ANALYSIS OF PROTECTING METHODS OF OBJECTS CONFIGURATION SPACE

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At present, when solving optimization problems you must save the objects under consideration. Taking into account computing capabilities of computers through use multi-core processors and DIMM extensions. In connection with this it is necessary to apply mechanisms of effective use computing tools and optimal placement of information. Different tasks of optimization methods are distinguished the objects under consideration in space. To use them collection of objects generalized by types of geometries is necessary objects that are considered in the task. Interaction material objects involved in the process of optimization, requires take into account their geometric shape, size, and also different restrictions on their mutual location. To describe the external structure and type of aggregate of material objects or their parts in Scientific terminology uses the term configuration. Research configurations as mathematical objects are naturally associated with the concept of the configuration space that was the first time introduced and studied in the theory of dynamical systems. Configurable space defines the configuration of the system, that is, the totality values of geometric variables, which are called generalized coordinates, and specify the location in a space of some system and its parts both relative to each other, and according to the given fixed reference system.They were developed the following classes for solving problems with to be investigated objects in the form of a set spheres:

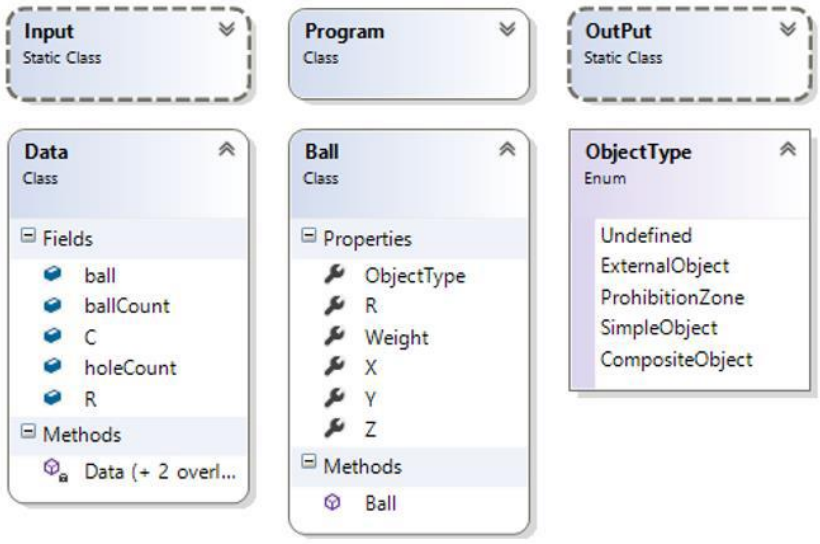

Figure 1.1 - Basic classes

No dependency from the future save the collection to kind of database or text files This collection can be used as an intermediate link on the base which will be solved optimization problem. For the next steps in working with geometric objects it is necessary to transfer heterogeneous initial objects to any one solver (program designed to find optimum).

That it is necessary to implement an approach in which an arbitrary saved the geometric object can be passed to the solver. Considering that on It is necessary to convert the initial data in different stages, then the architecture of the software application requires the use of the pattern Adapter for adapting one part of the program to another.

This approach It adapts the interface of one class to another, expected by the solver. The adapter provides classes with incompatible interfaces, and most often used when the system supports the necessary data and behavior, but has an inappropriate interface.

The set task is an intermediate stage for the solution various classes of problems of methods for optimizing geometric objects. An analysis of conservation methods is conducted and an approach to conservation is selected metric characteristics of investigated objects.

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