

WHAT IS CLAIMED IS:

1. An information processing apparatus comprising:
 - a calculation unit configured to determine a type of each vehicle included in an image obtained by capturing a first area where vehicles stand by, calculate a first number of vehicles of each type, and calculate, a first ratio as a ratio of vehicles in the first area on a type basis, based on the first number of vehicles;
 - a decision unit configured to decide, for each type of vehicles, in accordance with the first ratio, a number of workers to be allocated in a second area where a predetermined work that changes in accordance with the type of the vehicle is conducted, and decide notification information concerning the decided number of workers; and
 - an output unit configured to output the notification information.
2. The apparatus according to claim 1, wherein the output unit outputs, as the notification information, information concerning a type of vehicles for which the workers should be increased in the second area.
3. The apparatus according to claim 1, wherein the decision unit calculates a second ratio for each type, as a ratio of vehicles in the second area on a type basis, based on the number of workers currently allocated for each type in the second area, from the number of vehicles of each type for which the work can be conducted within a predetermined time, and
 - decides the number of workers based on the first ratio and the second ratio.
4. The apparatus according to claim 3, wherein the decision unit decides the number of workers by adjusting the number of workers for each type such that the second ratio becomes close to the first ratio.
5. The apparatus according to claim 4, wherein the output unit outputs, as the notification information, information based on a difference between the number of workers for each type after the adjustment and the number of currently allocated workers for each type.

6. The apparatus according to claim 3, wherein a necessary time for the work per vehicle is determined in advance for each type of vehicles, and

the decision unit calculates, based on the necessary time for each type and the number of workers for each type, the number of vehicles of each type for which the work can be conducted within the predetermined time.

7. The apparatus according to claim 3, wherein the calculation unit further determines a type of a vehicle existing in a predetermined region in the first area and calculates the second number of vehicles of each type, and

as for a third ratio for each type, as a ratio of vehicles in the predetermined region on a type basis, based on the second number of vehicles, in a case in which a type whose ratio is higher than a first threshold exists or in a case in which a type whose ratio is lower than a second threshold smaller than the first threshold exists, the decision unit decides the number of workers based on the second ratio and the third ratio.

8. The apparatus according to claim 7, wherein the predetermined region includes a region of the first area, which is close to the second area.

9. The apparatus according to claim 7, wherein the predetermined region is a leading region of the first area, which is connected to the second area, and is a region in which a predetermined number of vehicles stand by.

10. The apparatus according to claim 1, wherein the notification information includes at least one of the number of workers who change the type of vehicles for which the work is to be conducted and the number of workers to be newly allocated in the second area from a standby state.

11. The apparatus according to claim 3, wherein the decision unit refers to statistical information of a time distribution that shows the number of vehicles of each type standing by in the first area retroactively from a reference time concerning a predetermined event, and

modifies the first ratio based on a fourth ratio, as a ratio of vehicles in the first area on a type basis, of the number of vehicles of each type at a point of time corresponding to current time on the time distribution in a case in which a time concerning the predetermined event associated with the vehicles currently standing by in the first area is made to correspond to the reference time.

12. The apparatus according to claim 11, wherein upon determining that the fourth ratio and the first ratio correspond to each other,

the decision unit modifies the first ratio based on a fifth ratio of the number of vehicles of each type at a peak of the number of vehicles of any type, which comes earliest after the point of time corresponding to the current time on the time distribution.

13. The apparatus according to claim 11, wherein the statistical information is generated in association with each of a plurality of different weathers, and

the decision unit refers to the statistical information corresponding to a current weather.

14. The apparatus according to claim 11, wherein the predetermined event is a departure of a ship that the vehicle boards, and the reference time corresponds to departure time of the ship.

15. The apparatus according to claim 1, further comprising a determination unit configured to determine, for each type, a working ratio of the workers allocated for each type, based on a positional relationship between the workers and vehicles included in an image obtained by capturing the second area,

wherein after the output by the output unit is performed, if which there is a type for which the determination unit determines that the working ratio of the workers is lower than a third threshold, the calculation by the calculation unit, the decision by the decision unit, and the output by the output unit are executed again.

16. The apparatus according to claim 15, wherein the decision unit decides, based on the working ratio, the number of workers to conduct the work for vehicles of the type

for which the working ratio is determined to be lower than the third threshold in the workers needed to inspect the vehicles of each type.

17. A system comprising:
- a first image capturing apparatus configured to capture a first area where vehicles stand by;
 - a second image capturing apparatus configured to capture a second area where a predetermined work is conducted for each type for the vehicles;
 - the information processing apparatus according to Claim 1; and
 - a display apparatus configured to receive and display the notification information output from the output unit of the information processing apparatus.

18. A method of controlling an information processing apparatus, comprising:
- determining a type of each vehicle included in an image obtained by capturing a first area where vehicles stand by, calculating a first number of vehicles of each type, and calculating a first ratio, as a ratio of vehicles in the first area on a type basis, based on the first number of vehicles;
 - deciding, for each type of vehicles, in accordance with the first ratio, a number of workers to be allocated in a second area where a predetermined work that changes in accordance with the type of the vehicle is conducted, and deciding notification information concerning the decided number of workers; and
 - outputting the notification information.

19. A non-transitory computer-readable storage medium storing a program that, when executed by a processor of an information processing apparatus, causes a processor to perform:
- determining a type of each vehicle included in an image obtained by capturing a first area where vehicles stand by, calculating a first number of vehicles of each type, and calculating a first ratio, as a ratio of vehicles in the first area on a type basis, based on the first number of vehicles;
 - deciding, for each type of vehicles, in accordance with the first ratio, a number of workers to be allocated in a second area where a predetermined work that changes

in accordance with the type of the vehicle is conducted, and deciding notification information concerning the decided number of workers; and
outputting the notification information.