

CLAIMS

[Claim 1]

An information processing apparatus comprising:

an expectation condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image;

a requisite condition information acquisition means for acquiring requisite condition information which indicates a requisite condition for the photographic image;

a photographing apparatus state information acquisition means for acquiring photographing apparatus state information including information which indicates positions and orientations of a plurality of photographing apparatuses;

an object state information acquisition means for acquiring object state information including information which indicates positions of a plurality of objects; and

a photographing apparatus selection means for selecting one or more of the plurality of photographing apparatuses which capture the photographic image on the basis of the expectation condition information, the requisite condition information, the photographing apparatus state information and the object state information,

wherein

the requisite condition requires that the plurality of objects are not overlapped with each other, and

the photographing apparatus selection means has:

an expectation condition determination means for carrying out expectation condition determination processing to determine whether a photographic image captured by each of the plurality of photographing apparatuses satisfies at least one of the plurality of expectation conditions or not; and

a requisite condition determination means for carrying out requisite condition determination processing to determine whether or not a photographic image that has been determined to satisfy at least one of the plurality of expectation conditions by the expectation condition determination means satisfies the requisite condition.

[Claim 2]

The information processing apparatus according to Claim 1, wherein:

the plurality of expectation conditions are each given priority; and

the expectation condition determination means carries out the expectation condition determination processing for an expectation condition selected in order of priority.

[Claim 3]

The information processing apparatus according to Claim 2, wherein:

upon a determination that photographic images captured by the plurality of photographing apparatuses satisfies one expectation condition being made,

the expectation condition determination means carries out the expectation condition determination processing for the

photographic images captured by the plurality of photographing apparatuses with respect to an expectation condition given priority next to priority of the one expectation condition; and

the requisite condition determination means carries out the requisite condition determination processing for a photographic image that has been determined to satisfy the expectation condition given the next priority.

[Claim 4]

The information processing apparatus according to one of Claims 1 through 3, wherein:

the photographing apparatus selection means further has a photographing apparatus selection means for selecting at least one of the plurality of photographing apparatuses on the basis of the requisite condition information; and

the expectation condition determination means carries out the expectation condition determination processing for a photographic image captured by one or more of the photographing apparatuses selected by the photographing apparatus selection means.

[Claim 5]

The information processing apparatus according to one of Claims 1 through 4, wherein:

the photographing apparatus selection means selects one of the plurality of photographing apparatuses upon a predefined condition being satisfied.

[Claim 6]

The information processing apparatus according to one of Claims 1 through 5, wherein:

the photographing apparatus selection means successively selects one of the plurality of photographing apparatuses; and

the plurality of expectation conditions include a condition based on a relationship between the object state information and photographing apparatus state information on a most recently selected photographing apparatus.

[Claim 7]

An information processing system comprising:

an expectation condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image;

a requisite condition information acquisition means for acquiring requisite condition information which indicates a requisite condition for the photographic image;

a photographing apparatus state information acquisition means for acquiring photographing apparatus state information including information which indicates positions and orientations of a plurality of photographing apparatuses;

an object state information acquisition means for acquiring object state information including information which indicates positions of a plurality of objects; and

a photographing apparatus selection means for selecting from the plurality of photographing apparatuses one or more of the plurality of photographing apparatuses which capture the

photographic image on the basis of the expectation condition information, the requisite condition information, the photographing apparatus state information and the object state information,

wherein

the requisite condition requires that the plurality of objects are not overlapped with each other,

the photographing apparatus selection means has:

an expectation condition determination means for carrying out expectation condition determination processing to determine whether a photographic image captured by each of the plurality of photographing apparatuses satisfies at least one of the plurality of expectation conditions or not; and

a requisite condition determination means for carrying out requisite condition determination processing to determine whether or not a photographic image that has been determined by the expectation condition determination means to satisfy at least one of the plurality of expectation conditions satisfies the requisite condition.

[Claim 8]

A program for causing a computer to function as:

an expectation condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image;

a requisite condition information acquisition means for acquiring requisite condition information which indicates a

requisite condition for the photographic image;

a photographing apparatus state information acquisition means for acquiring photographing apparatus state information including information which indicates positions and orientations of a plurality of photographing apparatuses;

an object state information acquisition means for acquiring object state information including information which indicates positions of a plurality of objects; and

a photographing apparatus selection means for selecting from the plurality of photographing apparatuses one or more of the plurality of photographing apparatuses which capture the photographic image on the basis of the expectation condition information, the requisite condition information, the photographing apparatus state information and the object state information,

wherein

the requisite condition requires that the plurality of objects are not overlapped with each other,

the photographing apparatus selection means has:

an expectation condition determination means for carrying out expectation condition determination processing to determine whether a photographic image captured by each of the plurality of photographing apparatuses satisfies at least one of the plurality of expectation conditions or not; and

a requisite condition determination means for carrying out requisite condition determination processing to determine whether a photographic image for which a determination that at

least one of the plurality of expectation conditions is satisfied is made by the expectation condition determination means satisfies the requisite condition or not.

