CLAIMS

1. A method for performing a computational task under the direction of a central server infrastructure, the method comprising:

forming a network of processing devices, each processing device being controlled by and associated with a different one of a plurality of entities;

each of the processing devices creating a respective initial pool of algorithms;

enabling the algorithms to evolve over time;

the central server infrastructure selecting one or more of the evolved algorithms in accordance with a predefined condition; and

applying the selected one or more algorithms to perform the computational task, wherein said computational task represents a financial algorithm,

wherein the method does not include compensating the plurality of entities in accordance with any compensation amounts determined in dependence upon any indicator of CPU activity devoted to the sub-tasks by the processing devices associated with the entities.

2. The method of claim 1 wherein at least one of the processing devices comprises a cluster of central processing units.

3. The method of claim 1 wherein at least one of the processing devices comprises a central processing unit and a host memory.

4. The method of claim 1 wherein at least one of the said algorithms provides a measure of a risk-adjusted performance of one or more assets.

5. A networked computer system configured to perform a computational task, the networked computer system comprising:

a plurality of processing devices each configured to create a respective initial pool of algorithms, said algorithms being enabled to evolve over time;

a central server infrastructure, configured to select one or more of the evolved algorithms in accordance with a predefined condition; and

a module configured to apply the selected one or more algorithms to perform the computational task, said computational task representing a financial algorithm,

wherein the networked computer system lacks any module that compensates the plurality of entities in accordance with any compensation amounts determined in dependence upon any indicator of CPU activity devoted to the sub-tasks by the processing devices associated with the entities.

6. The networked computer system of claim 5 wherein at least one of the processing devices comprises a cluster of central processing units.

7. The networked computer system of claim 5 wherein at least one of the processing devices comprises a central processing unit and a host memory.

8. The networked computer system of claim 5 wherein at least one of the algorithms provides a measure of a risk-adjusted performance of one or more assets.

9. The method of claim 1, wherein the step of each of the processing devices creating a respective initial pool of algorithms comprises the step of each of the processing devices creating a respective initial pool of algorithms randomly.

10. The networked computer system of claim 5, wherein each of the processing devices creates the respective initial pool of algorithms randomly.

11. A method for performing a computational task under the direction of a central controller, the method comprising:

forming a network of processing devices, different ones of the processing devices being controlled by and associated with different ones of a plurality of entities, the step of forming including providing to each of the processing devices client-side software code to be executed;

the central controller causing each of the processing devices to create a respective initial pool of algorithms, the client-side software code enabling the algorithms to evolve over time;

the central controller selecting one or more of the evolved algorithms in accordance with a predefined condition; and

applying the selected one or more algorithms to perform the computational task, wherein said computational task represents a financial algorithm,

and wherein the method does not include compensating the plurality of entities in accordance with any compensation amounts determined in dependence upon any indicator of CPU activity devoted to the sub-tasks by the processing devices associated with the entities.

CLAIMS

1. A method for performing a computational task under the direction of a central server infrastructure, the method comprising:

providing a network of a plurality of processing devices, each processing device being different from the central server infrastructure and being controlled by and associated with a different one of a plurality of entities;

the central server infrastructure providing to each of the processing devices client-side software code to be executed;

under control of the software code, each of the processing devices enabling a respective pool of algorithms to evolve over time;

under control of the software code, a given one of the processing devices determining a minimum fitness level for solutions to be sent to the central server infrastructure, and transmitting to the central server infrastructure only those solutions of the given processing device which have fitness levels exceeding the minimum fitness level;

the central server infrastructure selecting one or more of the evolved algorithms in accordance with a predefined condition; and

applying the selected one or more algorithms to perform the computational task.

2. The method of claim 1 wherein at least one of the processing devices comprises a cluster of central processing units.

3. The method of claim 1 wherein at least one of the processing devices comprises a central processing unit and a host memory.

4. The method of claim 1, further comprising each of the processing devices creating a respective initial pool of the algorithms for itself under control of the software code.

5. The method of claim 4, wherein the step of each of the processing devices creating a respective initial pool of the algorithms comprises the step of each of the processing devices creating a respective initial pool of algorithms randomly under control of the software code.

6. The method of claim 1, wherein enabling a respective pool of algorithms to evolve over time includes at least one of the processing devices, under control of the software code, using a graphical processing unit to enable algorithms to evolve over time.

7. The method of claim 1, wherein determining a minimum fitness level comprises learning the minimum fitness level from the central server infrastructure.

8. A networked computer system configured to perform a computational task, the networked computer system comprising:

a plurality of processing devices each configured to evolve over time a respective pool of algorithms under control of software code;

a central server infrastructure configured to provide the software code to each of the processing devices and to select one or more of the evolved algorithms in accordance with a predefined condition;

a module configured to apply the selected one or more algorithms to perform the computational task; and

a given one of the processing devices being further configured to:

determine a minimum fitness level for solutions to be sent to the central server infrastructure; and

transmit to the central server infrastructure only those solutions of the given processing device which have fitness levels exceeding the minimum fitness level.

9. The system of claim 8, wherein determining a minimum fitness level comprises learning the minimum fitness level from the central server infrastructure.

10. The system of claim 8, wherein at least one of the processing devices has a graphical processing unit and is configured to use the graphical processing unit in the evolving.

11. The system of claim 8, wherein the software code causes a given one of the processing devices to create its own initial pool of algorithms.

12. The system of claim 11, wherein the software code causes a given one of the processing devices to create its own initial pool of algorithms randomly.