

from the user.

VIII. Conclusion

While this invention has been shown and described with reference to preferred embodiments, it will be understood by those skilled in the art that various changes or modifications in form and detail may be made without departing from the scope of the invention. For example, virtually each aspect of the invention could be implemented either in software or hardware design.

We claim:

1. In an electronic medical device capable of providing services to executing programs in response to requests for services from executing programs, the requests for services specifying a service to be provided, a method for ensuring the integrity of an executing patient monitoring program while simultaneously providing services to an executing non-patient monitoring program, the method comprising the steps of:

executing the patient monitoring program;
 providing the service specified by each request for services from the executing patient monitoring program;
 executing the non-patient monitoring program; and
 declining to provide services as specified by requests for services from the executing non-patient monitoring program if provision of the service as specified would interfere with the executing patient monitoring program,

wherein at least a portion of the requests for services from executing programs specify a window display service for displaying a window containing output from the requesting application, the displayed window having an area, and wherein, for these requests, the declining step is accomplished by the steps of:

providing the window display service specified by the executing non-patient monitoring program;
 detecting an alarm condition; and
 upon detecting the alarm condition, if the displayed window has an area greater than a threshold area, reducing the area of the displayed window.

2. The method of claim 1 wherein the step of declining to provide services is accomplished by omitting to provide any service in response to a request for services from the executing non-patient monitoring program that specifies a service that would interfere with the executing patient monitoring program.

3. The method of claim 2 wherein the electronic medical device has a display device having a display area, and wherein at least a portion of the requests for services from executing programs specify a display service for displaying specified output within the display area, and wherein the providing step is accomplished by displaying the output specified by the request in a location within the display area that is substantially the same as the location specified by the request, and wherein the step of omitting to provide any service that would interfere with the executing patient monitoring program by omitting to display the output specified by the request if the display of the output specified by the request would interfere with the display of output by the executing patient monitoring program.

4. The method of claim 2 wherein the electronic medical device maintains a patient monitoring program color mapping table for mapping virtual color values used by the executing patient monitoring program to real color values, and wherein at least a portion of the requests for services from executing programs specify a patient monitoring program color mapping table alteration service for altering the real color value to which a specified virtual color value used by the executing patient monitoring program maps in the patient monitoring program color mapping table, and wherein the providing step is accomplished by responding to requests specifying the patient monitoring program color mapping table alteration service from the executing patient monitoring program by altering the real color value to which a specified virtual color value used by the executing patient monitoring program maps in the patient monitoring program color mapping table.

5. The method of claim 1 wherein the step of declining to provide any service that would interfere with the executing patient monitoring program is accomplished by responding to requests specifying the patient monitoring program color mapping table alteration service from the executing non-patient monitoring program by omitting to alter the real color value to which the specified virtual color value used by the executing patient monitoring program maps in the patient monitoring program color mapping table.

5. The method of claim 1 wherein requests for services from executing programs further specify, a manner in which the services to be provided, and wherein the step of declining to provide services is accomplished by adaptively providing a service specified by the executing non-patient monitoring program in a manner different from that specified in the request for services that does not interfere with the executing patient monitoring program.

6. The method of claim 5 wherein the electronic medical device has a display device having a display area, and wherein at least a portion of the requests for services from executing programs specify a display service for displaying specified output at a specified location within the display area, and wherein the providing step is accomplished by displaying the output specified by the request in a location within the display area that is substantially the same as the location specified by the request, and wherein the adaptively providing step is accomplished by displaying the output specified by the request in a location within the display area that is as close to the location specified by the request as is possible without interfering with the display of output by the executing patient monitoring program.

7. The method of claim 5 wherein the electronic medical device maintains a patient monitoring program color mapping table for mapping virtual color values used by the executing patient monitoring program to real color values, and wherein at least a portion of the requests for services from executing programs specify a patient monitoring program color mapping table alteration service for altering the real color value to which a specified virtual color value used by the executing patient monitoring program maps in the patient monitoring program color mapping table, and wherein the electronic medical device also maintains a non-patient monitoring program color table for mapping virtual color values used by the executing non-patient monitoring program to real color values, and wherein the providing step responds to requests specifying the patient monitoring program color mapping table alteration service from the executing patient monitoring program by altering the real color value to which a specified virtual color value used by the executing patient monitoring program maps in the patient monitoring program color mapping table, and wherein the adaptively providing step is accomplished by responding to requests specifying the patient monitoring program color mapping table alteration service from the executing non-patient monitoring program by altering the real color value to which a specified virtual color value used by the executing non-patient monitoring program maps in