



US 20070279392A1

(19) **United States**

(12) **Patent Application Publication**
Rosenberg et al.

(10) **Pub. No.: US 2007/0279392 A1**

(43) **Pub. Date: Dec. 6, 2007**

(54) **NETWORKED APPLICATIONS INCLUDING HAPTIC FEEDBACK**

of application No. 08/664,086, filed on Jun. 14, 1996, now Pat. No. 6,028,593.

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(60) Provisional application No. 60/017,803, filed on May 17, 1996.

Publication Classification

(51) **Int. Cl.**
G06F 3/041 (2006.01)

(52) **U.S. Cl.** **345/173; 463/1**

(57) **ABSTRACT**

Method and apparatus for providing peer-to-peer force feedback over a computer network. A network force feedback system includes a network, a first computer coupled to the network, and a second computer coupled to the network. The first and second computers each include a visual display and a force feedback interface device. Each computer provides a force feedback signal to its force feedback device based on information received from the other, remote computer and in some cases also based on input from the local force feedback device. Positional information of each force feedback device and/or feel sensation information can be transmitted between the computers over the network. A graphical environment can be displayed to enhance the interaction between users. The present invention therefore permits two computer users to interact using force feedback provided over a network on a peer-to-peer basis.

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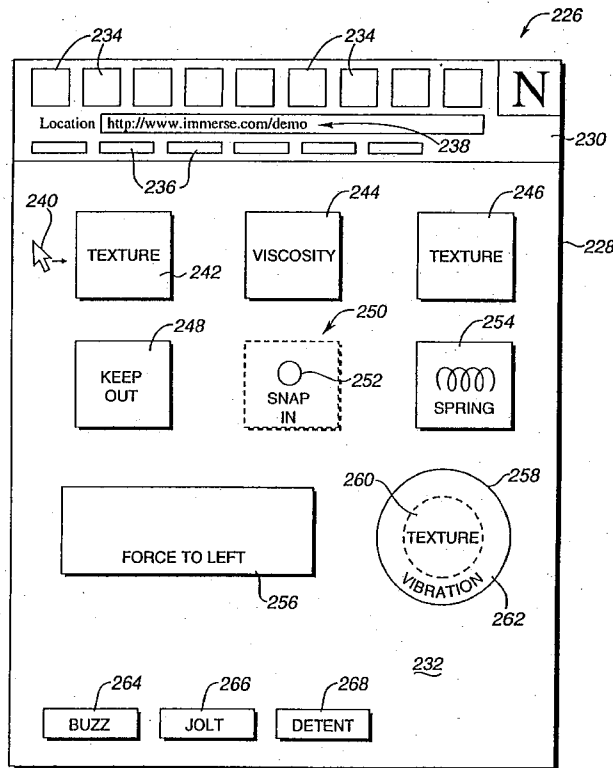
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(21) Appl. No.: **10/615,927**

(22) Filed: **Jul. 10, 2003**

Related U.S. Application Data

(63) Continuation of application No. 09/153,781, filed on Sep. 16, 1998, which is a continuation-in-part of application No. 09/050,665, filed on Mar. 30, 1998, now Pat. No. 6,219,033, which is a continuation of application No. 08/566,282, filed on Dec. 1, 1995, now Pat. No. 5,734,373, and which is a continuation of application No. 08/571,606, filed on Dec. 13, 1995, now Pat. No. 6,219,032, and which is a continuation of application No. 08/691,852, filed on Aug. 1, 1996, now Pat. No. 5,956,484, and which is a continuation



