ABSTRACT

DEVICE AND METHOD FOR FEDERATING AND INTEGRATING REAL OR SIMULATED SYSTEMS IN ORDER TO SIMULATE THE BEHAVIOR OF THE THUS DEVELOPED SYSTEM

A simulation and experimentation device, characterized in that it comprises at least the following elements:

- one or more subsystems (1_1, 1_2, 1_3) that are involved in a simulation of a given future system,
- for each subsystem (1_1, 1_2, 1_3) a data taking device (2_1, 2_2, 2_3), the data having a given profile,
- a central monitoring system (3) designed for processing the data taken in order at least to synchronize them and manage their life-cycle,
- an experimentation platform (4) adapted to support one or more models designed to simulate real systems or plans, said platform comprising an interface (4c) for monitoring and controlling the application of commands, a means for carrying out steps,
- the platform comprising at least one application program (4p) designed to:
  - work out and monitor the additional classes of data to be aggregated to the entities resulting from the application of the models; and/or
  - work out various entities from the data coming from the central device (3),
  - work out simulation layers within the application program of the experimentation platform (4) from chosen parameters, synchronize and merge the layers with each other in order to produce a composite model.

Figure 2 to be published