# Agent-based Multi Robot System

# User Manual

Draft version 0.1

# Introduction

This document describes the developer’s technical configuration for setting up the important components, the necessary steps for running the system and notes for existing issues and complexities.

# Machine Configuration

The first important thing to note is that the developer created this program on an old Samsung personal computer (PC) – system model: 340XAA/350XAA/550XAA - with the following resources:

* Intel® Core™ i3-7020U CPU @ 2.30GHz
* 2 cores and 4 logical processors
* 8GB of installed RAM
* Windows 10 64-bit Operating System (OS), x64-based processor

The system was written using ROS1 and not ROS2, therefore a compatible OS is required. You may use the virtual machine software of your choice, however, in this case VMware was used so please refer to external guides and tutorials for the software of your choice if you find details in this document to be not relevant or applicable. The specific environment used was the VMware Workstation 16 player (non-commercial use) [version 16.2.x] with the following configuration.

* 6GB memory allocated
* 4 logical processor cores
* 33GB maximum hard disk space

If you find that you are unable to allocate these resources or don’t have the sufficient hardware on your machine, then it’s very unlikely that you would be able to run this program. Please consider the current configuration as the minimum requirements possible to run this program.

# Complications

During the initial setup, the original VM configuration used was 4GB of allocated memory and 2GB for accelerating 3D graphics.

# Process

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