

# txtUML

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## Pragmatic approach to executable UML modeling

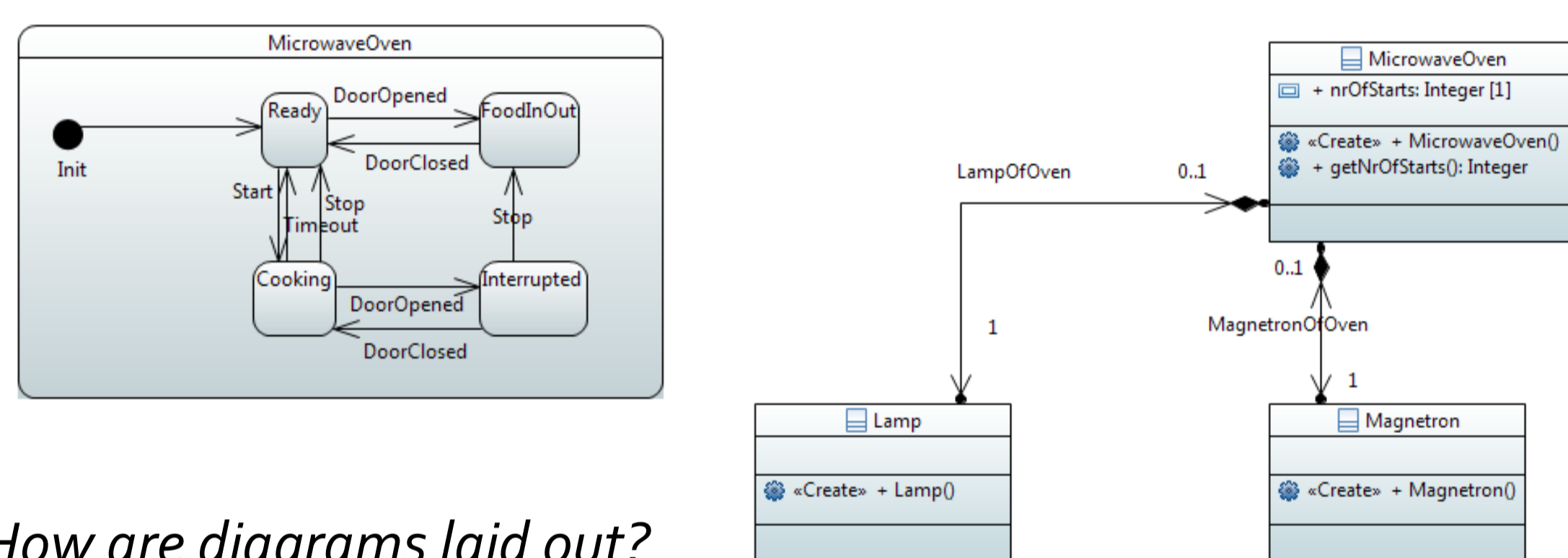
### Textual

Models are edited in text,  
generated graphical diagrams help understanding.

Why text?

- Mature editors
- Easier version control
- Advanced compare & merge tools
- Usually faster than editing graphics