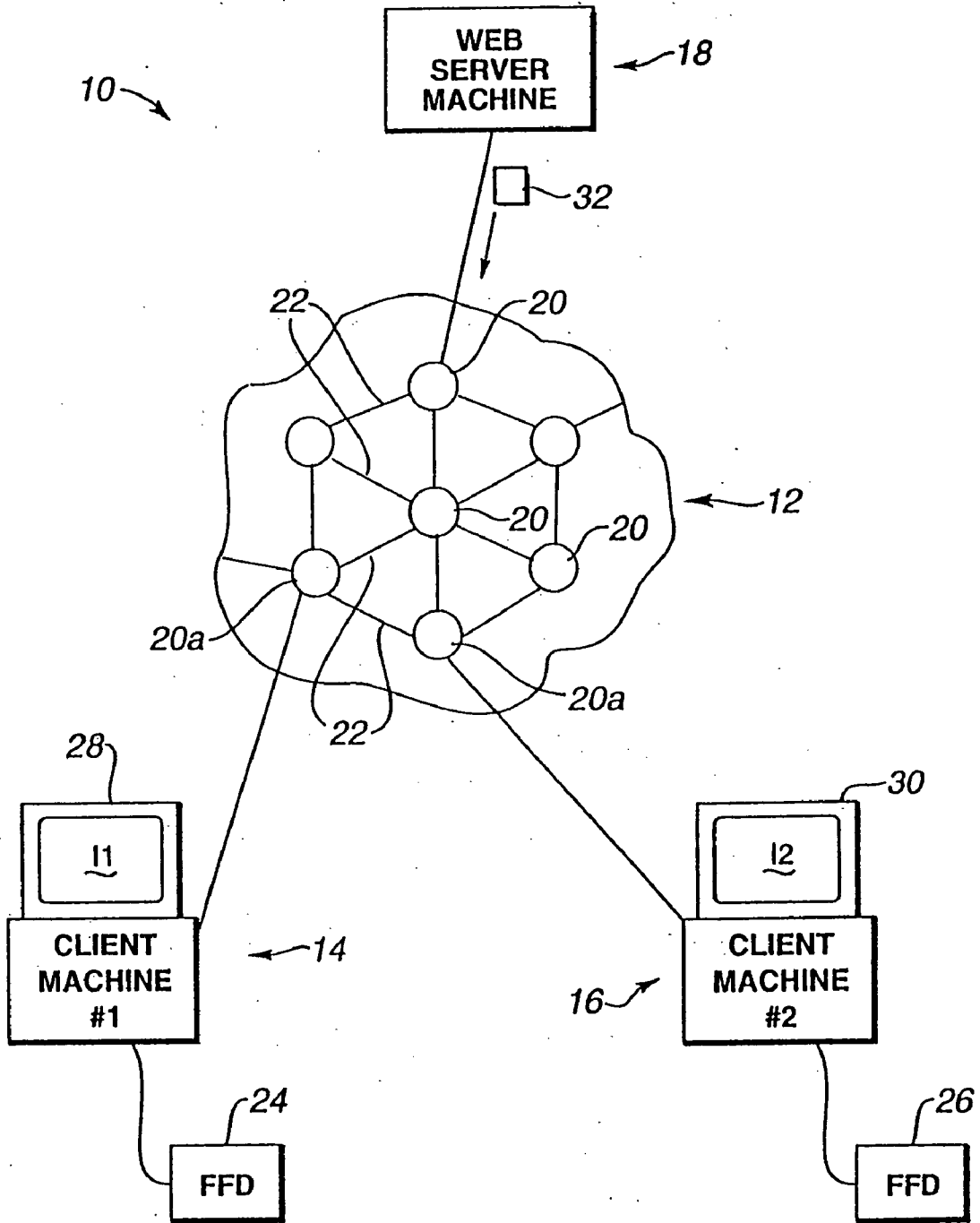


Figure 1

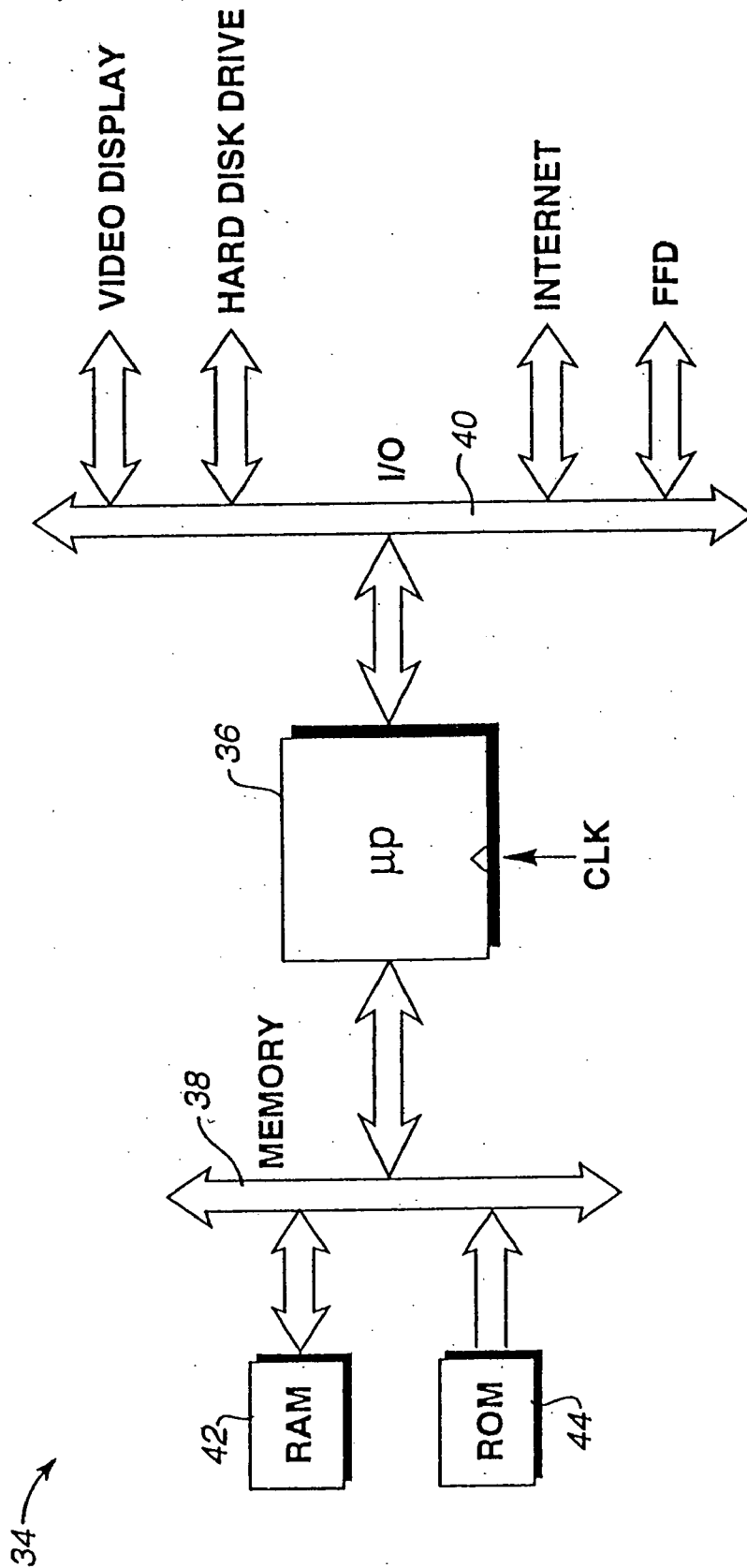


