

CLAIMS

What is claimed is:

1. A processing system for dynamically updating financial data, comprising:

a storage unit storing a plurality of identification data and a plurality of financial data

5 of the identification data;

a timer unit counting an updating time;

an interface unit receiving a plurality of transaction data of the identification data;

a register unit temporarily storing the transaction data; and

a processing unit connected to the storage unit, the timer unit, the interface unit, and

10 the register unit, wherein the processing unit executes batch updates of the financial data of the same identification data according to a batch size and the transaction data;

wherein, in executing each of the batch updates, the processing unit obtains a batch of update information from the transaction data according to a current batch size, drives the timer unit, updates a batch of financial data, corresponding to the batch of update
15 information, in the financial data with the batch of update information, and adjusts the batch size of a next batch update according to the updating time and a time threshold of the batch of update information.

2. The processing system for dynamically updating financial data according to claim 1,

wherein when a length of the updating time is less than the time threshold, the

20 processing unit increases the batch size of the next batch update, and wherein when the length of the updating time is greater than the time threshold, the processing unit decreases the batch size of the next batch update.

3. The processing system for dynamically updating financial data according to claim 2,

wherein an increase range of the batch size is greater than a decrease range of the

25 batch size.

4. The processing unit for dynamically updating financial data according to claim 1,
wherein the processing unit further generates an initial value according to the batch
size utilized by at least one of the batch updates having an updating time closest to the
time threshold in a predetermined history period, and sets the batch size of an initial
5 batch update of a next operation period as the initial value.

5. The processing unit for dynamically updating financial data according to claim 1,
further comprising:

a power unit, storing a power source; and

a power supply circuit connected to the storage unit, the timer unit, the interface unit,

10 the register unit, the processing unit, and the power unit, wherein the power supply circuit
is controlled by the processing unit, and the power supply circuit supplies electricity, based
on the power unit, for operating the interface unit, the storage unit, the timer unit, and the
processing unit;

wherein, in each of the batch updates, the processing unit further configures a power
15 supply mode of the power supply circuit according to the updating time and the time
threshold of the batch of update information.

6. The processing system for dynamically updating financial data according to claim 5,
wherein when the updating time is greater than the time threshold, the processing unit
configures the power supply mode of the power supply circuit as a high performance
20 mode, and wherein when the updating time is less than the time threshold, the
processing unit configures the power supply mode of the power supply circuit as a low
performance mode.

7. The processing system for dynamically updating financial data according to claim 1,
wherein the interface unit is a connection port or a network module of a peripheral
25 device.

8. The processing system for dynamically updating financial data according to claim 1, wherein in the process of updating the batch of financial data in the financial data corresponding to the batch of update information with the batch of update information, the processing unit locks the identification data corresponding to the batch of update information.

9. A method for dynamically updating financial data, suitable for updating a plurality of financial data of a plurality of identification data, the method comprising:

receiving a plurality of transaction data of the identification data;

temporarily storing the transaction data; and

executing batch updates of the financial data of the same identification data according to a batch size and the transaction data, wherein the step of executing each of the batch updates comprises:

obtaining a batch of update information from the transaction data according to a current batch size;

driving a timer unit to count an updating time;

updating a batch of financial data in the financial data corresponding to the batch of update information with the batch of update information; and

adjusting the batch size of a next batch update according to the updating time and a time threshold of the batch of update information.

10. The method for dynamically updating financial data according to claim 9, wherein the adjusting step comprises:

increasing the batch size of the next batch update when the updating time is less than the time threshold; and

decreasing the batch size of the next batch update when the updating time is greater than the time threshold.

11. The method for dynamically updating financial data according to claim 10, wherein an increase range of the batch size is greater than a decrease range of the batch size.
12. The method for dynamically updating financial data according to claim 9, further comprising:
- 5 generating an initial value according to the batch size utilized by at least one of the batch updates having an updating time closest to the time threshold in a predetermined history period and sets the batch size of an initial batch update of a next operation period as the initial value.
13. The method for dynamically updating financial data according to claim 9, wherein the
- 10 step of executing each of the batch updates further comprises:
- configuring a power supply mode according to the updating time and the time threshold of the batch of update information.
14. The method for dynamically updating financial data according to claim 13, wherein
- 15 when the updating time is greater than the time threshold, configuring the power supply mode as a high performance mode, and wherein when the updating time is less than the time threshold, configuring the power supply mode as a low performance mode.
15. The method for dynamically updating financial data according to claim 9, wherein the
- 20 receiving step comprises receiving the transaction data of the identification data through a connection port of a peripheral device or a network.
16. The method for dynamically updating financial data according to claim 9, wherein the
- step of executing each of the batch updates further comprises:
- in the process of updating the batch of financial data in the financial data corresponding to the batch of update information with the batch of update information,
- 25 locking the identification data corresponding to the batch of update information.