PragmaDev to present the results of its on-line survey on software modeling technologies and their usage.

Paris - France - September 5th, 2011 - The survey showed that while UML is the most used modeling technology today, it is also intended to decrease by 17% in the coming year. The third most popular modeling technology Matlab is also intended to decrease by 15% so that among the top three modeling technology, SDL is the only one with an intended increase.

2011 modeling technologies and habits survey

This on-line survey took place in February 2011 and gathered 160 participants, most of them out of our existing contacts. The raw results of our survey on modelling technologies can be found here, and the following information is a summary of the survey. Feel free to use this information as long as you quote it is coming from PragmaDev.

Respondants profile

Respondant average profile is:

- from Europe or Asia,
- working in a large telecom company,
- have less than 10 years experience,
- the target platform is based on Linux or a RTOS,
- the application is written in C or C++,
- it is based on Finite State Machines and is object oriented.
Modeling technologies

The top three modeling technologies are UML, SDL, and Matlab. Even though UML is the first modeling technology to be quoted, it is also interesting to state that most of the respondents do not know if they are using a profile or not.
Modeling usage

Modeling technologies are mostly used for documentation but the answers also show a strong usage of models for simulation, verification, code generation, and test. We believe it was difficult for the respondents to distinguish between the different answers such as We do simulation or We do model checking, and We generate skeletons or We generate all the code. So we applied a filter in order to feel the kind of usage for each of the top three modeling technology, and this is what came out:

- UML users mostly do documentation (56%),
- Matlab users mostly do simulation (57%),
- SDL users mostly do code generation (40%).

![Bar chart showing modeling usage](chart.png)
Upcoming technologies

This is probably one of the most interesting result we get out of this survey, and that gives an idea of the current trends on the modeling market. The key trends are:

- **UML is decreasing by 17%**,
- **Matlab is decreasing by 15%**,
- **SART is increasing by 121%** (but the number of respondants is very small),
- **SysML is increasing by 86%**,
- **AADL is increasing by 52%**.
Upcoming hot topics

Last question of the survey was about which topic will get the focus in the coming year. Top three answers are:

- System modeling,
- Software modeling,
- Testing.
About PragmaDev

PragmaDev is a privately held company based in Paris France that provides a set of modeling tools for the prototyping, the development, and the test of real time and embedded software: "Real Time Developer Studio" and "MSC Tracer". Real Time Developer Studio targets all development teams working on communicating systems with a unique combination of standard languages. The MSC Tracer is an on-line or off-line tracing tool generating live sequence diagrams.

Real Time Developer Studio provides three levels of modeling: informal, semi-formal, and fully formal modeling. While informal modeling is mainly used for documentation, the most advanced level of modeling allows simulation, prototyping, verification, full code generation, debug on target, and test of the model.

PragmaDev has established partnership with key players in the real time domain. Customers include Airbus, Renault, Alcatel, Thomson, the French Army, Nortel Networks, the European Space Agency, Toshiba, Korean Telecom, and LG Electronics.

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