

CLAIMS

1. A transaction method using virtual code, the method comprising:
 - a virtual code reception step in which a virtual code verification means receives a virtual code, and the virtual code is generated by a virtual code generation function included in a virtual code generation means;
 - searching, by the virtual code verification means, for a storage location of a User Identification (UID) in the virtual code;
 - searching, by the virtual code verification means, for control command information stored by matching the found UID; and
 - performing a control command based on the extracted control command information,
 - wherein the virtual code verification means stores a plurality of UIDs and changes control command information matched to each of the plurality of UIDs every preset period.
2. The method of claim 1, further comprising, for each preset period, updating, by the virtual code verification means, period information stored in the virtual code verification means,
 - wherein, when the virtual code verification means updates the period information, the control command information matched to each of the plurality of UIDs and stored is matched to different UIDs and stored.
3. The method of claim 2, further comprising verifying, by the virtual code verification means, the virtual code using the stored period information.
4. The method of claim 3, wherein the verifying of the virtual code comprises:
 - extracting period information from the virtual code by the virtual code verification means; and

verifying, by the virtual code verification means, a validity of the virtual code by comparing the extracted period information with the period information stored in the virtual code verification means.

5. The method of claim 4, wherein the updating, by the virtual code verification means, the period information stored in the virtual code verification means comprises:

updating, by the virtual code verification means, period information from a first period to a second period; and

changing, by the virtual code verification means, a storage location of control command information so that control command information stored by matching a specific UID in the first period matches a UID different from the specific UID in the second period.

6. The method of claim 5, wherein the verifying of the virtual code comprises, if the extracted period information does not match the second period stored in the virtual code verification means, checking, by the virtual code verification means, whether the extracted period information matches the first period.

7. The method of claim 6, wherein, if the extracted period information and the first period match, the performing of the control command based on the extracted control command information comprises performing, by the virtual code verification means, a control command corresponding to the stored control command information by matching the extracted UID in the first period.

8. The method of claim 1, wherein the virtual code comprises:
a first code for setting a starting point of the storage location search; and
a second code for setting a search path from the starting point to the storage location according to a specific search method.

9. The method of claim 1, wherein the verifying, by the virtual code verification means, the virtual code comprises:

extracting, by the virtual code verification means, a unique value of the virtual code verification means from the virtual code; and

verifying, by the virtual code verification means, a validity of the virtual code by comparing the extracted unique value with the unique value stored in the virtual code verification means.

10. A transaction program using a virtual code, which is combined with a computer that is hardware, and stored in a medium to execute the method of any one of claims 1 to 9.

11. A virtual code generation device for transactions, the device comprising:
a detail code generation unit configured to match control command information corresponding to a purchase request of a user among a plurality of User Identifications (UIDs) stored in the virtual code generation device and generate one or more detail codes based on the stored UID;

a virtual code generation unit configured to generate a virtual code by combining the one or more detail codes using a virtual code generation function; and

a virtual code provision unit configured to transmit the virtual code to a virtual code reception device or a virtual code verification device,

wherein the virtual code generation device stores a plurality of UIDs and changes control command information matched to each of the plurality of UIDs every preset period.

12. The device of claim 11, wherein the virtual code generation device matches and stores control command information stored by matching each of the plurality of UIDs to different UIDs in the same period as the virtual code verification device.

13. A virtual code verification device for transactions, the device comprising:

a virtual code reception unit configured to receive a virtual code;
a detail code extraction unit configured to extract a detail code from the virtual code;
a storage location search unit configured to search a storage location of a User Identification (UID) based on the detail code;
a control command information extraction unit configured to match the searched UID and extract stored control command information;
a virtual code verification unit configured to verify the virtual code; and
a control unit configured to perform control based on the extracted control command information,
wherein the virtual code verification device stores a plurality of UIDs and changes control command information matched to each of the plurality of UIDs every preset period.

14. The device of claim 13, wherein the virtual code verification device matches and stores control command information stored by matching each of the plurality of UIDs to different UIDs in the same period as the virtual code verification device.

15. The device of claim 13,
wherein the detail code extraction unit extracts period information from the virtual code,
wherein the virtual code verification unit compares the extracted period information with the period information stored in the virtual code verification means to verify a validity of the virtual code.

16. The method of claim 1, wherein the virtual code verification means comprises a device that controls the use of one of electricity, gas, and water, and the command control information comprises information defining usage rights for the one of electricity, gas, and water.

17. The method of claim 16, wherein the usage rights comprises a usage amount of the one of electricity, gas, and water.