

CHEP 07



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Towards a full implementation of a robust solution of a Domain Specific Visual Query Language DSVQL for HEP analysis

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With the project PHEASANT a DSVQL was proposed for the purpose of providing a tools that could increase user's productivity while producing query code for data analysis. The previous project aimed at the proof concept and methodology feasibility by introducing the concept of DSLs. We are now concentrated on implementation issues in order to deploy a final tool.

The concept of domain specific languages has always been implicit in Software Engineering although the development of such languages was never done in a systematic way. The main goal of having DSLs is to rise the level of abstraction, as the main idea is to provide the final user (stakeholder) tools to reason and model the solution by using concepts of the problem domain instead of having to reason with concepts of the problem domain (meaning the implementation details like programming concepts and hardware restrictions). Once we have the model specified, we can use Model Driven Development and Software Product Lines techniques to deploy artifacts in a automatic way (meaning: software products, code, documentation etc).The SE community has been focusing its attention to methodologies and deploy tools for helping DSL developers in their effort to help productivity and efficiency at several application domains such as HEP. These tools start to mature and it worths having a look in order to avoid "redoing the wheel".

In this communication we will present the several technologies for DSLs meta-modeling studied in order to implement the DSVQL proposed by the PHEASANT project.

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