CLAIMS

1. A knowledge graph construction method, comprising:

modeling each piece of first-type service data as a vertex in a graph;

modeling each piece of second-type service data as an edge in the graph;

obtaining a structural feature value corresponding to each vertex based on a predetermined structural feature corresponding to the first-type service data;

obtaining a structural feature value corresponding to each edge based on a predetermined structural feature corresponding to the second-type service data;

wherein each of the predetermined structural feature corresponding to the first-type service data and the predetermined structural feature corresponding to the second-type service data is a part of a plurality of features of the respective service data and is commonly used to perform service analysis and computing in at least two application scenarios; and

performing modeling by using each vertex, the structural feature value of the vertex, each edge, and the structural feature value of the edge, to obtain a structural graph common to the at least two application scenarios.

2. The method according to claim 1, after the obtaining a structural graph, further comprising:

for each vertex in the structural graph, obtaining a current application feature corresponding to a current application scenario from application features corresponding to the first-type service data;

for each edge in the structural graph, obtaining a current application feature corresponding to the current application scenario from application features corresponding to the second-type service data;

wherein, the application feature is different from the structural feature; and

for each vertex in the structural graph, mounting a feature value of the current application feature corresponding to the vertex to the vertex, and for each edge in the structural graph, mounting a feature value of the current application feature corresponding to the edge to the edge, to form a feature map corresponding to the current application scenario.

3. The method according to claim 2, wherein

the method further comprises: setting corresponding global IDs for each vertex and each edge; and in a graph feature library, storing and dynamically updating a correspondence between the global ID of each vertex and application features of the vertex, and storing and dynamically updating a correspondence between the global ID of each edge and application features of the edge;

the obtaining a current application feature corresponding to a current application scenario from application features corresponding to the vertex comprises: finding application features corresponding to the global ID of the vertex from the graph feature library, and selecting the current

application feature applicable to the current application scenario from the found application features; and

the obtaining a current application feature corresponding to the current application scenario from application features corresponding to the edge comprises: finding application features corresponding to the global ID of the edge from the graph feature library, and selecting the current application feature applicable to the current application scenario from the found application features.

4. The method according to claim 1, wherein the method is applied to construction of a temporal knowledge graph.

5. The method according to claim 4, wherein the method is applied to construction of a knowledge graph of a temporal transaction service;

the first-type service data comprises account information;

the second-type service data comprises a transaction behavior;

a structural feature of the vertex comprises an account ID; and

a structural feature of the edge comprises at least one of the following: a time, a transaction ID, and an amount.

6. A graph computing method, comprising:

obtaining a structural graph by using the method according to any one of claims 1 to 5;

loading graph structure information in the structural graph, wherein the graph structure information comprises each vertex, each edge, a structural feature value of each vertex, a structural feature value of each edge, and a sequence of vertexes and edges; and

performing graph computing by using the loaded graph structure information, to obtain a flow path.

7. The method according to claim 6, wherein after the obtaining a structural graph by using the method according to claim 2, the graph computing method further comprises:

performing graph computing corresponding to a current application scenario by using the feature map corresponding to the current application scenario and the flow path.

8. A knowledge graph construction apparatus, comprising:

a model establishment module, configured to: model each piece of first-type service data as a vertex in a graph; and model each piece of second-type service data as an edge in the graph;

a structural feature selection module, configured to: obtain a structural feature value corresponding to each vertex based on a predetermined structural feature corresponding to the first-type service data; and obtain a structural feature value corresponding to each edge based on a predetermined structural feature corresponding to the second-type service data; wherein each of the predetermined structural feature corresponding to the first-type service data and the predetermined structural feature corresponding to the second-type service data is a part of a plurality of features of

the respective service data and is commonly used to perform service analysis and computingin at least two application scenarios; and

a structural graph construction module, configured to perform modeling by using each vertex, the structural feature value of the vertex, each edge, and the structural feature value of the edge, to obtain a structural graph common to the at least two application scenarios.

9. The apparatus according to claim 8, further comprising:

an application feature selection module, configured to: for each vertex in the structural graph, obtain a current application feature corresponding to a current application scenario from application features corresponding to the vertex; and for each edge in the structural graph, obtain a current application feature corresponding to the current application scenario from application features corresponding to the edge, wherein the application feature is different from the structural feature; and

a feature map construction module, configured to: for each vertex in the structural graph, mount a feature value of the current application feature corresponding to the vertex to the vertex, and for each edge in the structural graph, mount a feature value of the current application feature corresponding to the edge to the edge, to form a feature map corresponding to the current application scenario.

10. A graph computing apparatus, comprising:

the knowledge graph construction apparatus according to claim 8 or 9; and

a flow path computing module, configured to: load graph structure information in a structural graph, wherein the graph structure information comprises each vertex, each edge, a structural feature value of each vertex, a structural feature value of each edge, and a sequence of vertexes and edges; and perform graph computing by using the loaded graph structure information, to obtain a flow path.

11. The apparatus according to claim 10, wherein when the knowledge graph construction apparatus according to claim 9 is comprised, the graph computing apparatus further comprises:

a service analysis module, configured to perform graph computing corresponding to a current application scenario by using a feature map corresponding to the current application scenario and the flow path.

12. A computing device, comprising a memory and a processor, wherein the memory stores executable code, and when the processor executes the executable code, the method according to any one of claims 1 to 7 is implemented.