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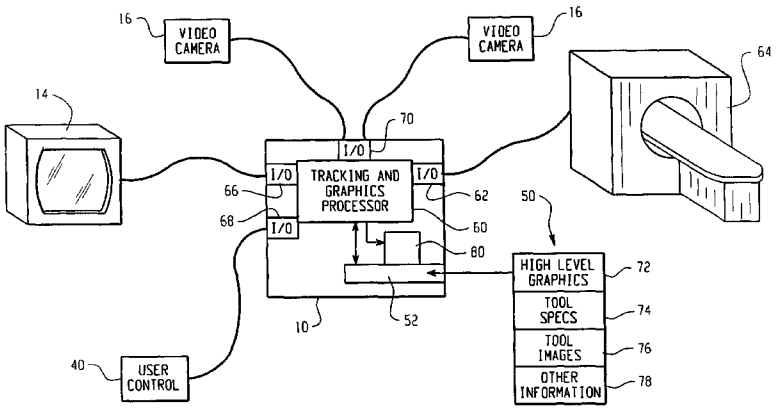
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(54) Title: DIGITAL MEDIUM ENHANCED IMAGE-GUIDED PROCEDURE SYSTEM AND METHOD



(57) Abstract: A software-integrated disposable kit (20) contains a series of sterile packages which hold instrumented tools (26, 28, 30), accessories (42, 44, 46) which are implanted or used during a procedure, peripherals (40) e.g., mouse, keyboard, etc., for a user input control (34) for controlling a computer (10), markers (32) which are tracked by a tracking system (16), all in sterile condition, and a one time use digital medium (50). When an image-guided procedure is to be performed, the digital medium is inserted into the computer (10) and the user interface is displayed. The digital medium stores a portion of the software which, in combination with software on the computer, provides all of the software necessary for full user functionality, which includes display of selected diagnostic image information, tracking of the instruments, and superimposition of the virtual representations of the tools on the images, descriptions, specifications and characteristics of the specific tools in the kit, and 3D virtual representations or images of the instrumented tools for wire frame or rendered display of the tools (14). At the end of a procedure, the digital medium is deactivated or encrypted (80). The digital medium and the used tools are then disposed of without reuse. The system allows the user to save relevant information obtained from the procedure, e.g., images, notes, etc. on the digital medium which is encrypted against reuse and archived.

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