

# Runtime Verification

## Lecture 6 : Context Free Grammars in JavaMOP

<http://www.runtime-verification.org/course>

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This sixth lecture introduces context free grammars and how they are supported by the JavaMOP system. A property can be regarded as a language defined by a grammar. Traditional parsing techniques can be used to monitor such properties against an execution trace.

### **Installation**

JavaMOP can be accessed from the website. There is no need to install anything. On the website you can enter a specification, and with a press of a button generate an aspect, which you then cut-and-paste into your own environment to run with your own application. The slides will demonstrate this.

### **Reading**

1. This week we will read the paper: *Efficient Monitoring of Parametric Context-Free Patterns*, Patrick O'Neil Meredith, Dongyun Jin, Feng Chen and Grigore Rosu.

### **Assignments**

Try to specify the three problems presented in lectures 2 and 3 (notes 2 and 3) using JavaMOP's context free grammar specification language. Generate aspects, and try to compile and run them with a correct and a faulty program to demonstrate that they work.