

**Tao Zhang**

**Developing a data processing framework for EMSI with D**

**Jonathan Crapuchettes**

**28th, 2014**

## **Summary**

- EMSI (Economic Modeling Specialists Inc) is a software and data company who specializes in economics. It starts at Moscow, ID around 2000. It contributes to produce 13B data points per quarter each year. EMSI data is used all over the world.
- EMSI needed to improve its data processes with n-Dimensional dataset processing, in-memory data manipulation, data type checking, internal testing, and code correctness. D was the language of choice because it couples low-level performance with high-level design. The D programming language is an object-oriented, imperative, multi-paradigm system programming language created by Walter Bright of Digital Mars. Though it originated as a re-engineering of C++, D is a distinct language, having redesigned some core C++ features while also taking inspiration from other languages, notably Java, Python, Ruby, C#, and Eiffel.
- Jonathan talked about little history of data processing. Then he talked about the Data Processing Structures: e.g, Cubes and Stores, that Cubes contain stones and offer common functionality, and Stores combine dimensions to create address spaces.
- After using the data processing structures, the process of implementation has significantly improved on efficiency, error checking, processing speed and development speed.