Robot Construction Kit

Team 1

March 11, 1999

Members of our team (in alphabetical order):

- ECKSCHLAGER Manfred
- GANGL Thomas
- HUSKIC Zenon
- WOLACEWICZ Mateusz

Other relevant information regarding this project:

- Coordinator: SCHWAIGER Roland
- Initialised by: University of Salzburg (part of our education here at the University)
- Begin: March 11,1999
- Deadline: End of 1999

1 Introduction

As a part of our education here at the University of Salzburg we are obliged to take part in a project and implement the same. The project should be implemented through the team effort, as well as with help of our coordinator, Mr. SCHWAIGER, Roland. Team should meet with the coordinator on Wednesdays at 16 15 HRS, every working week. As a result of our first meeting we got an idea of what our project should be as well as what are organisational requirements for it. If you want to find out something more about similar projects you should refer to this www page: http://www.cosy.sbg.ac.at/projects/sigis/sigis.html.

2 Organisational requirements

2.1 A Must

The following are the most important requirements, that were given by Gerhard Katstaller (the first considerations):

1. Construction of an agent (that is a Robot) should be inplemented by using interactive 3D interface. Physical properties should be enabled for editing.
2. The file format should comply with the robot definition language
3. Import function should also be available for DiMAS (load file)

2.2 Wishes

For more details see the e-mail message sent by Gerhard Katstaller. The other wishes or improvements still to come.

NOTE: The other requirements are still to be considered.

2.3 Possible obstructions

For the time being: NONE.

3 Goals

3.1 Product description

DiMAS (Distributet Multi Agent Simulator) is a simulation software for representation of several agents(robots) in a predefined environment. It has been developed during the last few years by several people under the supervision of SCHWAIGER, Roland. It was written in Java and for the time being it is enabled only for 2D environment. Our task is to write a program for designing agents for DiMAS and it should be done in 3D representation by the means of Java and Java3D.

3.2 Area of application

Education, design.

3.3 Users

Pupils, students and possibly robot designers.

3.4 Operating environment

School, University, at home...

4 Product environment

Product should be able to run on every Computer.

4.1 Software

Opearating System: Windows NT(95/98), UNIX...

4.2 Hardware

PC, UNIX work station...

5 Product functions

Still to be defined...

6 Literature

- “Object Oriented Design (With Applications)” by Grady Booch
- “Java Examples in a Nutshell” by David Flanagan