[Claim 9]

The information processing apparatus according to Claim 1, wherein

the expectation condition information acquisition means imparts a weighting to each of the plurality of expectation conditions,

the expectation condition determination means determines, for a photographic image captured by each of the plurality of photographing apparatuses, a sum of the weightings imparted to the plurality of expectation conditions, and

the requisite condition determination means further determines whether or not a photographic image, that has been determined by the expectation condition determination means that the sum of the weightings is largest, satisfies the requisite condition.

[Claim 10]

The information processing apparatus according to Claim 1, wherein the photographing apparatus selection means selects the one or more of the plurality of photographing apparatuses only if a predefined condition is satisfied, in which the predefined condition is one of the following cases:

- a case where a photographing target is changed;
- a case where a position of at least one of the plurality of objects is changed by a predefined amount or more;

a case where a content or a priority order of the plurality of expectation conditions is changed; and

a case where a predefined lapse of time has passed since the selecting of one or more of the plurality of photographing apparatuses was lastly carried out.

[Claim 11]

The information processing apparatus according to Claim 9, wherein

the expectation condition determination means further determines, for a plurality of consecutive scenes captured by each of a plurality of combinations of the plurality of photographing apparatuses, a sum of the weightings, and

the requisite condition determination means further determines whether or not each of photographic images of the plurality of consecutive scenes captured by a combination of the plurality of photographing apparatuses, that has been determined by the expectation condition determination means that the sum of the weightings is largest, satisfies the requisite condition.

CLAIMS

1. An information processing apparatus comprising:
 - a condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image, each of the plurality of expectation conditions having a priority respectively among the plurality of expectation conditions, and for acquiring requisite condition information which indicates a requisite condition for the photographic image, and
 - a photographing apparatus selection means for selecting at least one photographing apparatus which capture the photographic image satisfying an expectation condition having a highest priority and satisfying the requisite condition information, among the plurality of photographing apparatus.
2. The information processing apparatus of claim 1, further comprising:
 - a photographing apparatus state information acquisition means for acquiring photographing apparatus state information including information which indicates positions and orientations of a plurality of photographing apparatuses; and
 - an object state information acquisition means for acquiring object state information including information which indicates a position of an object,
 - wherein the photographing apparatus selection means select the photographing apparatus on the basis of the expectation condition information, the requisite condition information, the photographing apparatus state information and the object state information.
3. The information processing apparatus of claim 1 or 2,
 - wherein, when a plurality of the photographic images captured by the plurality of photographing apparatuses satisfy a expectation condition, the photographing apparatus selection means determines whether or not each of the plurality of the photographic images captured by the plurality of the photographing apparatuses satisfies a secondary expectation condition which has a secondary priority next to a priority that the above expectation has, and
 - the photographing apparatus selection means determines whether or not the photographic image satisfying the secondary expectation condition satisfies the requisite condition.
4. The information processing apparatus of any one of claims 1 to 3, wherein
 - the photographing apparatus selection means selects at least one of the plurality of photographing apparatuses on the basis of the requisite condition information, and

the photographing apparatus selection means determines whether or not each photographic image captured by the selected photographing apparatus satisfies each of the expectation conditions.

5. The information processing apparatus of any one of claims 1 to 5, wherein
the photographing apparatus selection means select one of the plurality of photographing apparatuses upon a predefined condition being satisfied.
6. The information processing apparatus of claim 2, wherein
the photographing apparatus selection mean successively selects one of the plurality of photographing apparatuses; and
the plurality of expectation conditions include a condition based on a relationship between the object state information and photographing apparatus state information on a most recently selected photographing apparatus.
7. An information processing system comprising:
a condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image, each of the plurality of expectation conditions having a priority respectively among the plurality of expectation conditions, and for acquiring requisite condition information which indicates a requisite condition for the photographic image, and
a photographing apparatus selection means for selecting at least one photographing apparatus which capture the photographic image satisfying an expectation condition having a highest priority and satisfying the requisite condition information, among the plurality of photographing apparatus.
8. A program for causing a computer to function as:
a condition information acquisition means for acquiring expectation condition information which indicates a plurality of expectation conditions for a photographic image, each of the plurality of expectation conditions having a priority respectively among the plurality of expectation conditions, and for acquiring requisite condition information which indicates a requisite condition for the photographic image, and
a photographing apparatus selection means for selecting at least one photographing apparatus which capture the photographic image satisfying an expectation condition having a highest priority and satisfying the requisite condition information, among the plurality of photographing apparatus.