

# **SYSTEM FOR PERFORMING TASKS IN AN OPERATING REGION AND METHOD OF CONTROLLING AUTONOMOUS AGENTS FOR PERFORMING TASKS IN THE OPERATING REGION**

## **ABSTRACT**

In a system for performing a task in an operating region, there is a plurality of agents. Each of the plurality of agents has a start position in the operating region and an end position in the operating region. There is a ground control device comprising:

- a processor; and

- a storage device for storing one or more routines which, when executed under control of the processor, control the ground control device to:

- divide the operating region into a plurality of sub-regions based on the start and end positions of the plurality of agents so as to assign ones of the plurality of agents to each sub-region, wherein a number of the ones of the plurality of agents in each sub-region is smaller than a number of the plurality of agents in the operating region;

- generate sub-region data of each of the sub-regions; and

- generate a plurality of paths of movement based on the sub-region data of the sub-regions for allowing the plurality of agents to move in the operating region to perform the task.

[FIG. 1]