Loading and manipulating CAD

Robot cells & equipment · https://convergent-it.com/de/tutorial/robot-cells-equipment-de/loading-and-manipulating-cad-de/

CAD data belonging to parts and obstacles are loaded quite straight-forward as in more or less any CAD program. Specific obstacles shapes can be created e.g. by loading simple boxes, cylinders etc. and scaling them to the right lenght, width, height independently.

Supported file formats are: STEP, STL, IGES,

We recommend to use stl for obstacles as they are faster to load than STP by any CAD system. We also recommend to have low or medium resolution files for obstacles to speed up loading and collision-checks.

If you want to make use of edges or CAD features during later "programming" stages, you will have to use STEP or IGES for work-pieces, since STL does not contain CAD-features but pure mesh information.

The next video shows an example how to load a new object into the OLP SW - via loading and renaming a CAD file. The object can later be used to model the robot-cell or scene (1.7) built of different objects, robots, etc..

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After loading a CAD-file, you can manipulate it.

The next video shows how you can rotate a loaded part, or change its origin. Also scaling is shown, a feature not only for dealing with mm, m, inches, but also a simple way to create a wall or obstacle, starting with a CAD of a box, or cylinder, or plane.

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