

# CCL and KBP

The KBP (*Knowledge-Behavior-Platform*) architecture is proposed with the aim of integrating the low level control systems (Platform), and artificial intelligence (Knowledge) by interfacing these two layers through explicitly plugging them into the reactive planning component (Behavior). For the implementation language of the behavior model, the CCL notation was chosen.

A Concurrent Communicating Lists (CCL) is a kind of algebraic-like notation, which facilitates executable modeling of computer control systems. CCL is well integrated with Clojure - a modern concurrent dialect of the Lisp language. Thus every CCL model can be easily extend to the fully functional Clojure/Java application.

## Important contributions

- K. Kułakowski, P. Matyasik, S. Ernst (mar 2014) **Modeling Indoor Lighting Inspection Robot Behavior Using Concurrent Communicating Lists**. *Expert Syst. Appl.* 41 (4) pp. 984-989. Pergamon Press, Inc.. Tarrytown, NY, USA. [doi](#) [web](#) [BibTeX](#)
- K. Kułakowski, T. Szmuc (2013) **Outline of CCL notation syntax**. *AGH University of Science and Technology*. [web](#) [BibTeX](#)
- K. Kułakowski, T. Szmuc (2012) **Modeling Robot Behavior with CCL**. In *Simulation, Modeling, and Programming for Autonomous Robots*. pp. 40-51. Springer Berlin Heidelberg. [doi](#) [web](#) [BibTeX](#)
- K. Kułakowski (2012) **Concurrent systems modeling with CCL**. *Automatyka* [web](#) [BibTeX](#)
- K. Kułakowski (2012) **CCL Sim, the simulation environment for concurrent systems**. In *proceedings of Dependability and Complex Systems DepCoS*. [BibTeX](#)

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