Implementing a Blockly Editor in MPS

Pavel Bažant

MPS Meet-up 2018

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- Draggable blocks:

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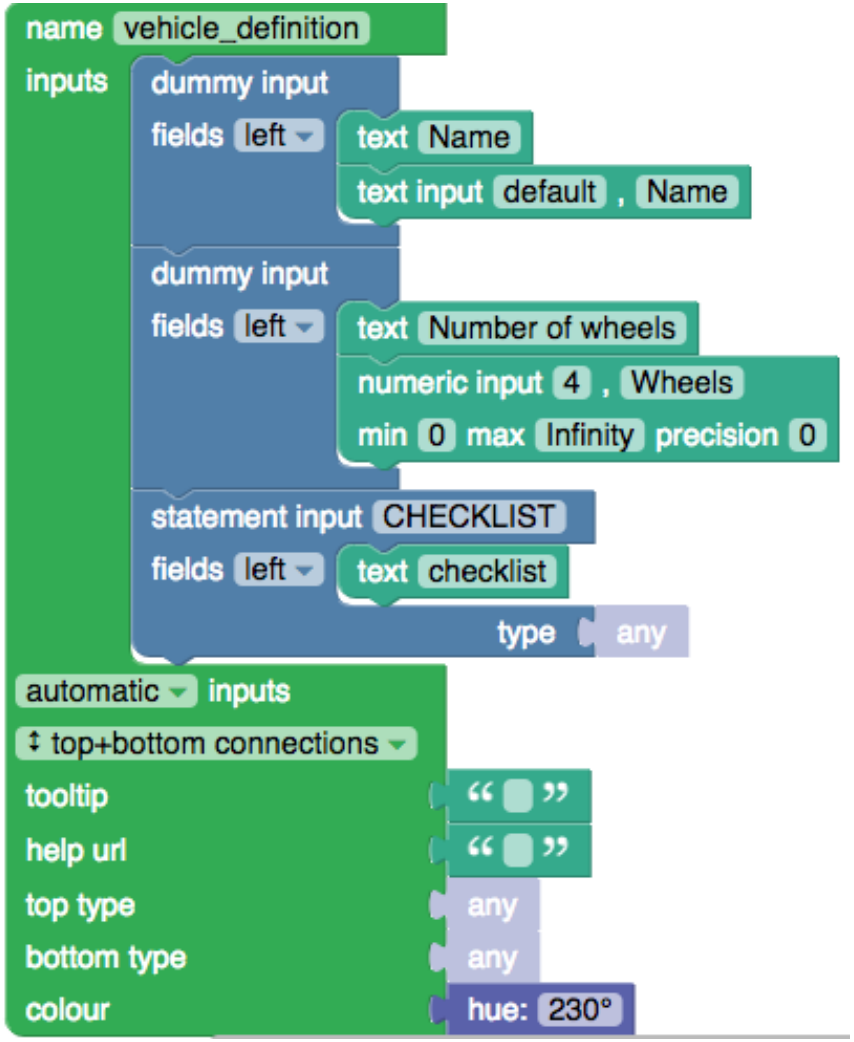
Blockly in Blockly

Vehicle definition definition:



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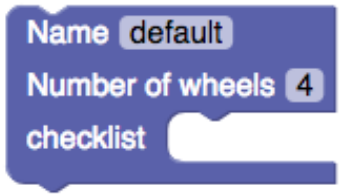

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- Should feel familiar to Blockly and Scratch users
- Fast editing, autocompletion
- Advanced code navigation and search
- Sane variable renaming
- Version control!
- Go to concept, go to editor

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Some details

- In Blockly, every block has an ID.
- This should make conversion between Blockly and MPS Blockly lossless in both directions.
- A helper language “BlocklyXML” captures the structure of the serialization format used by Blockly
- The introduction of BlocklyXML made generation much cleaner

Conclusions and Future

- It was really easy to create a PoC implementation of a specific Blockly language in MPS
- It was also easy to copy the major part of the semantics of the Blockly definition language
- Perhaps, this could be a nice example for those who are learning MPS
- The generator for the Blockly definition language is not implemented, but will be a nice exercise, as MPS concepts will have to be generated.
- Polishing and integration with the original Blockly is not yet done
- Meta-comment: This presentation was created in Lyx, which is an awesome projectional editor for Latex