

## Streaming Communication Component for Multi-Robots

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**Abstract :** The research presented in this article is part of a wide project that proposes a scheduling system for multi-robots in intelligent warehouses employing multi-robot path-planning (MPP) and multi-robot task allocation (MRTA) to reconcile multiple restrictions (task delivery time, task priorities, charging capacity, and robots battery capacity). We present the software component capable of interconnecting an open streaming processing architecture and robot operating system (ROS), ensuring communication and message exchange between robots and the environment in which they are inserted. Simulation results show the good performance of our proposed technique for connecting ROS and streaming platforms.

**Keywords :** complex distributed systems, mobile robots, smart warehouses, streaming platforms

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