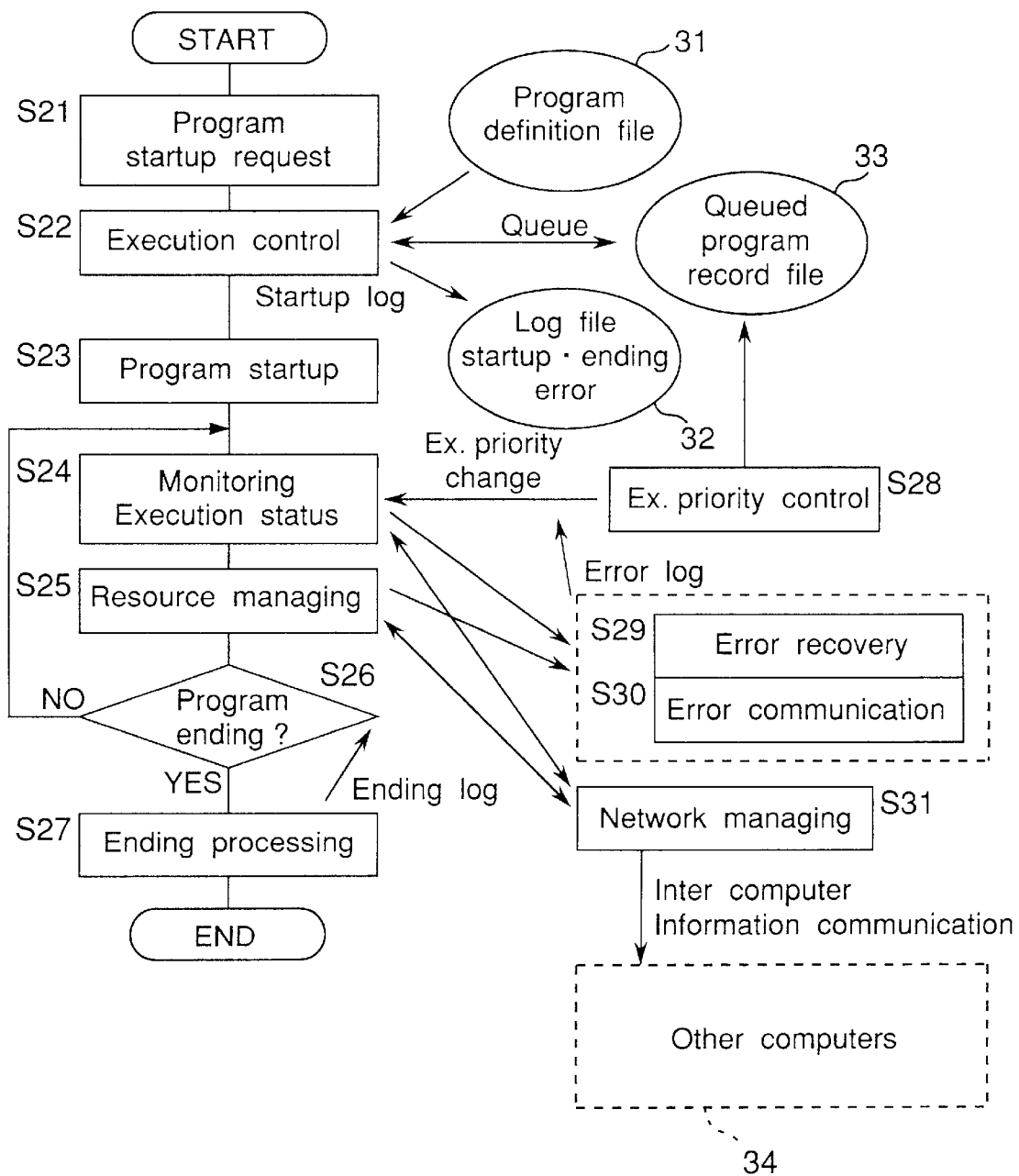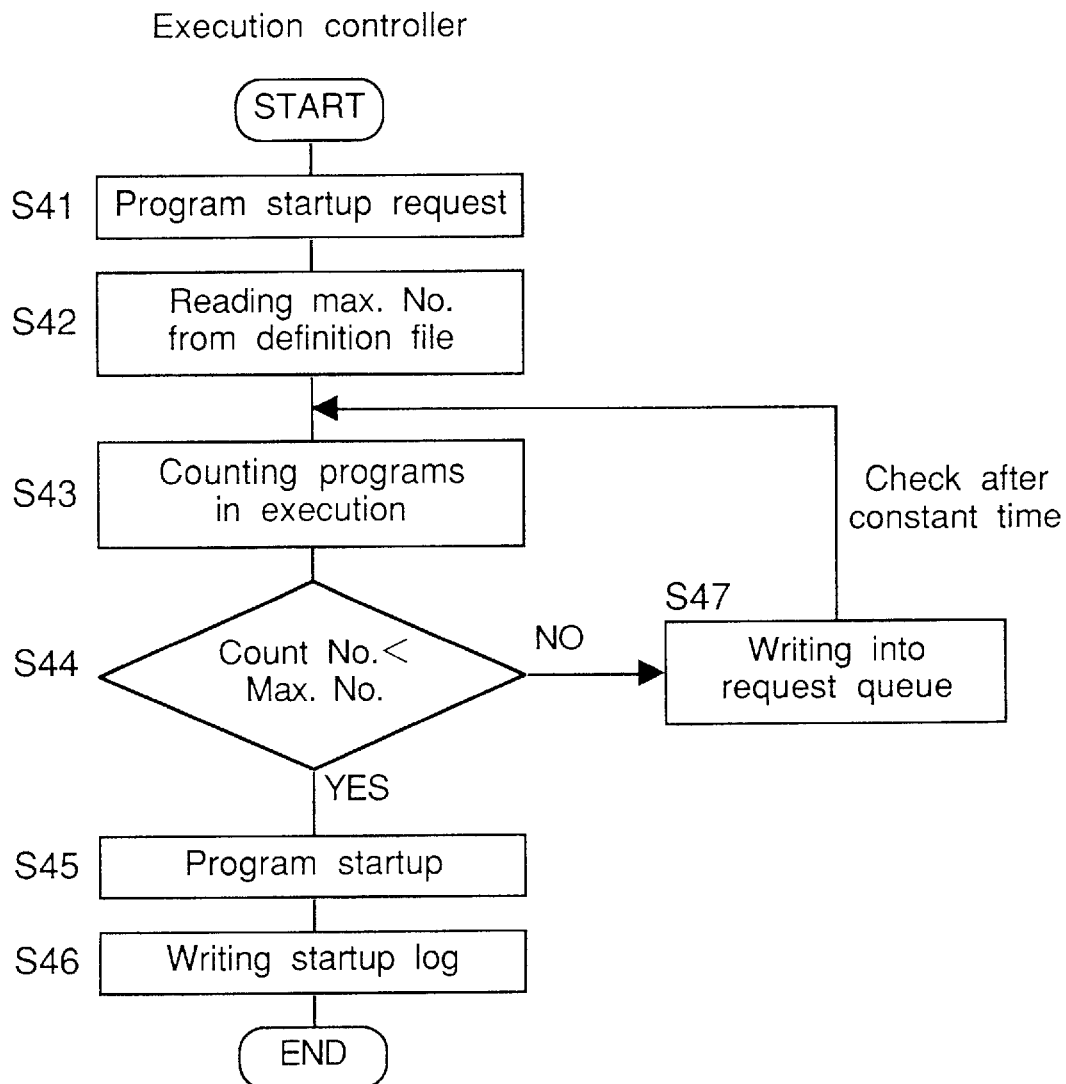
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