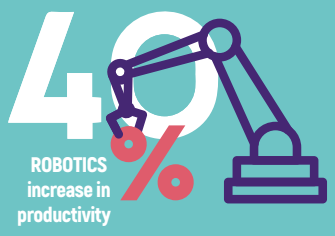
Robotics

Industry



Business process

Games

Smart home

Logistics

Set your goals. We'll take you there.

By facilitating modelling and problem solving during the planning stages, PDDL4J solver for processes – 4P – generates:

- **productivity gains**
- **cost reductions for the company**

Because you have specific needs in terms of organisation of business processes, you need tailored solutions to ensure optimal improvements.
The PDDL4J solver, created through application of AI is your key partner.
In industrial tests it provided productivity gains of between 5 and 50% compared to in-house solutions or classical scheduling software.
PDDL4J uses innovative algorithms. It can be rapidly adopted without programming, simply by providing three inputs using high-level abstract language to describe:

- the initial state of the problem
- the goal to be achieved
- a collection of possible actions.

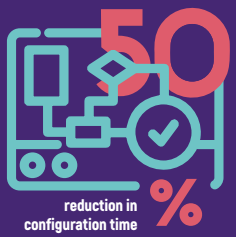
The solver then extracts a solution in the form of an operational action plan, which is formatted as a business process and communicated via interfaces ready for integration into the client's software ecosystem.

PDDL4J
Artificial Inteligence For Processes

pddl4j.imag.fr

In-company tests

Industry



Need

Configure a production chain (duration X, references Y, taking priorities into account).

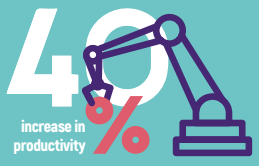
Result

- 50% reduction in reconfiguration time
- 5% to 6% gain in daily production yield

Additional benefits

- Priority criteria taken into consideration
- Automatic reconfiguration of the production line
- Automatic planning of production commands with handling of unforeseen events
- Prediction of production yields

Robotics



Need

Supervise a fleet of mobile AGV robots (trajectory, actions, energy requirements, etc.)

Result

- 40% optimisation of production when using 1 robot
- 50% optimisation of production when using 2 robots

Additional benefits

- Optimisation of cost for an order
- Performance of a production line can be simulated based on initial hypotheses
- Specific constraints can be integrated into the supervision software
- Reconfiguration of the production line can be automated

Logistics

Need

Reduce the distance covered by an operator in a warehouse during "pick and place" actions.

Result

- 15% reduction in the distance covered by the operator

Additional benefits

- Optimisation of the trajectory
- Real-time reconfiguration of the trajectory

PDDL4J offer

4P For You	Preliminary analysis
4P Analyst	Audit with proof of concept and in situ test
4P Support	Deployment after development of the model, with cloud-based or local implementation
4P Springboard	Tailored integration, with the development of interfaces and integration in the client's own ecosystem

Who we are

PDDL4J is a start-up project, supported by Linksium, the Grenoble Alpes SATT. It is the fruit of 10 years' research into Artificial Intelligence at Grenoble's computing laboratory, LIG, by a team, specialised in automated planning.

Linksium
technology transfer & startup building
Grenoble Alpes

Université Grenoble Alpes

Would you like to test or improve your business process?

PDDL4J
Artificial Inteligence For Processes

Contact-us!