TABLE II Data Structure Formations

Edge id	Edge name	Front node	Subsequent node
1	e_0	1	2
2	e_1	1	4
3	e_2	2	3
4	e_3	3	5
5	e_4	4	5
6	e_5	5	6
7	e_6	5	7
8	e_7	5	8
9	e_8	6	9
10	e_9	8	10
11	e_{10}	9	11
12	e_{11}	10	12
13	e_{12}	11	13
14	e_{13}	12	13
15	e_{14}	13	15
16	e_{15}	13	14
17	e_{16}	14	15
18	e_{17}	15	16
19	e_{18}	15	18
20	e_{19}	16	18
21	e_{20}	16	17
22	e_{21}	18	19
23	e_{22}	17	19

The system model shown in Fig. 2 is set up In accordance with the proposed algorithm to establish. This network model consists of 19 nodes, 23 edges, parameters, logo and other elements.

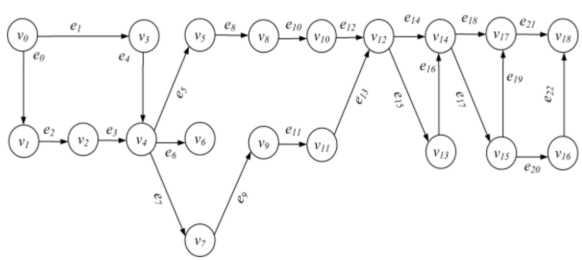

Fig. 2 A model made by auto-modeling methods

5. Conclusions

The presented algorithm greatly improves the modeling accuracies according to these means such as model node numbering, layer-column-type modeling, and multiple parameter calculation methods. It ensures the consistency and integrity of the model, avoids encountering errors by the artificial modeling in the previous, and improves the modeling efficiency. This algorithm can also caused the model a real-time and synchronization change when the system content is maintained and altered. It guarantees the synchronization of the system information and data, and this synchronization changes can prevent the occurred danger owing to "unknowable" system problems.

In addition, it is also very important to settle system problem using the suggesting methods combining some decision-making. Therefore, more effective application based on generated models for the system failure prediction, monitoring and maintenance will be the next step work.

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