

1 assumes that all events to be evaluated are previously
recorded in a database. The inconsistency elimination method
calculates a collation score indicating reliability of the
presence of a business relationship for all the events,
5 thereby mining the business relationships.

[0016]

Therefore, the method described in PLT 1 is difficult to
apply to the CEP system into which new events are sequentially
input. Thus, a method for eliminating inconsistencies between
10 events in sequential processing is required as in the
processing in other CEP-mounted systems.

[0017]

~~It is therefore an object~~ Embodiments of the present
invention seek to provide an event processing device capable
15 of eliminating an inconsistency between events in sequential
processing in complex event processing of taking input events
acquired from many origination sources, an event processing
method, and an event processing program.

20 Solution to Problem

[0018]

An event processing device according to a first aspect
of the present invention includes an event data storage means
for storing a set of event data mutually associated under a
25 predetermined condition until a predetermined holding
deadline, an event evaluation means for, when newly-input
event data meets the predetermined condition, including the

event data as new event data in the set, and an event competition elimination means for, when the new event data is competitive data in which a competition is caused in attribute values of a common attribute with other event data included in the set, excluding the competitive data from the set.

[0019]

An event processing method according to a second aspect of the present invention includes the steps of storing a set of event data mutually associated under a predetermined condition until a predetermined holding deadline, when newly-input event data meets the predetermined condition, including the event data as new event data in the set, and when the new event data is competitive data in which a competition is caused in attribute values of a common attribute with other event data included in the set, excluding the competitive data from the set.

[0020]

An event processing program according to a third aspect of the present invention includes causing a computer to perform event data storage processing of storing a set of event data mutually associated under a predetermined condition until a predetermined holding deadline, event evaluation processing of, when newly-input event data meets the predetermined condition, including the event data as new event data in the set, and event competition elimination processing of, when the new event data is competitive data in which a

competition is caused in attribute values of a common attribute with other event data included in the set, excluding the competitive data from the set.

5 Advantageous Effects of Invention

[0021]

According to embodiments of the present invention, it is possible to eliminate an inconsistency between events in sequential processing in complex event processing for
10 taking input events acquired from many origination sources.

Brief Description of Drawings

[0022]

[Fig. 1] It depicts a block diagram illustrating an
15 exemplary structure of an event processing device according to a first exemplary embodiment.

[Fig. 2] It depicts a flowchart illustrating the operations of the event processing device.

[Fig. 3] It depicts an explanatory diagram illustrating
20 exemplary events input into the event processing device.

[Fig. 4] It depicts a state transition diagram illustrating exemplary rules used in the event processing device.

[Fig. 5] It depicts an explanatory diagram illustrating an
25 exemplary concept dictionary used in the event processing device.

[Fig. 6] It depicts an explanatory diagram illustrating an exemplary complex event output from the event processing

whether the event data are competitive data ~~for~~by comparing
values of a specific attribute.

[Claim 4]

The event processing device according to any one of
5 claims 1 to 3, comprising:

a result output means for outputting a complex event
as an analysis result which is an analyzed set of event
data,

wherein the event evaluation means determines whether
10 to generate the complex event under a predetermined
condition, and generates the complex event when determined
to generate the complex event, and

the result output means outputs the generated complex
event.

15 [Claim 5]

The event processing device according to any one of
claims 1 to 4, comprising:

a rule storage means for storing a concept dictionary
defining a relationship between other attribute and its
20 attribute value derived from one attribute or attribute
value,

wherein the event evaluation means develops other
attribute and its attribute value from the concept
dictionary based on an attribute or attribute value
25 included in new event data, and

the event competition elimination means determines
whether new event data is competitive data by use of the
developed attribute and attribute value.