Figure 2

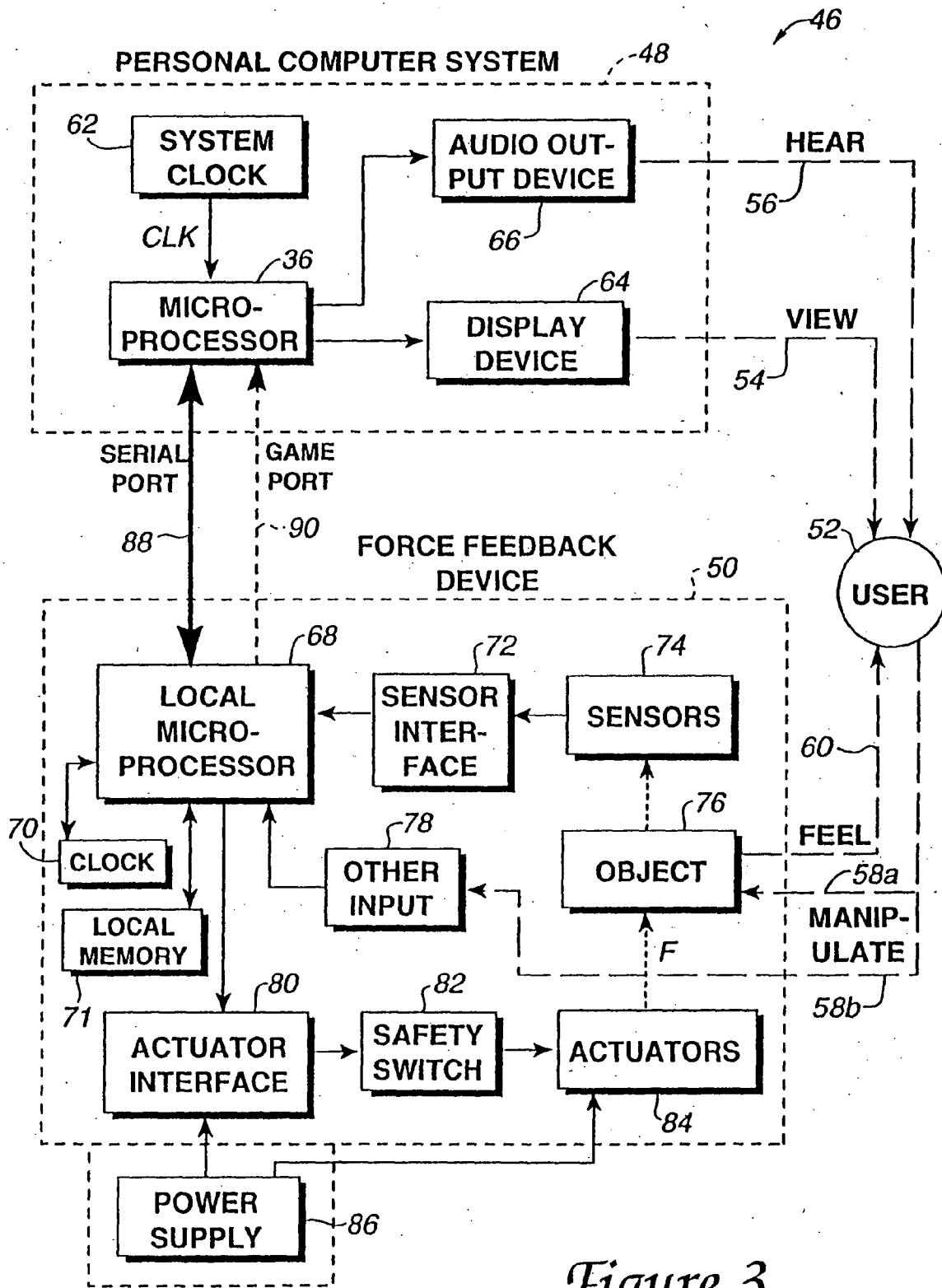
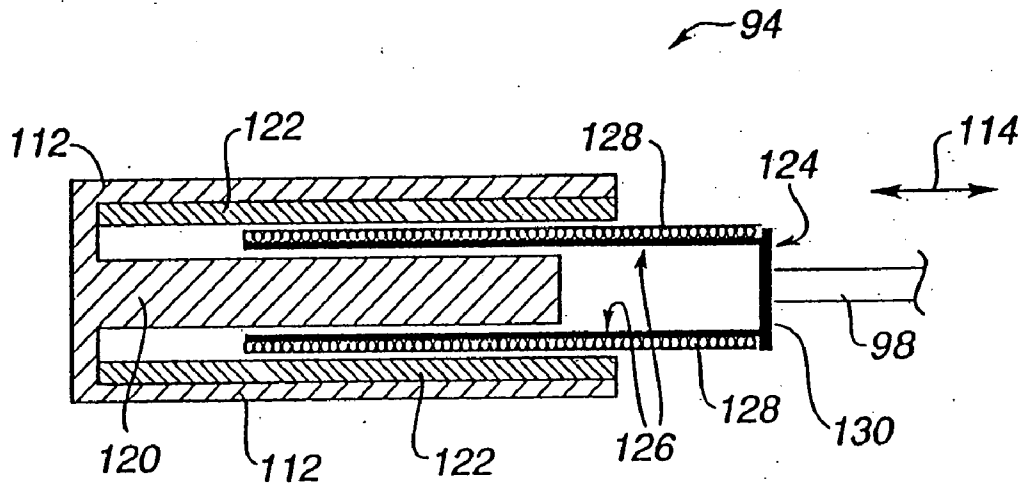
