3D Computer-based animations are nowadays used for training purposes in a wide range of industrial applications like assembly, maintenance and operations. Their creation, also known as authoring, is usually a time consuming task, demanded to professional 3D designers, who need at first a good understanding of the involved entities and actions in order to realize the customized animations.

The proposed methodology deals with the use of an ontology in order to filter and understand generic natural language training requests; once identified the proper actors and actions, they are associated to the corresponding models and movements to be performed in the virtual environment and translated in a 3D graphic format template. The result is a customized animation which can be created by a non-expert designer and then visualized by the worker through many modalities, on a desktop computer or on a PDA for example.

Role of the ontology is to reduce the overall complexity of the animation authoring process by assuring the necessary comprehension of customized training requests as well as reusability and extensibility of the structure of the modeled object and of animations' components in different domains.