CLAIMS

1. An in-vehicle information system that ~~grapes~~ grasps a driving state of a vehicle and displays various types of information visualized on a display unit in the vehicle in a predetermined timing, the in-vehicle information system comprising:

a display input unit covering a part or all of a screen area of the display unit and detecting touch operations as operation information; and

an information output unit that outputs the various types of information classified in advance into optional guidance information that can be accessed by the touch operation and optionally-eliminated guidance information that cannot be accessed by the touch operation, displays the optional guidance information and the optionally-eliminated guidance information on the display unit in the predetermined timing when the input unit does not detect the operation information by the touch operation, and displays again the optional guidance information, which has displayed on the display unit, on the display unit when the input unit detects the operation information by the touch operation.

2. The in-vehicle information system according to claim 1, wherein, at a time of display output of the optional guidance information to the display unit, the information output unit stops outputting the optional guidance information and automatically returns to a normal information display screen and a normal display operation to output the various types of guidance information to the

display unit at predetermined timings, when there is no touch operation to the input unit by users for a certain period of time.

3. The in-vehicle information system according to claim 1 or 2, wherein

a plurality of the display input units to which touch operations can be performed are mounted on the vehicle, and

the information output unit synchronizes a timing of automatically returning to the normal information display screen and the normal display operation with a normal information display switching timing of various types of information displayed on display input units to which no touch operation is performed.

4. The in-vehicle information system according to claim 3, wherein, when an event requiring to display emergency guidance information to be transferred to the users occurs during an operation of performing switching synchronous with the normal information display switching timing, the information output unit performs an operation of switching to the emergency guidance information in priority to an operation during waiting for synchronous switching to normal information.

5. The in-vehicle information system according to claim 1 or 2, wherein

a touch-operation available area visualized with a predetermined fixed phrase or a predetermined fixed graphic is clearly indicated in a part of a screen area of the display unit, and

the information output unit outputs the optional guidance information desired by a user to the display unit

according to a touch operation to the touch-operation available area.

6. The in-vehicle information system according to claim 1 or 2, wherein

a touch-operation available area visualized with a translucent predetermined fixed phrase or a translucent predetermined fixed graphic is clearly indicated in a part of a screen area of the display unit, and

the information output unit outputs the optional guidance information desired by a user to the display unit according to a touch operation to the touch-operation available area.

7. The in-vehicle information system according to claim 1 or 2, wherein

a transparent touch-operation available area is provided in a part of a screen area of the display unit, and

the information output unit outputs the optional guidance information desired by a user to the display unit according to a touch operation to the touch-operation available area.

8. The in-vehicle information system according to claim 1 or 2, wherein

a transparent touch-operation available area is provided in a part or all of a screen area of the display unit, and

the information output unit outputs the optional guidance information desired by a user to the display unit according to a touch operation having a direction.

9. The in-vehicle information system according to claim 1 or 2, wherein

a transparent touch-operation available area is provided in a part or all of a screen area of the display unit, and

the information output unit outputs the optional guidance information desired by a user to the display unit according to a touch operation having a direction and an acceleration.

10. The in-vehicle information system according to claim 1 or 2, wherein

a predetermined driving period of the vehicle is classified as a touch-panel operable period and the other period is classified as a touch-panel inoperable period, in the display input unit, and

the information output unit enables accesses to the optional guidance information during the touch-panel operable period and inhibits accesses to the optional guidance information during the touch-panel inoperable period.

11. The in-vehicle information system according to claim 10, wherein the information output unit causes superimposed display of information indicating inoperability as information visualized with a predetermined fixed phrase or a predetermined fixed graphic during the touch-panel inoperable period.

12. The in-vehicle information system according to claim 10 or 11, wherein the information output unit causes superimposed display of information preannouncing impossibility of touch operations and of information

prompting the users to ensure security as information visualized with predetermined fixed phrases or predetermined fixed graphics from a timing that is a certain period before the touch-panel inoperable period starts.