

The Business Informatics Group together with the Faculty of Informatics at TU Wien, the Austrian Computer Society, and the Center for Computer Science invites to the talk

## Language Development with JetBrains MPS

**Dr. Markus Völter**

Independent consultant for language engineering and MDSE

**When?**            **January 14<sup>th</sup>, 2019**  
                          **1.15 p.m.**

**Where?**            TU Wien  
                          1040 Wien, Karlsplatz 13  
                          **HS 13**, Staircase 7, 2<sup>nd</sup> floor



### Abstract

Jetbrains MPS is an open source language workbench that supports the development and use of domain-specific languages. What separates MPS from other language development tools is its support for multiple different notational styles (text, tables, math, diagrams) and its support for modular language composition. MPS is used in domains such as finance, healthcare, automotive and aerospace to develop real-world DSLs. This lecture is an introduction to MPS based on a concrete example DSL. I will demonstrate aspects of the development of two cooperating languages, a generator to Java, and interpreter directly in the IDE, language composition by embedding a functional programming language as well as tabular and graphical notations. The example code is available on github so participants can continue to explore MPS after the lecture: <https://bit.ly/2QhULxG>

### Bio

Markus Voelter works as a language engineer, bridging the gap from industry and business domains to software systems. He analyses domains, designs languages and analyses, implements IDEs and architects reliable backends based on interpreters and generators. For 20 years, Markus has worked in a wide range of industries, including finance, automotive, health, science and IT. He has published numerous papers in peer-reviewed conferences and journals, has written several books and spoken at many industry conferences world-wide. Markus has a diploma in technical physics from FH Ravensburg-Weingarten and a PhD in computer science from TU Delft.

**Contact Person:** Claudia Habersack, [habersack@big.tuwien.ac.at](mailto:habersack@big.tuwien.ac.at), Tel. +43 1 588 01 – 194 301