PTL 1: International Publication No. WO 2008/007669

PTL 2: Japanese Laid-open Patent Publication No. 2015-121968

PTL 3: Japanese Laid-open Patent Publication No. 2006-304108

[Summary]

[0007]

However, even the log summation support apparatus disclosed in PTL 3 cannot always extract a desired communication effectively. This is because even when a plurality of request includes a certain search condition in common, each time the respective requests are received, processing on the certain search condition need to be repeated. In other words, the processing on the certain search the condition are repeated each time the respective requests are received.

[0008]

Embodiments of the present disclosure is to provide a category information generating apparatus or the like which enables high-speed search processing of log information of a communication or the like.

[0008a]

According to an aspect, there is provided a category information generating apparatus comprising:

identifier generating means for generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus

generating the measurement value;

extracting means for extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

reading means for reading a value representing an extraction item in the extraction information from the extracted particular measurement value; and

category information generating means for generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and the value read by the reading means with each other.

[0008b]

According to an aspect, there is provided a searching apparatus comprising:

the category information generating apparatus according to an embodiment;

request analyzing means for specifying, with respect to a request where a search condition described using a first extraction item included in the extraction information and a second extraction item included in the extraction information are associated with each other, a first extraction information identifier associated with the first extraction item and a second extraction information

identifier associated with the second extraction item and generating search information where a requirement in the search condition and the specified first extraction information identifier are associated with each other;

extracting means for specifying the measurement value associated with the first extraction information identifier in the category information and specifying, when the specified measurement value satisfies the requirement associated with the first extraction information identifier in the search information, the measurement identifier associated with the first extraction information identifier in the category information; and

search integrating means for obtaining a measurement identifier that satisfies the search condition among the measurement identifiers specified by the extracting means.

[0008c]

According to an aspect, there is provided a category information generating method by a computer comprising:

generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus generating the measurement value;

extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted

from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

reading a value representing an extraction item in the extraction information from the extracted particular measurement value; and

generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and a the value read by the reading means with each other.

[0008d]

According to an aspect, there is provided a category information generating program causing a computer to execute processing, the processing comprising:

an identifier generating function for generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus generating the measurement value;

an extracting function for extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

a reading function for reading a value representing an extraction

item in the extraction information from the extracted particular measurement value; and

a category information generating function for generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and the value read by the reading means with each other.

[0008e]

According to an aspect, there is provided a searching program the program causing a computer to execute processing, the processing comprising:

the category information generating program according to an embodiment;

a request analyzing function for specifying, with respect to a request where a search condition described using a first extraction item included in the extraction information and a second extraction item included in the extraction information are associated with each other, a first extraction information identifier associated with the first extraction item and a second extraction information identifier associated with the second extraction item and generating search information where a requirement in the search condition and the specified first extraction information identifier are associated with each other;

an extracting function for specifying the measurement value associated with the first extraction information identifier in the category information and specifying, when the specified measurement value satisfies the requirement associated with the first extraction information identifier in the search information, the measurement identifier associated with the first extraction

information identifier in the category information; and

a search integrating function for obtaining a measurement identifier that satisfies the search condition among the measurement identifiers specified by the extracting function.

[0009]

According to an embodiment of the present disclosure, a category information generating apparatus including:

identifier generating means for generating a measurement identifier of a measured value with respect to measurement information where the measured value measured with respect to

CLAIMS

[Claim 1]

A category information generating apparatus comprising:

identifier generating means for generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus generating the measurement value;

extracting means for extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

reading means for reading a value representing an extraction item in the extraction information from the extracted particular measurement value; and

category information generating means for generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and the value read by the reading means with each other.

[Claim 2]

The category information generating apparatus according to claim 1, further comprising:

an extraction information storage for storing the extraction information, wherein

the extraction item in the extraction information includes a communication port identifier.