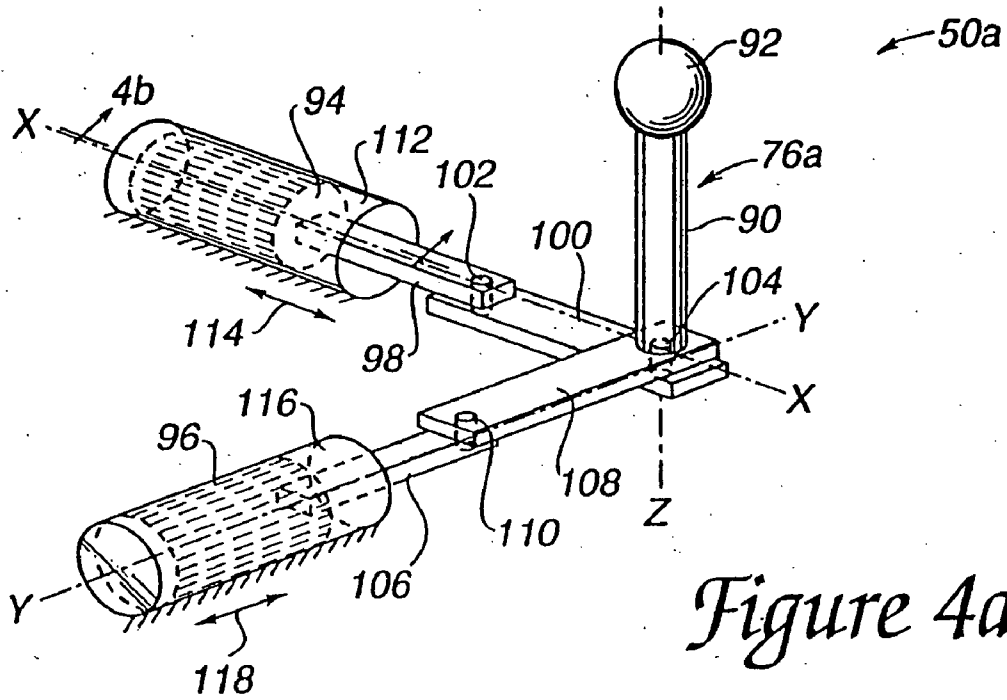


Figure 3



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