Generated class and state machine diagrams

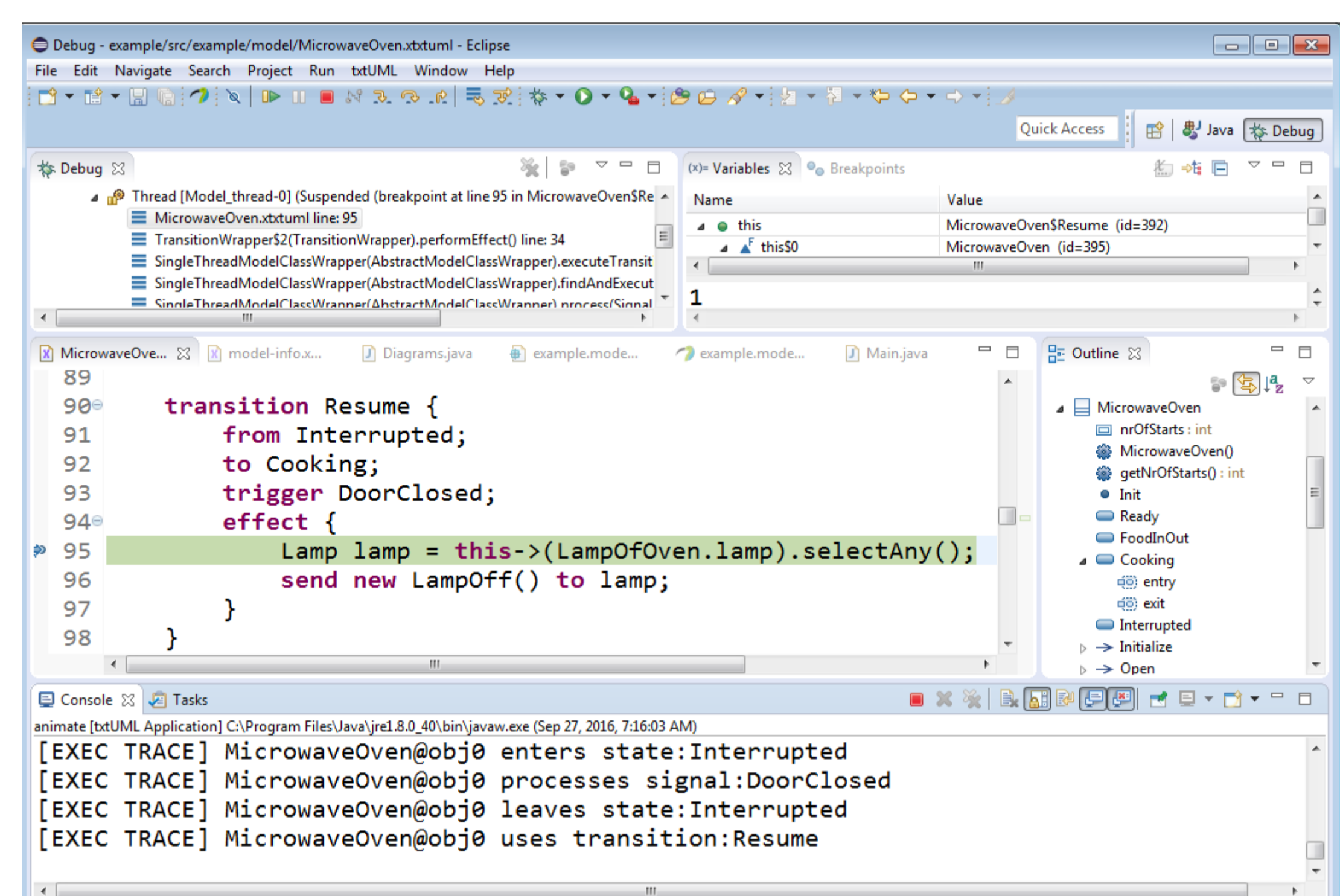


How are diagrams laid out?