[Claim 3]

The category information generating apparatus according to claim 1, further comprising:

an extraction information storage for storing the extraction information, wherein

the extraction item in the extraction information includes an apparatus identifier of a transit apparatus in communication.

[Claim 4]

The category information generating apparatus according to claim 1, further comprising:

an extraction information storage for storing the extraction information, wherein

the extraction item in the extraction information includes an apparatus identifier of an apparatus generating the measurement value.

[Claim 5]

A searching apparatus comprising:

the category information generating apparatus according to any one of

claims 1 to 4;

request analyzing means for specifying, with respect to a request where a search condition described using a first extraction item included in the extraction information and a second extraction item included in the extraction information are associated with each other, a first extraction information identifier associated with the first extraction item and a second extraction information identifier associated with the second extraction item and generating search information where a requirement in the search condition and the specified first extraction information identifier are associated with each other;

extracting means for specifying the measurement value associated with the first extraction information identifier in the category information and specifying, when the specified measurement value satisfies the requirement associated with the first extraction information identifier in the search information, the measurement identifier associated with the first extraction information identifier in the category information; and

search integrating means for obtaining a measurement identifier that satisfies the search condition among the measurement identifiers specified by the extracting means.

[Claim 6]

A category information generating method by a computer comprising:

generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus generating

the measurement value;

extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

reading a value representing an extraction item in the extraction information from the extracted particular measurement value; and

generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and a the value read by the reading means with each other.

[Claim 7]

The searching method according to claim 6, further comprising:

specifying, with respect to a request where a search condition described using a first extraction item included in the extraction information and a second extraction item included in the extraction information are associated with each other, a first extraction information identifier associated with the first extraction item and a second extraction information identifier associated with the second extraction item and generating search information where a requirement in the search condition and the specified first extraction information identifier are associated with each other;

specifying the measurement value associated with the first extraction information identifier in the category information and specifying, when the specified measurement value satisfies the requirement associated with the first extraction information identifier in the search information, the measurement identifier associated with the first extraction information identifier in the category information; and

obtaining a measurement identifier that satisfies the search condition among the specified measurement identifiers.

[Claim 8]

A category information generating program causing a computer to execute processing, the processing comprising:

an identifier generating function for generating, with respect to measurement information, a measurement identifier of a measurement value, the measurement information associating the measurement value measured with respect to communication via a communication network with a resource identifier of an apparatus generating the measurement value;

an extracting function for extracting a particular measurement value associated with the resource identifier in the measurement information when the resource identifier in the measurement information satisfies a condition of the resource identifier in extraction information, the extraction information associating a condition of the resource identifier, an extraction item representing an item to be extracted from the measurement information when the condition is satisfied, and an extraction information identifier of the extraction item with each other;

a reading function for reading a value representing an extraction item in the extraction information from the extracted particular measurement value; and

a category information generating function for generating the category information that associates a measurement identifier representing the extracted particular measurement value, the extraction information identifier in the extraction information, and the value read by the reading means with each other.

[Claim 9]

The category information generating program according to claim 8, the processing further comprising:

an extracted information storage function for storing the extraction information, wherein

the extraction item in the extraction information includes a communication port identifier.

[Claim 10]

A searching program the program causing a computer to execute processing, the processing comprising:

the category information generating program according to claims 8 or 9;

a request analyzing function for specifying, with respect to a request where a search condition described using a first extraction item included in the extraction information and a second extraction item included in the extraction information are associated with each other, a first extraction information identifier associated with the first extraction item and a second extraction

information identifier associated with the second extraction item and generating search information where a requirement in the search condition and the specified first extraction information identifier are associated with each other;

an extracting function for specifying the measurement value associated with the first extraction information identifier in the category information and specifying, when the specified measurement value satisfies the requirement associated with the first extraction information identifier in the search information, the measurement identifier associated with the first extraction information identifier in the category information; and

a search integrating function for obtaining a measurement identifier that satisfies the search condition among the measurement identifiers specified by the extracting function.