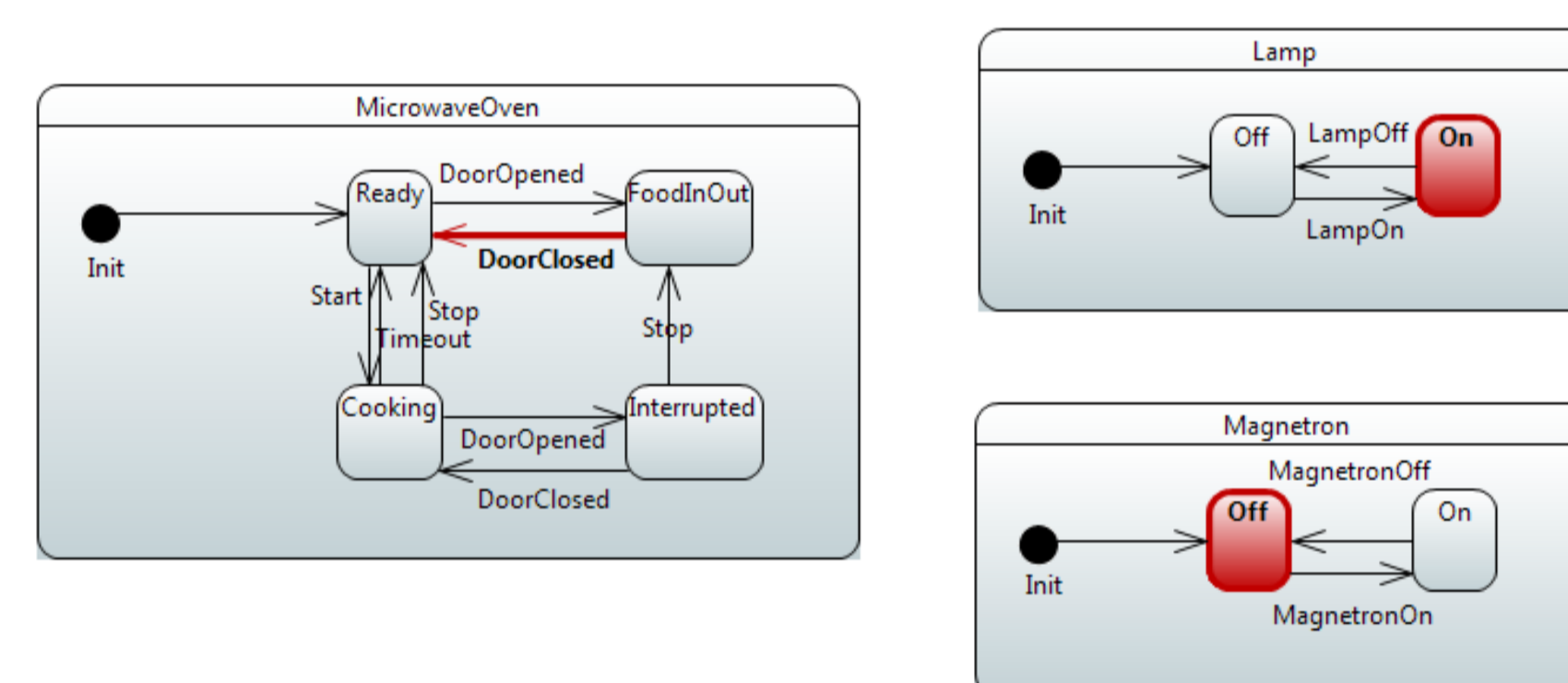
- Smart layout algorithm based on user constraints
- Constraints can be partial
- Constraints specified by simple textual descriptions
- Easy to version control

### Executable

Models can be executed, debugged, tested in Eclipse,  
and seamlessly integrated with Java software.



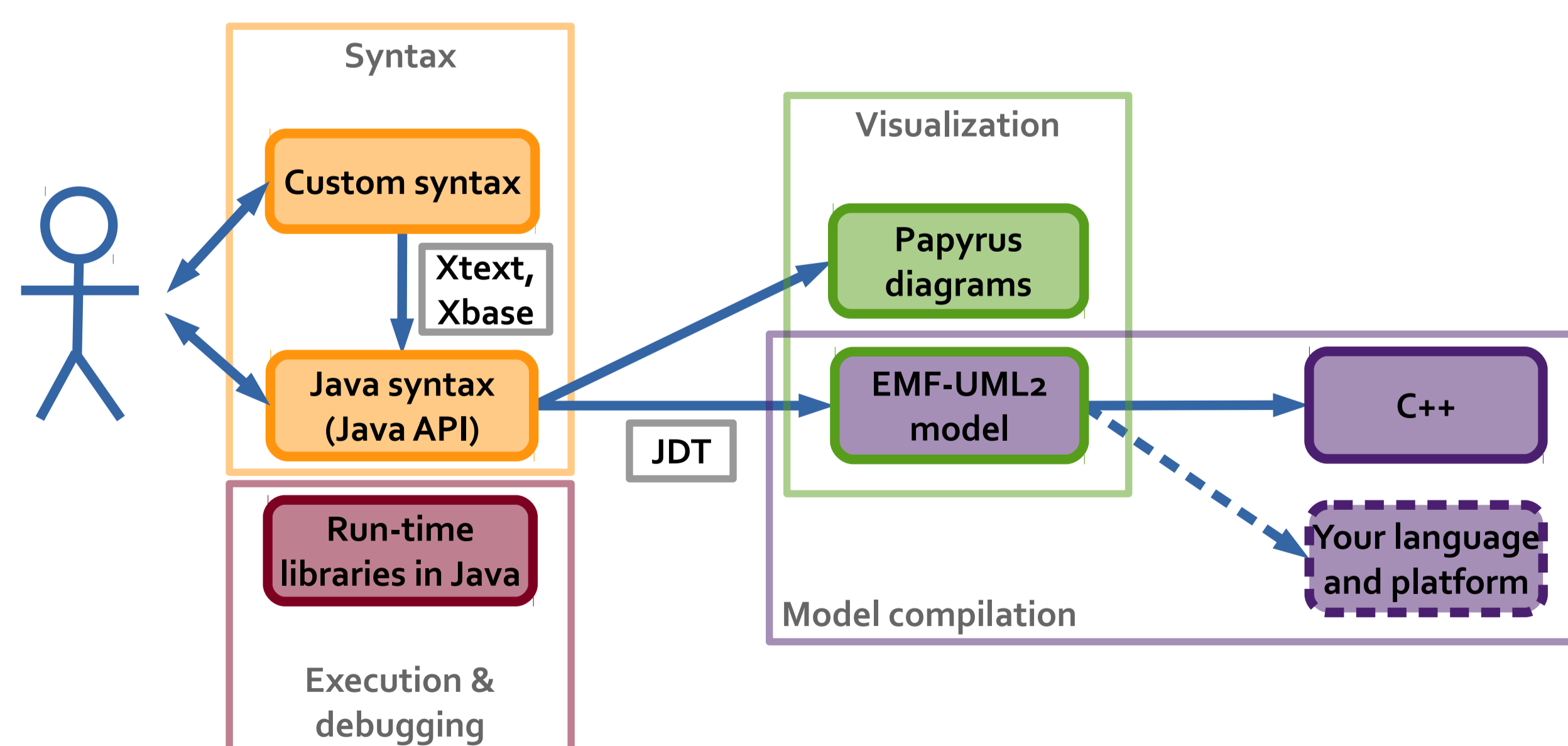
The usual debugging features (breakpoints, pause, resume, step, etc.)  
are available for model debugging.



State machine diagrams can be animated.

### Translatable

Experimental model compiler for C++ is available,  
support for other languages and platforms is possible.



### UML

UML is a standard, well-known language  
with all necessary elements for executable modeling.

What is the supported UML subset?

- *Class modeling*: classes, attributes, methods, binary associations, compositions, generalization
- *State modeling*: simple states, hierarchical states, guards, choice nodes, entry, exit and effect activities
- *Component modeling*: interfaces, ports, assembly and delegation connectors
- *Diagrams*:
  - Class and state machine diagrams
  - In preparation: sequence diagrams, composite structure diagrams



Web: [txtuml.inf.elte.hu](http://txtuml.inf.elte.hu)  
GitHub: [github.com/ELTE-Soft/txtUML](https://github.com/ELTE-Soft/txtUML)  
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